

Certificate

Standard **ISO 9001:2015**

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

Certificate Holder:



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

Scope:

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

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

Validity:

The certificate is valid from 2021-05-01 until 2024-04-30.
First certification 1995

2021-03-29

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

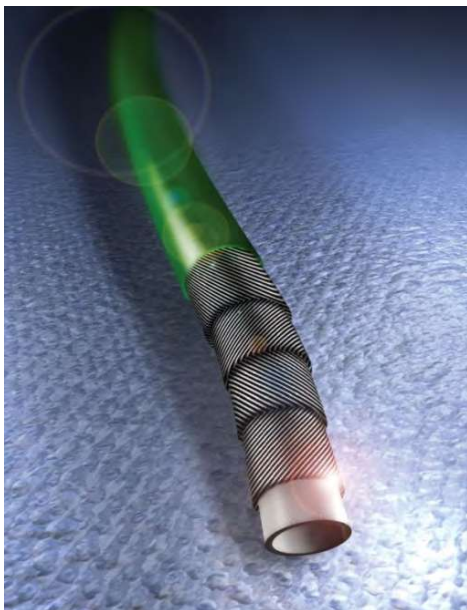
TÜV Rheinland Cert GmbH
Am Grauen Stein · 51105 Köln

Number of spiralized layers

Type **6/2WHT**

Series Description

Hose ID in mm



Hose Series	
DCI	Double Cover
H	Reinforced version
HT	For very high temperatures Very high chemical resistant PVDF inner core, PVDF outer cover
HW	Hot Water: for very high temperatures
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
KF	One braided layer

Hose Types



Type	Hose				Pressure Rating				Bend Radius		Weight		Insert ID		Sleeve OD		Application
	ID		OD		Working		Burst		[mm]	[in]	[kg/m]	[lbs/ft]	[mm]	[in]	[mm]	[in]	
	[mm]	[in]	[mm]	[in]	[bar]	[psi]	[bar]	[psi]									
ID13	<i>Heat-resisting up to 70° C (158° F)</i>																
13/2	12,9	0,51	19,3	0,76	690	10.005	1.725	25.010	200	7,87	0,435	0,291	8,5	0,33	26,0	1,02	Oil & Gas, Waterblast, Hydraulic
13/2W	12,8	0,50	20,8	0,82	1.040	15.080	2.600	37.700	150	5,91	0,590	0,395	8,5	0,33	26,7	1,05	Oil & Gas, Hydraulic
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	Oil & Gas, Waterblast, Hydraulic
13/4	12,8	0,50	21,4	0,84	1.300	18.850	3.250	47.125	200	7,87	0,800	0,536	7,5	0,30	27,4	1,07	Oil & Gas, Waterblast, Hydraulic
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	Oil & Gas, Waterblast, Hydraulic
13/6	12,8	0,50	23,4	0,92	1.800	26.100	4.500	65.250	300	11,81	1,160	0,777	7,5	0,30	30,1	1,18	Oil & Gas, Waterblast, Hydraulic
13/6H	12,7	0,50	24,8	0,98	2.000	29.000	5.000	72.500	300	11,81	1,200	0,804	7,5	0,30	32,9	1,29	Oil & Gas, Waterblast, Hydraulic
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	Oil & Gas, Waterblast, Hydraulic

Applications

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



Technical Information

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

Ø ID	Ø OD	Working Pressure -- (SF 2,5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
12,9 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 316	-	8,5	109	12,7	-	

Male fitting								
31320401A	1/2"x14NPTF	Steel	-	8,5	90	18	22	
31320405A	1/2"x14NPTF	AISI 316	-	8,5	90	18	22	

Universal female swivel 24°/60°								
21320311A	G1/2"	Steel	51060311	8,5	73	-	27	
21320315A	G1/2"	AISI 316	51060315, 51060311	8,5	73	-	27	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
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 316	51320205	8,5	80	-	32	


