

Certificate

Standard **ISO 9001:2008**

Certificate Registr. No. 01 100 5113

Certificate Holder:



SPIR STAR Druckschläuche AG

Auf der Rut 3
D - 64668 Rimbach

Scope:

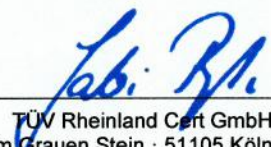
Development, production and sales of
high pressure hoses and fittings

Proof has been furnished by means of an audit that the
requirements of ISO 9001:2008 are met.

Validity:

The certificate is valid from 2015-05-01 until 2018-04-30.
First certification 1995

2015-05-18

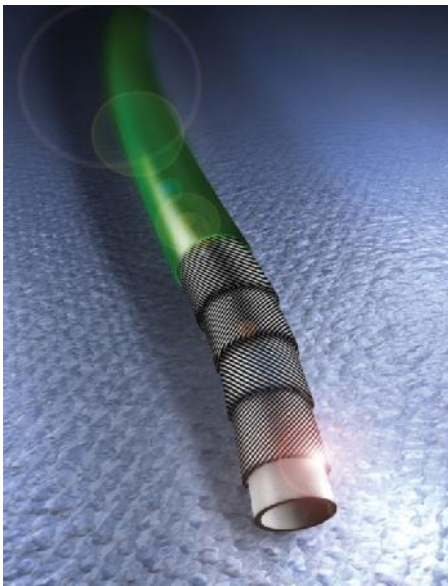

TÜV Rheinland Cert GmbH
Am Grauen Stein · 51105 Köln

Number of spiralized layers

Type **6/2WHT**

Series Description

Hose ID in mm



Hose Series	
DCI	Double Cover
H	Reinforced version
HT	For very high temperatures Very high chemical resistant PVDF inner core, PVDF outer cover
K	Braided layer
L	Extremely flexible
M	For methanol service PA II inner core, PA outer cover
OK	Braided layer outer cover
PPA	For high temperatures Very high chemical resistant PVDF inner core, PA outer cover
R	Reinforced outer cover
W	2 wide layers of spiralized wire

Product Overview - Waterblasting



Type	Hose Size				Pressure Rating				Bend Radius		Weight		Insert ID		Sleeve OD	
	ID [mm]	ID [in]	OD [mm]	OD [in]	Working [bar]	Burst [psi]	Working [bar]	Burst [psi]	[mm]	[in]	[kg/m]	[lbs/ft]	[mm]	[in]	[mm]	[in]

Tube Cleaning up to 1.200 bar / 17.400 psi

Application: Heat exchanger tube cleaning, cleaning with automated rigid lances, flex lances or manual rigid lances Safety Factor: 2.5:1

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
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
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
5/3	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
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
6/3	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
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
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
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
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
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
20/4	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
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
25/4	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

Tube Cleaning up to 2.200 bar / 32.000 psi

Application: Heat exchanger tube cleaning, cleaning with automated rigid lances, flex lances or manual rigid lances Safety Factor: 2.5:1

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
4/4	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
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
5/4	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
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
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
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

Tube Cleaning up to 2.800 bar / 40.600 psi

Application: Heat exchanger tube cleaning, cleaning with automated rigid lances, flex lances or manual rigid lances Safety Factor: 2.5:1

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
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
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
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
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

Please note the reduced safety factor for 13mmUHP.

Product Overview - Waterblasting



Type	Hose Size				Pressure Rating				Bend Radius		Weight		Insert ID		Sleeve OD	
	ID [mm]	[in]	OD [mm]	[in]	Working [bar]	Rating [psi]	Burst [bar]	[psi]	[mm]	[in]	[kg/m]	[lbs/ft]	[mm]	[in]	[mm]	[in]

Tank Cleaning up to 2.500 bar / 36.250 psi

Application: Tank and vessel cleaning, cleaning with booms													Safety Factor: 2.5:1			
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
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

Surface Preparation up to 3.200 bar / 46.400 psi

Application: Concrete removal, surface cleaning, paint removal, cleaning with hydro mowers, hand-held surface cleaner or hand guns													Safety Factor: 2.5:1			
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
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
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
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
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
13/4H	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
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
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
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
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

Please note the reduced safety factors for 8/6UHP-X, 13mmUHP and 20/6.

Cutting and Demolition up to 3.200 bar / 46.400 psi

Application: Cutting and demolition of armoured concrete, pipelines, paper or steel, cleaning with hand guns, cutting systems													Safety Factor: 2.5:1			
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
3/6	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
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
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
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
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

Please note the reduced safety factor for 13mmUHP.

The accessories complement your hose assembly and provide increased safety and service life

Protection Hose

Bend Restrictor



Hose Securing Grip

Valves - Fittings - Tubing



1. Protection Hose

- Protect the hose from excessive wear due to use on rough surfaces thereby increase the service life

2. Bend Restrictor

- Reduces stress near the hose end-fitting
- Prevents kinking of the hose
- Longer service life
- Lighter and easier to assemble compared to steel alternatives

3. Hose Securing Grip

- Provides more safety to personnel in the event of a connection failure

4. Valves, Fittings and Tubing (V-F-T)

Complement your assembly with a large variety of different connections:

- Valves, adapters, elbows, tees, crosses and tubing
- male-to-male, female-to-male, female-to-female

For more information please refer to our "V-F-T" product catalogue .

We recommend the use of the appropriate bend restrictor, protection hose and securing grip in combination with our hose assemblies.

Because „Safety First.“

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	⚡	
Type M female swivel								
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
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Accessories combinations				
Without hose protection				
Description	Bend restrictor	Crimp ring	Securing grips	
Bend restrictor	1.9523406B	1004145	-	
Securing grip	-	-	9086400	
Bend restrictor and securing grip	1.9523406B	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	1.9523406B	1004145	-
with securing grip	1.902531	-	-	9086400
with bend restrictor and securing grip	1.903037	1.9523406B	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	1.9523406B	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.



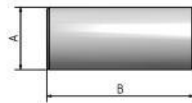
Applications

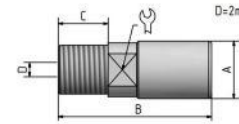
- Waterblast:** Heat exchanger tube cleaning
- Hydraulics:** Pressure test equipment (valves, tooling and control panels), hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools)

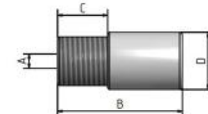
Technical Information

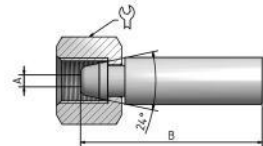
- Inner Core:** Polyoxymethylene (POM)
- Pressure Support:** 2 layers of high-tensile steel wire
- Outer Cover:** Polyamide (PA)
- Colour:** Green
- Temperature:** -30°C to +60°C [-22°F to 140°F]


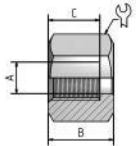
Ø ID	Ø OD	Working Pressure -- (SF 2.5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
3,4 mm	6,9 mm	--	1.000 bar	60 mm	0,072 kg/m	2,0 mm
0,13 inch	0,27 inch	--	14.500 psi	2,36 inch	0,048 lbs/ft	0,08 inch


Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	Wrench	
10320101	-	Steel	8,9	32,5	-	-	

Part no.	Thread	Material	Hose part	Dimensions (mm)				OnePiece Fittings® WS
				A	B	C	Wrench	
OnePiece Fittings® with wrench size								
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	
OnePiece Fittings®								
30320401X	1/16"x27NPTF	Steel	30320402/1X	2	28	7	8,9	
30320101X	M6x1	Steel	30320102/1X	2	30	8	8,9	

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

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C		
Swivel nut								
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 colours 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

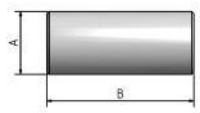
Waterblast: Heat exchanger tube cleaning, ultra high-pressure waterjet cutting and hydro demolition (cutting and demolition of armoured concrete, pipelines, paper or steel)

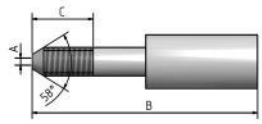
Hydraulics: Pressure test equipment (valves, tooling and control panels), hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools)

Technical Information

Inner Core: Polyoxymethylene (POM)
Pressure Support: 4 layers of high-tensile steel wire
Outer Cover: Polyamide (PA)
Colour: 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	⚙	
Sleeve							
10340102	-	Steel	12,1	44	-	-	

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

Female swivel 24°/60°								
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		
Type M female swivel								
20340602B	9/16"x18UNF	Steel	50540601, 50540605	2	59	-	19	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C		
Swivel nut								
50540601	9/16"x18UNF	Steel	1 radial	9,2	18	14	19	
50340111	M12x1.5	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					
Without hose protection					
Description			Bend restrictor	Crimp ring	Securing grips
Securing grip			-	-	9034400
Hose protection without spiral					
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 colours 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

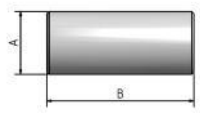
Waterblast: Heat exchanger tube cleaning, ultra high-pressure waterjet cutting and hydro demolition (cutting and demolition of armoured concrete, pipelines, paper or steel)

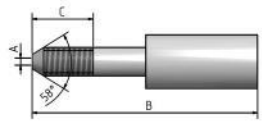
Hydraulics: Pressure test equipment (valves, tooling and control panels), hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools)


Technical Information


Inner Core: Polyoxymethylene (POM)
Pressure Support: 6 layers of high-tensile steel wire
Outer Cover: Polyamide (PA)
Colour: 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	33,5	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⚙	
HP fitting								
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
Hose protection without spiral				
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
Hose securing grip short version					
9034400	600,00	740,00	6,60	6-10	

Accessories combinations				
Without hose protection				
Description	Bend restrictor	Crimp ring	Securing grips	
Securing grip	-	-	9034400	
Hose protection without spiral				
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 colours 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 4/2

42070

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)
- Colour:** 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
4,0 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	
Sleeve							
10420102	-	Steel	10	30	-	-	
10420105	-	AISI 316Ti	10	34	-	-	

Part no.	Thread	Material	Hose part	Dimensions (mm)				OnePiece Fittings®WS
				A	B	C	W	
OnePiece Fittings® with wrench size								
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	
OnePiece Fittings®								
30420451X	1/16"x27NPTF	Steel	30420452/1X	2,5	28	7	9,9	
30420461X	1/8"x27NPTF	Steel	30420462/1X	2,5	31	10	9,9	
30420601X	5/16"x24UNF	Steel	30420452/1X	2,5	28	7	9,9	

