

# 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. K. K.', positioned above a horizontal line.

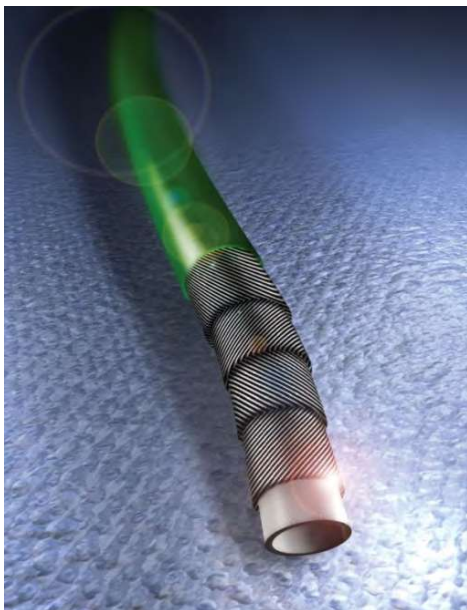
TÜV Rheinland Cert GmbH  
Am Grauen Stein · 51105 Köln

Number of spiralized layers

Type **6/2WHT**

Series Description

Hose ID in mm



Hose Series	
<b>DCI</b>	Double Cover
<b>H</b>	Reinforced version
<b>HT</b>	For very high temperatures Very high chemical resistant PVDF inner core, PVDF outer cover
<b>HW</b>	Hot Water: for very high temperatures
<b>K</b>	Braided layer
<b>L</b>	Extremely flexible
<b>M</b>	For methanol service PA II inner core, PA outer cover
<b>OK</b>	Braided layer outer cover
<b>PPA</b>	For high temperatures Very high chemical resistant PVDF inner core, PA outer cover
<b>R</b>	Reinforced outer cover
<b>W</b>	2 wide layers of spiralized wire
<b>KF</b>	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]									
IDI6	<i>Heat-resisting up to 70° C (158° F)</i>																
16/4	16,0	0,63	25,5	1,00	1.040	15.080	2.600	37.700	250	9,84	1,002	0,671	10,5	0,41	32,7	1,28	Oil & Gas, Waterblast, Hydraulic
16/6	15,9	0,63	27,7	1,09	1.520	22.040	3.800	55.100	320	12,60	1,520	1,022	10,5	0,41	35,0	1,37	Oil & Gas, Waterblast, Hydraulic
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	Oil & Gas, Waterblast, Hydraulic



## Applications

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



## Technical Information

- Inner Core:** Polyamide (PA)
- Pressure Support:** 4 layers of high-tensile steel wire
- Outer Cover:** Polyamide (PA)
- Color:** Grey
- Temperature:** -30°C to +70°C [-22°F to 158°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	⌀	
<b>Sleeve</b>							
11640112	-	Steel	32,7	69	-	-	
11640115	-	AISI 316	32,6	69	-	-	

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

Part no.	Thread	Material	Nut	Dimensions (mm)				Insert
				A	B	C		
<b>Female swivel with O-Ring</b>								
21640101B	M30x2	Steel	51640201	10,5	98	-	41	

<b>Type M female swivel</b>								
21640605B	I 5/16"x12UN	AISI 316	52040645	10,5	99	-	46	

<b>JIC female swivel</b>								
21640645B	I 1/16"x12UN	AISI 316	51640605	10,5	84	-	36	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C		
<b>Swivel nut</b>								
51640605	I 1/16"x12UN	AISI 316	I radial	20,1	29	23	36	
52040645	I 5/16"x12UN	AISI 316	I radial	25,5	31,5	11,5	46	
51640201	M30x2	Steel	I radial	20,5	28	15	41	

Part no.	Thread	Material	Dimensions (mm)				Tube cleaning accessories	
			A	B	C			
<b>Marking ring</b>								
1.853034.5	-	AISI 316	-	29,3	20	-	-	

Part no.	Size (mm)	Material	Crimp ring	Hose protection
<b>Hose protection with spiral</b>				
1.914051	ID Ø40, OD Ø47	PVC	1005054	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
<b>Hose securing grip short version</b>					
9136400	600,00	800,00	24,30	25-30	

Accessories combinations				
<b>Without hose protection</b>				
Description		Bend restrictor	Crimp ring	Securing grips
Securing grip		-	-	9136400
<b>Hose protection with spiral</b>				
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips
Protection hose	I.914051	-	I005054	-
with securing grip	I.914051	-	-	9136400

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

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

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

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

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

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

# Hose Type I6/6

166201

**SPIR STAR**

IDI6 - Series: C

## Applications

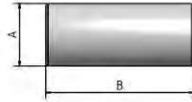
- Waterblast:** Surface preparation (concrete removal, surface cleaning of buildings, paint removal), tank and vessel cleaning
- Hydraulics:** Pressure test equipment (valves, tooling and control panels), hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks,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

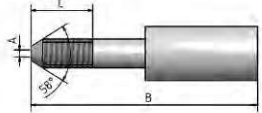


## Technical Information

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


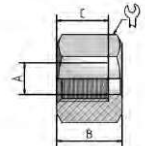
Ø ID	Ø OD	Working Pressure -- (SF 2,5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
15,9 mm	27,7 mm	--	1.520 bar	320 mm	1,520 kg/m	10,5 mm
0,63 inch	1,09 inch	--	22.040 psi	12,60 inch	1,022 lbs/ft	0,41 inch



Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⚙	
<b>Sleeve</b>							
11660102	-	Steel	35	68	-	-	


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


<b>Female swivel with O-Ring</b>								
21660104C	M30x2	Stainless steel	51640201	10,5	98	-	41	
21660204C	M36x2	Stainless steel	52040201	10,5	102	-	46	

<b>Type M female swivel</b>								
21660604C	1 5/16"x12UN	Stainless steel	52040645	10,5	100	-	46	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C		
<b>Swivel nut</b>								
52040645	I 5/16"x12UN	AISI 316	I radial	25,5	31,5	11,5	46	
51640201	M30x2	Steel	I radial	20,5	28	15	41	
52040201	M36x2	Steel	I radial	25,5	38	22	46	

Part no.	Size (mm)	Material	Crimp ring	Crimp ring	Crimp ring	Crimp ring	Crimp ring	Crimp ring	Hose protection	
									<b>Hose protection without spiral</b>	
1.904252	ID Ø42, OD Ø52	PVC	I005257	I005257	I005257	I005257	I005257	I005257	I005257	
<b>Hose protection with spiral</b>										
1.914051	ID Ø40, OD Ø47	PVC	I005054	I005054	I005054	I005054	I005054	I005054	I005054	
1.915158	ID Ø50, OD Ø58	PVC	I006064	I006064	I006064	I006064	I006064	I006064	I006064	

Part no.	Material	Crimp ring	Dimensions (mm)		Bend restrictor
			Ø	Length	
<b>PU bend restrictor</b>					
1.953845	PU	I005257	56	350	

Part no.	Mesh length (mm)	Overall length (mm)	Breaking strength (kN)	Suitable for SPIR STAR® hose outer diameter (mm)	Hose securing grip
9136400	600,00	800,00	24,30	25-30	



## Accessories combinations

<b>Without hose protection</b>				
Description		Bend restrictor	Crimp ring	Securing grips
Securing grip		-	-	9136400
<b>Hose protection without spiral</b>				
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips
Protection hose	I.904252	-	I005257	-
with bend restrictor	I.904252	I.953845	I005257	-
with securing grip	I.904252	-	-	9136400
<b>Hose protection with spiral</b>				
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips
Protection hose	I.914051	-	I005054	-
with bend restrictor	I.915158	I.953845	I005257	-
with securing grip	I.914051	-	-	9136400

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

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

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

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

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

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## Applications

- Waterblast:** Surface preparation (concrete removal, surface cleaning of buildings, paint removal), tank and vessel cleaning, ultra high-pressure waterjet cutting and hydro demolition (cutting and demolition of armoured concrete, pipelines, paper or steel)
- Hydraulics:** Pressure test equipment (valves, tooling and control panels)
- 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 +70°C [-22°F to 158°F]


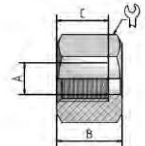
Ø ID	Ø OD	Working Pressure -- (SF 2.5:1)	Burst Pressure	Bend Radius	Weight	Insert ID
15,9 mm	31,8 mm	--	2.000 bar	400 mm	2,523 kg/m	10,5 mm
0,63 inch	1,25 inch	--	29.000 psi	15,75 inch	1,690 lbs/ft	0,41 inch



Part no.	Thread	Material	Dimensions (mm)				Sleeve
			A	B	C	⌀	
<b>Sleeve</b>							
11680242	-	Steel	35	72	-	-	


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


<b>Female swivel with O-Ring</b>								
21660104C	M30x2	Stainless steel	51640201	10,5	98	-	41	
21660204C	M36x2	Stainless steel	52040201	10,5	102	-	46	

<b>Type M female swivel</b>								
21660604C	1 5/16"x12UN	Stainless steel	52040645	10,5	100	-	46	

Part no.	Thread	Material	Relief bores	Dimensions (mm)				Swivel nut
				A	B	C		
<b>Swivel nut</b>								
52040645	I 5/16"x12UN	AISI 316	I radial	25,5	31,5	11,5	46	
51640201	M30x2	Steel	I radial	20,5	28	15	41	
52040201	M36x2	Steel	I radial	25,5	38	22	46	

Part no.	Size (mm)	Material	Crimp ring	Hose protection
1.904252	ID Ø42, OD Ø52	PVC	I005257	
<b>Hose protection with spiral</b>				
1.914051	ID Ø40, OD Ø47	PVC	I005054	
1.915158	ID Ø50, OD Ø58	PVC	-	

Part no.	Material	Crimp ring	Dimensions (mm)		Bend restrictor
			Ø	Length	
<b>PU bend restrictor</b>					
1.953845	PU	I005257	56	350	

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

<b>Without hose protection</b>				
Description		Bend restrictor	Crimp ring	Securing grips
Bend restrictor		1.953845	1005257	-
Securing grip		-	-	9204400
<b>Hose protection without spiral</b>				
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips
Protection hose	1.904252	-	1005257	-
with bend restrictor	1.904252	1.953845	1005257	-
with securing grip	1.904252	-	-	9204400
<b>Hose protection with spiral</b>				
Description	Protection hose	Bend restrictor	Crimp ring	Securing grips
Protection hose	1.914051	-	1005054	-
with bend restrictor	1.915158	1.953845	1005257	-
with securing grip	1.915158	-	-	9204400

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