

**SPIR STAR®**



## High-Pressure Hose

Product Catalogue 03/2020



Your High Pressure Specialists since 1989

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## SPIR STAR® AG

SPIR STAR® AG, headquartered in Rimbach-Mitlechtern, is your specialist for the manufacture of thermoplastic ultra-high-pressure hoses with spiralized steel-wire reinforcement for a working pressure range of 400 to 4.000 bar and inner diameters ranging from 3 to 25 mm.

The company began in 1981 as part of PAPUREX GmbH in Mörlenbach-Mumbach. At that time, the company manufactured its ultra-high-pressure hoses using special machinery the company had designed and built itself. The hoses were sold under the brand name of SPIR STAR. Production grew so rapidly that in the year 1987 the company relocated to a new production site in nearby Mörlenbach. Due to continued growth, the division of thermoplastic ultra-high-pressure hose production was spun off completely in the year 1989 and SPIR STAR® Druckschläuche GmbH was founded.

The company's internationalization and thus increasing demand eventually enabled the company to relocate to its present facility in the year 2001. Since then, ultra-high-pressure hoses have been produced



with state-of-the-art machinery and equipment and the hoses have become a staple in the Waterblast, Hydraulics, Oil & Gas and Automotive industries. In addition to this, the continuous development of new and innovative hose types ensures the company's sustainable presence in its relevant markets.

For more than 30 years, SPIR STAR® has been offering premium product quality – Made in Germany – combined with forward-looking innovation and outstanding customer service.

## The World Market

The company's orientation towards global markets at an early stage resulted in the creation of a world-wide sales network of SPIR STAR® AG and made a major contribution to the company's positive development.

SPIR STAR made the first step into the global market in the year 1991 with the foundation of SPIR STAR® France S.A.R.L in Haguenau, with a focus on the markets in Southern Europe.

To be able to develop the American continent as well and to meet increasing world-wide demand, SPIR STAR® Ltd. in Houston, Texas was established just four years later.

With the foundation of SPIR STAR® Pty. Ltd. in Singapore in 1999, the company paved the way for access to the Asian market and, with this additional sales company, marked another milestone towards better service quality and global presence.

Since its foundation in 2014, SPIR STAR® Fluid Tech (Shanghai) Co., Ltd. has been serving especially the Chinese market, increasing local customer loyalty.

The sales companies, which have been independent since the very beginning, are operating very successfully in the market today and build the link between SPIR STAR® AG and its customers.

### **SPIR STAR's Customers**

Since its foundation, the company's customer base has mainly included enterprises operating in the high-pressure Waterblast industry. Through ongoing investments into research and development, the company's product range has kept growing and it has been able to produce completely new hose types. Thanks to this combination of variety and innovation, SPIR STAR® has gained more and more customers from the Oil & Gas, Automotive, Machine-Building and ultra-high-pressure Hydraulics industries.

### **Working together as Partners**

Intensive cooperation as a partner of its customers and representative is part of SPIR STAR® AG's corporate philosophy.

SPIR STAR® AG works closely with numerous partners in various countries and continents. Thanks to this effective cooperation, each of the company's customers is provided excellent service, in-depth consultation and short lead times – world wide.

### **Research and Development**

The ongoing further development of SPIR STAR® hose types and fittings is one of the most important tasks to meet present and future market requirements. Experts from a number of different fields are committed to the extension and continuous improvement of its product range. SPIR STAR® makes use of its many years of experience in the production of hose assemblies specifically for the development and manufacture of products. Due to close contact with the customer, SPIR STAR's products and services always take the customer's needs into account, which is enabled by a high flexibility and fast response. But before any newly developed products are released for sale, they undergo a stringent test procedure. All products are manufactured to standards and subjected to a quality control: This ensures a reliable product that has been tested for safety.

### **Demands for the Highest Standards of Quality and Safety**

It goes without saying that SPIR STAR® manufactures its products according to state-of-the-art production methods and to the highest standards of quality. In order to guarantee maximum safety, all hose types are subjected to multiple technical tests. Its products are manufactured to industrial standards and tightly controlled. Compliance with these standards is monitored and ensured by our quality management across the entire production process. Before leaving factory, all hose assemblies are pressure tested in order to guarantee that only products of the highest quality are delivered.

SPIR STAR® tests all products employing state-of-the-art test equipment, such as impulse test stands, measuring devices for volumetric expansion, test equipment for external pressure resistance, tensile strength and burst pressure. Upon request, a test certificate to EN 10204 for each hose assembly will be issued.

## Certified Quality

SPIR STAR® AG has been DIN EN 9001 certified since 1995 and thus ensures complete documentation of its processes. The approved and tested quality management system allows tracing of all raw materials used for production at any time.

## Tried and Proven Manufacturing Principles

In general, the inner core of SPIR STAR® ultra-high-pressure hoses is made of premium quality thermoplastic materials, such as PA, POM, PVDF or PTFE. Up to eight spiral layers made of high-tensile steel wire and serving as reinforcement are wrapped around this thermoplastic inner tube. Depending on the application, the hose cover consists of approved and tested materials, such as PUR, PA or PVDF.

## Successful Manufacturing Concept

In general, the inner core of SPIR STAR® ultra-high-pressure hoses is made of premium quality thermoplastic materials, such as PA, POM, PVDF or PTFE. Up to eight spiral layers made of high-tensile steel wire and serving as reinforcement are wrapped around this thermoplastic inner tube. Depending on the application, the hose cover consists of approved and tested materials, such as PUR, PA or PVDF.

## Advantages of Thermoplastic High-Pressure Hoses

With a unique combination of materials SPIR STAR® thermoplastic high-pressure hoses have a wide variety of advantages over most common hose types:

- Extremely high working pressures
- Excellent chemical resistance to chemicals, detergents and solvents
- Up to 50% saving of weight with regard to comparable rubber hoses
- Resistant to ozone, ultraviolet light and aging
- Outer cover is resistant against hydrolysis and microbes
- High resistance against abrasion of the outer cover
- Small bend radius at high volumes of flow
- Low volumetric expansion at maximum working pressure
- Low permeation rate (M-series, PPA-series and HT-series)
- High temperature stability (HT-series up to + 150°C and F-series up to + 200°C)
- Kink resistant
- Minimal pressure drop
- Resistant to sea water
- High impulse resistance and long service life
- Long lengths can be delivered



### High-Pressure Waterblast Technology - Comprehensive Know-How Derived From Many Years of Experience

SPIR STAR® has many years of experience in the manufacture of hose assemblies used in high-pressure waterblast applications. This know-how is used specifically for the development and production of hose assemblies.

Hose assemblies made by SPIR STAR® are used e.g. for sewer cleaning, pipe cleaning and cleaning of shell and tube heat exchangers, water-jet cutting, concrete refurbishment as well for surface cleaning of any kind.

For these complex and demanding tasks, its product range provides a wide selection of hose types and special hose fittings.



The approved and tested **DuraLife Flex**® high-tech hose is the ideal hose to use in pipe cleaning applications. Its special manufacturing process greatly reduces abrasion of the cover, thus increasing the service life of the hose assembly.

The hose types of the **UHP**®-Series (Ultra-High-Pressure) are used up to 4.000 bar. High-pressure combined with a maximum flow rate ensures a fast and optimum cleaning result.

The **OnePiece Fittings**® and the **Blast-Pro**® fitting series were specifically developed for use in small-ID tubes which can e.g. be found in heat exchangers. Compared to standard fittings, these fittings are considerably shorter, which makes tube cleaning with bends easier. Another advantage is the fact that the crimping of the sleeve only negligibly enlarges the hose OD. As a result, hose types with a larger inner diameter permitting higher volumetric flow can be used.

### Ultra-High-Pressure Hydraulics - High-Pressure Combined With High Flexibility



For ultra-high-pressure applications, SPIR STAR® hoses are always used when the hose assembly has to withstand a particularly high-pressure and has to be flexible at the same time.

Hydraulic hose applications include autofrettage, hydroforming, hydraulic assembly presses, dismantling of ball bearings and torsion-free fastening of screwed connections (bolt-tensioning).

With up to 50% less weight than comparable rubber hoses, a markedly smaller bend radius as well as high ozone-, UV-light- and ageing resistance, SPIR STAR® hose assemblies meet all the

requirements of the ultra-high-pressure hydraulics industry.

### Oil & Gas - World-Wide Use at Extreme Operating Conditions

SPIR STAR® ultra-high pressure hoses are very successfully used in projects ranging from the North Sea to the Gulf of Mexico. Typical fields of application include offshore hose bundles, methanol service on platforms, chemical injections at the wellbore, hydraulic component control, high-pressure and high-temperature applications (HP/HT) as well as hydrogen fuelling systems.



Besides providing excellent high-pressure performance, SPIR STAR® hoses feature very small volumetric expansion, a low weight and high resistance to external pressure. Additionally, the product range includes types that are suitable for use at extremely high-temperatures (up to +150° C) as well as with aggressive chemicals.

SPIR STAR's ability to manufacture lengths of up to 4.500 m is one more reason why the ultra-high pressure hoses are used by all renowned oil companies. For offshore projects operating in great depths, SPIR STAR® hoses set standards in terms of quality, durability and reliability.

# Certificate

Standard **ISO 9001:2015**

Certificate Registr. No. **01 100 5113**

Certificate Holder:



**SPIR STAR AG**  
Auf der Rut 3-7  
64668 Rimbach  
Germany

Scope:

Development and production of high-pressure hoses and fittings.  
Sales of products and services in the high-pressure sector.

Proof has been furnished by means of an audit that the requirements of ISO 9001:2015 are met.

Validity:

The certificate is valid from 2018-05-01 until 2021-04-30.  
First certification 1995

2018-04-09

A handwritten signature in blue ink, appearing to read "H. Bes", positioned above a horizontal line.

TÜV Rheinland Cert GmbH  
Am Grauen Stein · 51105 Köln

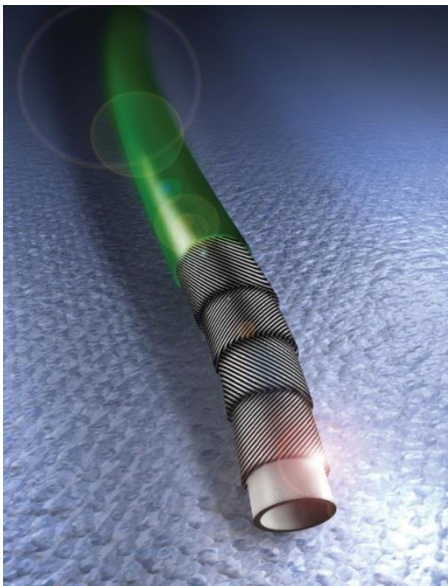


Number of spiralized layers

Type **6/2WHT**

Series Description

Hose ID in mm



Hose Series	
<b>DCI</b>	Double Cover
<b>H</b>	Reinforced version
<b>HT</b>	For very high temperatures Very high chemical resistant PVDF inner core, PVDF outer cover
<b>HW</b>	Hot Water: for very high temperatures
<b>K</b>	Braided layer
<b>L</b>	Extremely flexible
<b>M</b>	For methanol service PA I I inner core, PA outer cover
<b>OK</b>	Braided layer outer cover
<b>PPA</b>	For high temperatures Very high chemical resistant PVDF inner core, PA outer cover
<b>R</b>	Reinforced outer cover
<b>W</b>	2 wide layers of spiralized wire

Type	Hose Size				Pressure Rating				Bend Radius		Weight		Insert ID		Sleeve OD	
	ID [mm]	ID [in]	OD [mm]	OD [in]	Working [bar]	Working [psi]	Burst [bar]	Burst [psi]	[mm]	[in]	[kg/m]	[lbs/ft]	[mm]	[in]	[mm]	[in]
<b>ID3</b>																
<i>Heat-resisting up to 70° C (158° F)</i>																
3/2	3,4	0,13	6,9	0,27	1.000	14.500	2.500	36.250	60	2,36	0,072	0,048	2,0	0,08	8,9	0,35
3/2-1100	3,4	0,13	7,0	0,28	1.100	15.950	2.750	39.875	60	2,36	0,072	0,048	2,0	0,08	8,9	0,35
3/4	3,4	0,13	8,0	0,31	2.000	29.000	5.000	72.500	110	4,33	0,135	0,090	2,0	0,08	12,1	0,47
3/4-2100	3,4	0,13	8,1	0,32	2.100	30.450	5.250	76.215	110	4,33	0,135	0,090	2,0	0,08	12,1	0,47
3/6	3,0	0,12	9,1	0,36	2.800	40.600	7.000	101.500	150	5,91	0,222	0,149	1,8	0,07	15,3	0,60
<b>ID4</b>																
<i>Heat-resisting up to 70° C (158° F)</i>																
4/2	4,0	0,16	8,0	0,31	1.200	17.400	3.000	43.500	75	2,95	0,110	0,074	2,5	0,10	10,1	0,39
4/2H-1400	4,0	0,16	8,1	0,32	1.400	20.300	3.500	50.750	75	2,95	0,112	0,075	2,5	0,10	10,1	0,39
4/2K	4,0	0,16	9,8	0,39	1.200	17.400	3.000	43.500	65	2,56	0,185	0,124	2,5	0,10	13,1	0,51
4/2W	4,0	0,16	9,8	0,39	1.400	20.300	3.500	50.750	65	2,56	0,160	0,107	2,5	0,10	13,0	0,51
4/4	4,0	0,16	10,3	0,41	2.200	31.900	5.500	79.750	130	5,12	0,234	0,157	1,8	0,07	14,7	0,57
4/6	4,0	0,16	11,5	0,45	2.800	40.600	7.000	101.500	175	6,89	0,365	0,245	1,8	0,07	17,1	0,67
4/8	4,0	0,16	12,8	0,50	3.200	46.400	8.000	116.000	175	6,89	0,540	0,362	1,8	0,07	19,5	0,76
<b>ID5</b>																
<i>Heat-resisting up to 70° C (158° F)</i>																
5/2	5,0	0,20	9,4	0,37	1.040	15.080	2.600	37.700	95	3,74	0,125	0,084	3,0	0,12	12,9	0,50
5/2H-1400	4,9	0,19	9,5	0,37	1.400	20.300	3.500	50.750	95	3,74	0,148	0,099	3,0	0,12	12,9	0,50
5/2OK	5,0	0,20	10,8	0,43	1.040	15.080	2.600	37.700	95	3,74	0,220	0,147	3,5	0,14	13,3	0,52
5/3	5,0	0,20	10,3	0,41	1.120	16.240	2.800	40.600	95	3,74	0,218	0,146	3,0	0,12	12,9	0,50
5/4	5,0	0,20	11,2	0,44	1.800	26.100	4.500	65.250	150	5,91	0,260	0,174	2,5	0,10	15,0	0,59
5/6	4,8	0,19	13,2	0,52	2.500	36.250	6.250	90.625	200	7,87	0,450	0,302	2,5	0,10	17,5	0,68
5/6H	4,6	0,18	14,4	0,57	2.800	40.600	7.000	101.500	220	8,66	0,563	0,377	2,5	0,10	19,7	0,77
5/6HDCI	4,6	0,18	18,4	0,72	2.800	40.600	7.000	101.500	220	8,66	0,687	0,460	2,5	0,10	19,7	0,77
5/6UHP-X-3035	4,8	0,19	13,3	0,52	3.035	44.000	7.000	101.500	210	8,27	0,450	0,302	2,5	0,10	17,8	0,91
5mmUHP	4,5	0,18	15,3	0,60	3.200	46.400	8.000	116.000	250	9,84	0,693	0,464	2,5	0,10	19,7	0,77
<b>ID6</b>																
<i>Heat-resisting up to 70° C (158° F)</i>																
6/2	6,3	0,25	11,5	0,45	1.000	14.500	2.500	36.250	110	4,33	0,175	0,117	4,0	0,16	13,9	0,54
6/2-1100	6,3	0,25	11,6	0,46	1.100	15.950	2.750	39.875	110	4,33	0,175	0,117	4,0	0,16	13,9	0,54
6/2OK	6,2	0,24	13,1	0,52	1.000	14.500	2.500	36.250	110	4,33	0,306	0,205	4,0	0,16	15,0	0,59
6/2K	6,2	0,24	12,9	0,51	1.120	16.240	2.800	40.600	95	3,74	0,300	0,201	4,0	0,16	16,2	0,63
6/2W	6,0	0,24	12,0	0,47	1.280	18.560	3.200	46.400	95	3,74	0,230	0,154	4,0	0,16	15,4	0,60
6/2W Twin	6,0	0,24	12,0	0,47	1.280	18.560	3.200	46.400	95	3,74	0,460	0,310	4,0	0,16	15,4	0,60
6/2WL	5,9	0,23	12,0	0,47	1.200	17.400	3.000	43.500	80	3,15	0,237	0,159	4,0	0,16	15,5	0,61
6/2WL Twin	5,9	0,23	12,0	0,47	1.200	17.400	3.000	43.500	80	3,15	0,474	0,318	4,0	0,16	15,5	0,61
6/3	6,1	0,24	12,3	0,48	1.040	15.080	2.600	37.700	110	4,33	0,280	0,188	4,0	0,16	14,1	0,55
6/4	6,3	0,25	12,6	0,50	1.500	21.750	3.800	55.100	180	7,09	0,295	0,198	3,5	0,14	16,4	0,64
6/4-1650	6,3	0,25	12,6	0,50	1.650	23.925	4.125	59.812	180	7,09	0,295	0,198	3,5	0,14	16,4	0,64
6/6H	5,9	0,23	16,4	0,65	2.800	40.600	7.000	101.500	250	9,84	0,750	0,503	3,0	0,12	21,4	0,84
6mmUHP	5,8	0,23	18,6	0,73	3.200	46.400	8.000	116.000	280	11,02	1,060	0,710	3,0	0,12	23,7	0,93

Type	Hose Size				Pressure Rating				Bend Radius		Weight		Insert ID		Sleeve OD	
	ID [mm]	ID [in]	OD [mm]	OD [in]	Working [bar]	Working [psi]	Burst [bar]	Burst [psi]	[mm]	[in]	[kg/m]	[lbs/ft]	[mm]	[in]	[mm]	[in]
<b>ID8</b>																
<i>Heat-resisting up to 70° C (158° F)</i>																
8/2	8,1	0,32	13,3	0,52	900	13.050	2.250	32.625	130	5,12	0,200	0,134	5,5	0,22	17,8	0,70
8/2W	8,0	0,31	14,3	0,56	1.040	15.080	2.600	37.700	110	4,33	0,314	0,210	5,5	0,22	18,3	0,72
8/2W Twin	8,0	0,31	14,3	0,56	1.040	15.080	2.600	37.700	110	4,33	0,628	0,421	5,5	0,22	18,3	0,72
8/2WL	8,0	0,31	14,0	0,55	1.000	14.500	2.500	36.250	100	3,94	0,317	0,212	5,5	0,22	18,3	0,72
8/2WR	8,0	0,31	16,0	0,63	1.040	15.080	2.600	37.700	110	4,33	0,364	0,244	4,5	0,18	21,3	0,83
8/4	8,0	0,31	14,6	0,57	1.500	21.750	3.800	55.100	200	7,87	0,390	0,261	4,5	0,18	20,3	0,79
8/6	8,0	0,31	16,4	0,65	2.100	30.450	5.250	76.125	250	9,84	0,640	0,429	4,5	0,18	21,6	0,85
8/6H	7,7	0,30	18,8	0,74	2.500	36.250	6.250	90.625	260	10,24	0,925	0,620	4,5	0,18	22,8	0,90
8/6HDCI	7,7	0,30	22,8	0,90	2.500	36.250	6.250	90.625	260	10,24	1,085	0,727	4,5	0,18	22,8	0,90
8/6UHP	7,6	0,30	19,3	0,76	2.800	40.600	7.000	101.500	300	11,81	1,055	0,707	4,5	0,18	23,7	0,93
8/6UHP-X	7,6	0,30	19,3	0,76	3.035	44.000	7.000	101.500	300	11,81	1,055	0,707	4,5	0,18	23,7	0,93
8mmUHP	7,6	0,30	22,0	0,87	3.200	46.400	7.400	107.300	300	11,81	1,500	1,005	4,5	0,18	29,7	1,16
<b>ID10</b>																
<i>Heat-resisting up to 70° C (158° F)</i>																
10/2	10,1	0,40	15,5	0,61	690	10.005	1.725	25.010	160	6,30	0,280	0,188	6,5	0,26	20,8	0,81
10/2W	10,0	0,39	17,2	0,68	1.100	15.950	2.760	40.020	125	4,92	0,430	0,288	6,5	0,26	21,5	0,84
10/4	9,9	0,39	18,4	0,72	1.500	21.750	3.800	55.100	200	7,87	0,690	0,464	5,5	0,22	23,1	0,90
10/6	9,8	0,39	20,4	0,80	1.920	27.840	4.800	69.600	250	9,84	1,000	0,672	5,5	0,22	26,6	1,04
10mmUHP-X-3035	9,8	0,39	24,0	0,94	3.035	44.000	6.100	88.450	320	12,60	1,730	1,163	6,0	0,24	31,0	1,22
<b>ID13</b>																
<i>Heat-resisting up to 70° C (158° F)</i>																
13/2	12,9	0,51	19,3	0,76	690	10.005	1.725	25.010	200	7,87	0,435	0,291	8,5	0,33	26,0	1,02
13/2W	12,8	0,50	20,8	0,82	1.040	15.080	2.600	37.700	150	5,91	0,590	0,395	8,5	0,33	26,7	1,05
13/2WR	12,8	0,50	22,2	0,87	1.040	15.080	2.600	37.700	150	5,91	0,590	0,395	7,5	0,30	27,5	1,08
13/4	12,8	0,50	21,4	0,84	1.300	18.850	3.250	47.125	200	7,87	0,800	0,536	7,5	0,30	27,4	1,07
13/4H	12,8	0,50	22,0	0,87	1.400	20.300	3.500	50.750	200	7,87	0,880	0,590	7,5	0,30	29,5	1,16
13/6	12,8	0,50	23,4	0,92	1.800	26.100	4.500	65.250	300	11,81	1,160	0,777	7,5	0,30	30,1	1,18
13/6H	12,7	0,50	24,8	0,98	2.000	29.000	5.000	72.500	300	11,81	1,200	0,804	7,5	0,30	32,9	1,29
13mmUHP	12,8	0,50	27,7	1,09	2.800	40.600	6.000	87.000	350	13,78	2,085	1,397	7,5	0,30	34,6	1,36
<b>ID16</b>																
<i>Heat-resisting up to 70° C (158° F)</i>																
16/4	16,0	0,63	25,5	1,00	1.040	15.080	2.600	37.700	250	9,84	1,002	0,671	10,5	0,41	32,7	1,28
16/6	15,9	0,63	27,7	1,09	1.520	22.040	3.800	55.100	320	12,60	1,520	1,022	10,5	0,41	35,0	1,37
16mmUHP	15,9	0,63	31,8	1,25	2.000	29.000	5.000	72.500	400	15,75	2,523	1,690	10,5	0,41	38,0	1,49
<b>ID20</b>																
<i>Heat-resisting up to 70° C (158° F)</i>																
20/2	19,0	0,75	26,2	1,03	520	7.540	1.300	18.850	240	9,45	0,750	0,503	13,0	0,51	34,2	1,34
20/2W	18,8	0,74	29,5	1,16	760	11.020	1.900	27.550	220	8,66	1,160	0,777	13,0	0,51	36,3	1,42
20/4	18,8	0,74	28,8	1,13	1.040	15.080	2.600	37.700	250	9,84	1,350	0,905	13,0	0,51	36,9	1,45
20/6	18,8	0,74	32,8	1,29	1.400	20.300	3.500	50.750	350	13,78	2,170	1,454	13,0	0,51	42,9	1,68
20/6-1600	18,8	0,74	32,8	1,29	1.600	23.200	4.000	58.000	350	13,78	2,170	1,454	13,0	0,51	42,9	1,68
<b>ID25</b>																
<i>Heat-resisting up to 70° C (158° F)</i>																
25/2	24,8	0,98	33,5	1,32	440	6.380	1.100	15.950	300	11,81	0,950	0,636	16,5	0,65	40,0	1,57
25/2W	25,0	0,98	35,6	1,40	640	9.280	1.600	23.200	280	11,02	1,490	0,998	16,5	0,65	44,0	1,73
25/4	24,8	0,98	36,3	1,43	900	13.050	2.250	32.625	300	11,81	1,715	1,149	19,0	0,75	45,9	1,80
25/6	24,8	0,98	39,8	1,57	1.400	20.300	3.000	43.500	600	23,62	2,800	1,876	17,5	0,69	49,0	1,92

Type	Hose Size				Pressure Rating				Bend Radius		Weight		Insert ID		Sleeve OD	
	ID		OD		Working		Burst		[mm]	[in]	[kg/m]	[lbs/ft]	[mm]	[in]	[mm]	[in]
[mm]	[in]	[mm]	[in]	[bar]	[psi]	[bar]	[psi]									
<b>HW-Series</b> <span style="float: right;"><i>Heat-resisting up to 100° C (210° F)</i></span>																
8/4HW-1000	8,0	0,31	14,6	0,57	1.000	14.500	3.800	55.100	200	7,87	0,390	0,261	4,5	0,18	20,3	0,79
<b>HL-Series</b> <span style="float: right;"><i>Heat-resisting up to 60° C (140° F) - Hydraulic Line</i></span>																
VIPER	6,1	0,24	12,5	0,49	700	10.150	1.800	26.100	80	3,15	0,206	0,138	4,0	0,16	14,4	0,56
VIPER Twin	6,1	0,24	12,5	0,49	700	10.150	1.800	26.100	80	3,15	0,412	0,276	4,0	0,16	14,4	0,56
MAMBA	5,9	0,23	12,0	0,47	1.200	17.400	3.000	43.500	80	3,15	0,237	0,159	4,0	0,16	15,5	0,61
MAMBA Twin	5,9	0,23	12,0	0,47	1.200	17.400	3.000	43.500	80	3,15	0,474	0,318	4,0	0,16	15,5	0,61
COBRA	5,0	0,20	11,2	0,44	1.800	26.100	4.500	65.250	150	5,91	0,260	0,174	2,5	0,10	15,0	0,59
<b>M-Series</b> <span style="float: right;"><i>Heat-resisting up to 60° C (140° F) - with methanol-washed inner core</i></span>																
6/2WM	6,0	0,24	12,2	0,48	690	10.000	2.760	40.000	95	3,74	0,240	0,161	4,0	0,16	16,8	0,66
6/4M	6,0	0,24	13,0	0,51	1.035	15.000	4.140	60.000	180	7,09	0,338	0,226	3,0	0,12	19,9	0,78
8/2WM	8,0	0,31	14,3	0,56	690	10.000	2.760	40.000	110	4,33	0,314	0,210	5,5	0,22	18,3	0,72
10/2WM	10,0	0,39	17,2	0,68	690	10.000	2.760	40.000	125	4,92	0,466	0,312	5,0	0,20	21,5	0,84
13/2WM	12,7	0,50	20,8	0,82	690	10.000	2.760	40.000	150	5,91	0,630	0,422	8,5	0,33	27,8	1,09
<b>PPA-Series</b> <span style="float: right;"><i>Heat-resisting up to 80° C (176° F) - with PVDF inner core and polyamid outer cover</i></span>																
5/4PPA	5,0	0,20	11,2	0,44	1.035	15.000	4.140	60.000	250	9,84	0,256	0,172	2,5	0,10	15,0	0,59
6/2WPPA	6,3	0,25	12,2	0,48	690	10.000	2.760	40.000	150	5,91	0,266	0,178	3,5	0,14	17,1	0,67
6/4PPA	6,3	0,25	12,6	0,50	1.035	15.000	4.140	60.000	280	11,02	0,305	0,204	3,5	0,14	16,4	0,64
8/4PPA	8,0	0,31	14,7	0,58	1.035	15.000	4.140	60.000	300	11,81	0,420	0,281	4,5	0,18	20,3	0,79
10/4PPA	10,0	0,39	18,4	0,72	1.035	15.000	4.140	60.000	300	11,81	0,680	0,456	5,5	0,22	23,1	0,90
13/2WPPA	12,8	0,50	20,8	0,82	690	10.000	2.760	40.000	300	11,81	0,670	0,449	8,5	0,33	26,5	1,04
13/4HPPA	12,8	0,50	22,0	0,87	860	12.500	3.450	50.000	300	11,81	1,000	0,670	7,5	0,30	29,5	1,16
16/4PPA	16,0	0,63	25,5	1,00	690	10.000	2.760	40.000	400	15,75	1,082	0,725	10,5	0,41	32,7	1,28
20/4PPA	18,8	0,74	28,8	1,13	690	10.000	2.760	40.000	500	19,69	1,350	0,907	13,0	0,51	36,9	1,45
20/6PPA	18,8	0,74	32,8	1,29	860	12.500	3.450	50.000	600	23,62	2,170	1,454	13,0	0,51	43,1	1,69
25/4PPA	24,8	0,98	36,3	1,43	520	7.500	2.070	30.000	500	19,69	1,820	1,223	18,0	0,71	42,3	1,66
<b>HT-Series</b> <span style="float: right;"><i>Heat-resisting up to 150° C (300° F) - with PVDF inner core and outer cover</i></span>																
5/4HT	5,0	0,20	11,2	0,44	1.035	15.000	4.140	60.000	250	9,84	0,280	0,188	2,5	0,10	15,4	0,60
6/2VHHT	6,3	0,25	12,2	0,48	690	10.000	2.760	40.000	150	5,91	0,266	0,178	3,5	0,14	17,1	0,67
6/4HT	6,3	0,25	12,6	0,50	1.035	15.000	4.140	60.000	280	11,02	0,320	0,214	3,5	0,14	17,5	0,68
8/2VHHT	8,0	0,31	14,5	0,57	690	10.000	2.760	40.000	250	9,84	0,400	0,268	4,0	0,16	20,7	0,81
8/4HT	8,0	0,31	14,6	0,57	1.035	15.000	4.140	60.000	300	11,81	0,413	0,277	4,5	0,18	20,2	0,79
10/4HT	9,9	0,39	18,4	0,72	1.035	15.000	4.140	60.000	300	11,81	0,695	0,466	5,0	0,20	24,9	0,98
13/4HHT	12,8	0,50	22,0	0,87	860	12.500	3.450	50.000	300	11,81	1,000	0,672	7,5	0,30	29,5	1,16

# Data Sheet - Detailed Description

## Example 8/6UHP-X

The data sheet is structured as follows:

- areas of use
- technical data
- fittings available for hose type (further information below)
- accessories
- Information / footnote according to hose type and fitting design

Ø ID	Ø OD	Working Pressure	Burst Pressure	Bend Radius	Weight	Insert ID
7,6 mm	19,3 mm	3.035 bar	7.000 bar	300 mm	1,055 kg/m	4,5 mm
0,30 inch	0,76 inch	44.008 psi	101.500 psi	11,81 inch	0,707 lbs/ft	0,18 inch

Inner diameter	Outer diameter	Maximum constant pressure of the hose	Minimum burst pressure	Minimum bend radius	Inner diameter of insert
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Part no.	Thread	Material	Nut	Dimensions (mm)			Insert
				A	B	C	
<b>Type M female swivel</b>							
20860644E	3/4"x16UNF	Stainless steel	50840605	4,5	90	-	24
20860684E	7/8"x14UNF	Stainless steel	50860675	4,5	92	-	30
20860694E	1 1/8"x12UNF	Stainless steel	50860695	4,5	98	-	36

Complementing fittings are shown next to the corresponding part.	Hex size / width across flats of fittings
--	---



Accessories combinations				
<b>Without hose protection</b>				
Description	Bend restrictor	Crimp ring	Securing grips	
Bend restrictor	1.9523406B	1004145	-	
Securing grip	-	-	9086400	
Bend restrictor and securing grip	1.9523406B	1004145	908640L	
<b>Hose protection without spiral</b>				
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips
Protection hose	1.902531	-	1003335	-
with bend restrictor	1.903037	1.9523406B	1004145	-
with securing grip	1.902531	-	-	9086400
with bend restrictor and securing grip	1.903037	1.9523406B	1004145	908640L
<b>Hose protection with spiral</b>				
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips
Protection hose	1.912532	-	1003438	-
with bend restrictor	1.913240	1.9523406B	1004145	-
with securing grip	1.913038	-	-	9086400
with bend restrictor and securing grip	1.913240	1.9523406B	1004145	908640L



Accessory combinations are shown on the data sheet with corresponding item numbers.

Please pay particular attention to the footnote on each data sheet.

*Production-related variations of the burst pressure of up to 5 % are possible.*

*The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked. Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.*

*The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.*

*\*) Blast-Pro® fittings may only be used for tube cleaning operations inside the tube. They have not been designed for the use outside of tubes.*

*We reserve our rights for technical changes without notice. Subject to printing errors.*

## Applications

- Waterblast:** Heat exchanger tube cleaning
- Hydraulics:** Pressure test equipment (valves, tooling and control panels), hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools)



## Technical Information

- Inner Core:** Polyoxymethylene (POM)
- Pressure Support:** 2 layers of high-tensile steel wire
- Outer Cover:** Polyamide (PA)
- Color:** Green
- Temperature:** -30°C to +70°C [-22°F to 158°F]

Ø ID	Ø OD	Working Pressure -- (SF 2.5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
3,4 mm	6,9 mm	--	1.000 bar	60 mm	0,072 kg/m	2,0 mm
0,13 inch	0,27 inch	--	14.500 psi	2,36 inch	0,048 lbs/ft	0,08 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	W	
10320101	-	Steel	8,9	30,15	-	-	

Part no.	Thread	Material	Hose part	Dimensions (mm)				OnePiece Fittings® WS
				A	B	C	W	
<b>OnePiece Fittings® with wrench size</b>								
30320401Q	1/16"x27NPTF	Steel	30320402/1Q	8,9	34	7	7	
30320101Q	M6x1	Steel	30320102/1Q	8,9	34	8	7	

Part no.	Thread	Material	Hose part	Dimensions (mm)				OnePiece Fittings®
				A	B	C	D	
30320401X	1/16"x27NPTF	Steel	30320402/1X	2	28	7	8,9	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	W	
<b>Female swivel 24°/60°</b>								
20320302A	G1/4"	Steel	50540301, 50540305	2	47	-	19	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	Ø	
<b>Swivel nut</b>								
50540301	G1/4"	Steel	1 radial	9,2	16,5	8,5	19	
50540305	G1/4"	AISI 316Ti	1 radial	9,2	16,5	8,5	19	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
9034400	600,00	740,00	6,60	6-10	

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

\*) Blast-Pro® fittings may only be used for tube cleaning operations inside the tube. They have not been designed for the use outside of tubes.

We reserve our rights for technical changes without notice. Subject to printing errors.

# Hose Type 3/2-1100

32000.1100

ID3 - Series: A, X and Q

**SPiR STAR®**

## Applications

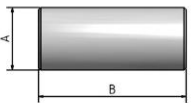
- Waterblast:** Heat exchanger tube cleaning
- Hydraulics:** Pressure test equipment (valves, tooling and control panels), hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools)

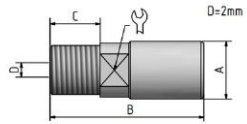
## Technical Information

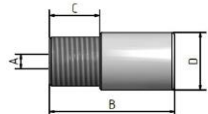
- Inner Core:** Polyoxymethylene (POM)
- Pressure Support:** 2 layers of high-tensile steel wire
- Outer Cover:** Polyamide (PA)
- Color:** Green
- Temperature:** -30°C to +70°C [-22°F to 158°F]

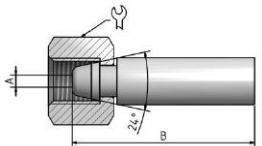


Ø ID	Ø OD	Working Pressure -- (SF 2.5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
3,4 mm	7,0 mm	--	1.100 bar	60 mm	0,072 kg/m	2,0 mm
0,13 inch	0,28 inch	--	15.950 psi	2,36 inch	0,048 lbs/ft	0,08 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⌀	
<b>Sleeve</b>							
10320101	-	Steel	8,9	30,15	-	-	

Part no.	Thread	Material	Hose part	Dimensions (mm)				OnePiece Fittings®WS
				A	B	C	⌀	
<b>OnePiece Fittings® with wrench size</b>								
30320401Q	1/16"x27NPTF	Steel	30320402/1Q	8,9	34	7	7	
30320101Q	M6x1	Steel	30320102/1Q	8,9	34	8	7	

Part no.	Thread	Material	Hose part	Dimensions (mm)				OnePiece Fittings®
				A	B	C	D	
<b>OnePiece Fittings®</b>								
30320401X	1/16"x27NPTF	Steel	30320402/1X	2	28	7	8,9	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>Female swivel 24°/60°</b>								
20320302A	G1/4"	Steel	50540301, 50540305	2	47	-	19	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	Ø	
<b>Swivel nut</b>								
50540301	G1/4"	Steel	1 radial	9,2	16,5	8,5	19	
50540305	G1/4"	AISI 316Ti	1 radial	9,2	16,5	8,5	19	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
9034400	600,00	740,00	6,60	6-10	

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

\*) Blast-Pro® fittings may only be used for tube cleaning operations inside the tube. They have not been designed for the use outside of tubes.

We reserve our rights for technical changes without notice. Subject to printing errors.



## Applications

- Waterblast:** Heat exchanger tube cleaning, ultra high-pressure waterjet cutting and hydro demolition (cutting and demolition of armoured concrete, pipelines, paper or steel)
- Hydraulics:** Pressure test equipment (valves, tooling and control panels), hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools)



## Technical Information

- Inner Core:** Polyoxymethylene (POM)
- Pressure Support:** 4 layers of high-tensile steel wire
- Outer Cover:** Polyamide (PA)
- Color:** Grey
- Temperature:** -30°C to +60°C [-22°F to 140°F]

Ø ID	Ø OD	Working Pressure -- (SF 2,5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
3,4 mm	8,0 mm	--	2.000 bar	110 mm	0,135 kg/m	2,0 mm
0,13 inch	0,31 inch	--	29.000 psi	4,33 inch	0,090 lbs/ft	0,08 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⚙	
<b>Sleeve</b>							
10340102	-	Steel	12,1	43	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⚙	
<b>HP fitting</b>								
40340202B	1/4"x28UNF LH	Steel	-	2	79,5	14	-	
40340224B	3/8"x24UNF LH	Stainless steel	-	2	84	20	-	

<b>Female swivel 24°/60°</b>								
Part no.	Thread	Material	Nut	Dimensions (mm)				
A	B	C	⚙					
20340112B	M12x1,5	Steel	50340111	2	57	-	17	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	Ø	
<b>Type M female swivel</b>								
20340602B	9/16"x18UNF	Steel	50540601, 50540605	2	59	-	19	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	Ø	
<b>Swivel nut</b>								
50540601	9/16"x18UNF	Steel	1 radial	9,2	18	14	19	
50340111	M12x1.5M12x1,5	Steel	1 radial	8,2	16	9	17	
50540605	9/16"x18UNF	AISI 316Ti	1 radial	9,2	18	14	19	

Part no.	Size (mm)	Material	Crimp ring	Hose protection
1.901418	ID Ø14, OD Ø18	PVC	1001921	
1.901822	ID Ø18, OD Ø22	PVC	-	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
9034400	600,00	740,00	6,60	6-10	

Accessories combinations					
<b>Without hose protection</b>					
Description			Bend restrictor	Crimp ring	Securing grips
Securing grip			-	-	9034400
<b>Hose protection without spiral</b>					
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips	
Protection hose	1.901418	-	1001921	-	
with securing grip	1.901822	-	-	9034400	

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

\*) Blast-Pro® fittings may only be used for tube cleaning operations inside the tube. They have not been designed for the use outside of tubes.

We reserve our rights for technical changes without notice. Subject to printing errors.

# Hose Type 3/4-2100

34008.2100

ID3 - Series: B

**SPiR STAR®**

## Applications

**Waterblast:** Heat exchanger tube cleaning, ultra high-pressure waterjet cutting and hydro demolition (cutting and demolition of armoured concrete, pipelines, paper or steel)

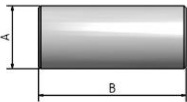
**Hydraulics:** Pressure test equipment (valves, tooling and control panels), hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools)

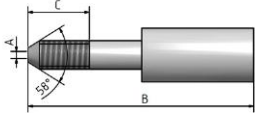


## Technical Information

**Inner Core:** Polyoxymethylene (POM)  
**Pressure Support:** 4 layers of high-tensile steel wire  
**Outer Cover:** Polyamide (PA)  
**Color:** Grey  
**Temperature:** -30°C to +70°C [-22°F to 158°F]

Ø ID	Ø OD	Working Pressure -- (SF 2,5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
3,4 mm	8,1 mm	--	2.100 bar	110 mm	0,135 kg/m	2,0 mm
0,13 inch	0,32 inch	--	30.450 psi	4,33 inch	0,090 lbs/ft	0,08 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⚙	
<b>Sleeve</b>							
10340102	-	Steel	12,1	43	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⚙	
<b>HP fitting</b>								
40340202B	1/4"x28UNF LH	Steel	-	2	79,5	14	-	
40340224B	3/8"x24UNF LH	Stainless steel	-	2	84	20	-	

<b>Female swivel 24°/60°</b>								
20340112B	M12x1,5	Steel	50340111	2	57	-	17	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	Ø	
<b>Type M female swivel</b>								
20340602B	9/16"x18UNF	Steel	50540601, 50540605	2	59	-	19	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	Ø	
<b>Swivel nut</b>								
50540601	9/16"x18UNF	Steel	1 radial	9,2	18	14	19	
50340111	M12x1.5M12x1,5	Steel	1 radial	8,2	16	9	17	
50540605	9/16"x18UNF	AISI 316Ti	1 radial	9,2	18	14	19	

Part no.	Size (mm)	Material	Crimp ring	Hose protection
1.901418	ID Ø14, OD Ø18	PVC	1001921	
1.901822	ID Ø18, OD Ø22	PVC	-	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
9034400	600,00	740,00	6,60	6-10	

Accessories combinations				
<b>Without hose protection</b>				
Description		Bend restrictor	Crimp ring	Securing grips
Securing grip		-	-	9034400
<b>Hose protection without spiral</b>				
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips
Protection hose	1.901418	-	1001921	-
with securing grip	1.901822	-	-	9034400

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

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We reserve our rights for technical changes without notice. Subject to printing errors.



## Applications

**Waterblast:** Heat exchanger tube cleaning, ultra high-pressure waterjet cutting and hydro demolition (cutting and demolition of armoured concrete, pipelines, paper or steel)

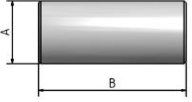
**Hydraulics:** Pressure test equipment (valves, tooling and control panels), hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools)

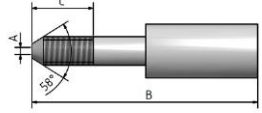


## Technical Information

**Inner Core:** Polyoxymethylene (POM)  
**Pressure Support:** 6 layers of high-tensile steel wire  
**Outer Cover:** Polyamide (PA)  
**Color:** Blue  
**Temperature:** -30°C to +60°C [-22°F to 140°F]


Ø ID	Ø OD	Working Pressure -- (SF 2,5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
3,0 mm	9,1 mm	--	2.800 bar	150 mm	0,222 kg/m	1,8 mm
0,12 inch	0,36 inch	--	40.600 psi	5,91 inch	0,149 lbs/ft	0,07 inch


Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⌀	
10360102	-	Steel	15,3	32,5	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
40360204C	1/4"x28UNF LH	Stainless steel	-	1,8	68	14	-	
40360224C	3/8"x24UNF LH	Stainless steel	-	1,8	76	20	-	





Part no.	Size (mm)	Material	Crimp ring	Hose protection
<b>Hose protection without spiral</b>				
I.901621	ID Ø16, OD Ø21	PVC	1002224	
I.902026	ID Ø20, OD Ø26	PVC	-	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
<b>Hose securing grip short version</b>					
9034400	600,00	740,00	6,60	6-10	

<b>Accessories combinations</b>					
<b>Without hose protection</b>					
Description		Bend restrictor	Crimp ring	Securing grips	
Securing grip		-	-	9034400	
<b>Hose protection without spiral</b>					
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips	
Protection hose	I.901621	-	1002224	-	
with securing grip	I.902026	-	-	9034400	

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

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# Hose Type 4/2

42070

**SPIR STAR®**

DuraLife Flex®

ID4 - Series: A, X and Q

## Applications

- Waterblast:** Heat exchanger tube cleaning
- Hydraulics:** Pressure test equipment (valves, tooling and control panels), hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools)



## Technical Information

- Inner Core:** Polyoxymethylene (POM)
- Pressure Support:** 2 layers of high-tensile steel wire
- Outer Cover:** Polyamide (PA)
- Color:** Green
- Temperature:** -30°C to +70°C [-22°F to 158°F]

Ø ID	Ø OD	Working Pressure -- (SF 2.5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
4,0 mm	8,0 mm	--	1.200 bar	75 mm	0,110 kg/m	2,5 mm
0,16 inch	0,31 inch	--	17.400 psi	2,95 inch	0,074 lbs/ft	0,10 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	W	
<b>Sleeve</b>							
10420102	-	Steel	10	31,5	-	-	
10420105	-	AISI 316Ti	10	34	-	-	

Part no.	Thread	Material	Hose part	Dimensions (mm)				OnePiece Fittings®WS
				A	B	C	W	
<b>OnePiece Fittings® with wrench size</b>								
30420451Q	1/16"x27NPTF	Steel	30420452/1Q	9,9	34	7	7	
30420461Q	1/8"x27NPTF	Steel	30420462/1Q	9,9	37	10	8	
30420601Q	5/16"x24UNF	Steel	30420452/1Q	9,9	34	7	7	

Part no.	Thread	Material	Hose part	Dimensions (mm)				OnePiece Fittings®
				A	B	C	D	
<b>OnePiece Fittings®</b>								
30420601X	5/16"x24UNF	Steel	30420452/1X	2,5	28	7	9,9	

Part no.	Thread	Material	Nut	Dimensions (mm)			Insert
				A	B	C	
<b>HP fitting</b>							
40420205A	1/4"x28UNF LH	AISI 316Ti	-	2,5	69	14	-
<b>Male fitting</b>							
30420412A	1/16"x27NPTF	Steel	-	2,5	49	8	7
30420542A	1/8"x27NPTF	Steel	-	2,5	53	10	8
30420422A	1/4"x18NPTF	Steel	-	2,5	57	14	11
30420302A	G1/8"	Steel	-	2,5	53	12	9
30420322A	G1/4"	Steel	-	2,5	55	12	11
30420042A	M7x1	Steel	-	2,5	54	10	9
30420052A	M8x1,25	Steel	-	2,5	54	10	9
30420002A	M10x1	Steel	-	2,5	55	12	8
<b>Male fitting 100° external cone</b>							
30420362A	G1/4"	Steel	-	2,5	60	18	17
<b>Male fitting for USIT® Ring</b>							
30420352A	G1/4"	Steel	-	2,5	54,5	11	22
<b>Male fitting flat seal</b>							
30420382A	G1/8"	Steel	-	2,5	55	13	9
30420082A	M7	Steel	-	2,5	52	11	7
<b>Type M female swivel</b>							
20420642A	9/16"x18UNF	Steel	50540601	2,5	48,5	-	19
<b>Female swivel 24°/60°</b>							
20430302A	G1/4"	Steel	50540301, 50540305	2,5	48	-	19

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	Ø	
<b>Female swivel with O-Ring</b>								
20420042A	M24x1,5	Steel	51321206	2,5	66	-	32	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	Ø	
<b>Swivel nut</b>								
50540601	9/16"x18UNF	Steel	1 radial	9,2	18	14	19	
50540301	G1/4"	Steel	1 radial	9,2	16,5	8,5	19	
50540305	G1/4"	AISI 316Ti	1 radial	9,2	16,5	8,5	19	
51321206	M24x1,5	Steel	2 axial	16,8	23	16	32	
51320205	M24x1,5	AISI 316Ti	1 radial	16,8	23	16	32	

Part no.	Material	Crimp ring	Dimensions (mm)		Bend restrictor
			Ø	Length	
<b>Rubber bend restrictor</b>					
1.9518400	Rubber	1003035	34	130	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
9034400	600,00	740,00	6,60	6-10	

Accessories combinations				
Without hose protection				
Description	Bend restrictor	Crimp ring	Securing grips	
Bend restrictor	1.9518400	1003035	-	
Securing grip	-	-	9034400	
Bend restrictor and securing grip	-	-	-	

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

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# Hose Type 4/2H-I400

42H076.1400



DuraLife Flex ®

ID4 - Series: A, X and Q

## Applications

- Waterblast:** Heat exchanger tube cleaning
- Hydraulics:** Pressure test equipment (valves, tooling and control panels), hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools)



## Technical Information

- Inner Core:** Polyoxymethylene (POM)
- Pressure Support:** 2 layers of high-tensile steel wire
- Outer Cover:** Polyamide (PA)
- Color:** Red
- Temperature:** -30°C to +70°C [-22°F to 158°F]

Ø ID	Ø OD	Working Pressure -- (SF 2.5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
4,0 mm	8,1 mm	--	1.400 bar	75 mm	0,112 kg/m	2,5 mm
0,16 inch	0,32 inch	--	20.300 psi	2,95 inch	0,075 lbs/ft	0,10 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	W	
<b>Sleeve</b>							
10420102	-	Steel	10	31,5	-	-	
10420105	-	AISI 316Ti	10	34	-	-	

Part no.	Thread	Material	Hose part	Dimensions (mm)				OnePiece Fittings® WS
				A	B	C	W	
<b>OnePiece Fittings® with wrench size</b>								
30420451Q	1/16"x27NPTF	Steel	30420452/1Q	9,9	34	7	7	
30420461Q	1/8"x27NPTF	Steel	30420462/1Q	9,9	37	10	8	
30420601Q	5/16"x24UNF	Steel	30420452/1Q	9,9	34	7	7	

Part no.	Thread	Material	Hose part	Dimensions (mm)				OnePiece Fittings®
				A	B	C	D	
<b>OnePiece Fittings®</b>								
30420601X	5/16"x24UNF	Steel	30420452/1X	2,5	28	7	9,9	

# Hose Type 4/2H-I400

42H076.1400

**SPIR STAR®**

DuraLife Flex®

ID4 - Series: A, X and Q

Part no.	Thread	Material	Nut	Dimensions (mm)			Insert
				A	B	C	
<b>HP fitting</b>							
40420205A	1/4"x28UNF LH	AISI 316Ti	-	2,5	69	14	-
<b>Male fitting</b>							
30420412A	1/16"x27NPTF	Steel	-	2,5	49	8	7
30420542A	1/8"x27NPTF	Steel	-	2,5	53	10	8
30420422A	1/4"x18NPTF	Steel	-	2,5	57	14	11
30420302A	G1/8"	Steel	-	2,5	53	12	9
30420322A	G1/4"	Steel	-	2,5	55	12	11
30420042A	M7x1	Steel	-	2,5	54	10	9
30420052A	M8x1,25	Steel	-	2,5	54	10	9
30420002A	M10x1	Steel	-	2,5	55	12	8
<b>Male fitting 100° external cone</b>							
30420362A	G1/4"	Steel	-	2,5	60	18	17
<b>Male fitting for USIT® Ring</b>							
30420352A	G1/4"	Steel	-	2,5	54,5	11	22
<b>Male fitting flat seal</b>							
30420382A	G1/8"	Steel	-	2,5	55	13	9
30420082A	M7	Steel	-	2,5	52	11	7
<b>Type M female swivel</b>							
20420642A	9/16"x18UNF	Steel	50540601	2,5	48,5	-	19
<b>Female swivel 24°/60°</b>							
20430302A	G1/4"	Steel	50540301, 50540305	2,5	48	-	19

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	Ø	
<b>Female swivel with O-Ring</b>								
20420042A	M24x1,5	Steel	51321206	2,5	66	-	32	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	Ø	
<b>Swivel nut</b>								
50540601	9/16"x18UNF	Steel	1 radial	9,2	18	14	19	
50540301	G1/4"	Steel	1 radial	9,2	16,5	8,5	19	
50540305	G1/4"	AISI 316Ti	1 radial	9,2	16,5	8,5	19	
51321206	M24x1,5	Steel	2 axial	16,8	23	16	32	
51320205	M24x1,5	AISI 316Ti	1 radial	16,8	23	16	32	

Part no.	Material	Crimp ring	Dimensions (mm)		Bend restrictor
			Ø	Length	
<b>Rubber bend restrictor</b>					
1.9518400	Rubber	1003035	34	130	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
9034400	600,00	740,00	6,60	6-10	

Accessories combinations				
Without hose protection				
Description	Bend restrictor	Crimp ring	Securing grips	
Bend restrictor	1.9518400	1003035	-	
Securing grip	-	-	9034400	
Bend restrictor and securing grip	-	-	-	

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

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## Applications

**Hydraulics:** Pressure test equipment (valves, tooling and control panels), hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools)

## Technical Information

**Inner Core:** Polyamide (PA)  
**Pressure Support:** 2 layers of high-tensile steel wire  
 1 braided layer of steel wire  
**Outer Cover:** Polyurethane (TPU)  
**Color:** Black  
**Temperature:** -30°C to +60°C [-22°F to 140°F]



Ø ID	Ø OD	Working Pressure -- (SF 2.5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
4,0 mm	9,8 mm	--	1.200 bar	65 mm	0,185 kg/m	2,5 mm
0,16 inch	0,39 inch	--	17.400 psi	2,56 inch	0,124 lbs/ft	0,10 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⌀	
<b>Sleeve</b>							
10430101	-	Steel	13,1	33,2	-	-	
10430105	-	AISI 316Ti	13,1	32,7	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>HP fitting</b>								
40420205A	1/4"x28UNF LH	AISI 316Ti	-	2,5	69	14	-	

<b>Male fitting</b>								
Part no.	Thread	Material	Nut	A	B	C	⌀	
30420412A	1/16"x27NPTF	Steel	-	2,5	49	8	7	
30420542A	1/8"x27NPTF	Steel	-	2,5	53	10	8	
30420422A	1/4"x18NPTF	Steel	-	2,5	57	14	11	
30420302A	G1/8"	Steel	-	2,5	53	12	9	
30420322A	G1/4"	Steel	-	2,5	55	12	11	
30420042A	M7x1	Steel	-	2,5	54	10	9	
30420052A	M8x1,25	Steel	-	2,5	54	10	9	
30420002A	M10x1	Steel	-	2,5	55	12	8	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>Male fitting 100° external cone</b>								
30420362A	G1/4"	Steel	-	2,5	60	18	17	
<b>Male fitting for USIT® Ring</b>								
30420352A	G1/4"	Steel	-	2,5	54,5	11	22	
<b>Male fitting flat seal</b>								
30420382A	G1/8"	Steel	-	2,5	55	13	9	
30420082A	M7	Steel	-	2,5	52	11	7	
<b>Female swivel 24°/60°</b>								
20430302A	G1/4"	Steel	50540301, 50540305	2,5	48	-	19	
<b>Female swivel with O-Ring</b>								
20420042A	M24x1,5	Steel	51321206	2,5	66	-	32	
<b>Type M female swivel</b>								
20420642A	9/16"x18UNF	Steel	50540601	2,5	48,5	-	19	
Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	⌀	
<b>Swivel nut</b>								
50540601	9/16"x18UNF	Steel	1 radial	9,2	18	14	19	
50540301	G1/4"	Steel	1 radial	9,2	16,5	8,5	19	
50540305	G1/4"	AISI 316Ti	1 radial	9,2	16,5	8,5	19	
51321206	M24x1,5	Steel	2 axial	16,8	23	16	32	
51320205	M24x1,5	AISI 316Ti	1 radial	16,8	23	16	32	

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

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## Applications

**Hydraulics:** Pressure test equipment (valves, tooling and control panels), hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools)



## Technical Information

**Inner Core:** Polyamide (PA)  
**Pressure Support:** 2 open layers, 2 dense layers of high-tensile steel wire  
**Outer Cover:** Polyurethane (TPU)  
**Color:** Black  
**Temperature:** -30°C to +60°C [-22°F to 140°F]

Ø ID	Ø OD	Working Pressure -- (SF 2.5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
4,0 mm	9,8 mm	--	1.400 bar	65 mm	0,160 kg/m	2,5 mm
0,16 inch	0,39 inch	--	20.300 psi	2,56 inch	0,107 lbs/ft	0,10 inch


Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⌀	
<b>Sleeve</b>							
10430101	-	Steel	13,1	33,2	-	-	
10430105	-	AISI 316Ti	13,1	32,7	-	-	


Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>HP fitting</b>								
40420205A	1/4"x28UNF LH	AISI 316Ti	-	2,5	69	14	-	
<b>Male fitting</b>								
30420412A	1/16"x27NPTF	Steel	-	2,5	49	8	7	
30420542A	1/8"x27NPTF	Steel	-	2,5	53	10	8	
30420422A	1/4"x18NPTF	Steel	-	2,5	57	14	11	
30420302A	G1/8"	Steel	-	2,5	53	12	9	
30420322A	G1/4"	Steel	-	2,5	55	12	11	
30420042A	M7x1	Steel	-	2,5	54	10	9	
30420052A	M8x1,25	Steel	-	2,5	54	10	9	
30420002A	M10x1	Steel	-	2,5	55	12	8	
<b>Male fitting 100° external cone</b>								
30420362A	G1/4"	Steel	-	2,5	60	18	17	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>Male fitting for USIT® Ring</b>								
MAMBA-M-1/4-U	G1/4"	Steel	-	4	61	11	22	
30420352A	G1/4"	Steel	-	2,5	54,5	11	22	
<b>Male fitting flat seal</b>								
30420382A	G1/8"	Steel	-	2,5	55	13	9	
30420082A	M7	Steel	-	2,5	52	11	7	
<b>Female swivel 24°/60°</b>								
20430302A	G1/4"	Steel	50540301, 50540305	2,5	48	-	19	
<b>Female swivel with O-Ring</b>								
20420042A	M24x1,5	Steel	51321206	2,5	66	-	32	
<b>Type M female swivel</b>								
20420642A	9/16"x18UNF	Steel	50540601	2,5	48,5	-	19	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	⌀	
<b>Swivel nut</b>								
50540601	9/16"x18UNF	Steel	1 radial	9,2	18	14	19	
50540301	G1/4"	Steel	1 radial	9,2	16,5	8,5	19	
50540305	G1/4"	AISI 316Ti	1 radial	9,2	16,5	8,5	19	
51321206	M24x1,5	Steel	2 axial	16,8	23	16	32	
51320205	M24x1,5	AISI 316Ti	1 radial	16,8	23	16	32	



Part no.	Size (mm)	Material	Crimp ring	Hose protection
<b>Hose protection without spiral</b>				
1.901418	ID Ø14, OD Ø18	PVC	1001921	

Part no.	Material	Crimp ring	Dimensions (mm)		Bend restrictor
			Ø	Length	
<b>Rubber bend restrictor</b>					
1.9518400	Rubber	1003035	34	130	

<b>Accessories combinations</b>				
<b>Without hose protection</b>				
Description		Bend restrictor	Crimp ring	Securing grips
Bend restrictor		1.9518400	1003035	-
<b>Hose protection without spiral</b>				
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips
Protection hose	1.901418	-	1001921	-
with bend restrictor	1.901418	1.9518400	1003035	-

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

\*) Blast-Pro® fittings may only be used for tube cleaning operations inside the tube. They have not been designed for the use outside of tubes.