Part no.	Thread	Material	Nut	Dimensions (mm)			Insert	
				A	B	C		
HP fitting								
40420205A	1/4"x28UNF LH	AISI 316Ti	-	2,5	69	14	-	
Male fitting								
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	
Male fitting 100° external cone								
30420362A	G1/4"	Steel	-	2,5	60	18	17	
Male fitting for USIT® Ring								
30420352A	G1/4"	Steel	-	2,5	54,5	11	22	
Male fitting flat seal								
30420382A	G1/8"	Steel	-	2,5	55	13	9	
30420082A	M7	Steel	-	2,5	52	11	7	
Type M female swivel								
20420642A	9/16"x18UNF	Steel	50540601	2,5	48,5	-	19	
Female swivel 24°/60°								
20430302A	G1/4"	Steel	50540301, 50540305	2,5	48	-	19	

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

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	⌀	
Swivel nut								
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
			⌀	Length	
PU bend restrictor					
1.9518400	PU	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 colours 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 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)
- Colour:** Red
- Temperature:** -30°C to +60°C [-22°F to 140°F]



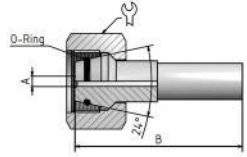
Ø ID	Ø OD	Working Pressure -- (SF 2.5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
4,0 mm	8,1 mm	--	1.400 bar	75 mm	0,112 kg/m	2,5 mm
0,16 inch	0,32 inch	--	20.300 psi	2,95 inch	0,075 lbs/ft	0,10 inch

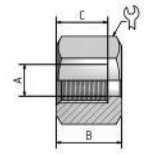
Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C		
Sleeve							
10420102	-	Steel	10	30	-	-	
10420105	-	AISI 316Ti	10	34	-	-	


Part no.	Thread	Material	Hose part	Dimensions (mm)				OnePiece Fittings®WS
				A	B	C		
OnePiece Fittings® with wrench size								
3042045IQ	1/16"x27NPTF	Steel	30420452/IQ	9,9	34	7	7	
3042046IQ	1/8"x27NPTF	Steel	30420462/IQ	9,9	37	10	8	
3042060IQ	5/16"x24UNF	Steel	30420452/IQ	9,9	34	7	7	


Part no.	Thread	Material	Hose part	Dimensions (mm)				OnePiece Fittings®
				A	B	C	D	
OnePiece Fittings®								
3042045IX	1/16"x27NPTF	Steel	30420452/IX	2,5	28	7	9,9	
3042046IX	1/8"x27NPTF	Steel	30420462/IX	2,5	31	10	9,9	
3042060IX	5/16"x24UNF	Steel	30420452/IX	2,5	28	7	9,9	

Part no.	Thread	Material	Nut	Dimensions (mm)			Insert	
				A	B	C		
HP fitting								
40420205A	1/4"x28UNF LH	AISI 316Ti	-	2,5	69	14	-	
Male fitting								
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	
Male fitting 100° external cone								
30420362A	G1/4"	Steel	-	2,5	60	18	17	
Male fitting for USIT® Ring								
30420352A	G1/4"	Steel	-	2,5	54,5	11	22	
Male fitting flat seal								
30420382A	G1/8"	Steel	-	2,5	55	13	9	
30420082A	M7	Steel	-	2,5	52	11	7	
Type M female swivel								
20420642A	9/16"x18UNF	Steel	50540601	2,5	48,5	-	19	
Female swivel 24°/60°								
20430302A	G1/4"	Steel	50540301, 50540305	2,5	48	-	19	

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

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	⌀	
Swivel nut								
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
			⌀	Length	
PU bend restrictor					
1.9518400	PU	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 colours 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)
- Colour:** 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
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	⚙	
Sleeve							
10440102	-	Steel	14,7	49	-	-	
10440105	-	AISI 316Ti	14,7	49	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⚙	
HP fitting								
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	-	

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

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

Type M female swivel								
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		
Swivel nut								
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
Hose protection without spiral				
1.901621	ID Ø16, OD Ø21	PVC	1002224	
Hose protection with spiral				
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
Hose securing grip short version					
9056400	600,00	740,00	10,20	10-15	

Accessories combinations				
Without hose protection				
Description	Bend restrictor	Crimp ring	Securing grips	
Securing grip	-	-	9056400	
Hose protection without spiral				
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips
Protection hose	1.901621	-	1002224	-
with securing grip	1.901621	-	-	9056400
Hose protection with spiral				
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 colours 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), ultra high-pressure waterjet cutting and hydro demolition (cutting and demolition of armoured concrete, pipelines, paper or steel)

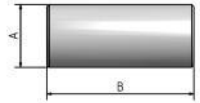
Hydraulics: Bolt tensioning, pressure test equipment (valves, tooling and control panels), hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools)

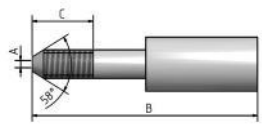


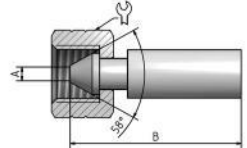
Technical Information

Inner Core: Polyoxymethylene (POM)
Pressure Support: 6 layers of high-tensile steel wire
Outer Cover: Polyamide (PA)
Colour: 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
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	⚙	
Sleeve							
10460102	-	Steel	17,1	49	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⚙	
HP fitting								
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	-	

Type M female swivel								
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		
Swivel nut								
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	
Hose protection with spiral				
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					
Without hose protection					
Description			Bend restrictor	Crimp ring	Securing grips
Securing grip			-	-	9056400
Hose protection without spiral					
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips	
Protection hose	1.901822	-	1002426	-	
with securing grip	1.901822	-	-	9056400	
Hose protection with spiral					
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 colours 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), 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)
- Colour:** Dark red
- Temperature:** -30°C to +60°C [-22°F to 140°F]


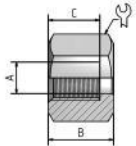
Ø ID	Ø OD	Working Pressure -- (SF 2,5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
4,0 mm	12,8 mm	--	3.200 bar	175 mm	0,540 kg/m	1,8 mm
0,16 inch	0,50 inch	--	46.400 psi	6,89 inch	0,362 lbs/ft	0,07 inch



Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⚙	
Sleeve							
10480102	-	Steel	19,5	49	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⚙	
HP fitting								
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	-	


Type M female swivel								
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		
Swivel nut								
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
Hose protection without spiral				
1.902228	ID Ø22, OD Ø28	PVC	-	
1.902026	ID Ø20, OD Ø26	PVC	1002729	
1.902531	ID Ø25, OD Ø31	PVC	-	
Hose protection with spiral				
1.912532	ID Ø25, OD Ø32	PVC	-	
1.912026	ID Ø19, OD Ø26	PVC	1003035	



Part no.	Material	Crimp ring	Dimensions (mm)		Bend restrictor
			Ø	Length	
PU bend restrictor					
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	
Hose securing grip long version					
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 colours 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 5/2

52070

DuraLife Flex ®

ID5 - Series: A, X and Q



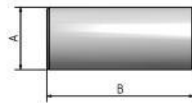
Applications

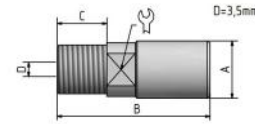
- Waterblast:** Heat exchanger tube cleaning
- Hydraulics:** Pressure test equipment (valves, tooling and control panels), hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools)

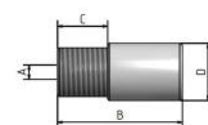
Technical Information

- Inner Core:** Polyoxymethylene (POM)
- Pressure Support:** 2 layers of high-tensile steel wire
- Outer Cover:** Polyamide (PA)
- Colour:** 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	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	40	-	-	


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

Part no.	Thread	Material	Hose part	Dimensions (mm)				OnePiece Fittings®
				A	B	C	D	
30520441X	1/8"x27NPTF	Steel	30520442/1X	3,5	31	10	11,4	

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

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	⚙️	
Swivel nut								
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	
PU bend restrictor					
1.9518400	PU	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 colours 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, 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)
- Colour:** 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
4,9 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		
Sleeve							
10520101	-	Steel	12,9	40	-	-	


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


Part no.	Thread	Material	Hose part	Dimensions (mm)				OnePiece Fittings®
				A	B	C	D	
OnePiece Fittings®								
30520441X	1/8"x27NPTF	Steel	30520442/1X	3,5	31	10	11,4	

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

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	⌀	
Swivel nut								
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	
PU bend restrictor					
1.9518400	PU	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 colours 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

DuraLife Flex®

ID5 - 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

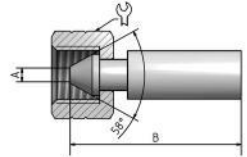
- Inner Core:** Polyoxymethylene (POM)
- Pressure Support:** 2 layers of high-tensile steel wire, 1 braided layer of galvanized steel wire
- Outer Cover:** Polyamide (PA)
- Colour:** Green
- Temperature:** -30°C to +60°C [-22°F to 140°F]

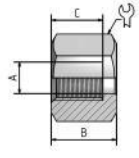
Ø ID	Ø OD	Working Pressure -- (SF 2,5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
5,0 mm	10,3 mm	--	1.120 bar	2.800 bar	95 mm	0,218 kg/m
0,20 inch	0,41 inch	--	16.240 psi	40.600 psi	3,74 inch	0,146 lbs/ft


Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	W	
10530111	-	Steel	12,9	40	-	-	

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

Part no.	Thread	Material	Hose part	Dimensions (mm)				OnePiece Fittings®
				A	B	C	D	
30530441X	1/8"x27NPTF	Steel	30520442/1X	3,5	31	10	12,2	

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

Part no.	Thread	Material	Relief bores	Dimensions (mm)			⚙️	Swivel nut
				A	B	C		
Swivel nut								
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
9056400	600,00	740,00	10,20	10-15	

Production-related variations of the burst pressure of up to 5 % are possible. Other colours 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
- 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)
- Colour:** 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
5,0 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	⚙	
Sleeve							
10540101	-	Steel	15	49	-	-	
10540105	-	AISI 316Ti	15	49	-	-	
Blast-Pro® sleeve							
10540232	-	Steel	12,4	24	-	-	

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

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
Male fitting								
30540401B	1/4"x18NPTF	Steel	-	2,5	71	14	14	
Male fitting 60° internal cone								
30540301B	G1/4"	Steel	-	2,5	70	12	14	
Male fitting 100° external cone								
30540361B	G1/4"	Steel	-	2,5	76	18	17	
Male fitting for USIT® Ring								
30540351B	G1/4"	Steel	-	2,5	68,5	11	22	
Female swivel 24°/60°								
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	
Female swivel with O-Ring								
20540041B	M20x1.5	Steel	50860201	2,5	77	-	27	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C		
Type M female swivel								
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		
Swivel nut								
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
1.901621	ID Ø16, OD Ø21	PVC	1002224	
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
9056400	600,00	740,00	10,20	10-15	