Type M female swivel								
21320641A	1"x12UNF	Steel	51360641	8,5	74	-	32	
21320645A	1"x12UNF	AISI 316	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	
51360645	1"x12UNF	AISI 316	1 radial	16,8	28	22	32	
51060311	G1/2"	Steel	1 radial	16,7	23,5	13,5	27	
51060315	G1/2"	AISI 316	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 316	1 radial	16,8	23	16	32	

Part no.	Thread	Material		Dimensions (mm)				Tube cleaning accessories
				A	B	C	⌀	
Marking ring								
1.852125.1	-	Steel	-	23,3	20	-	-	
1.852125.5	-	AISI 316	-	23,3	20	-	-	

Part no.	Size (mm)	Material	Crimp ring		Hose protection
1.913038	ID Ø30, OD Ø38	PVC	1004145		

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

Part no.	Size (mm)	Material	Crimp ring	Hose protection
Hose protection without spiral				
I.903037	ID Ø30, OD Ø39	PVC	I003941	

Accessories combinations				
Without hose protection				
Description		Bend restrictor	Crimp ring	Securing grips
Securing grip		-	-	9086400
Hose protection without spiral				
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips
Protection hose	I.903037	-	I003941	-
with securing grip	I.903037	-	-	9086400
Hose protection with spiral				
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips
Protection hose	I.913038	-	I004145	-
with securing grip	I.913038	-	-	9086400

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

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

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

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

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

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

Applications

Hydraulics:

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

Oil and Gas:

Grease injection, control of subsea hydraulic components, nitrogen service, Gaseous media handling



Technical Information

Inner Core:

Polyamide (PA)

Pressure Support:

2 open layers, 2 dense layers of high-tensile steel wire

Outer Cover:

Polyurethane (TPU)

Color:

Black

Temperature:

-30°C to +60°C [-22°F to 140°F]

Ø ID	Ø OD	Working Pressure -- (SF 2.5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
12,8 mm	20,8 mm	--	1.040 bar	150 mm	0,590 kg/m	8,5 mm
0,50 inch	0,82 inch	--	15.080 psi	5,91 inch	0,395 lbs/ft	0,33 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⚙	
Sleeve							
I1330191W	-	Steel	27,2	58	-	-	
I1330195W	-	AISI 316	27,2	58	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⚙	
MP fitting								
41320205A	9/16"x18UNF LH	AISI 316	-	8,5	109	12,7	-	


Male fitting								
31320401A	1/2"x14NPTF	Steel	-	8,5	90	18	22	
31320405A	1/2"x14NPTF	AISI 316	-	8,5	90	18	22	

Universal female swivel 24°/60°								
21320311A	G1/2"	Steel	51060311	8,5	73	-	27	
21320315A	G1/2"	AISI 316	51060315, 51060311	8,5	73	-	27	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
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 316	51320205	8,5	80	-	32	
Type M female swivel								
21320641A	1"x12UNF	Steel	51360641	8,5	74	-	32	
21320645A	1"x12UNF	AISI 316	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	
51360645	1"x12UNF	AISI 316	1 radial	16,8	28	22	32	
51060311	G1/2"	Steel	1 radial	16,7	23,5	13,5	27	
51060315	G1/2"	AISI 316	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 316	1 radial	16,8	23	16	32	

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

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
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	-	I003941	-
with securing grip	I.903542	-	-	9106400
Hose protection with spiral				
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips
Protection hose	I.913038	-	I004145	-
with securing grip	I.913240	-	-	9106400