We reserve our rights for technical changes without notice. Subject to printing errors.

## Applications

- Waterblast:** Heat exchanger tube cleaning
- Hydraulics:** Pressure test equipment (valves, tooling and control panels), hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools)



## Technical Information

- Inner Core:** Polyoxymethylene (POM)
- Pressure Support:** 4 layers of high-tensile steel wire
- Outer Cover:** Polyamide (PA)
- Color:** Grey
- Temperature:** -30°C to +70°C [-22°F to 158°F]

Ø ID	Ø OD	Working Pressure -- (SF 2.5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
4,0 mm	10,3 mm	--	2.200 bar	130 mm	0,234 kg/m	1,8 mm
0,16 inch	0,41 inch	--	31.900 psi	5,12 inch	0,157 lbs/ft	0,07 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⌀	
<b>Sleeve</b>							
10440102	-	Steel	14,7	48,64	-	-	
10440105	-	AISI 316Ti	14,7	47,9	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>HP fitting</b>								
40460204C	1/4"x28UNF LH	Stainless steel	-	1,8	82	14	-	
40460224C	3/8"x24UNF LH	Stainless steel	-	1,8	90	20	-	
40460234C	9/16"x18UNF LH	Stainless steel	-	1,8	104	24	-	

<b>Male fitting 60° internal cone</b>								
30440302B	G1/8"	Steel	-	1,8	70,5	12	9	

<b>Female swivel 24°/60°</b>								
20440302B	G1/4"	Steel	50540301, 50540305	1,8	63	-	19	

<b>Type M female swivel</b>								
20460644C	9/16"x18UNF	Stainless steel	50560605, 50560601	1,8	63	-	22	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	Ø	
<b>Swivel nut</b>								
50560601	9/16"x18UNF	Steel	1 radial	9,2	18	14	22	
50560605	9/16"x18UNF	AISI 316Ti	1 radial	9,2	18	14	22	
50540301	G1/4"	Steel	1 radial	9,2	16,5	8,5	19	
50540305	G1/4"	AISI 316Ti	1 radial	9,2	16,5	8,5	19	

Part no.	Size (mm)	Material	Crimp ring	Hose protection
1.901621	ID Ø16, OD Ø21	PVC	1002224	
<b>Hose protection with spiral</b>				
1.912026	ID Ø19, OD Ø26	PVC	1003035	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
9056400	600,00	740,00	10,20	10-15	

<b>Accessories combinations</b>					
<b>Without hose protection</b>					
Description	Bend restrictor	Crimp ring	Securing grips		
Securing grip	-	-	9056400		
<b>Hose protection without spiral</b>					
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips	
Protection hose	1.901621	-	1002224	-	
with securing grip	1.901621	-	-	9056400	
<b>Hose protection with spiral</b>					
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips	
Protection hose	1.912026	-	1003035	-	
with securing grip	1.912026	-	-	9056400	

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.  
 The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.  
 Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.  
 The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.  
 \*) Blast-Pro® fittings may only be used for tube cleaning operations inside the tube. They have not been designed for the use outside of tubes.  
 We reserve our rights for technical changes without notice. Subject to printing errors.



## Applications

### Waterblast:

Heat exchanger tube cleaning, surface preparation (concrete removal, surface cleaning of buildings, paint removal), ultra high-pressure waterjet cutting and hydro demolition (cutting and demolition of armoured concrete, pipelines, paper or steel)

### Hydraulics:

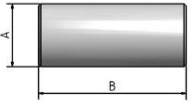
Bolt tensioning, pressure test equipment (valves, tooling and control panels), hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools)

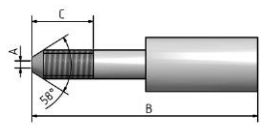


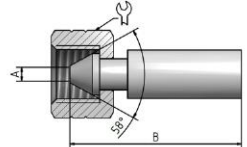
## Technical Information

<b>Inner Core:</b>	Polyoxymethylene (POM)
<b>Pressure Support:</b>	6 layers of high-tensile steel wire
<b>Outer Cover:</b>	Polyamide (PA)
<b>Color:</b>	Blue
<b>Temperature:</b>	-30°C to +70°C [-22°F to 158°F]

Ø ID	Ø OD	Working Pressure -- (SF 2.5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
4,0 mm	11,5 mm	--	2.800 bar	175 mm	0,365 kg/m	1,8 mm
0,16 inch	0,45 inch	--	40.600 psi	6,89 inch	0,245 lbs/ft	0,07 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⌀	
<b>Sleeve</b>							
10460102	-	Steel	17,1	48,9	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>HP fitting</b>								
40460204C	1/4"x28UNF LH	Stainless steel	-	1,8	82	14	-	
40460224C	3/8"x24UNF LH	Stainless steel	-	1,8	90	20	-	
40460234C	9/16"x18UNF LH	Stainless steel	-	1,8	104	24	-	

<b>Type M female swivel</b>								
Part no.	Thread	Material	Nut	A	B	C	⌀	
20460644C	9/16"x18UNF	Stainless steel	50560605, 50560601	1,8	63	-	22	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C		
<b>Swivel nut</b>								
50560601	9/16"x18UNF	Steel	1 radial	9,2	18	14	22	
50560605	9/16"x18UNF	AISI 316Ti	1 radial	9,2	18	14	22	

Part no.	Size (mm)	Material	Crimp ring	Hose protection
1.901822	ID Ø18, OD Ø22	PVC	1002426	
<b>Hose protection with spiral</b>				
1.912026	ID Ø19, OD Ø26	PVC	1003035	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
9056400	600,00	740,00	10,20	10-15	

Accessories combinations				
<b>Without hose protection</b>				
Description		Bend restrictor	Crimp ring	Securing grips
Securing grip		-	-	9056400
<b>Hose protection without spiral</b>				
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips
Protection hose	1.901822	-	1002426	-
with securing grip	1.901822	-	-	9056400
<b>Hose protection with spiral</b>				
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips
Protection hose	1.912026	-	1003035	-
with securing grip	1.912026	-	-	9056400

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.  
 The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.  
 Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.  
 The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.  
 \*) Blast-Pro® fittings may only be used for tube cleaning operations inside the tube. They have not been designed for the use outside of tubes.  
 We reserve our rights for technical changes without notice. Subject to printing errors.

## Applications

- Waterblast:** Surface preparation (concrete removal, surface cleaning of buildings, paint removal), ultra high-pressure waterjet cutting and hydro demolition (cutting and demolition of armoured concrete, pipelines, paper or steel)
- Hydraulics:** Pressure test equipment (valves, tooling and control panels), hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools), hydroforming



## Technical Information

- Inner Core:** Polyoxymethylene (POM)
- Pressure Support:** 8 layers of high-tensile steel wire
- Outer Cover:** Polyamide (PA)
- Color:** Dark red
- Temperature:** -30°C to +60°C [-22°F to 140°F]



Ø ID	Ø OD	Working Pressure -- (SF 2,5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
4,0 mm	12,8 mm	--	3.200 bar	175 mm	0,540 kg/m	1,8 mm
0,16 inch	0,50 inch	--	46.400 psi	6,89 inch	0,362 lbs/ft	0,07 inch


Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⌀	
<b>Sleeve</b>							
10480102	-	Steel	19,5	48,4	-	-	



Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>HP fitting</b>								
40460204C	1/4"x28UNF LH	Stainless steel	-	1,8	82	14	-	
40460224C	3/8"x24UNF LH	Stainless steel	-	1,8	90	20	-	
40460234C	9/16"x18UNF LH	Stainless steel	-	1,8	104	24	-	

<b>Type M female swivel</b>								
20460644C	9/16"x18UNF	Stainless steel	50560605, 50560601	1,8	63	-	22	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	⌀	
<b>Swivel nut</b>								
50560605	9/16"x18UNF	AISI 316Ti	1 radial	9,2	18	14	22	
50560601	9/16"x18UNF	Steel	1 radial	9,2	18	14	22	

Part no.	Size (mm)	Material	Crimp ring	Hose protection
<b>Hose protection without spiral</b>				
I.902228	ID Ø22, OD Ø28	PVC	-	
I.902026	ID Ø20, OD Ø26	PVC	I002729	
I.902531	ID Ø25, OD Ø31	PVC	-	
<b>Hose protection with spiral</b>				
I.912532	ID Ø25, OD Ø32	PVC	-	
I.912026	ID Ø19, OD Ø26	PVC	I003035	

Part no.	Material	Crimp ring	Dimensions (mm)		Bend restrictor
			Ø	Length	
<b>PU bend restrictor</b>					
I.9518306B	PU	I003035	34	250	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
9056400	600,00	740,00	10,20	10-15	
<b>Hose securing grip long version</b>					
905640L	600,00	990,00	10,20	10-15	



## Accessories combinations

Without hose protection				
Description		Bend restrictor	Crimp ring	Securing grips
Bend restrictor		1.9518306B	1003035	-
Securing grip		-	-	9056400
Bend restrictor and securing grip		1.9518306B	1003035	905640L
Hose protection without spiral				
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips
Protection hose	1.902026	-	1002729	-
with bend restrictor	1.902531	1.9518306B	1003035	-
with securing grip	1.902228	-	-	9056400
with bend restrictor and securing grip	1.902531	1.9518306B	1003035	905640L
Hose protection with spiral				
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips
Protection hose	1.912026	-	1003035	-
with bend restrictor	1.912532	1.9518306B	1003035	-
with securing grip	1.912026	-	-	9056400
with bend restrictor and securing grip	1.912532	1.9518306B	1003035	905640L

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

\*) Blast-Pro® fittings may only be used for tube cleaning operations inside the tube. They have not been designed for the use outside of tubes.

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# Hose Type 5/2

52070

**SPIR STAR®**

DuraLife Flex®

ID5 - Series: A and Q

## Applications

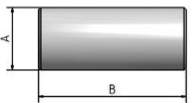
- Waterblast:** Heat exchanger tube cleaning
- Hydraulics:** Pressure test equipment (valves, tooling and control panels), hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools)

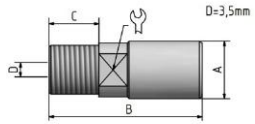


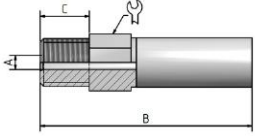
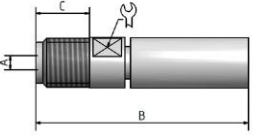
## Technical Information

- Inner Core:** Polyoxymethylene (POM)
- Pressure Support:** 2 layers of high-tensile steel wire
- Outer Cover:** Polyamide (PA)
- Color:** Green
- Temperature:** -30°C to +70°C [-22°F to 158°F]

Ø ID	Ø OD	Working Pressure -- (SF 2.5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
5,0 mm	9,4 mm	--	1.040 bar	95 mm	0,125 kg/m	3,0 mm
0,20 inch	0,37 inch	--	15.080 psi	3,74 inch	0,084 lbs/ft	0,12 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	W	
10520101	-	Steel	12,9	38,2	-	-	


Part no.	Thread	Material	Hose part	Dimensions (mm)				OnePiece Fittings®WS
				A	B	C	W	
<b>OnePiece Fittings® with wrench size</b>								
30520441Q	1/8"x27NPTF	Steel	30520442/1Q	11,4	39	10	9	


Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	W	
<b>Male fitting</b>								
30520401A	1/8"x27NPTF	Steel	-	3	56	10	10	
30520451A	1/4"x18NPTF	Steel	-	3	64	14	12	
30520301A	G1/8"	Steel	-	3	60	10	9	
30520321A	G1/4"	Steel	-	3	58	12	14	
30520011A	M7	Steel	-	3	57,5	10	9	
30520041A	M10x1	Steel	-	3	61,5	12	12	
<b>Male fitting flat seal</b>								
30520381A	G1/8"	Steel	-	3	61	13	9	
30520021A	M8x1,25	Steel	-	3	60	12	8	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>Female swivel 24°/60°</b>								
20520301A	G1/4"	Steel	50540301, 50540305	3	54	-	19	
20520101A	M14x1,5	Steel	50540101	3	54	-	19	
<b>Female swivel with O-Ring</b>								
20520042A	M24x1,5	Steel	51321206	3	72	-	32	
<b>Type M female swivel</b>								
20520601A	9/16"x18UNF	Steel	50540601, 50540605	3	54	-	19	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	⌀	
<b>Swivel nut</b>								
50540601	9/16"x18UNF	Steel	1 radial	9,2	18	14	19	
50540605	9/16"x18UNF	AISI 316Ti	1 radial	9,2	18	14	19	
50540301	G1/4"	Steel	1 radial	9,2	16,5	8,5	19	
50540305	G1/4"	AISI 316Ti	1 radial	9,2	16,5	8,5	19	
50540101	M14x1,5	Steel	1 radial	9,2	16,5	8,5	19	
51321206	M24x1,5	Steel	2 axial	16,8	23	16	32	
51320205	M24x1,5	AISI 316Ti	1 radial	16,8	23	16	32	



Part no.	Material	Crimp ring	Dimensions (mm)		Bend restrictor
			Ø	Length	
<b>Rubber bend restrictor</b>					
1.9518400	Rubber	1003035	34	130	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
9034400	600,00	740,00	6,60	6-10	

Accessories combinations				
Without hose protection				
Description	Bend restrictor	Crimp ring	Securing grips	
Bend restrictor	1.9518400	1003035	-	
Securing grip	-	-	9034400	
Bend restrictor and securing grip	-	-	-	

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

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# Hose Type 5/2H-1400

52H076.1400



DuraLife Flex ®

ID5 - Series: A and Q

## Applications

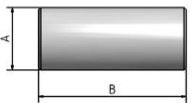
- Waterblast:** Heat exchanger tube cleaning
- Hydraulics:** Pressure test equipment (valves, tooling and control panels), hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools)

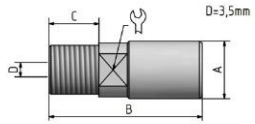


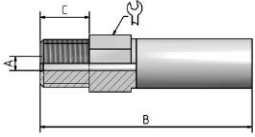
## Technical Information

- Inner Core:** Polyoxymethylene (POM)
- Pressure Support:** 2 layers of high-tensile steel wire
- Outer Cover:** Polyamide (PA)
- Color:** Red
- Temperature:** -30°C to +70°C [-22°F to 158°F]

Ø ID	Ø OD	Working Pressure -- (SF 2.5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
4,9 mm	9,5 mm	--	1.400 bar	95 mm	0,148 kg/m	3,0 mm
0,19 inch	0,37 inch	--	20.300 psi	3,74 inch	0,099 lbs/ft	0,12 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⌀	
<b>Sleeve</b>							
10520101	-	Steel	12,9	38,2	-	-	

Part no.	Thread	Material	Hose part	Dimensions (mm)				OnePiece Fittings®WS
				A	B	C	⌀	
<b>OnePiece Fittings® with wrench size</b>								
30520441Q	1/8"x27NPTF	Steel	30520442/1Q	11,4	39	10	9	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>Male fitting</b>								
30520401A	1/8"x27NPTF	Steel	-	3	56	10	10	
30520451A	1/4"x18NPTF	Steel	-	3	64	14	12	
30520301A	G1/8"	Steel	-	3	60	10	9	
30520321A	G1/4"	Steel	-	3	58	12	14	
30520011A	M7	Steel	-	3	57,5	10	9	
30520041A	M10x1	Steel	-	3	61,5	12	12	

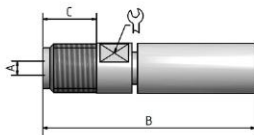
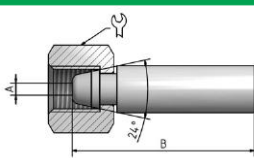
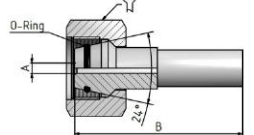
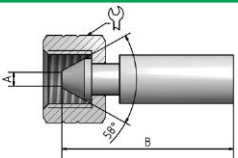
# Hose Type 5/2H-I400

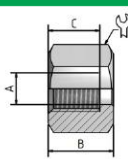
52H076.1400

**SPIR STAR®**

DuraLife Flex®

ID5 - Series: A and Q

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>Male fitting flat seal</b>								
30520381A	G1/8"	Steel	-	3	61	13	9	
30520021A	M8x1,25	Steel	-	3	60	12	8	
<b>Female swivel 24°/60°</b>								
20520301A	G1/4"	Steel	50540301, 50540305	3	54	-	19	
20520101A	M14x1,5	Steel	50540101	3	54	-	19	
<b>Female swivel with O-Ring</b>								
20520042A	M24x1,5	Steel	51321206	3	72	-	32	
<b>Type M female swivel</b>								
20520601A	9/16"x18UNF	Steel	50540601, 50540605	3	54	-	19	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	⌀	
<b>Swivel nut</b>								
50540601	9/16"x18UNF	Steel	1 radial	9,2	18	14	19	
50540605	9/16"x18UNF	AISI 316Ti	1 radial	9,2	18	14	19	
50540301	G1/4"	Steel	1 radial	9,2	16,5	8,5	19	
50540305	G1/4"	AISI 316Ti	1 radial	9,2	16,5	8,5	19	
50540101	M14x1,5	Steel	1 radial	9,2	16,5	8,5	19	
51321206	M24x1,5	Steel	2 axial	16,8	23	16	32	
51320205	M24x1,5	AISI 316Ti	1 radial	16,8	23	16	32	


# Hose Type 5/2H-I 400


52H076.1400

**SPIR STAR®**

DuraLife Flex®

ID5 - Series: A and Q

Part no.	Material	Crimp ring	Dimensions (mm)		Bend restrictor
			Ø	Length	
<b>Rubber bend restrictor</b>					
1.9518400	Rubber	1003035	34	130	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
9034400	600,00	740,00	6,60	6-10	

Accessories combinations				
Without hose protection				
Description	Bend restrictor	Crimp ring	Securing grips	
Bend restrictor	1.9518400	1003035	-	
Securing grip	-	-	9034400	
Bend restrictor and securing grip	-	-	-	

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

\*) Blast-Pro® fittings may only be used for tube cleaning operations inside the tube. They have not been designed for the use outside of tubes.

We reserve our rights for technical changes without notice. Subject to printing errors.



## Applications

- Waterblast:** Heat exchanger tube cleaning
- Hydraulics:** Pressure test equipment (valves, tooling and control panels), hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools)

## Technical Information

- Inner Core:** Polyoxymethylene (POM)
- Pressure Support:** 2 layers of high-tensile steel wire
- Outer Cover:** Polyamide (PA) in green
- Color:** 1 braided layer of stainless steel wire
- Temperature:** -30°C to +60°C [-22°F to 140°F]

Ø ID	Ø OD	Working Pressure	Burst Pressure	Bend Radius	Weight	Insert ID
5,0 mm	10,8 mm	-- (SF 2.5:1)	1.040 bar	95 mm	0,220 kg/m	3,5 mm
0,20 inch	0,43 inch	--	15.080 psi	3,74 inch	0,147 lbs/ft	0,14 inch

Part no.	Thread	Material	Hose part	Dimensions (mm)			OnePiece Fittings®WS
				A	B	C	
<b>OnePiece Fittings® with wrench size</b>							
30530451KQ	1/8"x27NPTF	Steel	30520442/1Q	13,3	39	10	9

Part no.	Thread	Material	Hose part	Dimensions (mm)				OnePiece Fittings®
				A	B	C	D	
<b>OnePiece Fittings®</b>								
30530451KX	1/8"x27NPTF	Steel	30520442/1X	3,5	31	10	13,3	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
<b>Hose securing grip short version</b>					
9056400	600,00	740,00	10,20	10-15	

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.  
 The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.  
 Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.  
 The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.  
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# Hose Type 5/3

53070

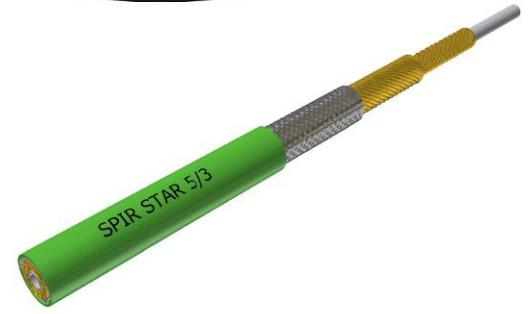
**SPiR STAR®**

DuraLife Flex®

ID5 - Series: A and Q

## Applications

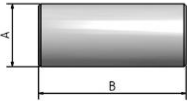
- Waterblast:** Heat exchanger tube cleaning
- Hydraulics:** Pressure test equipment (valves, tooling and control panels), hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools)

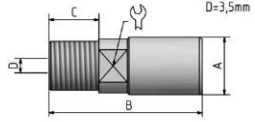


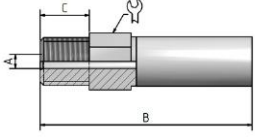
## Technical Information

- Inner Core:** Polyoxymethylene (POM)
- Pressure Support:** 2 layers of high-tensile steel wire, 1 braided layer of galvanized steel wire
- Outer Cover:** Polyamide (PA)
- Color:** Green
- Temperature:** -30°C to +60°C [-22°F to 140°F]

Ø ID	Ø OD	Working Pressure -- (SF 2,5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
5,0 mm	10,3 mm	--	1.120 bar	2.800 bar	95 mm	0,218 kg/m
0,20 inch	0,41 inch	--	16.240 psi	40.600 psi	3,74 inch	0,146 lbs/ft

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⌀	
10530111	-	Steel	12,9	39,5	-	-	

Part no.	Thread	Material	Hose part	Dimensions (mm)				OnePiece Fittings®WS
				A	B	C	⌀	
30530441Q	1/8"x27NPTF	Steel	30520442/1Q	12,2	39	10	9	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
30520401A	1/8"x27NPTF	Steel	-	3	56	10	10	
30520451A	1/4"x18NPTF	Steel	-	3	64	14	12	
30520301A	G1/8"	Steel	-	3	60	10	9	
30520321A	G1/4"	Steel	-	3	58	12	14	
30520011A	M7	Steel	-	3	57,5	10	9	
30520041A	M10x1	Steel	-	3	61,5	12	12	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	Ø	
<b>Male fitting flat seal</b>								
30520381A	G1/8"	Steel	-	3	61	13	9	
30520021A	M8x1,25	Steel	-	3	60	12	8	
<b>Female swivel 24°/60°</b>								
20520301A	G1/4"	Steel	50540301, 50540305	3	54	-	19	
20520101A	M14x1,5	Steel	50540101	3	54	-	19	
<b>Female swivel with O-Ring</b>								
20520042A	M24x1,5	Steel	51321206	3	72	-	32	
<b>Type M female swivel</b>								
20520601A	9/16"x18UNF	Steel	50540601, 50540605	3	54	-	19	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	Ø	
<b>Swivel nut</b>								
50540601	9/16"x18UNF	Steel	1 radial	9,2	18	14	19	
50540605	9/16"x18UNF	AISI 316Ti	1 radial	9,2	18	14	19	
50540301	G1/4"	Steel	1 radial	9,2	16,5	8,5	19	
50540305	G1/4"	AISI 316Ti	1 radial	9,2	16,5	8,5	19	
50540101	M14x1,5	Steel	1 radial	9,2	16,5	8,5	19	
51321206	M24x1,5	Steel	2 axial	16,8	23	16	32	
51320205	M24x1,5	AISI 316Ti	1 radial	16,8	23	16	32	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
<b>Hose securing grip short version</b>					
9056400	600,00	740,00	10,20	10-15	

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.  
 The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.  
 Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.  
 The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.  
 \*) Blast-Pro® fittings may only be used for tube cleaning operations inside the tube. They have not been designed for the use outside of tubes.  
 We reserve our rights for technical changes without notice. Subject to printing errors.



## Applications

- Waterblast:** Heat exchanger tube cleaning
- Hydraulics:** Bolt tensioning, pressure test equipment (valves, tooling and control panels), hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools)
- Oil and Gas:** Grease injection, chemical injection, control of subsea hydraulic components, nitrogen service, Gaseous media handling



## Technical Information

- Inner Core:** Polyoxymethylene (POM)
- Pressure Support:** 4 layers of high-tensile steel wire
- Outer Cover:** Polyamide (PA)
- Color:** Grey
- Temperature:** -30°C to +70°C [-22°F to 158°F]

Ø ID	Ø OD	Working Pressure -- (SF 2.5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
5,0 mm	11,2 mm	--	1.800 bar	150 mm	0,260 kg/m	2,5 mm
0,20 inch	0,44 inch	--	26.100 psi	5,91 inch	0,174 lbs/ft	0,10 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⌀	
<b>Sleeve</b>							
10540101	-	Steel	15	49,5	-	-	
10540105	-	AISI 316Ti	15	47,9	-	-	
<b>Blast-Pro® sleeve</b>							
10540232	-	Steel	12,4	24	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>HP fitting</b>								
40540211B	1/4"x28UNF LH	Steel	-	2,5	83	14	-	
40540215B	1/4"x28UNF LH	AISI 316Ti	-	2,5	83	14	-	
40540205B	3/8"x24UNF LH	AISI 316Ti	-	2,5	90	20	-	
40540225B	9/16"x18UNF LH	AISI 316Ti	-	2,5	103	24	-	


Part no.	Thread	Material	Sleeve	Dimensions (mm)				Blast-Pro® Insert*
				A	B	C	Ø	
<b>Blast-Pro® HP fitting</b>								
40540234Y	1/4"x28UNF LH	Stainless steel	10540232	3	45	16	10	
40540214Y	3/8"x24UNF LH	Stainless steel	10540232	3	50	22	10	
<b>Blast-Pro® HP female</b>								
40540254Y	1/4"x28UNF LH	Stainless steel	10540232	3	44	9	8	


Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	Ø	
<b>Male fitting</b>								
30540401B	1/4"x18NPTF	Steel	-	2,5	71	14	14	
<b>Male fitting 60° internal cone</b>								
30540301B	G1/4"	Steel	-	2,5	70	12	14	
<b>Male fitting 100° external cone</b>								
30540361B	G1/4"	Steel	-	2,5	76	18	17	
<b>Male fitting for USIT® Ring</b>								
30540351B	G1/4"	Steel	-	2,5	68,5	11	22	
<b>Female swivel 24°/60°</b>								
20540301B	G1/4"	Steel	50540301	2,5	62	-	19	
20540305B	G1/4"	AISI 316Ti	50540305	2,5	62	-	19	
20540101B	M14x1,5	Steel	50540101	2,5	62	-	19	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>Female swivel with O-Ring</b>								
20540041B	M20x1,5	Steel	50860201	2,5	77	-	27	
<b>Type M female swivel</b>								
20540641B	9/16"x18UNF	Steel	50540601	2,5	64	-	19	
20540645B	9/16"x18UNF	AISI 316Ti	50540605	2,5	64	-	19	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	⌀	
<b>Swivel nut</b>								
50540601	9/16"x18UNF	Steel	1 radial	9,2	18	14	19	
50540605	9/16"x18UNF	AISI 316Ti	1 radial	9,2	18	14	19	
50540301	G1/4"	Steel	1 radial	9,2	16,5	8,5	19	
50540305	G1/4"	AISI 316Ti	1 radial	9,2	16,5	8,5	19	
50540101	M14x1,5	Steel	1 radial	9,2	16,5	8,5	19	
50860201	M20x1,5	Steel	1 radial	12,2	22	12	27	



Part no.	Size (mm)	Material	Crimp ring	Hose protection
<b>Hose protection without spiral</b>				
I.901621	ID Ø16, OD Ø21	PVC	1002224	
I.901822	ID Ø18, OD Ø22	PVC	-	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
<b>Hose securing grip short version</b>					
9056400	600,00	740,00	10,20	10-15	

<b>Accessories combinations</b>					
<b>Without hose protection</b>					
Description		Bend restrictor	Crimp ring	Securing grips	
Securing grip		-	-	9056400	
<b>Hose protection without spiral</b>					
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips	
Protection hose	I.901621	-	1002224	-	
with securing grip	I.901822	-	-	9056400	

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

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## Applications

### Waterblast:

Heat exchanger tube cleaning, surface preparation (concrete removal, surface cleaning of buildings, paint removal), tank and vessel cleaning, ultra high-pressure waterjet cutting and hydro demolition (cutting and demolition of armoured concrete, pipelines, paper or steel)

### Hydraulics:

Bolt tensioning, pressure test equipment (valves, tooling and control panels), hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools)



## Technical Information

**Inner Core:** Polyoxymethylene (POM)  
**Pressure Support:** 6 layers of high-tensile steel wire  
**Outer Cover:** Polyamide (PA)  
**Color:** Blue  
**Temperature:** -30°C to +70°C [-22°F to 158°F]

Ø ID	Ø OD	Working Pressure -- (SF 2,5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
4,8 mm	13,2 mm	--	2.500 bar	200 mm	0,450 kg/m	2,5 mm
0,19 inch	0,52 inch	--	36.250 psi	7,87 inch	0,302 lbs/ft	0,10 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⌀	
<b>Sleeve</b>							
10560136	-	Steel	17,8	68	-	-	
10560135	-	AISI 316Ti	17,8	68,1	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>HP fitting</b>								
40560294E	1/4"x28UNF LH	Stainless steel	-	2,5	103	14	-	
40560284E	3/8"x24UNF LH	Stainless steel	-	2,5	112	20	-	
40560264E	9/16"x18UNF LH	Stainless steel	-	2,5	124	24	-	
40560274E	M14x1,5 LH	Stainless steel	-	2,5	124	24	-	
<b>Female swivel 24°/60°</b>								
20560314E	G1/4"	Stainless steel	50560301	2,5	84	-	22	
20560164E	M14x1,5	Stainless steel	50540101	2,5	84	-	19	



Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	Ø	
<b>Type M female swivel</b>								
20560694E	9/16"x18UNF	Stainless steel	50560605, 50560601	2,5	85	-	22	

<b>HP female swivel</b>								
20560614E	9/16"x18UNF	Stainless steel	50560605, 50560601	2,5	79	-	22	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	Ø	
<b>Swivel nut</b>								
50560601	9/16"x18UNF	Steel	1 radial	9,2	18	14	22	
50560605	9/16"x18UNF	AISI 316Ti	1 radial	9,2	18	14	22	
50560301	G1/4"	Steel	1 radial	9,2	19	11	22	
50540101	M14x1,5	Steel	1 radial	9,2	16,5	8,5	19	

Part no.	Size (mm)	Material	Crimp ring	Hose protection			
				<b>Hose protection without spiral</b>			
1.901822	ID Ø18, OD Ø22	PVC	1002426				
1.902228	ID Ø22, OD Ø28	PVC	-				
1.902531	ID Ø25, OD Ø31	PVC	-				
<b>Hose protection with spiral</b>							
1.912026	ID Ø19, OD Ø26	PVC	1003035				
1.912229	ID Ø22, OD Ø35	PVC	-				
1.912532	ID Ø25, OD Ø32	PVC	-				

Part no.	Material	Crimp ring	Dimensions (mm)		Bend restrictor
			Ø	Length	
<b>PU bend restrictor</b>					
1.9518306A	PU	1003035	34	250	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
<b>Hose securing grip short version</b>					
9056400	600,00	740,00	10,20	10-15	
<b>Hose securing grip long version</b>					
905640L	600,00	990,00	10,20	10-15	

<b>Accessories combinations</b>				
<b>Without hose protection</b>				
Description	Bend restrictor	Crimp ring	Securing grips	
Bend restrictor	1.9518306A	1003035	-	
Securing grip	-	-	9056400	
Bend restrictor and securing grip	1.9518306A	1003035	905640L	
<b>Hose protection without spiral</b>				
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips
Protection hose	1.901822	-	1002426	-
with bend restrictor	1.902531	1.9518306A	1003035	-
with securing grip	1.902228	-	-	9056400
with bend restrictor and securing grip	1.902531	1.9518306A	1003035	905640L
<b>Hose protection with spiral</b>				
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips
Protection hose	1.912026	-	1003035	-
with bend restrictor	1.912532	1.9518306A	1003035	-
with securing grip	1.912229	-	-	9056400
with bend restrictor and securing grip	1.912532	1.9518306A	1003035	905640L

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked. Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

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## Applications

### Waterblast:

Heat exchanger tube cleaning, surface preparation (concrete removal, surface cleaning of buildings, paint removal), tank and vessel cleaning, ultra high-pressure waterjet cutting and hydro demolition (cutting and demolition of armoured concrete, pipelines, paper or steel)

### Hydraulics:

Bolt tensioning, pressure test equipment (valves, tooling and control panels), hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools)



## Technical Information

### Inner Core:

Polyoxymethylene (POM)

### Pressure Support:

6 layers of high-tensile steel wire

### Outer Cover:

Polyamide (PA)

### Color:

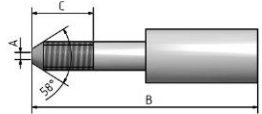
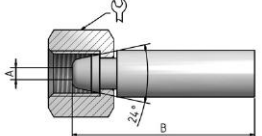
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### Temperature:

-30°C to +60°C [-22°F to 140°F]

Ø ID	Ø OD	Working Pressure -- (SF 2,5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
4,6 mm	14,4 mm	--	2.800 bar	220 mm	0,563 kg/m	2,5 mm
0,18 inch	0,57 inch	--	40.600 psi	8,66 inch	0,377 lbs/ft	0,10 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⌀	
<b>Sleeve</b>							
10560116	-	Steel	17,9	67,4	-	-	


Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>HP fitting</b>								
40560294E	1/4"x28UNF LH	Stainless steel	-	2,5	103	14	-	
40560284E	3/8"x24UNF LH	Stainless steel	-	2,5	112	20	-	
40560264E	9/16"x18UNF LH	Stainless steel	-	2,5	124	24	-	
40560274E	M14x1,5 LH	Stainless steel	-	2,5	124	24	-	
<b>Female swivel 24°/60°</b>								
20560314E	G1/4"	Stainless steel	50560301	2,5	84	-	22	
20560164E	M14x1,5	Stainless steel	50540101	2,5	84	-	19	





Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>Type M female swivel</b>								
20560694E	9/16"x18UNF	Stainless steel	50560605, 50560601	2,5	85	-	22	
<b>HP female swivel</b>								
20560614E	9/16"x18UNF	Stainless steel	50560605, 50560601	2,5	79	-	22	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	⌀	
<b>Swivel nut</b>								
50560601	9/16"x18UNF	Steel	1 radial	9,2	18	14	22	
50560605	9/16"x18UNF	AISI 316Ti	1 radial	9,2	18	14	22	
50560301	G1/4"	Steel	1 radial	9,2	19	11	22	
50540101	M14x1,5	Steel	1 radial	9,2	16,5	8,5	19	

Part no.	Size (mm)	Material	Crimp ring	Hose protection
<b>Hose protection without spiral</b>				
1.902026	ID Ø20, OD Ø26	PVC	1002729	
1.902228	ID Ø22, OD Ø28	PVC	-	
1.902531	ID Ø25, OD Ø31	PVC	-	
<b>Hose protection with spiral</b>				
1.912229	ID Ø22, OD Ø35	PVC	1003035	
1.912532	ID Ø25, OD Ø32	PVC	-	

Part no.	Material	Crimp ring	Dimensions (mm)		Bend restrictor
			Ø	Length	
<b>PU bend restrictor</b>					
1.9518306B	PU	1003035	34	250	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
9056400	600,00	740,00	10,20	10-15	
<b>Hose securing grip long version</b>					
905640L	600,00	990,00	10,20	10-15	

Accessories combinations					
<b>Without hose protection</b>					
Description	Bend restrictor	Crimp ring	Securing grips		
Bend restrictor	1.9518306B	1003035	-		
Securing grip	-	-	9056400		
Bend restrictor and securing grip	1.9518306B	1003035	905640L		
<b>Hose protection without spiral</b>					
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips	
Protection hose	1.902026	-	1002729	-	
with bend restrictor	1.902531	1.9518306B	1003035	-	
with securing grip	1.902228	-	-	9056400	
with bend restrictor and securing grip	1.902531	1.9518306B	1003035	905640L	
<b>Hose protection with spiral</b>					
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips	
Protection hose	1.912229	-	1003035	-	
with bend restrictor	1.912532	1.9518306B	1003035	-	
with securing grip	1.912229	-	-	9056400	
with bend restrictor and securing grip	1.912532	1.9518306B	1003035	905640L	

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

\*) Blast-Pro® fittings may only be used for tube cleaning operations inside the tube. They have not been designed for the use outside of tubes.

We reserve our rights for technical changes without notice. Subject to printing errors.



## Applications

### Waterblast:

Heat exchanger tube cleaning, surface preparation (concrete removal, surface cleaning of buildings, paint removal), tank and vessel cleaning, ultra high-pressure waterjet cutting and hydro demolition (cutting and demolition of armoured concrete, pipelines, paper or steel)

### Hydraulics:

Bolt tensioning, pressure test equipment (valves, tooling and control panels), hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools)



## Technical Information

### Inner Core:

Polyoxymethylene (POM)

### Pressure Support:

6 layers of high-tensile steel wire

### Outer Cover:

First: Polyamide (PA), Second: Polyurethane (TPU)

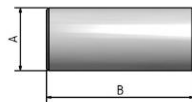
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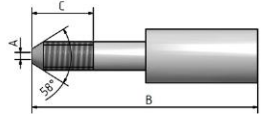
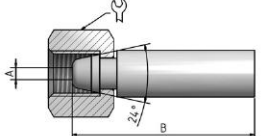
First: red, second: green

### Temperature:

-30°C to +60°C [-22°F to 140°F]

Ø ID	Ø OD	Working Pressure -- (SF 2,5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
4,6 mm	18,4 mm	--	2.800 bar	220 mm	0,687 kg/m	2,5 mm
0,18 inch	0,72 inch	--	40.600 psi	8,66 inch	0,460 lbs/ft	0,10 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⌀	
<b>Sleeve</b>							
10560116	-	Steel	17,9	67,4	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>HP fitting</b>								
40560294E	1/4"x28UNF LH	Stainless steel	-	2,5	103	14	-	
40560284E	3/8"x24UNF LH	Stainless steel	-	2,5	112	20	-	
40560264E	9/16"x18UNF LH	Stainless steel	-	2,5	124	24	-	
40560274E	M14x1,5 LH	Stainless steel	-	2,5	124	24	-	
<b>Female swivel 24°/60°</b>								
20560314E	G1/4"	Stainless steel	50560301	2,5	84	-	22	
20560164E	M14x1,5	Stainless steel	50540101	2,5	84	-	19	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>Type M female swivel</b>								
20560694E	9/16"x18UNF	Stainless steel	50560605, 50560601	2,5	85	-	22	
<b>HP female swivel</b>								
20560614E	9/16"x18UNF	Stainless steel	50560605, 50560601	2,5	79	-	22	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	⌀	
<b>Swivel nut</b>								
50560601	9/16"x18UNF	Steel	1 radial	9,2	18	14	22	
50560605	9/16"x18UNF	AISI 316Ti	1 radial	9,2	18	14	22	
50560301	G1/4"	Steel	1 radial	9,2	19	11	22	
50540101	M14x1,5	Steel	1 radial	9,2	16,5	8,5	19	

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

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# Hose Type 5/6UHP-X-3035

56UHP079-X.3035

**SPIR STAR®**

ID5 - Series: E

## Applications

### Waterblast:

Heat exchanger tube cleaning, surface preparation (concrete removal, surface cleaning of buildings, paint removal), tank and vessel cleaning, ultra high-pressure waterjet cutting and hydro demolition (cutting and demolition of armoured concrete, pipelines, paper or steel)

### Hydraulics:

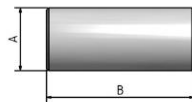
Bolt tensioning, pressure test equipment (valves, tooling and control panels), hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools)

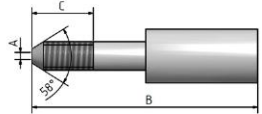
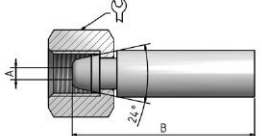


## Technical Information

- Inner Core:** Polyoxymethylene (POM)
- Pressure Support:** 6 layers of high-tensile steel wire
- Outer Cover:** Polyamide (PA)
- Color:** Chrome yellow
- Temperature:** -30°C to +70°C [-22°F to 158°F]

Ø ID	Ø OD	Working Pressure -- (SF 2,3:1)	Burst Pressure	Bend Radius	Weight	Insert ID
4,8 mm	13,3 mm	--	3.035 bar	210 mm	0,450 kg/m	2,5 mm
0,19 inch	0,52 inch	--	44.000 psi	8,27 inch	0,302 lbs/ft	0,10 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⌀	
<b>Sleeve</b>							
10560136	-	Steel	17,8	68	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>HP fitting</b>								
40560294E	1/4"x28UNF LH	Stainless steel	-	2,5	103	14	-	
40560284E	3/8"x24UNF LH	Stainless steel	-	2,5	112	20	-	
40560264E	9/16"x18UNF LH	Stainless steel	-	2,5	124	24	-	
40560274E	M14x1,5 LH	Stainless steel	-	2,5	124	24	-	
<b>Female swivel 24°/60°</b>								
20560314E	G1/4"	Stainless steel	50560301	2,5	84	-	22	
20560164E	M14x1,5	Stainless steel	50540101	2,5	84	-	19	



Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	Ø	
<b>Type M female swivel</b>								
20560694E	9/16"x18UNF	Stainless steel	50560605, 50560601	2,5	85	-	22	

<b>HP female swivel</b>								
20560614E	9/16"x18UNF	Stainless steel	50560605, 50560601	2,5	79	-	22	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	Ø	
<b>Swivel nut</b>								
50560601	9/16"x18UNF	Steel	1 radial	9,2	18	14	22	
50560605	9/16"x18UNF	AISI 316Ti	1 radial	9,2	18	14	22	
50560301	G1/4"	Steel	1 radial	9,2	19	11	22	
50540101	M14x1,5	Steel	1 radial	9,2	16,5	8,5	19	

Part no.	Size (mm)	Material	Crimp ring	Hose protection			
<b>Hose protection without spiral</b>							
1.901822	ID Ø18, OD Ø22	PVC	1002426				
1.902228	ID Ø22, OD Ø28	PVC	-				
1.902531	ID Ø25, OD Ø31	PVC	-				
<b>Hose protection with spiral</b>							
1.912026	ID Ø19, OD Ø26	PVC	1003035				
1.912229	ID Ø22, OD Ø35	PVC	-				
1.912532	ID Ø25, OD Ø32	PVC	-				

Part no.	Material	Crimp ring	Dimensions (mm)		Bend restrictor
			Ø	Length	
<b>PU bend restrictor</b>					
1.9518306A	PU	1003035	34	250	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
<b>Hose securing grip short version</b>					
9056400	600,00	740,00	10,20	10-15	
<b>Hose securing grip long version</b>					
905640L	600,00	990,00	10,20	10-15	

<b>Accessories combinations</b>				
<b>Without hose protection</b>				
Description	Bend restrictor	Crimp ring	Securing grips	
Bend restrictor	1.9518306A	1003035	-	
Securing grip	-	-	9056400	
Bend restrictor and securing grip	1.9518306A	1003035	905640L	
<b>Hose protection without spiral</b>				
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips
Protection hose	1.901822	-	1002426	-
with bend restrictor	1.902531	1.9518306A	1003035	-
with securing grip	1.902228	-	-	9056400
with bend restrictor and securing grip	1.902531	1.9518306A	1003035	905640L
<b>Hose protection with spiral</b>				
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips
Protection hose	1.912026	-	1003035	-
with bend restrictor	1.912532	1.9518306A	1003035	-
with securing grip	1.912229	-	-	9056400
with bend restrictor and securing grip	1.912532	1.9518306A	1003035	905640L

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

\*) Blast-Pro® fittings may only be used for tube cleaning operations inside the tube. They have not been designed for the use outside of tubes.

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## Applications

- Waterblast:** Surface preparation (concrete removal, surface cleaning of buildings, paint removal), tank and vessel cleaning, ultra high-pressure waterjet cutting and hydro demolition (cutting and demolition of armoured concrete, pipelines, paper or steel)
- Hydraulics:** Pressure test equipment (valves, tooling and control panels), hydroforming



## Technical Information

- Inner Core:** Polyoxymethylene (POM)
- Pressure Support:** 8 layers of high-tensile steel wire
- Outer Cover:** Polyamide (PA)
- Color:** Chrome yellow
- Temperature:** -30°C to +60°C [-22°F to 140°F]

Ø ID	Ø OD	Working Pressure -- (SF 2,5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
4,5 mm	15,3 mm	--	3.200 bar	250 mm	0,693 kg/m	2,5 mm
0,18 inch	0,60 inch	--	46.400 psi	9,84 inch	0,464 lbs/ft	0,10 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⌀	
<b>Sleeve</b>							
10580116	-	Steel	19,7	68,8	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>HP fitting</b>								
40560294E	1/4"x28UNF LH	Stainless steel	-	2,5	103	14	-	
40560284E	3/8"x24UNF LH	Stainless steel	-	2,5	112	20	-	
40560264E	9/16"x18UNF LH	Stainless steel	-	2,5	124	24	-	
40560274E	M14x1,5 LH	Stainless steel	-	2,5	124	24	-	
<b>Female swivel 24°/60°</b>								
20560314E	G1/4"	Stainless steel	50560301	2,5	84	-	22	
20560164E	M14x1,5	Stainless steel	50540101	2,5	84	-	19	



Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	Ø	
<b>Type M female swivel</b>								
20560694E	9/16"x18UNF	Stainless steel	50560605, 50560601	2,5	85	-	22	



<b>HP female swivel</b>								
20560614E	9/16"x18UNF	Stainless steel	50560605, 50560601	2,5	79	-	22	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	Ø	
<b>Swivel nut</b>								
50560601	9/16"x18UNF	Steel	1 radial	9,2	18	14	22	
50560605	9/16"x18UNF	AISI 316Ti	1 radial	9,2	18	14	22	
50560301	G1/4"	Steel	1 radial	9,2	19	11	22	
50540101	M14x1,5	Steel	1 radial	9,2	16,5	8,5	19	

Part no.	Material	Crimp ring	Dimensions (mm)		Bend restrictor
			Ø	Length	
<b>PU bend restrictor</b>					
1.9518306C	PU	1003035	34	250	

Part no.	Size (mm)	Material	Crimp ring	Hose protection
1.902228	ID Ø22, OD Ø28	PVC	1002830	
1.902531	ID Ø25, OD Ø31	PVC	-	

Part no.	Size (mm)	Material	Crimp ring	Hose protection with spiral
1.912229	ID Ø22, OD Ø35	PVC	1003035	
1.912532	ID Ø25, OD Ø32	PVC	-	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
<b>Hose securing grip short version</b>					
9086400	600,00	780,00	20,40	15-20	
<b>Hose securing grip long version</b>					
908640L	600,00	990,00	20,40	15-20	

## Accessories combinations

<b>Without hose protection</b>				
Description	Bend restrictor	Crimp ring	Securing grips	
Bend restrictor	1.9518306C	1003035	-	
Securing grip	-	-	9086400	
Bend restrictor and securing grip	1.9518306C	1003035	908640L	
<b>Hose protection without spiral</b>				
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips
Protection hose	1.902228	-	1002830	-
with bend restrictor	1.902531	1.9518306C	1003035	-
with securing grip	1.902531	-	-	9086400
with bend restrictor and securing grip	1.902531	1.9518306C	1003035	908640L
<b>Hose protection with spiral</b>				
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips
Protection hose	1.912229	-	1003035	-
with bend restrictor	1.912532	1.9518306C	1003035	-
with securing grip	1.912532	-	-	9086400
with bend restrictor and securing grip	1.912532	1.9518306C	1003035	908640L

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

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# Hose Type 6/2

62070



DuraLife Flex ®

ID6 - Series: A and Q

## Applications

- Waterblast:** Heat exchanger tube cleaning
- Hydraulics:** Pressure test equipment (valves, tooling and control panels), hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools)



## Technical Information

- Inner Core:** Polyoxymethylene (POM)
- Pressure Support:** 2 layers of high-tensile steel wire
- Outer Cover:** Polyamide (PA)
- Color:** Green
- Temperature:** -30°C to +70°C [-22°F to 158°F]

Ø ID	Ø OD	Working Pressure -- (SF 2.5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
6,3 mm	11,5 mm	--	1.000 bar	110 mm	0,175 kg/m	4,0 mm
0,25 inch	0,45 inch	--	14.500 psi	4,33 inch	0,117 lbs/ft	0,16 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⌀	
<b>Sleeve</b>							
10620101	-	Steel	13,9	39,6	-	-	
10620105	-	AISI 316Ti	13,9	42	-	-	


Part no.	Thread	Material	Hose part	Dimensions (mm)				OnePiece Fittings® WS
				A	B	C	⌀	
<b>OnePiece Fittings® with wrench size</b>								
30620461Q	1/4"x18NPTF	Steel	30620462/1Q	13,5	43	14	12	
30620361Q	G1/4"	Steel	30620462/1Q	13,5	43	14	12	


Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>HP fitting</b>								
40620205A	9/16"x18UNF LH	AISI 316Ti	-	4	95	24	-	



Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	Ø	
<b>Male fitting</b>								
30620411A	1/8"x27NPTF	Steel	-	4	58	10	12	
30620401A	1/4"x18NPTF	Steel	-	4	68	14	14	
30620405A	1/4"x18NPTF	AISI 316Ti	-	4	68	14	14	
30620451A	3/8"x18NPTF	Steel	-	4	64	14	17	
30620041A	M10x1	Steel	-	4	65	12	12	
30620311A	G1/8"	Steel	-	4	59	10	9	
<b>Male fitting 60° internal cone</b>								
30620341A	G1/4"	Steel	-	4	62,5	12	14	
30620321A	G3/8"	Steel	-	4	60,5	12	17	
<b>Male fitting 100° external cone</b>								
30620361A	G1/4"	Steel	-	4	67	18	17	
<b>Male fitting for USIT® Ring</b>								
30620391A	G1/4"	Steel	-	4	61	11	22	
30620351A	G3/8"	Steel	-	4	61	11	24	
<b>Male fitting flat seal</b>								
30620381A	G1/4"	Steel	-	4	66	15	12	
<b>Male fitting DIN3852 T2 form A</b>								
30620301A	G1/4"	Steel	-	4	64	12	19	
<b>Female fitting NPT/NPTF</b>								
30620441A	1/4"x18NPTF	Steel	-	4	66,5	20	19	
<b>Female swivel 24°/60°</b>								
20620301A	G1/4"	Steel	50540301	4	55	-	19	
20620305A	G1/4"	AISI 316Ti	50540305	4	55	-	19	
20620101A	M14x1,5	Steel	50540101	4	55	-	19	
20620141A	M16x1,5	Steel	50620121	4	56	-	19	
20620145A	M16x1,5	AISI 316Ti	50620125	4	56	-	19	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	Ø	
<b>Female swivel with O-Ring</b>								
20620241A	M18x1,5	Steel	50620201	4	65	-	22	
20620211A	M22x1,5	Steel	51060201, 51060205	4	75	-	30	
20620042A	M24x1,5	Steel	51321206	4	73	-	32	
<b>Type M female swivel</b>								
20620641A	9/16"x18UNF	Steel	50540601, 50560601	4	57	-	19	
20620645A	9/16"x18UNF	AISI 316Ti	50540605, 50560605	4	57	-	19	
<b>JIC female swivel</b>								
S20630615A	9/16"x18UNF	AISI 316Ti	S5063615	4	53	-	19	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	Ø	
<b>Swivel nut</b>								
50540601	9/16"x18UNF	Steel	1 radial	9,2	18	14	19	
50540605	9/16"x18UNF	AISI 316Ti	1 radial	9,2	18	14	19	
S5063615	9/16"x18UNF	AISI 316Ti	1 radial	9,5	18	14	19	
50540301	G1/4"	Steel	1 radial	9,2	16,5	8,5	19	
50540305	G1/4"	AISI 316Ti	1 radial	9,2	16,5	8,5	19	
50540101	M14x1,5	Steel	1 radial	9,2	16,5	8,5	19	
50620121	M16x1,5	Steel	1 radial	9,2	17,5	10	19	
50620125	M16x1,5	AISI 316Ti	1 radial	9,5	17,5	10	19	
50620201	M18x1,5	Steel	1 radial	9,2	22	12	22	
51060201	M22x1,5	Steel	2 axial	14,2	23	14	30	
51060205	M22x1,5	AISI 316Ti	2 axial	14,2	25	14	30	
51321206	M24x1,5	Steel	2 axial	16,8	23	16	32	

Part no.	Size (mm)	Material	Crimp ring	Hose protection
<b>Hose protection without spiral</b>				
1.901418	ID Ø14, OD Ø18	PVC	1001921	
1.901822	ID Ø18, OD Ø22	PVC	-	

Part no.	Material	Crimp ring	Dimensions (mm)		Bend restrictor
			Ø	Length	
<b>Rubber bend restrictor</b>					
1.9518600	Rubber	1003035	34	126	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
<b>Hose securing grip short version</b>					
9056400	600,00	740,00	10,20	10-15	
<b>Hose securing grip long version</b>					
905640L	600,00	990,00	10,20	10-15	

Accessories combinations				
<b>Without hose protection</b>				
Description	Bend restrictor	Crimp ring	Securing grips	
Bend restrictor	1.9518600	1003035	-	
Securing grip	-	-	9056400	
Bend restrictor and securing grip	1.9518600	1003035	905640L	
<b>Hose protection without spiral</b>				
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips
Protection hose	1.901418	-	1001921	-
with bend restrictor	1.901418	1.9518600	1003035	-
with securing grip	1.901822	-	-	9056400
with bend restrictor and securing grip	1.901822	1.9518600	1003035	905640L

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

\*) Blast-Pro® fittings may only be used for tube cleaning operations inside the tube. They have not been designed for the use outside of tubes.