Accessories combinations					
Without hose protection					
Description			Bend restrictor	Crimp ring	Securing grips
Securing grip			-	-	9056400
Hose protection without spiral					
Description	Protection hose		Bend restrictor	Crimp ring	Securing grips
Protection hose	1.901621		-	1002224	-
with securing grip	1.901822		-	-	9056400

Production-related variations of the burst pressure of up to 5 % are possible. Other colours 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:

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)
Colour:	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
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	⚙	
Sleeve							
10560136	-	Steel	17,8	68	-	-	
10560135	-	AISI 316Ti	17,8	68	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⚙	
HP fitting								
40560294E	1/4"x28UNF LH	Stainless steel	-	2,5	95	14	-	
40560284E	3/8"x24UNF LH	Stainless steel	-	2,5	104	20	-	
40560264E	9/16"x18UNF LH	Stainless steel	-	2,5	116	24	-	
40560274E	M14x1,5LH	Stainless steel	-	2,5	116	24	-	
Female swivel 24°/60°								
20560314E	G1/4"	Stainless steel	50560301	2,5	76	-	22	
20560164E	M14x1,5	Stainless steel	50540101	2,5	76	-	19	



Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
Type M female swivel								
20560694E	9/16"x18UNF	Stainless steel	50560605, 50560601	2,5	77	-	22	

HP female swivel								
20560614E	9/16"x18UNF	Stainless steel	50560605, 50560601	2,5	73	-	22	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	⌀	
Swivel nut								
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
Hose protection without spiral				
1.901822	ID Ø18, OD Ø22	PVC	1002426	
1.902228	ID Ø22, OD Ø28	PVC	-	
1.902531	ID Ø25, OD Ø31	PVC	-	
Hose protection with spiral				
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	
PU bend restrictor					
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
Hose securing grip short version					
9056400	600,00	740,00	10,20	10-15	
Hose securing grip long version					
905640L	600,00	990,00	10,20	10-15	

Accessories combinations

Without hose protection				
Description	Bend restrictor	Crimp ring	Securing grips	
Bend restrictor	1.9518306A	1003035	-	
Securing grip	-	-	9056400	
Bend restrictor and securing grip	1.9518306A	1003035	905640L	
Hose protection without spiral				
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
Hose protection with spiral				
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 colours 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:

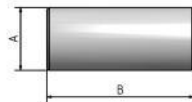
Bolt tensioning, pressure test equipment (valves, tooling and control panels), hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools)

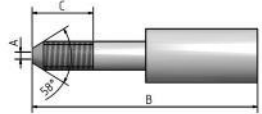
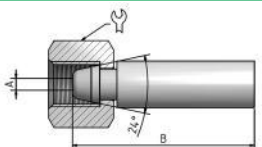


Technical Information

- Inner Core:** Polyoxymethylene (POM)
- Pressure Support:** 6 layers of high-tensile steel wire
- Outer Cover:** Polyamide (PA)
- Colour:** 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
4,6 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	⚙	
Sleeve							
10560116	-	Steel	17,9	68	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⚙	
HP fitting								
40560294E	1/4"x28UNF LH	Stainless steel	-	2,5	95	14	-	
40560284E	3/8"x24UNF LH	Stainless steel	-	2,5	104	20	-	
40560264E	9/16"x18UNF LH	Stainless steel	-	2,5	116	24	-	
40560274E	M14x1,5LH	Stainless steel	-	2,5	116	24	-	
Female swivel 24°/60°								
20560314E	G1/4"	Stainless steel	50560301	2,5	76	-	22	
20560164E	M14x1,5	Stainless steel	50540101	2,5	76	-	19	


Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⚙	
Type M female swivel								
20560694E	9/16"x18UNF	Stainless steel	50560605, 50560601	2,5	77	-	22	



HP female swivel								
20560614E	9/16"x18UNF	Stainless steel	50560605, 50560601	2,5	73	-	22	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	⚙	
Swivel nut								
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			
				Hose protection without spiral			
1.902026	ID Ø20, OD Ø26	PVC	1002729				
1.902228	ID Ø22, OD Ø28	PVC	-				
1.902531	ID Ø25, OD Ø31	PVC	-				
Hose protection with spiral							
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	
PU bend restrictor					
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	
Hose securing grip long version					
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	1.912229	-	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 colours 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.

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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:

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

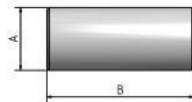
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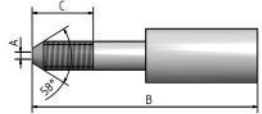
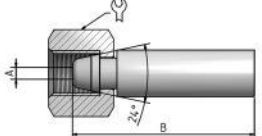
First: red, second: green

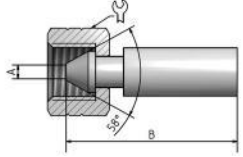
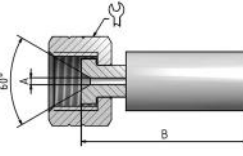
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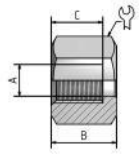
-30°C to +60°C [-22°F to 140°F]

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	⚙	
Sleeve							
10560116	-	Steel	17,9	68	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⚙	
HP fitting								
40560294E	1/4"x28UNF LH	Stainless steel	-	2,5	95	14	-	
40560284E	3/8"x24UNF LH	Stainless steel	-	2,5	104	20	-	
40560264E	9/16"x18UNF LH	Stainless steel	-	2,5	116	24	-	
40560274E	M14x1,5LH	Stainless steel	-	2,5	116	24	-	
Female swivel 24°/60°								
20560314E	G1/4"	Stainless steel	50560301	2,5	76	-	22	
20560164E	M14x1,5	Stainless steel	50540101	2,5	76	-	19	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
Type M female swivel								
20560694E	9/16"x18UNF	Stainless steel	50560605, 50560601	2,5	77	-	22	
HP female swivel								
20560614E	9/16"x18UNF	Stainless steel	50560605, 50560601	2,5	73	-	22	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	⌀	
Swivel nut								
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 colours 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.

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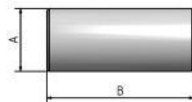
Applications

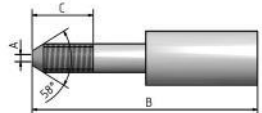
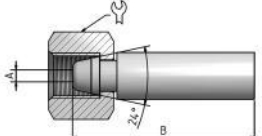
- Waterblast:** Surface preparation (concrete removal, surface cleaning of buildings, paint removal), tank and vessel cleaning, ultra high-pressure waterjet cutting and hydro demolition (cutting and demolition of armoured concrete, pipelines, paper or steel)
- Hydraulics:** Pressure test equipment (valves,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

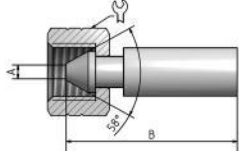
Technical Information

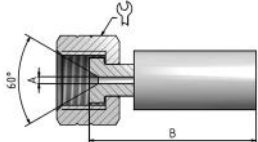
- Inner Core:** Polyoxymethylene (POM)
- Pressure Support:** 8 layers of high-tensile steel wire
- Outer Cover:** Polyamide (PA)
- Colour:** Chrome yellow
- Temperature:** -30°C to +60°C [-22°F to 140°F]

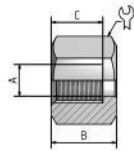
Ø ID	Ø OD	Working Pressure -- (SF 2,5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
4,5 mm	15,3 mm	--	3.200 bar	250 mm	0,693 kg/m	2,5 mm
0,18 inch	0,60 inch	--	46.400 psi	9,84 inch	0,464 lbs/ft	0,10 inch


Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⚙	
Sleeve							
10580116	-	Steel	19,7	69	-	-	



Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⚙	
HP fitting								
40560294E	1/4"x28UNF LH	Stainless steel	-	2,5	95	14	-	
40560284E	3/8"x24UNF LH	Stainless steel	-	2,5	104	20	-	
40560264E	9/16"x18UNF LH	Stainless steel	-	2,5	116	24	-	
40560274E	M14x1,5LH	Stainless steel	-	2,5	116	24	-	
Female swivel 24°/60°								
20560314E	G1/4"	Stainless steel	50560301	2,5	76	-	22	
20560164E	M14x1,5	Stainless steel	50540101	2,5	76	-	19	



Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
Type M female swivel								
20560694E	9/16"x18UNF	Stainless steel	50560605, 50560601	2,5	77	-	22	

HP female swivel								
20560614E	9/16"x18UNF	Stainless steel	50560605, 50560601	2,5	73	-	22	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	⌀	
Swivel nut								
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	
PU bend restrictor					
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	-	
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
Hose securing grip short version					
9086400	600,00	780,00	20,40	15-20	
Hose securing grip long version					
908640L	600,00	990,00	20,40	15-20	

Accessories combinations				
Without hose protection				
Description	Bend restrictor	Crimp ring	Securing grips	
Bend restrictor	1.9518306C	1003035	-	
Securing grip	-	-	9086400	
Bend restrictor and securing grip	1.9518306C	1003035	908640L	
Hose protection without spiral				
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	1.902228	-	-	9086400
with bend restrictor and securing grip	1.902531	1.9518306C	1003035	908640L
Hose protection with spiral				
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	1.912229	-	-	9086400
with bend restrictor and securing grip	1.912532	1.9518306C	1003035	908640L

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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)
- Colour:** 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
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	Wrench	
Sleeve							
10620101	-	Steel	13,9	42	-	-	
10620105	-	AISI 316Ti	13,9	42	-	-	

Part no.	Thread	Material	Hose part	Dimensions (mm)				OnePiece Fittings® WS
				A	B	C	Wrench	
OnePiece Fittings® with wrench size								
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	Hose part	Dimensions (mm)				OnePiece Fittings®
				A	B	C	D	
OnePiece Fittings®								
30620461X	1/4"x18NPTF	Steel	30620462/1X	4	35	14	13,5	
30620361X	G1/4"	Steel	30620462/1X	4	35	14	13,5	


