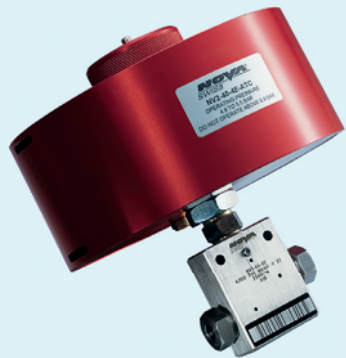
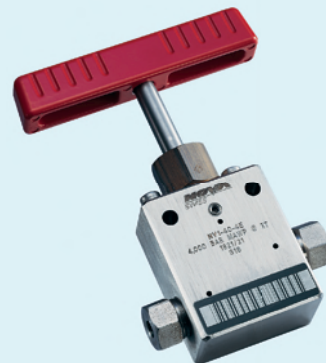


High Pressure Components in Lines

690 bar to 10'000 bar – 10'000 psi to 145'000 psi



Air Operated Valves



Needle Valves



Fittings



Tubes

High Pressure at Highest Level!

The current product range of valves, fittings and tubes (VFT) includes various innovative and technologically advanced components in the field of high pressure technology. As a competent technology partner we design, develop and manufacture high pressure components and complete systems.

With this booklet arranging all the available components in lines, you can easily select the matching components according to your needs. The lines vary in different pressure levels (from 690 bar to 10'000 bar resp. from 10'000 psi to 145'000 psi) as well as in different connection sizes (from ¼" to 1" tube diameter).

If you have any questions using this booklet - we look forward to assisting you.

More from NOVASWISS:

Physical Foaming at Highest Level.



Gas Metering Unit



Compressor

Nitrogen Injection into Extruder

- N2 gas up to 700 bar or more
- Very accurate pressure regulation with servo motor driven pure gas compressor



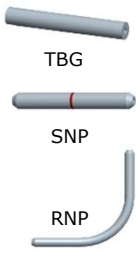
NOVASWISS High Pressure Components in Lines

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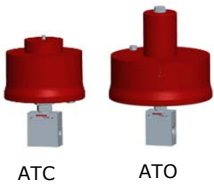
#	Line	Pressure	Tube-Connection	Pages
1	10-4B	10'000 psi 690 bar	1/4" BSPP	4 - 7
2	10-6B	10'000 psi 690 bar	3/8" BSPP	8 - 11
3	08-8B	8'000 psi 552 bar	1/2" BSPP	12 - 15
4	10-8B	10'000 psi 690 bar	1/2" BSPP	16 - 19
5	10-4N	10'000 psi 690 bar	1/4" NPT	20 - 23
6	10-6N	10'000 psi 690 bar	3/8" NPT	24 - 27
7	10-8N	10'000 psi 690 bar	1/2" NPT	28 - 31
8	20-4M	20'000 psi 1'380 bar	1/4" MPCT	32 - 35
9	20-6M	20'000 psi 1'380 bar	3/8" MPCT	36 - 39
10	20-9M	20'000 psi 1'380 bar	9/16" MPCT	40 - 43
11	20-12M	20'000 psi 1'380 bar	3/4" MPCT	44 - 47
12	20-16M	20'000 psi 1'380 bar	1" MPCT	48 - 51
13	30-4H	30'000 psi 2'070 bar	1/4" HPCT	52 - 55
14	30-6H	30'000 psi 2'070 bar	3/8" HPCT	56 - 59
15	30-9H	30'000 psi 2'070 bar	9/16" HPCT	60 - 63
16	60-4H	60'000 psi 4'140 bar	1/4" HPCT	64 - 67
17	60-6H	60'000 psi 4'140 bar	3/8" HPCT	68 - 71
18	60-9H	60'000 psi 4'140 bar	9/16" HPCT	72 - 75
19	40-4E	4'000 bar 58'000 psi	1/4" Metric	76 - 79
20	40-6E	4'000 bar 58'000 psi	3/8" Metric	80 - 83
21	40-9E	4'000 bar 58'000 psi	9/16" Metric	84 - 87
22	70-4E	7'000 bar 101'000 psi	1/4" Metric	88 - 91
23	100-3H	10'000 bar 145'000 psi	3/16" HPCT	92 - 95

NOVASWISS Components for the Line 10-4B

Pressure:	10'000 psi	690 bar	Port:	1/4"	6.4 mm	OD (outer diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	BSPP	NOVASWISS Standard: 4B BSPP British Standard Pipe Parallel thread	

Tubes and Nipples		(best recommendation)		
TBG-20-4		Tubes in 6m length	OD 1/4" / ID 2.77 mm, 20 kpsi	
TBG-20-4A	NACE	Tubes in 6m length	OD 1/4"/6.35 mm / ID 2.77 mm, 20 kpsi	
SNP-20-4		Straight nipple with threads	1/4", 20 kpsi, 56 mm (2.20")	
SNP-20-4A	NACE	Straight nipple with threads	1/4", 20 kpsi, 56 mm (2.20"), NACE	
RNP-20-4		Radius nipple with threads	90°, 1/4", 20 kpsi	

Needle Valves (Hand Valves)		
NV1-10-4B	Straight valve	
NV2-10-4B	Angle valve	
NV3-10-4B *	T-valve	

Pneumatic Driven Needle Valves (air-operated needle valve; ATO: normally closed, ATC: normally open)			
The maximal actuator pressure is 7 bar (100 psi); the optimal operating pressure is indicated on the label of the air actuator			
NV1-10-4B-ATO	Straight valve	Air to Open	
NV1-10-4B-ATC	Straight valve	Air to Close	
NV2-10-4B-ATO	Angle valve	Air to Open	
NV2-10-4B-ATC	Angle valve	Air to Close	
NV3-10-4B-ATO *	T-valve	Air to Open	
NV3-10-4B-ATC *	T-valve	Air to Close	

Safety Valves	
	not available

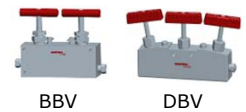
* On demand products

NOVASWISS Components for the Line 10-4B

Pressure:	10'000 psi	690 bar	Port:	1/4"	6.4 mm	OD (outer diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	BSPP	NOVASWISS Standard: 4B	
BSPP British Standard Pipe Parallel thread						

Block Valves and Bleed Valves

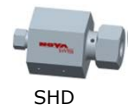
BBV	not available
DBV	not available

**Check Valves**

CVP-10-4B	Check valve	1/4" BSPP, 10 kpsi
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**Safety Heads** without bursting disk

SHD	not available
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**Fittings**

BLA-10-4B-4M *	Bulkhead adaptor for 60° Hose	1/4" BSPP - 1/4" MP, 10 kpsi
ELB	not available	
CRS	not available	
TEE	not available	



ELB

CRS

TEE



BLA

Filters suitable adaptors necessary: AMF104B4E - SNP604 / RNP604

FIL-40-4E	Filter	5 my, 1/4" Metric, 4000 bar
FIL-40-4E-10	Filter	10 my, 1/4" Metric, 4000 bar
FIL-40-4E-2 *	Filter	2 my, 1/4" Metric, 4000 bar
FMI-40-4E-65 *	Filter mesh inline	65 my, 1/4" Metric, 4000 bar
FMI-40-4E-10 *	Filter mesh inline	10 my, 1/4" Metric, 4000 bar



FIL

Extended Temperature Valves

NV-...-ET	not available
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-ET

* On demand products

NOVASWISS Components for the Line 10-4B

Pressure:	10'000 psi	690 bar	Port:	1/4"	6.4 mm	OD (outer diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	BSPP	NOVASWISS Standard: 4B BSPP British Standard Pipe Parallel thread	

Hydrogen compatible components (H2 components)

Other hydrogen compatible components from the standard product lines are available on request.