We reserve our rights for technical changes without notice. Subject to printing errors.

# Hose Type 6/2-1100

62070.1100

**SPIR STAR®**

DuraLife Flex®

ID6 - Series: A and Q

## Applications

- Waterblast:** Heat exchanger tube cleaning
- Hydraulics:** Pressure test equipment (valves, tooling and control panels), hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools)



## Technical Information

- Inner Core:** Polyoxymethylene (POM)
- Pressure Support:** 2 layers of high-tensile steel wire
- Outer Cover:** Polyamide (PA)
- Color:** Green
- Temperature:** -30°C to +70°C [-22°F to 158°F]

Ø ID	Ø OD	Working Pressure -- (SF 2.5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
6,3 mm	11,6 mm	--	1.100 bar	110 mm	0,175 kg/m	4,0 mm
0,25 inch	0,46 inch	--	15.950 psi	4,33 inch	0,117 lbs/ft	0,16 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⌀	
<b>Sleeve</b>							
10620101	-	Steel	13,9	39,6	-	-	
10620105	-	AISI 316Ti	13,9	42	-	-	

Part no.	Thread	Material	Hose part	Dimensions (mm)				OnePiece Fittings®WS
				A	B	C	⌀	
<b>OnePiece Fittings® with wrench size</b>								
30620461Q	1/4"x18NPTF	Steel	30620462/1Q	13,5	43	14	12	
30620361Q	G1/4"	Steel	30620462/1Q	13,5	43	14	12	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>HP fitting</b>								
40620205A	9/16"x18UNF LH	AISI 316Ti	-	4	95	24	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	Ø	
<b>Male fitting</b>								
30620411A	1/8"x27NPTF	Steel	-	4	58	10	12	
30620401A	1/4"x18NPTF	Steel	-	4	68	14	14	
30620405A	1/4"x18NPTF	AISI 316Ti	-	4	68	14	14	
30620451A	3/8"x18NPTF	Steel	-	4	64	14	17	
30620041A	M10x1	Steel	-	4	65	12	12	
30620311A	G1/8"	Steel	-	4	59	10	9	
<b>Male fitting 60° internal cone</b>								
30620341A	G1/4"	Steel	-	4	62,5	12	14	
30620321A	G3/8"	Steel	-	4	60,5	12	17	
<b>Male fitting 100° external cone</b>								
30620361A	G1/4"	Steel	-	4	67	18	17	
<b>Male fitting for USIT® Ring</b>								
30620391A	G1/4"	Steel	-	4	61	11	22	
30620351A	G3/8"	Steel	-	4	61	11	24	
<b>Male fitting flat seal</b>								
30620381A	G1/4"	Steel	-	4	66	15	12	
<b>Male fitting DIN3852 T2 form A</b>								
30620301A	G1/4"	Steel	-	4	64	12	19	
<b>Female fitting NPT/NPTF</b>								
30620441A	1/4"x18NPTF	Steel	-	4	66,5	20	19	
<b>Female swivel 24°/60°</b>								
20620301A	G1/4"	Steel	50540301	4	55	-	19	
20620305A	G1/4"	AISI 316Ti	50540305	4	55	-	19	
20620101A	M14x1,5	Steel	50540101	4	55	-	19	
20620141A	M16x1,5	Steel	50620121	4	56	-	19	
20620145A	M16x1,5	AISI 316Ti	50620125	4	56	-	19	



Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	Ø	
<b>Female swivel with O-Ring</b>								
20620241A	M18x1,5	Steel	50620201	4	65	-	22	
20620211A	M22x1,5	Steel	51060201, 51060205	4	75	-	30	
20620042A	M24x1,5	Steel	51321206	4	73	-	32	
<b>Type M female swivel</b>								
20620641A	9/16"x18UNF	Steel	50540601, 50560601	4	57	-	19	
20620645A	9/16"x18UNF	AISI 316Ti	50540605, 50560605	4	57	-	19	
<b>JIC female swivel</b>								
S20630615A	9/16"x18UNF	AISI 316Ti	S5063615	4	53	-	19	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	Ø	
<b>Swivel nut</b>								
50540601	9/16"x18UNF	Steel	1 radial	9,2	18	14	19	
50540605	9/16"x18UNF	AISI 316Ti	1 radial	9,2	18	14	19	
S5063615	9/16"x18UNF	AISI 316Ti	1 radial	9,5	18	14	19	
50540301	G1/4"	Steel	1 radial	9,2	16,5	8,5	19	
50540305	G1/4"	AISI 316Ti	1 radial	9,2	16,5	8,5	19	
50540101	M14x1,5	Steel	1 radial	9,2	16,5	8,5	19	
50620121	M16x1,5	Steel	1 radial	9,2	17,5	10	19	
50620125	M16x1,5	AISI 316Ti	1 radial	9,5	17,5	10	19	
50620201	M18x1,5	Steel	1 radial	9,2	22	12	22	
51060201	M22x1,5	Steel	2 axial	14,2	23	14	30	
51060205	M22x1,5	AISI 316Ti	2 axial	14,2	25	14	30	
51321206	M24x1,5	Steel	2 axial	16,8	23	16	32	


# Hose Type 6/2-1100


62070.1100



**SPIR STAR®**

DuraLife Flex®

ID6 - Series: A and Q

Part no.	Size (mm)	Material	Crimp ring	Hose protection
<b>Hose protection without spiral</b>				
1.901418	ID Ø14, OD Ø18	PVC	1001921	
1.901822	ID Ø18, OD Ø22	PVC	-	

Part no.	Material	Crimp ring	Dimensions (mm)		Bend restrictor
			Ø	Length	
<b>Rubber bend restrictor</b>					
1.9518600	Rubber	1003035	34	126	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
<b>Hose securing grip short version</b>					
9056400	600,00	740,00	10,20	10-15	
<b>Hose securing grip long version</b>					
905640L	600,00	990,00	10,20	10-15	

Accessories combinations				
<b>Without hose protection</b>				
Description	Bend restrictor	Crimp ring	Securing grips	
Bend restrictor	1.9518600	1003035	-	
Securing grip	-	-	9056400	
Bend restrictor and securing grip	1.9518600	1003035	905640L	
<b>Hose protection without spiral</b>				
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips
Protection hose	1.901418	-	1001921	-
with bend restrictor	1.901418	1.9518600	1003035	-
with securing grip	1.901822	-	-	9056400
with bend restrictor and securing grip	1.901822	1.9518600	1003035	905640L

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

\*) Blast-Pro® fittings may only be used for tube cleaning operations inside the tube. They have not been designed for the use outside of tubes.

We reserve our rights for technical changes without notice. Subject to printing errors.

# Hose Type 6/2OK

62OK070

ID6 - Series: KQ

**SPiR STAR®**

## Applications

- Waterblast:** Heat exchanger tube cleaning
- Hydraulics:** Pressure test equipment (valves, tooling and control panels), hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools)

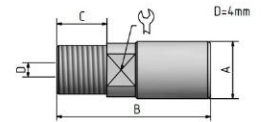



## Technical Information

- Inner Core:** Polyoxymethylene (POM)
- Pressure Support:** 2 layers of high-tensile steel wire
- Outer Cover:** Polyamide (PA) in green
- Color:** 1 braided layer of stainless steel wire
- Temperature:** -30°C to +60°C [-22°F to 140°F]

Ø ID	Ø OD	Working Pressure -- (SF 2.5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
6,2 mm	13,1 mm	--	1.000 bar	110 mm	0,306 kg/m	4,0 mm
0,24 inch	0,52 inch	--	14.500 psi	4,33 inch	0,205 lbs/ft	0,16 inch

Part no.	Thread	Material	Hose part	Dimensions (mm)			OnePiece Fittings® WS
				A	B	C	
<b>OnePiece Fittings® with wrench size</b>							
30630451KQ	1/4"x18NPTF	Steel	30620462/1Q	15	43	14	12



Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
<b>Hose securing grip short version</b>					
9056400	600,00	740,00	10,20	10-15	

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.  
 The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.  
 Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.  
 The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.  
 \*) Blast-Pro® fittings may only be used for tube cleaning operations inside the tube. They have not been designed for the use outside of tubes.  
 We reserve our rights for technical changes without notice. Subject to printing errors.



## Applications

- Hydraulics:** Hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools)
- Oil and Gas:** Grease injection, control of subsea hydraulic components

## Technical Information

- Inner Core:** Polyamide (PA)
- Pressure Support:** 2 layers of high-tensile steel wire  
1 braided layer of steel wire
- Outer Cover:** Polyurethane (TPU)
- Color:** Black
- Temperature:** -30°C to +60°C [-22°F to 140°F]

Ø ID	Ø OD	Working Pressure		Burst Pressure	Bend Radius	Weight	Insert ID
		--	(SF 2.5:1)				
6,2 mm	12,9 mm	--	1.120 bar	2.800 bar	95 mm	0,300 kg/m	4,0 mm
0,24 inch	0,51 inch	--	16.240 psi	40.600 psi	3,74 inch	0,201 lbs/ft	0,16 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⌀	
<b>Sleeve</b>							
10630101	-	Steel	14,1	39,7	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>HP fitting</b>								
40620205A	9/16"x18UNF LH	AISI 316Ti	-	4	95	24	-	

<b>Male fitting</b>							
Part no.	Thread	Material	Nut	A	B	C	⌀
30620411A	1/8"x27NPTF	Steel	-	4	58	10	12
30620401A	1/4"x18NPTF	Steel	-	4	68	14	14
30620405A	1/4"x18NPTF	AISI 316Ti	-	4	68	14	14
30620451A	3/8"x18NPTF	Steel	-	4	64	14	17
30620041A	M10x1	Steel	-	4	65	12	12
30620311A	G1/8"	Steel	-	4	59	10	9

<b>Male fitting 60° internal cone</b>							
Part no.	Thread	Material	Nut	A	B	C	⌀
30620341A	G1/4"	Steel	-	4	62,5	12	14
30620321A	G3/8"	Steel	-	4	60,5	12	17

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	Ø	
<b>Male fitting 100° external cone</b>								
30620361A	G1/4"	Steel	-	4	67	18	17	
<b>Male fitting for USIT® Ring</b>								
30620391A	G1/4"	Steel	-	4	61	11	22	
30620351A	G3/8"	Steel	-	4	61	11	24	
<b>Male fitting flat seal</b>								
30620381A	G1/4"	Steel	-	4	66	15	12	
<b>Male fitting DIN3852 T2 form A</b>								
30620301A	G1/4"	Steel	-	4	64	12	19	
<b>Female fitting NPT/NPTF</b>								
30620441A	1/4"x18NPTF	Steel	-	4	66,5	20	19	
<b>Female swivel 24°/60°</b>								
20620301A	G1/4"	Steel	50540301	4	55	-	19	
20620305A	G1/4"	AISI 316Ti	50540305	4	55	-	19	
20620101A	M14x1,5	Steel	50540101	4	55	-	19	
20620141A	M16x1,5	Steel	50620121	4	56	-	19	
20620145A	M16x1,5	AISI 316Ti	50620125	4	56	-	19	
<b>Female swivel with O-Ring</b>								
20620241A	M18x1,5	Steel	50620201	4	65	-	22	
20620211A	M22x1,5	Steel	51060201, 51060205	4	75	-	30	
20620042A	M24x1,5	Steel	51321206	4	73	-	32	
<b>Type M female swivel</b>								
20620641A	9/16"x18UNF	Steel	50540601, 50560601	4	57	-	19	
20620645A	9/16"x18UNF	AISI 316Ti	50540605, 50560605	4	57	-	19	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	Ø	
<b>JIC female swivel</b>								
S20630615A	9/16"x18UNF	AISI 316Ti	S5063615	4	53	-	19	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	Ø	
<b>Swivel nut</b>								
50540601	9/16"x18UNF	Steel	1 radial	9,2	18	14	19	
50540605	9/16"x18UNF	AISI 316Ti	1 radial	9,2	18	14	19	
S5063615	9/16"x18UNF	AISI 316Ti	1 radial	9,5	18	14	19	
50540301	G1/4"	Steel	1 radial	9,2	16,5	8,5	19	
50540305	G1/4"	AISI 316Ti	1 radial	9,2	16,5	8,5	19	
50540101	M14x1,5	Steel	1 radial	9,2	16,5	8,5	19	
50620121	M16x1,5	Steel	1 radial	9,2	17,5	10	19	
50620125	M16x1,5	AISI 316Ti	1 radial	9,5	17,5	10	19	
50620201	M18x1,5	Steel	1 radial	9,2	22	12	22	
51060201	M22x1,5	Steel	2 axial	14,2	23	14	30	
51060205	M22x1,5	AISI 316Ti	2 axial	14,2	25	14	30	
51321206	M24x1,5	Steel	2 axial	16,8	23	16	32	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
<b>Hose securing grip short version</b>					
9056400	600,00	740,00	10,20	10-15	

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

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# Hose Type 6/2W

62W222

ID6 - Series: A

**SPIR STAR®**

## Applications

- Waterblast:** Heat exchanger tube cleaning
- Hydraulics:** Pressure test equipment (valves, tooling and control panels), hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools)
- Oil and Gas:** Grease injection, control of subsea hydraulic components



## Technical Information

- Inner Core:** Polyamide (PA)
- Pressure Support:** 2 open layers, 2 dense layers of high-tensile steel wire
- Outer Cover:** Polyurethane (TPU)
- Color:** Black
- Temperature:** -30°C to +60°C [-22°F to 140°F]

Ø ID	Ø OD	Working Pressure -- (SF 2,5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
6,0 mm	12,0 mm	--	1.280 bar	95 mm	0,230 kg/m	4,0 mm
0,24 inch	0,47 inch	--	18.560 psi	3,74 inch	0,154 lbs/ft	0,16 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⚙	
<b>Sleeve</b>							
10630191W	-	Steel	15,4	41,3	-	-	
10630195W	-	AISI 316Ti	15,4	40,5	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⚙	
<b>HP fitting</b>								
40620205A	9/16"x18UNF LH	AISI 316Ti	-	4	95	24	-	
<b>Male fitting</b>								
30620411A	1/8"x27NPTF	Steel	-	4	58	10	12	
30620401A	1/4"x18NPTF	Steel	-	4	68	14	14	
30620405A	1/4"x18NPTF	AISI 316Ti	-	4	68	14	14	
30620451A	3/8"x18NPTF	Steel	-	4	64	14	17	
30620041A	M10x1	Steel	-	4	65	12	12	
30620311A	G1/8"	Steel	-	4	59	10	9	
<b>Male fitting 60° internal cone</b>								
30620341A	G1/4"	Steel	-	4	62,5	12	14	
30620321A	G3/8"	Steel	-	4	60,5	12	17	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	Ø	
<b>Male fitting 100° external cone</b>								
30620361A	G1/4"	Steel	-	4	67	18	17	
<b>Male fitting for USIT® Ring</b>								
30620391A	G1/4"	Steel	-	4	61	11	22	
30620351A	G3/8"	Steel	-	4	61	11	24	
<b>Male fitting flat seal</b>								
30620381A	G1/4"	Steel	-	4	66	15	12	
<b>Male fitting DIN3852 T2 form A</b>								
30620301A	G1/4"	Steel	-	4	64	12	19	
<b>Female fitting NPT/NPTF</b>								
30620441A	1/4"x18NPTF	Steel	-	4	66,5	20	19	
<b>Female swivel 24°/60°</b>								
20620301A	G1/4"	Steel	50540301	4	55	-	19	
20620305A	G1/4"	AISI 316Ti	50540305	4	55	-	19	
20620101A	M14x1,5	Steel	50540101	4	55	-	19	
20620141A	M16x1,5	Steel	50620121	4	56	-	19	
20620145A	M16x1,5	AISI 316Ti	50620125	4	56	-	19	
<b>Female swivel with O-Ring</b>								
20620241A	M18x1,5	Steel	50620201	4	65	-	22	
20620211A	M22x1,5	Steel	51060201, 51060205	4	75	-	30	
20620042A	M24x1,5	Steel	51321206	4	73	-	32	
<b>Type M female swivel</b>								
20620641A	9/16"x18UNF	Steel	50540601, 50560601	4	57	-	19	
20620645A	9/16"x18UNF	AISI 316Ti	50540605, 50560605	4	57	-	19	



Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	Ø	
<b>JIC female swivel</b>								
S20630615A	9/16"x18UNF	AISI 316Ti	S5063615	4	53	-	19	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	Ø	
<b>Swivel nut</b>								
50540601	9/16"x18UNF	Steel	1 radial	9,2	18	14	19	
50540605	9/16"x18UNF	AISI 316Ti	1 radial	9,2	18	14	19	
S5063615	9/16"x18UNF	AISI 316Ti	1 radial	9,5	18	14	19	
50540301	G1/4"	Steel	1 radial	9,2	16,5	8,5	19	
50540305	G1/4"	AISI 316Ti	1 radial	9,2	16,5	8,5	19	
50540101	M14x1,5	Steel	1 radial	9,2	16,5	8,5	19	
50620121	M16x1,5	Steel	1 radial	9,2	17,5	10	19	
50620125	M16x1,5	AISI 316Ti	1 radial	9,5	17,5	10	19	
50620201	M18x1,5	Steel	1 radial	9,2	22	12	22	
51060205	M22x1,5	AISI 316Ti	2 axial	14,2	25	14	30	
51321206	M24x1,5	Steel	2 axial	16,8	23	16	32	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
<b>Hose securing grip short version</b>					
9056400	600,00	740,00	10,20	10-15	

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

\*) Blast-Pro® fittings may only be used for tube cleaning operations inside the tube. They have not been designed for the use outside of tubes.

We reserve our rights for technical changes without notice. Subject to printing errors.

# Hose Type 6/2W Twin

62WD2223

**SPIR STAR®**

ID6 - Series: A

## Applications

**Hydraulics:** Torque wrenching

## Technical Information

**Inner Core:** Polyamide (PA)  
**Pressure Support:** 2 open layers, 2 dense layers of high-tensile steel wire  
**Outer Cover:** Polyurethane (TPU)  
**Color:** Black and red  
**Temperature:** -30°C to +60°C [-22°F to 140°F]



Ø ID	Ø OD	Working Pressure -- (SF 2.5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
6,0 mm	12,0 mm	--	1.280 bar	95 mm	0,460 kg/m	4,0 mm
0,24 inch	0,47 inch	--	18.560 psi	3,74 inch	0,310 lbs/ft	0,16 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⌀	
<b>Sleeve</b>							
10630191W	-	Steel	15,4	41,3	-	-	
10630195W	-	AISI 316Ti	15,4	40,5	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>HP fitting</b>								
40620205A	9/16"x18UNF LH	AISI 316Ti	-	4	95	24	-	

<b>Male fitting</b>								
30620411A	1/8"x27NPTF	Steel	-	4	58	10	12	
30620401A	1/4"x18NPTF	Steel	-	4	68	14	14	
30620405A	1/4"x18NPTF	AISI 316Ti	-	4	68	14	14	
30620451A	3/8"x18NPTF	Steel	-	4	64	14	17	
30620041A	M10x1	Steel	-	4	65	12	12	
30620311A	G1/8"	Steel	-	4	59	10	9	

<b>Male fitting 60° internal cone</b>								
30620341A	G1/4"	Steel	-	4	62,5	12	14	
30620321A	G3/8"	Steel	-	4	60,5	12	17	

<b>Male fitting 100° external cone</b>								
30620361A	G1/4"	Steel	-	4	67	18	17	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	Ø	
<b>Male fitting for USIT® Ring</b>								
30620391A	G1/4"	Steel	-	4	61	11	22	
30620351A	G3/8"	Steel	-	4	61	11	24	
<b>Male fitting flat seal</b>								
30620381A	G1/4"	Steel	-	4	66	15	12	
<b>Male fitting DIN3852 T2 form A</b>								
30620301A	G1/4"	Steel	-	4	64	12	19	
<b>Female fitting NPT/NPTF</b>								
30620441A	1/4"x18NPTF	Steel	-	4	66,5	20	19	
<b>Female swivel 24°/60°</b>								
20620301A	G1/4"	Steel	50540301	4	55	-	19	
20620305A	G1/4"	AISI 316Ti	50540305	4	55	-	19	
20620101A	M14x1,5	Steel	50540101	4	55	-	19	
20620141A	M16x1,5	Steel	50620121	4	56	-	19	
20620145A	M16x1,5	AISI 316Ti	50620125	4	56	-	19	
<b>Female swivel with O-Ring</b>								
20620241A	M18x1,5	Steel	50620201	4	65	-	22	
20620211A	M22x1,5	Steel	51060201, 51060205	4	75	-	30	
20620042A	M24x1,5	Steel	51321206	4	73	-	32	
<b>Type M female swivel</b>								
20620641A	9/16"x18UNF	Steel	50540601, 50560601	4	57	-	19	
20620645A	9/16"x18UNF	AISI 316Ti	50540605, 50560605	4	57	-	19	
<b>JIC female swivel</b>								
S20630615A	9/16"x18UNF	AISI 316Ti	S5063615	4	53	-	19	

Part no.	Thread	Material	Relief bores	Dimensions (mm)			⌀	Swivel nut
				A	B	C		
<b>Swivel nut</b>								
50540601	9/16"x18UNF	Steel	1 radial	9,2	18	14	19	
50540605	9/16"x18UNF	AISI 316Ti	1 radial	9,2	18	14	19	
S5063615	9/16"x18UNF	AISI 316Ti	1 radial	9,5	18	14	19	
50540301	G1/4"	Steel	1 radial	9,2	16,5	8,5	19	
50540305	G1/4"	AISI 316Ti	1 radial	9,2	16,5	8,5	19	
50540101	M14x1,5	Steel	1 radial	9,2	16,5	8,5	19	
50620121	M16x1,5	Steel	1 radial	9,2	17,5	10	19	
50620125	M16x1,5	AISI 316Ti	1 radial	9,5	17,5	10	19	
50620201	M18x1,5	Steel	1 radial	9,2	22	12	22	
51060201	M22x1,5	Steel	2 axial	14,2	23	14	30	
51060205	M22x1,5	AISI 316Ti	2 axial	14,2	25	14	30	
51321206	M24x1,5	Steel	2 axial	16,8	23	16	32	

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

\*) Blast-Pro® fittings may only be used for tube cleaning operations inside the tube. They have not been designed for the use outside of tubes.

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## Applications

- Hydraulics:** Pressure test equipment (valves, tooling and control panels), hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools)
- Oil and Gas:** Grease injection, control of subsea hydraulic components

## Technical Information

- Inner Core:** Polyamide (PA)
- Pressure Support:** 2 open layers, 2 dense layers of high-tensile steel wire
- Outer Cover:** Polyurethane (TPU)
- Color:** Black
- Temperature:** -30°C to +60°C [-22°F to 140°F]

Ø ID	Ø OD	Working Pressure -- (SF 2.5:1)		Burst Pressure	Bend Radius	Weight	Insert ID
5,9 mm	12,0 mm	--	1.200 bar	3.000 bar	80 mm	0,237 kg/m	4,0 mm
0,23 inch	0,47 inch	--	17.400 psi	43.500 psi	3,15 inch	0,159 lbs/ft	0,16 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⌀	
<b>Sleeve</b>							
10630191W	-	Steel	15,4	41,3	-	-	
10630195W	-	AISI 316Ti	15,4	40,5	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>HP fitting</b>								
40620205A	9/16"x18UNF LH	AISI 316Ti	-	4	95	24	-	


<b>Male fitting</b>								
Part no.	Thread	Material	Nut	A	B	C	⌀	
30620411A	1/8"x27NPTF	Steel	-	4	58	10	12	
30620401A	1/4"x18NPTF	Steel	-	4	68	14	14	
30620405A	1/4"x18NPTF	AISI 316Ti	-	4	68	14	14	
30620451A	3/8"x18NPTF	Steel	-	4	64	14	17	
30620041A	M10x1	Steel	-	4	65	12	12	
30620311A	G1/8"	Steel	-	4	59	10	9	



<b>Male fitting 60° internal cone</b>								
Part no.	Thread	Material	Nut	A	B	C	⌀	
30620341A	G1/4"	Steel	-	4	62,5	12	14	
30620321A	G3/8"	Steel	-	4	60,5	12	17	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	Ø	
<b>Male fitting 100° external cone</b>								
30620361A	G1/4"	Steel	-	4	67	18	17	
<b>Male fitting for USIT® Ring</b>								
30620391A	G1/4"	Steel	-	4	61	11	22	
30620351A	G3/8"	Steel	-	4	61	11	24	
<b>Male fitting flat seal</b>								
30620381A	G1/4"	Steel	-	4	66	15	12	
<b>Male fitting DIN3852 T2 form A</b>								
30620301A	G1/4"	Steel	-	4	64	12	19	
<b>Female fitting NPT/NPTF</b>								
30620441A	1/4"x18NPTF	Steel	-	4	66,5	20	19	
<b>Female swivel 24°/60°</b>								
20620301A	G1/4"	Steel	50540301	4	55	-	19	
20620305A	G1/4"	AISI 316Ti	50540305	4	55	-	19	
20620101A	M14x1,5	Steel	50540101	4	55	-	19	
20620141A	M16x1,5	Steel	50620121	4	56	-	19	
20620145A	M16x1,5	AISI 316Ti	50620125	4	56	-	19	
<b>Female swivel with O-Ring</b>								
20620241A	M18x1,5	Steel	50620201	4	65	-	22	
20620211A	M22x1,5	Steel	51060201, 51060205	4	75	-	30	
20620042A	M24x1,5	Steel	51321206	4	73	-	32	
<b>Type M female swivel</b>								
20620641A	9/16"x18UNF	Steel	50540601, 50560601	4	57	-	19	
20620645A	9/16"x18UNF	AISI 316Ti	50540605, 50560605	4	57	-	19	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	Ø	
<b>JIC female swivel</b>								
S20630615A	9/16"x18UNF	AISI 316Ti	S5063615	4	53	-	19	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	Ø	
<b>Swivel nut</b>								
50540601	9/16"x18UNF	Steel	1 radial	9,2	18	14	19	
50540605	9/16"x18UNF	AISI 316Ti	1 radial	9,2	18	14	19	
S5063615	9/16"x18UNF	AISI 316Ti	1 radial	9,5	18	14	19	
50540301	G1/4"	Steel	1 radial	9,2	16,5	8,5	19	
50540305	G1/4"	AISI 316Ti	1 radial	9,2	16,5	8,5	19	
50540101	M14x1,5	Steel	1 radial	9,2	16,5	8,5	19	
50620121	M16x1,5	Steel	1 radial	9,2	17,5	10	19	
50620125	M16x1,5	AISI 316Ti	1 radial	9,5	17,5	10	19	
50620201	M18x1,5	Steel	1 radial	9,2	22	12	22	
51060201	M22x1,5	Steel	2 axial	14,2	23	14	30	
51060205	M22x1,5	AISI 316Ti	2 axial	14,2	25	14	30	
51321206	M24x1,5	Steel	2 axial	16,8	23	16	32	

Part no.	Material	Crimp ring	Dimensions (mm)		Bend restrictor
			Ø	Length	
<b>Rubber bend restrictor</b>					
1.9518600	Rubber	1003035	34	126	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
9056400	600,00	740,00	10,20	10-15	
<b>Hose securing grip long version</b>					
905640L	600,00	990,00	10,20	10-15	

Accessories combinations			
Without hose protection			
Description	Bend restrictor	Crimp ring	Securing grips
Bend restrictor	1.9518600	1003035	-
Securing grip	-	-	9056400
Bend restrictor and securing grip	1.9518600	1003035	905640L

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

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We reserve our rights for technical changes without notice. Subject to printing errors.



# Hose Type 6/2WL Twin

62WLD2221

**SPIR STAR®**

ID6 - Series: A

## Applications

**Hydraulics:** Torque wrenching

## Technical Information

**Inner Core:** Polyamide (PA)  
**Pressure Support:** 2 open layers, 2 dense layers of high-tensile steel wire  
**Outer Cover:** Polyurethane (TPU)  
**Color:** Black and blue  
**Temperature:** -30°C to +60°C [-22°F to 140°F]



Ø ID	Ø OD	Working Pressure -- (SF 2.5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
5,9 mm	12,0 mm	--	1.200 bar	80 mm	0,474 kg/m	4,0 mm
0,23 inch	0,47 inch	--	17.400 psi	3,15 inch	0,318 lbs/ft	0,16 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⌀	
<b>Sleeve</b>							
10630191W	-	Steel	15,4	41,3	-	-	
10630195W	-	AISI 316Ti	15,4	40,5	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>HP fitting</b>								
40620205A	9/16"x18UNF LH	AISI 316Ti	-	4	95	24	-	

<b>Male fitting</b>								
Part no.	Thread	Material	Nut	A	B	C	⌀	
30620411A	1/8"x27NPTF	Steel	-	4	58	10	12	
30620401A	1/4"x18NPTF	Steel	-	4	68	14	14	
30620405A	1/4"x18NPTF	AISI 316Ti	-	4	68	14	14	
30620451A	3/8"x18NPTF	Steel	-	4	64	14	17	
30620041A	M10x1	Steel	-	4	65	12	12	
30620311A	G1/8"	Steel	-	4	59	10	9	

<b>Male fitting 60° internal cone</b>								
Part no.	Thread	Material	Nut	A	B	C	⌀	
30620341A	G1/4"	Steel	-	4	62,5	12	14	
30620321A	G3/8"	Steel	-	4	60,5	12	17	

<b>Male fitting 100° external cone</b>								
Part no.	Thread	Material	Nut	A	B	C	⌀	
30620361A	G1/4"	Steel	-	4	67	18	17	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	Ø	
<b>Male fitting for USIT® Ring</b>								
30620391A	G1/4"	Steel	-	4	61	11	22	
30620351A	G3/8"	Steel	-	4	61	11	24	
<b>Male fitting flat seal</b>								
30620381A	G1/4"	Steel	-	4	66	15	12	
<b>Male fitting DIN3852 T2 form A</b>								
30620301A	G1/4"	Steel	-	4	64	12	19	
<b>Female fitting NPT/NPTF</b>								
30620441A	1/4"x18NPTF	Steel	-	4	66,5	20	19	
<b>Female swivel 24°/60°</b>								
20620301A	G1/4"	Steel	50540301, 50540305	4	55	-	19	
20620305A	G1/4"	AISI 316Ti	50540305	4	55	-	19	
20620101A	M14x1,5	Steel	50540101	4	55	-	19	
20620141A	M16x1,5	Steel	50620121	4	56	-	19	
20620145A	M16x1,5	AISI 316Ti	50620125	4	56	-	19	
<b>Female swivel with O-Ring</b>								
20620241A	M18x1,5	Steel	50620201	4	65	-	22	
20620211A	M22x1,5	Steel	51060201, 51060205	4	75	-	30	
20620042A	M24x1,5	Steel	51321206	4	73	-	32	
<b>Type M female swivel</b>								
20620641A	9/16"x18UNF	Steel	50540601, 50560601	4	57	-	19	
20620645A	9/16"x18UNF	AISI 316Ti	50540605, 50560605	4	57	-	19	
<b>JIC female swivel</b>								
S20630615A	9/16"x18UNF	AISI 316Ti	S5063615	4	53	-	19	

Part no.	Thread	Material	Relief bores	Dimensions (mm)			⌀	Swivel nut
				A	B	C		
<b>Swivel nut</b>								
50540601	9/16"x18UNF	Steel	1 radial	9,2	18	14	19	
50540605	9/16"x18UNF	AISI 316Ti	1 radial	9,2	18	14	19	
S5063615	9/16"x18UNF	AISI 316Ti	1 radial	9,5	18	14	19	
50540301	G1/4"	Steel	1 radial	9,2	16,5	8,5	19	
50540305	G1/4"	AISI 316Ti	1 radial	9,2	16,5	8,5	19	
50540101	M14x1,5	Steel	1 radial	9,2	16,5	8,5	19	
50620121	M16x1,5	Steel	1 radial	9,2	17,5	10	19	
50620125	M16x1,5	AISI 316Ti	1 radial	9,5	17,5	10	19	
50620201	M18x1,5	Steel	1 radial	9,2	22	12	22	
51060201	M22x1,5	Steel	2 axial	14,2	23	14	30	
51060205	M22x1,5	AISI 316Ti	2 axial	14,2	25	14	30	
51321206	M24x1,5	Steel	2 axial	16,8	23	16	32	

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

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# Hose Type 6/3

63070

**SPIR STAR®**

DuraLife Flex®

ID6 - Series: A and Q

## Applications

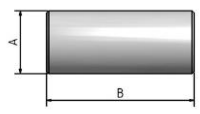
- Waterblast:** Heat exchanger tube cleaning
- Hydraulics:** Pressure test equipment (valves, tooling and control panels), hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools)

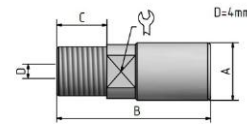


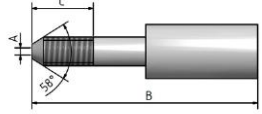
## Technical Information

- Inner Core:** Polyoxymethylene (POM)
- Pressure Support:** 2 layers of high-tensile steel wire, 1 braided layer of galvanized steel wire
- Outer Cover:** Polyamide (PA)
- Color:** Green
- Temperature:** -30°C to +70°C [-22°F to 158°F]

Ø ID	Ø OD	Working Pressure -- (SF 2,5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
6,1 mm	12,3 mm	--	1.040 bar	110 mm	0,280 kg/m	4,0 mm
0,24 inch	0,48 inch	--	15.080 psi	4,33 inch	0,188 lbs/ft	0,16 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⌀	
<b>Sleeve</b>							
10630111	-	Steel	14,1	39,7	-	-	

Part no.	Thread	Material	Hose part	Dimensions (mm)				OnePiece Fittings®WS
				A	B	C	⌀	
<b>OnePiece Fittings® with wrench size</b>								
30630461Q	1/4"x18NPTF	Steel	30620462/1Q	14	43	14	12	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>HP fitting</b>								
40620205A	9/16"x18UNF LH	AISI 316Ti	-	4	95	24	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	Ø	
<b>Male fitting</b>								
30620411A	1/8"x27NPTF	Steel	-	4	58	10	12	
30620401A	1/4"x18NPTF	Steel	-	4	68	14	14	
30620405A	1/4"x18NPTF	AISI 316Ti	-	4	68	14	14	
30620451A	3/8"x18NPTF	Steel	-	4	64	14	17	
30620041A	M10x1	Steel	-	4	65	12	12	
30620311A	G1/8"	Steel	-	4	59	10	9	
<b>Male fitting 60° internal cone</b>								
30620341A	G1/4"	Steel	-	4	62,5	12	14	
30620321A	G3/8"	Steel	-	4	60,5	12	17	
<b>Male fitting 100° external cone</b>								
30620361A	G1/4"	Steel	-	4	67	18	17	
<b>Male fitting for USIT® Ring</b>								
30620391A	G1/4"	Steel	-	4	61	11	22	
30620351A	G3/8"	Steel	-	4	61	11	24	
<b>Male fitting flat seal</b>								
30620381A	G1/4"	Steel	-	4	66	15	12	
<b>Male fitting DIN3852 T2 form A</b>								
30620301A	G1/4"	Steel	-	4	64	12	19	
<b>Female fitting NPT/NPTF</b>								
30620441A	1/4"x18NPTF	Steel	-	4	66,5	20	19	
<b>Female swivel 24°/60°</b>								
20620301A	G1/4"	Steel	50540301	4	55	-	19	
20620305A	G1/4"	AISI 316Ti	50540305	4	55	-	19	
20620101A	M14x1,5	Steel	50540101	4	55	-	19	
20620141A	M16x1,5	Steel	50620121	4	56	-	19	
20620145A	M16x1,5	AISI 316Ti	50620125	4	56	-	19	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	Ø	
<b>Female swivel with O-Ring</b>								
20620241A	M18x1,5	Steel	50620201	4	65	-	22	
20620211A	M22x1,5	Steel	51060201, 51060205	4	75	-	30	
20620042A	M24x1,5	Steel	51321206	4	73	-	32	
<b>Type M female swivel</b>								
20620641A	9/16"x18UNF	Steel	50540601, 50560601	4	57	-	19	
20620645A	9/16"x18UNF	AISI 316Ti	50540605, 50560605	4	57	-	19	
<b>JIC female swivel</b>								
S20630615A	9/16"x18UNF	AISI 316Ti	S5063615	4	53	-	19	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	Ø	
<b>Swivel nut</b>								
50540601	9/16"x18UNF	Steel	1 radial	9,2	18	14	19	
50540605	9/16"x18UNF	AISI 316Ti	1 radial	9,2	18	14	19	
S5063615	9/16"x18UNF	AISI 316Ti	1 radial	9,5	18	14	19	
50540301	G1/4"	Steel	1 radial	9,2	16,5	8,5	19	
50540305	G1/4"	AISI 316Ti	1 radial	9,2	16,5	8,5	19	
50540101	M14x1,5	Steel	1 radial	9,2	16,5	8,5	19	
50620121	M16x1,5	Steel	1 radial	9,2	17,5	10	19	
50620125	M16x1,5	AISI 316Ti	1 radial	9,5	17,5	10	19	
50620201	M18x1,5	Steel	1 radial	9,2	22	12	22	
51060201	M22x1,5	Steel	2 axial	14,2	23	14	30	
51060205	M22x1,5	AISI 316Ti	2 axial	14,2	25	14	30	
51321206	M24x1,5	Steel	2 axial	16,8	23	16	32	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
<b>Hose securing grip short version</b>					
9056400	600,00	740,00	10,20	10-15	

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

\*) Blast-Pro® fittings may only be used for tube cleaning operations inside the tube. They have not been designed for the use outside of tubes.

We reserve our rights for technical changes without notice. Subject to printing errors.

## Applications

- Waterblast:** Heat exchanger tube cleaning
- Hydraulics:** Bolt tensioning, pressure test equipment (valves, tooling and control panels), hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools)
- Oil and Gas:** Grease injection, chemical injection, control of subsea hydraulic components, nitrogen service, Gaseous media handling



## Technical Information

- Inner Core:** Polyoxymethylene (POM)
- Pressure Support:** 4 layers of high-tensile steel wire
- Outer Cover:** Polyamide (PA)
- Color:** Grey
- Temperature:** -30°C to +70°C [-22°F to 158°F]

Ø ID	Ø OD	Working Pressure -- (SF 2.5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
6,3 mm	12,6 mm	--	1.500 bar	180 mm	0,295 kg/m	3,5 mm
0,25 inch	0,50 inch	--	21.750 psi	7,09 inch	0,198 lbs/ft	0,14 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⌀	
<b>Sleeve</b>							
10640101	-	Steel	16,4	47,5	-	-	
10640105	-	AISI 316Ti	16,4	47,1	-	-	
<b>Blast-Pro® sleeve</b>							
10640232	-	Steel	14,5	26	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>HP fitting</b>								
40640205B	3/8"x24UNF LH	AISI 316Ti	-	3,5	90	20	-	

Part no.	Thread	Material	Sleeve	Dimensions (mm)				⌀	Blast-Pro® Insert*
				A	B	C			
<b>Blast-Pro® HP fitting</b>									
40640214Y	3/8"x24UNF LH	Stainless steel	10640232	4	52	21	12		
<b>Blast-Pro® HP female</b>									
40640234Y	3/8"x24UNF	Stainless steel	10640232	4	50	15	12		
Part no.	Thread	Material	Nut	Dimensions (mm)				⌀	Insert
				A	B	C			
<b>Male fitting</b>									
30640401B	1/4"x18NPTF	Steel	-	3,5	70	14	14		
<b>Male fitting 60° internal cone</b>									
30640301B	G1/4"	Steel	-	3,5	67	12	14		
<b>Male fitting flat seal</b>									
30640011B	M8x1.25	Steel	-	3,5	68	12	8		
<b>Female swivel 24°/60°</b>									
20640301B	G1/4"	Steel	50540301, 50540305	3,5	62	-	19		
<b>Female swivel with O-Ring</b>									
20640241B	M18x1,5	Steel	50620201	3,5	72	-	22		
20640202B	M24x1,5	Steel	51321206	3,5	81	-	32		



Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	Ø	
<b>Type M female swivel</b>								
20640641B	9/16"x18UNF	Steel	50540601	3,5	63	-	19	
20640645B	9/16"x18UNF	AISI 316Ti	50540605	3,5	63	-	19	



<b>JIC female swivel</b>								
20640655B	9/16"x18UNF	AISI 316Ti	50540605	3,5	58	-	19	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	Ø	
<b>Swivel nut</b>								
50540601	9/16"x18UNF	Steel	1 radial	9,2	18	14	19	
50540605	9/16"x18UNF	AISI 316Ti	1 radial	9,2	18	14	19	
50540301	G1/4"	Steel	1 radial	9,2	16,5	8,5	19	
50540305	G1/4"	AISI 316Ti	1 radial	9,2	16,5	8,5	19	
50620201	M18x1,5	Steel	1 radial	9,2	22	12	22	
51321206	M24x1,5	Steel	2 axial	16,8	23	16	32	

Part no.	Size (mm)	Material	Crimp ring	Hose protection
1.901822	ID Ø18, OD Ø22	PVC	1002426	
1.902026	ID Ø20, OD Ø26	PVC	-	

<b>Hose protection with spiral</b>				
1.912026	ID Ø19, OD Ø26	PVC	1003035	

Part no.	Material	Crimp ring	Dimensions (mm)		Bend restrictor
			Ø	Length	
<b>Rubber bend restrictor</b>					
1.9518600	Rubber	1003035	34	126	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
<b>Hose securing grip short version</b>					
9056400	600,00	740,00	10,20	10-15	
<b>Hose securing grip long version</b>					
905640L	600,00	990,00	10,20	10-15	

<b>Accessories combinations</b>				
<b>Without hose protection</b>				
Description	Bend restrictor	Crimp ring	Securing grips	
Bend restrictor	1.9518600	1003035	-	
Securing grip	-	-	9056400	
Bend restrictor and securing grip	1.9518600	1003035	905640L	
<b>Hose protection without spiral</b>				
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips
Protection hose	1.901822	-	1002426	-
with bend restrictor	1.901822	1.9518600	1003035	-
with securing grip	1.902026	-	-	9056400
with bend restrictor and securing grip	1.902026	1.9518600	1003035	905640L
<b>Hose protection with spiral</b>				
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips
Protection hose	1.912026	-	1003035	-
with bend restrictor	1.912026	1.9518600	1003035	-
with securing grip	1.912026	-	-	9056400
with bend restrictor and securing grip	1.912026	1.9518600	1003035	905640L

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

\*) Blast-Pro® fittings may only be used for tube cleaning operations inside the tube. They have not been designed for the use outside of tubes.

We reserve our rights for technical changes without notice. Subject to printing errors.

# Hose Type 6/4-1650

64008.1650

ID6 - Series: B and Y

**SPIR STAR®**

## Applications

- Waterblast:** Heat exchanger tube cleaning
- Hydraulics:** Bolt tensioning, pressure test equipment (valves, tooling and control panels), hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools)
- Oil and Gas:** Grease injection, chemical injection, control of subsea hydraulic components, nitrogen service, Gaseous media handling



## Technical Information

- Inner Core:** Polyoxymethylene (POM)
- Pressure Support:** 4 layers of high-tensile steel wire
- Outer Cover:** Polyamide (PA)
- Color:** Grey
- Temperature:** -30°C to +70°C [-22°F to 158°F]

Ø ID	Ø OD	Working Pressure -- (SF 2.5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
6,3 mm	12,6 mm	--	1.650 bar	180 mm	0,295 kg/m	3,5 mm
0,25 inch	0,50 inch	--	23.925 psi	7,09 inch	0,198 lbs/ft	0,14 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⌀	
<b>Sleeve</b>							
10640101	-	Steel	16,4	47,5	-	-	
10640105	-	AISI 316Ti	16,4	47,1	-	-	
<b>Blast-Pro® sleeve</b>							
10640232	-	Steel	14,5	26	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>HP fitting</b>								
40640205B	3/8"x24UNF LH	AISI 316Ti	-	3,5	90	20	-	



Part no.	Thread	Material	Sleeve	Dimensions (mm)				⌀	Blast-Pro® Insert*
				A	B	C			
<b>Blast-Pro® HP fitting</b>									
40640214Y	3/8"x24UNF LH	Stainless steel	10640232	4	52	21	12		
<b>Blast-Pro® HP female</b>									
40640234Y	3/8"x24UNF	Stainless steel	10640232	4	50	15	12		
Part no.	Thread	Material	Nut	Dimensions (mm)				⌀	Insert
				A	B	C			
<b>Male fitting</b>									
30640401B	1/4"x18NPTF	Steel	-	3,5	70	14	14		
<b>Male fitting 60° internal cone</b>									
30640301B	G1/4"	Steel	-	3,5	67	12	14		
<b>Male fitting flat seal</b>									
30640011B	M8x1.25	Steel	-	3,5	68	12	8		
<b>Female swivel 24°/60°</b>									
20640301B	G1/4"	Steel	50540301, 50540305	3,5	62	-	19		
<b>Female swivel with O-Ring</b>									
20640241B	M18x1,5	Steel	50620201	3,5	72	-	22		
20640202B	M24x1,5	Steel	51321206	3,5	81	-	32		

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	Ø	
<b>Type M female swivel</b>								
20640641B	9/16"x18UNF	Steel	50540601	3,5	63	-	19	
20640645B	9/16"x18UNF	AISI 316Ti	50540605	3,5	63	-	19	
<b>JIC female swivel</b>								
20640655B	9/16"x18UNF	AISI 316Ti	50540605	3,5	58	-	19	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	Ø	
<b>Swivel nut</b>								
50540601	9/16"x18UNF	Steel	1 radial	9,2	18	14	19	
50540605	9/16"x18UNF	AISI 316Ti	1 radial	9,2	18	14	19	
50540301	G1/4"	Steel	1 radial	9,2	16,5	8,5	19	
50540305	G1/4"	AISI 316Ti	1 radial	9,2	16,5	8,5	19	
50620201	M18x1,5	Steel	1 radial	9,2	22	12	22	
51321206	M24x1,5	Steel	2 axial	16,8	23	16	32	

Part no.	Size (mm)	Material	Crimp ring	Dimensions (mm)		Hose protection
				Ø	Length	
<b>Hose protection without spiral</b>						
1.901822	ID Ø18, OD Ø22	PVC	1002426			
1.902026	ID Ø20, OD Ø26	PVC	-			
<b>Hose protection with spiral</b>						
1.912026	ID Ø19, OD Ø26	PVC	1003035			

Part no.	Material	Crimp ring	Dimensions (mm)		Bend restrictor
			Ø	Length	
<b>Rubber bend restrictor</b>					
1.9518600	Rubber	1003035	34	126	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
<b>Hose securing grip short version</b>					
9056400	600,00	740,00	10,20	10-15	
<b>Hose securing grip long version</b>					
905640L	600,00	990,00	10,20	10-15	

<b>Accessories combinations</b>				
<b>Without hose protection</b>				
Description	Bend restrictor	Crimp ring	Securing grips	
Bend restrictor	1.9518600	1003035	-	
Securing grip	-	-	9056400	
Bend restrictor and securing grip	1.9518600	1003035	905640L	
<b>Hose protection without spiral</b>				
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips
Protection hose	1.901822	-	1002426	-
with bend restrictor	1.901822	1.9518600	1003035	-
with securing grip	1.902026	-	-	9056400
with bend restrictor and securing grip	1.902026	1.9518600	1003035	905640L
<b>Hose protection with spiral</b>				
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips
Protection hose	1.912026	-	1003035	-
with bend restrictor	1.912026	1.9518600	1003035	-
with securing grip	1.912026	-	-	9056400
with bend restrictor and securing grip	1.912026	1.9518600	1003035	905640L

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

\*) Blast-Pro® fittings may only be used for tube cleaning operations inside the tube. They have not been designed for the use outside of tubes.

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# Hose Type 6/6H

66H006

**SPIR STAR®**

MAXIMUS

ID6 - Series: C

## Applications

### Waterblast:

Heat exchanger tube cleaning, surface preparation (concrete removal, surface cleaning of buildings, paint removal), tank and vessel cleaning, ultra high-pressure waterjet cutting and hydro demolition (cutting and demolition of armoured concrete, pipelines, paper or steel)

### Hydraulics:

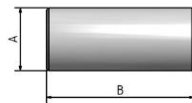
Pressure test equipment (valves, tooling and control panels), hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools)

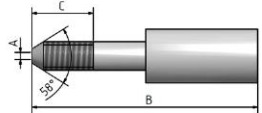


## Technical Information

<b>Inner Core:</b>	Polyoxymethylene (POM)
<b>Pressure Support:</b>	6 layers of high-tensile steel wire
<b>Outer Cover:</b>	Polyamide (PA)
<b>Color:</b>	Red
<b>Temperature:</b>	-30°C to +60°C [-22°F to 140°F]

Ø ID	Ø OD	Working Pressure -- (SF 2,5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
5,9 mm	16,4 mm	--	2.800 bar	250 mm	0,750 kg/m	3,0 mm
0,23 inch	0,65 inch	--	40.600 psi	9,84 inch	0,503 lbs/ft	0,12 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⌀	
<b>Sleeve</b>							
10660102	-	Steel	21,4	65,15	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>HP fitting</b>								
40660204C	3/8"x24UNF LH	Stainless steel	-	3	98	20	-	
40660224C	9/16"x18UNF LH	Stainless steel	-	3	112	24	-	
40660124C	M14x1,5 LH	Stainless steel	-	3	112	24	-	

<b>Type M female swivel</b>								
20660604C	9/16"x18UNF	Stainless steel	50560605, 50560601	3	72	-	22	

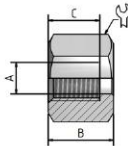
# Hose Type 6/6H



66H006


**SPIR STAR®**



MAXIMUS

ID6 - Series: C

Part no.	Thread	Material	Relief bores	Dimensions (mm)			⌀	Swivel nut
				A	B	C		
<b>Swivel nut</b>								
50560601	9/16"x18UNF	Steel	1 radial	9,2	18	14	22	
50560605	9/16"x18UNF	AISI 316Ti	1 radial	9,2	18	14	22	

Part no.	Size (mm)	Material	Crimp ring		Hose protection
<b>Hose protection without spiral</b>					
1.902531	ID Ø25, OD Ø31	PVC	1003335		
1.903037	ID Ø30, OD Ø39	PVC	1003941		
<b>Hose protection with spiral</b>					
1.912229	ID Ø22, OD Ø35	PVC	1003035		
1.913240	ID Ø32, OD Ø40	PVC	-		

Part no.	Material	Crimp ring	Dimensions (mm)		Bend restrictor
			Ø	Length	
<b>PU bend restrictor</b>					
1.9523406A	PU	1004145	44	250	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
<b>Hose securing grip short version</b>					
9086400	600,00	780,00	20,40	15-20	
<b>Hose securing grip long version</b>					
908640L	600,00	990,00	20,40	15-20	



## Accessories combinations

### Without hose protection

Description	Bend restrictor	Crimp ring	Securing grips
Bend restrictor	1.9523406A	1004145	-
Securing grip	-	-	9086400
Bend restrictor and securing grip	1.9523406A	1004145	908640L

### Hose protection without spiral

Description	Protection hose	Bend restrictor	Crimp ring	Securing grips
Protection hose	1.902531	-	1003335	-
with bend restrictor	1.903037	1.9523406A	1004145	-
with securing grip	1.902531	-	-	9086400
with bend restrictor and securing grip	1.903037	1.9523406A	1004145	908640L

### Hose protection with spiral

Description	Protection hose	Bend restrictor	Crimp ring	Securing grips
Protection hose	1.912229	-	1003035	-
with bend restrictor	1.913240	1.9523406A	1004145	-
with securing grip	1.912229	-	-	9086400
with bend restrictor and securing grip	1.913240	1.9523406A	1004145	908640L

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked. Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

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We reserve our rights for technical changes without notice. Subject to printing errors.