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



Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
Male fitting								
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	
Male fitting 60° internal cone								
30620311A	G1/8"	Steel	-	4	59	10	9	
30620341A	G1/4"	Steel	-	4	62,5	12	14	
30620321A	G3/8"	Steel	-	4	60,5	12	17	
Male fitting 100° external cone								
30620361A	G1/4"	Steel	-	4	67	18	17	
Male fitting for USIT® Ring								
30620391A	G1/4"	Steel	-	4	61	11	22	
30620351A	G3/8"	Steel	-	4	61	11	24	
Male fitting flat seal								
30620381A	G1/4"	Steel	-	4	66	15	12	
Male fitting DIN3852 T2 form A								
30620301A	G1/4"	Steel	-	4	64	12	19	
Female fitting NPT/NPTF								
30620441A	1/4"x18NPTF	Steel	-	4	66,5	20	19	
Female swivel 24°/60°								
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	⌀	
Female swivel with O-Ring								
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	
Type M female swivel								
20620641A	9/16"x18UNF	Steel	50540601	4	57	-	19	
20620645A	9/16"x18UNF	AISI 316Ti	50540605	4	57	-	19	
JIC female swivel								
S20630615A	9/16"x18UNF	AISI 316Ti	S5063615	4	53	-	19	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	⌀	
Swivel nut								
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	15	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
Hose protection without spiral				
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	
PU bend restrictor					
1.9518600	PU	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
Hose securing grip short version					
9056400	600,00	740,00	10,20	10-15	
Hose securing grip long version					
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	
Hose protection without spiral				
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 colours 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

DuraLife Flex®

ID6 - 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, 1 braided layer of galvanized steel wire
- Outer Cover:** Polyamide (PA)
- Colour:** 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
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	W	
10630111	-	Steel	14,1	42	-	-	

Part no.	Thread	Material	Hose part	Dimensions (mm)				OnePiece Fittings®WS
				A	B	C	W	
30630461Q	1/4"x18NPTF	Steel	30620462/1Q	14	43	14	12	

Part no.	Thread	Material	Hose part	Dimensions (mm)				OnePiece Fittings®
				A	B	C	D	
30630461X	1/4"x18NPTF	Steel	30620462/1X	4	35	14	14	

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

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
Male fitting								
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	
Male fitting 60° internal cone								
30620311A	G1/8"	Steel	-	4	59	10	9	
30620341A	G1/4"	Steel	-	4	62,5	12	14	
30620321A	G3/8"	Steel	-	4	60,5	12	17	
Male fitting 100° external cone								
30620361A	G1/4"	Steel	-	4	67	18	17	
Male fitting for USIT® Ring								
30620391A	G1/4"	Steel	-	4	61	11	22	
30620351A	G3/8"	Steel	-	4	61	11	24	
Male fitting flat seal								
30620381A	G1/4"	Steel	-	4	66	15	12	
Male fitting DIN3852 T2 form A								
30620301A	G1/4"	Steel	-	4	64	12	19	
Female fitting NPT/NPTF								
30620441A	1/4"x18NPTF	Steel	-	4	66,5	20	19	
Female swivel 24°/60°								
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	⌀	
Female swivel with O-Ring								
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	
Type M female swivel								
20620641A	9/16"x18UNF	Steel	50540601	4	57	-	19	
20620645A	9/16"x18UNF	AISI 316Ti	50540605	4	57	-	19	
JIC female swivel								
S20630615A	9/16"x18UNF	AISI 316Ti	S5063615	4	53	-	19	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	⌀	
Swivel nut								
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	15	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
Hose securing grip short version					
9056400	600,00	740,00	10,20	10-15	

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

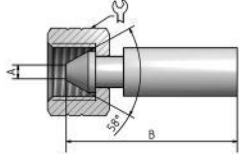
- Inner Core:** Polyoxymethylene (POM)
- Pressure Support:** 4 layers of high-tensile steel wire
- Outer Cover:** Polyamide (PA)
- Colour:** Grey
- Temperature:** -30°C to +60°C [-22°F to 140°F]

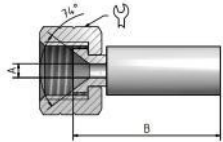
Ø ID	Ø OD	Working Pressure -- (SF 2.5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
6,3 mm	12,6 mm	--	1.500 bar	180 mm	0,295 kg/m	3,5 mm
0,25 inch	0,50 inch	--	21.750 psi	7,09 inch	0,198 lbs/ft	0,14 inch

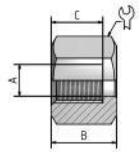
Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⚙	
Sleeve							
10640101	-	Steel	16,4	49	-	-	
10640105	-	AISI 316Ti	16,4	49	-	-	
Blast-Pro® sleeve							
10640232	-	Steel	14,5	26	-	-	


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

Part no.	Thread	Material	Sleeve	Dimensions (mm)				⚙️	Blast-Pro® Insert*
				A	B	C			
Blast-Pro® HP fitting									
40640214Y	3/8"x24UNF LH	Stainless steel	10640232	4	52	21	12		
Blast-Pro® HP female									
40640234Y	3/8"x24UNF	Stainless steel	10640232	4	50	15	12		
Part no.	Thread	Material	Nut	Dimensions (mm)				⚙️	Insert
				A	B	C			
Male fitting									
30640401B	1/4"x18NPTF	Steel	-	3,5	70	14	14		
Male fitting 60° internal cone									
30640301B	G1/4"	Steel	-	3,5	67	12	14		
Male fitting flat seal									
30640011B	M8x1.25	Steel	-	3,5	68	12	8		
Female swivel 24°/60°									
20640301B	G1/4"	Steel	50540301, 50540305	3,5	62	-	19		
Female swivel with O-Ring									
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	⌀	
Type M female swivel								
20640641B	9/16"x18UNF	Steel	50540601	3,5	63	-	19	
20640645B	9/16"x18UNF	AISI 316Ti	50540605	3,5	63	-	19	



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

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	⌀	
Swivel nut								
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	-	

Hose protection with spiral				
1.912026	ID Ø19, OD Ø26	PVC	1003035	

Part no.	Material	Crimp ring	Dimensions (mm)		Bend restrictor
			Ø	Length	
PU bend restrictor					
1.9518600	PU	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
Hose securing grip short version					
9056400	600,00	740,00	10,20	10-15	
Hose securing grip long version					
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	
Hose protection without spiral				
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
Hose protection with spiral				
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 colours upon request.

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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
- 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)
- Colour:** 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
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	⚙	
Sleeve							
10640101	-	Steel	16,4	49	-	-	
10640105	-	AISI 316Ti	16,4	49	-	-	
Blast-Pro® sleeve							
10640232	-	Steel	14,5	26	-	-	

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



Part no.	Thread	Material	Sleeve	Dimensions (mm)				⚙️	Blast-Pro® Insert*
				A	B	C			
Blast-Pro® HP fitting									
40640214Y	3/8"x24UNF LH	Stainless steel	10640232	4	52	21	12		
Blast-Pro® HP female									
40640234Y	3/8"x24UNF	Stainless steel	10640232	4	50	15	12		
Part no.	Thread	Material	Nut	Dimensions (mm)				⚙️	Insert
				A	B	C			
Male fitting									
30640401B	1/4"x18NPTF	Steel	-	3,5	70	14	14		
Male fitting 60° internal cone									
30640301B	G1/4"	Steel	-	3,5	67	12	14		
Male fitting flat seal									
30640011B	M8x1.25	Steel	-	3,5	68	12	8		
Female swivel 24°/60°									
20640301B	G1/4"	Steel	50540301, 50540305	3,5	62	-	19		
Female swivel with O-Ring									
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	⌀	
Type M female swivel								
20640641B	9/16"x18UNF	Steel	50540601	3,5	63	-	19	
20640645B	9/16"x18UNF	AISI 316Ti	50540605	3,5	63	-	19	
JIC female swivel								
20640655B	9/16"x18UNF	AISI 316Ti	50540605	3,5	58	-	19	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	⌀	
Swivel nut								
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	
Hose protection without spiral						
1.901822	ID Ø18, OD Ø22	PVC	1002426			
1.902026	ID Ø20, OD Ø26	PVC	-			
Hose protection with spiral						
1.912026	ID Ø19, OD Ø26	PVC	1003035			

Part no.	Material	Crimp ring	Dimensions (mm)		Bend restrictor
			Ø	Length	
PU bend restrictor					
1.9518600	PU	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
Hose securing grip short version					
9056400	600,00	740,00	10,20	10-15	
Hose securing grip long version					
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	
Hose protection without spiral				
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
Hose protection with spiral				
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 colours 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
- Hydraulics:** Pressure test equipment (valves, tooling and control panels)



Technical Information


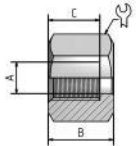
- Inner Core:** Polyoxymethylene (POM)
- Pressure Support:** 8 layers of high-tensile steel wire
- Outer Cover:** Polyamide (PA)
- Colour:** Chrome yellow
- Temperature:** -30°C to +60°C [-22°F to 140°F]



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	⚙	
Sleeve							
10680102	-	Steel	23,7	66	-	-	



Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⚙	
HP fitting								
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	-	

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

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C		
Swivel nut								
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
I.902531	ID Ø25, OD Ø31	PVC	I003335	
I.903037	ID Ø30, OD Ø39	PVC	I003941	
Hose protection with spiral				
I.912532	ID Ø25, OD Ø32	PVC	I003438	
I.913240	ID Ø32, OD Ø40	PVC	-	

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

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
Hose securing grip short version					
9086400	600,00	780,00	20,40	15-20	
Hose securing grip long version					
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 colours 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 8/2

82070

DuraLife Flex®

ID8 - Series: A, X 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)
Colour: 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
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


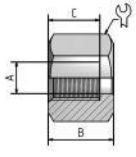
Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	Wrench	
10820101	-	Steel	17,8	49	-	-	


Part no.	Thread	Material	Hose part	Dimensions (mm)				OnePiece Fittings® WS
				A	B	C	Wrench	
OnePiece Fittings® with wrench size								
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	Hose part	Dimensions (mm)				OnePiece Fittings®
				A	B	C	D	
OnePiece Fittings®								
30820461X	1/4"x18NPTF	Steel	30820442/1X	5,5	39	14	17,5	
30820441X	3/8"x18NPT	Steel	30820442/1X	5,5	38	14	17,5	

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

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C		
Swivel nut								
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	21,5	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	
PU bend restrictor					
1.9518600	PU	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
Hose securing grip short version					
9056400	600,00	740,00	10,20	10-15	
Hose securing grip long version					
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 colours 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
- 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)
- Colour:** 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


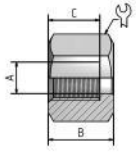
Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⚙	
Sleeve							
10840102	-	Steel	20,2	58	-	-	
10840105	-	AISI 316Ti	20,2	58	-	-	
Blast-Pro® sleeve							
10840142	-	Steel	17,1	29	-	-	



Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⚙	
HP fitting								
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	⚙	
Blast-Pro® MP male								
40840244Y	9/16"x18UNF LH	Stainless steel	10840142	5	75	25	15	


Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
Male fitting								
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	
Male fitting flat seal								
30840311B	G1/4"	Steel	-	4,5	83	15	14	
Male fitting DIN3852 T2 form A								
30840301B	G3/8"	Steel	-	4,5	84,5	12	22	
Female swivel 24°/60°								
20840301B	G3/8"	Steel	50860301	4,5	72	-	24	
20840305B	G3/8"	AISI 316Ti	50840305	4,5	74	-	24	
Female swivel with O-Ring								
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	4,5	85	-	32	
Type M female swivel								
20840641B	3/4"x16UNF	Steel	50840601	4,5	73	-	24	
20840645B	3/4"x16UNF	AISI 316Ti	50840605	4,5	73	-	24	
JIC female swivel								
20840605B	3/4"x16UNF	AISI 316Ti	50840605	4,5	68	-	24	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	⌀	
Swivel nut								
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	21,5	15,5	24	
50840305	G3/8"	AISI 316Ti	1 radial	12,2	21,5	15,5	24	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C		
Swivel nut								
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	Dimensions (mm)		Hose protection
				Ø	Length	
Hose protection without spiral						
1.902228	ID Ø22, OD Ø28	PVC	1002830			
Hose protection with spiral						
1.912229	ID Ø22, OD Ø35	PVC	1003035			

Part no.	Material	Crimp ring	Dimensions (mm)		Bend restrictor
			Ø	Length	
PU bend restrictor					
1.9518100	PU	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	
Hose securing grip long version					
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

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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.