NV1-40-4E-4 *	Needle valve	straight valve				
CVP-40-4E-4 *	Check valve					
SHD-40-4E-4 *	Safety head					
NV1-10-4B-4 *	Needle valve	straight valve				
NV1-10-4B-ATO-4 *	Air-operated needle valve	straight valve				
NV1-10-4B-ATC-4 *	Air-operated needle valve	straight valve				
AMM-10-4M-4B-4 *	Connector	male	1/4" BSPP	to	male 1/4" MPCT	
AMF-10-4M-4B-4 *	Adaptor	female	1/4" BSPP	to	male 1/4" MPCT	
AMF-10-6M-4B-4 *	Adaptor	female	1/4" BSPP	to	male 3/8" MPCT	
AMF-10-9M-4B-4 *	Adaptor	female	1/4" BSPP	to	male 9/16" MPCT	
FIL-20-4E-10-4 *	Filter	10 my, 1/4" Metric, 2000 bar, H2				
FIL-20-4E-4 *	Filter	5my, 1/4" Metric, 2000 bar, H2				

Adaptors, Couplings, Connectors

AFF-10-4M-4B	Coupling	female	1/4" BSPP	to	female 1/4" MPCT	
AFF-10-6M-4B	Coupling	female	1/4" BSPP	to	female 3/8" MPCT	
AFF-10-9M-4B	Coupling	female	1/4" BSPP	to	female 9/16" MPCT	
AFF-10-4H-4B	Coupling	female	1/4" BSPP	to	female 1/4" HPCT	
AFF-10-6H-4B	Coupling	female	1/4" BSPP	to	female 3/8" HPCT	
AFF-10-9H-4B	Coupling	female	1/4" BSPP	to	female 9/16" HPCT	
AFF-10-4E-4B	Coupling	female	1/4" BSPP	to	female 1/4" Metric	
AMF-10-4H-4B	Adaptor	female	1/4" BSPP	to	male 1/4" HPCT	
AMF-10-6H-4B	Adaptor	female	1/4" BSPP	to	male 3/8" HPCT	
AMF-10-9H-4B	Adaptor	female	1/4" BSPP	to	male 9/16" HPCT	
AMF-10-4M-4B	Adaptor	female	1/4" BSPP	to	male 1/4" MPCT	
AMF-10-6M-4B	Adaptor	female	1/4" BSPP	to	male 3/8" MPCT	
AMF-10-9M-4B	Adaptor	female	1/4" BSPP	to	male 9/16" MPCT	
AMF-10-4E-4B	Adaptor	female	1/4" BSPP	to	male 1/4" Metric	
AMF-10-6E-4B *	Adaptor	female	1/4" BSPP	to	male 3/8" Metric	
AMF-10-4B-4M	Adaptor	male	1/4" BSPP	to	female 1/4" MPCT	
AMF-10-4B-6M	Adaptor	male	1/4" BSPP	to	female 3/8" MPCT	
AMF-10-4B-9M	Adaptor	male	1/4" BSPP	to	female 9/16" MPCT	
AMF-10-4B-4H	Adaptor	male	1/4" BSPP	to	female 1/4" HPCT	
AMF-10-4B-6H	Adaptor	male	1/4" BSPP	to	female 3/8" HPCT	
AMF-10-4B-9H	Adaptor	male	1/4" BSPP	to	female 9/16" HPCT	
AMF-10-4B-4E	Adaptor	male	1/4" BSPP	to	female 1/4" Metric	
AMF-10-4B-6E	Adaptor	male	1/4" BSPP	to	female 3/8" Metric	
AMF-10-4B-9E	Adaptor	male	1/4" BSPP	to	female 9/16" Metric	
AMM-10-4M-4B	Connector	male	1/4" BSPP	to	male 1/4" MPCT	
AMM-10-4H-4B	Connector	male	1/4" BSPP	to	male 1/4" HPCT	
AMM-10-4E-4B	Connector	male	1/4" BSPP	to	male 1/4" Metric	

NOVASWISS Components for the Line 10-4B

Pressure:	10'000 psi	690 bar	Port:	1/4"	6.4 mm	OD (outer diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	BSPP	NOVASWISS Standard: 4B BSPP British Standard Pipe Parallel thread	

Gauge Couplings

GFF not available

Glands, Collars, Plugs - packages of 10 units (To use Adaptors instead)

No glands and collars for ports available --> use adaptors AMF-type

AMF-10-4B-4M	Adaptor	male	1/4" BSPP	to	female 1/4" MPCT	
AMF-10-4B-4H	Adaptor	male	1/4" BSPP	to	female 1/4" HPCT	
AMF-10-4B-4E	Adaptor	male	1/4" BSPP	to	female 1/4" Metric	

Tools for Preparing the Tubes

For recommended tubes:		
580.1000	Coning tool	without collet
581.9128	Collet	1/4" - 6-7mm
580.2040	Manual threading tool	1/4"
580.3040	Tube bending tool	1/4", R25

Application

All NOVASWISS components are delivered with glands and collars. Temperature range is from -50 °C to +65 °C (Centigrade Celsius).

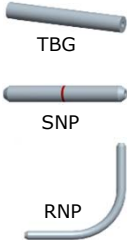
All NOVASWISS components are designed, built and marked according to CE regulation.

The maximum allowable working pressure (MAWP) is marked on each component (body).

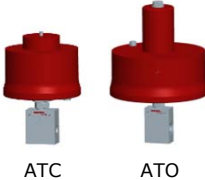
* On demand products

NOVASWISS Components for the Line 10-6B

Pressure:	10'000 PSI	690 bar	Port:	3/8"	9.5 mm OD (outer diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	BSPP	NOVASWISS Standard: 6B
BSPP British Standard Pipe Parallel thread					

Tubes and Nipples		(best recommendation)		
TBG-20-6		Tubes in 6m length	OD 3/8" / ID 5.16 mm, 20 kpsi	
TBG-20-6A	NACE	Tubes in 6m length	OD 3/8"/9.53 mm / ID 4.7 mm, 20 kpsi	
SNP-20-6		Straight nipple with threads	3/8", 20 kpsi, 72 mm (2.83")	
SNP-20-6A	* NACE	Straight nipple with threads	3/8", 20 kpsi, 72 mm (2.83"), NACE	
RNP-20-6		Radius nipple with threads	90°, 3/8", 20 kpsi	

Needle Valves (Hand Valves)		
NV1-10-6B	Straight valve	
NV2-10-6B	Angle valve	
NV3-10-6B	* T-valve	

Pneumatic Driven Needle Valves (air-operated needle valve; ATO: normally closed, ATC: normally open)			
The maximal actuator pressure is 7 bar (100 psi); the optimal operating pressure is indicated on the label of the air actuator			
NV1-10-6B-ATO	Straight valve	Air to Open	with high cycling stem 
NV1-10-6B-ATC	Straight valve	Air to Close	
NV1-10-6B-ATC-7	* Straight valve	Air to Close	
NV2-10-6B-ATO	Angle valve	Air to Open	
NV2-10-6B-ATC	Angle valve	Air to Close	
NV3-10-6B-ATO	* T-valve	Air to Open	
NV3-10-6B-ATC	* T-valve	Air to Close	

Safety Valves	
not available	

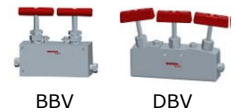
* On demand products

NOVASWISS Components for the Line 10-6B

Pressure:	10'000 PSI	690 bar	Port:	3/8"	9.5 mm OD (outer diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	BSPP	NOVASWISS Standard: 6B
BSPP British Standard Pipe Parallel thread					

Block Valves and Bleed Valves

BBV	not available
DBV	not available



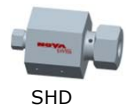
Check Valves

CVP-10-6B	Check valve	3/8" BSPP, 10 kpsi
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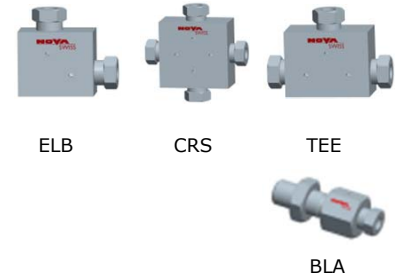
Safety Heads

SHD	not available
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Fittings

BLA-10-6B-6M *	Bulkhead adaptor for 60° Hose	3/8" BSPP - 3/8" MP, 10 kpsi
ELB	not available	
CRS	not available	
TEE	not available	



Filters

FIL-40-6E	Filter	5 my, 3/8" Metric, 4000 bar
FIL-40-6E-10	Filter	10 my, 3/8" Metric, 4000 bar
FMI-40-6E-65 *	Filter mesh inline	65 my, 3/8" Metric, 4000 bar
FMI-40-6E-10 *	Filter mesh inline	10 my, 3/8" Metric, 4000 bar



Extended Temperature Valves

NV-...-ET	not available
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* On demand products

NOVASWISS Components for the Line 10-6B

Pressure:	10'000 PSI	690 bar	Port:	3/8"	9.5 mm OD (outer diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	BSPP	NOVASWISS Standard: 6B
BSPP British Standard Pipe Parallel thread					

Hydrogen compatible components (H2 components)

Other hydrogen compatible components from the standard product lines are available on request.