# Hose Type 6mmUHP®

6UHP079

**SPIR STAR®**

MAXIMUS

ID6 - Series: C

## Applications

- Waterblast:** Surface preparation (concrete removal, surface cleaning of buildings, paint removal), tank and vessel cleaning
- Hydraulics:** Pressure test equipment (valves, tooling and control panels)

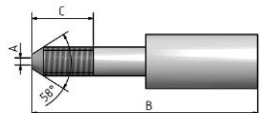


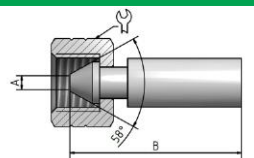
## Technical Information

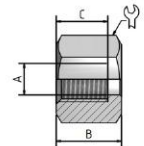
- Inner Core:** Polyoxymethylene (POM)
- Pressure Support:** 8 layers of high-tensile steel wire
- Outer Cover:** Polyamide (PA)
- Color:** Chrome yellow
- Temperature:** -30°C to +60°C [-22°F to 140°F]



Ø ID	Ø OD	Working Pressure -- (SF 2,5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
5,8 mm	18,6 mm	--	3.200 bar	280 mm	1,060 kg/m	3,0 mm
0,23 inch	0,73 inch	--	46.400 psi	11,02 inch	0,710 lbs/ft	0,12 inch


Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⌀	
10680102	-	Steel	23,7	67,6	-	-	



Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>HP fitting</b>								
40660204C	3/8"x24UNF LH	Stainless steel	-	3	98	20	-	
40660224C	9/16"x18UNF LH	Stainless steel	-	3	112	24	-	
40660124C	M14x1,5 LH	Stainless steel	-	3	112	24	-	

<b>Type M female swivel</b>								
20660604C	9/16"x18UNF	Stainless steel	50560605, 50560601	3	72	-	22	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	⌀	
<b>Swivel nut</b>								
50560601	9/16"x18UNF	Steel	1 radial	9,2	18	14	22	
50560605	9/16"x18UNF	AISI 316Ti	1 radial	9,2	18	14	22	

				Hose protection
Part no.	Size (mm)	Material	Crimp ring	
<b>Hose protection without spiral</b>				
I.902531	ID Ø25, OD Ø31	PVC	I003335	
I.903037	ID Ø30, OD Ø39	PVC	I003941	
<b>Hose protection with spiral</b>				
I.912532	ID Ø25, OD Ø32	PVC	I003438	
I.913240	ID Ø32, OD Ø40	PVC	-	

				Dimensions (mm)		Bend restrictor
Part no.	Material	Crimp ring	Ø Length			
			<b>PU bend restrictor</b>			
I.9523406E	PU	I004145	44	250		

					Hose securing grip
Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	
9086400	600,00	780,00	20,40	15-20	
<b>Hose securing grip long version</b>					
908640L	600,00	990,00	20,40	15-20	

## Accessories combinations

Without hose protection				
Description		Bend restrictor	Crimp ring	Securing grips
Bend restrictor		1.9523406E	1004145	-
Securing grip		-	-	9086400
Bend restrictor and securing grip		1.9523406E	1004145	908640L
Hose protection without spiral				
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips
Protection hose	1.902531	-	1003335	-
with bend restrictor	1.903037	1.9523406E	1004145	-
with securing grip	1.902531	-	-	9086400
with bend restrictor and securing grip	1.903037	1.9523406E	1004145	908640L
Hose protection with spiral				
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips
Protection hose	1.912532	-	1003438	-
with bend restrictor	1.913240	1.9523406E	1004145	-
with securing grip	1.912532	-	-	9086400
with bend restrictor and securing grip	1.913240	1.9523406E	1004145	908640L

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

\*) Blast-Pro® fittings may only be used for tube cleaning operations inside the tube. They have not been designed for the use outside of tubes.

We reserve our rights for technical changes without notice. Subject to printing errors.

# Hose Type 8/2

82070

**SPIR STAR®**

DuraLife Flex®

ID8 - Series: A and Q

## Applications

**Waterblast:** Heat exchanger tube cleaning, surface preparation (concrete removal, surface cleaning of buildings, paint removal)

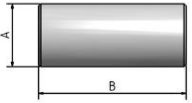
**Hydraulics:** Pressure test equipment (valves, tooling and control panels)

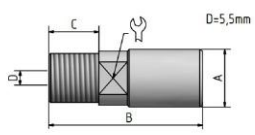
## Technical Information

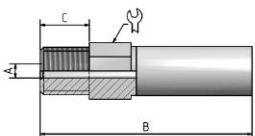
**Inner Core:** Polyoxymethylene (POM)  
**Pressure Support:** 2 layers of high-tensile steel wire  
**Outer Cover:** Polyamide (PA)  
**Color:** Green  
**Temperature:** -30°C to +70°C [-22°F to 158°F]



Ø ID	Ø OD	Working Pressure -- (SF 2.5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
8,1 mm	13,3 mm	--	900 bar	130 mm	0,200 kg/m	5,5 mm
0,32 inch	0,52 inch	--	13.050 psi	5,12 inch	0,134 lbs/ft	0,22 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⚙	
<b>Sleeve</b>							
10820101	-	Steel	17,8	45,1	-	-	

Part no.	Thread	Material	Hose part	Dimensions (mm)				OnePiece Fittings®WS
				A	B	C	⚙	
<b>OnePiece Fittings® with wrench size</b>								
30820461Q	1/4"x18NPTF	Steel	30820442/1Q	17,5	47	14	16	
30820441Q	3/8"x18NPT	Steel	30820442/1Q	17,5	46	14	16	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⚙	
<b>Male fitting</b>								
30820411A	1/4"x18NPTF	Steel	-	5,5	68	14	14	
30820401A	3/8"x18NPTF	Steel	-	5,5	69	14	17	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	Ø	
<b>Male fitting 60° internal cone</b>								
30820321A	G1/4"	Steel	-	5,5	63	12	14	
30820301A	G3/8"	Steel	-	5,5	65	12	17	
<b>Male fitting flat seal</b>								
30820381A	G1/4"	Steel	-	5,5	70	15	12	
<b>Male fitting DIN3852 T2 form A</b>								
30820341A	G3/8"	Steel	-	5,5	69,5	14,5	22	
<b>Female swivel 24°/60°</b>								
20820301A	G3/8"	Steel	50860301	5,5	62	-	24	
<b>Female swivel with O-Ring</b>								
20820201A	M20x1,5	Steel	50860201	5,5	65	-	27	
20820042A	M24x1,5	Steel	51321206, 51360206	5,5	75	-	32	
<b>Type M female swivel</b>								
20820645A	3/4"x16UNF	AISI 316Ti	50840605, 50840601	5,5	62	-	24	
<b>JIC female swivel</b>								
20820601A	9/16"x18UNF	Steel	50820601	5,5	56	-	19	
20820605A	9/16"x18UNF	AISI 316Ti	50820605, 50820601	5,5	56	-	19	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	Ø	
<b>Swivel nut</b>								
50820601	9/16"x18UNF	Steel	1 radial	10,6	18	14	19	
50820605	9/16"x18UNF	AISI 316Ti	1 radial	10,6	18	14	19	
50840601	3/4"x16UNF	Steel	1 radial	12,2	22,5	17,5	24	
50840605	3/4"x16UNF	AISI 316Ti	1 radial	12,2	22,5	17,5	24	
50860301	G3/8"	Steel	1 radial	12,5	18,5	15,5	24	
50860201	M20x1,5	Steel	1 radial	12,2	22	12	27	
51321206	M24x1,5	Steel	2 axial	16,8	23	16	32	

Part no.	Material	Crimp ring	Dimensions (mm)		Bend restrictor
			Ø	Length	
<b>Rubber bend restrictor</b>					
1.9518600	Rubber	1003035	34	126	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
9056400	600,00	740,00	10,20	10-15	
<b>Hose securing grip long version</b>					
905640L	600,00	990,00	10,20	10-15	

Accessories combinations			
Without hose protection			
Description	Bend restrictor	Crimp ring	Securing grips
Bend restrictor	1.9518600	1003035	-
Securing grip	-	-	9056400
Bend restrictor and securing grip	1.9518600	1003035	905640L

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

\*) Blast-Pro® fittings may only be used for tube cleaning operations inside the tube. They have not been designed for the use outside of tubes.

We reserve our rights for technical changes without notice. Subject to printing errors.

# Hose Type 8/2W

82W222

ID8 - Series: A

**SPIR STAR®**

## Applications

- Waterblast:** Surface preparation (concrete removal, surface cleaning of buildings, paint removal)
- Hydraulics:** Pressure test equipment (valves, tooling and control panels), hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools)
- Oil and Gas:** Grease injection, control of subsea hydraulic components, nitrogen service, Gaseous media handling



## Technical Information

- Inner Core:** Polyamide (PA)
- Pressure Support:** 2 open layers, 2 dense layers of high-tensile steel wire
- Outer Cover:** Polyurethane (TPU)
- Color:** Black
- Temperature:** -30°C to +60°C [-22°F to 140°F]


Ø ID	Ø OD	Working Pressure -- (SF 2,5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
8,0 mm	14,3 mm	--	1.040 bar	110 mm	0,314 kg/m	5,5 mm
0,31 inch	0,56 inch	--	15.080 psi	4,33 inch	0,210 lbs/ft	0,22 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⚙	
<b>Sleeve</b>							
10830191W	-	Steel	18,3	44,2	-	-	
10830195W	-	AISI 316Ti	18,3	44,5	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⚙	
<b>Male fitting</b>								
30820411A	1/4"x18NPTF	Steel	-	5,5	68	14	14	
30820401A	3/8"x18NPTF	Steel	-	5,5	69	14	17	
<b>Male fitting 60° internal cone</b>								
30820321A	G1/4"	Steel	-	5,5	63	12	14	
30820301A	G3/8"	Steel	-	5,5	65	12	17	



Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>Male fitting flat seal</b>								
30820381A	G1/4"	Steel	-	5,5	70	15	12	
<b>Male fitting DIN3852 T2 form A</b>								
30820341A	G3/8"	Steel	-	5,5	69,5	14,5	22	
<b>Female swivel 24°/60°</b>								
20820301A	G3/8"	Steel	50860301	5,5	62	-	24	
<b>Female swivel with O-Ring</b>								
20820201A	M20x1,5	Steel	50860201	5,5	65	-	27	
20820042A	M24x1,5	Steel	51321206, 51360206	5,5	75	-	32	
<b>Type M female swivel</b>								
20820645A	3/4"x16UNF	AISI 316Ti	50840605, 50840601	5,5	62	-	24	
<b>JIC female swivel</b>								
20820601A	9/16"x18UNF	Steel	50820601	5,5	56	-	19	
20820605A	9/16"x18UNF	AISI 316Ti	50820605, 50820601	5,5	56	-	19	
Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	⌀	
<b>Swivel nut</b>								
50820601	9/16"x18UNF	Steel	1 radial	10,6	18	14	19	
50820605	9/16"x18UNF	AISI 316Ti	1 radial	10,6	18	14	19	
50840601	3/4"x16UNF	Steel	1 radial	12,2	22,5	17,5	24	
50840605	3/4"x16UNF	AISI 316Ti	1 radial	12,2	22,5	17,5	24	
50860301	G3/8"	Steel	1 radial	12,5	18,5	15,5	24	
50860201	M20x1,5	Steel	1 radial	12,2	22	12	27	
51321206	M24x1,5	Steel	2 axial	16,8	23	16	32	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
<b>Hose securing grip short version</b>					
9056400	600,00	740,00	10,20	10-15	

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

\*) Blast-Pro® fittings may only be used for tube cleaning operations inside the tube. They have not been designed for the use outside of tubes.

We reserve our rights for technical changes without notice. Subject to printing errors.

# Hose Type 8/2W Twin

82WD2221

**SPIR STAR®**

ID8 - Series: A

## Applications

**Hydraulics:** Torque wrenching

## Technical Information

**Inner Core:** Polyamide (PA)  
**Pressure Support:** 2 open layers, 2 dense layers of high-tensile steel wire  
**Outer Cover:** Polyurethane (TPU)  
**Color:** Black and blue  
**Temperature:** -30°C to +60°C [-22°F to 140°F]



Ø ID	Ø OD	Working Pressure -- (SF 2.5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
8,0 mm	14,3 mm	--	1.040 bar	110 mm	0,628 kg/m	5,5 mm
0,31 inch	0,56 inch	--	15.080 psi	4,33 inch	0,421 lbs/ft	0,22 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⌀	
<b>Sleeve</b>							
I0830191W	-	Steel	18,3	44,2	-	-	
I0830195W	-	AISI 316Ti	18,3	44,5	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>Male fitting</b>								
30820411A	1/4"x18NPTF	Steel	-	5,5	68	14	14	
30820401A	3/8"x18NPTF	Steel	-	5,5	69	14	17	
<b>Male fitting 60° internal cone</b>								
30820321A	G1/4"	Steel	-	5,5	63	12	14	
30820301A	G3/8"	Steel	-	5,5	65	12	17	
<b>Male fitting flat seal</b>								
30820381A	G1/4"	Steel	-	5,5	70	15	12	
<b>Male fitting DIN3852 T2 form A</b>								
30820341A	G3/8"	Steel	-	5,5	69,5	14,5	22	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>Female swivel 24°/60°</b>								
20820301A	G3/8"	Steel	50860301	5,5	62	-	24	
<b>Female swivel with O-Ring</b>								
20820201A	M20x1,5	Steel	50860201	5,5	65	-	27	
20820042A	M24x1,5	Steel	51321206, 51360206	5,5	75	-	32	
<b>Type M female swivel</b>								
20820645A	3/4"x16UNF	AISI 316Ti	50840605, 50840601	5,5	62	-	24	
<b>JIC female swivel</b>								
20820601A	9/16"x18UNF	Steel	50820601	5,5	56	-	19	
20820605A	9/16"x18UNF	AISI 316Ti	50820605, 50820601	5,5	56	-	19	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	⌀	
<b>Swivel nut</b>								
50820601	9/16"x18UNF	Steel	1 radial	10,6	18	14	19	
50820605	9/16"x18UNF	AISI 316Ti	1 radial	10,6	18	14	19	
50840601	3/4"x16UNF	Steel	1 radial	12,2	22,5	17,5	24	
50840605	3/4"x16UNF	AISI 316Ti	1 radial	12,2	22,5	17,5	24	
50860301	G3/8"	Steel	1 radial	12,5	18,5	15,5	24	
50860201	M20x1,5	Steel	1 radial	12,2	22	12	27	
51321206	M24x1,5	Steel	2 axial	16,8	23	16	32	

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

\*) Blast-Pro® fittings may only be used for tube cleaning operations inside the tube. They have not been designed for the use outside of tubes.

We reserve our rights for technical changes without notice. Subject to printing errors.



## Applications

- Hydraulics:** Pressure test equipment (valves, tooling and control panels), hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools)
- Oil and Gas:** Grease injection, nitrogen service

## Technical Information

- Inner Core:** Polyamide (PA)
- Pressure Support:** 2 open layers, 2 dense layers of high-tensile steel wire
- Outer Cover:** Polyurethane (TPU)
- Color:** Black
- Temperature:** -30°C to +60°C [-22°F to 140°F]

Ø ID	Ø OD	Working Pressure -- (SF 2.5:1)		Burst Pressure	Bend Radius	Weight	Insert ID
8,0 mm	14,0 mm	--	1.000 bar	2.500 bar	100 mm	0,317 kg/m	5,5 mm
0,31 inch	0,55 inch	--	14.500 psi	36.250 psi	3,94 inch	0,212 lbs/ft	0,22 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⌀	
<b>Sleeve</b>							
10830191W	-	Steel	18,3	44,2	-	-	
10830195W	-	AISI 316Ti	18,3	44,5	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>Male fitting</b>								
30820411A	1/4"x18NPTF	Steel	-	5,5	68	14	14	
30820401A	3/8"x18NPTF	Steel	-	5,5	69	14	17	

<b>Male fitting 60° internal cone</b>								
Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
A	B	C	⌀					
30820321A	G1/4"	Steel	-	5,5	63	12	14	
30820301A	G3/8"	Steel	-	5,5	65	12	17	

<b>Male fitting flat seal</b>								
Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
A	B	C	⌀					
30820381A	G1/4"	Steel	-	5,5	70	15	12	

<b>Male fitting DIN3852 T2 form A</b>								
Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
A	B	C	⌀					
30820341A	G3/8"	Steel	-	5,5	69,5	14,5	22	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	Ø	
<b>Female swivel 24°/60°</b>								
20820301A	G3/8"	Steel	50860301	5,5	62	-	24	
<b>Female swivel with O-Ring</b>								
20820201A	M20x1,5	Steel	50860201	5,5	65	-	27	
20820042A	M24x1,5	Steel	51321206, 51360206	5,5	75	-	32	
<b>Type M female swivel</b>								
20820645A	3/4"x16UNF	AISI 316Ti	50840605, 50840601	5,5	62	-	24	
<b>JIC female swivel</b>								
20820601A	9/16"x18UNF	Steel	50820601	5,5	56	-	19	
20820605A	9/16"x18UNF	AISI 316Ti	50820605, 50820601	5,5	56	-	19	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	Ø	
<b>Swivel nut</b>								
50820601	9/16"x18UNF	Steel	1 radial	10,6	18	14	19	
50820605	9/16"x18UNF	AISI 316Ti	1 radial	10,6	18	14	19	
50840601	3/4"x16UNF	Steel	1 radial	12,2	22,5	17,5	24	
50840605	3/4"x16UNF	AISI 316Ti	1 radial	12,2	22,5	17,5	24	
50860301	G3/8"	Steel	1 radial	12,5	18,5	15,5	24	
50860201	M20x1,5	Steel	1 radial	12,2	22	12	27	
51321206	M24x1,5	Steel	2 axial	16,8	23	16	32	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
<b>Hose securing grip short version</b>					
9056400	600,00	740,00	10,20	10-15	

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.  
 The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.  
 Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.  
 The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.  
 \*) Blast-Pro® fittings may only be used for tube cleaning operations inside the tube. They have not been designed for the use outside of tubes.  
 We reserve our rights for technical changes without notice. Subject to printing errors.

# Hose Type 8/2WR

82WR2281

**SPIR STAR®**

Heavy duty outer cover for rough service

ID8 - Series: B

## Applications

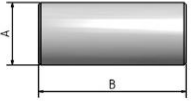
- Waterblast:** Heat exchanger tube cleaning, surface preparation (concrete removal, surface cleaning of buildings, paint removal)
- Hydraulics:** Pressure test equipment (valves, tooling and control panels)
- Oil and Gas:** Grease injection, nitrogen service

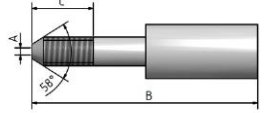


## Technical Information

- Inner Core:** Polyamide (PA)
- Pressure Support:** 2 open layers, 2 dense layers of high-tensile steel wire
- Outer Cover:** Polyurethane (TPU)
- Color:** Silver
- Temperature:** -30°C to +60°C [-22°F to 140°F]

Ø ID	Ø OD	Working Pressure -- (SF 2,5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
8,0 mm	16,0 mm	--	1.040 bar	110 mm	0,364 kg/m	4,5 mm
0,31 inch	0,63 inch	--	15.080 psi	4,33 inch	0,244 lbs/ft	0,18 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⌀	
<b>Sleeve</b>							
10830201VWR	-	Steel	21,3	56	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>HP fitting</b>								
40840205B	9/16"x18UNF LH	AISI 316Ti	-	4,5	108,5	24	-	

<b>Male fitting</b>								
30840411B	1/4"x18NPTF	Steel	-	4,5	84	14	14	
30840401B	3/8"x18NPTF	Steel	-	4,5	82	14	17	
30840341B	G1/4"	Steel	-	4,5	82	14	14	

<b>Male fitting flat seal</b>								
30840311B	G1/4"	Steel	-	4,5	83	15	14	

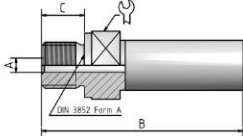
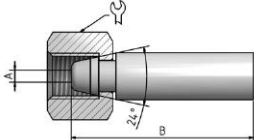
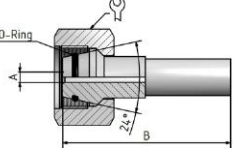
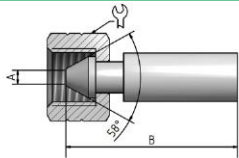
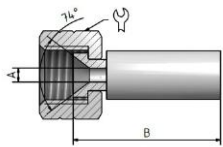
# Hose Type 8/2WR

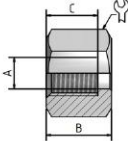
82WR2281

**SPIR STAR®**

Heavy duty outer cover for rough service

ID8 - Series: B

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	Ø	
<b>Male fitting DIN3852 T2 form A</b>								
30840301B	G3/8"	Steel	-	4,5	84,5	12	22	
<b>Female swivel 24°/60°</b>								
20840301B	G3/8"	Steel	50860301	4,5	72	-	24	
20840305B	G3/8"	AISI 316Ti	50840305	4,5	74	-	24	
<b>Female swivel with O-Ring</b>								
20840201B	M20x1,5	Steel	50860201	4,5	77	-	27	
20840231B	M22x1,5	Steel	51060201, 51060205	4,5	79	-	30	
20840221B	M24x1,5	Steel	51321206, 51320205, 51360206	4,5	85	-	32	
<b>Type M female swivel</b>								
20840641B	3/4"x16UNF	Steel	50840601	4,5	73	-	24	
20840645B	3/4"x16UNF	AISI 316Ti	50840605	4,5	73	-	24	
<b>JIC female swivel</b>								
20840605B	3/4"x16UNF	AISI 316Ti	50840605	4,5	68	-	24	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	Ø	
<b>Swivel nut</b>								
50840601	3/4"x16UNF	Steel	1 radial	12,2	22,5	17,5	24	
50840605	3/4"x16UNF	AISI 316Ti	1 radial	12,2	22,5	17,5	24	
50860301	G3/8"	Steel	1 radial	12,5	18,5	15,5	24	
50840305	G3/8"	AISI 316Ti	1 radial	12,2	18,5	13,5	24	
50860201	M20x1,5	Steel	1 radial	12,2	22	12	27	
51060201	M22x1,5	Steel	2 axial	14,2	23	14	30	
51060205	M22x1,5	AISI 316Ti	2 axial	14,2	25	14	30	
51321206	M24x1,5	Steel	2 axial	16,8	23	16	32	
51320205	M24x1,5	AISI 316Ti	1 radial	16,8	23	16	32	




# Hose Type 8/2WR



82WR2281

**SPIR STAR®**

Heavy duty outer cover for rough service

ID8 - Series: B

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
<b>Hose securing grip short version</b>					
9086400	600,00	780,00	20,40	15-20	

Part no.	Size (mm)	Material	Crimp ring	Hose protection
<b>Hose protection without spiral</b>				
1.902531	ID Ø25, OD Ø31	PVC	1003335	
<b>Hose protection with spiral</b>				
1.912532	ID Ø25, OD Ø32	PVC	1003438	

Accessories combinations				
Without hose protection				
Description		Bend restrictor	Crimp ring	Securing grips
Securing grip		-	-	9086400
Hose protection without spiral				
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips
Protection hose	1.902531	-	1003335	-
with securing grip	1.902531	-	-	9086400
Hose protection with spiral				
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips
Protection hose	1.912532	-	1003438	-
with securing grip	1.912532	-	-	9086400

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

\*) Blast-Pro® fittings may only be used for tube cleaning operations inside the tube. They have not been designed for the use outside of tubes.

We reserve our rights for technical changes without notice. Subject to printing errors.



## Applications

- Waterblast:** Heat exchanger tube cleaning, surface preparation (concrete removal, surface cleaning of buildings, paint removal), tank and vessel cleaning
- Hydraulics:** Pressure test equipment (valves, tooling and control panels)
- Oil and Gas:** Grease injection, chemical injection, nitrogen service, Gaseous media handling

## Technical Information

- Inner Core:** Polyoxymethylene (POM)
- Pressure Support:** 4 layers of high-tensile steel wire
- Outer Cover:** Polyamide (PA)
- Color:** Grey
- Temperature:** -30°C to +60°C [-22°F to 140°F]

Ø ID	Ø OD	Working Pressure -- (SF 2,5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
8,0 mm	14,6 mm	--	1.500 bar	200 mm	0,390 kg/m	4,5 mm
0,31 inch	0,57 inch	--	21.750 psi	7,87 inch	0,261 lbs/ft	0,18 inch

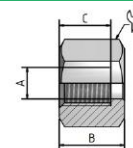
Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⌀	
<b>Sleeve</b>							
10840102	-	Steel	20,2	56,5	-	-	
10840105	-	AISI 316Ti	20,2	58	-	-	
<b>Blast-Pro® sleeve</b>							
10840142	-	Steel	17,1	29	-	-	



Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>HP fitting</b>								
40840205B	9/16"x18UNF LH	AISI 316Ti	-	4,5	108,5	24	-	


Part no.	Thread	Material	Sleeve	Dimensions (mm)				Blast-Pro® Insert*
				A	B	C	⌀	
<b>Blast-Pro® MP male</b>								
40840244Y	9/16"x18UNF LH	Stainless steel	10840142	5	75	25	15	



Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	Ø	
<b>Male fitting</b>								
30840411B	1/4"x18NPTF	Steel	-	4,5	84	14	14	
30840401B	3/8"x18NPTF	Steel	-	4,5	82	14	17	
30840341B	G1/4"	Steel	-	4,5	82	14	14	
<b>Male fitting flat seal</b>								
30840311B	G1/4"	Steel	-	4,5	83	15	14	
<b>Male fitting DIN3852 T2 form A</b>								
30840301B	G3/8"	Steel	-	4,5	84,5	12	22	
<b>Female swivel 24°/60°</b>								
20840301B	G3/8"	Steel	50860301	4,5	72	-	24	
20840305B	G3/8"	AISI 316Ti	50840305	4,5	74	-	24	
<b>Female swivel with O-Ring</b>								
20840201B	M20x1,5	Steel	50860201	4,5	77	-	27	
20840231B	M22x1,5	Steel	51060201, 51060205	4,5	79	-	30	
20840221B	M24x1,5	Steel	51321206, 51320205, 51360206	4,5	85	-	32	
<b>Type M female swivel</b>								
20840641B	3/4"x16UNF	Steel	50840601	4,5	73	-	24	
20840645B	3/4"x16UNF	AISI 316Ti	50840605	4,5	73	-	24	
<b>JIC female swivel</b>								
20840605B	3/4"x16UNF	AISI 316Ti	50840605	4,5	68	-	24	

Part no.	Thread	Material	Relief bores	Dimensions (mm)			Swivel nut
				A	B	C	
<b>Swivel nut</b>							
50840601	3/4"x16UNF	Steel	1 radial	12,2	22,5	17,5	24
50840605	3/4"x16UNF	AISI 316Ti	1 radial	12,2	22,5	17,5	24
50860301	G3/8"	Steel	1 radial	12,5	18,5	15,5	24
50840305	G3/8"	AISI 316Ti	1 radial	12,2	18,5	13,5	24
50860201	M20x1,5	Steel	1 radial	12,2	22	12	27
51060201	M22x1,5	Steel	2 axial	14,2	23	14	30
51060205	M22x1,5	AISI 316Ti	2 axial	14,2	25	14	30
51321206	M24x1,5	Steel	2 axial	16,8	23	16	32
51320205	M24x1,5	AISI 316Ti	1 radial	16,8	23	16	32



Part no.	Size (mm)	Material	Crimp ring	Hose protection	
<b>Hose protection without spiral</b>					
1.902228	ID Ø22, OD Ø28	PVC	1002830		
<b>Hose protection with spiral</b>					
1.912229	ID Ø22, OD Ø35	PVC	1003035		

Part no.	Material	Crimp ring	Dimensions (mm)		Bend restrictor
			Ø	Length	
<b>Rubber bend restrictor</b>					
1.9518100	Rubber	1003640	39	130	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
<b>Hose securing grip short version</b>					
9056400	600,00	740,00	10,20	10-15	
<b>Hose securing grip long version</b>					
905640L	600,00	990,00	10,20	10-15	

### Accessories combinations

Without hose protection				
Description		Bend restrictor	Crimp ring	Securing grips
Bend restrictor		1.9518100	1003640	-
Securing grip		-	-	9056400
Bend restrictor and securing grip		1.9518100	1003640	905640L
Hose protection without spiral				
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips
Protection hose	1.902228	-	1002830	-
with bend restrictor	1.902228	1.9518100	1003640	-
with securing grip	1.902228	-	-	9056400
with bend restrictor and securing grip	1.902228	1.9518100	1003640	905640L
Hose protection with spiral				
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips
Protection hose	1.912229	-	1003035	-
with bend restrictor	1.912229	1.9518100	1003640	-
with securing grip	1.912229	-	-	9056400
with bend restrictor and securing grip	1.912229	1.9518100	1003640	905640L

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

\*) Blast-Pro® fittings may only be used for tube cleaning operations inside the tube. They have not been designed for the use outside of tubes.

We reserve our rights for technical changes without notice. Subject to printing errors.

# Hose Type 8/6

86001

ID8 - Series: C

**SPIR STAR®**

## Applications

**Waterblast:** Heat exchanger tube cleaning, surface preparation (concrete removal, surface cleaning of buildings, paint removal), tank and vessel cleaning, ultra high-pressure waterjet cutting and hydro demolition (cutting and demolition of armoured concrete, pipelines, paper or steel)

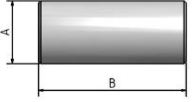
**Hydraulics:** Pressure test equipment (valves, tooling and control panels)

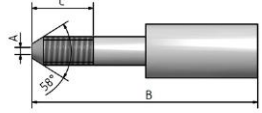


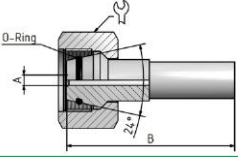
## Technical Information

**Inner Core:** Polyoxymethylene (POM)  
**Pressure Support:** 6 layers of high-tensile steel wire  
**Outer Cover:** Polyamide (PA)  
**Color:** Blue  
**Temperature:** -30°C to +70°C [-22°F to 158°F]

Ø ID	Ø OD	Working Pressure -- (SF 2,5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
8,0 mm	16,4 mm	--	2.100 bar	250 mm	0,640 kg/m	4,5 mm
0,31 inch	0,65 inch	--	30.450 psi	9,84 inch	0,429 lbs/ft	0,18 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⚙	
<b>Sleeve</b>							
10860106	-	Steel	21,6	63,4	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⚙	
<b>HP fitting</b>								
40860214C	3/8"x24UNF LH	Stainless steel	-	4,5	100	20	-	
40860204C	9/16"x18UNF LH	Stainless steel	-	4,5	112	31	-	
40860104C	M14x1,5 LH	Stainless steel	-	4,5	112	24	-	

<b>Female swivel with O-Ring</b>								
20860224C	M24x1,5	Stainless steel	51320205, 51321206	4,5	91	-	32	

<b>Type M female swivel</b>								
20860644C	3/4"x16UNF	Stainless steel	50840605, 50840601	4,5	76	-	24	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	Ø	
<b>Swivel nut</b>								
51320205	M24x1,5	AISI 316Ti	1 radial	16,8	23	16	32	
50840601	3/4"x16UNF	Steel	1 radial	12,2	22,5	17,5	24	
50840605	3/4"x16UNF	AISI 316Ti	1 radial	12,2	22,5	17,5	24	
51321206	M24x1,5	Steel	2 axial	16,8	23	16	32	

Part no.	Size (mm)	Material	Crimp ring		Hose protection
<b>Hose protection without spiral</b>					
1.902228	ID Ø22, OD Ø28	PVC	1002830		
1.902531	ID Ø25, OD Ø31	PVC	-		
1.903037	ID Ø30, OD Ø39	PVC	1003941		
<b>Hose protection with spiral</b>					
1.912229	ID Ø22, OD Ø35	PVC	1003035		
1.913240	ID Ø32, OD Ø40	PVC	-		

Part no.	Material	Crimp ring	Dimensions (mm)		Bend restrictor
			Ø	Length	
<b>PU bend restrictor</b>					
1.9523406A	PU	1004145	44	250	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
<b>Hose securing grip short version</b>					
9086400	600,00	780,00	20,40	15-20	
<b>Hose securing grip long version</b>					
908640L	600,00	990,00	20,40	15-20	

### Accessories combinations

Without hose protection				
Description		Bend restrictor	Crimp ring	Securing grips
Bend restrictor		1.9523406A	1004145	-
Securing grip		-	-	9086400
Bend restrictor and securing grip		1.9523406A	1004145	908640L
Hose protection without spiral				
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips
Protection hose	1.902228	-	1002830	-
with bend restrictor	1.903037	1.9523406A	1004145	-
with securing grip	1.902531	-	-	9086400
with bend restrictor and securing grip	1.903037	1.9523406A	1004145	908640L
Hose protection with spiral				
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips
Protection hose	1.912229	-	1003035	-
with bend restrictor	1.913240	1.9523406A	1004145	-
with securing grip	1.912532	-	-	9086400
with bend restrictor and securing grip	1.913240	1.9523406A	1004145	908640L

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

\*) Blast-Pro® fittings may only be used for tube cleaning operations inside the tube. They have not been designed for the use outside of tubes.

We reserve our rights for technical changes without notice. Subject to printing errors.



## Applications

**Waterblast:** Heat exchanger tube cleaning, surface preparation (concrete removal, surface cleaning of buildings, paint removal), tank and vessel cleaning, ultra high-pressure waterjet cutting and hydro demolition (cutting and demolition of armoured concrete, pipelines, paper or steel)

**Hydraulics:** Pressure test equipment (valves, tooling and control panels)



## Technical Information

**Inner Core:** Polyoxymethylene (POM)  
**Pressure Support:** 6 layers of high-tensile steel wire  
**Outer Cover:** Polyamide (PA)  
**Color:** Red  
**Temperature:** -30°C to +70°C [-22°F to 158°F]

Ø ID	Ø OD	Working Pressure -- (SF 2,5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
7,7 mm	18,8 mm	--	2.500 bar	260 mm	0,925 kg/m	4,5 mm
0,30 inch	0,74 inch	--	36.250 psi	10,24 inch	0,620 lbs/ft	0,18 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⚙	
<b>Sleeve</b>							
10860116	-	Steel	22,8	88,6	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⚙	
<b>HP fitting</b>								
40860214E	3/8"x24UNF LH	Stainless steel	-	4,5	131	20	-	
40860204E	9/16"x18UNF LH	Stainless steel	-	4,5	143	31	-	
40860104E	M14x1,5 LH	Stainless steel	-	4,5	143	31	-	

<b>MP fitting</b>								
40860324E	3/4"x16UNF LH	Stainless steel	-	4,5	139	18	-	

<b>Type M female swivel</b>								
20860684E	7/8"x14UNF	Stainless steel	50860675	4,5	109	-	30	
20860644E	3/4"x16UNF	Stainless steel	50840605, 50840601	4,5	107	-	24	
20860694E	1 1/8"x12UNF	Stainless steel	50860695, 50860675	4,5	115	-	36	

Part no.	Thread	Material	Relief bores	Dimensions (mm)			⌀	Swivel nut
				A	B	C		
<b>Swivel nut</b>								
50840601	3/4"x16UNF	Steel	1 radial	12,2	22,5	17,5	24	
50840605	3/4"x16UNF	AISI 316Ti	1 radial	12,2	22,5	17,5	24	
50860675	7/8"x14UNF	AISI 316Ti	1 radial	12,2	26	20	30	
50860695	1 1/8"x12UNF	AISI 316Ti	1 radial	16,2	35	23	36	

Part no.	Size (mm)	Material	Crimp ring	⌀	Length	Bend restrictor
<b>Hose protection</b>						
<b>Hose protection without spiral</b>						
1.902531	ID Ø25, OD Ø31	PVC	1003335			
1.903037	ID Ø30, OD Ø39	PVC	-			
<b>Hose protection with spiral</b>						
1.912532	ID Ø25, OD Ø32	PVC	1003438			
1.913038	ID Ø30, OD Ø38	PVC	-			
1.913240	ID Ø32, OD Ø40	PVC	-			

Part no.	Material	Crimp ring	Dimensions (mm)		Bend restrictor
			⌀	Length	
<b>PU bend restrictor</b>					
1.9523406E	PU	1004145	44	250	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
9086400	600,00	780,00	20,40	15-20	
<b>Hose securing grip long version</b>					
908640L	600,00	990,00	20,40	15-20	



## Accessories combinations

Without hose protection				
Description		Bend restrictor	Crimp ring	Securing grips
Bend restrictor		1.9523406E	1004145	-
Securing grip		-	-	9086400
Bend restrictor and securing grip		1.9523406E	1004145	908640L
Hose protection without spiral				
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips
Protection hose	1.902531	-	1003335	-
with bend restrictor	1.903037	1.9523406E	1004145	-
with securing grip	1.903037	-	-	9086400
with bend restrictor and securing grip	1.903037	1.9523406E	1004145	908640L
Hose protection with spiral				
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips
Protection hose	1.912532	-	1003438	-
with bend restrictor	1.913240	1.9523406E	1004145	-
with securing grip	1.913038	-	-	9086400
with bend restrictor and securing grip	1.913240	1.9523406E	1004145	908640L

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

\*) Blast-Pro® fittings may only be used for tube cleaning operations inside the tube. They have not been designed for the use outside of tubes.

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# Hose Type 8/6HDCI

86HDCI00260

ID8 - Series: E

**SPIR STAR®**

## Applications

**Waterblast:** Heat exchanger tube cleaning, surface preparation (concrete removal, surface cleaning of buildings, paint removal), tank and vessel cleaning, ultra high-pressure waterjet cutting and hydro demolition (cutting and demolition of armoured concrete, pipelines, paper or steel)

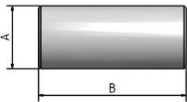
**Hydraulics:** Pressure test equipment (valves, tooling and control panels)

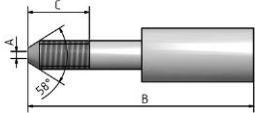


## Technical Information

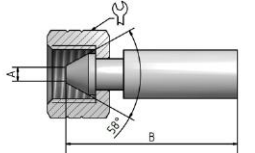
**Inner Core:** Polyoxymethylene (POM)  
**Pressure Support:** 6 layers of high-tensile steel wire  
**Outer Cover:** First: Polyamide (PA), Second: Polyurethane (TPU)  
**Color:** First: red, second: green  
**Temperature:** -30°C to +70°C [-22°F to 158°F]

Ø ID	Ø OD	Working Pressure -- (SF 2,5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
7,7 mm	22,8 mm	--	2.500 bar	260 mm	1,085 kg/m	4,5 mm
0,30 inch	0,90 inch	--	36.250 psi	10,24 inch	0,727 lbs/ft	0,18 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⌀	
<b>Sleeve</b>							
10860116	-	Steel	22,8	88,6	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>HP fitting</b>								
40860214E	3/8"x24UNF LH	Stainless steel	-	4,5	131	20	-	
40860204E	9/16"x18UNF LH	Stainless steel	-	4,5	143	31	-	
40860104E	M14x1,5 LH	Stainless steel	-	4,5	143	31	-	

<b>MP fitting</b>								
Part no.	Thread	Material		Dimensions (mm)				
A	B	C	⌀					
40860324E	3/4"x16UNF LH	Stainless steel	-	4,5	139	18	-	

<b>Type M female swivel</b>								
Part no.	Thread	Material		Dimensions (mm)				
A	B	C	⌀					
20860644E	3/4"x16UNF	Stainless steel	50840605, 50840601	4,5	107	-	24	
20860684E	7/8"x14UNF	Stainless steel	50860675	4,5	109	-	30	
20860694E	1 1/8"x12UNF	Stainless steel	50860695, 50860675	4,5	115	-	36	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	Ø	
<b>Swivel nut</b>								
50840601	3/4"x16UNF	Steel	1 radial	12,2	22,5	17,5	24	
50840605	3/4"x16UNF	AISI 316Ti	1 radial	12,2	22,5	17,5	24	
50860675	7/8"x14UNF	AISI 316Ti	1 radial	12,2	26	20	30	
50860695	1 1/8"x12UNF	AISI 316Ti	1 radial	16,2	35	23	36	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
9106400	600,00	800,00	20,40	20-25	
<b>Hose securing grip long version</b>					
910640L	600,00	1.010,00	20,40	20-25	

Part no.	Material	Crimp ring	Dimensions (mm)		Bend restrictor
			Ø	Length	
<b>PU bend restrictor</b>					
1.9523406E	PU	1004145	44	250	

<b>Accessories combinations</b>			
<b>Without hose protection</b>			
Description	Bend restrictor	Crimp ring	Securing grips
Bend restrictor	1.9523406E	1004145	-
Securing grip	-	-	9106400
Bend restrictor and securing grip	1.9523406E	1004145	9106400L

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.  
 The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.  
 Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.  
 The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.  
 \*) Blast-Pro® fittings may only be used for tube cleaning operations inside the tube. They have not been designed for the use outside of tubes.  
 We reserve our rights for technical changes without notice. Subject to printing errors.

# Hose Type 8/6UHP®

86UHP079

**SPIR STAR®**

ID8 - Series: E

## Applications

**Waterblast:** Heat exchanger tube cleaning, surface preparation (concrete removal, surface cleaning of buildings, paint removal), tank and vessel cleaning, ultra high-pressure waterjet cutting and hydro demolition (cutting and demolition of armoured concrete, pipelines, paper or steel)

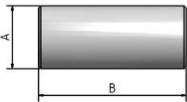
**Hydraulics:** Pressure test equipment (valves, tooling and control panels)

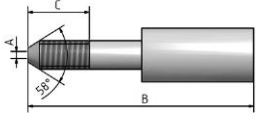


## Technical Information

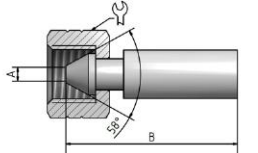
**Inner Core:** Polyoxymethylene (POM)  
**Pressure Support:** 6 layers of high-tensile steel wire  
**Outer Cover:** Polyamide (PA)  
**Color:** Chrome yellow  
**Temperature:** -30°C to +70°C [-22°F to 158°F]

Ø ID	Ø OD	Working Pressure -- (SF 2,5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
7,6 mm	19,3 mm	--	2.800 bar	300 mm	1,055 kg/m	4,5 mm
0,30 inch	0,76 inch	--	40.600 psi	11,81 inch	0,707 lbs/ft	0,18 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⚙	
<b>Sleeve</b>							
10860116	-	Steel	23,7	88,6	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⚙	
<b>HP fitting</b>								
40860214E	3/8"x24UNF LH	Stainless steel	-	4,5	131	20	-	
40860204E	9/16"x18UNF LH	Stainless steel	-	4,5	143	31	-	
40860104E	M14x1,5 LH	Stainless steel	-	4,5	143	31	-	

<b>MP fitting</b>								
Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⚙	
40860324E	3/4"x16UNF LH	Stainless steel	-	4,5	139	18	-	

<b>Type M female swivel</b>								
Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⚙	
20860644E	3/4"x16UNF	Stainless steel	50840605, 50840601	4,5	107	-	24	
20860684E	7/8"x14UNF	Stainless steel	50860675	4,5	109	-	30	
20860694E	1 1/8"x12UNF	Stainless steel	50860695, 50860675	4,5	115	-	36	

Part no.	Thread	Material	Relief bores	Dimensions (mm)			⌀	Swivel nut
				A	B	C		
<b>Swivel nut</b>								
50840601	3/4"x16UNF	Steel	1 radial	12,2	22,5	17,5	24	
50840605	3/4"x16UNF	AISI 316Ti	1 radial	12,2	22,5	17,5	24	
50860675	7/8"x14UNF	AISI 316Ti	1 radial	12,2	26	20	30	
50860695	1 1/8"x12UNF	AISI 316Ti	1 radial	16,2	35	23	36	

Part no.	Size (mm)	Material	Crimp ring					Hose protection
<b>Hose protection without spiral</b>								
1.902531	ID Ø25, OD Ø31	PVC	1003335					
1.903037	ID Ø30, OD Ø39	PVC	-					
<b>Hose protection with spiral</b>								
1.912532	ID Ø25, OD Ø32	PVC	1003438					
1.913038	ID Ø30, OD Ø38	PVC	-					
1.913240	ID Ø32, OD Ø40	PVC	-					

Part no.	Material	Crimp ring	Dimensions (mm)		Bend restrictor
			Ø	Length	
<b>PU bend restrictor</b>					
1.9523406E	PU	1004145	44	250	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
<b>Hose securing grip short version</b>					
9086400	600,00	780,00	20,40	15-20	
<b>Hose securing grip long version</b>					
908640L	600,00	990,00	20,40	15-20	



## Accessories combinations

Without hose protection				
Description		Bend restrictor	Crimp ring	Securing grips
Bend restrictor		1.9523406E	1004145	-
Securing grip		-	-	9086400
Bend restrictor and securing grip		1.9523406E	1004145	908640L
Hose protection without spiral				
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips
Protection hose	1.902531	-	1003335	-
with bend restrictor	1.903037	1.9523406E	1004145	-
with securing grip	1.903037	-	-	9086400
with bend restrictor and securing grip	1.903037	1.9523406E	1004145	908640L
Hose protection with spiral				
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips
Protection hose	1.912532	-	1003438	-
with bend restrictor	1.913240	1.9523406E	1004145	-
with securing grip	1.913038	-	-	9086400
with bend restrictor and securing grip	1.913240	1.9523406E	1004145	908640L

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

\*) Blast-Pro® fittings may only be used for tube cleaning operations inside the tube. They have not been designed for the use outside of tubes.

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# Hose Type 8/6UHP-X

86UHP079-X

**SPIR STAR**<sup>®</sup>

ID8 - Series: E

## Applications

**Waterblast:** Heat exchanger tube cleaning, surface preparation (concrete removal, surface cleaning of buildings, paint removal), tank and vessel cleaning, ultra high-pressure waterjet cutting and hydro demolition (cutting and demolition of armoured concrete, pipelines, paper or steel)

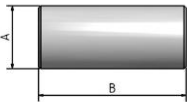
**Hydraulics:** Pressure test equipment (valves, tooling and control panels)

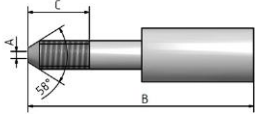


## Technical Information

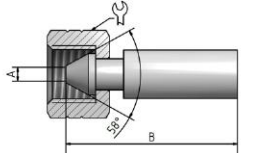
**Inner Core:** Polyoxymethylene (POM)  
**Pressure Support:** 6 layers of high-tensile steel wire  
**Outer Cover:** Polyamide (PA)  
**Color:** Chrome yellow  
**Temperature:** -30°C to +70°C [-22°F to 158°F]

Ø ID	Ø OD	Working Pressure -- (SF 2,3:1)	Burst Pressure	Bend Radius	Weight	Insert ID
7,6 mm	19,3 mm	--	3.035 bar	300 mm	1,055 kg/m	4,5 mm
0,30 inch	0,76 inch	--	44.000 psi	11,81 inch	0,707 lbs/ft	0,18 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⚙	
<b>Sleeve</b>							
10860116	-	Steel	23,7	88,6	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⚙	
<b>HP fitting</b>								
40860214E	3/8"x24UNF LH	Stainless steel	-	4,5	131	20	-	
40860204E	9/16"x18UNF LH	Stainless steel	-	4,5	143	31	-	
40860104E	M14x1,5 LH	Stainless steel	-	4,5	143	31	-	

<b>MP fitting</b>								
Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⚙	
40860324E	3/4"x16UNF LH	Stainless steel	-	4,5	139	18	-	

<b>Type M female swivel</b>								
Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⚙	
20860644E	3/4"x16UNF	Stainless steel	50840605, 50840601	4,5	107	-	24	
20860684E	7/8"x14UNF	Stainless steel	50860675	4,5	109	-	30	
20860694E	1 1/8"x12UNF	Stainless steel	50860695, 50860675	4,5	115	-	36	

Part no.	Thread	Material	Relief bores	Dimensions (mm)			⌀	Swivel nut
				A	B	C		
<b>Swivel nut</b>								
50840601	3/4"x16UNF	Steel	1 radial	12,2	22,5	17,5	24	
50840605	3/4"x16UNF	AISI 316Ti	1 radial	12,2	22,5	17,5	24	
50860675	7/8"x14UNF	AISI 316Ti	1 radial	12,2	26	20	30	
50860695	1 1/8"x12UNF	AISI 316Ti	1 radial	16,2	35	23	36	

Part no.	Size (mm)	Material	Crimp ring		Hose protection
<b>Hose protection without spiral</b>					
1.902531	ID Ø25, OD Ø31	PVC	1003335		
1.903037	ID Ø30, OD Ø39	PVC	-		
<b>Hose protection with spiral</b>					
1.912532	ID Ø25, OD Ø32	PVC	1003438		
1.913038	ID Ø30, OD Ø38	PVC	-		
1.913240	ID Ø32, OD Ø40	PVC	-		

Part no.	Material	Crimp ring	Dimensions (mm)		Bend restrictor
			Ø	Length	
<b>PU bend restrictor</b>					
1.9523406E	PU	1004145	44	250	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
<b>Hose securing grip short version</b>					
9086400	600,00	780,00	20,40	15-20	
<b>Hose securing grip long version</b>					
908640L	600,00	990,00	20,40	15-20	



## Accessories combinations

### Without hose protection

Description	Bend restrictor	Crimp ring	Securing grips
Bend restrictor	1.9523406E	1004145	-
Securing grip	-	-	9086400
Bend restrictor and securing grip	1.9523406E	1004145	908640L

### Hose protection without spiral

Description	Protection hose	Bend restrictor	Crimp ring	Securing grips
Protection hose	1.902531	-	1003335	-
with bend restrictor	1.903037	1.9523406E	1004145	-
with securing grip	1.903037	-	-	9086400
with bend restrictor and securing grip	1.903037	1.9523406E	1004145	908640L

### Hose protection with spiral

Description	Protection hose	Bend restrictor	Crimp ring	Securing grips
Protection hose	1.912532	-	1003438	-
with bend restrictor	1.913240	1.9523406E	1004145	-
with securing grip	1.913038	-	-	9086400
with bend restrictor and securing grip	1.913240	1.9523406E	1004145	908640L

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

\*) Blast-Pro® fittings may only be used for tube cleaning operations inside the tube. They have not been designed for the use outside of tubes.

We reserve our rights for technical changes without notice. Subject to printing errors.