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

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

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

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

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Hose Type I3/2WR

I32WR228I

SPIR STAR

Silver Mongoose

IDI3 - Series: O

Applications

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



Technical Information

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

Ø ID	Ø OD	Working Pressure -- (SF 2.5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
12,8 mm	22,2 mm	--	1.040 bar	150 mm	0,590 kg/m	7,5 mm
0,50 inch	0,87 inch	--	15.080 psi	5,91 inch	0,395 lbs/ft	0,30 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⚙	
Sleeve							
I1330206VWR	-	Steel	27,5	63	-	-	
I1330205VWR	-	AISI 316	27,5	63	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⚙	
MP fitting								
41360205O	9/16"x18UNF LH	AISI 316	-	7,5	118	13	-	
Male fitting								
31360401O	1/2"x14NPTF	Steel	-	7,5	99	18	22	
31360405O	1/2"x14NPTF	AISI 316	-	7,5	99	18	22	
Universal female swivel 24°/60°								
21360332O	G1/2"	Steel	51060311	7,5	81	-	27	
21360335O	G1/2"	AISI 316	51060315, 51060311	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 316	51320205, 51320206	7,5	89	-	32	

Type M female swivel								
21360642O	1"x12UNF	Steel	51360641	7,5	84	-	32	
21360645O	1"x12UNF	AISI 316	51360645, 51360641	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 316	1 radial	16,8	28	22	32	
51060311	G1/2"	Steel	1 radial	16,7	23,5	13,5	27	
51060315	G1/2"	AISI 316	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 316	1 radial	16,8	23	16	32	

Part no.	Size (mm)	Material	Crimp ring	Hose protection
1.903037	ID Ø30, OD Ø39	PVC	1003941	
1.903542	ID Ø35, OD Ø42	PVC	-	
Hose protection with spiral				
1.913038	ID Ø30, OD Ø38	PVC	1004145	
1.913240	ID Ø32, OD Ø40	PVC	-	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
9106400	600,00	800,00	20,40	20-25	



Accessories combinations				
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	-	I003941	-
with securing grip	I.903542	-	-	9106400
Hose protection with spiral				
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips
Protection hose	I.913038	-	I004145	-
with securing grip	I.913240	-	-	9106400

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

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

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

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

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

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IDI3 - Series: B and C

Applications

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



Technical Information

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

Ø ID	Ø OD	Working Pressure -- (SF 2,5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
12,8 mm	21,4 mm	--	1.300 bar	3.250 bar	200 mm	0,800 kg/m
0,50 inch	0,84 inch	--	18.850 psi	47.125 psi	7,87 inch	0,536 lbs/ft

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⌀	
Sleeve							
11340232	-	Steel	29,2	65	-	-	
11340105	-	AISI 316	29,2	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	-	
MP fitting								
41360204C	3/4"x16UNF LH	Stainless steel	-	7,5	121	25	-	



Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C		
Universal 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	
51360645	1"x12UNF	AISI 316	1 radial	16,8	28	22	32	
51060311	G1/2"	Steel	1 radial	16,7	23,5	13,5	27	
51060315	G1/2"	AISI 316	1 radial	16,7	23,5	13,5	27	
51321206	M24x1,5	Steel	2 axial	16,8	23	16	32	
51320205	M24x1,5	AISI 316	1 radial	16,8	23	16	32	

Part no.	Thread	Material	Dimensions (mm)				Tube cleaning accessories	
			A	B	C			
Marking ring								
1.852630.5	-	AISI 316	-	25,4	20	-	-	

Part no.	Size (mm)	Material	Crimp ring	Hose protection
Hose protection without spiral				
I.903037	ID Ø30, OD Ø39	PVC	I003941	
I.903542	ID Ø35, OD Ø42	PVC	-	
Hose protection with spiral				
I.913038	ID Ø30, OD Ø38	PVC	I004145	
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	-	I003941	-
with securing grip	I.903542	-	-	9106400
Hose protection with spiral				
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips
Protection hose	I.913038	-	I004145	-
with securing grip	I.913240	-	-	9106400