NV1-10-6B-4 *	Needle valve	straight valve			
NV1-10-6B-ATO-4 *	Air-operated needle valve	straight valve			
AMF-10-4M-6B-4 *	Adaptor	female	3/8" BSPP	to	male 1/4" MPCT
AMF-10-6M-6B-4 *	Adaptor	female	3/8" BSPP	to	male 3/8" MPCT
AMF-10-9M-6B-4 *	Adaptor	female	3/8" BSPP	to	male 9/16" MPCT
AMM-10-4M-6B-4 *	Connector	male	3/8" BSPP	to	male 1/4" MPCT
AMM-10-6M-6B-4 *	Connector	male	3/8" BSPP	to	male 3/8" MPCT
FIL-20-6E-10-4 *	Filter				

Adaptors, Couplings, Connectors

AFF-10-4M-6B	Coupling	female	3/8" BSPP	to	female 1/4" MPCT
AFF-10-6M-6B	Coupling	female	3/8" BSPP	to	female 3/8" MPCT
AFF-10-9M-6B	Coupling	female	3/8" BSPP	to	female 9/16" MPCT
AFF-10-4H-6B	Coupling	female	3/8" BSPP	to	female 1/4" HPCT
AFF-10-6H-6B	Coupling	female	3/8" BSPP	to	female 3/8" HPCT
AFF-10-9H-6B	Coupling	female	3/8" BSPP	to	female 9/16" HPCT
AMF-10-4H-6B	Adaptor	female	3/8" BSPP	to	male 1/4" HPCT
AMF-10-6H-6B	Adaptor	female	3/8" BSPP	to	male 3/8" HPCT
AMF-10-9H-6B	Adaptor	female	3/8" BSPP	to	male 9/16" HPCT
AMF-10-4M-6B	Adaptor	female	3/8" BSPP	to	male 1/4" MPCT
AMF-10-6M-6B	Adaptor	female	3/8" BSPP	to	male 3/8" MPCT
AMF-10-9M-6B	Adaptor	female	3/8" BSPP	to	male 9/16" MPCT
AMF-10-6B-4M	Adaptor	male	3/8" BSPP	to	female 1/4" MPCT
AMF-10-6B-6M	Adaptor	male	3/8" BSPP	to	female 3/8" MPCT
AMF-10-6B-9M	Adaptor	male	3/8" BSPP	to	female 9/16" MPCT
AMF-10-6B-4H	Adaptor	male	3/8" BSPP	to	female 1/4" HPCT
AMF-10-6B-6H	Adaptor	male	3/8" BSPP	to	female 3/8" HPCT
AMF-10-6B-9H	Adaptor	male	3/8" BSPP	to	female 9/16" HPCT
AMF-10-6B-4E	Adaptor	male	3/8" BSPP	to	female 1/4" Metric
AMF-10-6B-6E *	Adaptor	male	3/8" BSPP	to	female 3/8" Metric
AMF-10-6B-9E *	Adaptor	male	3/8" BSPP	to	female 9/16" Metric
AMM-10-6M-6B	Connector	male	3/8" BSPP	to	male 3/8" MPCT
AMM-10-6H-6B	Connector	male	3/8" BSPP	to	male 3/8" HPCT

**Gauge Couplings**

GFF not available

* On demand products

NOVASWISS Components for the Line 10-6B

Pressure:	10'000 PSI	690 bar	Port:	3/8"	9.5 mm OD (outer diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	BSPP	NOVASWISS Standard: 6B
BSPP British Standard Pipe Parallel thread					

Glands, Collars, Plugs - packages of 10 units (To use Adaptors instead)

No glands and collars for ports available --> use adaptors AMF-type

AMF-10-6B-6M	Adaptor	male	3/8" BSPP	to	female 3/8" MPCT
AMF-10-6B-6H	Adaptor	male	3/8" BSPP	to	female 3/8" HPCT
AMF-10-6B-6E *	Adaptor	male	3/8" BSPP	to	female 3/8" Metric



Tools for Preparing the Tubes

For recommended tubes:		
580.1000	Coning tool	without collet
581.9125	Collet	3/8" - 9-10mm
580.2020	Manual threading tool	3/8"

Application

All NOVASWISS components are delivered with glands and collars. Temperature range is from -50 °C to +65 °C (Centigrade Celsius).

All NOVASWISS components are designed, built and marked according to CE regulation.

The maximum allowable working pressure (MAWP) is marked on each component (body).

* On demand products

NOVASWISS Components for the Line 08-8B

Pressure:	8'000 psi	552 bar	Port:	1/2"	12.7 mm	OD (outer diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	BSPP	NOVASWISS Standard: 8B BSPP British Standard Pipe Parallel thread	

Tubes and Nipples

(best recommendation)

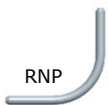
see line 10-8B



TBG



SNP



RNP

Needle Valves (Hand Valves)

see line 10-8B



NV

Pneumatic Driven Needle Valves (air-operated needle valve; ATO: normally closed, ATC: normally open)

The maximal actuator pressure is 7 bar (100 psi); the optimal operating pressure is indicated on the label of the air actuator

NV1-08-8B-ATO	Straight valve	Air to Open
NV1-08-8B-ATC	Straight valve	Air to Close
NV2-08-8B-ATO	Angle valve	Air to Open
NV2-08-8B-ATC	Angle valve	Air to Close
NV3-08-8B-ATO *	T-valve	Air to Open
NV3-08-8B-ATC *	T-valve	Air to Close
NV1-08-8B-ATO-7 *	Straight valve	Air to Open
NV1-08-8B-ATC-7 *	Straight valve	Air to Close



ATC



ATO

with high cycling stem
with high cycling stem

Safety Valves

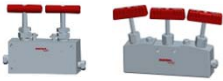
not available

* On demand products

NOVASWISS Components for the Line 08-8B

Pressure:	8'000 psi	552 bar	Port:	1/2"	12.7 mm	OD (outer diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	BSPP	NOVASWISS Standard: 8B	
BSPP British Standard Pipe Parallel thread						

Block Valves and Bleed Valves

BBV	not available	
DBV	not available	

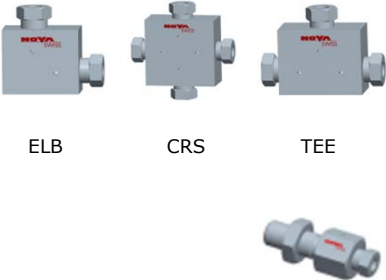
Check Valves

CVP	see line 10-8B	
		CVP

Safety Heads

SHD	without bursting disk	
	not available	

Fittings

BLA-10-8B-9M *	Bulkhead adaptor for 60°Hose	1/2" BSPP - 9/16" MP, 10 kpsi	
ELB	not available		
CRS	not available		
TEE	not available		
			BLA

Filters

FIL	not available	
		FIL

Extended Temperature Valves

NV.-...-ET	not available	
		-ET

* On demand products

NOVASWISS Components for the Line 08-8B

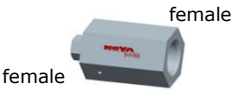
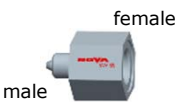
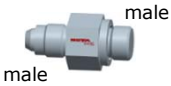
Pressure:	8'000 psi	552 bar	Port:	1/2"	12.7 mm	OD (outer diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	BSPP	NOVASWISS Standard: 8B	
BSPP British Standard Pipe Parallel thread						

Hydrogen compatible components (H2 components)

Other hydrogen compatible components from the standard product lines are available on request.

NV1-08-8B-ATO-4	*	Air-operated needle valve	straight valve
NV1-08-8B-ATC-4	*	Air-operated needle valve	straight valve

Adaptors, Couplings, Connectors

AFF	see line 10-8B	
AMF	see line 10-8B	
AMM	see line 10-8B	

Gauge Couplings

GFF	not available
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* On demand products

NOVASWISS Components for the Line 08-8B

Pressure:	8'000 psi	552 bar	Port:	1/2"	12.7 mm	OD (outer diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	BSPP	NOVASWISS Standard: 8B BSPP British Standard Pipe Parallel thread	

Glands, Collars, Plugs - packages of 10 units

No glands and collars for ports available --> use adaptors AMF-type

see line 10-8B

(To use Adaptors instead)



malefemale

Tools for Preparing the Tubes

see line 10-8B

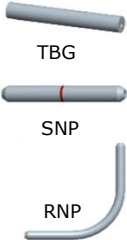
Application

All NOVASWISS components are delivered with glands and collars. Temperature range is from -50 °C to +65 °C (Centigrade Celsius).
All NOVASWISS components are designed, built and marked according to CE regulation.
The maximum allowable working pressure (MAWP) is marked on each component (body).