## Applications

- Waterblast:** Surface preparation (concrete removal, surface cleaning of buildings, paint removal), tank and vessel cleaning, ultra high-pressure waterjet cutting and hydro demolition (cutting and demolition of armoured concrete, pipelines, paper or steel)
- Hydraulics:** Pressure test equipment (valves, tooling and control panels)

## Technical Information

- Inner Core:** Polyoxymethylene (POM)
- Pressure Support:** 8 layers of high-tensile steel wire
- Outer Cover:** Polyamide (PA)
- Color:** Chrome yellow
- Temperature:** -30°C to +60°C [-22°F to 140°F]

Ø ID	Ø OD	Working Pressure -- (SF 2,3:1)	Burst Pressure	Bend Radius	Weight	Insert ID
7,6 mm	22,0 mm	--	3.200 bar	300 mm	1,500 kg/m	4,5 mm
0,30 inch	0,87 inch	--	46.400 psi	11,81 inch	1,005 lbs/ft	0,18 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⌀	
10880142	-	Steel	29,7	66,8	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>HP fitting</b>								
40860214C	3/8"x24UNF LH	Stainless steel	-	4,5	100	20	-	
40860204C	9/16"x18UNF LH	Stainless steel	-	4,5	112	31	-	
40860104C	M14x1,5 LH	Stainless steel	-	4,5	112	24	-	

<b>Female swivel with O-Ring</b>								
20860224C	M24x1,5	Stainless steel	51320205, 51321206	4,5	91	-	32	

<b>Type M female swivel</b>								
20860644C	3/4"x16UNF	Stainless steel	50840605, 50840601	4,5	76	-	24	

Part no.	Thread	Material	Relief bores	Dimensions (mm)			⌀	Swivel nut
				A	B	C		
<b>Swivel nut</b>								
50840601	3/4"x16UNF	Steel	1 radial	12,2	22,5	17,5	24	
50840605	3/4"x16UNF	AISI 316Ti	1 radial	12,2	22,5	17,5	24	
51321206	M24x1,5	Steel	2 axial	16,8	23	16	32	
51320205	M24x1,5	AISI 316Ti	1 radial	16,8	23	16	32	

Part no.	Size (mm)	Material	Crimp ring	⌀	Length	Image	Hose protection
<b>Hose protection without spiral</b>							
1.903037	ID Ø30, OD Ø39	PVC	1003941				
1.903542	ID Ø35, OD Ø42	PVC	-				
<b>Hose protection with spiral</b>							
1.913038	ID Ø30, OD Ø38	PVC	1004145				
1.913240	ID Ø32, OD Ø40	PVC	-				

Part no.	Material	Crimp ring	Dimensions (mm)		Image	Bend restrictor
			⌀	Length		
<b>PU bend restrictor</b>						
1.9523406D	PU	1004145	44	250		

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Image	Hose securing grip
<b>Hose securing grip short version</b>						
9106400	600,00	800,00	20,40	20-25		
<b>Hose securing grip long version</b>						
910640L	600,00	1.010,00	20,40	20-25		

### Accessories combinations

Without hose protection				
Description		Bend restrictor	Crimp ring	Securing grips
Bend restrictor		1.9523406D	1004145	-
Securing grip		-	-	9106400
Bend restrictor and securing grip		1.9523406D	1004145	910640L
Hose protection without spiral				
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips
Protection hose	1.903037	-	1003941	-
with bend restrictor	1.903037	1.9523406D	1004145	-
with securing grip	1.903542	-	-	9106400
with bend restrictor and securing grip	1.903542	1.9523406D	1004145	910640L
Hose protection with spiral				
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips
Protection hose	1.913038	-	1004145	-
with bend restrictor	1.913240	1.9523406D	1004145	-
with securing grip	1.913240	-	-	9106400
with bend restrictor and securing grip	1.913240	1.9523406D	1004145	910640L

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

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# Hose Type 10/2

102200

ID10 - Series: A

**SPIR STAR®**

## Applications

- Waterblast:** Heat exchanger tube cleaning  
**Hydraulics:** Pressure test equipment (valves, tooling and control panels)

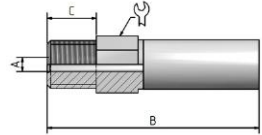
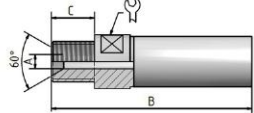
## Technical Information

- Inner Core:** Polyamide (PA)  
**Pressure Support:** 2 layers of high-tensile steel wire  
**Outer Cover:** Polyamide (PA)  
**Color:** Green  
**Temperature:** -30°C to +70°C [-22°F to 158°F]



Ø ID	Ø OD	Working Pressure -- (SF 2,5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
10,1 mm	15,5 mm	--	690 bar	160 mm	0,280 kg/m	6,5 mm
0,40 inch	0,61 inch	--	10.005 psi	6,30 inch	0,188 lbs/ft	0,26 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⌀	
<b>Sleeve</b>							
11020101	-	Steel	20,8	57,5	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>Male fitting</b>								
31020401A	3/8"x18NPTF	Steel	-	6,5	82	14	19	
31020405A	3/8"x18NPTF	AISI 316Ti	-	6,5	82	14	19	
31020425A	1/2"x14NPT	AISI 316Ti	-	6,5	86	18	22	
<b>Male fitting 60° internal cone</b>								
31020311A	G3/8"	Steel	-	6,5	78,5	12	17	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	Ø	
<b>Female swivel 24°/60°</b>								
21020301A	G1/2"	Steel	51060311	6,5	73	-	27	
21020305A	G1/2"	AISI 316Ti	51060315, 51060311	6,5	73	-	27	

<b>Female swivel with O-Ring</b>								
21020221A	M22x1,5	Steel	51060201, 51060205	6,5	83	-	30	
21040201A	M24x1,5	Steel	51321206	6,5	83,5	-	32	

<b>Type M female swivel</b>								
21020645A	3/4"x16UNF	AISI 316Ti	51320615	6,5	69	-	24	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	Ø	
<b>Swivel nut</b>								
51320615	3/4"x16UNF	AISI 316Ti	1 radial	14,2	22,5	17,5	24	
51060311	G1/2"	Steel	1 radial	16,7	23,5	13,5	27	
51060315	G1/2"	AISI 316Ti	1 radial	16,7	23,5	13,5	27	
51060201	M22x1,5	Steel	2 axial	14,2	23	14	30	
51060205	M22x1,5	AISI 316Ti	2 axial	14,2	25	14	30	
51321206	M24x1,5	Steel	2 axial	16,8	23	16	32	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
<b>Hose securing grip short version</b>					
9086400	600,00	780,00	20,40	15-20	

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.  
 The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.  
 Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.  
 The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.  
 \*) Blast-Pro® fittings may only be used for tube cleaning operations inside the tube. They have not been designed for the use outside of tubes.  
 We reserve our rights for technical changes without notice. Subject to printing errors.





## Applications

- Hydraulics:** Pressure test equipment (valves, tooling and control panels), hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools)
- Oil and Gas:** Control of subsea hydraulic components, nitrogen service, Gaseous media handling



## Technical Information

- Inner Core:** Polyamide (PA)
- Pressure Support:** 2 open layers, 2 dense layers of high-tensile steel wire
- Outer Cover:** Polyurethane (TPU)
- Color:** Black
- Temperature:** -30°C to +60°C [-22°F to 140°F]

Ø ID	Ø OD	Working Pressure -- (SF 2.5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
10,0 mm	17,2 mm	--	1.100 bar	125 mm	0,430 kg/m	6,5 mm
0,39 inch	0,68 inch	--	15.950 psi	4,92 inch	0,288 lbs/ft	0,26 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⌀	
<b>Sleeve</b>							
11030191W	-	Steel	21,5	56,75	-	-	
11030195W	-	AISI 316Ti	21,5	58	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>Male fitting</b>								
31020401A	3/8"x18NPTF	Steel	-	6,5	82	14	19	
31020405A	3/8"x18NPTF	AISI 316Ti	-	6,5	82	14	19	
31020425A	1/2"x14NPT	AISI 316Ti	-	6,5	86	18	22	

<b>Male fitting 60° internal cone</b>								
31020311A	G3/8"	Steel	-	6,5	78,5	12	17	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	Ø	
<b>Female swivel 24°/60°</b>								
21020301A	G1/2"	Steel	51060311	6,5	73	-	27	
21020305A	G1/2"	AISI 316Ti	51060315, 51060311	6,5	73	-	27	
<b>Female swivel with O-Ring</b>								
21020221A	M22x1,5	Steel	51060201, 51060205	6,5	83	-	30	
21040201A	M24x1,5	Steel	51321206	6,5	83,5	-	32	
<b>Type M female swivel</b>								
21020645A	3/4"x16UNF	AISI 316Ti	51320615	6,5	69	-	24	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	Ø	
<b>Swivel nut</b>								
51320615	3/4"x16UNF	AISI 316Ti	1 radial	14,2	22,5	17,5	24	
51060311	G1/2"	Steel	1 radial	16,7	23,5	13,5	27	
51060315	G1/2"	AISI 316Ti	1 radial	16,7	23,5	13,5	27	
51060201	M22x1,5	Steel	2 axial	14,2	23	14	30	
51060205	M22x1,5	AISI 316Ti	2 axial	14,2	25	14	30	
51321206	M24x1,5	Steel	2 axial	16,8	23	16	32	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
<b>Hose securing grip short version</b>					
9086400	600,00	780,00	20,40	15-20	

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

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## Applications

- Waterblast:** Heat exchanger tube cleaning, surface preparation (concrete removal, surface cleaning of buildings, paint removal), tank and vessel cleaning, ultra high-pressure waterjet cutting and hydro demolition (cutting and demolition of armoured concrete, pipelines, paper or steel)
- Hydraulics:** Pressure test equipment (valves, tooling and control panels), hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools)
- Oil and Gas:** Grease injection, chemical injection, control of subsea hydraulic components, nitrogen service, Gaseous media handling



## Technical Information

- Inner Core:** Polyoxymethylene (POM)
- Pressure Support:** 4 layers of high-tensile steel wire
- Outer Cover:** Polyamide (PA)
- Color:** Grey
- Temperature:** -30°C to +70°C [-22°F to 158°F]

Ø ID	Ø OD	Working Pressure -- (SF 2,5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
9,9 mm	18,4 mm	--	1.500 bar	200 mm	0,690 kg/m	5,5 mm
0,39 inch	0,72 inch	--	21.750 psi	7,87 inch	0,464 lbs/ft	0,22 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	Ø	
<b>Sleeve</b>							
11040102	-	Steel	23	63,7	-	-	
11040105	-	AISI 316Ti	23	64	-	-	
<b>Blast-Pro® sleeve</b>							
11040232	-	Steel	21	33	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	Ø	
<b>HP fitting</b>								
41060204C	9/16"x18UNF LH	Stainless steel	-	5,5	114	24	-	

Part no.	Thread	Material	Sleeve	Dimensions (mm)				⌀	Blast-Pro® Insert*
				A	B	C			
<b>Blast-Pro® MP male</b>									
41040244Y	9/16"x18UNF LH	Stainless steel	11040232	6	81	25	17		

Part no.	Thread	Material	Nut	Dimensions (mm)				⌀	Insert
				A	B	C			
<b>Male fitting 60° internal cone</b>									
31060311B	G3/8"	Steel	-	5,5	80	12	17		

<b>Female swivel 24°/60°</b>								
21060304C	G1/2"	Stainless steel	51060311, 51060315	5,5	78	-	27	

<b>Female swivel with O-Ring</b>								
21060204C	M22x1,5	Stainless steel	51060201, 51060205	5,5	90	-	30	
21060224C	M24x1,5	Stainless steel	51320205, 51321206, 51360206	5,5	93	-	32	
21060221B	M24x1,5	Steel	51321206	5,5	92,5	-	32	

<b>Type M female swivel</b>								
21040645B	3/4"x16UNF	AISI 316Ti	51320615	5,5	78	-	24	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				⌀	Swivel nut
				A	B	C			
<b>Swivel nut</b>									
51320615	3/4"x16UNF	AISI 316Ti	1 radial	14,2	22,5	17,5	24		
51060311	G1/2"	Steel	1 radial	16,7	23,5	13,5	27		
51060315	G1/2"	AISI 316Ti	1 radial	16,7	23,5	13,5	27		
51060201	M22x1,5	Steel	2 axial	14,2	23	14	30		
51060205	M22x1,5	AISI 316Ti	2 axial	14,2	25	14	30		
51321206	M24x1,5	Steel	2 axial	16,8	23	16	32		
51320205	M24x1,5	AISI 316Ti	1 radial	16,8	23	16	32		



## Hose protection

### Hose protection without spiral

Part no.	Size (mm)	Material	Crimp ring
1.902531	ID Ø25, OD Ø31	PVC	1003335



### Hose protection with spiral


Part no.	Size (mm)	Material	Crimp ring
1.912532	ID Ø25, OD Ø32	PVC	1003438



## Hose securing grip

### Hose securing grip short version

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)
9086400	600,00	780,00	20,40	15-20



## Accessories combinations

### Without hose protection

Description	Bend restrictor	Crimp ring	Securing grips
Securing grip	-	-	9086400

### Hose protection without spiral

Description	Protection hose	Bend restrictor	Crimp ring	Securing grips
Protection hose	1.902531	-	1003335	-
with securing grip	1.902531	-	-	9086400

### Hose protection with spiral

Description	Protection hose	Bend restrictor	Crimp ring	Securing grips
Protection hose	1.912532	-	1003438	-
with securing grip	1.912532	-	-	9086400

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

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## Applications

**Waterblast:** Surface preparation (concrete removal, surface cleaning of buildings, paint removal), tank and vessel cleaning, ultra high-pressure waterjet cutting and hydro demolition (cutting and demolition of armoured concrete, pipelines, paper or steel)

**Hydraulics:** Pressure test equipment (valves, tooling and control panels)

## Technical Information

**Inner Core:** Polyoxymethylene (POM)  
**Pressure Support:** 6 layers of high-tensile steel wire  
**Outer Cover:** Polyamide (PA)  
**Color:** Blue  
**Temperature:** -30°C to +60°C [-22°F to 140°F]

Ø ID	Ø OD	Working Pressure -- (SF 2,5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
9,8 mm	20,4 mm	--	1.920 bar	250 mm	1,000 kg/m	5,5 mm
0,39 inch	0,80 inch	--	27.840 psi	9,84 inch	0,672 lbs/ft	0,22 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⌀	
<b>Sleeve</b>							
11060102	-	Steel	26,6	64	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>HP fitting</b>								
41060204C	9/16"x18UNF LH	Stainless steel	-	5,5	114	24	-	

<b>Female swivel 24°/60°</b>								
21060304C	G1/2"	Stainless steel	51060311	5,5	78	-	27	

<b>Female swivel with O-Ring</b>								
21060204C	M22x1,5	Stainless steel	51060201, 51060205	5,5	90	-	30	
21060224C	M24x1,5	Stainless steel	51320205, 51321206, 51360206	5,5	93	-	32	

Part no.	Thread	Material	Relief bores	Dimensions (mm)			⌀	Swivel nut
				A	B	C		
<b>Swivel nut</b>								
51060311	G1/2"	Steel	1 radial	16,7	23,5	13,5	27	
51060201	M22x1,5	Steel	2 axial	14,2	23	14	30	
51060205	M22x1,5	AISI 316Ti	2 axial	14,2	25	14	30	
51321206	M24x1,5	Steel	2 axial	16,8	23	16	32	
51320205	M24x1,5	AISI 316Ti	1 radial	16,8	23	16	32	

Part no.	Size (mm)	Material	Crimp ring	Suitable for SPIR STAR® hose outer diameter (mm)	Hose protection
<b>Hose protection without spiral</b>					
1.903037	ID Ø30, OD Ø39	PVC	1003941	20-25	
<b>Hose protection with spiral</b>					
1.913038	ID Ø30, OD Ø38	PVC	1004145	20-25	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
<b>Hose securing grip short version</b>					
9106400	600,00	800,00	20,40	20-25	

Accessories combinations					
Without hose protection					
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips	
Securing grip	-	-	-	9086400	
<b>Hose protection without spiral</b>					
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips	
Protection hose	1.903037	-	1003941	-	
with securing grip	1.903037	-	-	9086400	
<b>Hose protection with spiral</b>					
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips	
Protection hose	1.913038	-	1004145	-	
with securing grip	1.913038	-	-	9086400	

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

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# Hose Type 10mmUHP-X-3035

10UHP079-X.3035



IDI10 - Series: E

## Applications

**Waterblast:** Heat exchanger tube cleaning, surface preparation (concrete removal, surface cleaning of buildings, paint removal), tank and vessel cleaning, ultra high-pressure waterjet cutting and hydro demolition (cutting and demolition of armoured concrete, pipelines, paper or steel)

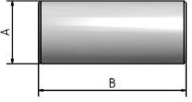
**Hydraulics:** Pressure test equipment (valves, tooling and control panels)

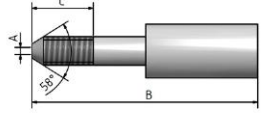


## Technical Information


**Inner Core:** Polyoxymethylene (POM)  
**Pressure Support:** 8 layers of high-tensile steel wire  
**Outer Cover:** Polyamide (PA)  
**Color:** Chrome yellow  
**Temperature:** -30°C to +70°C [-22°F to 158°F]



Ø ID	Ø OD	Working Pressure -- (SF 2.0:1)	Burst Pressure	Bend Radius	Weight	Insert ID
9,8 mm	24,0 mm	--	3.035 bar	320 mm	1,730 kg/m	6,0 mm
0,39 inch	0,94 inch	--	44.000 psi	12,60 inch	1,163 lbs/ft	0,24 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⚙	
<b>Sleeve</b>							
11080109		carbon steel	31	82,7			

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⚙	
<b>HP fitting</b>								
41060204E	9/16"x18UNF LH	stainless steel		6	138,2	23,8		
41060104E	M14x1,5 LH	stainless steel		6	138,2	23,8		



Part no.	Material	Crimp ring	Dimensions (mm)		Bend restrictor
			Ø	Length	
<b>PU bend restrictor</b>					
1.953545	PU	1005054	54	350	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
9106400	600,00	800,00	20,40	20-25	
<b>Hose securing grip long version</b>					
910640L	600,00	1.010,00	20,40	20-25	

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

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We reserve our rights for technical changes without notice. Subject to printing errors.

## Applications

- Waterblast:** Heat exchanger tube cleaning, surface preparation (concrete removal, surface cleaning of buildings, paint removal)
- Hydraulics:** Pressure test equipment (valves, tooling and control panels)
- Oil and Gas:** Grease injection



## Technical Information

- Inner Core:** Polyamide (PA)
- Pressure Support:** 2 layers of high-tensile steel wire
- Outer Cover:** Polyamide (PA)
- Color:** Green
- Temperature:** -30°C to +60°C [-22°F to 140°F]

Ø ID	Ø OD	Working Pressure -- (SF 2,5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
12,9 mm	19,3 mm	--	690 bar	1.725 bar	200 mm	0,435 kg/m
0,51 inch	0,76 inch	--	10.005 psi	25.010 psi	7,87 inch	0,291 lbs/ft

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⌀	
<b>Sleeve</b>							
11320101	-	Steel	26	58	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>MP fitting</b>								
41320205A	9/16"x18UNF LH	AISI 316Ti	-	8,5	109	12,7	-	

<b>Male fitting</b>								
Part no.	Thread	Material	Nut	A	B	C	⌀	
31320401A	1/2"x14NPTF	Steel	-	8,5	90	18	22	
31320405A	1/2"x14NPTF	AISI 316Ti	-	8,5	90	18	22	

<b>Female swivel 24°/60°</b>								
Part no.	Thread	Material	Nut	A	B	C	⌀	
21320311A	G1/2"	Steel	51060311	8,5	73	-	27	
21320315A	G1/2"	AISI 316Ti	51060315, 51060311	8,5	73	-	27	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>Female swivel with O-Ring</b>								
21320101A	M22x1,5	Steel	51360221	8,5	85	-	30	
21320241A	M24x1,5	Steel	51321206	8,5	80	-	32	
21320245A	M24x1,5	AISI 316Ti	51320205, 51360206	8,5	80	-	32	
<b>Type M female swivel</b>								
21320641A	1"x12UNF	Steel	51360641	8,5	74	-	32	
21320645A	1"x12UNF	AISI 316Ti	51360645, 51360643	8,5	74	-	32	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	⌀	
<b>Swivel nut</b>								
51360641	1"x12UNF	Steel	1 radial	16,8	28	22	32	
51360643	1"x12UNF	Stainless steel	1 radial	16,8	28	22	32	
51360645	1"x12UNF	AISI 316Ti	1 radial	16,8	28	22	32	
51060311	G1/2"	Steel	1 radial	16,7	23,5	13,5	27	
51060315	G1/2"	AISI 316Ti	1 radial	16,7	23,5	13,5	27	
51360221	M22x1,5	Steel	1 radial	16,8	25	14	30	
51321206	M24x1,5	Steel	2 axial	16,8	23	16	32	
51320205	M24x1,5	AISI 316Ti	1 radial	16,8	23	16	32	

Part no.	Size (mm)	Material	Crimp ring	Hose protection
<b>Hose protection with spiral</b>				
1.913038	ID Ø30, OD Ø38	PVC	1004145	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
<b>Hose securing grip short version</b>					
9086400	600,00	780,00	20,40	15-20	

Part no.	Size (mm)	Material	Crimp ring	Hose protection
<b>Hose protection without spiral</b>				
1.903037	ID Ø30, OD Ø39	PVC	1003941	



## Accessories combinations

Without hose protection				
Description		Bend restrictor	Crimp ring	Securing grips
Securing grip		-	-	9086400
Hose protection without spiral				
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips
Protection hose	1.903037	-	1003941	-
with securing grip	1.903037	-	-	9086400
Hose protection with spiral				
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips
Protection hose	1.913038	-	1004145	-
with securing grip	1.913038	-	-	9086400

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

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## Applications

- Hydraulics:** Pressure test equipment (valves, tooling and control panels), hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools)
- Oil and Gas:** Grease injection, control of subsea hydraulic components, nitrogen service, Gaseous media handling

## Technical Information

- Inner Core:** Polyamide (PA)
- Pressure Support:** 2 open layers, 2 dense layers of high-tensile steel wire
- Outer Cover:** Polyurethane (TPU)
- Color:** Black
- Temperature:** -30°C to +60°C [-22°F to 140°F]

Ø ID	Ø OD	Working Pressure		Burst Pressure	Bend Radius	Weight	Insert ID
		--	(SF 2.5:1)				
12,8 mm	20,8 mm	--	1.040 bar	2.600 bar	150 mm	0,590 kg/m	8,5 mm
0,50 inch	0,82 inch	--	15.080 psi	37.700 psi	5,91 inch	0,395 lbs/ft	0,33 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⌀	
<b>Sleeve</b>							
I1330191W	-	Steel	27,2	58	-	-	
I1330195W	-	AISI 316Ti	27,2	58	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>MP fitting</b>								
41320205A	9/16"x18UNF LH	AISI 316Ti	-	8,5	109	12,7	-	

<b>Male fitting</b>								
31320401A	1/2"x14NPTF	Steel	-	8,5	90	18	22	
31320405A	1/2"x14NPTF	AISI 316Ti	-	8,5	90	18	22	


<b>Female swivel 24°/60°</b>								
21320311A	G1/2"	Steel	51060311	8,5	73	-	27	
21320315A	G1/2"	AISI 316Ti	51060315, 51060311	8,5	73	-	27	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	Ø	
<b>Female swivel with O-Ring</b>								
21320101A	M22x1,5	Steel	51360221	8,5	85	-	30	
21320241A	M24x1,5	Steel	51321206	8,5	80	-	32	
21320245A	M24x1,5	AISI 316Ti	51320205, 51360206	8,5	80	-	32	

<b>Type M female swivel</b>								
21320641A	1"x12UNF	Steel	51360641	8,5	74	-	32	
21320645A	1"x12UNF	AISI 316Ti	51360645, 51360643	8,5	74	-	32	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	Ø	
<b>Swivel nut</b>								
51360641	1"x12UNF	Steel	1 radial	16,8	28	22	32	
51360643	1"x12UNF	Stainless steel	1 radial	16,8	28	22	32	
51360645	1"x12UNF	AISI 316Ti	1 radial	16,8	28	22	32	
51060311	G1/2"	Steel	1 radial	16,7	23,5	13,5	27	
51060315	G1/2"	AISI 316Ti	1 radial	16,7	23,5	13,5	27	
51360221	M22x1,5	Steel	1 radial	16,8	25	14	30	
51321206	M24x1,5	Steel	2 axial	16,8	23	16	32	
51320205	M24x1,5	AISI 316Ti	1 radial	16,8	23	16	32	

Part no.	Size (mm)	Material	Crimp ring	Hose protection
<b>Hose protection without spiral</b>				
1.903037	ID Ø30, OD Ø39	PVC	1003941	
1.903542	ID Ø35, OD Ø42	PVC	-	
<b>Hose protection with spiral</b>				
1.913038	ID Ø30, OD Ø38	PVC	1004145	
1.913240	ID Ø32, OD Ø40	PVC	-	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
<b>Hose securing grip short version</b>					
9106400	600,00	800,00	20,40	20-25	

## Accessories combinations

<b>Without hose protection</b>				
Description		Bend restrictor	Crimp ring	Securing grips
Securing grip		-	-	9106400
<b>Hose protection without spiral</b>				
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips
Protection hose	I.903037	-	1003941	-
with securing grip	I.903542	-	-	9106400
<b>Hose protection with spiral</b>				
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips
Protection hose	I.913038	-	1004145	-
with securing grip	I.913240	-	-	9106400

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

\*) Blast-Pro® fittings may only be used for tube cleaning operations inside the tube. They have not been designed for the use outside of tubes.

We reserve our rights for technical changes without notice. Subject to printing errors.

# Hose Type I3/2WR

I32WR228I

**SPIR STAR®**

Silver Mongoose

ID13 - Series: O

## Applications

- Waterblast:** Heat exchanger tube cleaning, surface preparation (concrete removal, surface cleaning of buildings, paint removal)
- Hydraulics:** Pressure test equipment (valves, tooling and control panels)
- Oil and Gas:** Grease injection, nitrogen service, Gaseous media handling



## Technical Information

- Inner Core:** Polyamide (PA)
- Pressure Support:** 2 open layers, 2 dense layers of high-tensile steel wire
- Outer Cover:** Polyurethane (TPU)
- Color:** Silver
- Temperature:** -30°C to +60°C [-22°F to 140°F]

Ø ID	Ø OD	Working Pressure -- (SF 2,5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
12,8 mm	22,2 mm	--	1.040 bar	150 mm	0,590 kg/m	7,5 mm
0,50 inch	0,87 inch	--	15.080 psi	5,91 inch	0,395 lbs/ft	0,30 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⌀	
<b>Sleeve</b>							
I1330206VWR	-	Steel	27,5	63	-	-	
I1330205VWR	-	AISI 316Ti	27,5	63	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>MP fitting</b>								
41360205O	9/16"x18UNF LH	AISI 316Ti	-	7,5	118	13	-	
<b>Male fitting</b>								
31360401O	1/2"x14NPTF	Steel	-	7,5	99	18	22	
31360405O	1/2"x14NPTF	AISI 316Ti	-	7,5	99	18	22	
<b>Female swivel 24°/60°</b>								
21360332O	G1/2"	Steel	51060311	7,5	81	-	27	
21360335O	G1/2"	AISI 316Ti	51060315, 51060311	7,5	81	-	27	



# Hose Type I3/2WR

I32WR228I

**SPIR STAR®**

Silver Mongoose

ID13 - Series: O

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>Female swivel with O-Ring</b>								
21360122O	M22x1,5	Steel	51360221	7,5	97	-	30	
21360242O	M24x1,5	Steel	51321206	7,5	89	-	32	
21360245O	M24x1,5	AISI 316Ti	51320205, 51320206	7,5	89	-	32	
<b>Type M female swivel</b>								
21360642O	1"x12UNF	Steel	51360641	7,5	84	-	32	
21360645O	1"x12UNF	AISI 316Ti	51360645, 51360641	7,5	84	-	32	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	⌀	
<b>Swivel nut</b>								
51360641	1"x12UNF	Steel	1 radial	16,8	28	22	32	
51360645	1"x12UNF	AISI 316Ti	1 radial	16,8	28	22	32	
51060311	G1/2"	Steel	1 radial	16,7	23,5	13,5	27	
51060315	G1/2"	AISI 316Ti	1 radial	16,7	23,5	13,5	27	
51360221	M22x1,5	Steel	1 radial	16,8	25	14	30	
51321206	M24x1,5	Steel	2 axial	16,8	23	16	32	
51320205	M24x1,5	AISI 316Ti	1 radial	16,8	23	16	32	

Part no.	Size (mm)	Material	Crimp ring	Hose protection
1.903037	ID Ø30, OD Ø39	PVC	1003941	
1.903542	ID Ø35, OD Ø42	PVC	-	
<b>Hose protection with spiral</b>				
1.913038	ID Ø30, OD Ø38	PVC	1004145	
1.913240	ID Ø32, OD Ø40	PVC	-	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
9106400	600,00	800,00	20,40	20-25	



Accessories combinations				
<b>Without hose protection</b>				
Description		Bend restrictor	Crimp ring	Securing grips
Securing grip		-	-	9106400
<b>Hose protection without spiral</b>				
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips
Protection hose	I.903037	-	I003941	-
with securing grip	I.903542	-	-	9106400
<b>Hose protection with spiral</b>				
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips
Protection hose	I.913038	-	I004145	-
with securing grip	I.913240	-	-	9106400

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

\*) Blast-Pro® fittings may only be used for tube cleaning operations inside the tube. They have not been designed for the use outside of tubes.

We reserve our rights for technical changes without notice. Subject to printing errors.



## Applications

- Waterblast:** Heat exchanger tube cleaning, surface preparation (concrete removal, surface cleaning of buildings, paint removal), tank and vessel cleaning, ultra high-pressure waterjet cutting and hydro demolition (cutting and demolition of armoured concrete, pipelines, paper or steel)
- Hydraulics:** Pressure test equipment (valves, tooling and control panels), hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools)
- Oil and Gas:** Grease injection, chemical injection, control of subsea hydraulic components, nitrogen service, Gaseous media handling



## Technical Information

- Inner Core:** Polyamide (PA)
- Pressure Support:** 4 layers of high-tensile steel wire
- Outer Cover:** Polyamide (PA)
- Color:** Grey
- Temperature:** -30°C to +60°C [-22°F to 140°F]

Ø ID	Ø OD	Working Pressure -- (SF 2,5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
12,8 mm	21,4 mm	--	1.300 bar	200 mm	0,800 kg/m	7,5 mm
0,50 inch	0,84 inch	--	18.850 psi	7,87 inch	0,536 lbs/ft	0,30 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⌀	
<b>Sleeve</b>							
I1340122	-	Steel	27,4	63,7	-	-	
I1340125	-	AISI 316Ti	27,4	64	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>HP fitting</b>								
41360214C	9/16"x18UNF LH	Stainless steel	-	7,5	118	24	-	
<b>MP fitting</b>								
41360204C	3/4"x16UNF LH	Stainless steel	-	7,5	121	25	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>Female swivel 24°/60°</b>								
21340314B	G1/2"	Stainless steel	51060315, 51060311	7,5	81	-	27	
<b>Female swivel with O-Ring</b>								
21360244C	M24x1,5	Stainless steel	51320205, 51321206, 51360206	7,5	89	-	32	
<b>Type M female swivel</b>								
21360644C	1"x12UNF	Stainless steel	51360645, 51360641, 51360643	7,5	84	-	32	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	⌀	
<b>Swivel nut</b>								
51360641	1"x12UNF	Steel	1 radial	16,8	28	22	32	
51360643	1"x12UNF	Stainless steel	1 radial	16,8	28	22	32	
51360645	1"x12UNF	AISI 316Ti	1 radial	16,8	28	22	32	
51060311	G1/2"	Steel	1 radial	16,7	23,5	13,5	27	
51060315	G1/2"	AISI 316Ti	1 radial	16,7	23,5	13,5	27	
51321206	M24x1,5	Steel	2 axial	16,8	23	16	32	
51320205	M24x1,5	AISI 316Ti	1 radial	16,8	23	16	32	



## Hose protection

### Hose protection without spiral

Part no.	Size (mm)	Material	Crimp ring
I.903037	ID Ø30, OD Ø39	PVC	1003941
I.903542	ID Ø35, OD Ø42	PVC	-



### Hose protection with spiral

Part no.	Size (mm)	Material	Crimp ring
I.913038	ID Ø30, OD Ø38	PVC	1004145
I.913240	ID Ø32, OD Ø40	PVC	-



## Hose securing grip

### Hose securing grip short version

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)
9106400	600,00	800,00	20,40	20-25



## Accessories combinations

### Without hose protection

Description	Bend restrictor	Crimp ring	Securing grips
Securing grip	-	-	9106400

### Hose protection without spiral

Description	Protection hose	Bend restrictor	Crimp ring	Securing grips
Protection hose	I.903037	-	1003941	-
with securing grip	I.903542	-	-	9106400

### Hose protection with spiral

Description	Protection hose	Bend restrictor	Crimp ring	Securing grips
Protection hose	I.913038	-	1004145	-
with securing grip	I.913240	-	-	9106400

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

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We reserve our rights for technical changes without notice. Subject to printing errors.

## Applications

- Waterblast:** Heat exchanger tube cleaning, surface preparation (concrete removal, surface cleaning of buildings, paint removal), tank and vessel cleaning, ultra high-pressure waterjet cutting and hydro demolition (cutting and demolition of armoured concrete, pipelines, paper or steel)
- Hydraulics:** Pressure test equipment (valves, tooling and control panels), hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools)
- Oil and Gas:** Grease injection, chemical injection, control of subsea hydraulic components, nitrogen service, Gaseous media handling



## Technical Information

- Inner Core:** Polyamide (PA)
- Pressure Support:** 4 layers of high-tensile steel wire
- Outer Cover:** Polyamide (PA)
- Color:** Grey
- Temperature:** -30°C to +70°C [-22°F to 158°F]

Ø ID	Ø OD	Working Pressure -- (SF 2,5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
12,8 mm	22,0 mm	--	1.400 bar	200 mm	0,880 kg/m	7,5 mm
0,50 inch	0,87 inch	--	20.300 psi	7,87 inch	0,590 lbs/ft	0,30 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⌀	
11340232	-	Steel	29,5	65	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>HP fitting</b>								
41360214C	9/16"x18UNF LH	Stainless steel	-	7,5	118	24	-	

<b>MP fitting</b>								
41360204C	3/4"x16UNF LH	Stainless steel	-	7,5	121	25	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>Female swivel 24°/60°</b>								
21340314B	G1/2"	Stainless steel	51060315, 51060311	7,5	81	-	27	
<b>Female swivel with O-Ring</b>								
21360244C	M24x1,5	Stainless steel	51320205, 51321206, 51360206	7,5	89	-	32	
<b>Type M female swivel</b>								
21360644C	1"x12UNF	Stainless steel	51360645, 51360641, 51360643	7,5	84	-	32	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	⌀	
<b>Swivel nut</b>								
51360641	1"x12UNF	Steel	1 radial	16,8	28	22	32	
51360643	1"x12UNF	Stainless steel	1 radial	16,8	28	22	32	
51360645	1"x12UNF	AISI 316Ti	1 radial	16,8	28	22	32	
51060311	G1/2"	Steel	1 radial	16,7	23,5	13,5	27	
51060315	G1/2"	AISI 316Ti	1 radial	16,7	23,5	13,5	27	
51321206	M24x1,5	Steel	2 axial	16,8	23	16	32	
51320205	M24x1,5	AISI 316Ti	1 radial	16,8	23	16	32	



## Hose protection

### Hose protection without spiral

Part no.	Size (mm)	Material	Crimp ring
I.903037	ID Ø30, OD Ø39	PVC	1003941
I.903542	ID Ø35, OD Ø42	PVC	-



### Hose protection with spiral

Part no.	Size (mm)	Material	Crimp ring
I.913038	ID Ø30, OD Ø38	PVC	1004145
I.913240	ID Ø32, OD Ø40	PVC	-



## Hose securing grip

### Hose securing grip short version

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)
9106400	600,00	800,00	20,40	20-25



## Accessories combinations

### Without hose protection

Description	Bend restrictor	Crimp ring	Securing grips
Securing grip	-	-	9106400

### Hose protection without spiral

Description	Protection hose	Bend restrictor	Crimp ring	Securing grips
Protection hose	I.903037	-	1003941	-
with securing grip	I.903542	-	-	9106400

### Hose protection with spiral

Description	Protection hose	Bend restrictor	Crimp ring	Securing grips
Protection hose	I.913038	-	1004145	-
with securing grip	I.913240	-	-	9106400

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

\*) Blast-Pro® fittings may only be used for tube cleaning operations inside the tube. They have not been designed for the use outside of tubes.

We reserve our rights for technical changes without notice. Subject to printing errors.



## Applications

- Waterblast:** Surface preparation (concrete removal, surface cleaning of buildings, paint removal), tank and vessel cleaning, ultra high-pressure waterjet cutting and hydro demolition (cutting and demolition of armoured concrete, pipelines, paper or steel)
- Hydraulics:** Hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools)
- Oil and Gas:** Grease injection, nitrogen service



## Technical Information

- Inner Core:** Polyamide (PA)  
**Pressure Support:** 6 layers of high-tensile steel wire  
**Outer Cover:** Polyamide (PA)  
**Color:** Blue  
**Temperature:** -30°C to +60°C [-22°F to 140°F]

Ø ID	Ø OD	Working Pressure -- (SF 2,5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
12,8 mm	23,4 mm	--	1.800 bar	300 mm	1,160 kg/m	7,5 mm
0,50 inch	0,92 inch	--	26.100 psi	11,81 inch	0,777 lbs/ft	0,30 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⌀	
<b>Sleeve</b>							
11360132	-	Steel	30,2	64,5	-	-	
11360135	-	AISI 316Ti	30,2	64	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>HP fitting</b>								
41360214C	9/16"x18UNF LH	Stainless steel	-	7,5	118	24	-	
<b>MP fitting</b>								
41360204C	3/4"x16UNF LH	Stainless steel	-	7,5	121	25	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>Female swivel with O-Ring</b>								
21360244C	M24x1,5	Stainless steel	51361206	7,5	89	-	32	

<b>Type M female swivel</b>								
21360644C	1"x12UNF	Stainless steel	51360645, 51360641, 51360643	7,5	84	-	32	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	⌀	
<b>Swivel nut</b>								
51360641	1"x12UNF	Steel	1 radial	16,8	28	22	32	
51360643	1"x12UNF	Stainless steel	1 radial	16,8	28	22	32	
51360645	1"x12UNF	AISI 316Ti	1 radial	16,8	28	22	32	
51361206	M24x1,5	Steel	2 axial	16,8	28	21	32	

Part no.	Size (mm)	Material	Crimp ring	Hose protection with spiral
1.913240	ID Ø32, OD Ø40	PVC	1004145	
1.914051	ID Ø40, OD Ø47	PVC	-	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
9106400	600,00	800,00	20,40	20-25	

<b>Accessories combinations</b>					
<b>Without hose protection</b>					
Description			Bend restrictor	Crimp ring	Securing grips
Securing grip			-	-	9106400
<b>Hose protection with spiral</b>					
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips	
Protection hose	1.913240	-	1004145	-	
with securing grip	1.914051	-	-	9106400	

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.  
 The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.  
 Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.  
 The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.  
 \*) Blast-Pro® fittings may only be used for tube cleaning operations inside the tube. They have not been designed for the use outside of tubes.  
 We reserve our rights for technical changes without notice. Subject to printing errors.

# Hose Type I3/6H

I36H006

IDI3 - Series: C

**SPIR STAR®**

## Applications

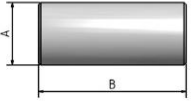
- Waterblast:** Surface preparation (concrete removal, surface cleaning of buildings, paint removal), tank and vessel cleaning
- Hydraulics:** Hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools)
- Oil and Gas:** Grease injection, nitrogen service

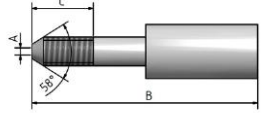


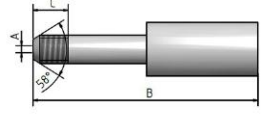
## Technical Information

- Inner Core:** Polyoxymethylene (POM)
- Pressure Support:** 6 layers of high-tensile steel wire
- Outer Cover:** Polyamide (PA)
- Color:** Red
- Temperature:** -30°C to +60°C [-22°F to 140°F]

Ø ID	Ø OD	Working Pressure -- (SF 2,5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
12,7 mm	24,8 mm	--	2.000 bar	300 mm	1,200 kg/m	7,5 mm
0,50 inch	0,98 inch	--	29.000 psi	11,81 inch	0,804 lbs/ft	0,30 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⌀	
<b>Sleeve</b>							
I1360232	-	Steel	32,9	64	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>HP fitting</b>								
41360214C	9/16"x18UNF LH	Stainless steel	-	7,5	118	24	-	

<b>MP fitting</b>								
41360204C	3/4"x16UNF LH	Stainless steel	-	7,5	121	25	-	

<b>Female swivel with O-Ring</b>								
21360244C	M24x1,5	Stainless steel	51361206	7,5	89	-	32	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>Type M female swivel</b>								
21360644C	1"x12UNF	Stainless steel	51360645, 51360641, 51360643	7,5	84	-	32	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	⌀	
<b>Swivel nut</b>								
51360641	1"x12UNF	Steel	1 radial	16,8	28	22	32	
51360643	1"x12UNF	Stainless steel	1 radial	16,8	28	22	32	
51360645	1"x12UNF	AISI 316Ti	1 radial	16,8	28	22	32	
51361206	M24x1,5	Steel	2 axial	16,8	28	21	32	

Part no.	Size (mm)	Material	Crimp ring	Hose protection with spiral	Hose protection

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
9106400	600,00	800,00	20,40	20-25	

Accessories combinations					
<b>Without hose protection</b>					
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips	
Securing grip	-	-	-	9106400	
<b>Hose protection with spiral</b>					
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips	
Protection hose	1.914051	-	1005054	-	
with securing grip	1.914051	-	-	9106400	

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.  
 The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.  
 Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.  
 The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.  
 \*) Blast-Pro® fittings may only be used for tube cleaning operations inside the tube. They have not been designed for the use outside of tubes.  
 We reserve our rights for technical changes without notice. Subject to printing errors.

## Applications

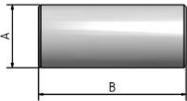
- Waterblast:** Heat exchanger tube cleaning, surface preparation (concrete removal, surface cleaning of buildings, paint removal), tank and vessel cleaning, ultra high-pressure waterjet cutting and hydro demolition (cutting and demolition of armoured concrete, pipelines, paper or steel)
- Hydraulics:** Pressure test equipment (valves, tooling and control panels)
- Oil and Gas:** Gaseous media handling

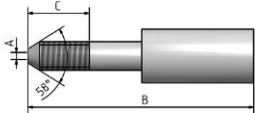


## Technical Information

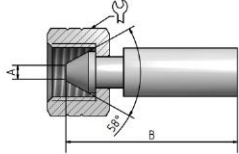
- Inner Core:** Polyoxymethylene (POM)
- Pressure Support:** 8 layers of high-tensile steel wire
- Outer Cover:** Polyamide (PA)
- Color:** Chrome yellow
- Temperature:** -30°C to +60°C [-22°F to 140°F]

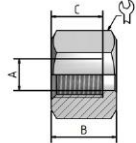
Ø ID	Ø OD	Working Pressure -- (SF 2,1:1)	Burst Pressure	Bend Radius	Weight	Insert ID
12,8 mm	27,7 mm	--	2.800 bar	350 mm	2,085 kg/m	7,5 mm
0,50 inch	1,09 inch	--	40.600 psi	13,78 inch	1,397 lbs/ft	0,30 inch



Part no.	Thread	Material	Nut	Dimensions (mm)				Sleeve
				A	B	C	⌀	
<b>Sleeve</b>								
11380116	-	Steel	-	31,6	86,5	-	-	


Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>HP fitting</b>								
41360104E	M18x1,5 LH	Stainless steel	-	7,5	157	28	-	
41360214E	9/16"x18UNF LH	Stainless steel	-	7,5	137	23,8	-	


Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>Female swivel with O-Ring</b>								
21360244E	M24x1,5	Stainless steel	51361206	8,5	115	-	32	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	Ø	
<b>Type M female swivel</b>								
21360644E	1"x12UNF	Stainless steel	51360645, 51360641, 51360643	7,5	96	-	32	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	Ø	
<b>Swivel nut</b>								
51360641	1"x12UNF	Steel	1 radial	16,8	28	22	32	
51360643	1"x12UNF	Stainless steel	1 radial	16,8	28	22	32	
51360645	1"x12UNF	AISI 316Ti	1 radial	16,8	28	22	32	
51361206	M24x1,5	Steel	2 axial	16,8	28	21	32	

Part no.	Size (mm)	Material	Crimp ring	Dimensions (mm)		Hose protection
				Ø	Length	
<b>Hose protection without spiral</b>						
1.903542	ID Ø35, OD Ø42	PVC	1004348			
1.904252	ID Ø42, OD Ø52	PVC	-			
<b>Hose protection with spiral</b>						
1.913541	ID Ø32, OD Ø40	PVC	1004348			
1.914051	ID Ø40, OD Ø47	PVC	1005054			
1.914553	ID Ø45, OD Ø53	PVC	-			

Part no.	Material	Crimp ring	Dimensions (mm)		Bend restrictor
			Ø	Length	
<b>PU bend restrictor</b>					
1.953545	PU	1005054	54	350	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
9136400	600,00	800,00	24,30	25-30	

### Accessories combinations

Without hose protection				
Description		Bend restrictor	Crimp ring	Securing grips
Bend restrictor		1.953545	1005054	-
Securing grip		-	-	9136400
Hose protection without spiral				
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips
Protection hose	1.903542	-	1004348	-
with bend restrictor	1.904252	1.953545	1005054	-
with securing grip	1.904252	-	-	9136400
Hose protection with spiral				
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips
Protection hose	1.913541	-	1004348	-
with bend restrictor	1.914553	1.953545	1005054	-
with securing grip	1.914051	-	-	9136400

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

\*) Blast-Pro® fittings may only be used for tube cleaning operations inside the tube. They have not been designed for the use outside of tubes.

We reserve our rights for technical changes without notice. Subject to printing errors.



## Applications

- Waterblast:** Heat exchanger tube cleaning, surface preparation (concrete removal, surface cleaning of buildings, paint removal), tank and vessel cleaning
- Hydraulics:** Pressure test equipment (valves, tooling and control panels), hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools)
- Oil and Gas:** Grease injection, chemical injection, control of subsea hydraulic components, nitrogen service, Gaseous media handling

## Technical Information

- Inner Core:** Polyamide (PA)
- Pressure Support:** 4 layers of high-tensile steel wire
- Outer Cover:** Polyamide (PA)
- Color:** Grey
- Temperature:** -30°C to +60°C [-22°F to 140°F]

Ø ID	Ø OD	Working Pressure -- (SF 2,5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
16,0 mm	25,5 mm	--	1.040 bar	250 mm	1,002 kg/m	10,5 mm
0,63 inch	1,00 inch	--	15.080 psi	9,84 inch	0,671 lbs/ft	0,41 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	Ø	
<b>Sleeve</b>							
I1640112	-	Steel	32,7	69	-	-	
I1640115	-	AISI 316Ti	32,6	69	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	Ø	
<b>MP fitting</b>								
41640305B	3/4"x16UNF LH	AISI 316Ti	-	10,5	120	18	-	
<b>Male fitting</b>								
31640401B	3/4"x14NPT	Steel	-	10,5	101	18	27	



Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	Ø	
<b>Female swivel with O-Ring</b>								
21640101B	M30x2	Steel	51640201	10,5	98	-	41	

<b>Type M female swivel</b>								
21640605B	1 5/16"x12UN	AISI 316Ti	52040645	10,5	99	-	46	

<b>JIC female swivel</b>								
21640645B	1 1/16"x12UN	AISI 316Ti	51640605	10,5	84	-	36	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	Ø	
<b>Swivel nut</b>								
51640605	1 1/16"x12UN	AISI 316Ti	1 radial	20,1	29	23	36	
52040645	1 5/16"x12UN	AISI 316Ti	1 radial	25,5	31,5	11,5	46	
51640201	M30x2	Steel	1 radial	20,5	28	15	41	

Part no.	Size (mm)	Material	Crimp ring	Hose protection
<b>Hose protection with spiral</b>				
1.914051	ID Ø40, OD Ø47	PVC	1005054	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
<b>Hose securing grip short version</b>					
9136400	600,00	800,00	24,30	25-30	

Accessories combinations			
Without hose protection			
Description	Bend restrictor	Crimp ring	Securing grips
Securing grip	-	-	9136400



## Accessories combinations

Hose protection with spiral				
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips
Protection hose	I.914051	-	1005054	-
with securing grip	I.914051	-	-	9136400

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

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# Hose Type 16/6

166201

IDI6 - Series: C

**SPIR STAR®**

## Applications

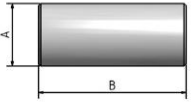
- Waterblast:** Surface preparation (concrete removal, surface cleaning of buildings, paint removal), tank and vessel cleaning
- Hydraulics:** Pressure test equipment (valves, tooling and control panels), hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools)
- Oil and Gas:** Grease injection, chemical injection, nitrogen service, Gaseous media handling

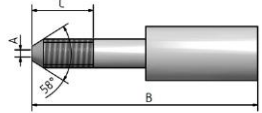


## Technical Information

- Inner Core:** Polyamide (PA)
- Pressure Support:** 6 layers of high-tensile steel wire
- Outer Cover:** Polyamide (PA)
- Color:** Blue
- Temperature:** -30°C to +60°C [-22°F to 140°F]

Ø ID	Ø OD	Working Pressure -- (SF 2,5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
15,9 mm	27,7 mm	--	1.520 bar	320 mm	1,520 kg/m	10,5 mm
0,63 inch	1,09 inch	--	22.040 psi	12,60 inch	1,022 lbs/ft	0,41 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⚙	
<b>Sleeve</b>							
11660102	-	Steel	35	68	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⚙	
<b>HP fitting</b>								
41660114C	M18x1,5 LH	Stainless steel	-	10,5	141	28	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⚙	
<b>Female swivel with O-Ring</b>								
21660104C	M30x2	Stainless steel	51640201	10,5	98	-	41	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⚙	
<b>Type M female swivel</b>								
21660604C	1 5/16"x12UN	Stainless steel	52040645	10,5	100	-	46	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	Ø	
<b>JIC female swivel</b>								
21660644C	I 5/16"x12UN	Stainless steel	52040605	10,5	94	-	46	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	Ø	
<b>Swivel nut</b>								
52040605	I 5/16"x12UN	AISI 316Ti	I radial	25,5	34,5	14,5	46	
52040645	I 5/16"x12UN	AISI 316Ti	I radial	25,5	31,5	11,5	46	
51640201	M30x2	Steel	I radial	20,5	28	15	41	

Part no.	Size (mm)	Material	Crimp ring	Dimensions (mm)		Hose protection
				Ø	Length	
<b>Hose protection without spiral</b>						
1.904252	ID Ø42, OD Ø52	PVC	1005257			
<b>Hose protection with spiral</b>						
1.914051	ID Ø40, OD Ø47	PVC	1005054			
1.915158	ID Ø50, OD Ø58	PVC	1006064			

Part no.	Material	Crimp ring	Dimensions (mm)		Bend restrictor
			Ø	Length	
<b>PU bend restrictor</b>					
1.953845	PU	1005257	56	350	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
9136400	600,00	800,00	24,30	25-30	



## Accessories combinations

<b>Without hose protection</b>				
Description		Bend restrictor	Crimp ring	Securing grips
Securing grip		-	-	9136400
<b>Hose protection without spiral</b>				
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips
Protection hose	1.904252	-	1005257	-
with bend restrictor	1.904252	1.953845	1005257	-
with securing grip	1.904252	-	-	9136400
<b>Hose protection with spiral</b>				
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips
Protection hose	1.914051	-	1005054	-
with bend restrictor	1.915158	1.953845	1005257	-
with securing grip	1.914051	-	-	9136400

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

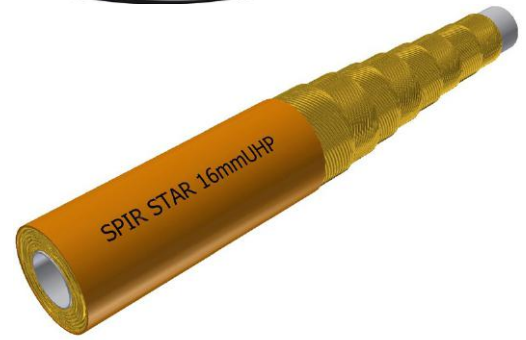
The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

\*) Blast-Pro® fittings may only be used for tube cleaning operations inside the tube. They have not been designed for the use outside of tubes.

We reserve our rights for technical changes without notice. Subject to printing errors.