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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)

Technical Information

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

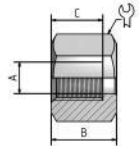
Ø ID	Ø OD	Working Pressure -- (SF 2,5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
7,7 mm	18,8 mm	--	2.500 bar	260 mm	0,925 kg/m	4,5 mm
0,30 inch	0,74 inch	--	36.250 psi	10,24 inch	0,620 lbs/ft	0,18 inch



Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⚙	
Sleeve							
10860116	-	Steel	22,8	87,8	-	-	


Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⚙	
HP fitting								
40860214E	3/8"x24UNF LH	Stainless steel	-	4,5	114	20	-	
40860204E	9/16"x18UNF LH	Stainless steel	-	4,5	126	31	-	
40860104E	M14x1.5 LH	Stainless steel	-	4,5	126	31	-	



MP fitting								
40860324E	3/4"x16UNF LH	Stainless steel	-	4,5	122	18	-	

Type M female swivel								
20860684E	7/8"x14UNF	Stainless steel	50860675	4,5	92	-	30	
20860644E	3/4"x16UNF	Stainless steel	50840605, 50840601	4,5	90	-	24	
20860694E	1 1/8"x12UNF	Stainless steel	50860695	4,5	98	-	36	

Part no.	Thread	Material	Relief bores	Dimensions (mm)			⌀	Swivel nut
				A	B	C		
Swivel nut								
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
Hose protection without spiral						
1.902531	ID Ø25, OD Ø31	PVC	1003335			
1.903037	ID Ø30, OD Ø39	PVC	-			
Hose protection with spiral						
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	
PU bend restrictor					
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	
Hose securing grip long version					
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

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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)

Technical Information

Inner Core: Polyoxymethylene (POM)
Pressure Support: 6 layers of high-tensile steel wire
Outer Cover: First: Polyamide (PA), Second: Polyurethane (TPU)
Colour: First: red, second: green
Temperature: -30°C to +60°C [-22°F to 140°F]


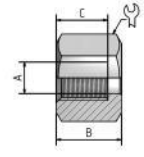
Ø ID	Ø OD	Working Pressure -- (SF 2,5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
7,7 mm	22,8 mm	--	2.500 bar	260 mm	1,085 kg/m	4,5 mm
0,30 inch	0,90 inch	--	36.250 psi	10,24 inch	0,727 lbs/ft	0,18 inch



Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⚙	
Sleeve							
10860116	-	Steel	22,8	87,8	-	-	


Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⚙	
HP fitting								
40860214E	3/8"x24UNF LH	Stainless steel	-	4,5	114	20	-	
40860204E	9/16"x18UNF LH	Stainless steel	-	4,5	126	31	-	
40860104E	M14x1.5 LH	Stainless steel	-	4,5	126	31	-	

MP fitting								
40860324E	3/4"x16UNF LH	Stainless steel	-	4,5	122	18	-	

Type M female swivel								
20860644E	3/4"x16UNF	Stainless steel	50840605, 50840601	4,5	90	-	24	
20860684E	7/8x14UNF	Stainless steel	50860675	4,5	92	-	30	
20860694E	1 1/8"x12UNF	Stainless steel	50860695	4,5	98	-	36	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C		
Swivel nut								
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	
Hose securing grip long version					
910640L	600,00	1.010,00	20,40	20-25	

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

Accessories combinations			
Without hose protection			
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 colours 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)

Technical Information

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

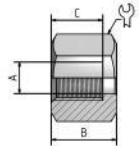
Ø ID	Ø OD	Working Pressure -- (SF 2,5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
7,6 mm	19,3 mm	--	2.800 bar	300 mm	1,055 kg/m	4,5 mm
0,30 inch	0,76 inch	--	40.600 psi	11,81 inch	0,707 lbs/ft	0,18 inch



Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⚙	
Sleeve							
10860116	-	Steel	23,7	87,8	-	-	


Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⚙	
HP fitting								
40860214E	3/8"x24UNF LH	Stainless steel	-	4,5	114	20	-	
40860204E	9/16"x18UNF LH	Stainless steel	-	4,5	126	31	-	
40860104E	M14x1.5 LH	Stainless steel	-	4,5	126	31	-	



MP fitting								
40860324E	3/4"x16UNF LH	Stainless steel	-	4,5	122	18	-	

Type M female swivel								
20860644E	3/4"x16UNF	Stainless steel	50840605, 50840601	4,5	90	-	24	
20860684E	7/8x14UNF	Stainless steel	50860675	4,5	92	-	30	
20860694E	1 1/8"x12UNF	Stainless steel	50860695	4,5	98	-	36	

Part no.	Thread	Material	Relief bores	Dimensions (mm)			⌀	Swivel nut
				A	B	C		
Swivel nut								
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	Dimensions (mm)		Bend restrictor
				Ø	Length	
Hose protection without spiral						
1.902531	ID Ø25, OD Ø31	PVC	1003335			
1.903037	ID Ø30, OD Ø39	PVC	-			
Hose protection with spiral						
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	
PU bend restrictor					
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	
Hose securing grip long version					
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 colours 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)

Technical Information

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

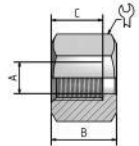
Ø ID	Ø OD	Working Pressure -- (SF 2,3:1)	Burst Pressure	Bend Radius	Weight	Insert ID
7,6 mm	19,3 mm	--	3.035 bar	300 mm	1,055 kg/m	4,5 mm
0,30 inch	0,76 inch	--	44.000 psi	11,81 inch	0,707 lbs/ft	0,18 inch



Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⚙	
Sleeve							
10860116	-	Steel	23,7	87,8	-	-	


Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⚙	
HP fitting								
40860214E	3/8"x24UNF LH	Stainless steel	-	4,5	114	20	-	
40860204E	9/16"x18UNF LH	Stainless steel	-	4,5	126	31	-	
40860104E	M14x1.5 LH	Stainless steel	-	4,5	126	31	-	



MP fitting								
40860324E	3/4"x16UNF LH	Stainless steel	-	4,5	122	18	-	

Type M female swivel								
20860644E	3/4"x16UNF	Stainless steel	50840605, 50840601	4,5	90	-	24	
20860684E	7/8x14UNF	Stainless steel	50860675	4,5	92	-	30	
20860694E	1 1/8"x12UNF	Stainless steel	50860695	4,5	98	-	36	

Part no.	Thread	Material	Relief bores	Dimensions (mm)			⌀	Swivel nut
				A	B	C		
Swivel nut								
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
Hose protection without spiral						
1.902531	ID Ø25, OD Ø31	PVC	1003335			
1.903037	ID Ø30, OD Ø39	PVC	-			
Hose protection with spiral						
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	
PU bend restrictor					
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
Hose securing grip short version					
9086400	600,00	780,00	20,40	15-20	
Hose securing grip long version					
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 colours 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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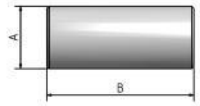
Applications

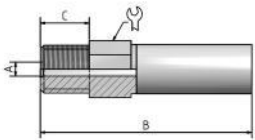
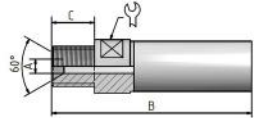
- Waterblast:** Heat exchanger tube cleaning
- Hydraulics:** Pressure test equipment (valves, tooling and control panels)

Technical Information

- Inner Core:** Polyamide (PA)
- Pressure Support:** 2 layers of high-tensile steel wire
- Outer Cover:** Polyamide (PA)
- Colour:** 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
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	⚙	
Sleeve							
11020101	-	Steel	20,8	58	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⚙	
Male fitting								
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	
Male fitting 60° internal cone								
31020311A	G3/8"	Steel	-	6,5	78,5	12	17	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⚙	
Female swivel 24°/60°								
21020301A	G1/2"	Steel	51060311	6,5	73	-	27	
21020305A	G1/2"	AISI 316Ti	51060315	6,5	73	-	27	
Female swivel with O-Ring								
21020221A	M22x1.5	Steel	51060201, 51060205	6,5	83	-	30	
21040201A	M24x1,5	Steel	51321206	6,5	83,5	-	32	
Type M female swivel								
21020645A	3/4"x16UNF	AISI 316Ti	51320615	6,5	69	-	24	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	⚙	
Swivel nut								
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
9086400	600,00	780,00	20,40	15-20	

Production-related variations of the burst pressure of up to 5 % are possible. Other colours 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)
- Hydraulics:** Pressure test equipment (valves, tooling and control panels)
- Oil and Gas:** Grease injection

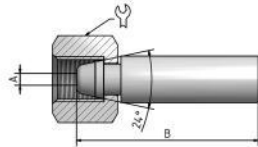
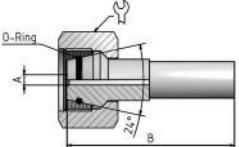
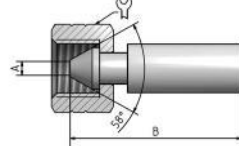
Technical Information

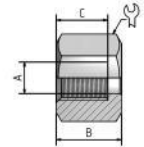
- Inner Core:** Polyamide (PA)
- Pressure Support:** 2 layers of high-tensile steel wire
- Outer Cover:** Polyamide (PA)
- Colour:** Green
- Temperature:** -30°C to +60°C [-22°F to 140°F]