* On demand products

NOVASWISS Components for the Line 10-8B

Pressure:	10'000 psi	690 bar	Port:	1/2"	12.7 mm	OD (outer diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	BSPP	NOVASWISS Standard: 8B	
						BSPP British Standard Pipe Parallel thread

Tubes and Nipples		(best recommendation) suitable adaptor: AMF-10-9M-8B - 9/16" MP - 1/2" BSPP, 10 kpsi			
TBG-20-9		Tubes in 6m length	OD 9/16" / ID 7.87 mm, 20 kpsi		
TBG-20-9A	NACE	Tubes in 6m length	OD 9/16"/14.29 mm / ID 7.0 mm, 20 kpsi		
SNP-20-9		Straight nipple with threads	9/16", 20 kpsi, 88 mm (3.46")		
SNP-20-9A	NACE	Straight nipple with threads	9/16", 20 kpsi, 88 mm (3.46"), NACE		
RNP-20-9		Radius nipple with threads	90°, 9/16", 20 kpsi		

Needle Valves (Hand Valves)	
NV1-10-8B	Straight valve
NV2-10-8B	Angle valve
NV3-10-8B *	T-valve



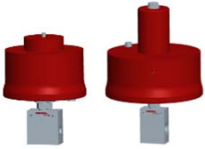
NV

Pneumatic Driven Needle Valves (air-operated needle valve; ATO: normally closed, ATC: normally open)

The maximal actuator pressure is 7 bar (100 psi); the optimal operating pressure is indicated on the label of the air actuator

NV

see line 08-8B



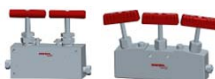
ATC

ATO

Safety Valves	
not available	

* On demand products

NOVASWISS Components for the Line 10-8B					
Pressure:	10'000 psi	690 bar	Port:	1/2"	12.7 mm OD (outer diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	BSPP	NOVASWISS Standard: 8B
					BSPP British Standard Pipe Parallel thread

Block Valves and Bleed Valves				
BBV	not available		 BBVDBV	
DBV	not available			
Check Valves				
CVP-10-8B	Check valve	1/2" BSPP, 10 kpsi	 CVP	
Safety Heads				
SHD	without bursting disk		 SHD	
	not available			
Fittings				
BLA-10-8B-9M *	Bulkhead adaptor for 60° Hose	1/2" BSPP - 9/16" MP, 10 kpsi	 ELBCRSTEE	
ELB	not available			
CRS	not available			
TEE	not available			
			 BLA	
Filters				
FIL	not available		 FIL	
Extended Temperature Valves				
NV.-.-.-ET	not available		 -ET	

* On demand products

NOVASWISS Components for the Line 10-8B

Pressure:	10'000 psi	690 bar	Port:	1/2"	12.7 mm	OD (outer diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	BSPP	NOVASWISS Standard: 8B	
BSPP British Standard Pipe Parallel thread						

Hydrogen compatible components (H2 components)

Other hydrogen compatible components from the standard product lines are available on request.

NV1-10-8B-4 *	Needle Valve	straight valve				
CVP-10-8B-4 *	Check valve					
AMF-10-4M-8B-4 *	Adaptor	female 1/2" BSPP	to	male 1/4" MPCT		
AMF-10-6M-8B-4 *	Adaptor	female 1/2" BSPP	to	male 3/8" MPCT		
AMF-10-9M-8B-4 *	Adaptor	female 1/2" BSPP	to	male 9/16" MPCT		
AMM-10-9M-8B-4 *	Connector	male 1/2" BSPP	to	male 9/16" MPCT		

Adaptors, Couplings, Connectors

AFF-10-4M-8B	Coupling	female 1/2" BSPP	to	female 1/4" MPCT	
AFF-10-6M-8B	Coupling	female 1/2" BSPP	to	female 3/8" MPCT	
AFF-10-9M-8B	Coupling	female 1/2" BSPP	to	female 9/16" MPCT	
AFF-10-4H-8B	Coupling	female 1/2" BSPP	to	female 1/4" HPCT	
AFF-10-6H-8B	Coupling	female 1/2" BSPP	to	female 3/8" HPCT	
AFF-10-9H-8B	Coupling	female 1/2" BSPP	to	female 9/16" HPCT	
AFF-10-9E-8B *	Coupling	female 1/2" BSPP	to	female 9/16" Metric	
AMF-10-4H-8B	Adaptor	female 1/2" BSPP	to	male 1/4" HPCT	
AMF-10-6H-8B	Adaptor	female 1/2" BSPP	to	male 3/8" HPCT	
AMF-10-9H-8B	Adaptor	female 1/2" BSPP	to	male 9/16" HPCT	
AMF-10-4M-8B	Adaptor	female 1/2" BSPP	to	male 1/4" MPCT	
AMF-10-6M-8B	Adaptor	female 1/2" BSPP	to	male 3/8" MPCT	
AMF-10-9M-8B	Adaptor	female 1/2" BSPP	to	male 9/16" MPCT	
AMF-10-9E-8B	Adaptor	female 1/2" BSPP	to	male 9/16" Metric	
AMF-10-8B-4M	Adaptor	male 1/2" BSPP	to	female 1/4" MPCT	
AMF-10-8B-6M	Adaptor	male 1/2" BSPP	to	female 3/8" MPCT	
AMF-10-8B-9M	Adaptor	male 1/2" BSPP	to	female 9/16" MPCT	
AMF-10-8B-4H	Adaptor	male 1/2" BSPP	to	female 1/4" HPCT	
AMF-10-8B-6H	Adaptor	male 1/2" BSPP	to	female 3/8" HPCT	
AMF-10-8B-9H	Adaptor	male 1/2" BSPP	to	female 9/16" HPCT	
AMF-10-8B-4E	Adaptor	male 1/2" BSPP	to	female 1/4" Metric	
AMF-10-8B-6E	Adaptor	male 1/2" BSPP	to	female 3/8" Metric	
AMF-10-8B-9E	Adaptor	male 1/2" BSPP	to	female 9/16" Metric	
AMM-10-9M-8B	Connector	male 1/2" BSPP	to	male 9/16" MPCT	
AMM-10-9H-8B	Connector	male 1/2" BSPP	to	male 9/16" HPCT	

Gauge Couplings

GFF not available

* On demand products

NOVASWISS Components for the Line 10-8B

Pressure: **10'000 psi** 690 bar

Port: **1/2"** 12.7 mm OD (outer diameter)

Material: **EN 1.4404** 316L (USA, AISI)

Connection: **BSPP** NOVASWISS Standard: **8B**
BSPP British Standard Pipe Parallel thread

Glands, Collars, Plugs - packages of 10 units (To use Adaptors instead)

No glands and collars for ports available --> use adaptors AMF-type

AMF-10-8B-9M	Adaptor	male 1/2" BSPP	to female 9/16" MPCT	
AMF-10-8B-9H	Adaptor	male 1/2" BSPP	to female 9/16" HPCT	
AMF-10-8B-9E	Adaptor	male 1/2" BSPP	to female 9/16" Metric	

Tools for Preparing the Tubes

	For recommended tubes:	
580.1000	Coning tool	without collet
581.9124	Collet	9/16" - 14-15mm
580.2010	Manual threading tool	9/16"

Application

All NOVASWISS components are delivered with glands and collars. Temperature range is from -50 °C to +65 °C (Centigrade Celsius).

All NOVASWISS components are designed, built and marked according to CE regulation.

The maximum allowable working pressure (MAWP) is marked on each component (body).

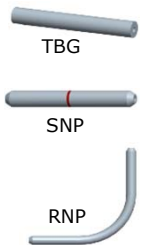
* On demand products

NOVASWISS Components for the Line 10-4N

Pressure:	10'000 psi	690 bar	Port:	1/4"	6.4 mm	OD (outer diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	NPT	NOVASWISS Standard: 4N	
NPT National Pipe Thread; coned						

Tubes and Nipples (best recommendation)

TBG-20-4		Tubes in 6m length	OD 1/4" / ID 2.77 mm, 20 kpsi
TBG-20-4A	NACE	Tubes in 6m length	OD 1/4"/6.35 mm / ID 2.77 mm, 20 kpsi
SNP-20-4		Straight nipple with threads	1/4", 20 kpsi, 56 mm (2.20")
SNP-20-4A	NACE	Straight nipple with threads	1/4", 20 kpsi, 56 mm (2.20"), NACE
RNP-20-4		Radius nipple with threads	90°, 1/4", 20 kpsi

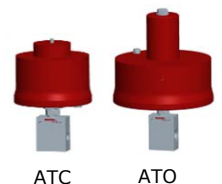
**Needle Valves (Hand Valves)**

NV1-10-4N	Straight valve
NV2-10-4N	Angle valve
NV3-10-4N *	T-valve

**Pneumatic Driven Needle Valves (air-operated needle valve; ATO: normally closed, ATC: normally open)**

The maximal actuator pressure is 7 bar (100 psi); the optimal operating pressure is indicated on the label of the air actuator

NV1-10-4N-ATO	Straight valve	Air to Open
NV1-10-4N-ATC	Straight valve	Air to Close
NV2-10-4N-ATO	Angle valve	Air to Open
NV2-10-4N-ATC	Angle valve	Air to Close
NV3-10-4N-ATO *	T-valve	Air to Open
NV3-10-4N-ATC *	T-valve	Air to Close