## Applications

- Waterblast:** Surface preparation (concrete removal, surface cleaning of buildings, paint removal), tank and vessel cleaning, ultra high-pressure waterjet cutting and hydro demolition (cutting and demolition of armoured concrete, pipelines, paper or steel)
- Hydraulics:** Pressure test equipment (valves, tooling and control panels)
- Oil and Gas:** Gaseous media handling



## Technical Information

- Inner Core:** Polyoxymethylene (POM)
- Pressure Support:** 8 layers of high-tensile steel wire
- Outer Cover:** Polyamide (PA)
- Color:** Chrome yellow
- Temperature:** -30°C to +60°C [-22°F to 140°F]

Ø ID	Ø OD	Working Pressure -- (SF 2.5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
15,9 mm	31,8 mm	--	2.000 bar	400 mm	2,523 kg/m	10,5 mm
0,63 inch	1,25 inch	--	29.000 psi	15,75 inch	1,690 lbs/ft	0,41 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⌀	
<b>Sleeve</b>							
11680242	-	Steel	35	72	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>HP fitting</b>								
41660114C	M18x1,5 LH	Stainless steel	-	10,5	141	28	-	

<b>Female swivel with O-Ring</b>								
21660104C	M30x2	Stainless steel	51640201	10,5	98	-	41	

<b>Type M female swivel</b>								
21660604C	1 5/16"x12UN	Stainless steel	52040645	10,5	100	-	46	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	Ø	
<b>JIC female swivel</b>								
21660644C	I 5/16"x12UN	Stainless steel	52040605	10,5	94	-	46	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	Ø	
<b>Swivel nut</b>								
52040605	I 5/16"x12UN	AISI 316Ti	I radial	25,5	34,5	14,5	46	
52040645	I 5/16"x12UN	AISI 316Ti	I radial	25,5	31,5	11,5	46	
51640201	M30x2	Steel	I radial	20,5	28	15	41	

Part no.	Size (mm)	Material	Crimp ring	Hose protection
<b>Hose protection without spiral</b>				
1.904252	ID Ø42, OD Ø52	PVC	1005257	
<b>Hose protection with spiral</b>				
1.914051	ID Ø40, OD Ø47	PVC	1005054	
1.915158	ID Ø50, OD Ø58	PVC	-	

Part no.	Material	Crimp ring	Dimensions (mm)		Bend restrictor
			Ø	Length	
<b>PU bend restrictor</b>					
1.953845	PU	1005257	56	350	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
<b>Hose securing grip short version</b>					
9204400	600,00	820,00	35,10	30-40	

### Accessories combinations

#### Without hose protection

Description	Bend restrictor	Crimp ring	Securing grips
Bend restrictor	1.953845	1005257	-
Securing grip	-	-	9204400

#### Hose protection without spiral

Description	Protection hose	Bend restrictor	Crimp ring	Securing grips
Protection hose	1.904252	-	1005257	-
with bend restrictor	1.904252	1.953845	1005257	-
with securing grip	1.904252	-	-	9204400

#### Hose protection with spiral

Description	Protection hose	Bend restrictor	Crimp ring	Securing grips
Protection hose	1.914051	-	1005054	-
with bend restrictor	1.915158	1.953845	1005257	-
with securing grip	1.915158	-	-	9204400

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

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## Applications

- Waterblast:** Heat exchanger tube cleaning, surface preparation (concrete removal, surface cleaning of buildings, paint removal), tank and vessel cleaning
- Hydraulics:** Pressure test equipment (valves, tooling and control panels)
- Oil and Gas:** Grease injection, nitrogen service



## Technical Information

- Inner Core:** Polyamide (PA)
- Pressure Support:** 2 layers of high-tensile steel wire
- Outer Cover:** Polyamide (PA)
- Color:** Green
- Temperature:** -30°C to +60°C [-22°F to 140°F]

Ø ID	Ø OD	Working Pressure -- (SF 2,5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
19,0 mm	26,2 mm	--	520 bar	1.300 bar	240 mm	0,750 kg/m
0,75 inch	1,03 inch	--	7.540 psi	18.850 psi	9,45 inch	0,503 lbs/ft

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⚙	
<b>Sleeve</b>							
12020101	-	Steel	34,2	69	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⚙	
<b>Male fitting</b>								
32020421A	1"x11 1/2NPT	Steel	-	13	111	25	36	
32020425A	1"x11 1/2NPT	AISI 316Ti	-	13	111	25	36	

<b>Female swivel with O-Ring</b>								
22020201A	M36x2	Steel	52040211, 52040201	13	115	-	46	

<b>Type M female swivel</b>								
22020645A	1 5/16"x12UN	AISI 316Ti	52040645	13	89	-	46	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	Ø	
<b>JIC female swivel</b>								
22020605A	1 5/16"x12UN	AISI 316Ti	52040605	13	87	-	46	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	Ø	
<b>Swivel nut</b>								
52040605	1 5/16"x12UN	AISI 316Ti	1 radial	25,5	34,5	14,5	46	
52040645	1 5/16"x12UN	AISI 316Ti	1 radial	25,5	31,5	11,5	46	
52040211	M36x2	Steel	1 radial	25,5	30	18	46	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
<b>Hose securing grip short version</b>					
9136400	600,00	800,00	24,30	25-30	

Part no.	Size (mm)	Material	Crimp ring	Hose protection
<b>Hose protection with spiral</b>				
1.914051	ID Ø40, OD Ø47	PVC	1005054	

Accessories combinations				
Hose protection with spiral				
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips
Protection hose	1.914051	-	1005054	-
with securing grip	1.914051	-	-	9136400

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

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## Applications

- Hydraulics:** Pressure test equipment (valves, tooling and control panels), hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools)
- Oil and Gas:** Grease injection, control of subsea hydraulic components, nitrogen service, Gaseous media handling

## Technical Information

- Inner Core:** Polyamide (PA)
- Pressure Support:** 2 open layers, 2 dense layers of high-tensile steel wire
- Outer Cover:** Polyurethane (TPU)
- Color:** Black
- Temperature:** -30°C to +60°C [-22°F to 140°F]

Ø ID	Ø OD	Working Pressure		Burst Pressure	Bend Radius	Weight	Insert ID
		--	(SF 2.5:1)				
18,8 mm	29,5 mm	--	760 bar	1.900 bar	220 mm	1,160 kg/m	13,0 mm
0,74 inch	1,16 inch	--	11.020 psi	27.550 psi	8,66 inch	0,777 lbs/ft	0,51 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⌀	
<b>Sleeve</b>							
12020191W	-	Steel	36,3	62,4	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>Male fitting</b>								
32020421A	1"x11 1/2NPT	Steel	-	13	111	25	36	
32020425A	1"x11 1/2NPT	AISI 316Ti	-	13	111	25	36	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
22020201A	M36x2	Steel	52040211, 52040201	13	115	-	46	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
22020645A	1 5/16"x12UN	AISI 316Ti	52040645	13	89	-	46	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	Ø	
<b>JIC female swivel</b>								
22020605A	1 5/16"x12UN	AISI 316Ti	52040605	13	87	-	46	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	Ø	
<b>Swivel nut</b>								
52040605	1 5/16"x12UN	AISI 316Ti	1 radial	25,5	34,5	14,5	46	
52040645	1 5/16"x12UN	AISI 316Ti	1 radial	25,5	31,5	11,5	46	
52040211	M36x2	Steel	1 radial	25,5	30	18	46	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
9204400	600,00	820,00	35,10	30-40	

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

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We reserve our rights for technical changes without notice. Subject to printing errors.



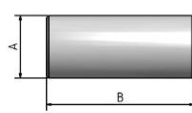
## Applications

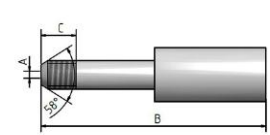
- Waterblast:** Heat exchanger tube cleaning, surface preparation (concrete removal, surface cleaning of buildings, paint removal), tank and vessel cleaning, ultra high-pressure waterjet cutting and hydro demolition (cutting and demolition of armoured concrete, pipelines, paper or steel)
- Hydraulics:** Pressure test equipment (valves, tooling and control panels), hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools)
- Oil and Gas:** Chemical injection, nitrogen service, Gaseous media handling

## Technical Information

- Inner Core:** Polyamide (PA)  
**Pressure Support:** 4 layers of high-tensile steel wire  
**Outer Cover:** Polyamide (PA)  
**Color:** Grey  
**Temperature:** -30°C to +60°C [-22°F to 140°F]

Ø ID	Ø OD	Working Pressure -- (SF 2.5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
18,8 mm	28,8 mm	--	1.040 bar	250 mm	1,350 kg/m	13,0 mm
0,74 inch	1,13 inch	--	15.080 psi	9,84 inch	0,905 lbs/ft	0,51 inch

Part no.	Thread	Material	Dimensions (mm)				⚙	Sleeve
			A	B	C			
I2040131	-	Steel	36,9	72	-	-		

Part no.	Thread	Material	Nut	Dimensions (mm)				⚙	Insert
				A	B	C			
<b>MP fitting</b>									
42060304C	1"x14UNS LH	Stainless steel	-	13	158	30	-		

Part no.	Thread	Material	Nut	Dimensions (mm)				⚙	Insert
				A	B	C			
<b>Female swivel with O-Ring</b>									
22060202C	M36x2	Steel	52040201	13	127	-	46		

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	Ø	
<b>Type M female swivel</b>								
22060644C	1 5/16"x12UN	Stainless steel	52040645	13	107	-	46	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	Ø	
<b>Swivel nut</b>								
52040645	1 5/16"x12UN	AISI 316Ti	1 radial	25,5	31,5	11,5	46	
52040201	M36x2	Steel	1 radial	25,5	38	22	46	

Part no.	Size (mm)	Material	Crimp ring	Hose protection with spiral	Hose protection

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
9136400	600,00	800,00	24,30	25-30	

Accessories combinations				
<b>Without hose protection</b>				
Description		Bend restrictor	Crimp ring	Securing grips
Securing grip		-	-	9136400
<b>Hose protection with spiral</b>				
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips
Protection hose	1.914051	-	1005054	-
with securing grip	1.914051	-	-	9136400

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.  
 The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.  
 Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.  
 The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.  
 \*) Blast-Pro® fittings may only be used for tube cleaning operations inside the tube. They have not been designed for the use outside of tubes.  
 We reserve our rights for technical changes without notice. Subject to printing errors.

## Applications

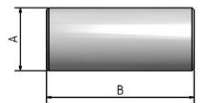
- Waterblast:** Surface preparation (concrete removal, surface cleaning of buildings, paint removal), tank and vessel cleaning, ultra high-pressure waterjet cutting and hydro demolition (cutting and demolition of armoured concrete, pipelines, paper or steel)
- Hydraulics:** Pressure test equipment (valves, tooling and control panels)
- Oil and Gas:** Chemical injection, nitrogen service, Gaseous media handling

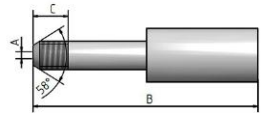


## Technical Information

- Inner Core:** Polyamide (PA)
- Pressure Support:** 6 layers of high-tensile steel wire
- Outer Cover:** Polyamide (PA)
- Color:** Blue
- Temperature:** -30°C to +60°C [-22°F to 140°F]

Ø ID	Ø OD	Working Pressure -- (SF 2,5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
18,8 mm	32,8 mm	--	1.400 bar	350 mm	2,170 kg/m	13,0 mm
0,74 inch	1,29 inch	--	20.300 psi	13,78 inch	1,454 lbs/ft	0,51 inch

Part no.	Thread	Material		Dimensions (mm)				Sleeve
				A	B	C	⌀	
<b>Sleeve</b>								
12060116	-	Steel	-	37,2	91	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>MP fitting</b>								
42060304E	1"x14UNS LH	Stainless steel	-	13	171	30	-	

<b>Female swivel with O-Ring</b>								
22060202E	M36x2	Steel	52040201	13	126	-	46	

<b>Type M female swivel</b>								
22060644E	1 5/16"x12UN	Stainless steel	52040645	13	119	-	46	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	Ø	
<b>Swivel nut</b>								
52040645	1 5/16"x12UN	AISI 316Ti	1 radial	25,5	31,5	11,5	46	
52040201	M36x2	Steel	1 radial	25,5	38	22	46	

Part no.	Size (mm)	Material	Crimp ring	Hose protection
I.914051	ID Ø40, OD Ø47	PVC	I005054	
I.914553	ID Ø45, OD Ø53	PVC	-	

Part no.	Material	Crimp ring	Dimensions (mm)		Bend restrictor
			Ø	Length	
<b>PU bend restrictor</b>					
I.954355	PU	I005560	59	450	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
9204400	600,00	820,00	35,10	30-40	

Accessories combinations					
Without hose protection					
Description		Bend restrictor	Crimp ring	Securing grips	
Bend restrictor		I.954355	I005560	-	
Securing grip		-	-	9204400	
Hose protection with spiral					
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips	
Protection hose	I.914051	-	I005054	-	
with bend restrictor	I.914553	I.954355	I005560	-	
with securing grip	I.914553	-	-	9204400	

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

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# Hose Type 20/6-1600

206201.1600

**SPIR STAR®**

ID20 - Series: E

## Applications

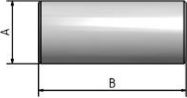
- Waterblast:** Surface preparation (concrete removal, surface cleaning of buildings, paint removal), tank and vessel cleaning, ultra high-pressure waterjet cutting and hydro demolition (cutting and demolition of armoured concrete, pipelines, paper or steel)
- Hydraulics:** Pressure test equipment (valves, tooling and control panels)
- Oil and Gas:** Chemical injection, nitrogen service, Gaseous media handling

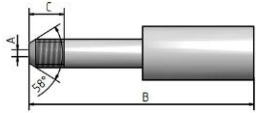


## Technical Information

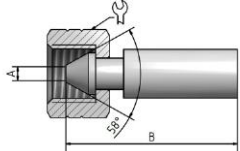
- Inner Core:** Polyamide (PA)
- Pressure Support:** 6 layers of high-tensile steel wire
- Outer Cover:** Polyamide (PA)
- Color:** Blue
- Temperature:** -30°C to +70°C [-22°F to 158°F]

Ø ID	Ø OD	Working Pressure -- (SF 2,5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
18,8 mm	32,8 mm	--	1.600 bar	350 mm	2,170 kg/m	13,0 mm
0,74 inch	1,29 inch	--	23.200 psi	13,78 inch	1,454 lbs/ft	0,51 inch

Part no.	Thread	Material	Nut	Dimensions (mm)				Sleeve
				A	B	C	⌀	
<b>Sleeve</b>								
12060116	-	Steel	-	37,2	91	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>MP fitting</b>								
42060304E	1"x14UNS LH	Stainless steel	-	13	171	30	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>Female swivel with O-Ring</b>								
22060206E	M36x2	Steel	52040201	13	126	-	46	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>Type M female swivel</b>								
22060644E	1 5/16"x12UN	Stainless steel	52040645	13	119	-	46	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	Ø	
<b>Swivel nut</b>								
52040645	1 5/16"x12UN	AISI 316Ti	1 radial	25,5	31,5	11,5	46	
52040201	M36x2	Steel	1 radial	25,5	38	22	46	

Part no.	Size (mm)	Material	Crimp ring	Hose protection
1.914051	ID Ø40, OD Ø47	PVC	1005054	
1.914553	ID Ø45, OD Ø53	PVC	-	

Part no.	Material	Crimp ring	Dimensions (mm)		Bend restrictor
			Ø	Length	
<b>PU bend restrictor</b>					
1.954355	PU	1005560	59	450	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
9204400	600,00	820,00	35,10	30-40	

Accessories combinations					
Without hose protection					
Description	Bend restrictor	Crimp ring	Securing grips		
Bend restrictor	1.954355	1005560	-		
Securing grip	-	-	9204400		
Hose protection with spiral					
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips	
Protection hose	1.914051	-	1005054	-	
with bend restrictor	1.914553	1.954355	1005560	-	
with securing grip	1.914553	-	-	9204400	

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

\*) Blast-Pro® fittings may only be used for tube cleaning operations inside the tube. They have not been designed for the use outside of tubes.

We reserve our rights for technical changes without notice. Subject to printing errors.



## Applications

- Waterblast:** Heat exchanger tube cleaning, surface preparation (concrete removal, surface cleaning of buildings, paint removal)
- Hydraulics:** Pressure test equipment (valves, tooling and control panels)
- Oil and Gas:** Nitrogen service

## Technical Information

- Inner Core:** Polyamide (PA)
- Pressure Support:** 2 layers of high-tensile steel wire
- Outer Cover:** Polyamide (PA)
- Color:** Green
- Temperature:** -30°C to +60°C [-22°F to 140°F]


Ø ID	Ø OD	Working Pressure -- (SF 2,5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
24,8 mm	33,5 mm	--	440 bar	1.100 bar	300 mm	0,950 kg/m
0,98 inch	1,32 inch	--	6.380 psi	15.950 psi	11,81 inch	0,636 lbs/ft

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⌀	
<b>Sleeve</b>							
12520121	-	Steel	40	75	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>Male fitting</b>								
32530411T	1"x11 1/2NPTF	Steel	-	16,5	120	25	36	
32530415T	1"x11 1/2NPTF	AISI 316Ti	-	16,5	120	25	36	

Part no.	Thread	Material	Nut	Dimensions (mm)	Insert
22530201T	M42x2	Steel	52520201	16,5 110 - 50	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	⌀	
<b>Swivel nut</b>								
52520201	M42x2	Steel	1 radial	30,2	34	22	50	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
<b>Hose securing grip short version</b>					
9204400	600,00	820,00	35,10	30-40	

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked. Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

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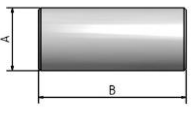
## Applications

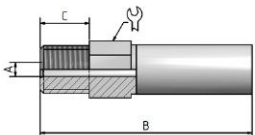
- Hydraulics:** Pressure test equipment (valves, tooling and control panels), hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools)
- Oil and Gas:** Grease injection, control of subsea hydraulic components, nitrogen service, Gaseous media handling

## Technical Information

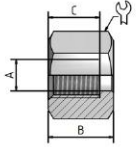
- Inner Core:** Polyamide (PA)
- Pressure Support:** 2 open layers, 2 dense layers of high-tensile steel wire
- Outer Cover:** Polyurethane (TPU)
- Color:** Black
- Temperature:** -30°C to +60°C [-22°F to 140°F]


Ø ID	Ø OD	Working Pressure		Burst Pressure	Bend Radius	Weight	Insert ID
		--	(SF 2.5:1)				
25,0 mm	35,6 mm	--	640 bar	1.600 bar	280 mm	1,490 kg/m	16,5 mm
0,98 inch	1,40 inch	--	9.280 psi	23.200 psi	11,02 inch	0,998 lbs/ft	0,65 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⌀	
<b>Sleeve</b>							
12530111W	-	Steel	44	74,5	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>Male fitting</b>								
32530411T	1"x11 1/2NPTF	Steel	-	16,5	120	25	36	
32530415T	1"x11 1/2NPTF	AISI 316Ti	-	16,5	120	25	36	

Part no.	Thread	Material	Nut	Dimensions (mm)				Female swivel with O-Ring
				A	B	C	⌀	
22530201T	M42x2	Steel	52520201	16,5	110	-	50	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	⌀	
<b>Swivel nut</b>								
52520201	M42x2	Steel	1 radial	30,2	34	22	50	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
<b>Hose securing grip short version</b>					
9204400	600,00	820,00	35,10	30-40	

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

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## Applications

- Waterblast:** Heat exchanger tube cleaning, surface preparation (concrete removal, surface cleaning of buildings, paint removal), tank and vessel cleaning, ultra high-pressure waterjet cutting and hydro demolition (cutting and demolition of armoured concrete, pipelines, paper or steel)
- Hydraulics:** Pressure test equipment (valves, tooling and control panels), hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools)
- Oil and Gas:** Chemical injection, nitrogen service, Gaseous media handling

## Technical Information

- Inner Core:** Polyamide (PA)  
**Pressure Support:** 4 layers of high-tensile steel wire  
**Outer Cover:** Polyamide (PA)  
**Color:** Grey  
**Temperature:** -30°C to +60°C [-22°F to 140°F]

Ø ID	Ø OD	Working Pressure -- (SF 2.5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
24,8 mm	36,3 mm	--	900 bar	300 mm	1,715 kg/m	19,0 mm
0,98 inch	1,43 inch	--	13.050 psi	11,81 inch	1,149 lbs/ft	0,75 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⌀	
<b>Sleeve</b>							
12540235	-	AISI 316Ti	45,9	75	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>Male fitting</b>								
32540404B	1"x11 1/2NPTF	Stainless steel	-	19	117	25	36	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>Female swivel with O-Ring</b>								
22540204B	M42x2	Stainless steel	52520201, 52521215	19	118	-	50	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	Ø	
<b>Type M female swivel</b>								
22540644B	1 5/16"x12UN	Stainless steel	52530645, 52530605	19	98	-	41	
<b>JIC female swivel</b>								
22540604B	1 5/16"x12UN	Stainless steel	52530605	19	96	-	41	
Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	Ø	
<b>Swivel nut</b>								
52530645	1 5/16"x12UN	AISI 316Ti	1 radial	27,1	31,5	11,5	41	
52530605	1 5/16"x12UN	AISI 316Ti	1 radial	27,1	34,5	14,5	41	
52520201	M42x2	Steel	1 radial	30,2	34	22	50	
52521215	M42x2	AISI 316Ti	2 axial	30,2	34	24	50	
Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)		Hose securing grip		
<b>Hose securing grip short version</b>								
9204400	600,00	820,00	35,10	30-40				

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

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# Hose Type 25/6

256201

**SPIR STAR**®

ULTRAFLOW

ID25 - Series: C

## Applications

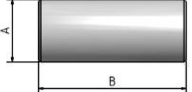
- Waterblast:** Heat exchanger tube cleaning, surface preparation (concrete removal, surface cleaning of buildings, paint removal), tank and vessel cleaning, ultra high-pressure waterjet cutting and hydro demolition (cutting and demolition of armoured concrete, pipelines, paper or steel)
- Hydraulics:** Pressure test equipment (valves, tooling and control panels)
- Oil and Gas:** Chemical injection, nitrogen service, Gaseous media handling

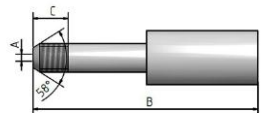


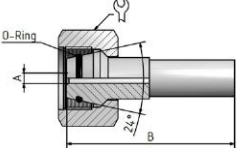
## Technical Information


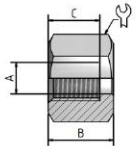
- Inner Core:** Polyamide (PA)  
**Pressure Support:** 6 layers of high-tensile steel wire  
**Outer Cover:** Polyamide (PA)  
**Color:** Blue  
**Temperature:** -30°C to +60°C [-22°F to 140°F]


Ø ID	Ø OD	Working Pressure -- (SF 2,1:1)	Burst Pressure	Bend Radius	Weight	Insert ID
24,8 mm	39,8 mm	--	1.400 bar	600 mm	2,800 kg/m	17,5 mm
0,98 inch	1,57 inch	--	20.300 psi	23,62 inch	1,876 lbs/ft	0,69 inch


Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⌀	
12560232	-	Steel	49	80	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
42560304C	1"x14UNS LH	Stainless steel	-	17,5	165	30	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
22560204C	M42x2	Stainless steel	52520201	17,5	122	-	50	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C		
<b>Swivel nut</b>								
52520201	M42x2	Steel	1 radial	30,2	34	22	50	

Part no.	Size (mm)	Material	Crimp ring	Hose protection
1.915158	ID Ø50, OD Ø58	PVC	1006064	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
9256400	600,00	880,00	48,00	50-60	

Accessories combinations					
<b>Without hose protection</b>					
Description		Bend restrictor	Crimp ring	Securing grips	
Securing grip		-	-	9256400	
<b>Hose protection with spiral</b>					
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips	
Protection hose	1.915158	-	1006064	-	
with securing grip	1.915158	-	-	9256400	

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

\*) Blast-Pro® fittings may only be used for tube cleaning operations inside the tube. They have not been designed for the use outside of tubes.

We reserve our rights for technical changes without notice. Subject to printing errors.

# Hose Type 8/4HW-1000

84HW001.1000

ID8 - Series: HW

**SPIR STAR®**

## Applications

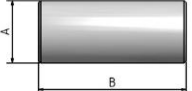
**Waterblast:** Heat exchanger tube cleaning, surface preparation (concrete removal, surface cleaning of buildings, paint removal), tank and vessel cleaning

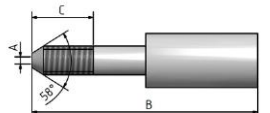
## Technical Information

**Inner Core:** Polyoxymethylene (POM)  
**Pressure Support:** 4 layers of high-tensile steel wire  
**Outer Cover:** Polyamide (PA)  
**Color:** Blue  
**Temperature:** -30°C to +100°C [-22°F to 210°F]




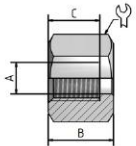
Ø ID	Ø OD	Working Pressure -- (SF 3,8:1)	Burst Pressure	Bend Radius	Weight	Insert ID
8,0 mm	14,6 mm	--	1.000 bar	200 mm	0,390 kg/m	4,5 mm
0,31 inch	0,57 inch	--	14.500 psi	7,87 inch	0,261 lbs/ft	0,18 inch



Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⌀	
10840102HW	-	Steel	20,2	58	-	-	


Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
40840204HW	9/16"x18UNF LH	Stainless steel		4,5	112	23,8		



Male fitting flat seal								
Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
30840304HW	G1/4"	Stainless steel		4,5	85	15	12	

Female swivel with O-Ring								
Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
20840224HW	M24x1,5	Stainless steel	51321206	4,5	91	-	32	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C		
<b>Swivel nut</b>								
51321206	M24x1,5	Steel	2 axial	16,8	23	16	32	

Part no.	Size (mm)	Material	Crimp ring	Hose protection
1.902228	ID Ø22, OD Ø28	PVC	1002830	
<b>Hose protection with spiral</b>				
1.912229	ID Ø22, OD Ø35	PVC	1003035	

Part no.	Material	Crimp ring	Dimensions (mm)		Bend restrictor
			Ø	Length	
<b>Rubber bend restrictor</b>					
1.9518100	Rubber	1003640	39	130	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
9056400	600,00	740,00	10,20	10-15	
<b>Hose securing grip long version</b>					
905640L	600,00	990,00	10,20	10-15	

### Accessories combinations

Without hose protection				
Description		Bend restrictor	Crimp ring	Securing grips
Bend restrictor		1.9518100	1003640	-
Securing grip		-	-	9056400
Bend restrictor and securing grip		1.9518100	1003640	905640L
Hose protection without spiral				
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips
Protection hose	1.902228	-	1002830	-
with bend restrictor	1.902228	1.9518100	1003640	-
with securing grip	1.902228	-	-	9056400
with bend restrictor and securing grip	1.902228	1.9518100	1003640	905640L
Hose protection with spiral				
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips
Protection hose	1.912229	-	1003035	-
with bend restrictor	1.912229	1.9518100	1003640	-
with securing grip	1.912229	-	-	9056400
with bend restrictor and securing grip	1.912229	1.9518100	1003640	905640L

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

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We reserve our rights for technical changes without notice. Subject to printing errors.

# Hose Type VIPER

6VIPER-Y

**SPIR STAR**®

ID6 - Series: -

## Applications

**Hydraulics:** Torque wrenching

## Technical Information

**Inner Core:** Polyamide (PA)

**Pressure Support:** Multi layers of high-tensile steel wire and open synthetic fibers

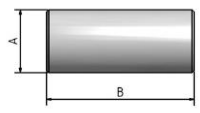
**Outer Cover:** Polyurethane (TPU)

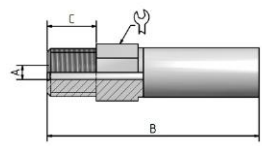
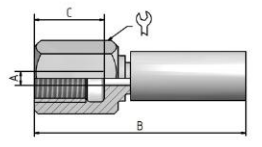
**Color:** Luminous yellow


**Temperature:** -30°C to +60°C [-22°F to 140°F]





Ø ID	Ø OD	Working Pressure -- (SF 2,6:1)	Burst Pressure	Bend Radius	Weight	Insert ID
6,1 mm	12,5 mm	--	700 bar	80 mm	0,206 kg/m	4,0 mm
0,24 inch	0,49 inch	--	10.150 psi	3,15 inch	0,138 lbs/ft	0,16 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⌀	
VIPER-S	-	Steel	14,4	42	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>Male fitting</b>								
VIPER-M-1/4	1/4"x18NPTF	Steel	-	4	68	14	14	
VIPER-M-3/8	3/8"x18NPTF	Steel	-	4	64	14	17	
<b>Female fitting NPT/NPTF</b>								
VIPER-F-1/4	1/4"x18NPTF	Steel	-	4	67	20	19	

Part no.	Material	Crimp ring	Dimensions (mm)		Bend restrictor
			Ø	Length	
<b>Rubber bend restrictor</b>					
1.9518600	Rubber	QR-HL	34	126	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
9056400	600,00	740,00	10,20	10-15	
<b>Hose securing grip long version</b>					
905640L	600,00	990,00	10,20	10-15	

Accessories combinations				
Without hose protection				
Description	Bend restrictor	Crimp ring	Securing grips	
Bend restrictor	1.9518600	QR-HL	-	
Securing grip	-	-	9056400	
Bend restrictor and securing grip	1.9518600	QR-HL	905640L	

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

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# Hose Type VIPER Twin

6VIPERD

ID6 - Series: -

**SPiR STAR®**

## Applications

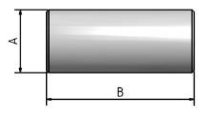
**Hydraulics:** Torque wrenching

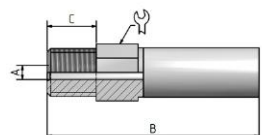
## Technical Information

**Inner Core:** Polyamide (PA)  
**Pressure Support:** Multi layers of high-tensile steel wire and open synthetic fibers  
**Outer Cover:** Polyurethane (TPU)  
**Color:** Luminous yellow and purple red  
**Temperature:** -30°C to +60°C [-22°F to 140°F]




Ø ID	Ø OD	Working Pressure -- (SF 2.6:1)	Burst Pressure	Bend Radius	Weight	Insert ID
6,1 mm	12,5 mm	--	700 bar	80 mm	0,412 kg/m	4,0 mm
0,24 inch	0,49 inch	--	10.150 psi	3,15 inch	0,276 lbs/ft	0,16 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⌀	
VIPER-S	-	Steel	14,4	42	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>Male fitting</b>								
VIPER-M-1/4	1/4"x18NPTF	Steel	-	4	68	14	14	
VIPER-M-3/8	3/8"x18NPTF	Steel	-	4	64	14	17	

<b>Female fitting NPT/NPTF</b>								
Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
VIPER-F-1/4	1/4"x18NPTF	Steel	-	4	67	20	19	

Part no.	Material	Crimp ring	Dimensions (mm)		Bend restrictor
			Ø	Length	
<b>Rubber bend restrictor</b>					
I.9518600	Rubber	QR-HL	34	126	

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPiR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

\*) Blast-Pro® fittings may only be used for tube cleaning operations inside the tube. They have not been designed for the use outside of tubes.

We reserve our rights for technical changes without notice. Subject to printing errors.



## Applications

**Hydraulics:** Pressure test equipment (valves, tooling and control panels), hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools)

## Technical Information

**Inner Core:** Polyamide (PA)  
**Pressure Support:** Multi-layers of high-tensile steel wire  
**Outer Cover:** Polyurethane (TPU)  
**Color:** Red  
**Temperature:** -30°C to +60°C [-22°F to 140°F]



Ø ID	Ø OD	Working Pressure -- (SF 2,5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
5,9 mm	12,0 mm	--	1.200 bar	80 mm	0,237 kg/m	4,0 mm
0,23 inch	0,47 inch	--	17.400 psi	3,15 inch	0,159 lbs/ft	0,16 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⚙	
<b>Sleeve</b>							
MAMBA-S	-	Steel	15,4	43	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⚙	
<b>Male fitting</b>								
MAMBA-M-1/4	1/4"x18NPTF	Steel	-	4	68	14	14	
MAMBA-M-3/8	3/8"x18NPTF	Steel	-	4	64	14	17	

<b>Male fitting 100° external cone</b>								
MAMBA-M-1/4-100	G 1/4"	Steel	-	4	67	18	17	

<b>Male fitting for USIT® Ring</b>								
MAMBA-M-1/4-U	G 1/4"	Steel	-	4	61	11	22	

<b>Female swivel 24°/60°</b>								
MAMBA-F-I-1/4	G 1/4"	Steel	MAMBA-F-N-1/4	4	55	-	-	
MAMBA-F-I-M14	M14x1,5	Steel	MAMBA-F-N-M14	4	55	-	19	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	Ø	
<b>Female fitting NPT/NPTF</b>								
MAMBA-F-1/4	1/4"x18NPTF	Steel	-	4	67	20	19	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	Ø	
<b>Swivel nut</b>								
MAMBA-F-N-1/4	G 1/4"	Steel	1 radial	9,2	16,5	8,5	19	
MAMBA-F-N-M14	M14x1,5	Steel	1 radial	9,2	16,5	8,5	19	

Part no.	Material	Crimp ring	Dimensions (mm)		Bend restrictor
			Ø	Length	
<b>Rubber bend restrictor</b>					
I.9518600	Rubber	QR-HL	34	126	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
9056400	600,00	740,00	10,20	10-15	
<b>Hose securing grip long version</b>					
905640L	600,00	990,00	10,20	10-15	

Accessories combinations			
Without hose protection			
Description	Bend restrictor	Crimp ring	Securing grips
Bend restrictor	I.9518400	QR-HL	-
Securing grip	-	-	9056400
Bend restrictor and securing grip	I.9518400	QR-HL	905640L

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

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# Hose Type MAMBA Twin

6MAMBAD

ID6 - Series: -

**SPIR STAR®**

## Applications

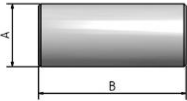
**Hydraulics:** Torque wrenching

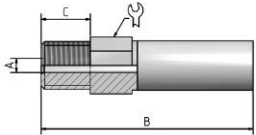
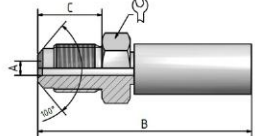
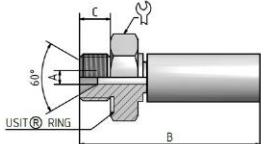
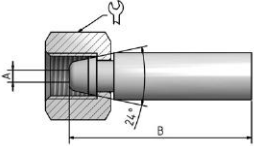
## Technical Information

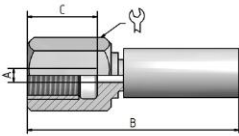
**Inner Core:** Polyamide (PA)  
**Pressure Support:** Multi-layers of high-tensile steel wire  
**Outer Cover:** Polyurethane (TPU)  
**Color:** Red and dark grey  
**Temperature:** -30°C to +60°C [-22°F to 140°F]

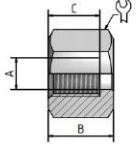



Ø ID	Ø OD	Working Pressure -- (SF 2.5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
5,9 mm	12,0 mm	--	1.200 bar	80 mm	0,474 kg/m	4,0 mm
0,23 inch	0,47 inch	--	17.400 psi	3,15 inch	0,318 lbs/ft	0,16 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⌀	
MAMBA-S	-	Steel	15,4	43	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>Male fitting</b>								
MAMBA-M-1/4	1/4"x18NPTF	Steel	-	4	68	14	14	
MAMBA-M-3/8	3/8"x18NPTF	Steel	-	4	64	14	17	
<b>Male fitting 100° external cone</b>								
MAMBA-M-1/4-100	G 1/4"	Steel	-	4	67	18	17	
<b>Male fitting for USIT® Ring</b>								
MAMBA-M-1/4-U	G1/4"	Steel	-	4	61	11	22	
<b>Female swivel 24°/60°</b>								
MAMBA-F-I-1/4	G 1/4"	Steel	MAMBA-F-N-1/4	4	55	-	-	
MAMBA-F-I-M14	M14x1,5	Steel	MAMBA-F-N-M14	4	55	-	19	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	Ø	
<b>Female fitting NPT/NPTF</b>								
MAMBA-F-1/4	1/4"x18NPTF	Steel	-	4	67	20	19	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	Ø	
<b>Swivel nut</b>								
MAMBA-F-N-1/4	G 1/4"	Steel	1 radial	9,2	16,5	8,5	19	
MAMBA-F-N-M14	M14x1,5	Steel	1 radial	9,2	16,5	8,5	19	

Part no.	Material	Crimp ring	Dimensions (mm)		Bend restrictor
			Ø	Length	
<b>Rubber bend restrictor</b>					
I.9518600	Rubber	QR-HL	34	126	

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

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# Hose Type COBRA

5COBRA

ID5 - Series: -

**SPIR STAR®**

## Applications

### Hydraulics:

Bolt tensioning, pressure test equipment (valves, tooling and control panels), hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools)

## Technical Information

### Inner Core:

Polyoxymethylene (POM)

### Pressure Support:

multi-layers of high-tensile steel wire

### Outer Cover:

Polyamide (PA)

### Color:

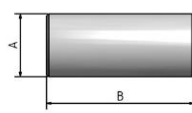
Dark blue

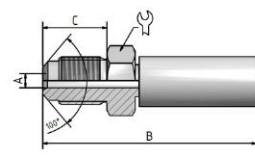
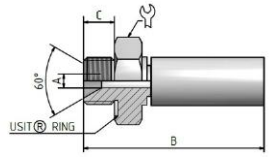
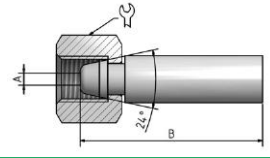
### Temperature:

-30°C to +60°C [-22°F to 140°F]



Ø ID	Ø OD	Working Pressure -- (SF 2,5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
5,0 mm	11,2 mm	--	1.800 bar	150 mm	0,260 kg/m	2,5 mm
0,20 inch	0,44 inch	--	26.100 psi	5,91 inch	0,174 lbs/ft	0,10 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⚙	
<b>Sleeve</b>							
COBRA-S	-	Steel	15	45	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⚙	
<b>Male fitting 100° external cone</b>								
COBRA-M-1/4-100	G 1/4"	Steel	-	2,5	69	11	17	
<b>Male fitting for USIT® Ring</b>								
COBRA-M-1/4-U	G 1/4"	Steel	-	2,5	76	18	22	
<b>Female swivel 24°/60°</b>								
COBRA-F-1/4	G 1/4"	Steel	COBRA-F-N-1/4	2,5	62	-	19	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C		
<b>Swivel nut</b>								
COBRA-F-N-1/4	G 1/4"	Steel	1 radial	9,2	16,5	8,5	19	

Part no.	Material	Crimp ring	Dimensions (mm)		Bend restrictor
			Ø	Length	
<b>Rubber bend restrictor</b>					
1.9518600	Rubber	QR-HL	34	126	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
<b>Hose securing grip short version</b>					
9056400	600,00	740,00	10,20	10-15	
<b>Hose securing grip long version</b>					
905640L	600,00	990,00	10,20	10-15	

Accessories combinations				
Without hose protection				
Description	Bend restrictor	Crimp ring	Securing grips	
Bend restrictor	1.9518600	QR-HL	-	
Securing grip	-	-	9056400	
Bend restrictor and securing grip	1.9518600	QR-HL	905640L	

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

\*) Blast-Pro® fittings may only be used for tube cleaning operations inside the tube. They have not been designed for the use outside of tubes.

We reserve our rights for technical changes without notice. Subject to printing errors.

# Hose Type 6/2WM

62WM3012

**SPIR STAR**®

ID6 - Series: M

## Applications

**Hydraulics:** Hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools)

**Oil and Gas:** Methanol service (oil rigs, distribution panels, umbilicals), jumper/ subsea well control, control of subsea hydraulic components, nitrogen service



## Technical Information

**Inner Core:** BESNO P40 TLO (PA I I)  
**Pressure Support:** 2 open layers, 2 dense layers of high-tensile steel wire  
**Outer Cover:** Polyamide (PA)  
**Color:** Dark blue  
**Temperature:** -30°C to +60°C [-22°F to 140°F]

Ø ID	Ø OD	Working Pressure		Burst Pressure	Bend Radius	Weight	Insert ID
		(SF 2.5:1)	(SF 4.0:1)				
6,0 mm	12,2 mm	1.100 bar	690 bar	2.760 bar	95 mm	0,240 kg/m	4,0 mm
0,24 inch	0,48 inch	15.950 psi	10.000 psi	40.000 psi	3,74 inch	0,161 lbs/ft	0,16 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⌀	
<b>Sleeve</b>							
10630171W	-	Steel	16,8	53	-	-	
10630185W	-	AISI 316Ti	16,8	53	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>MP fitting</b>								
40620305M	3/8"x24UNF LH	AISI 316Ti	-	4	94	20	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>Male fitting</b>								
30620401M	1/4"x18NPT	Steel	-	4	83	14	14	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>Type M female swivel</b>								
20620645M	9/16"x18UNF	AISI 316Ti	50540605	4	68,5	-	19	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	Ø	
<b>JIC female swivel</b>								
20620605M	7/16"x20UNF	AISI 316Ti	50620605, 50620601	4	64	-	19	
20620625M	9/16"x18UNF	AISI 316Ti	50540605, 50540601	4	64	-	19	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	Ø	
<b>Swivel nut</b>								
50620601	7/16"x20UNF	Steel	1 radial	8,2	16	12	19	
50620605	7/16"x20UNF	AISI 316Ti	1 radial	8,2	16	12	19	
50540601	9/16"x18UNF	Steel	1 radial	9,2	18	14	19	
50540605	9/16"x18UNF	AISI 316Ti	1 radial	9,2	18	14	19	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
<b>Hose securing grip short version</b>					
9056400	600,00	740,00	10,20	10-15	

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

\*) Blast-Pro® fittings may only be used for tube cleaning operations inside the tube. They have not been designed for the use outside of tubes.

We reserve our rights for technical changes without notice. Subject to printing errors.



# Hose Type 6/4M

64M3012

ID6 - Series: MB

**SPIR STAR®**

## Applications

**Hydraulics:** Hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools)

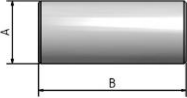
**Oil and Gas:** Methanol service (oil rigs, distribution panels, umbilicals), jumper/ subsea well control, control of subsea hydraulic components, nitrogen service

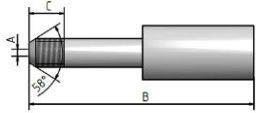


## Technical Information

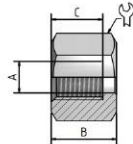
**Inner Core:** BESNO P40 TLO (PA I I)  
**Pressure Support:** 4 layers of high-tensile steel wire  
**Outer Cover:** Polyamide (PA)  
**Color:** Dark blue  
**Temperature:** -30°C to +60°C [-22°F to 140°F]


Ø ID	Ø OD	Working Pressure -- (SF 4,0:1)	Burst Pressure	Bend Radius	Weight	Insert ID
6,0 mm	13,0 mm	--	1.035 bar	180 mm	0,338 kg/m	3,0 mm
0,24 inch	0,51 inch	--	15.000 psi	7,09 inch	0,226 lbs/ft	0,12 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⌀	
<b>Sleeve</b>							
10640185W	-	AISI 316Ti	19,9	58	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>MP fitting</b>								
40640305MB	3/8"x24UNF LH	AISI 316Ti	-	3	100	20	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				JIC female swivel
				A	B	C	⌀	
20640645MB	9/16"x18UNF	AISI 316Ti	50540605	3	71	-	19	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	⌀	
<b>Swivel nut</b>								
50540605	9/16"x18UNF	AISI 316Ti	1 radial	9,2	18	14	19	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
<b>Hose securing grip short version</b>					
9056400	600,00	740,00	10,20	10-15	

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

\*) Blast-Pro® fittings may only be used for tube cleaning operations inside the tube. They have not been designed for the use outside of tubes.

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# Hose Type 8/2WM

82WM3012

**SPIR STAR®**

ID8 - Series: M

## Applications

**Hydraulics:** Hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools)

**Oil and Gas:** Methanol service (oil rigs, distribution panels, umbilicals), jumper/ subsea well control, control of subsea hydraulic components, nitrogen service



## Technical Information

**Inner Core:** BESNO P40 TLO (PA I I)  
**Pressure Support:** 2 open layers, 2 dense layers of high-tensile steel wire  
**Outer Cover:** Polyamide (PA)  
**Color:** Dark blue  
**Temperature:** -30°C to +60°C [-22°F to 140°F]

Ø ID	Ø OD	Working Pressure		Burst Pressure	Bend Radius	Weight	Insert ID
		(SF 2.5:1)	(SF 4.0:1)				
8,0 mm	14,3 mm	1.100 bar	690 bar	2.760 bar	110 mm	0,314 kg/m	5,5 mm
0,31 inch	0,56 inch	15.950 psi	10.000 psi	40.000 psi	4,33 inch	0,210 lbs/ft	0,22 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⌀	
<b>Sleeve</b>							
10830181W	-	Steel	19,7	52	-	-	
10830185W	-	AISI 316Ti	19,7	52	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>Male fitting</b>								
30820401M	3/8"x18NPT	Steel	-	5,5	84	14	19	

<b>Type M female swivel</b>								
20820645M	3/4"x16UNF	AISI 316Ti	50840605	5,5	70,5	-	24	

<b>JIC female swivel</b>								
20820655M	9/16"x18UNF	AISI 316Ti	51040615	5,5	63	-	19	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	Ø	
<b>Swivel nut</b>								
51040615	9/16"x18UNF	AISI 316Ti	1 radial	11,2	18	14	19	
50840605	3/4"x16UNF	AISI 316Ti	1 radial	12,2	22,5	17,5	24	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
9056400	600,00	740,00	10,20	10-15	

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

\*) Blast-Pro® fittings may only be used for tube cleaning operations inside the tube. They have not been designed for the use outside of tubes.

We reserve our rights for technical changes without notice. Subject to printing errors.

# Hose Type 10/2WM

102WM3012

ID10 - Series: M



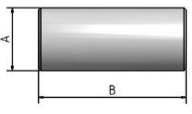
## Applications

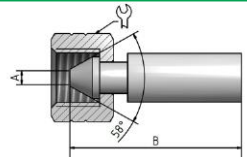
- Hydraulics:** Hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools)
- Oil and Gas:** Methanol service (oil rigs, distribution panels, umbilicals), jumper/ subsea well control, control of subsea hydraulic components, nitrogen service

## Technical Information

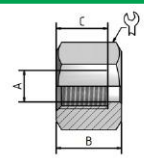
- Inner Core:** BESNO P40 TLO (PA I I)
- Pressure Support:** 2 open layers, 2 dense layers of high-tensile steel wire
- Outer Cover:** Polyamide (PA)
- Color:** Dark blue
- Temperature:** -30°C to +60°C [-22°F to 140°F]


Ø ID	Ø OD	Working Pressure		Burst Pressure	Bend Radius	Weight	Insert ID
		(SF 2.5:1)	(SF 4.0:1)				
10,0 mm	17,2 mm	1.100 bar	690 bar	2.760 bar	125 mm	0,466 kg/m	5,0 mm
0,39 inch	0,68 inch	16.000 psi	10.000 psi	40.000 psi	4,92 inch	0,312 lbs/ft	0,20 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⌀	
<b>Sleeve</b>							
11030185W	-	AISI 316Ti	21,5	64	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>Type M female swivel</b>								
21020645M	3/4"x16UNF	AISI 316Ti	51320615	5	73,5	-	24	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>JIC female swivel</b>								
21020605M	9/16"x18UNF	AISI 316Ti	51040615	5	77	-	19	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	⌀	
<b>Swivel nut</b>								
51040615	9/16"x18UNF	AISI 316Ti	1 radial	11,2	18	14	19	
51320615	3/4"x16UNF	AISI 316Ti	1 radial	14,2	22,5	17,5	24	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
<b>Hose securing grip short version</b>					
9086400	600,00	780,00	20,40	15-20	

*Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.*

*The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.*

*Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.*

*The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.*

*\*) Blast-Pro® fittings may only be used for tube cleaning operations inside the tube. They have not been designed for the use outside of tubes.*

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# Hose Type I3/2WM

I32WM3012

**SPIR STAR®**

ID13 - Series: M

## Applications

**Hydraulics:** Hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools)

**Oil and Gas:** Methanol service (oil rigs, distribution panels, umbilicals), jumper/ subsea well control, control of subsea hydraulic components, nitrogen service



## Technical Information

**Inner Core:** BESNO P40 TLO (PA I I)  
**Pressure Support:** 2 open layers, 2 dense layers of high-tensile steel wire  
**Outer Cover:** Polyamide (PA)  
**Color:** Dark blue  
**Temperature:** -30°C to +60°C [-22°F to 140°F]

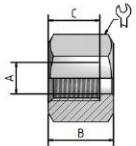
Ø ID	Ø OD	Working Pressure		Burst Pressure	Bend Radius	Weight	Insert ID
		(SF 2.5:1)	(SF 4.0:1)				
12,7 mm	20,8 mm	1.100 bar	690 bar	2.760 bar	150 mm	0,630 kg/m	8,5 mm
0,50 inch	0,82 inch	15.950 psi	10.000 psi	40.000 psi	5,91 inch	0,422 lbs/ft	0,33 inch


Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⌀	
<b>Sleeve</b>							
I1330181W	-	Steel	27,8	64	-	-	
I1330185W	-	AISI 316Ti	27,8	64	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>Male fitting</b>								
31320401M	1/2"x14NPT	Steel	-	8,5	104	18	22	

<b>Type M female swivel</b>								
21320645M	1"x12UNF	AISI 316Ti	51360645	8,5	86	-	32	

<b>JIC female swivel</b>								
21320615M	3/4"x16UNF	AISI 316Ti	51320615	8,5	79	-	24	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	Ø	
<b>Swivel nut</b>								
51320615	3/4"x16UNF	AISI 316Ti	1 radial	14,2	22,5	17,5	24	
51360645	1"x12UNF	AISI 316Ti	1 radial	16,8	28	22	32	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
9106400	600,00	800,00	20,40	20-25	

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

\*) Blast-Pro® fittings may only be used for tube cleaning operations inside the tube. They have not been designed for the use outside of tubes.

We reserve our rights for technical changes without notice. Subject to printing errors.





## Applications

- Hydraulics:** Hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools)
- Oil and Gas:** Methanol service (oil rigs, distribution panels, umbilicals), jumper/ subsea well control, chemical injection, control of subsea hydraulic components, nitrogen service, Gaseous media handling

## Technical Information

- Inner Core:** Polyvinylidenfluoride (PVDF)
- Pressure Support:** 4 layers of high-tensile steel wire
- Outer Cover:** Polyamide (PA)
- Color:** Dark green
- Temperature:** -20°C to +80°C [-4°F to 176°F]

Ø ID	Ø OD	Working Pressure		Burst Pressure	Bend Radius	Weight	Insert ID
		(SF 3.2:1)	(SF 4.0:1)				
5,0 mm	11,2 mm	1.285 bar	1.035 bar	4.140 bar	250 mm	0,256 kg/m	2,5 mm
0,20 inch	0,44 inch	18.630 psi	15.000 psi	60.000 psi	9,84 inch	0,172 lbs/ft	0,10 inch


Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⌀	
<b>Sleeve</b>							
10540101	-	Steel	15	49,5	-	-	
10540105	-	AISI 316Ti	15	47,9	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>HP fitting</b>								
40540211B	1/4"x28UNF LH	Steel	-	2,5	83	14	-	
40540215B	1/4"x28UNF LH	AISI 316Ti	-	2,5	83	14	-	
40540205B	3/8"x24UNF LH	AISI 316Ti	-	2,5	90	20	-	
40540225B	9/16"x18UNF LH	AISI 316Ti	-	2,5	103	24	-	

Part no.	Thread	Material	Nut	Dimensions (mm)	Insert
				A B C ⌀	
<b>Male fitting</b>					
30540401B	1/4"x18NPTF	Steel	-	2,5 71 14 14	

Part no.	Thread	Material	Nut	Dimensions (mm)	Insert
				A B C ⌀	
<b>Male fitting 60° internal cone</b>					
30540301B	G1/4"	Steel	-	2,5 70 12 14	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>Male fitting 100° external cone</b>								
30540361B	G1/4"	Steel	-	2,5	76	18	17	
<b>Male fitting for USIT® Ring</b>								
30540351B	G1/4"	Steel	-	2,5	68,5	11	22	
<b>Female swivel 24°/60°</b>								
20540301B	G1/4"	Steel	50540301	2,5	62	-	19	
20540305B	G1/4"	AISI 316Ti	50540305	2,5	62	-	19	
20540101B	M14x1,5	Steel	50540101	2,5	62	-	19	
<b>Female swivel with O-Ring</b>								
20540041B	M20x1,5	Steel	50860201	2,5	77	-	27	
<b>Type M female swivel</b>								
20540641B	9/16"x18UNF	Steel	50540601	2,5	64	-	19	
20540645B	9/16"x18UNF	AISI 316Ti	50540605	2,5	64	-	19	
				Dimensions (mm)				<b>Swivel nut</b>
Part no.	Thread	Material	Relief bores	A	B	C	⌀	
<b>Swivel nut</b>								
50540601	9/16"x18UNF	Steel	1 radial	9,2	18	14	19	
50540605	9/16"x18UNF	AISI 316Ti	1 radial	9,2	18	14	19	
50540301	G1/4"	Steel	1 radial	9,2	16,5	8,5	19	
50540305	G1/4"	AISI 316Ti	1 radial	9,2	16,5	8,5	19	
50540101	M14x1,5	Steel	1 radial	9,2	16,5	8,5	19	
50860201	M20x1,5	Steel	1 radial	12,2	22	12	27	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
<b>Hose securing grip short version</b>					
9056400	600,00	740,00	10,20	10-15	

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

Maximum test pressure (1560 bar / 22620 psi).

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

We reserve our rights for technical changes without notice. Subject to printing errors.

## Applications

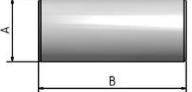
- Hydraulics:** Hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools)
- Oil and Gas:** Methanol service (oil rigs, distribution panels, umbilicals), jumper/ subsea well control, chemical injection, control of subsea hydraulic components, nitrogen service, Gaseous media handling

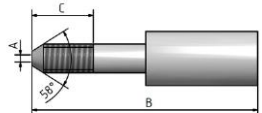


## Technical Information

- Inner Core:** Polyvinylidenfluoride (PVDF)
- Pressure Support:** 2 open layers, 2 dense layers of high-tensile steel wire
- Outer Cover:** Polyamide (PA)
- Color:** Dark green
- Temperature:** -20°C to +80°C [-4°F to 176°F]

Ø ID	Ø OD	Working Pressure		Burst Pressure	Bend Radius	Weight	Insert ID
		(SF 3.0:1)	(SF 4.0:1)				
6,3 mm	12,2 mm	915 bar	690 bar	2.760 bar	150 mm	0,266 kg/m	3,5 mm
0,25 inch	0,48 inch	13.260 psi	10.000 psi	40.000 psi	5,91 inch	0,178 lbs/ft	0,14 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⌀	
<b>Sleeve</b>							
10640115	-	AISI 316Ti	17,3	64,4	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>HP fitting</b>								
40640205HB	3/8"x24UNF LH	AISI 316Ti	-	3,5	98	20	-	

<b>MP fitting</b>								
40640305HB	3/8"x24UNF LH	AISI 316Ti	-	3,5	100	11	-	

<b>Female swivel 24°/60°</b>								
Part no.	Thread	Material	Nut	A	B	C	⌀	
20640315HB	M16x1,5	AISI 316Ti	50620125	3,5	77	-	19	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>Type M female swivel</b>								
20640645HB	9/16"x18UNF	AISI 316Ti	S5063615	3,5	73	-	19	
<b>JIC female swivel</b>								
20640655HB	9/16"x18UNF	AISI 316Ti	S5063615	3,5	69	-	19	
Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	⌀	
<b>Swivel nut</b>								
S5063615	9/16"x18UNF	AISI 316Ti	1 radial	9,5	18	14	19	
50620125	M16x1,5	AISI 316Ti	1 radial	9,5	17,5	10	19	
Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip			
<b>Hose securing grip short version</b>								
9056400	600,00	740,00	10,20	10-15				

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

Maximum test pressure (1380 bar / 20000 psi).

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

We reserve our rights for technical changes without notice. Subject to printing errors.