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	⚙	
Sleeve							
11320101	-	Steel	26	58	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⚙	
MP fitting								
41320205A	9/16"x18UNF LH	AISI 316Ti	-	8,5	109	12,7	-	
Male fitting								
31320401A	1/2"x14NPTF	Steel	-	8,5	90	18	22	
31320405A	1/2"x14NPTF	AISI 316Ti	-	8,5	90	18	22	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⚙	
Female swivel 24°/60°								
21320311A	G1/2"	Steel	51060311	8,5	73	-	27	
21320315A	G1/2"	AISI 316Ti	51060315	8,5	73	-	27	
Female swivel with O-Ring								
21320101A	M22x1.5	Steel	51360221	8,5	85	-	30	
21320241A	M24x1.5	Steel	51321206	8,5	80	-	32	
21320245A	M24x1.5	AISI 316Ti	51320205	8,5	80	-	36	
Type M female swivel								
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	⚙	
Swivel nut								
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
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Hose protection without spiral					
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I.903037	ID Ø30, OD Ø39	PVC	1003941		
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Hose protection with spiral					
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I.913038	ID Ø30, OD Ø38	PVC	1004145		
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Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)		Hose securing grip
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Hose securing grip short version						
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9086400	600,00	780,00	20,40	15-20		
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Accessories combinations						
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Without hose protection						
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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	I.903037	-	1003941	-
with securing grip	I.903037	-	-	9086400

Hose protection with spiral						
------------------------------------	--	--	--	--	--	--

Description	Protection hose	Bend restrictor	Crimp ring	Securing grips
Protection hose	I.913038	-	1004145	-
with securing grip	I.913038	-	-	9086400

Production-related variations of the burst pressure of up to 5 % are possible. Other colours upon request.
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Hose Type I3/2WR

I32WR2281

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

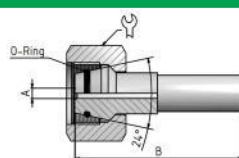
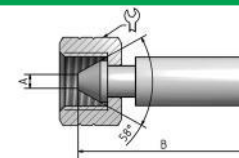
Technical Information

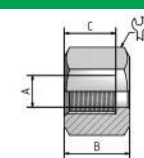
- Inner Core:** Polyamide (PA)
- Pressure Support:** 2 open layers, 2 dense layers of high-tensile steel wire
- Outer Cover:** Polyurethane (TPU)
- Colour:** Silver
- Temperature:** -30°C to +60°C [-22°F to 140°F]



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	⚙	
Sleeve							
I1330206VWR	-	Steel	27,5	64	-	-	
I1330205VWR	-	AISI 316Ti	27,5	60	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⚙	
MP fitting								
41360205O	9/16"x18UNF LH	AISI 316Ti	-	7,5	118	13	-	
Male fitting								
31360401O	1/2"x14NPTF	Steel	-	7,5	99	18	22	
31360405O	1/2"x14NPTF	AISI 316Ti	-	7,5	99	18	22	
Female swivel 24°/60°								
21360332O	G1/2"	Steel	51060311	7,5	81	-	27	
21360335O	G1/2"	AISI 316Ti	51060315	7,5	81	-	27	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
Female swivel with O-Ring								
21360122O	M22x1.5	Steel	51360221	7,5	97	-	30	
21360242O	M24x1.5	Steel	51321206	7,5	89	-	32	
21360245O	M24x1.5	AISI 316Ti	51320205	7,5	89	-	36	
Type M female swivel								
21360642O	1"x12UNF	Steel	51360641	7,5	84	-	32	
21360645O	1"x12UNF	AISI 316Ti	51360645	7,5	84	-	32	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	⌀	
Swivel nut								
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
Hose protection without spiral				
I.903037	ID Ø30, OD Ø39	PVC	1003941	
I.903542	ID Ø35, OD Ø42	PVC	-	
Hose protection with spiral				
I.913038	ID Ø30, OD Ø38	PVC	1004145	
I.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
Hose securing grip short version					
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 colours 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:** 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)
- Colour:** 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	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	63	-	-	


Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⚙	
HP fitting								
41360214C	9/16"x18UNF LH	Stainless steel	-	7,5	118	24	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⚙	
MP fitting								
41360204C	3/4"x16UNF LH	Stainless steel	-	7,5	121	25	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⚙	
Female swivel 24°/60°								
21340314B	G1/2"	Stainless steel	51060315, 51060311	7,5	81	-	27	
Female swivel with O-Ring								
21360244C	M24x1.5	Stainless steel	51320205, 51321206	7,5	89	-	32	
Type M female swivel								
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	⚙	
Swivel nut								
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	

Part no.	Size (mm)	Material	Crimp ring	Hose protection
Hose protection without spiral				
I.903037	ID Ø30, OD Ø39	PVC	1003941	
I.903542	ID Ø35, OD Ø42	PVC	-	
Hose protection with spiral				
I.913038	ID Ø30, OD Ø38	PVC	1004145	
I.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
Hose securing grip short version					
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 colours 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.

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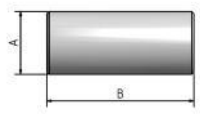
Applications

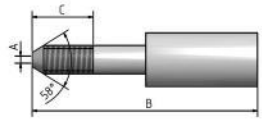
- Waterblast:** Heat exchanger tube cleaning, surface preparation (concrete removal, surface cleaning of buildings, paint removal), tank and vessel cleaning, ultra high-pressure waterjet cutting and hydro demolition (cutting and demolition of armoured concrete, pipelines, paper or steel)
- Hydraulics:**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

Technical Information

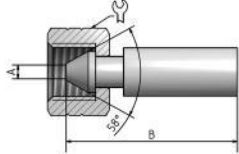
- Inner Core:** Polyoxymethylene (POM)
- Pressure Support:** 8 layers of high-tensile steel wire
- Outer Cover:** Polyamide (PA)
- Colour:** Chrome yellow
- Temperature:** -30°C to +60°C [-22°F to 140°F]

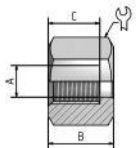
Ø ID	Ø OD	Working Pressure -- (SF 2,1:1)	Burst Pressure	Bend Radius	Weight	Insert ID
12,8 mm	27,7 mm	--	2.800 bar	350 mm	2,085 kg/m	7,5 mm
0,50 inch	1,09 inch	--	40.600 psi	13,78 inch	1,397 lbs/ft	0,30 inch



Part no.	Thread	Material		Dimensions (mm)				Sleeve
				A	B	C	⚙	
Sleeve								
11380116	-	Steel	-	31,6	80	-	-	


Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⚙	
HP fitting								
41360104E	M18x1.5 LH	Stainless steel	-	7,5	147	28	-	
41360214E	9/16"x18UNF LH	Stainless steel	-	7,5	127	24	-	


Female swivel with O-Ring								
21360244E	M24x1,5	Stainless steel	51361206	7,5	105	-	32	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
Type M female swivel								
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	⌀	
Swivel nut								
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	
				without spiral	with spiral
Hose protection without spiral					
1.903542	ID Ø35, OD Ø42	PVC	1004348		
1.904252	ID Ø42, OD Ø52	PVC	-		
Hose protection with spiral					
1.913240	ID Ø32, OD Ø40	PVC	1004145		
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	
PU bend restrictor					
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	-	1004145	-
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	1.913240	-	1004145	-
with bend restrictor	1.914553	1.953545	1005054	-
with securing grip	1.914051	-	-	9136400

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Applications

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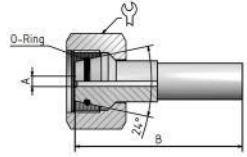
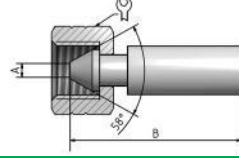
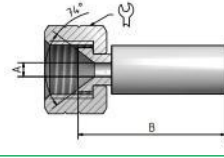
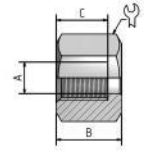
Technical Information

- Inner Core:** Polyamide (PA)
- Pressure Support:** 4 layers of high-tensile steel wire
- Outer Cover:** Polyamide (PA)
- Colour:** 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	⚙	
Sleeve							
I1640112	-	Steel	32,7	69	-	-	
I1640115	-	AISI 316Ti	32,6	69	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⚙	
MP fitting								
41640305B	3/4"x16UNF LH	AISI 316Ti	-	10,5	120	18	-	
Male fitting								
31640401B	3/4"x14NPT	Steel	-	10,5	101	18	27	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
Female swivel with O-Ring								
21640101B	M30x2	Steel	51640201	10,5	98	-	41	
Type M female swivel								
21640605B	1 5/16"x12UN	AISI 316Ti	52040645	10,5	99	-	46	
JIC female swivel								
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	⌀	
Swivel nut								
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
Hose protection with spiral				
I.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
Hose securing grip short version					
9136400	600,00	800,00	24,30	25-30	

Accessories combinations					
Without hose protection					
Description		Bend restrictor	Crimp ring	Securing grips	
Securing grip		-	-	9136400	
Hose protection with spiral					
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips	
Protection hose	I.914051	-	1005054	-	
with securing grip	I.914051	-	-	9136400	

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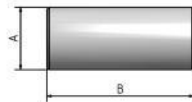
Applications

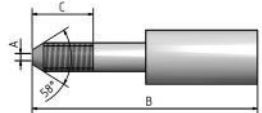
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- Hydraulics:** Pressure test equipment (valves, tooling and control panels)
- Oil and Gas:** Gaseous media handling

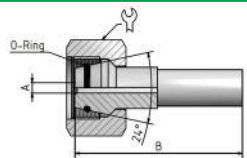
Technical Information

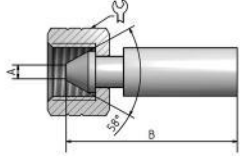
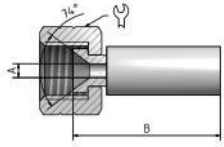
- Inner Core:** Polyoxymethylene (POM)
- Pressure Support:** 8 layers of high-tensile steel wire
- Outer Cover:** Polyamide (PA)
- Colour:** Chrome yellow
- Temperature:** -30°C to +60°C [-22°F to 140°F]

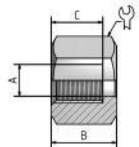
Ø ID	Ø OD	Working Pressure -- (SF 2.5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
15,9 mm	31,8 mm	--	2.000 bar	400 mm	2,523 kg/m	10,5 mm
0,63 inch	1,25 inch	--	29.000 psi	15,75 inch	1,690 lbs/ft	0,41 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⚙	
Sleeve							
11680242	-	Steel	35	72	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⚙	
HP fitting								
41660114C	M18x1.5 LH	Stainless steel	-	10,5	141	28	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⚙	
Female swivel with O-Ring								
21660104C	M30x2	Stainless steel	51640201	10,5	98	-	41	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
Type M female swivel								
21660604C	I 5/16"x12UN	Stainless steel	52040645	10,5	100	-	46	
JIC female swivel								
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	⌀	
Swivel nut								
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
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Hose protection without spiral					
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1.904252	ID Ø42, OD Ø52	PVC	1005257		
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Hose protection with spiral					
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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		