NV2-10-4N-ATO-7 *	Angle valve	Air to Open	with high cycling stem
NV2-10-4N-ATC-7 *	Angle valve	Air to Close	with high cycling stem
NV1-10-4N-ATO-1 *	Straight valve	Air to Open	Support for 2 induc. position sensors (without sensors)
NV1-10-4N-ATC-1 *	Straight valve	Air to Close	Support for 2 induc. position sensors (without sensors)

Safety Valves

		setting range	
HPSV1-16-M105 *	High Pressure Safety Valve	0.07/16 kpsi	5/1100 bar
HPSV2-12-M103-AT *	High Pressure Safety Valve for H2	0.07/12 kpsi	5/800 bar

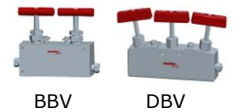
* On demand products

NOVASWISS Components for the Line 10-4N

Pressure:	10'000 psi	690 bar	Port:	1/4"	6.4 mm	OD (outer diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	NPT	NOVASWISS Standard: 4N	
NPT National Pipe Thread; coned						

Block Valves and Bleed Valves

BBV	not available
DBV	not available

**Check Valves**

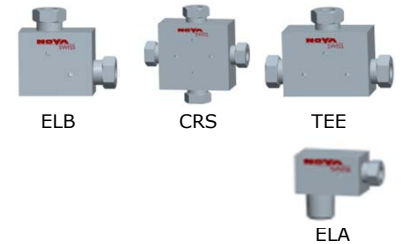
CVP-10-4N	Check valve	1/4" NPT, 10 kpsi
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**Safety Heads** without bursting disk

SHD	not available
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**Fittings**

ELA-10-4N-4H *	Elbow adaptor	1/4" NPT - 1/4" HP, 10 kpsi
ELA-10-4N-4M *	Elbow adaptor	1/4" NPT - 1/4" MP, 10 kpsi
ELB	not available	
CRS	not available	
TEE	not available	

**Filters** suitable adaptors necessary: AMF104N4E - SNP604 / RNP604

FIL-40-4E	Filter	5 my, 1/4" Metric, 4000 bar
FIL-40-4E-10	Filter	10 my, 1/4" Metric, 4000 bar
FIL-40-4E-2 *	Filter	2 my, 1/4" Metric, 4000 bar
FMI-40-4E-65 *	Filter mesh inline	65 my, 1/4" Metric, 4000 bar
FMI-40-4E-10 *	Filter mesh inline	10 my, 1/4" Metric, 4000 bar

**Extended Temperature Valves**

NV-...-ET	not available
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* On demand products

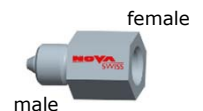
NOVASWISS Components for the Line 10-4NPressure: **10'000 psi** 690 bar Port: **1/4"** 6.4 mm OD (outer diameter)Material: **EN 1.4404** 316L (USA, AISI) Connection: **NPT** NOVASWISS Standard: **4N**
NPT National Pipe Thread; coned**Hydrogen compatible components (H2 components)**

Other hydrogen compatible components from the standard product lines are available on request.

CVP-10-4N-4 *	Check valve				
AMF-10-4M-4N-4 *	Adaptor	female	1/4" NPT	to	male 1/4" MPCT
AMF-10-6M-4N-4 *	Adaptor	female	1/4" NPT	to	male 3/8" MPCT
AMF-10-9M-4N-4 *	Adaptor	female	1/4" NPT	to	male 9/16" MPCT
AMM-10-4M-4N-4 *	Connector	male	1/4" NPT	to	male 1/4" MPCT
FIL-20-4E-10-4 *	Filter	10 my, 1/4" Metric, 2000 bar, H2			
FIL-20-4E-4 *	Filter	5my, 1/4" Metric, 2000 bar, H2			
HPSV2-12-M103-AT *	High Pressure Safety Valve for H2		0.07/12 kpsi		5/800 bar

Adaptors, Couplings, Connectors

AFF-10-4M-4N	Coupling	female	1/4" NPT	to	female 1/4" MPCT
AFF-10-6M-4N	Coupling	female	1/4" NPT	to	female 3/8" MPCT
AFF-10-9M-4N	Coupling	female	1/4" NPT	to	female 9/16" MPCT
AFF-10-4H-4N	Coupling	female	1/4" NPT	to	female 1/4" HPCT
AFF-10-6H-4N	Coupling	female	1/4" NPT	to	female 3/8" HPCT
AFF-10-9H-4N	Coupling	female	1/4" NPT	to	female 9/16" HPCT
AFF-10-4E-4N	Coupling	female	1/4" NPT	to	female 1/4" Metric
AMF-10-4H-4N	Adaptor	female	1/4" NPT	to	male 1/4" HPCT
AMF-10-6H-4N	Adaptor	female	1/4" NPT	to	male 3/8" HPCT
AMF-10-9H-4N	Adaptor	female	1/4" NPT	to	male 9/16" HPCT
AMF-10-4M-4N	Adaptor	female	1/4" NPT	to	male 1/4" MPCT
AMF-10-6M-4N	Adaptor	female	1/4" NPT	to	male 3/8" MPCT
AMF-10-9M-4N	Adaptor	female	1/4" NPT	to	male 9/16" MPCT
AMF-10-4E-4N	Adaptor	female	1/4" NPT	to	male 1/4" Metric
AMF-10-4N-4M	Adaptor	male	1/4" NPT	to	female 1/4" MPCT
AMF-10-4N-6M	Adaptor	male	1/4" NPT	to	female 3/8" MPCT
AMF-10-4N-9M	Adaptor	male	1/4" NPT	to	female 9/16" MPCT
AMF-10-4N-4H	Adaptor	male	1/4" NPT	to	female 1/4" HPCT
AMF-10-4N-6H	Adaptor	male	1/4" NPT	to	female 3/8" HPCT
AMF-10-4N-9H	Adaptor	male	1/4" NPT	to	female 9/16" HPCT
AMF-10-4N-4E	Adaptor	male	1/4" NPT	to	female 1/4" Metric
AMF-10-4N-6E	Adaptor	male	1/4" NPT	to	female 3/8" Metric
AMM-10-4M-4N	Connector	male	1/4" NPT	to	male 1/4" MPCT
AMM-10-4H-4N	Connector	male	1/4" NPT	to	male 1/4" HPCT
AMM-10-4E-4N	Connector	male	1/4" NPT	to	male 1/4" Metric
AMM-10-8N-4N *	Connector	male	1/4" NPT	to	male 1/2" NPT

**Gauge Couplings**

GFF not available

* On demand products

NOVASWISS Components for the Line 10-4N

Pressure:	10'000 psi	690 bar	Port:	1/4"	6.4 mm	OD (outer diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	NPT	NOVASWISS Standard: 4N	
NPT National Pipe Thread; coned						

Glands, Collars, Plugs - packages of 10 units (To use Adaptors instead)

No glands and collars for ports available --> use adaptors AMF-type

AMF-10-4N-4M	Adaptor	male	1/4" NPT	to	female 1/4" MPCT
AMF-10-4N-4H	Adaptor	male	1/4" NPT	to	female 1/4" HPCT
AMF-10-4N-4E	Adaptor	male	1/4" NPT	to	female 1/4" Metric



Tools for Preparing the Tubes

For recommended tubes:		
580.1000	Coning tool	without collet
581.9128	Collet	1/4" - 6-7mm
580.2040	Manual threading tool	1/4"
580.3040	Tube bending tool	1/4", R25

Application

All NOVASWISS components are delivered with glands and collars. Temperature range is from -50 °C to +65 °C (Centigrade Celsius).

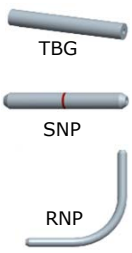
All NOVASWISS components are designed, built and marked according to CE regulation.

The maximum allowable working pressure (MAWP) is marked on each component (body).