## Applications

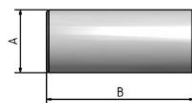
- Hydraulics:** Hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools)
- Oil and Gas:** Methanol service (oil rigs, distribution panels, umbilicals), jumper/ subsea well control, chemical injection, control of subsea hydraulic components, nitrogen service, Gaseous media handling

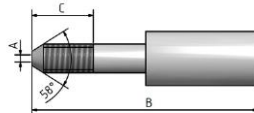


## Technical Information

- Inner Core:** Polyvinylidenfluoride (PVDF)
- Pressure Support:** 4 layers of high-tensile steel wire
- Outer Cover:** Polyamide (PA)
- Color:** Dark green
- Temperature:** -20°C to +80°C [-4°F to 176°F]

Ø ID	Ø OD	Working Pressure		Burst Pressure	Bend Radius	Weight	Insert ID
		(SF 3.5:1)	(SF 4.0:1)				
6,3 mm	12,6 mm	1.180 bar	1.035 bar	4.140 bar	280 mm	0,305 kg/m	3,5 mm
0,25 inch	0,50 inch	17.100 psi	15.000 psi	60.000 psi	11,02 inch	0,204 lbs/ft	0,14 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⌀	
<b>Sleeve</b>							
10640115	-	AISI 316Ti	17,3	64,4	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>HP fitting</b>								
40640205HB	3/8"x24UNF LH	AISI 316Ti	-	3,5	98	20	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>MP fitting</b>								
40640305HB	3/8"x24UNF LH	AISI 316Ti	-	3,5	100	11	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>Female swivel 24°/60°</b>								
20640315HB	M16x1,5	AISI 316Ti	50620125	3,5	77	-	19	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>Type M female swivel</b>								
20640645HB	9/16"x18UNF	AISI 316Ti	S5063615	3,5	73	-	19	

<b>JIC female swivel</b>								
20640655HB	9/16"x18UNF	AISI 316Ti	S5063615	3,5	69	-	19	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	⌀	
<b>Swivel nut</b>								
S5063615	9/16"x18UNF	AISI 316Ti	1 radial	9,5	18	14	19	
50620125	M16x1,5	AISI 316Ti	1 radial	9,5	17,5	10	19	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
<b>Hose securing grip short version</b>					
9056400	600,00	740,00	10,20	10-15	

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

Maximum test pressure (1560 bar / 22620 psi).

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

We reserve our rights for technical changes without notice. Subject to printing errors.



## Applications

- Hydraulics:** Hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools)
- Oil and Gas:** Methanol service (oil rigs, distribution panels, umbilicals), jumper/ subsea well control, chemical injection, control of subsea hydraulic components, nitrogen service, Gaseous media handling

## Technical Information

- Inner Core:** Polyvinylidenfluoride (PVDF)
- Pressure Support:** 4 layers of high-tensile steel wire
- Outer Cover:** Polyamide (PA)
- Color:** Dark green
- Temperature:** -20°C to +80°C [-4°F to 176°F]

Ø ID	Ø OD	Working Pressure		Burst Pressure	Bend Radius	Weight	Insert ID
		(SF 3,8:1)	(SF 4,0:1)				
8,0 mm	14,7 mm	1.085 bar	1.035 bar	4.140 bar	300 mm	0,420 kg/m	4,5 mm
0,31 inch	0,58 inch	15.730 psi	15.000 psi	60.000 psi	11,81 inch	0,281 lbs/ft	0,18 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⌀	
<b>Sleeve</b>							
10840102	-	Steel	20,2	56,5	-	-	
10840105	-	AISI 316Ti	20,2	58	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>HP fitting</b>								
40840205B	9/16"x18UNF LH	AISI 316Ti	-	4,5	108,5	24	-	


<b>Male fitting</b>								
Part no.	Thread	Material	Nut	A	B	C	⌀	
30840411B	1/4"x18NPTF	Steel	-	4,5	84	14	14	
30840401B	3/8"x18NPTF	Steel	-	4,5	82	14	17	
30840341B	G1/4"	Steel	-	4,5	82	14	14	

<b>Male fitting flat seal</b>								
Part no.	Thread	Material	Nut	A	B	C	⌀	
30840311B	G1/4"	Steel	-	4,5	83	15	14	



Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	Ø	
<b>Male fitting DIN3852 T2 form A</b>								
30840301B	G3/8"	Steel	-	4,5	84,5	12	22	
<b>Female swivel 24°/60°</b>								
20840301B	G3/8"	Steel	50860301	4,5	72	-	24	
20840305B	G3/8"	AISI 316Ti	50840305	4,5	74	-	24	
<b>Female swivel with O-Ring</b>								
20840201B	M20x1,5	Steel	50860201	4,5	77	-	27	
20840231B	M22x1,5	Steel	51060201, 51060205	4,5	79	-	30	
20840221B	M24x1,5	Steel	51321206, 51320205, 51360206	4,5	85	-	32	
<b>Type M female swivel</b>								
20840641B	3/4"x16UNF	Steel	50840601	4,5	73	-	24	
20840645B	3/4"x16UNF	AISI 316Ti	50840605	4,5	73	-	24	
<b>JIC female swivel</b>								
20840605B	3/4"x16UNF	AISI 316Ti	50840605	4,5	68	-	24	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	Ø	
<b>Swivel nut</b>								
50840601	3/4"x16UNF	Steel	1 radial	12,2	22,5	17,5	24	
50840605	3/4"x16UNF	AISI 316Ti	1 radial	12,2	22,5	17,5	24	
50860301	G3/8"	Steel	1 radial	12,5	18,5	15,5	24	
50840305	G3/8"	AISI 316Ti	1 radial	12,2	18,5	13,5	24	
50860201	M20x1,5	Steel	1 radial	12,2	22	12	27	
51060201	M22x1,5	Steel	2 axial	14,2	23	14	30	
51060205	M22x1,5	AISI 316Ti	2 axial	14,2	25	14	30	
51321206	M24x1,5	Steel	2 axial	16,8	23	16	32	
51320205	M24x1,5	AISI 316Ti	1 radial	16,8	23	16	32	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
<b>Hose securing grip short version</b>					
9056400	600,00	740,00	10,20	10-15	

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

Maximum test pressure (1630 bar / 23630 psi).

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

We reserve our rights for technical changes without notice. Subject to printing errors.



ID10 - Series: B and C

## Applications

- Hydraulics:** Hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools)
- Oil and Gas:** Methanol service (oil rigs, distribution panels, umbilicals), jumper/ subsea well control, chemical injection, control of subsea hydraulic components, nitrogen service, Gaseous media handling



## Technical Information

- Inner Core:** Polyvinylidenfluoride (PVDF)
- Pressure Support:** 4 layers of high-tensile steel wire
- Outer Cover:** Polyamide (PA)
- Color:** Dark green
- Temperature:** -20°C to +80°C [-4°F to 176°F]

Ø ID	Ø OD	Working Pressure		Burst Pressure	Bend Radius	Weight	Insert ID
		(SF 3.5:1)	(SF 4.0:1)				
10,0 mm	18,4 mm	1.180 bar	1.035 bar	4.140 bar	300 mm	0,680 kg/m	5,5 mm
0,39 inch	0,72 inch	17.100 psi	15.000 psi	60.000 psi	11,81 inch	0,456 lbs/ft	0,22 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⌀	
<b>Sleeve</b>							
11040102	-	Steel	23	63,7	-	-	
11040105	-	AISI 316Ti	23	64	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>HP fitting</b>								
41060204C	9/16"x18UNF LH	Stainless steel	-	5,5	114	24	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>Male fitting 60° internal cone</b>								
31060311B	G3/8"	Steel	-	5,5	80	12	17	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>Female swivel 24°/60°</b>								
21060304C	G1/2"	Stainless steel	51060311, 51060315	5,5	78	-	27	
<b>Female swivel with O-Ring</b>								
21060204C	M22x1,5	Stainless steel	51060201, 51060205	5,5	90	-	30	
21060224C	M24x1,5	Stainless steel	51320205, 51321206, 51360206	5,5	93	-	32	
21060221B	M24x1,5	Steel	51321206	5,5	92,5	-	32	
<b>Type M female swivel</b>								
21040645B	3/4"x16UNF	AISI 316Ti	51320615	5,5	78	-	24	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	⌀	
<b>Swivel nut</b>								
51320615	3/4"x16UNF	AISI 316Ti	1 radial	14,2	22,5	17,5	24	
51060311	G1/2"	Steel	1 radial	16,7	23,5	13,5	27	
51060315	G1/2"	AISI 316Ti	1 radial	16,7	23,5	13,5	27	
51060201	M22x1,5	Steel	2 axial	14,2	23	14	30	
51060205	M22x1,5	AISI 316Ti	2 axial	14,2	25	14	30	
51321206	M24x1,5	Steel	2 axial	16,8	23	16	32	
51320205	M24x1,5	AISI 316Ti	1 radial	16,8	23	16	32	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
<b>Hose securing grip short version</b>					
9086400	600,00	780,00	20,40	15-20	

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

Maximum test pressure (1560 bar / 22620 psi).

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

We reserve our rights for technical changes without notice. Subject to printing errors.



## Applications

- Hydraulics:** Hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools)
- Oil and Gas:** Methanol service (oil rigs, distribution panels, umbilicals), jumper/ subsea well control, chemical injection, nitrogen service, Gaseous media handling



## Technical Information

- Inner Core:** Polyvinylidenfluoride (PVDF)
- Pressure Support:** 2 open layers, 2 dense layers of high-tensile steel wire
- Outer Cover:** Polyamide (PA)
- Color:** Dark green
- Temperature:** -20°C to +80°C [-4°F to 176°F]

Ø ID	Ø OD	Working Pressure		Burst Pressure	Bend Radius	Weight	Insert ID
		(SF 3,5:1)	(SF 4,0:1)				
12,8 mm	20,8 mm	790 bar	690 bar	2.760 bar	300 mm	0,670 kg/m	8,5 mm
0,50 inch	0,82 inch	11.450 psi	10.000 psi	40.000 psi	11,81 inch	0,449 lbs/ft	0,33 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⌀	
<b>Sleeve</b>							
I1330191W	-	Steel	27,2	58	-	-	
I1330195W	-	AISI 316Ti	27,2	58	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>MP fitting</b>								
41320205A	9/16"x18UNF LH	AISI 316Ti	-	8,5	109	12,7	-	

<b>Male fitting</b>								
31320401A	1/2"x14NPTF	Steel	-	8,5	90	18	22	
31320405A	1/2"x14NPTF	AISI 316Ti	-	8,5	90	18	22	

<b>Female swivel 24°/60°</b>								
21320311A	G1/2"	Steel	51060311	8,5	73	-	27	
21320315A	G1/2"	AISI 316Ti	51060315, 51060311	8,5	73	-	27	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>Female swivel with O-Ring</b>								
21320101A	M22x1,5	Steel	51360221	8,5	85	-	30	
21320241A	M24x1,5	Steel	51321206	8,5	80	-	32	
21320245A	M24x1,5	AISI 316Ti	51320205, 51360206	8,5	80	-	32	
<b>Type M female swivel</b>								
21320641A	1"x12UNF	Steel	51360641	8,5	74	-	32	
21320645A	1"x12UNF	AISI 316Ti	51360645, 51360643	8,5	74	-	32	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	⌀	
<b>Swivel nut</b>								
51360641	1"x12UNF	Steel	1 radial	16,8	28	22	32	
51360643	1"x12UNF	Stainless steel	1 radial	16,8	28	22	32	
51360645	1"x12UNF	AISI 316Ti	1 radial	16,8	28	22	32	
51060311	G1/2"	Steel	1 radial	16,7	23,5	13,5	27	
51060315	G1/2"	AISI 316Ti	1 radial	16,7	23,5	13,5	27	
51360221	M22x1,5	Steel	1 radial	16,8	25	14	30	
51321206	M24x1,5	Steel	2 axial	16,8	23	16	32	
51320205	M24x1,5	AISI 316Ti	1 radial	16,8	23	16	32	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
9086400	600,00	780,00	20,40	15-20	

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

Maximum test pressure (1380 bar / 20000 psi).

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

We reserve our rights for technical changes without notice. Subject to printing errors.

## Applications

- Hydraulics:** Hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools)
- Oil and Gas:** Methanol service (oil rigs, distribution panels, umbilicals), jumper/ subsea well control, chemical injection, control of subsea hydraulic components, nitrogen service, Gaseous media handling



## Technical Information

- Inner Core:** Polyvinylidenfluoride (PVDF)
- Pressure Support:** 4 layers of high-tensile steel wire
- Outer Cover:** Polyamide (PA)
- Color:** Dark green
- Temperature:** -20°C to +80°C [-4°F to 176°F]

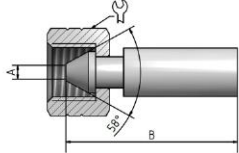
Ø ID	Ø OD	Working Pressure		Burst Pressure	Bend Radius	Weight	Insert ID
		(SF 3,3:1)	(SF 4,0:1)				
12,8 mm	22,0 mm	1.035 bar	860 bar	3.450 bar	300 mm	1,000 kg/m	7,5 mm
0,50 inch	0,87 inch	15.000 psi	12.500 psi	50.000 psi	11,81 inch	0,670 lbs/ft	0,30 inch

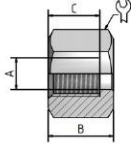
Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⌀	
<b>Sleeve</b>							
11340232	-	Steel	29,5	65	-	-	


Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>HP fitting</b>								
41360214C	9/16"x18UNF LH	Stainless steel	-	7,5	118	24	-	

<b>MP fitting</b>								
41360204C	3/4"x16UNF LH	Stainless steel	-	7,5	121	25	-	

<b>Female swivel with O-Ring</b>								
21360244C	M24x1,5	Stainless steel	51320205, 51321206, 51360206	7,5	89	-	32	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	Ø	
<b>Type M female swivel</b>								
21360644C	1"x12UNF	Stainless steel	51360645, 51360641, 51360643	7,5	84	-	32	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	Ø	
<b>Swivel nut</b>								
51360641	1"x12UNF	Steel	1 radial	16,8	28	22	32	
51360643	1"x12UNF	Stainless steel	1 radial	16,8	28	22	32	
51360645	1"x12UNF	AISI 316Ti	1 radial	16,8	28	22	32	
51321206	M24x1,5	Steel	2 axial	16,8	23	16	32	
51320205	M24x1,5	AISI 316Ti	1 radial	16,8	23	16	32	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
9106400	600,00	800,00	20,40	20-25	

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

Maximum test pressure (1290 bar / 18705 psi).

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

We reserve our rights for technical changes without notice. Subject to printing errors.



## Applications

- Hydraulics:** Hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools)
- Oil and Gas:** Methanol service (oil rigs, distribution panels, umbilicals), jumper/ subsea well control, chemical injection, nitrogen service, Gaseous media handling



## Technical Information

- Inner Core:** Polyvinylidenfluoride (PVDF)
- Pressure Support:** 4 layers of high-tensile steel wire
- Outer Cover:** Polyamide (PA)
- Color:** Dark green
- Temperature:** -20°C to +80°C [-4°F to 176°F]

Ø ID	Ø OD	Working Pressure		Burst Pressure	Bend Radius	Weight	Insert ID
		(SF 3,5:1)	(SF 4,0:1)				
16,0 mm	25,5 mm	790 bar	690 bar	2.760 bar	400 mm	1,082 kg/m	10,5 mm
0,63 inch	1,00 inch	11.450 psi	10.000 psi	40.000 psi	15,75 inch	0,725 lbs/ft	0,41 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⌀	
<b>Sleeve</b>							
I1640112	-	Steel	32,7	69	-	-	
I1640115	-	AISI 316Ti	32,6	69	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>MP fitting</b>								
41640305B	3/4"x16UNF LH	AISI 316Ti	-	10,5	120	18	-	

<b>Male fitting</b>								
31640401B	3/4"x14NPT	Steel	-	10,5	101	18	27	

<b>Female swivel with O-Ring</b>								
21640101B	M30x2	Steel	51640201	10,5	98	-	41	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>Type M female swivel</b>								
21640605B	I 5/16"x12UN	AISI 316Ti	52040645	10,5	99	-	46	
<b>JIC female swivel</b>								
21640645B	I 1/16"x12UN	AISI 316Ti	51640605	10,5	84	-	36	
Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	⌀	
<b>Swivel nut</b>								
51640605	I 1/16"x12UN	AISI 316Ti	I radial	20,1	29	23	36	
52040645	I 5/16"x12UN	AISI 316Ti	I radial	25,5	31,5	11,5	46	
51640201	M30x2	Steel	I radial	20,5	28	15	41	
Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)		Hose securing grip		
<b>Hose securing grip short version</b>								
9106400	600,00	800,00	20,40	20-25				

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

Maximum test pressure (1035 bar / 15000 psi).

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

We reserve our rights for technical changes without notice. Subject to printing errors.

## Applications

- Hydraulics:** Hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools)
- Oil and Gas:** Methanol service (oil rigs, distribution panels, umbilicals), jumper/ subsea well control, chemical injection, nitrogen service, Gaseous media handling



## Technical Information

- Inner Core:** Polyvinylidenfluoride (PVDF)
- Pressure Support:** 4 layers of high-tensile steel wire
- Outer Cover:** Polyamide (PA)
- Color:** Dark green
- Temperature:** -20°C to +80°C [-4°F to 176°F]

Ø ID	Ø OD	Working Pressure		Burst Pressure	Bend Radius	Weight	Insert ID
		(SF 3,6:1)	(SF 4,0:1)				
18,8 mm	28,8 mm	775 bar	690 bar	2.760 bar	500 mm	1,350 kg/m	13,0 mm
0,74 inch	1,13 inch	11.230 psi	10.000 psi	40.000 psi	19,69 inch	0,907 lbs/ft	0,51 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⌀	
<b>Sleeve</b>							
12040131	-	Steel	36,9	72	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>MP fitting</b>								
42060304C	1"x14UNS LH	Stainless steel	-	13	158	30	-	

<b>Female swivel with O-Ring</b>								
22060202C	M36x2	Steel	52040211	13	127	-	46	

<b>Type M female swivel</b>								
22060644C	1 5/16"x12UN	Stainless steel	52040645	13	107	-	46	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	Ø	
<b>Swivel nut</b>								
52040645	1 5/16"x12UN	AISI 316Ti	1 radial	25,5	31,5	11,5	46	
52040211	M36x2	Steel	1 radial	25,5	30	18	46	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
9136400	600,00	800,00	24,30	25-30	

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

Maximum test pressure (1035 bar / 15000 psi).

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

We reserve our rights for technical changes without notice. Subject to printing errors.

## Applications

- Hydraulics:** Hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools)
- Oil and Gas:** Methanol service (oil rigs, distribution panels, umbilicals), jumper/ subsea well control, chemical injection, nitrogen service, Gaseous media handling



## Technical Information

- Inner Core:** Polyvinylidenfluoride (PVDF)
- Pressure Support:** 6 layers of high-tensile steel wire
- Outer Cover:** Polyamide (PA)
- Color:** Dark green
- Temperature:** -20°C to +80°C [-4°F to 176°F]

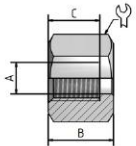
Ø ID	Ø OD	Working Pressure		Burst Pressure	Bend Radius	Weight	Insert ID
		(SF 3,3:1)	(SF 4,0:1)				
18,8 mm	32,8 mm	1.035 bar	860 bar	3.450 bar	600 mm	2,170 kg/m	13,0 mm
0,74 inch	1,29 inch	15.000 psi	12.500 psi	50.000 psi	23,62 inch	1,454 lbs/ft	0,51 inch


Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⌀	
<b>Sleeve</b>							
12060111	-	Steel	42,9	72	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>MP fitting</b>								
42060304C	1"x14UNS LH	Stainless steel	-	13	158	30	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>Female swivel with O-Ring</b>								
22060202C	M36x2	Steel	52040201	13	127	-	46	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>Type M female swivel</b>								
22060644C	1 5/16"x12UN	Stainless steel	52040645	13	107	-	46	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	Ø	
<b>Swivel nut</b>								
52040645	1 5/16"x12UN	AISI 316Ti	1 radial	25,5	31,5	11,5	46	
52040201	M36x2	Steel	1 radial	25,5	38	22	46	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
9204400	600,00	820,00	35,10	30-40	

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

Maximum test pressure (1290 bar / 18705 psi).

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

We reserve our rights for technical changes without notice. Subject to printing errors.



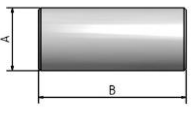
## Applications

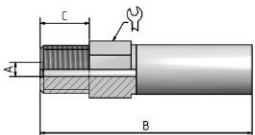
- Hydraulics:** Hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools)
- Oil and Gas:** Methanol service (oil rigs, distribution panels, umbilicals), jumper/ subsea well control, chemical injection, nitrogen service, Gaseous media handling

## Technical Information

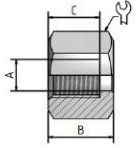
- Inner Core:** Polyvinylidenfluoride (PVDF)
- Pressure Support:** 4 layers of high-tensile steel wire
- Outer Cover:** Polyamide (PA)
- Color:** Dark green
- Temperature:** -20°C to +80°C [-4°F to 176°F]


Ø ID	Ø OD	Working Pressure		Burst Pressure	Bend Radius	Weight	Insert ID
		(SF 3,0:1)	(SF 4,0:1)				
24,8 mm	36,3 mm	690 bar	520 bar	2.070 bar	500 mm	1,820 kg/m	18,0 mm
0,98 inch	1,43 inch	10.000 psi	7.500 psi	30.000 psi	19,69 inch	1,223 lbs/ft	0,71 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⌀	
<b>Sleeve</b>							
12540125	-	AISI 316Ti	42,4	92	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>Male fitting</b>								
32540405HB	1"x11 1/2NPTF	AISI 316Ti	-	18	131	25	36	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>Female swivel with O-Ring</b>								
22540205HB	M42x2	AISI 316Ti	52521215, 525202010	18	122	-	50	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	⌀	
<b>Swivel nut</b>								
52521215	M42x2	AISI 316Ti	2 axial	30,2	34	24	50	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
<b>Hose securing grip short version</b>					
9204400	600,00	820,00	35,10	30-40	

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

Maximum test pressure (1035 bar / 15000 psi).

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

We reserve our rights for technical changes without notice. Subject to printing errors.



# Hose Type 5/4HT®

54HT458

**SPIR STAR®**

High temperature

ID5 - Series: H

## Applications

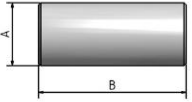
**Oil and Gas:** Methanol service (oil rigs, distribution panels, umbilicals), jumper/ subsea well control, chemical injection, control of subsea hydraulic components, nitrogen service, Gaseous media handling

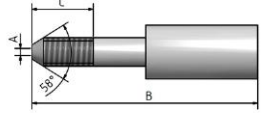
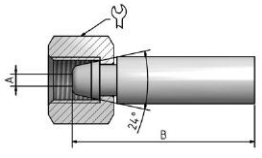
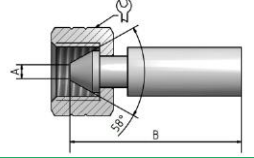
## Technical Information

**Inner Core:** Polyvinylidenfluoride (PVDF)  
**Pressure Support:** 4 layers of high-tensile steel wire  
**Outer Cover:** Polyvinylidenfluoride (PVDF)  
**Color:** Light grey  
**Temperature:** -20°C to +150°C [-4°F to 300°F]



Ø ID	Ø OD	Working Pressure (SF 3.2:1)	Working Pressure (SF 4.0:1)	Burst Pressure	Bend Radius	Weight	Insert ID
5,0 mm	11,2 mm	1.285 bar	1.035 bar	4.140 bar	250 mm	0,280 kg/m	2,5 mm
0,20 inch	0,44 inch	18.630 psi	15.000 psi	60.000 psi	9,84 inch	0,188 lbs/ft	0,10 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⚙	
<b>Sleeve</b>							
10540145	-	AISI 316Ti	15,4	56	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⚙	
<b>HP fitting</b>								
40540205H	1/4"x28UNF LH	AISI 316Ti	-	2,5	86	14	-	
<b>Female swivel 24°/60°</b>								
20540315H	G1/4"	AISI 316Ti	50540305	2,5	71	-	19	
<b>Type M female swivel</b>								
20540665H	9/16"x18UNF	AISI 316Ti	50540605	2,5	68	-	19	

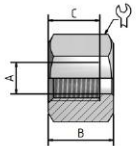
# Hose Type 5/4HT®


54HT458

**SPIR STAR®**

High temperature

ID5 - Series: H

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	Ø	
<b>Swivel nut</b>								
50540605	9/16"x18UNF	AISI 316Ti	1 radial	9,2	18	14	19	
50540305	G1/4"	AISI 316Ti	1 radial	9,2	16,5	8,5	19	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
9056400	600,00	740,00	10,20	10-15	

**Important Information!**

In case of accidental leakage when transferring hot medium through SPIR STAR hoses the potential for injury exists from escaping fluids at high temperature (up to 150 C or 300F) while under pressure. When used for this purpose SPIR STAR HT series hoses should only be used when there is appropriate protecting devices in place to rule out the possibility of injury. The protecting devices may be removed only (e.g. for repairs) after the hose assembly has been depressurized and cooled to ambient temperature.

*Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.*

*Maximum test pressure (1560 bar / 22620 psi).*

*The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.*

*Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.*

*The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.*

*We reserve our rights for technical changes without notice. Subject to printing errors.*

# Hose Type 6/2WHT®

62WHT458

**SPIR STAR®**

High Temperature

ID6 - Series: HB

## Applications

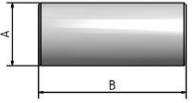
**Oil and Gas:** Methanol service (oil rigs, distribution panels, umbilicals), jumper/ subsea well control, chemical injection, control of subsea hydraulic components, nitrogen service, Gaseous media handling

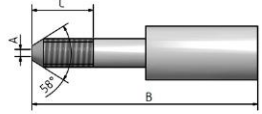
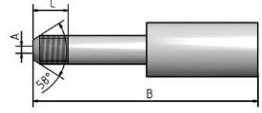
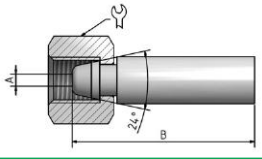
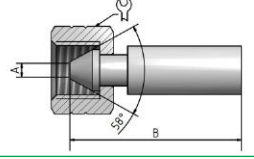
## Technical Information

**Inner Core:** Polyvinylidenfluoride (PVDF)  
**Pressure Support:** 2 open layers, 2 dense layers of high-tensile steel wire  
**Outer Cover:** Polyvinylidenfluoride (PVDF)  
**Color:** Light grey  
**Temperature:** -20°C to +150°C [-4°F to 300°F]



Ø ID	Ø OD	Working Pressure		Burst Pressure	Bend Radius	Weight	Insert ID
		(SF 3.0:1)	(SF 4.0:1)				
6,3 mm	12,2 mm	915 bar	690 bar	2.760 bar	150 mm	0,266 kg/m	3,5 mm
0,25 inch	0,48 inch	13.260 psi	10.000 psi	40.000 psi	5,91 inch	0,178 lbs/ft	0,14 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⚙	
<b>Sleeve</b>							
10640115	-	AISI 316Ti	17,3	64,4	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⚙	
<b>HP fitting</b>								
40640205HB	3/8"x24UNF LH	AISI 316Ti	-	3,5	98	20	-	
<b>MP fitting</b>								
40640305HB	3/8"x24UNF LH	AISI 316Ti	-	3,5	100	11	-	
<b>Female swivel 24°/60°</b>								
20640315HB	M16x1,5	AISI 316Ti	50620125	3,5	77	-	19	
<b>Type M female swivel</b>								
20640645HB	9/16"x18UNF	AISI 316Ti	S5063615	3,5	73	-	19	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	Ø	
<b>JIC female swivel</b>								
20640655HB	9/16"x18UNF	AISI 316Ti	S5063615	3,5	69	-	19	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	Ø	
<b>Swivel nut</b>								
S5063615	9/16"x18UNF	AISI 316Ti	1 radial	9,5	18	14	19	
50620125	M16x1,5	AISI 316Ti	1 radial	9,5	17,5	10	19	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
<b>Hose securing grip short version</b>					
9056400	600,00	740,00	10,20	10-15	

**Important Information!**

In case of accidental leakage when transferring hot medium through SPIR STAR hoses the potential for injury exists from escaping fluids at high temperature (up to 150 C or 300F) while under pressure. When used for this purpose SPIR STAR HT series hoses should only be used when there is appropriate protecting devices in place to rule out the possibility of injury. The protecting devices may be removed only (e.g. for repairs) after the hose assembly has been depressurized and cooled to ambient temperature.

*Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.*

*Maximum test pressure (1380 bar / 20000 psi).*

*The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.*

*Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.*

*The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.*

*We reserve our rights for technical changes without notice. Subject to printing errors.*

# Hose Type 6/4HT®

64HT458



High Temperature

ID6 - Series: HB

## Applications

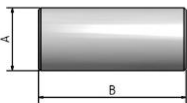
**Oil and Gas:** Methanol service (oil rigs, distribution panels, umbilicals), jumper/ subsea well control, chemical injection, control of subsea hydraulic components, nitrogen service, Gaseous media handling

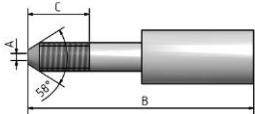
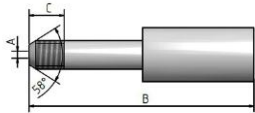
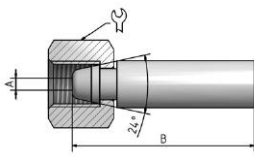
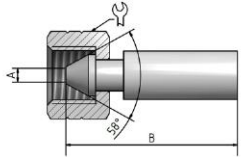


## Technical Information

**Inner Core:** Polyvinylidenfluoride (PVDF)  
**Pressure Support:** 4 layers of high-tensile steel wire  
**Outer Cover:** Polyvinylidenfluoride (PVDF)  
**Color:** Light grey  
**Temperature:** -20°C to +150°C [-4°F to 300°F]

Ø ID	Ø OD	Working Pressure (SF 3.8:1)	Burst Pressure (SF 4.0:1)	Bend Radius	Weight	Insert ID
6,3 mm	12,6 mm	1.085 bar	1.035 bar	280 mm	0,320 kg/m	3,5 mm
0,25 inch	0,50 inch	15.730 psi	15.000 psi	11,02 inch	0,214 lbs/ft	0,14 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⚙	
<b>Sleeve</b>							
10640115	-	AISI 316Ti	17,3	64,4	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⚙	
<b>HP fitting</b>								
40640205HB	3/8"x24UNF LH	AISI 316Ti	-	3,5	98	20	-	
<b>MP fitting</b>								
40640305HB	3/8"x24UNF LH	AISI 316Ti	-	3,5	100	11	-	
<b>Female swivel 24°/60°</b>								
20640315HB	M16x1,5	AISI 316Ti	50620125	3,5	77	-	19	
<b>Type M female swivel</b>								
20640645HB	9/16"x18UNF	AISI 316Ti	S5063615	3,5	73	-	19	

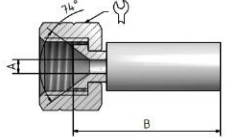
# Hose Type 6/4HT®

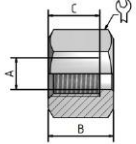
64HT458


**SPIR STAR®**

High Temperature

ID6 - Series: HB

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	Ø	
<b>JIC female swivel</b>								
20640655HB	9/16"x18UNF	AISI 316Ti	S5063615	3,5	69	-	19	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	Ø	
<b>Swivel nut</b>								
S5063615	9/16"x18UNF	AISI 316Ti	1 radial	9,5	18	14	19	
50620125	M16x1,5	AISI 316Ti	1 radial	9,5	17,5	10	19	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
9056400	600,00	740,00	10,20	10-15	

**Important Information!**

In case of accidental leakage when transferring hot medium through SPIR STAR hoses the potential for injury exists from escaping fluids at high temperature (up to 150 C or 300F) while under pressure. When used for this purpose SPIR STAR HT series hoses should only be used when there is appropriate protecting devices in place to rule out the possibility of injury. The protecting devices may be removed only (e.g. for repairs) after the hose assembly has been depressurized and cooled to ambient temperature.

*Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.*

*Maximum test pressure (1630 bar / 23630 psi).*

*The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.*

*Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.*

*The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.*

*We reserve our rights for technical changes without notice. Subject to printing errors.*

# Hose Type 8/2WHT®

82WHT458



High Temperature

ID8 - Series: H

## Applications

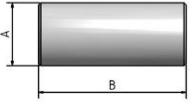
**Oil and Gas:** Methanol service (oil rigs, distribution panels, umbilicals), jumper/ subsea well control, chemical injection, control of subsea hydraulic components, nitrogen service, Gaseous media handling

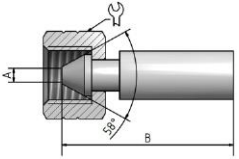
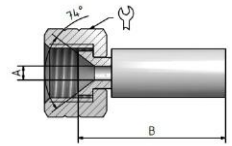


## Technical Information

**Inner Core:** Polyvinylidenfluoride (PVDF)  
**Pressure Support:** 2 open layers, 2 dense layers of high-tensile steel wire  
**Outer Cover:** Polyvinylidenfluoride (PVDF)  
**Color:** Grey  
**Temperature:** -20°C to +150°C [-4°F to 300°F]

Ø ID	Ø OD	Working Pressure		Burst Pressure	Bend Radius	Weight	Insert ID
		(SF 3.7:1)	(SF 4.0:1)				
8,0 mm	14,5 mm	745 bar	690 bar	2.760 bar	250 mm	0,400 kg/m	4,0 mm
0,31 inch	0,57 inch	10.800 psi	10.000 psi	40.000 psi	9,84 inch	0,268 lbs/ft	0,16 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⚙	
<b>Sleeve</b>							
10830145	-	AISI 316Ti	20,7	56,5	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⚙	
<b>Type M female swivel</b>								
20820665H	3/4"x16UNF	AISI 316Ti	50840605	4	76	-	24	
<b>JIC female swivel</b>								
20820615H	9/16"x18UNF	AISI 316Ti	50820605	4	66	-	19	
20820605H	3/4"x16UNF	AISI 316Ti	50840605	4	72	-	24	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	Ø	
<b>Swivel nut</b>								
50820605	9/16"x18UNF	AISI 316Ti	1 radial	10,6	18	14	19	
50840605	3/4"x16UNF	AISI 316Ti	1 radial	12,2	22,5	17,5	24	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
9056400	600,00	740,00	10,20	10-15	

**Important Information!**

In case of accidental leakage when transferring hot medium through SPIR STAR hoses the potential for injury exists from escaping fluids at high temperature (up to 150 C or 300F) while under pressure. When used for this purpose SPIR STAR HT series hoses should only be used when there is appropriate protecting devices in place to rule out the possibility of injury. The protecting devices may be removed only (e.g. for repairs) after the hose assembly has been depressurized and cooled to ambient temperature.

*Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.*

*Maximum test pressure (1120 bar / 16240 psi).*

*The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.*

*Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.*

*The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.*

*We reserve our rights for technical changes without notice. Subject to printing errors.*



# Hose Type 8/4HT®

84HT458

**SPIR STAR®**

High Temperature

ID8 - Series: HB

## Applications

**Oil and Gas:** Methanol service (oil rigs, distribution panels, umbilicals), jumper/ subsea well control, chemical injection, control of subsea hydraulic components, nitrogen service, Gaseous media handling

## Technical Information

**Inner Core:** Polyvinylidenfluoride (PVDF)  
**Pressure Support:** 4 layers of high-tensile steel wire  
**Outer Cover:** Polyvinylidenfluoride (PVDF)  
**Color:** Grey  
**Temperature:** -20°C to +150°C [-4°F to 300°F]



Ø ID	Ø OD	Working Pressure (SF 3,8:1)	Working Pressure (SF 4,0:1)	Burst Pressure	Bend Radius	Weight	Insert ID
8,0 mm	14,6 mm	1.085 bar	1.035 bar	4.140 bar	300 mm	0,413 kg/m	4,5 mm
0,31 inch	0,57 inch	15.730 psi	15.000 psi	60.000 psi	11,81 inch	0,277 lbs/ft	0,18 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⌀	
<b>Sleeve</b>							
10840152	-	Steel	20,2	65	-	-	
10840155	-	AISI 316Ti	20,2	65	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
<b>Female swivel 24°/60°</b>								
20840311HB	G3/8"	Steel	50860301, 50840305	4,5	77	-	24	
<b>Type M female swivel</b>								
20840645HB	3/4"x16UNF	AISI 316Ti	50840605, 50840601	4,5	78	-	24	
<b>JIC female swivel</b>								
20840605HB	3/4"x16UNF	AISI 316Ti	50840605, 50840601	4,5	73	-	24	

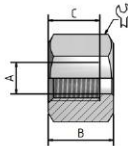
# Hose Type 8/4HT®


84HT458

**SPIR STAR®**

High Temperature

ID8 - Series: HB

Part no.	Thread	Material	Relief bores	Dimensions (mm)			Ø	Swivel nut
				A	B	C		
<b>Swivel nut</b>								
50840601	3/4"x16UNF	Steel	1 radial	12,2	22,5	17,5	24	
50840605	3/4"x16UNF	AISI 316Ti	1 radial	12,2	22,5	17,5	24	
50860301	G3/8"	Steel	1 radial	12,5	18,5	15,5	24	
50840305	G3/8"	AISI 316Ti	1 radial	12,2	18,5	13,5	24	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
9056400	600,00	740,00	10,20	10-15	

### Important Information!

In case of accidental leakage when transferring hot medium through SPIR STAR hoses the potential for injury exists from escaping fluids at high temperature (up to 150 C or 300F) while under pressure. When used for this purpose SPIR STAR HT series hoses should only be used when there is appropriate protecting devices in place to rule out the possibility of injury. The protecting devices may be removed only (e.g. for repairs) after the hose assembly has been depressurized and cooled to ambient temperature.

Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.

Maximum test pressure (1630 bar / 23630 psi).

The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.

Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.

The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.

We reserve our rights for technical changes without notice. Subject to printing errors.

# Hose Type 10/4HT®

104HT458



High temperature

IDI10 - Series: H

## Applications

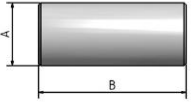
**Oil and Gas:** Methanol service (oil rigs, distribution panels, umbilicals), jumper/ subsea well control, chemical injection, control of subsea hydraulic components, nitrogen service, Gaseous media handling

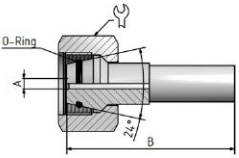
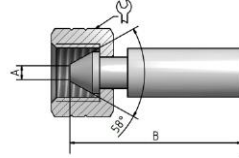
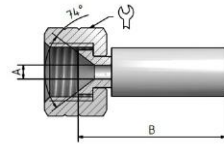


## Technical Information

**Inner Core:** Polyvinylidenfluoride (PVDF)  
**Pressure Support:** 4 layers of high-tensile steel wire  
**Outer Cover:** Polyvinylidenfluoride (PVDF)  
**Color:** Grey  
**Temperature:** -20°C to +150°C [-4°F to 300°F]

Ø ID	Ø OD	Working Pressure (SF 3,8:1)	Working Pressure (SF 4,0:1)	Burst Pressure	Bend Radius	Weight	Insert ID
9,9 mm	18,4 mm	1.085 bar	1.035 bar	4.140 bar	300 mm	0,695 kg/m	5,0 mm
0,39 inch	0,72 inch	15.730 psi	15.000 psi	60.000 psi	11,81 inch	0,466 lbs/ft	0,20 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⚙	
<b>Sleeve</b>							
11040145	-	AISI 316Ti	24,9	64	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⚙	
<b>Female swivel with O-Ring</b>								
21040115H	M22x1,5	AISI 316Ti	51060205, 51060201	5	92	-	30	
<b>Type M female swivel</b>								
21040645H	3/4"x16UNF	AISI 316Ti	51320615	5	84	-	24	
<b>JIC female swivel</b>								
21040605H	3/4"x16UNF	AISI 316Ti	51320615	5	79	-	24	
21040615H	9/16"x18UNF	AISI 316Ti	51040615	5	77	-	19	

Part no.	Thread	Material	Relief bores	Dimensions (mm)			⌀	Swivel nut
				A	B	C		
<b>Swivel nut</b>								
51320615	3/4"x16UNF	AISI 316Ti	1 radial	14,2	22,5	17,5	24	
51040615	9/16"x18UNF	AISI 316Ti	1 radial	11,2	18	14	19	
51060201	M22x1,5	Steel	2 axial	14,2	23	14	30	
51060205	M22x1,5	AISI 316Ti	2 axial	14,2	25	14	30	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
9086400	600,00	780,00	20,40	15-20	

**Important Information!**

In case of accidental leakage when transferring hot medium through SPIR STAR hoses the potential for injury exists from escaping fluids at high temperature (up to 150 C or 300F) while under pressure. When used for this purpose SPIR STAR HT series hoses should only be used when there is appropriate protecting devices in place to rule out the possibility of injury. The protecting devices may be removed only (e.g. for repairs) after the hose assembly has been depressurized and cooled to ambient temperature.

*Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.*

*Maximum test pressure (1630 bar / 23630 psi).*

*The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.*

*Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.*

*The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.*

*We reserve our rights for technical changes without notice. Subject to printing errors.*

# Hose Type I3/4HHT®

I34HHT458

**SPiR STAR®**

High Temperature

IDI3 - Series: C

## Applications

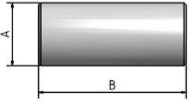
**Oil and Gas:** Methanol service (oil rigs, distribution panels, umbilicals), jumper/ subsea well control, chemical injection, control of subsea hydraulic components, nitrogen service, Gaseous media handling

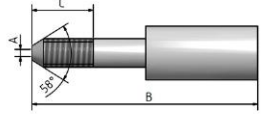
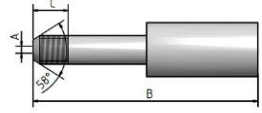


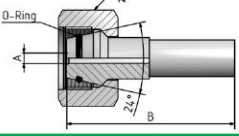
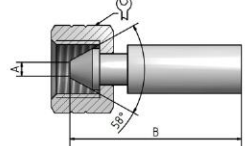
## Technical Information

**Inner Core:** Polyvinylidenfluoride (PVDF)  
**Pressure Support:** 4 layers of high-tensile steel wire  
**Outer Cover:** Polyvinylidenfluoride (PVDF)  
**Color:** Grey  
**Temperature:** -20°C to +150°C [-4°F to 300°F]

Ø ID	Ø OD	Working Pressure		Burst Pressure	Bend Radius	Weight	Insert ID
		(SF 3.3:1)	(SF 4.0:1)				
12,8 mm	22,0 mm	1.035 bar	860 bar	3.450 bar	300 mm	1,000 kg/m	7,5 mm
0,50 inch	0,87 inch	15.000 psi	12.500 psi	50.000 psi	11,81 inch	0,672 lbs/ft	0,30 inch

Part no.	Thread	Material	Dimensions (mm)				⚙	Sleeve
			A	B	C			
<b>Sleeve</b>								
I1340232	-	Steel	29,5	65	-	-		

Part no.	Thread	Material	Nut	Dimensions (mm)				⚙	Insert
				A	B	C			
<b>HP fitting</b>									
41360214C	9/16"x18UNF LH	Stainless steel	-	7,5	118	24	-		
<b>MP fitting</b>									
41360204C	3/4"x16UNF LH	Stainless steel	-	7,5	121	25	-		

<b>Female swivel with O-Ring</b>								
21360244C	M24x1,5	Stainless steel	51320205, 51321206, 51360206	7,5	89	-	32	
<b>Type M female swivel</b>								
21360644C	1"x12UNF	Stainless steel	51360645, 51360641, 51360643	7,5	84	-	32	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	Ø	
<b>Swivel nut</b>								
51360641	1"x12UNF	Steel	1 radial	16,8	28	22	32	
51360643	1"x12UNF	Stainless steel	1 radial	16,8	28	22	32	
51360645	1"x12UNF	AISI 316Ti	1 radial	16,8	28	22	32	
51321206	M24x1,5	Steel	2 axial	16,8	23	16	32	
51320205	M24x1,5	AISI 316Ti	1 radial	16,8	23	16	32	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
9106400	600,00	800,00	20,40	20-25	

**Important Information!**

In case of accidental leakage when transferring hot medium through SPIR STAR hoses the potential for injury exists from escaping fluids at high temperature (up to 150 C or 300F) while under pressure. When used for this purpose SPIR STAR HT series hoses should only be used when there is appropriate protecting devices in place to rule out the possibility of injury. The protecting devices may be removed only (e.g. for repairs) after the hose assembly has been depressurized and cooled to ambient temperature.

*Production related variations of the burst pressure of up to 5 % are possible. Other colors upon request.*

*Maximum test pressure (1290 bar / 18705 psi).*

*The safety factors between the burst pressure and the working pressure as well as the test pressure depend on the operating conditions. For gaseous media the outer cover is to be pinpricked.*

*Regarding the safety factor for gaseous media please contact your local SPIR STAR® assembling center.*

*The indicated working pressure refers to the hose only. Depending on the used fitting the permitted working pressure of a hose assembly may be less.*

*We reserve our rights for technical changes without notice. Subject to printing errors.*

### Important Comment

Before installing and operating the product, these Installing and Operating Instructions have to be read carefully.  
Comments and remarks regarding dangers have to be observed in particular.

These Instructions are valid on condition that the proper product has been selected for the application. Selection and dimensioning of the product is not the subject of these Instructions. If these Instructions are not observed or if they are misinterpreted, SPiR STAR® AG will be exempt from any product liability and guarantee. This applies also if our product is taken apart or if it is modified.

These Instructions shall be kept in a safe place and – if our product is passed on, whether individually or as a part of a machine – shall be passed along in order to be at the disposal of the user.

### Safety Information

- Only trained personnel may execute the installation of our product and set it into operation.
- Check the high-pressure hose assemblies for kinks, wear and tear, corrosion, cracks and other damages each time before using them.
- High-pressure hose assemblies showing kinks, cracks, corrosion, leaking fittings or damages of the outer cover reaching down to the reinforcing steel wires have to be exchanged.
- Use only high-pressure hose assemblies the allowable working pressure of which you know.
- Do not use leaking high-pressure hose assemblies.
- Use only clean, filtered media in order to extend the “life span” of the high-pressure hoses.
- If a malfunction is suspected, the product or the machine it was mounted to shall be put out of operation immediately and the high-pressure hose assembly exchanged.

### Hazards

- Hazard by a bursting hose assembly.  
A hazard may originate from fragments flying around.
- Hazard by a leaking hose assembly.  
Leaking media, especially if emerging in a very thin jet, may cause severe cuts and even cut off limbs.  
Hot media may lead to scalding. Admixtures to the water may cause irritations and burns.
- Hazard by a hot medium inside the hose assembly.  
Touching the hot surface of the hose assembly may lead to severe burns.
- Hazard by the alteration of the length of the hose assembly.  
High-pressure hose assemblies shorten under pressure. This can make the operator lose his stability, and the hose assembly may lose its operational safety.
- Hazard by hose fittings and components joining hose assemblies.  
Hazards may originate from hose fittings and components joining hose assemblies if these become unfastened, break off or are pulled out as this may lead to an uncontrollable lashing movement of the hose assembly (whip effect).
- Hazard by hoses lying about.  
Hoses lying about create a potential stumbling hazard.

# SPIR STAR® High-Pressure Hose Assemblies

## Instructions on Installing and Operating



### 1. Marking

Hose type and batch number are printed on the hose at regular distances. The ferrules are marked with the max. allowable working pressure, the name of the manufacturer, the date of production (month of the year and year), the serial number and, upon the customer's request, identified with a customer's serial number.



### 2. Intended purpose

SPIR STAR® High-pressure hose is thought for applications with water using pressure sources with low pulsation rates ( $\pm 5\%$ ).

The following working temperatures are allowed:

Product series	Allowed working temperatures
In general	-30°C to +60°C
Series HT	-20°C to +150°C
Series PPA	-20°C to +80°C
Series F*)	-70°C to +200°C

\*) The max. allowable working pressure of the product series „F“ decreases by 5% in the temperature range between 24°C and 100°C, by 10% in the range between >100°C and 150°C, and by 20% in the range between >150°C and 200°C

If SPIR STAR® High-pressure hoses are to be used with aggressive media like alkaline solutions and acids for example, it is necessary to send a written inquiry on the resistance to SPIR STAR® AG before using them.

If SPIR STAR® High-pressure hoses are to be used with gaseous media, a safety factor of 1:6 between working pressure and burst pressure is to be observed. In this case the outer cover of the hose has to be pricked (perforated) every 10 mm with a suitable device or a spring-actuated prick punch.

The maximum working pressure given on the ferrules must not be exceeded under any circumstances. This applies also to pressure peaks.



### 3. Installing / Setting into operation

While tightening the nuts of the fittings, care must be taken that the fittings are not turned within the ferrules.

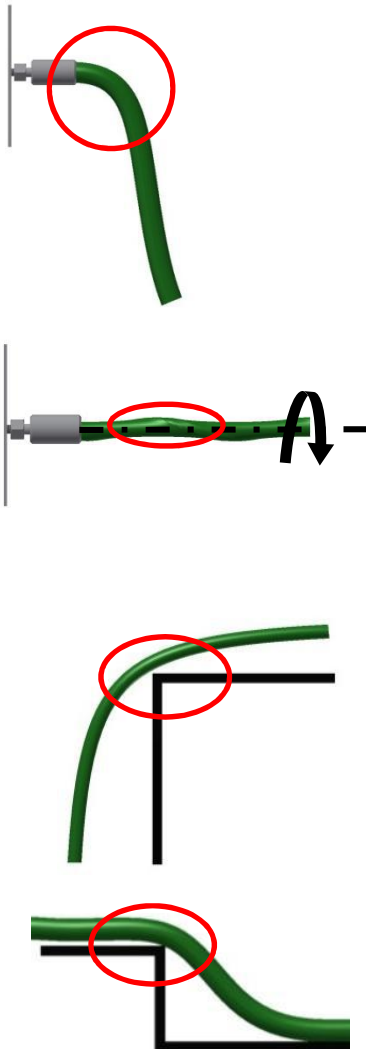
The nuts of the fittings must never be tightened while the high-pressure hose assembly is under pressure.

The hose assembly must be secured in an appropriate way if its weight might lead to excessive tensile strain, e.g. by hanging off high buildings.

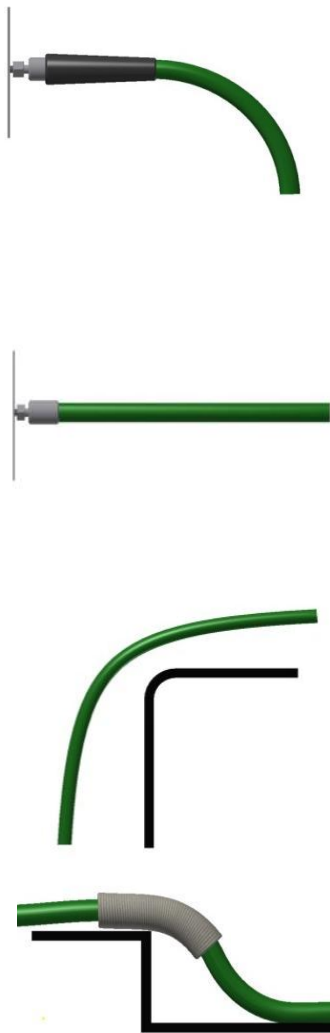
The high-pressure hose assembly must not be secured at the ferrule by means of a vise or a heavy pipe wrench.

The high-pressure hose assembly should be secured at both ends by an appropriate retaining device (hose arrestor) against lashing about in the case of the hose fitting breaking or being pulled out.

### Wrong



### Right



### Comment

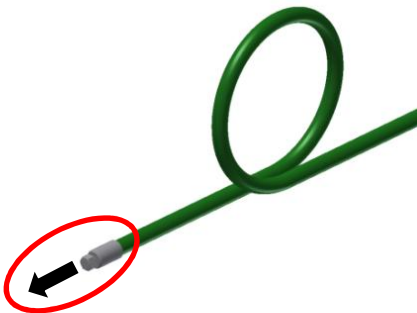
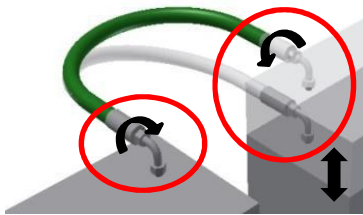
At installing, make sure that the required length exists to avoid "buckling" and tensioning of the hose during operation. The recommended minimum bend radius must not be exceeded. This can be achieved by using a bend restrictor. The bending of a hose may begin only after a length of  $\geq 1.5 \times d$ .

Twisting the hose during installation and operation, e.g. by blocking a rotary joint or installing the hose under a torsional load, must be avoided by all means.

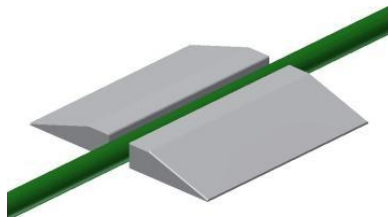
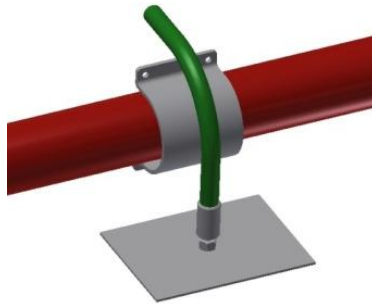
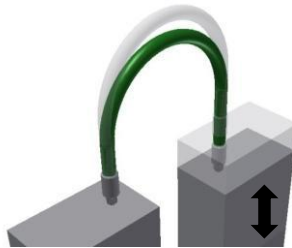
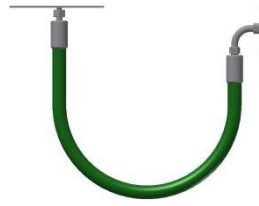
Because of their outer cover hoses have a certain abrasion resistance, but a hose may not be pulled over sharp edges because this may cause considerable damage to the hose.

Hose assemblies must be protected against damage that may lead to abrasion and cracking and thus to an early failure of the hose.

## Wrong



## Right



## Comment

Hose assemblies must not be bent exceeding the permitted bend radius. The figures for the minimum bend radius given in our catalogue refer to the inflexible laying of hose assemblies. In such cases elbow pieces or bends should be used. The bend of the hose may only start after a length of  $\geq 1.5 \times d$ .

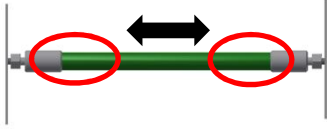
A twist of the hose assembly through movement should be avoided because of torsional loads acting on the valve or the tube cross section which might lead to failures.

Hose assemblies must be protected against the effect of temperatures if these exceed the values given in the catalog. Particular attention should be paid to the laying of hose assemblies in the range of heat sources. Hose assemblies should be protected by protecting equipment such as protecting hose.

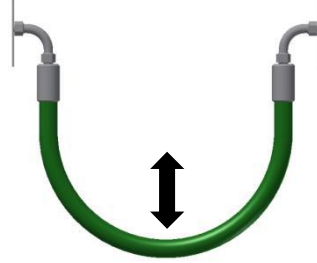
The development of hose loops must be avoided and counteracted. Tensile forces by pulling at those loops are also to be avoided.