PU bend restrictor						
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1.953845	PU	1005257	56	350		
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Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)		Hose securing grip
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Hose securing grip short version						
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9204400	600,00	820,00	35,10	30-40		
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Accessories combinations				
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Without hose protection				
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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				
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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

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 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.
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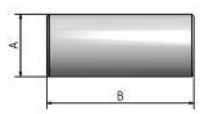
Applications

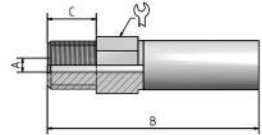
- Waterblast:** Heat exchanger tube cleaning, surface preparation (concrete removal, surface cleaning of buildings, paint removal), tank and vessel cleaning
- Hydraulics:** Pressure test equipment (valves, tooling and control panels)
- Oil and Gas:** Grease injection, nitrogen service

Technical Information

- Inner Core:** Polyamide (PA)
- Pressure Support:** 2 layers of high-tensile steel wire
- Outer Cover:** Polyamide (PA)
- Colour:** 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	⚙	
Sleeve							
12020101	-	Steel	34,2	69	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⚙	
Male fitting								
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
Female swivel with O-Ring								
22020201A	M36x2	Steel	52040211	13	115	-	46	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
Type M female swivel								
22020645A	1 5/16"x12UN	AISI 316Ti	52040645	13	89	-	46	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
JIC female swivel								
22020605A	1 5/16"x12UN	AISI 316Ti	52040605	13	87	-	46	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	⌀	
Swivel nut								
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
9136400	600,00	800,00	24,30	25-30	

Part no.	Size (mm)	Material	Crimp ring	Hose protection
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 colours 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.

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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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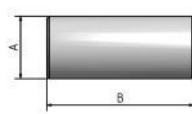
Applications

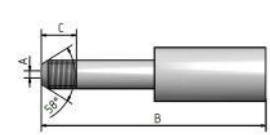
- Waterblast:** Heat exchanger tube cleaning, surface preparation (concrete removal, surface cleaning of buildings, paint removal), tank and vessel cleaning, ultra high-pressure waterjet cutting and hydro demolition (cutting and demolition of armoured concrete, pipelines, paper or steel)
- Hydraulics:**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

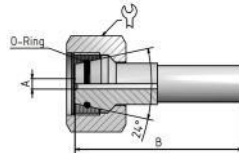
Technical Information


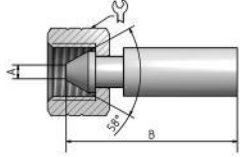
- Inner Core:** Polyamide (PA)
- Pressure Support:** 4 layers of high-tensile steel wire
- Outer Cover:** Polyamide (PA)
- Colour:** Grey
- Temperature:** -30°C to +60°C [-22°F to 140°F]


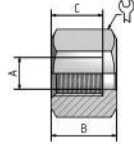
Ø ID	Ø OD	Working Pressure -- (SF 2.5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
18,8 mm	28,8 mm	--	1.040 bar	250 mm	1,350 kg/m	13,0 mm
0,74 inch	1,13 inch	--	15.080 psi	9,84 inch	0,905 lbs/ft	0,51 inch


Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⚙	
Sleeve							
12040131	-	Steel	36,9	72	-	-	


Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⚙	
MP fitting								
42060304C	1"x14UNS LH	Stainless steel	-	13	158	30	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⚙	
Female swivel with O-Ring								
22060202C	M36x2	Steel	52040201	13	127	-	46	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C		
Type M female swivel								
22060644C	1 5/16"x12UN	Stainless steel	52040645	13	107	-	46	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C		
Swivel nut								
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
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
9136400	600,00	800,00	24,30	25-30	

Accessories combinations					
Without hose protection					
Description			Bend restrictor	Crimp ring	Securing grips
Securing grip			-	-	9136400
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 colours 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:** 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)
- Colour:** Blue
- Temperature:** -30°C to +60°C [-22°F to 140°F]


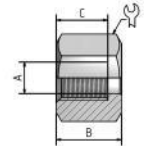
Ø ID	Ø OD	Working Pressure -- (SF 2,5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
18,8 mm	32,8 mm	--	1.400 bar	350 mm	2,170 kg/m	13,0 mm
0,74 inch	1,29 inch	--	20.300 psi	13,78 inch	1,454 lbs/ft	0,51 inch


Part no.	Thread	Material		Dimensions (mm)				Sleeve
				A	B	C	⚙	
Sleeve								
12060116	-	Steel	-	37,2	86	-	-	


Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⚙	
MP fitting								
42060304E	1"x14UNS LH	Stainless steel	-	13	171	30	-	


Female swivel with O-Ring								
22060202E	M36x2	Steel	52040201	13	126	-	46	

Type M female swivel								
22060644E	1 5/16"x12UN	Stainless steel	52040645	13	119	-	46	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C		
Swivel nut								
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	
PU bend restrictor					
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	

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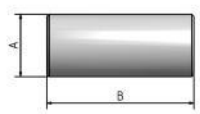
Applications

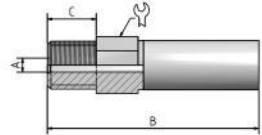
- Waterblast:** Heat exchanger tube cleaning, surface preparation (concrete removal, surface cleaning of buildings, paint removal)
- Hydraulics:** Pressure test equipment (valves, tooling and control panels)
- Oil and Gas:** Nitrogen service

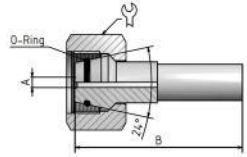
Technical Information


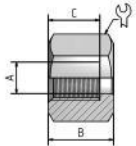
- Inner Core:** Polyamide (PA)
- Pressure Support:** 2 layers of high-tensile steel wire
- Outer Cover:** Polyamide (PA)
- Colour:** Green
- Temperature:** -30°C to +60°C [-22°F to 140°F]


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	⚙	
Sleeve							
12520121	-	Steel	40	75	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⚙	
Male fitting								
32530411T	1"x11 1/2NPTF	Steel	-	16,5	120	25	36	
32530415T	1"x11 1/2NPTF	AISI 316Ti	-	16,5	120	25	36	

Female swivel with O-Ring								
Part no.	Thread	Material	Nut	Dimensions (mm)				
A	B	C	⚙					
22530201T	M42x2	Steel	52520201	16,5	110	-	50	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C		
Swivel nut								
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
9204400	600,00	820,00	35,10	30-40	

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

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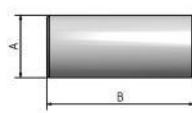
Applications

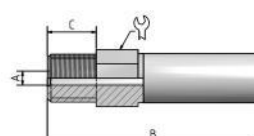
- Waterblast:** Heat exchanger tube cleaning, surface preparation (concrete removal, surface cleaning of buildings, paint removal), tank and vessel cleaning, ultra high-pressure waterjet cutting and hydro demolition (cutting and demolition of armoured concrete, pipelines, paper or steel)
- Hydraulics:** 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)
- Colour:** 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	⚙	
Sleeve							
12540235	-	AISI 316Ti	45,9	77	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⚙	
Male fitting								
32540405B	1"x11 1/2NPTF	AISI 316Ti	-	19	112	25	36	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⚙	
Female swivel with O-Ring								
22540205B	M42x2	AISI 316Ti	52520201, 52521215	19	118	-	50	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⚙️	
Type M female swivel								
22540645B	1 5/16"x12UN	AISI 316Ti	52530645	19	98	-	41	
JIC female swivel								
22540605B	1 5/16"x12UN	AISI 316Ti	52530605	19	96	-	41	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C	⚙️	
Swivel nut								
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	35,8	50	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
Hose securing grip short version					
9204400	600,00	820,00	35,10	30-40	

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

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Hose Type 25/6

256201



ULTRAFLOW

ID25 - Series: C

Applications

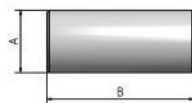
- Waterblast:** Heat exchanger tube cleaning, surface preparation (concrete removal, surface cleaning of buildings, paint removal), tank and vessel cleaning, ultra high-pressure waterjet cutting and hydro demolition (cutting and demolition of armoured concrete, pipelines, paper or steel)
- Hydraulics:** Pressure test equipment (valves, tooling and control panels)
- Oil and Gas:** Chemical injection, nitrogen service, Gaseous media handling

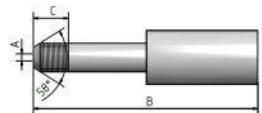


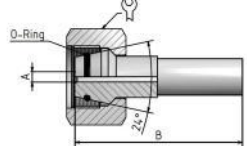
Technical Information


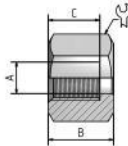
- Inner Core:** Polyamide (PA)
- Pressure Support:** 6 layers of high-tensile steel wire
- Outer Cover:** Polyamide (PA)
- Colour:** Blue
- Temperature:** -30°C to +60°C [-22°F to 140°F]


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	79	-	-	

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		
Swivel nut								
52520201	M42x2	Steel	1 radial	30,2	34	22	50	

Part no.	Size (mm)	Material	Crimp ring	Hose protection
Hose protection with spiral				
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
Hose securing grip short version					
9256400	600,00	880,00	48,00	50-60	

Accessories combinations				
Without hose protection				
Description		Bend restrictor	Crimp ring	Securing grips
Securing grip		-	-	9256400
Hose protection with spiral				
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 colours 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.

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® Druckschläuche 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® Druckschläuche 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.

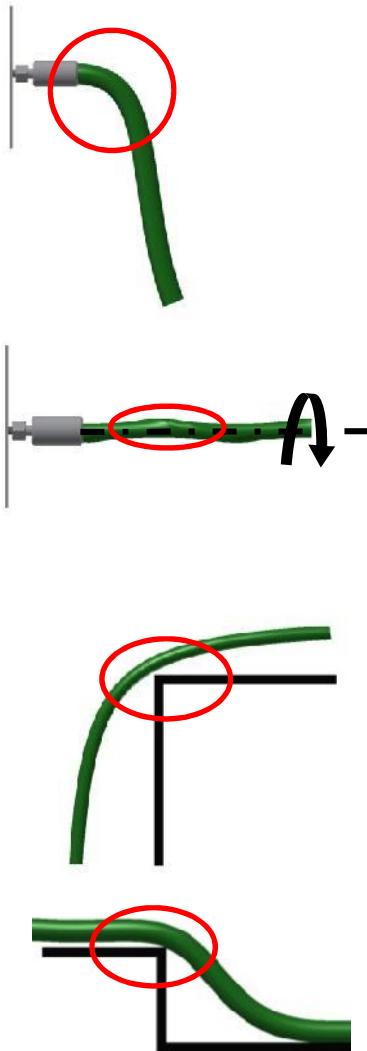
The nuts of the fittings must never be tightened while the high-pressure hose assembly is under pressure.