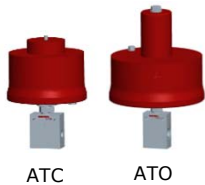
* On demand products

NOVASWISS Components for the Line 10-6N

Pressure:	10'000 psi	690 bar	Port:	3/8"	9.5 mm OD (outer diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	NPT	NOVASWISS Standard: 6N
NPT National Pipe Thread; coned					

Tubes and Nipples		(best recommendation)		
TBG-20-6		Tubes in 6m length	OD 3/8" / ID 5.16 mm, 20 kpsi	
TBG-20-6A * NACE		Tubes in 6m length	OD 3/8"/9.53 mm / ID 4.7 mm, 20 kpsi	
SNP-20-6		Straight nipple with threads	3/8", 20 kpsi, 72 mm (2.83")	
SNP-20-6A		Straight nipple with threads	3/8", 20 kpsi, 72 mm (2.83"), NACE	
RNP-20-6		Radius nipple with threads	90°, 3/8", 20 kpsi	

Needle Valves (Hand Valves)		
NV1-10-6N	Straight valve	
NV2-10-6N	Angle valve	
NV3-10-6N *	T-valve	

Pneumatic Driven Needle Valves (air-operated needle valve; ATO: normally closed, ATC: normally open)			
The maximal actuator pressure is 7 bar (100 psi); the optimal operating pressure is indicated on the label of the air actuator			
NV1-10-6N-ATO	Straight valve	Air to Open	
NV1-10-6N-ATC	Straight valve	Air to Close	
NV2-10-6N-ATO	Angle valve	Air to Open	
NV2-10-6N-ATC	Angle valve	Air to Close	
NV3-10-6N-ATO *	T-valve	Air to Open	
NV3-10-6N-ATC *	T-valve	Air to Close	
NV1-10-6N-ATO-1 *	Straight valve	Air to Open	Support for 2 induc. position sensors (without sensors)

Safety Valves	
not available	

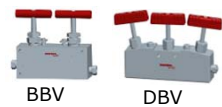
* On demand products

NOVASWISS Components for the Line 10-6N

Pressure:	10'000 psi	690 bar	Port:	3/8"	9.5 mm OD (outer diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	NPT	NOVASWISS Standard: 6N
NPT National Pipe Thread; coned					

Block Valves and Bleed Valves

BBV	not available
DBV	not available



Check Valves

CVP-10-6N	Check valve	3/8" NPT, 10 kpsi
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Safety Heads

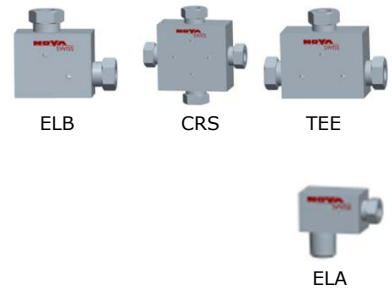
without bursting disk

SHD	not available
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Fittings

ELA-10-6N-6M *	Elbow adaptor
ELA-10-6N-6H *	Elbow adaptor
ELB	not available
CRS	not available
TEE	not available



Filters

suitable adaptors necessary: AMF106N6E - SNP606 / RNP606

FIL-40-6E	Filter	5 my, 3/8" Metric, 4000 bar
FIL-40-6E-10	Filter	10 my, 3/8" Metric, 4000 bar
FMI-40-6E-65 *	Filter mesh inline	65 my, 3/8" Metric, 4000 bar
FMI-40-6E-10 *	Filter mesh inline	10 my, 3/8" Metric, 4000 bar



Extended Temperature Valves

NV-...-ET	not available
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* On demand products

NOVASWISS Components for the Line 10-6N

Pressure:	10'000 psi	690 bar	Port:	3/8"	9.5 mm OD (outer diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	NPT	NOVASWISS Standard: 6N
NPT National Pipe Thread; coned					

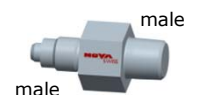
Hydrogen compatible components (H2 components)

Other hydrogen compatible components from the standard product lines are available on request.

NV1-10-6N-4 *	Needle valve	straight valve			
AMF-10-4M-6N-4 *	Adaptor	female 3/8" NPT	to	male 1/4" MPCT	
AMF-10-6M-6N-4 *	Adaptor	female 3/8" NPT	to	male 3/8" MPCT	
AMF-10-9M-6N-4 *	Adaptor	female 3/8" NPT	to	male 9/16" MPCT	
AMM-10-6M-6N-4 *	Connector	male 3/8" NPT	to	male 3/8" MPCT	
FIL-20-6E-10-4 *	Filter	10 my, 3/8" Metric, 2000 bar, H2			

Adaptors, Couplings, Connectors

AFF-10-4M-6N	Coupling	female 3/8" NPT	to	female 1/4" MPCT	
AFF-10-6M-6N	Coupling	female 3/8" NPT	to	female 3/8" MPCT	
AFF-10-9M-6N	Coupling	female 3/8" NPT	to	female 9/16" MPCT	
AFF-10-4H-6N	Coupling	female 3/8" NPT	to	female 1/4" HPCT	
AFF-10-6H-6N	Coupling	female 3/8" NPT	to	female 3/8" HPCT	
AFF-10-9H-6N	Coupling	female 3/8" NPT	to	female 9/16" HPCT	
AFF-10-4E-6N *	Coupling	female 3/8" NPT	to	female 1/4" Metric	
AFF-10-6E-6N *	Coupling	female 3/8" NPT	to	female 3/8" Metric	
AMF-10-4H-6N	Adaptor	female 3/8" NPT	to	male 1/4" HPCT	
AMF-10-6H-6N	Adaptor	female 3/8" NPT	to	male 3/8" HPCT	
AMF-10-9H-6N	Adaptor	female 3/8" NPT	to	male 9/16" HPCT	
AMF-10-4M-6N	Adaptor	female 3/8" NPT	to	male 1/4" MPCT	
AMF-10-6M-6N	Adaptor	female 3/8" NPT	to	male 3/8" MPCT	
AMF-10-9M-6N	Adaptor	female 3/8" NPT	to	male 9/16" MPCT	
AMF-10-6N-4M	Adaptor	male 3/8" NPT	to	female 1/4" MPCT	
AMF-10-6N-6M	Adaptor	male 3/8" NPT	to	female 3/8" MPCT	
AMF-10-6N-9M	Adaptor	male 3/8" NPT	to	female 9/16" MPCT	
AMF-10-6N-4H	Adaptor	male 3/8" NPT	to	female 1/4" HPCT	
AMF-10-6N-6H	Adaptor	male 3/8" NPT	to	female 3/8" HPCT	
AMF-10-6N-9H	Adaptor	male 3/8" NPT	to	female 9/16" HPCT	
AMF-10-6N-4E	Adaptor	male 3/8" NPT	to	female 1/4" Metric	
AMF-10-6N-6E	Adaptor	male 3/8" NPT	to	female 3/8" Metric	
AMM-10-6M-6N	Connector	male 3/8" NPT	to	male 3/8" MPCT	
AMM-10-6H-6N	Connector	male 3/8" NPT	to	male 3/8" HPCT	
AMM-10-9H-6N *	Connector	male 3/8" NPT	to	male 9/16" HPCT	



Gauge Couplings

GFF not available

* On demand products

NOVASWISS Components for the Line 10-6N

Pressure:	10'000 psi	690 bar	Port:	3/8"	9.5 mm OD (outer diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	NPT	NOVASWISS Standard: 6N
NPT National Pipe Thread; coned					

Glands, Collars, Plugs - packages of 10 units (To use Adaptors instead)

No glands and collars for ports available --> use adaptors AMF-type

AMF-10-6N-6M	Adaptor	male 3/8" NPT	to	female 3/8" MPCT
AMF-10-6N-6H	Adaptor	male 3/8" NPT	to	female 3/8" HPCT
AMF-10-6N-6E	Adaptor	male 3/8" NPT	to	female 3/8" Metric



Tools for Preparing the Tubes

For recommended tubes:		
580.1000	Coning tool	without collet
581.9125	Collet	3/8" - 9-10mm
580.2020	Manual threading tool	3/8"

Application

All NOVASWISS components are delivered with glands and collars. Temperature range is from -50 °C to +65 °C (Centigrade Celsius).

All NOVASWISS components are designed, built and marked according to CE regulation.

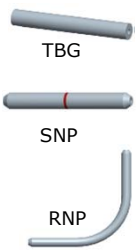
The maximum allowable working pressure (MAWP) is marked on each component (body).