Driving over unprotected hose assemblies with vehicles is not permitted. Ramps or similar are specifically to be used if driving over is necessary.

## Wrong



## Right



## Comment

Hose assemblies must not be installed under tension or pressure in the axial direction. You need working space where a lengthening and shortening may occur during use. In such cases, elbow pieces or bends are to be used. The bend of the hose may start only after a length of  $\geq 1.5 \times d$ .

Based on these examples, it is not possible to display all kinds of faulty or correct installing. In particularly difficult installation conditions, please contact SPIR STAR® AG.

In exceptional cases of application, special tests may be needed before selecting the hose.

### 4. Packing and Storage

If stored properly (in a dry place, at 23°C, no direct solar radiation etc.), SPIR STAR® High-pressure hose and fittings can be stored indefinitely.

After a storage period of more than 12 months, ready made hose assemblies should be pressure tested at 1.5 times the working pressure but not more than 4.000 bar for 3 minutes in an appropriate pressure test stand before using them.

If storing the hose assembly at temperatures near the freezing point, it must be emptied completely (danger of frost).

### 5. Duration of Use

The duration of the use of SPIR STAR® High-pressure hose assemblies depends very much on the respective operating conditions.

For that reason it is not possible to make a general statement.

Following are SPIR STAR®'s lists of Do's & Don'ts for the proper and safe handling of high-pressure hose. The improper use of high-pressure hose can cause DEATH, personal injury or property damage. NEVER handle a leaking hose assembly. Treat any injury from high-pressure fluid seriously and seek immediate medical attention.

### Do's:

- Treat high-pressure hose with extreme caution. SPIR STAR® hoses are wire reinforced hoses and should be treated with the same care as a high-pressure containment vessel.
- When using hoses for water jetting, read and understand Recommended practices for the Use of Manually Operated High-pressure Water jet Equipment (Water jet Technology Association [+1/314-241-1445, [www.wjta.org](http://www.wjta.org)])
- Always visually inspect for frayed, damaged or wear spots before using.
- Check the hose end connections and threads for wear, rust, cracks, mechanical abuse or other deterioration that could produce a dangerous projectile.
- Know the working pressures and burst pressures of all hoses before using them.
- Always use clean, filtered water to prolong hose life. Some plants' water sources are high in sulphur, which may attack stainless steel.
- Always clean, drain and coil hoses after use. Soap and water usually provide an excellent cleaning agent.
- Always wear protective gloves, eyewear and garments when handling high-pressure hose and water jet lances.

### Don'ts:

- Never use a hose with cuts or wire showing through the outer cover.
- Never use a hose that has been kinked.
- Don't use a hose that has bubbles or blisters in the outer cover.
- Don't exceed the bend radius and pressure rating for each hose.
- Don't run over or crush the hose with heavy vehicles.
- Don't use a hose with corroded or leaking end connections. Take it out of service immediately.
- Don't use hoses that have been exposed to chemical attack or over temperature.
- Avoid using dirty water or water with sulphur compounds in it. Tests have documented that hoses fail more rapidly when using water sources from chemical plants and refineries.
- Don't bend the hose over scaffolding or pull heavy equipment with the hose.
- Don't let the hose support its own weight off towers or buildings.
- Don't apply torque to the hose assembly.
- Don't expect water jetting or hydraulic hose to last forever.

**Be Safe – Replace!**

HW-Series						
Inner Liner	Outer Cover	Temperature	Safety Factor	Working Pressure	Inner Diameter	Application
POM	PA	-30°C bis +100°C -22°F bis +210°F	3,8:1	1.000 bar 14.500 psi	8 mm	Waterblast

The HW-Series comprises hose type for the waterblast industry. These hose types were especially developed for the hot water application up to 100°C.

HL-Series						
Inner Liner	Outer Cover	Temperature	Safety Factor	Working Pressure	Inner Diameter	Application
PA	PUR	-30°C to +60°C -22°F to +140°F	2,5:1	700 to 1.200 bar 10.150 to 17.400 psi	5-6 mm 0,19-0,23 inch	Hydraulics
POM	PA	-30°C to +60°C -22°F to +140°F	2,5:1	1,500 bar 21.750 psi	5 mm 0,23 inch	Hydraulics

The hydraulic market requires especially suited and optimized hoses. The HL hoses were especially developed for applications with bolt tensioners and the torsion-free pulling of screw connections.

M-Series						
Inner Liner	Outer Cover	Temperature	Safety Factor	Working Pressure	IDs	Application
BESNO P40 TLO	PA	-30°C to +60°C -22°F to +140°F	4:1	345 to 1.035 bar 5.000 to 15.000 psi	6-25 mm 0,23-1 inch	Oil & Gas

The M-Series comprises hose types with an inner core made of methanol-washed PA II BESNO P40 TLO (Nylon II), a material that has been tried and tested in the Offshore Industry for years. Because of the combination of the inner liner made of PA II and the PA outer cover the hoses of this series are very flexible and lightweight while showing a low permeation rate as required for methanol applications.

PPA®-Series						
Inner Liner	Outer Cover	Temperature	Safety Factor	Working Pressure	IDs	Application
PVDF	PA	-20°C to +80°C -4°F to +176°F	4:1	520 to 1.035 bar 7.500 to 15.000 psi	5-25 mm 0,19-1 inch	Oil & Gas

The PPA-Series combines the advantages of the chemical-resisting PVDF as inner liner material and Polyamide, which has been tried and tested for years, as material of the outer cover. The hoses show a very low permeation rate with methanol applications. Furthermore, they feature a very high chemical resistance. For underwater applications in particular a very small volumetric expansion at maximum pressures is required additionally. Upon request the hoses can be delivered in long lengths, e.g. *6/4PPA up to 4.500 mtrs, as needed for offshore hose bundles.*

HT®-Series						
Inner Liner	Outer Cover	Temperature	Safety Factor	Working pressure	IDs	Application
PVDF	PVDF	-20°C to +150°C -4°F to +300°F	4:1	690 to 1.035 bar 10.000 to 15.000 psi	5-13 mm 0,19-0,51 inch	Oil & Gas

The HT Series was developed especially for the exacting demands of the HP/HT (high-pressure/high temperature) applications. PVDF is a material that is the world-wide standard in terms of heat and chemical resistance. Because of the unique combination of the materials the products are especially suited for Methanol Service Applications, for handling aggressive chemicals and for all applications that require an extremely low permeation rate. The Offshore Industry mainly requires high pressure hoses that feature a very small volumetric expansion at maximum pressures. Upon request the hoses can be delivered in long lengths, e.g. *6/4HT up to 4.500 mtrs, as needed for offshore hose bundles.*

# Hose Types by Common Application



Pressure Range									
ID	Hose Type	WP	Hose Type	WP	Hose Type	WP			

## Waterblast

heat exchanger tube cleaning

### 0 to 500 bar WP

ID 25	25/2	440 bar	6.380 psi			
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### 501 to 1040 bar WP

ID 3	3/2	1.000 bar	14.500 psi						
ID 5	5/2	1.040 bar	15.080 psi	5/2OK	1.040 bar	15.080 psi			
ID 6	6/2	1.000 bar	14.500 psi	6/2OK	1.000 bar	14.500 psi	6/3	1.040 bar	15.080 psi
ID 8	8/2	900 bar	13.050 psi	8/2WR	1.040 bar	15.080 psi	8/4HW-1000	1.000 bar	14.500 psi
ID 10	10/2	690 bar	10.005 psi						
ID 13	13/2	690 bar	10.005 psi	13/2WR	1.040 bar	15.080 psi			
ID 16	16/4	1.040 bar	15.080 psi						
ID 20	20/2	520 bar	7.540 psi	20/4	1.040 bar	15.080 psi			
ID 25	25/4	900 bar	13.050 psi						

### 1041 to 1500 bar WP

ID 3	3/2-1100	1.100 bar	15.950 psi						
ID 4	4/2	1.200 bar	17.400 psi	4/2H-1400	1.400 bar	20.300 psi			
ID 5	5/2H-1400	1.400 bar	20.300 psi	5/3	1.120 bar	16.240 psi			
ID 6	6/2-1100	1.100 bar	15.950 psi	6/2W	1.280 bar	18.560 psi	6/4	1.500 bar	21.750 psi
ID 8	8/4	1.500 bar	21.750 psi						
ID 10	10/4	1.500 bar	21.750 psi						
ID 13	13/4	1.300 bar	18.850 psi	13/4H	1.400 bar	20.300 psi			
ID 25	25/6	1.400 bar	20.300 psi						

### 1501 to 2000 bar WP

ID 3	3/4	2.000 bar	29.000 psi			
ID 5	5/4	1.800 bar	26.100 psi			
ID 6	6/4-1650	1.650 bar	23.925 psi			

### 2001 to 2500 bar WP

ID 3	3/4-2100	2.100 bar	30.450 psi						
ID 4	4/4	2.200 bar	31.900 psi						
ID 5	5/6	2.500 bar	36.250 psi						
ID 8	8/6	2.100 bar	30.450 psi	8/6H	2.500 bar	36.250 psi	8/6HDCI	2.500 bar	36.250 psi

### 2500 to 4000 bar WP

ID 3	3/6	2.800 bar	40.600 psi						
ID 4	4/6	2.800 bar	40.600 psi						
ID 5	5/6H	2.800 bar	40.600 psi	5/6HDCI	2.800 bar	40.600 psi	5/6UHP-X-3035	3.035 bar	44.000 psi
ID 6	6/6H	2.800 bar	40.600 psi						

## Hose Types by Common Application



Pressure Range						
ID	Hose Type	WP	Hose Type	WP	Hose Type	WP

### Waterblast

heat exchanger tube cleaning

<b>ID 8</b>	<b>8/6UHP</b>	2.800 bar	40.600 psi	<b>8/6UHP-X</b>	3.035 bar	44.000 psi	
<b>ID 10</b>	<b>10mmUHP-X-3</b>	3.035 bar	44.000 psi				
<b>ID 13</b>	<b>13mmUHP</b>	2.800 bar	40.600 psi				

# Hose Types by Common Application



Pressure Range						
ID	Hose Type	WP	Hose Type	WP	Hose Type	WP

## Waterblast

surface preparation (concrete removal, surface cleaning of buildings, paint removal)

### 0 to 500 bar WP

<b>ID 25</b>	<b>25/2</b>	440 bar	6.380 psi						
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### 501 to 1040 bar WP

<b>ID 8</b>	<b>8/2</b>	900 bar	13.050 psi	<b>8/2W</b>	1.040 bar	15.080 psi	<b>8/2WR</b>	1.040 bar	15.080 psi
	<b>8/4HW-1000</b>	1.000 bar	14.500 psi						

<b>ID 13</b>	<b>13/2</b>	690 bar	10.005 psi	<b>13/2WR</b>	1.040 bar	15.080 psi			
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<b>ID 16</b>	<b>16/4</b>	1.040 bar	15.080 psi						
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<b>ID 20</b>	<b>20/2</b>	520 bar	7.540 psi	<b>20/4</b>	1.040 bar	15.080 psi			
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<b>ID 25</b>	<b>25/4</b>	900 bar	13.050 psi						
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### 1041 to 1500 bar WP

<b>ID 8</b>	<b>8/4</b>	1.500 bar	21.750 psi						
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<b>ID 10</b>	<b>10/4</b>	1.500 bar	21.750 psi						
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<b>ID 13</b>	<b>13/4</b>	1.300 bar	18.850 psi	<b>13/4H</b>	1.400 bar	20.300 psi			
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<b>ID 20</b>	<b>20/6</b>	1.400 bar	20.300 psi						
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<b>ID 25</b>	<b>25/6</b>	1.400 bar	20.300 psi						
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### 1501 to 2000 bar WP

<b>ID 10</b>	<b>10/6</b>	1.920 bar	27.840 psi						
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<b>ID 13</b>	<b>13/6</b>	1.800 bar	26.100 psi	<b>13/6H</b>	2.000 bar	29.000 psi			
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<b>ID 16</b>	<b>16/6</b>	1.520 bar	22.040 psi	<b>16mmUHP</b>	2.000 bar	29.000 psi			
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<b>ID 20</b>	<b>20/6-1600</b>	1.600 bar	23.200 psi						
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### 2001 to 2500 bar WP

<b>ID 5</b>	<b>5/6</b>	2.500 bar	36.250 psi						
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<b>ID 8</b>	<b>8/6</b>	2.100 bar	30.450 psi	<b>8/6H</b>	2.500 bar	36.250 psi	<b>8/6HDCI</b>	2.500 bar	36.250 psi
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### 2500 to 4000 bar WP

<b>ID 4</b>	<b>4/6</b>	2.800 bar	40.600 psi	<b>4/8</b>	3.200 bar	46.400 psi			
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<b>ID 5</b>	<b>5/6H</b>	2.800 bar	40.600 psi	<b>5/6HDCI</b>	2.800 bar	40.600 psi	<b>5/6UHP-X-3035</b>	3.035 bar	44.000 psi
	<b>5mmUHP</b>	3.200 bar	46.400 psi						

<b>ID 6</b>	<b>6/6H</b>	2.800 bar	40.600 psi	<b>6mmUHP</b>	3.200 bar	46.400 psi			
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<b>ID 8</b>	<b>8/6UHP</b>	2.800 bar	40.600 psi	<b>8/6UHP-X</b>	3.035 bar	44.000 psi	<b>8mmUHP</b>	3.200 bar	46.400 psi
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<b>ID 10</b>	<b>10mmUHP-X-3</b>	3.035 bar	44.000 psi						
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<b>ID 13</b>	<b>13mmUHP</b>	2.800 bar	40.600 psi						
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# Hose Types by Common Application



Pressure Range						
ID	Hose Type	WP	Hose Type	WP	Hose Type	WP

## Waterblast

tank and vessel cleaning

### 501 to 1040 bar WP

ID 8	8/4HW-1000	1.000 bar	14.500 psi			
ID 16	16/4	1.040 bar	15.080 psi			
ID 20	20/2	520 bar	7.540 psi	20/4	1.040 bar	15.080 psi
ID 25	25/4	900 bar	13.050 psi			

### 1041 to 1500 bar WP

ID 8	8/4	1.500 bar	21.750 psi			
ID 10	10/4	1.500 bar	21.750 psi			
ID 13	13/4	1.300 bar	18.850 psi	13/4H	1.400 bar	20.300 psi
ID 20	20/6	1.400 bar	20.300 psi			
ID 25	25/6	1.400 bar	20.300 psi			

### 1501 to 2000 bar WP

ID 10	10/6	1.920 bar	27.840 psi			
ID 13	13/6	1.800 bar	26.100 psi	13/6H	2.000 bar	29.000 psi
ID 16	16/6	1.520 bar	22.040 psi	16mmUHP	2.000 bar	29.000 psi
ID 20	20/6-1600	1.600 bar	23.200 psi			

### 2001 to 2500 bar WP

ID 5	5/6	2.500 bar	36.250 psi						
ID 8	8/6	2.100 bar	30.450 psi	8/6H	2.500 bar	36.250 psi	8/6HDCI	2.500 bar	36.250 psi

### 2500 to 4000 bar WP

ID 5	5/6H	2.800 bar	40.600 psi	5/6HDCI	2.800 bar	40.600 psi	5/6UHP-X-3035	3.035 bar	44.000 psi
	5mmUHP	3.200 bar	46.400 psi						
ID 6	6/6H	2.800 bar	40.600 psi	6mmUHP	3.200 bar	46.400 psi			
ID 8	8/6UHP	2.800 bar	40.600 psi	8/6UHP-X	3.035 bar	44.000 psi	8mmUHP	3.200 bar	46.400 psi
ID 10	10mmUHP-X-3	3.035 bar	44.000 psi						
ID 13	13mmUHP	2.800 bar	40.600 psi						

# Hose Types by Common Application



Pressure Range									
ID	Hose Type	WP	Hose Type	WP	Hose Type	WP			

## Waterblast

ultra high-pressure waterjet cutting and hydro demolition (cutting and demolition of armoured concrete, pipelines, paper or steel)

### 501 to 1040 bar WP

ID 20	20/4	1.040 bar	15.080 psi			
ID 25	25/4	900 bar	13.050 psi			

### 1041 to 1500 bar WP

ID 10	10/4	1.500 bar	21.750 psi			
ID 13	13/4	1.300 bar	18.850 psi	13/4H	1.400 bar	20.300 psi
ID 20	20/6	1.400 bar	20.300 psi			
ID 25	25/6	1.400 bar	20.300 psi			

### 1501 to 2000 bar WP

ID 3	3/4	2.000 bar	29.000 psi			
ID 10	10/6	1.920 bar	27.840 psi			
ID 13	13/6	1.800 bar	26.100 psi			
ID 16	16mmUHP	2.000 bar	29.000 psi			
ID 20	20/6-1600	1.600 bar	23.200 psi			

### 2001 to 2500 bar WP

ID 3	3/4-2100	2.100 bar	30.450 psi						
ID 5	5/6	2.500 bar	36.250 psi						
ID 8	8/6	2.100 bar	30.450 psi	8/6H	2.500 bar	36.250 psi	8/6HDCI	2.500 bar	36.250 psi

### 2500 to 4000 bar WP

ID 3	3/6	2.800 bar	40.600 psi						
ID 4	4/6	2.800 bar	40.600 psi	4/8	3.200 bar	46.400 psi			
ID 5	5/6H	2.800 bar	40.600 psi	5/6HDCI	2.800 bar	40.600 psi	5/6UHP-X-3035	3.035 bar	44.000 psi
	5mmUHP	3.200 bar	46.400 psi						
ID 6	6/6H	2.800 bar	40.600 psi						
ID 8	8/6UHP	2.800 bar	40.600 psi	8/6UHP-X	3.035 bar	44.000 psi	8mmUHP	3.200 bar	46.400 psi
ID 10	10mmUHP-X-3	3.035 bar	44.000 psi						
ID 13	13mmUHP	2.800 bar	40.600 psi						

## Hydraulic

torque wrenching

### 501 to 1040 bar WP

ID 6	VIPER	700 bar	10.150 psi	VIPER Twin	700 bar	10.150 psi
ID 8	8/2W Twin	1.040 bar	15.080 psi			

### 1041 to 1500 bar WP

ID 6	6/2W Twin	1.280 bar	18.560 psi	6/2WL Twin	1.200 bar	17.400 psi	MAMBA Twin	1.200 bar	17.400 psi
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# Hose Types by Common Application



Pressure Range							
ID	Hose Type	WP	Hose Type	WP	Hose Type	WP	

## Hydraulic

bolt tensioning

### 1041 to 1500 bar WP

ID 6	6/4	1.500 bar	21.750 psi			
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### 1501 to 2000 bar WP

ID 5	5/4	1.800 bar	26.100 psi	<b>COBRA</b>	1.800 bar	26.100 psi	
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ID 6	6/4-1650	1.650 bar	23.925 psi			
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### 2001 to 2500 bar WP

ID 5	5/6	2.500 bar	36.250 psi			
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### 2500 to 4000 bar WP

ID 4	4/6	2.800 bar	40.600 psi			
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ID 5	5/6H	2.800 bar	40.600 psi	<b>5/6HDCI</b>	2.800 bar	40.600 psi	<b>5/6UHP-X-3035</b>	3.035 bar	44.000 psi
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# Hose Types by Common Application



Pressure Range						
ID	Hose Type	WP	Hose Type	WP	Hose Type	WP

## Hydraulic

pressure test equipment (valves, tooling and control panels)

### 0 to 500 bar WP

ID 25	25/2	440 bar	6.380 psi						
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### 501 to 1040 bar WP

ID 3	3/2	1.000 bar	14.500 psi						
ID 5	5/2	1.040 bar	15.080 psi	5/2OK	1.040 bar	15.080 psi			
ID 6	6/2	1.000 bar	14.500 psi	6/2OK	1.000 bar	14.500 psi	6/3	1.040 bar	15.080 psi
ID 8	8/2	900 bar	13.050 psi	8/2W	1.040 bar	15.080 psi	8/2WL	1.000 bar	14.500 psi
	8/2WR	1.040 bar	15.080 psi						
ID 10	10/2	690 bar	10.005 psi						
ID 13	13/2	690 bar	10.005 psi	13/2W	1.040 bar	15.080 psi	13/2WR	1.040 bar	15.080 psi
ID 16	16/4	1.040 bar	15.080 psi						
ID 20	20/2	520 bar	7.540 psi	20/2W	760 bar	11.020 psi	20/4	1.040 bar	15.080 psi
ID 25	25/2W	640 bar	9.280 psi	25/4	900 bar	13.050 psi			

### 1041 to 1500 bar WP

ID 3	3/2-1100	1.100 bar	15.950 psi						
ID 4	4/2	1.200 bar	17.400 psi	4/2H-1400	1.400 bar	20.300 psi	4/2K	1.200 bar	17.400 psi
	4/2W	1.400 bar	20.300 psi						
ID 5	5/2H-1400	1.400 bar	20.300 psi	5/3	1.120 bar	16.240 psi			
ID 6	6/2-1100	1.100 bar	15.950 psi	6/2W	1.280 bar	18.560 psi	6/2WL	1.200 bar	17.400 psi
	6/4	1.500 bar	21.750 psi	MAMBA	1.200 bar	17.400 psi			
ID 8	8/4	1.500 bar	21.750 psi						
ID 10	10/2W	1.100 bar	15.950 psi	10/4	1.500 bar	21.750 psi			
ID 13	13/4	1.300 bar	18.850 psi	13/4H	1.400 bar	20.300 psi			
ID 20	20/6	1.400 bar	20.300 psi						
ID 25	25/6	1.400 bar	20.300 psi						

### 1501 to 2000 bar WP

ID 3	3/4	2.000 bar	29.000 psi						
ID 5	5/4	1.800 bar	26.100 psi	COBRA	1.800 bar	26.100 psi			
ID 6	6/4-1650	1.650 bar	23.925 psi						
ID 10	10/6	1.920 bar	27.840 psi						
ID 16	16/6	1.520 bar	22.040 psi	16mmUHP	2.000 bar	29.000 psi			
ID 20	20/6-1600	1.600 bar	23.200 psi						

# Hose Types by Common Application



Pressure Range						
ID	Hose Type	WP	Hose Type	WP	Hose Type	WP

## Hydraulic

pressure test equipment (valves, tooling and control panels)

### 2001 to 2500 bar WP

<b>ID 3</b>	<b>3/4-2100</b>	2.100 bar	30.450 psi					
<b>ID 4</b>	<b>4/4</b>	2.200 bar	31.900 psi					
<b>ID 5</b>	<b>5/6</b>	2.500 bar	36.250 psi					
<b>ID 8</b>	<b>8/6</b>	2.100 bar	30.450 psi	<b>8/6H</b>	2.500 bar	36.250 psi	<b>8/6HDCI</b>	2.500 bar 36.250 psi

### 2500 to 4000 bar WP

<b>ID 3</b>	<b>3/6</b>	2.800 bar	40.600 psi					
<b>ID 4</b>	<b>4/6</b>	2.800 bar	40.600 psi	<b>4/8</b>	3.200 bar	46.400 psi		
<b>ID 5</b>	<b>5/6H</b>	2.800 bar	40.600 psi	<b>5/6HDCI</b>	2.800 bar	40.600 psi	<b>5/6UHP-X-3035</b>	3.035 bar 44.000 psi
	<b>5mmUHP</b>	3.200 bar	46.400 psi					
<b>ID 6</b>	<b>6/6H</b>	2.800 bar	40.600 psi	<b>6mmUHP</b>	3.200 bar	46.400 psi		
<b>ID 8</b>	<b>8/6UHP</b>	2.800 bar	40.600 psi	<b>8/6UHP-X</b>	3.035 bar	44.000 psi	<b>8mmUHP</b>	3.200 bar 46.400 psi
<b>ID 10</b>	<b>10mmUHP-X-3</b>	3.035 bar	44.000 psi					
<b>ID 13</b>	<b>13mmUHP</b>	2.800 bar	40.600 psi					

# Hose Types by Common Application



Pressure Range									
ID	Hose Type	WP	Hose Type	WP	Hose Type	WP			

## Hydraulic

hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools)

### 501 to 1040 bar WP

ID 3	3/2	1.000 bar	14.500 psi						
ID 5	5/2	1.040 bar	15.080 psi	5/2OK	1.040 bar	15.080 psi	5/4PPA	1.035 bar	15.000 psi
ID 6	6/2	1.000 bar	14.500 psi	6/2OK	1.000 bar	14.500 psi	6/3	1.040 bar	15.080 psi
	6/2WWM	690 bar	10.000 psi	6/4M	1.035 bar	15.000 psi	6/2WPPA	690 bar	10.000 psi
	6/4PPA	1.035 bar	15.000 psi						
ID 8	8/2W	1.040 bar	15.080 psi	8/2WL	1.000 bar	14.500 psi	8/2WWM	690 bar	10.000 psi
	8/4PPA	1.035 bar	15.000 psi						
ID 10	10/2WWM	690 bar	10.000 psi	10/4PPA	1.035 bar	15.000 psi			
ID 13	13/2W	1.040 bar	15.080 psi	13/2WWM	690 bar	10.000 psi	13/2WPPA	690 bar	10.000 psi
	13/4HPPA	860 bar	12.500 psi						
ID 16	16/4	1.040 bar	15.080 psi	16/4PPA	690 bar	10.000 psi			
ID 20	20/2W	760 bar	11.020 psi	20/4	1.040 bar	15.080 psi	20/4PPA	690 bar	10.000 psi
	20/6PPA	860 bar	12.500 psi						
ID 25	25/2W	640 bar	9.280 psi	25/4	900 bar	13.050 psi	25/4PPA	520 bar	7.500 psi

### 1041 to 1500 bar WP

ID 3	3/2-1100	1.100 bar	15.950 psi						
ID 4	4/2	1.200 bar	17.400 psi	4/2H-1400	1.400 bar	20.300 psi	4/2K	1.200 bar	17.400 psi
	4/2W	1.400 bar	20.300 psi						
ID 5	5/2H-1400	1.400 bar	20.300 psi	5/3	1.120 bar	16.240 psi			
ID 6	6/2-1100	1.100 bar	15.950 psi	6/2K	1.120 bar	16.240 psi	6/2W	1.280 bar	18.560 psi
	6/2WL	1.200 bar	17.400 psi	6/4	1.500 bar	21.750 psi	MAMBA	1.200 bar	17.400 psi
ID 10	10/2W	1.100 bar	15.950 psi	10/4	1.500 bar	21.750 psi			
ID 13	13/4	1.300 bar	18.850 psi	13/4H	1.400 bar	20.300 psi			

### 1501 to 2000 bar WP

ID 3	3/4	2.000 bar	29.000 psi						
ID 5	5/4	1.800 bar	26.100 psi	COBRA	1.800 bar	26.100 psi			
ID 6	6/4-1650	1.650 bar	23.925 psi						
ID 13	13/6	1.800 bar	26.100 psi	13/6H	2.000 bar	29.000 psi			
ID 16	16/6	1.520 bar	22.040 psi						

### 2001 to 2500 bar WP

ID 3	3/4-2100	2.100 bar	30.450 psi						
ID 4	4/4	2.200 bar	31.900 psi						
ID 5	5/6	2.500 bar	36.250 psi						

# Hose Types by Common Application



Pressure Range						
ID	Hose Type	WP	Hose Type	WP	Hose Type	WP

## Hydraulic

hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools)

### 2500 to 4000 bar WP

ID 3	3/6	2.800 bar	40.600 psi				
ID 4	4/6	2.800 bar	40.600 psi	4/8	3.200 bar	46.400 psi	
ID 5	5/6H	2.800 bar	40.600 psi	5/6HDCI	2.800 bar	40.600 psi	5/6UHP-X-3035 3.035 bar 44.000 psi
ID 6	6/6H	2.800 bar	40.600 psi				

## Hydraulic

hydroforming

### 2500 to 4000 bar WP

ID 4	4/8	3.200 bar	46.400 psi				
ID 5	5mmUHP	3.200 bar	46.400 psi				

## Oil & Gas

grease injection

### 501 to 1040 bar WP

ID 8	8/2W	1.040 bar	15.080 psi	8/2WL	1.000 bar	14.500 psi	8/2WR	1.040 bar	15.080 psi
ID 13	13/2	690 bar	10.005 psi	13/2W	1.040 bar	15.080 psi	13/2WR	1.040 bar	15.080 psi
ID 16	16/4	1.040 bar	15.080 psi						
ID 20	20/2	520 bar	7.540 psi	20/2W	760 bar	11.020 psi			
ID 25	25/2W	640 bar	9.280 psi						

### 1041 to 1500 bar WP

ID 6	6/2K	1.120 bar	16.240 psi	6/2W	1.280 bar	18.560 psi	6/2WL	1.200 bar	17.400 psi
	6/4	1.500 bar	21.750 psi						
ID 8	8/4	1.500 bar	21.750 psi						
ID 10	10/4	1.500 bar	21.750 psi						
ID 13	13/4	1.300 bar	18.850 psi	13/4H	1.400 bar	20.300 psi			

### 1501 to 2000 bar WP

ID 5	5/4	1.800 bar	26.100 psi						
ID 6	6/4-1650	1.650 bar	23.925 psi						
ID 13	13/6	1.800 bar	26.100 psi	13/6H	2.000 bar	29.000 psi			
ID 16	16/6	1.520 bar	22.040 psi						

# Hose Types by Common Application



Pressure Range						
ID	Hose Type	WP	Hose Type	WP	Hose Type	WP

## Oil & Gas

methanol service (oil rigs, distribution panels, umbilicals)

### 501 to 1040 bar WP

<b>ID 5</b>	<b>5/4PPA</b>	1.035 bar	15.000 psi	<b>5/4HT</b>	1.035 bar	15.000 psi			
<b>ID 6</b>	<b>6/2WM</b>	690 bar	10.000 psi	<b>6/4M</b>	1.035 bar	15.000 psi	<b>6/2WPPA</b>	690 bar	10.000 psi
	<b>6/4PPA</b>	1.035 bar	15.000 psi	<b>6/2WHT</b>	690 bar	10.000 psi	<b>6/4HT</b>	1.035 bar	15.000 psi
<b>ID 8</b>	<b>8/2WM</b>	690 bar	10.000 psi	<b>8/4PPA</b>	1.035 bar	15.000 psi	<b>8/2WHT</b>	690 bar	10.000 psi
	<b>8/4HT</b>	1.035 bar	15.000 psi						
<b>ID 10</b>	<b>10/2WM</b>	690 bar	10.000 psi	<b>10/4PPA</b>	1.035 bar	15.000 psi	<b>10/4HT</b>	1.035 bar	15.000 psi
<b>ID 13</b>	<b>13/2WM</b>	690 bar	10.000 psi	<b>13/2WPPA</b>	690 bar	10.000 psi	<b>13/4HPPA</b>	860 bar	12.500 psi
	<b>13/4HHT</b>	860 bar	12.500 psi						
<b>ID 16</b>	<b>16/4PPA</b>	690 bar	10.000 psi						
<b>ID 20</b>	<b>20/4PPA</b>	690 bar	10.000 psi	<b>20/6PPA</b>	860 bar	12.500 psi			
<b>ID 25</b>	<b>25/4PPA</b>	520 bar	7.500 psi						



# Hose Types by Common Application



Pressure Range						
ID	Hose Type	WP	Hose Type	WP	Hose Type	WP

## Oil & Gas

chemical injection

### 501 to 1040 bar WP

<b>ID 5</b>	<b>5/4PPA</b>	1.035 bar	15.000 psi	<b>5/4HT</b>	1.035 bar	15.000 psi			
<b>ID 6</b>	<b>6/2WPPA</b>	690 bar	10.000 psi	<b>6/4PPA</b>	1.035 bar	15.000 psi	<b>6/2WHT</b>	690 bar	10.000 psi
	<b>6/4HT</b>	1.035 bar	15.000 psi						
<b>ID 8</b>	<b>8/4PPA</b>	1.035 bar	15.000 psi	<b>8/2WHT</b>	690 bar	10.000 psi	<b>8/4HT</b>	1.035 bar	15.000 psi
<b>ID 10</b>	<b>10/4PPA</b>	1.035 bar	15.000 psi	<b>10/4HT</b>	1.035 bar	15.000 psi			
<b>ID 13</b>	<b>13/2WPPA</b>	690 bar	10.000 psi	<b>13/4HPPA</b>	860 bar	12.500 psi	<b>13/4HHT</b>	860 bar	12.500 psi
<b>ID 16</b>	<b>16/4</b>	1.040 bar	15.080 psi	<b>16/4PPA</b>	690 bar	10.000 psi			
<b>ID 20</b>	<b>20/4</b>	1.040 bar	15.080 psi	<b>20/4PPA</b>	690 bar	10.000 psi	<b>20/6PPA</b>	860 bar	12.500 psi
<b>ID 25</b>	<b>25/4</b>	900 bar	13.050 psi	<b>25/4PPA</b>	520 bar	7.500 psi			

### 1041 to 1500 bar WP

<b>ID 6</b>	<b>6/4</b>	1.500 bar	21.750 psi						
<b>ID 8</b>	<b>8/4</b>	1.500 bar	21.750 psi						
<b>ID 10</b>	<b>10/4</b>	1.500 bar	21.750 psi						
<b>ID 13</b>	<b>13/4</b>	1.300 bar	18.850 psi	<b>13/4H</b>	1.400 bar	20.300 psi			
<b>ID 20</b>	<b>20/6</b>	1.400 bar	20.300 psi						
<b>ID 25</b>	<b>25/6</b>	1.400 bar	20.300 psi						

### 1501 to 2000 bar WP

<b>ID 5</b>	<b>5/4</b>	1.800 bar	26.100 psi						
<b>ID 6</b>	<b>6/4-1650</b>	1.650 bar	23.925 psi						
<b>ID 16</b>	<b>16/6</b>	1.520 bar	22.040 psi						
<b>ID 20</b>	<b>20/6-1600</b>	1.600 bar	23.200 psi						

# Hose Types by Common Application



Pressure Range						
ID	Hose Type	WP	Hose Type	WP	Hose Type	WP

## Oil & Gas

control of subsea hydraulic components

### 501 to 1040 bar WP

<b>ID 5</b>	<b>5/4PPA</b>	1.035 bar	15.000 psi	<b>5/4HT</b>	1.035 bar	15.000 psi			
<b>ID 6</b>	<b>6/2WM</b>	690 bar	10.000 psi	<b>6/4M</b>	1.035 bar	15.000 psi	<b>6/2WPPA</b>	690 bar	10.000 psi
	<b>6/4PPA</b>	1.035 bar	15.000 psi	<b>6/2WHT</b>	690 bar	10.000 psi	<b>6/4HT</b>	1.035 bar	15.000 psi
<b>ID 8</b>	<b>8/2W</b>	1.040 bar	15.080 psi	<b>8/2WM</b>	690 bar	10.000 psi	<b>8/4PPA</b>	1.035 bar	15.000 psi
	<b>8/2WHT</b>	690 bar	10.000 psi	<b>8/4HT</b>	1.035 bar	15.000 psi			
<b>ID 10</b>	<b>10/2WM</b>	690 bar	10.000 psi	<b>10/4PPA</b>	1.035 bar	15.000 psi	<b>10/4HT</b>	1.035 bar	15.000 psi
<b>ID 13</b>	<b>13/2W</b>	1.040 bar	15.080 psi	<b>13/2WM</b>	690 bar	10.000 psi	<b>13/4HPPA</b>	860 bar	12.500 psi
	<b>13/4HHT</b>	860 bar	12.500 psi						
<b>ID 16</b>	<b>16/4</b>	1.040 bar	15.080 psi						
<b>ID 20</b>	<b>20/2W</b>	760 bar	11.020 psi						
<b>ID 25</b>	<b>25/2W</b>	640 bar	9.280 psi						

### 1041 to 1500 bar WP

<b>ID 6</b>	<b>6/2K</b>	1.120 bar	16.240 psi	<b>6/2W</b>	1.280 bar	18.560 psi	<b>6/2WL</b>	1.200 bar	17.400 psi
	<b>6/4</b>	1.500 bar	21.750 psi						
<b>ID 10</b>	<b>10/2W</b>	1.100 bar	15.950 psi	<b>10/4</b>	1.500 bar	21.750 psi			
<b>ID 13</b>	<b>13/4</b>	1.300 bar	18.850 psi	<b>13/4H</b>	1.400 bar	20.300 psi			

### 1501 to 2000 bar WP

<b>ID 5</b>	<b>5/4</b>	1.800 bar	26.100 psi						
<b>ID 6</b>	<b>6/4-1650</b>	1.650 bar	23.925 psi						

# Hose Types by Common Application



Pressure Range						
ID	Hose Type	WP	Hose Type	WP	Hose Type	WP

## Oil & Gas

nitrogen service

### 0 to 500 bar WP

<b>ID 25</b>	<b>25/2</b>	440 bar	6.380 psi			
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### 501 to 1040 bar WP

<b>ID 5</b>	<b>5/4PPA</b>	1.035 bar	15.000 psi	<b>5/4HT</b>	1.035 bar	15.000 psi		
<b>ID 6</b>	<b>6/2WM</b>	690 bar	10.000 psi	<b>6/4M</b>	1.035 bar	15.000 psi	<b>6/2WPPA</b>	690 bar 10.000 psi
	<b>6/4PPA</b>	1.035 bar	15.000 psi	<b>6/2WHT</b>	690 bar	10.000 psi	<b>6/4HT</b>	1.035 bar 15.000 psi
<b>ID 8</b>	<b>8/2W</b>	1.040 bar	15.080 psi	<b>8/2WL</b>	1.000 bar	14.500 psi	<b>8/2WR</b>	1.040 bar 15.080 psi
	<b>8/2WM</b>	690 bar	10.000 psi	<b>8/4PPA</b>	1.035 bar	15.000 psi	<b>8/2WHT</b>	690 bar 10.000 psi
	<b>8/4HT</b>	1.035 bar	15.000 psi					
<b>ID 10</b>	<b>10/2WM</b>	690 bar	10.000 psi	<b>10/4PPA</b>	1.035 bar	15.000 psi	<b>10/4HT</b>	1.035 bar 15.000 psi
<b>ID 13</b>	<b>13/2W</b>	1.040 bar	15.080 psi	<b>13/2WR</b>	1.040 bar	15.080 psi	<b>13/2WM</b>	690 bar 10.000 psi
	<b>13/2WPPA</b>	690 bar	10.000 psi	<b>13/4HPPA</b>	860 bar	12.500 psi	<b>13/4HHT</b>	860 bar 12.500 psi
<b>ID 16</b>	<b>16/4</b>	1.040 bar	15.080 psi	<b>16/4PPA</b>	690 bar	10.000 psi		
<b>ID 20</b>	<b>20/2</b>	520 bar	7.540 psi	<b>20/2W</b>	760 bar	11.020 psi	<b>20/4</b>	1.040 bar 15.080 psi
	<b>20/4PPA</b>	690 bar	10.000 psi	<b>20/6PPA</b>	860 bar	12.500 psi		
<b>ID 25</b>	<b>25/2W</b>	640 bar	9.280 psi	<b>25/4</b>	900 bar	13.050 psi	<b>25/4PPA</b>	520 bar 7.500 psi

### 1041 to 1500 bar WP

<b>ID 6</b>	<b>6/4</b>	1.500 bar	21.750 psi			
<b>ID 8</b>	<b>8/4</b>	1.500 bar	21.750 psi			
<b>ID 10</b>	<b>10/2W</b>	1.100 bar	15.950 psi	<b>10/4</b>	1.500 bar	21.750 psi
<b>ID 13</b>	<b>13/4</b>	1.300 bar	18.850 psi	<b>13/4H</b>	1.400 bar	20.300 psi
<b>ID 20</b>	<b>20/6</b>	1.400 bar	20.300 psi			
<b>ID 25</b>	<b>25/6</b>	1.400 bar	20.300 psi			

### 1501 to 2000 bar WP

<b>ID 5</b>	<b>5/4</b>	1.800 bar	26.100 psi			
<b>ID 6</b>	<b>6/4-1650</b>	1.650 bar	23.925 psi			
<b>ID 13</b>	<b>13/6</b>	1.800 bar	26.100 psi	<b>13/6H</b>	2.000 bar	29.000 psi
<b>ID 16</b>	<b>16/6</b>	1.520 bar	22.040 psi			
<b>ID 20</b>	<b>20/6-1600</b>	1.600 bar	23.200 psi			

# Hose Types by Common Application



Pressure Range						
ID	Hose Type	WP	Hose Type	WP	Hose Type	WP

## Oil & Gas

jumper/ subsea well control

### 501 to 1040 bar WP

<b>ID 5</b>	<b>5/4PPA</b>	1.035 bar	15.000 psi	<b>5/4HT</b>	1.035 bar	15.000 psi			
<b>ID 6</b>	<b>6/2WM</b>	690 bar	10.000 psi	<b>6/4M</b>	1.035 bar	15.000 psi	<b>6/2WPPA</b>	690 bar	10.000 psi
	<b>6/4PPA</b>	1.035 bar	15.000 psi	<b>6/2WHT</b>	690 bar	10.000 psi	<b>6/4HT</b>	1.035 bar	15.000 psi
<b>ID 8</b>	<b>8/2WM</b>	690 bar	10.000 psi	<b>8/4PPA</b>	1.035 bar	15.000 psi	<b>8/2WHT</b>	690 bar	10.000 psi
	<b>8/4HT</b>	1.035 bar	15.000 psi						
<b>ID 10</b>	<b>10/2WM</b>	690 bar	10.000 psi	<b>10/4PPA</b>	1.035 bar	15.000 psi	<b>10/4HT</b>	1.035 bar	15.000 psi
<b>ID 13</b>	<b>13/2WM</b>	690 bar	10.000 psi	<b>13/2WPPA</b>	690 bar	10.000 psi	<b>13/4HPPA</b>	860 bar	12.500 psi
	<b>13/4HHT</b>	860 bar	12.500 psi						
<b>ID 16</b>	<b>16/4PPA</b>	690 bar	10.000 psi						
<b>ID 20</b>	<b>20/4PPA</b>	690 bar	10.000 psi	<b>20/6PPA</b>	860 bar	12.500 psi			
<b>ID 25</b>	<b>25/4PPA</b>	520 bar	7.500 psi						

# Hose Types by Common Application



Pressure Range									
ID	Hose Type	WP	Hose Type	WP	Hose Type	WP			

## Oil & Gas

### Gaseous media handling

#### 501 to 1040 bar WP

<b>ID 5</b>	<b>5/4PPA</b>	1.035 bar	15.000 psi	<b>5/4HT</b>	1.035 bar	15.000 psi			
<b>ID 6</b>	<b>6/2WPPA</b>	690 bar	10.000 psi	<b>6/4PPA</b>	1.035 bar	15.000 psi	<b>6/2WHT</b>	690 bar	10.000 psi
	<b>6/4HT</b>	1.035 bar	15.000 psi						
<b>ID 8</b>	<b>8/2W</b>	1.040 bar	15.080 psi	<b>8/4PPA</b>	1.035 bar	15.000 psi	<b>8/2WHT</b>	690 bar	10.000 psi
	<b>8/4HT</b>	1.035 bar	15.000 psi						
<b>ID 10</b>	<b>10/4PPA</b>	1.035 bar	15.000 psi	<b>10/4HT</b>	1.035 bar	15.000 psi			
<b>ID 13</b>	<b>13/2W</b>	1.040 bar	15.080 psi	<b>13/2WR</b>	1.040 bar	15.080 psi	<b>13/2WPPA</b>	690 bar	10.000 psi
	<b>13/4HPPA</b>	860 bar	12.500 psi	<b>13/4HHT</b>	860 bar	12.500 psi			
<b>ID 16</b>	<b>16/4</b>	1.040 bar	15.080 psi	<b>16/4PPA</b>	690 bar	10.000 psi			
<b>ID 20</b>	<b>20/2W</b>	760 bar	11.020 psi	<b>20/4</b>	1.040 bar	15.080 psi	<b>20/4PPA</b>	690 bar	10.000 psi
	<b>20/6PPA</b>	860 bar	12.500 psi						
<b>ID 25</b>	<b>25/2W</b>	640 bar	9.280 psi	<b>25/4</b>	900 bar	13.050 psi	<b>25/4PPA</b>	520 bar	7.500 psi

#### 1041 to 1500 bar WP

<b>ID 6</b>	<b>6/4</b>	1.500 bar	21.750 psi						
<b>ID 8</b>	<b>8/4</b>	1.500 bar	21.750 psi						
<b>ID 10</b>	<b>10/2W</b>	1.100 bar	15.950 psi	<b>10/4</b>	1.500 bar	21.750 psi			
<b>ID 13</b>	<b>13/4</b>	1.300 bar	18.850 psi	<b>13/4H</b>	1.400 bar	20.300 psi			
<b>ID 20</b>	<b>20/6</b>	1.400 bar	20.300 psi						
<b>ID 25</b>	<b>25/6</b>	1.400 bar	20.300 psi						

#### 1501 to 2000 bar WP

<b>ID 5</b>	<b>5/4</b>	1.800 bar	26.100 psi						
<b>ID 6</b>	<b>6/4-1650</b>	1.650 bar	23.925 psi						
<b>ID 16</b>	<b>16/6</b>	1.520 bar	22.040 psi	<b>16mmUHP</b>	2.000 bar	29.000 psi			
<b>ID 20</b>	<b>20/6-1600</b>	1.600 bar	23.200 psi						

#### 2500 to 4000 bar WP

<b>ID 13</b>	<b>13mmUHP</b>	2.800 bar	40.600 psi						
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# Table of Pressure Drop Figures



Flow	ID	3 mm	4 mm	5 mm	6 mm	8 mm	10 mm	13 mm	16 mm	20 mm	25 mm
		0,118 inch	0,157 inch	0,197 inch	0,236 inch	0,315 inch	0,394 inch	0,512 inch	0,630 inch	0,787 inch	0,984 inch
3 l/min		22 bar									
5 l/min		53 bar	14 bar								
10 l/min		180 bar	46 bar	16 bar							
15 l/min		365 bar	93 bar	32 bar							
20 l/min			154 bar	53 bar	22 bar						
30 l/min			313 bar	109 bar	46 bar	12 bar					
40 l/min				180 bar	76 bar	19 bar					
50 l/min				265 bar	112 bar	28 bar	10 bar				
100 l/min					375 bar	96 bar	33 bar	10 bar			
150 l/min						195 bar	67 bar	19 bar	7 bar		
200 l/min						322 bar	112 bar	32 bar	12 bar	4 bar	
300 l/min							227 bar	65 bar	24 bar	8 bar	3 bar
500 l/min								159 bar	59 bar	21 bar	7 bar

Flow	ID	3 mm	4 mm	5 mm	6 mm	8 mm	10 mm	13 mm	16 mm	20 mm	25 mm
		0,118 inch	0,157 inch	0,197 inch	0,236 inch	0,315 inch	0,394 inch	0,512 inch	0,630 inch	0,787 inch	0,984 inch
3 l/min		319 psi									
5 l/min		745 psi	203 psi								
10 l/min			667 psi								
15 l/min			1349 psi	464 psi							
20 l/min			2234 psi	769 psi	319 psi						
30 l/min			4540 psi	1581 psi	667 psi	174 psi					
40 l/min				2611 psi	1102 psi	276 psi					
50 l/min				3845 psi	1624 psi	406 psi	145 psi				
100 l/min					5439 psi	1392 psi	479 psi	145 psi			
150 l/min						2828 psi	972 psi	276 psi	102 psi		
200 l/min						4670 psi	1624 psi	464 psi	174 psi	58 psi	
300 l/min							3292 psi	943 psi	348 psi	116 psi	44 psi
500 l/min								2306 psi	856 psi	305 psi	102 psi

Flow	ID	3 mm	4 mm	5 mm	6 mm	8 mm	10 mm	13 mm	16 mm	20 mm	25 mm
		0,118 inch	0,157 inch	0,197 inch	0,236 inch	0,315 inch	0,394 inch	0,512 inch	0,630 inch	0,787 inch	0,984 inch
0,5 gal/min		143 psi	37 psi								
1 gal/min		481 psi	124 psi	42 psi							
3 gal/min		3288 psi	847 psi	288 psi	122 psi						
4 gal/min			1404 psi	477 psi	202 psi	51 psi					
5 gal/min			2071 psi	705 psi	299 psi	76 psi					
8 gal/min				1604 psi	680 psi	173 psi	60 psi				
10 gal/min				2370 psi	1005 psi	255 psi	88 psi				
15 gal/min					2043 psi	518 psi	179 psi	52 psi			
25 gal/min					4995 psi	1267 psi	438 psi	127 psi			
40 gal/min						2885 psi	996 psi	290 psi	107 psi	37 psi	
50 gal/min							1472 psi	428 psi	158 psi	55 psi	
80 gal/min							3352 psi	975 psi	361 psi	125 psi	43 psi
150 gal/min								2928 psi	1083 psi	376 psi	130 psi

These pressure drop figures refer to a hose of 30 ft length. The medium is water at a temperature of 70 °F. In the part of the table marked red the flow velocity exceeds 15 m/s. This information is supplied without liability.

JIC		
JIC Size	Offshore Description	Thread on Hose Assembly
#3	3/16"	7/16"x20 UNF
#4	1/4"	7/16"x20 UNF
#5		1/2"x20 UNF
#6	3/8"	9/16"x18 UNF
#8	1/2"	3/4"x16 UNF
#10	5/8"	7/8"x14 UNF
#12	3/4"	1 1/16"x12 UNF
#16	1"	1 5/16"x12 UNF

Metric Female Swivel		
Inner Diameter mm	Series: light & heavy	
	Tube Outer-Ø	Thread on Swivel Nut
5	8 S	M16x1.5
6	10 S	M18x1.5
8	12 S	M20x1.5
10	14 S	M22x1.5
12	16 S	M24x1.5
16	20 S	M30x2
20	25 S	M36x2
25	30 S	M42x2

Metric Male Thread		
Thread Size	Coarse-Pitch Thread	Fine-Pitch Thread
M6	M6x1	
M7	M7x1	
M8	M8x1.25	
M10	M10x1.5	M10x1
M12	M12x1.75	M12x1.25

High-Pressure and Medium-Pressure Connection			
HP Connection	Thread on Gland Nut	MP Connection	Thread on Gland Nut
1/4"	9/16"x18 UNF	1/4"	7/16"x20 UNF
3/8"	3/4"x16 UNF	3/8"	9/16"x18 UNF
9/16"	1 1/8"x12 UNF	9/16"	13/16"x16 UNF
		3/4"	3/4"x14 NPSM
		1"	1 3/8"x12 UNF



Germany  
**SPiR STAR® AG**

Auf der Rut 7  
64668 Rimbach (Mitlechtern)

Phone: +49 (0) 6253-9889 0  
Fax: +49 (0) 6253-9889 33  
E-Mail: [info@spirstar.de](mailto:info@spirstar.de)  
Web: [www.spirstar.de](http://www.spirstar.de)

USA  
**SPiR STAR® Ltd.**

10002 Sam Houston Center Drive  
Houston, Texas, 77064

Phone: +1 (0) 281-664 7800  
Fax: +1 (0) 281-664 7850  
E-Mail: [info@spirstar.com](mailto:info@spirstar.com)  
Web: [www.spirstar.com](http://www.spirstar.com)

France  
**SPiR STAR® France S.A.S.**

6, rue Clément Ader  
ZA de l'Aérodrome  
67500 Haguenau

Phone: +33 (0) 388-9322 23  
Fax: +33 (0) 388-9322 24  
E-Mail: [spirstar@spirstar.fr](mailto:spirstar@spirstar.fr)  
Web: [www.spirstar.fr](http://www.spirstar.fr)

Asia  
**SPiR STAR® ASIA PTE Ltd.**

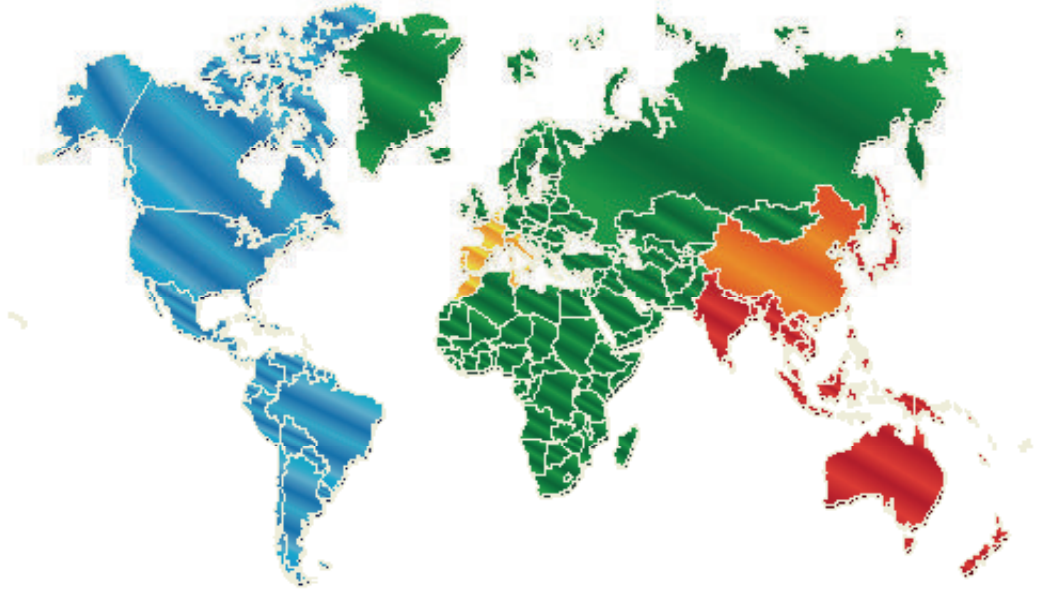
16 Kian Teck Drive  
Singapore, 628833

Phone: +65 (0) 6-265 3011  
Fax: +65 (0) 6-264 1165  
E-Mail: [sales@spirstarasia.com](mailto:sales@spirstarasia.com)  
Web: [www.spirstarasia.com](http://www.spirstarasia.com)

China  
**SPiR STAR® CHINA CO., LTD**

#10 Building No.1699 Duhui Rd.  
201108 Shanghai, PRC

Phone: +86 (0) 21-3463 5159  
Fax: +86 (0) 21-3463 5160  
E-Mail: [sales@spirstarchina.com](mailto:sales@spirstarchina.com)  
Web: [www.spirstarchina.com](http://www.spirstarchina.com)



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