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.

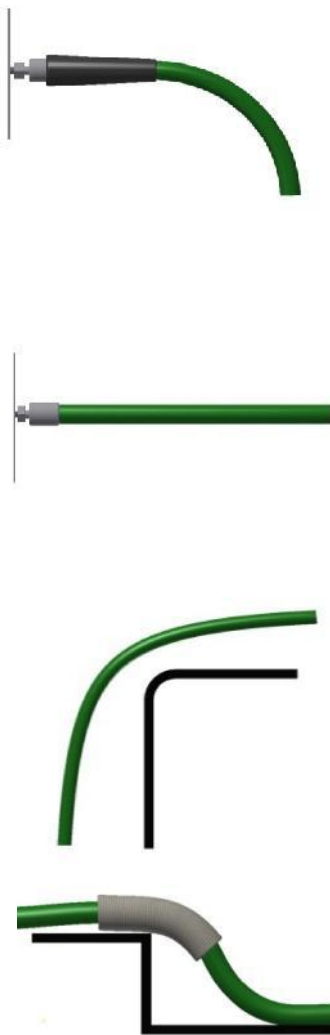
The high-pressure hose assembly must not be secured at the ferrule by means of a vise or a heavy pipe wrench.

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

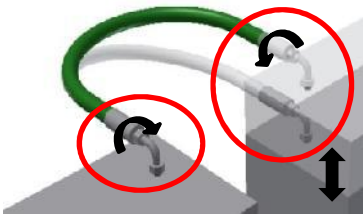
At installing, make sure that the required length exists to avoid "buckling" and tensioning of the hose during operation. The recommended minimum bend radius must not be exceeded. This can be achieved by using a bend restrictor. The bending of a hose may begin only after a length of $\geq 1.5 \times d$.

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.

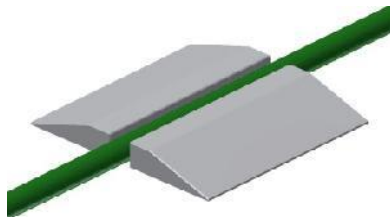
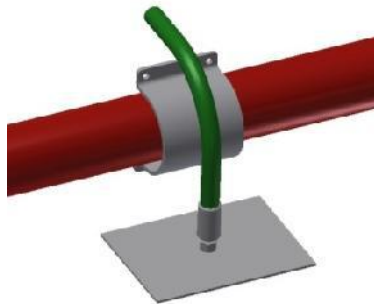
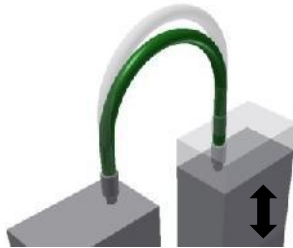
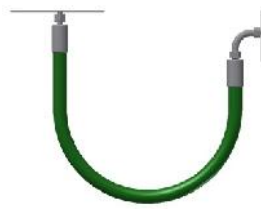
Because of their outer cover hoses have a certain abrasion resistance, but a hose may not be pulled over sharp edges because this may cause considerable damage to the hose.

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 $\geq 1.5 \times d$.

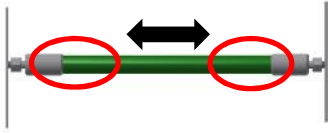
A twist of the hose assembly through movement should be avoided because of torsional loads acting on the valve or the tube cross section which might lead to failures.

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.

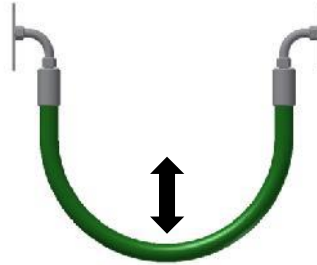
The development of hose loops must be avoided and counteracted. Tensile forces by pulling at those loops are also to be avoided.

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® Druckschläuche 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])
- 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!

DuraLife Flex®

The high-tech hose for tube cleaning applications

Hose with a DuraLife Flex® outer cover

- ... has 40% longer durability
- ... reduces spare-part costs and avoids non-operative periods

Hose Types	4/2	5/2	5/3	6/2	6/3	8/2
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DC-Series - Double Outer Cover

Longer service life for thermoplastic high-pressure hoses

Hose with double-outer-cover

- ... features an extra (second) layer of outer cover to protect against abrasion. The advantage of this concept lies in the overall outer diameter. In comparison to the regular PVC hose protection, the double-outer-cover is literally a second layer of extruded outer cover making it considerably smaller yet highly effective.
- ... features a reinforced construction of the outer cover and thus providing more protection against kinking.
- ... has a color-differentiated PUR extruded outer cover which could be extruded with different thicknesses.

Hose Types	5/6HDC I	8/6HDC I	Additional DC-hose types upon request!
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UHP-Series

Providing solutions for the ever-increasing demands in the UHP market

UHP hose

- ... has the highest working pressure of relevant diameters.
- ... has an unique end-fitting design for Ultra-High-Pressure.

Hose Types	5mmUHP	6mmUHP	8/6UHP	8/6UHP-X	8mmUHP	13mmUHP	16mmUHP
Working pressure	3,200 bar 46,400 psi	3,200 bar 46,400 psi	2,800 bar 40,600 psi	3,035 bar 44,008 psi	3,200 bar 46,400 psi	2,800 bar 40,600 psi	2,000 bar 29,000 psi

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			
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 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	6/2W	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 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
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
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

surface preparation (concrete removal, surface cleaning of buildings, paint removal)

0 to 500 bar WP

ID 25	25/2	440 bar	6.380 psi			
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501 to 1040 bar WP

ID 8	8/2	900 bar	13.050 psi	8/2PA	840 bar	12.180 psi	8/2W	1.040 bar	15.080 psi
	8/2WR	1.040 bar	15.080 psi						

ID 13	13/2	690 bar	10.005 psi	13/2WR	1.040 bar	15.080 psi		
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ID 16	16/4	1.040 bar	15.080 psi					
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ID 20	20/2	520 bar	7.540 psi	20/4	1.040 bar	15.080 psi		
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ID 25	25/4	900 bar	13.050 psi					
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1041 to 1500 bar WP

ID 8	8/4	1.500 bar	21.750 psi					
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ID 10	10/4	1.500 bar	21.750 psi					
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ID 13	13/4	1.300 bar	18.850 psi	13/4H	1.400 bar	20.300 psi		
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ID 20	20/6	1.400 bar	20.300 psi					
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ID 25	25/6	1.400 bar	20.300 psi					
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1501 to 2000 bar WP

ID 10	10/6	1.920 bar	27.840 psi					
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ID 13	13/6	1.800 bar	26.100 psi	13/6H	2.000 bar	29.000 psi		
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ID 16	16/6	1.520 bar	22.040 psi	16mmUHP	2.000 bar	29.000 psi		
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2001 to 2500 bar WP

ID 5	5/6	2.500 bar	36.250 psi					
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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
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2500 to 4000 bar WP

ID 4	4/6	2.800 bar	40.600 psi	4/8	3.200 bar	46.400 psi		
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ID 5	5/6H	2.800 bar	40.600 psi	5/6HDCI	2.800 bar	40.600 psi	5mmUHP	3.200 bar	46.400 psi
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ID 6	6/6H	2.800 bar	40.600 psi	6mmUHP	3.200 bar	46.400 psi		
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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
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ID 13	13mmUHP	2.800 bar	40.600 psi					
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Pressure Range							
ID	Hose Type	WP	Hose Type	WP	Hose Type	WP	

Waterblast

tank and vessel cleaning

501 to 1040 bar WP

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

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	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 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			

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 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	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 13	13mmUHP	2.800 bar	40.600 psi						

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

The development of the OnePiece Fittings® was made to revolutionize the tube cleaning industry

The unique fitting is specifically designed to be shorter and smaller in diameter compared to industry-standard fittings allowing it to accommodate small tubes and making it the solution of choice for tube cleaning. The decisive advantage lies in the crimping of the end-fitting reducing the overall diameter of the assembly. As a result, hose types with a greater ID and a larger volumetric flow can be used for a given tube ID.

OnePiece Fittings® at a glance:

- Excellent handling
- Easy cleaning of small tubes
- Easy cleaning of tube bends
- Higher cleaning efficiency while reducing operating time by using hose types with greater IDs
- Suitable for working pressure from 840 bar to 1,200 bar (12,180 psi to 17,400 psi)

Comparison between a standard high-pressure fitting and the new Blast-Pro™ fitting:



OnePiece Fittings® are already successfully being used in the US market and are available for the following hose types:

3/2, 4/2, 5/2, 5/2OK, 5/3, 6/2, 6/2OK, 6/3, 8/2 and 8/2PA.

The development of the Blast-Pro® fitting was made to revolutionize the tube cleaning industry

The unique fitting was specifically designed to be shorter and smaller in diameter compared to industry-standard fittings allowing it to accommodate tube bends and making it the solution of choice for tube cleaning. The decisive advantage lies in the crimping of the end-fitting reducing the overall diameter of the assembly. As a result, hose types with a greater ID and a larger volumetric flow can be used for a given tube ID.

Blast-Pro® at a glance:

- Excellent handling
- Easy cleaning of tube bends
- Higher cleaning efficiency while reducing operating time by using hose types with greater IDs
- Suitable for working pressure from 1,380 bar to 1,800 bar (20,000 psi to 26,100 psi)

Comparison between a standard high-pressure fitting and the new Blast-Pro® fitting:



Blast-Pro® fittings are already successfully being used in the US market and are available for the following hose types:

5/4, 6/4, 8/4 and 10/4.

**New Flex Lance Connection of SPIR STAR hose type 3/6 for 40,600 psi
For StoneAge® BANSHEE® BNI3-40K and other interchangeable nozzles**

In close cooperation with the nozzle manufacturer StoneAge (USA), SPIR STAR has developed a revolutionary fitting design for small tube cleaning.

The innovative design combines all advantages of BANSHEE nozzles:

- Efficient tube cleaning as a result of the interaction of high-pressure hose and rotating nozzle
- Improved safety based on the selection of the best materials and proven design
- Shorter fittings allow cleaning with narrow bend radius
- Lesser number of assembled components make the tool simple to use and maintain

Key-Feature of the fitting design:

∅ OD Sleeve/ BANSHEE	Width across flats of the insert	Approx total length: fitting and nozzle	Working Pressure
0.52 inch	0.44 inch	5.197 inch	40,600 psi
13.0 mm	11.0 mm	132.0 mm	2,800 bar

The special fitting design **HP BANSHEE® connection 1/4"x28UNF LH** and **HP BANSHEE® connection 3/8"x24UNF LH** is available as of now for hose type 3/6.