* On demand products

NOVASWISS Components for the Line 10-8N

Pressure:	10'000 psi	690 bar	Port:	1/2"	12.7 mm	OD (outer diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	NPT	NOVASWISS Standard: 8N	
NPT National Pipe Thread; coned						

Tubes and Nipples		(best recommendation)	suitable adaptor: AMF-10-9M-8N - 9/16" MP - 1/2" NPT, 10 kpsi	
TBG-20-9		Tubes in 6m length	OD 9/16" / ID 7.87 mm, 20 kpsi	
TBG-20-9A	NACE	Tubes in 6m length	OD 9/16"/14.29 mm / ID 7.0 mm, 20 kpsi	
SNP-20-9		Straight nipple with threads	9/16", 20 kpsi, 88 mm (3.46")	
SNP-20-9A	NACE	Straight nipple with threads	9/16", 20 kpsi, 88 mm (3.46"), NACE	
RNP-20-9		Radius nipple with threads	90°, 9/16", 20 kpsi	



Needle Valves (Hand Valves)

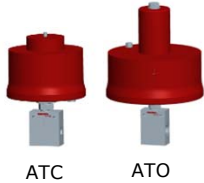
NV1-10-8N	Straight valve
NV2-10-8N	Angle valve
NV3-10-8N *	T-valve



Pneumatic Driven Needle Valves (air-operated needle valve; ATO: normally closed, ATC: normally open)

The maximal actuator pressure is 7 bar (100 psi); the optimal operating pressure is indicated on the label of the air actuator

NV1-10-8N-ATO	Straight valve	Air to Open
NV1-10-8N-ATC	Straight valve	Air to Close
NV2-10-8N-ATO	Angle valve	Air to Open
NV2-10-8N-ATC	Angle valve	Air to Close
NV3-10-8N-ATO *	T-valve	Air to Open
NV3-10-8N-ATC *	T-valve	Air to Close



Safety Valves

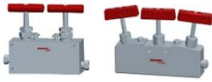
not available

* On demand products

NOVASWISS Components for the Line 10-8N

Pressure:	10'000 psi	690 bar	Port:	1/2"	12.7 mm	OD (outer diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	NPT	NOVASWISS Standard: 8N	
						NPT National Pipe Thread; coned

Block Valves and Bleed Valves

BBV	not available	
DBV	not available	

Check Valves

CVP-10-8N	Check valve	1/2" NPT, 10 kpsi	
			CVP

Safety Heads

SHD	without bursting disk	not available	
			SHD

Fittings

ELA-10-8N-9M *	Elbow adaptor	1/2" NPT - 9/16" MP, 10 kpsi	
ELA-10-8N-9H *	Elbow adaptor	1/2" NPT - 9/16" HP, 10 kpsi	
ELB	not available		ELB
CRS	not available		CRS
TEE	not available		TEE
			
			ELA

Filters

FIL	not available	
		FIL

Extended Temperature Valves

NV.-.-.-ET	not available	
		-ET

* On demand products

NOVASWISS Components for the Line 10-8NPressure: **10'000 psi** 690 bar Port: **1/2"** 12.7 mm OD (outer diameter)Material: **EN 1.4404** 316L (USA, AISI) Connection: **NPT** NOVASWISS Standard: **8N**
NPT National Pipe Thread; coned**Hydrogen compatible components (H2 components)**

Other hydrogen compatible components from the standard product lines are available on request.

CVP-10-8N-4 *	Check valve				
AMF-10-4M-8N-4 *	Adaptor	female	1/2" NPT	to	male 1/4" MPCT
AMF-10-6M-8N-4 *	Adaptor	female	1/2" NPT	to	male 3/8" MPCT
AMF-10-9M-8N-4 *	Adaptor	female	1/2" NPT	to	male 9/16" MPCT
AMM-10-9M-8N-4 *	Connector	male	1/2" NPT	to	male 9/16" MPCT

Adaptors, Couplings, Connectors

AFF-10-4M-8N	Coupling	female	1/2" NPT	to	female 1/4" MPCT
AFF-10-6M-8N	Coupling	female	1/2" NPT	to	female 3/8" MPCT
AFF-10-9M-8N	Coupling	female	1/2" NPT	to	female 9/16" MPCT
AFF-10-12M-8N *	Coupling	female	1/2" NPT	to	female 3/4" MPCT
AFF-10-4H-8N	Coupling	female	1/2" NPT	to	female 1/4" HPCT
AFF-10-6H-8N	Coupling	female	1/2" NPT	to	female 3/8" HPCT
AFF-10-9H-8N	Coupling	female	1/2" NPT	to	female 9/16" HPCT
AMF-10-4H-8N	Adaptor	female	1/2" NPT	to	male 1/4" HPCT
AMF-10-6H-8N	Adaptor	female	1/2" NPT	to	male 3/8" HPCT
AMF-10-9H-8N	Adaptor	female	1/2" NPT	to	male 9/16" HPCT
AMF-10-4M-8N	Adaptor	female	1/2" NPT	to	male 1/4" MPCT
AMF-10-6M-8N	Adaptor	female	1/2" NPT	to	male 3/8" MPCT
AMF-10-9M-8N	Adaptor	female	1/2" NPT	to	male 9/16" MPCT
AMF-10-12M-8N *	Adaptor	female	1/2" NPT	to	male 3/4" MPCT
AMF-10-16M-8N *	Adaptor	female	1/2" NPT	to	male 1" MPCT
AMF-10-8N-4M	Adaptor	male	1/2" NPT	to	female 1/4" MPCT
AMF-10-8N-6M	Adaptor	male	1/2" NPT	to	female 3/8" MPCT
AMF-10-8N-9M	Adaptor	male	1/2" NPT	to	female 9/16" MPCT
AMF-10-8N-12M *	Adaptor	male	1/2" NPT	to	female 3/4" MPCT
AMF-10-8N-16M *	Adaptor	male	1/2" NPT	to	female 1" MPCT
AMF-10-8N-4H	Adaptor	male	1/2" NPT	to	female 1/4" HPCT
AMF-10-8N-6H	Adaptor	male	1/2" NPT	to	female 3/8" HPCT
AMF-10-8N-9H	Adaptor	male	1/2" NPT	to	female 9/16" HPCT
AMF-10-8N-4E	Adaptor	male	1/2" NPT	to	female 1/4" Metric
AMF-10-8N-6E	Adaptor	male	1/2" NPT	to	female 3/8" Metric
AMF-10-8N-9E	Adaptor	male	1/2" NPT	to	female 9/16" Metric
AMM-10-9M-8N	Connector	male	1/2" NPT	to	male 9/16" MPCT
AMM-10-9H-8N	Connector	male	1/2" NPT	to	male 9/16" HPCT
AMM-10-8N-4N *	Connector	male	1/2" NPT	to	male 1/4" NPT

**Gauge Couplings**

GFF not available

* On demand products

NOVASWISS Components for the Line 10-8N

Pressure:	10'000 psi	690 bar	Port:	1/2"	12.7 mm	OD (outer diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	NPT	NOVASWISS Standard: 8N	
NPT National Pipe Thread; coned						

Glands, Collars, Plugs - packages of 10 units (To use Adaptors instead)

No glands and collars for ports available --> use adaptors AMF-type

AMF-10-8N-9M	Adaptor	male	1/2" NPT	to	female 9/16" MPCT	
AMF-10-8N-9H	Adaptor	male	1/2" NPT	to	female 9/16" HPCT	
AMF-10-8N-9E	Adaptor	male	1/2" NPT	to	female 9/16" Metric	

Tools for Preparing the Tubes

For recommended tubes:

580.1000	Coning tool	without collet
581.9124	Collet	9/16" - 14-15mm
580.2010	Manual threading tool	9/16"

Application

All NOVASWISS components are delivered with glands and collars. Temperature range is from -50 °C to +65 °C (Centigrade Celsius).
All NOVASWISS components are designed, built and marked according to CE regulation.
The maximum allowable working pressure (MAWP) is marked on each component (body).

* On demand products

NOVASWISS Components for the Line 20-4M

Pressure:	20'000 psi	1'380 bar	Tube:	1/4"	6.4 mm	OD (outer diameter)
				0.11"	2.8 mm	ID (inner diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	MPCT	NOVASWISS Standard 4M	
MPCT Medium Pressure Cone + Thread; imperial UNF thread						

Tubes and Nipples

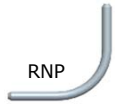
TBG-20-4	Tubes in 6m length	OD 1/4" / ID 2.77 mm, 20 kpsi
TBG-20-4A NACE	Tubes in 6m length	OD 1/4"/6.35 mm / ID 2.77 mm, 20 kpsi
SNP-20-4	Straight nipple with threads	1/4", 20 kpsi, 56 mm (2.20")
SNP-20-4A NACE	Straight nipple with threads	1/4", 20 kpsi, 56 mm (2.20"), NACE
SNA-20-4 *	Straight nipple with threads	1/4", 20 kpsi, 95 mm (3.74"), for anti vibration assembling
RNP-20-4	Radius nipple with threads	90°, 1/4", 20 kpsi
RNA-20-4 *	Radius nipple with threads	90°, 1/4", 20 kpsi, for anti vibration assembling



TBG



SNP



RNP

Needle Valves (Hand Valves)

NV1-20-4M	Straight valve
NV2-20-4M	Angle valve
NV3-20-4M *	T-valve
NV5-20-4M	Valve with replaceable seat
NV1-20-4M-MV *	Straight valve with metering stem

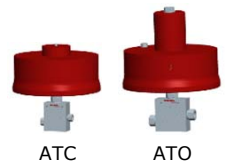


NV

Pneumatic Driven Needle Valves (air-operated needle valve; ATO: normally closed, ATC: normally open)

The maximal actuator pressure is 7 bar (100 psi); the optimal operating pressure is indicated on the label of the air actuator