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

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

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

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

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IDI3 - Series: B and C

Applications

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



Technical Information

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

Ø ID	Ø OD	Working Pressure -- (SF 2,5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
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	⌀	
Sleeve							
I1340232	-	Steel	29,2	65	-	-	
I1340105	-	AISI 316	29,2	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	-	
MP fitting								
41360204C	3/4"x16UNF LH	Stainless steel	-	7,5	121	25	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
Universal 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	
51360645	1"x12UNF	AISI 316	1 radial	16,8	28	22	32	
51060311	G1/2"	Steel	1 radial	16,7	23,5	13,5	27	
51060315	G1/2"	AISI 316	1 radial	16,7	23,5	13,5	27	
51321206	M24x1,5	Steel	2 axial	16,8	23	16	32	
51320205	M24x1,5	AISI 316	1 radial	16,8	23	16	32	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Tube cleaning accessories
				A	B	C	⌀	
Marking ring								
1.852630.5	-	AISI 316	-	26	20	-	-	

Part no.	Size (mm)	Material	Crimp ring	Hose protection
Hose protection without spiral				
I.903037	ID Ø30, OD Ø39	PVC	I003941	
I.903542	ID Ø35, OD Ø42	PVC	-	
Hose protection with spiral				
I.913038	ID Ø30, OD Ø38	PVC	I004145	
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	-	I003941	-
with securing grip	I.903542	-	-	9106400
Hose protection with spiral				
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips
Protection hose	I.913038	-	I004145	-
with securing grip	I.913240	-	-	9106400

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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.

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

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Applications

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

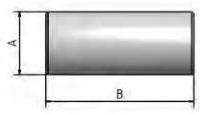


Technical Information

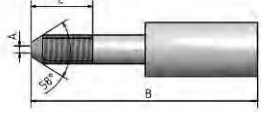
- Inner Core:** Polyamide (PA)
- Pressure Support:** 6 layers of high-tensile steel wire
- Outer Cover:** Polyamide (PA)
- Color:** Blue
- Temperature:** -30°C to +70°C [-22°F to 158°F]

Ø ID	Ø OD	Working Pressure -- (SF 2,5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
12,8 mm	23,4 mm	--	1.800 bar	300 mm	1,160 kg/m	7,5 mm
0,50 inch	0,92 inch	--	26.100 psi	11,81 inch	0,777 lbs/ft	0,30 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⌀	
Sleeve							
11360275	-	AISI 316	29	85			
11360279	-	Steel	29	85			



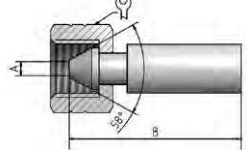
Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
HP fitting								
41360104E	M18x1,5 LH	Stainless steel	-	7,5	157	28	-	
41360204E	M20x1,5 LH	Stainless steel	-	7,5	167	34	-	
41360214E	9/16"x18UNF LH	Stainless steel	-	7,5	137	23,8	-	



Part no.	Thread	Material	Nut	Dimensions (mm)	Insert
21360244E	M24x1,5	Stainless steel	51361206	8,5 115 - 32	



Part no.	Thread	Material	Nut	Dimensions (mm)	Insert
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 316	1 radial	16,8	28	22	32	
51361206	M24x1,5	Steel	2 axial	16,8	28	21	32	

Part no.	Thread	Material	Dimensions (mm)				Tube cleaning accessories	
			A	B	C			
Marking ring								
I.852630.5	-	AISI 316	-	27,4	20	-	-	

Part no.	Size (mm)	Material	Crimp ring	Hose protection
I.913240	ID Ø32, OD Ø40	PVC	I004145	
I.914051	ID Ø40, OD Ø47	PVC	I005054	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
9106400	600,00	800,00	20,40	20-25	

Accessories combinations				
Without hose protection				
Description	Bend restrictor	Crimp ring	Securing grips	
Securing grip	-	-	9106400	
Hose protection with spiral				
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips
Protection hose	I.913240	-	I004145	-
with securing grip	I.914051	-	-	9106400

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

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

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

Ø ID	Ø OD	Working Pressure -- (SF 2,5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
12,7 mm	24,8 mm	--	2.000 bar	300 mm	1,200 kg/m	7,5 mm
0,50 inch	0,98 inch	--	29.000 psi	11,81 inch	0,804 lbs/ft	0,30 inch

Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⌀	
Sleeve							
11360289	-	Steel	29,7	85			

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
HP fitting								
41360104E	M18x1,5 LH	Stainless steel	-	7,5	157	28	-	
41360204E	M20x1,5 LH	Stainless steel	-	7,5	167	34	-	
41360214E	9/16"x18UNF LH	Stainless steel	-	7,5	137	23,8	-	

Part no.	Thread	Material	Nut	Dimensions (mm)	Insert
Female swivel with O-Ring					
21360244E	M24x1,5	Stainless steel	51361206	8,5 115 - 32	

Part no.	Thread	Material	Nut	Dimensions (mm)	Insert
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 316	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
Hose protection with spiral				
I.914051	ID Ø40, OD Ø47	PVC	I005054	

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		-	-	9106400
Hose protection with spiral				
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips
Protection hose	I.914051	-	I005054	-
with securing grip	I.914051	-	-	9106400

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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)
- Color:** Chrome yellow
- Temperature:** -30°C to +60°C [-22°F to 140°F]

Ø ID	Ø OD	Working Pressure -- (SF 2.1:1)	Burst Pressure	Bend Radius	Weight	Insert ID
12,8 mm	27,7 mm	--	2.800 bar	350 mm	2,085 kg/m	7,5 mm
0,50 inch	1,09 inch	--	40.600 psi	13,78 inch	1,397 lbs/ft	0,30 inch

Part no.	Thread	Material		Dimensions (mm)				Sleeve
				A	B	C	⌀	
Sleeve								
11380116	-	Steel	-	31,6	86,5	-	-	

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C	⌀	
HP fitting								
41360104E	M18x1,5 LH	Stainless steel	-	7,5	157	28	-	
41360204E	M20x1,5 LH	Stainless steel	-	7,5	167	34	-	
41360214E	9/16"x18UNF LH	Stainless steel	-	7,5	137	23,8	-	

Female swivel with O-Ring								
21360244E	M24x1,5	Stainless steel	51361206	8,5	115	-	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	
51360645	1"x12UNF	AISI 316	1 radial	16,8	28	22	32	
51361206	M24x1,5	Steel	2 axial	16,8	28	21	32	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Tube cleaning accessories
				A	B	C	⌀	
Marking ring								
I.853034.5	-	AISI 316	-	31,5	20	-	-	

Part no.	Size (mm)	Material	Crimp ring	Dimensions (mm)				Hose protection
				A	B	C	⌀	
Hose protection without spiral								
I.903542	ID Ø35, OD Ø42	PVC	I004348					
I.904252	ID Ø42, OD Ø52	PVC	-					
Hose protection with spiral								
I.913541	ID Ø32, OD Ø40	PVC	I004348					
I.914051	ID Ø40, OD Ø47	PVC	I005054					
I.914553	ID Ø45, OD Ø53	PVC	-					

Part no.	Material	Crimp ring	Dimensions (mm)		Bend restrictor
			⌀	Length	
PU bend restrictor					
I.953545	PU	I005054	54	350	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
9138400	600,00	800,00	36,80	25-30	

Accessories combinations

Without hose protection				
Description		Bend restrictor	Crimp ring	Securing grips
Bend restrictor		I.953545	I005054	-
Securing grip		-	-	9138400
Hose protection without spiral				
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips
Protection hose	I.903542	-	I004348	-
with bend restrictor	I.904252	I.953545	I005054	-
with securing grip	I.904252	-	-	9138400
Hose protection with spiral				
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips
Protection hose	I.913541	-	I004348	-
with bend restrictor	I.914553	I.953545	I005054	-
with securing grip	I.914051	-	-	9138400

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