NV1-20-4M-ATO	Straight valve	Air to Open
NV1-20-4M-ATC	Straight valve	Air to Close
NV2-20-4M-ATO	Angle valve	Air to Open
NV2-20-4M-ATC	Angle valve	Air to Close
NV3-20-4M-ATO *	T-valve	Air to Open
NV3-20-4M-ATC *	T-valve	Air to Close
NV5-20-4M-ATO	V. with replaceable seat	Air to Open
NV5-20-4M-ATC	V. with replaceable seat	Air to Close
NV1-20-4M-ATC-12 *	Straight valve	Air to Close
NV1-20-4M-ATC-1 *	Straight valve	Air to Close



ATC

ATO

with high cycling stem and anti corrosion
Support for 2 induc. position sensors (without sensors)

Safety Valves

		setting range	
HPSV2-36-M105 *	High Pressure Safety Valve	0.07/36 kpsi	5/2500 bar
HPSV2-36-M105-ET *	High Pressure Safety Valve extreme temperature	0.07/36 kpsi	5/2500 bar

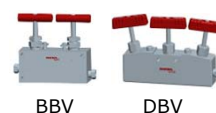
* On demand products

NOVASWISS Components for the Line 20-4M

Pressure:	20'000 psi	1'380 bar	Tube:	1/4"	6.4 mm	OD (outer diameter)
				0.11"	2.8 mm	ID (inner diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	MPCT	NOVASWISS Standard 4M	
MPCT Medium Pressure Cone + Thread; imperial UNF thread						

Block Valves and Bleed Valves

BBV-20-4M	Block and Bleed Valve
DBV-20-4M	Double-Block and Bleed valve



BBV

DBV

Check Valves

CVP-20-4M	Check valve
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CVP

Safety Heads

without bursting disk

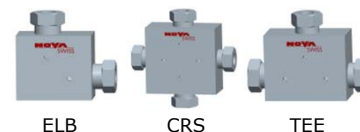
SHD-20-4M	Safety head
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SHD

Fittings

ELB-20-4M	Elbow	
TEE-20-4M	Tee	
TEE-20-4M-12M *	Tee	2 x 1/4"MP, 1 x 3/4"MP, 20 kpsi
TEE-20-6M-4M *	Tee	2x 3/8" MP, 1x 1/4" MP, 20 kpsi
TEE-20-9M-4M *	Tee	2x 9/16" MP, 1x 1/4" MP, 20 kpsi
CRS-20-4M	Fitting cross	
CRS-20-6M-4M *	Fitting cross	3x 3/8"MP, 1x 1/4"MP, 20 kpsi
BLK-20-4M	Bulkhead	



ELB

CRS

TEE



BLK

Filters

suitable adaptors necessary: AMF204M4H - SNP604 / RNP604

FIL-40-4E	Filter	5 my, 1/4" Metric, 4000 bar
FMI-40-4E-10 *	Filter mesh inline	10 my, 1/4" Metric, 4000 bar
FMI-40-4E-65 *	Filter mesh inline	65 my, 1/4" Metric, 4000 bar



FIL

Extended Temperature Valves

downgraded to 15 kpsi / 1000 bar

NV1-15-4M-ATO-ET *	Air operated Needle Valve, straight	-200/300°C
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-ET

* On demand products

NOVASWISS Components for the Line 20-4M

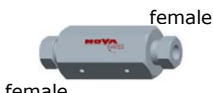
Pressure:	20'000 psi	1'380 bar	Tube:	1/4"	6.4 mm	OD (outer diameter)
				0.11"	2.8 mm	ID (inner diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	MPCT	NOVASWISS Standard 4M	
MPCT Medium Pressure Cone + Thread; imperial UNF thread						

Hydrogen compatible components (H2 components)

Other hydrogen compatible components from the standard product lines are available on request.

NV1-20-4M-4 *	Needle valve	straight valve	
NV2-20-4M-4 *	Needle valve	angle valve	
NV5-20-4M-4 *	Needle valve	valve with replaceable seat	
NV1-20-4M-ATO-4 *	Air-operated needle valve	straight valve	
NV1-20-4M-ATC-4 *	Air-operated needle valve	straight valve	
NV5-20-4M-ATO-4 *	Air-operated needle valve	valve with replaceable seat	
NV5-20-4M-ATC-4 *	Air-operated needle valve	valve with replaceable seat	
NV1-20-4M-ATC-14 *	Straight valve	Air to Close	Support for 2 induc. position sensors (without sensors)
NV5-20-4M-ATC-14 *	V. with replaceable seat	Air to Close	Support for 2 induc. position sensors (without sensors)
CVP-20-4M-4 *	Check valve H2		
SHD-20-4M-4 *	Safety head		
AMF-20-6M-4M-4 *	Adaptor	female 1/4" MPCT	to male 3/8" MPCT
AMF-20-9M-4M-4 *	Adaptor	female 1/4" MPCT	to male 9/16" MPCT
AMF-20-4M-6M-4 *	Adaptor	male 1/4" MPCT	to female 3/8" MPCT
AMF-20-4M-9M-4 *	Adaptor	male 1/4" MPCT	to female 9/16" MPCT
AMF-20-4M-4H-4 *	Adaptor	male 1/4" MPCT	to female 1/4" HPCT
AMF-20-4M-6H-4 *	Adaptor	male 1/4" MPCT	to female 3/8" HPCT
AMF-20-4M-9H-4 *	Adaptor	male 1/4" MPCT	to female 9/16" HPCT
AMM-20-4M-4M-4 *	Connector	male 1/4" MPCT	to male 1/4" MPCT
FIL-20-4E-10-4 *	Filter	10 my, 1/4" Metric, 2000 bar, H2	
FIL-20-4E-4 *	Filter	5my, 1/4" Metric, 2000 bar, H2	

Adaptors, Couplings, Connectors

AFF-20-4M-4M	Coupling	female 1/4" MPCT	to	female 1/4" MPCT	
AFF-20-4M-6M	Coupling	female 1/4" MPCT	to	female 3/8" MPCT	
AFF-20-4M-9M	Coupling	female 1/4" MPCT	to	female 9/16" MPCT	
AFF-20-4M-4H	Coupling	female 1/4" MPCT	to	female 1/4" HPCT	
AFF-20-4M-6H	Coupling	female 1/4" MPCT	to	female 3/8" HPCT	
AFF-20-4M-9H	Coupling	female 1/4" MPCT	to	female 9/16" HPCT	
AMF-20-4H-4M	Adaptor	female 1/4" MPCT	to	male 1/4" HPCT	
AMF-20-6H-4M	Adaptor	female 1/4" MPCT	to	male 3/8" HPCT	
AMF-20-9H-4M	Adaptor	female 1/4" MPCT	to	male 9/16" HPCT	
AMF-20-6M-4M	Adaptor	female 1/4" MPCT	to	male 3/8" MPCT	
AMF-20-9M-4M	Adaptor	female 1/4" MPCT	to	male 9/16" MPCT	
AMF-20-12M-4M *	Adaptor	female 1/4" MPCT	to	male 3/4" MPCT	
AMF-20-16M-4M *	Adaptor	female 1/4" MPCT	to	male 1" MPCT	
AMF-20-4M-6M	Adaptor	male 1/4" MPCT	to	female 3/8" MPCT	
AMF-20-4M-9M	Adaptor	male 1/4" MPCT	to	female 9/16" MPCT	
AMF-20-4M-4H	Adaptor	male 1/4" MPCT	to	female 1/4" HPCT	
AMF-20-4M-6H	Adaptor	male 1/4" MPCT	to	female 3/8" HPCT	
AMF-20-4M-9H	Adaptor	male 1/4" MPCT	to	female 9/16" HPCT	
AMM-20-4M-4M	Connector	male 1/4" MPCT	to	male 1/4" MPCT	

NOVASWISS Components for the Line 20-4M

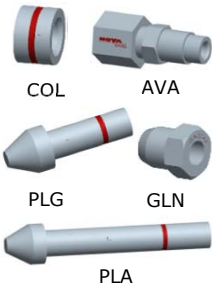
Pressure:	20'000 psi	1'380 bar	Tube:	1/4"	6.4 mm	OD (outer diameter)
				0.11"	2.8 mm	ID (inner diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	MPCT	NOVASWISS Standarc 4M	
MPCT Medium Pressure Cone + Thread; imperial UNF thread						

Gauge Couplings

GFF-20-8B-4M	Gauge coupling	1/4" MPCT - 1/2" BSPP, 20 kpsi
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Glands, Collars, Plugs - packages of 10 units

GLN-20-4M-10P	Glands
COL-20-4-10P	Collars
PLG-20-4-10P	Plugs
AVA-20-4M-10P	Anti vibration assembly (glands and collars)
AVA-20-4M-10P consisting of (not available separately):	
GLA-20-4M	Glands anti vibration
COL-20-4	Collars anti vibration
COT-20-4	Collet anti vibro
NUT-20-4	Gland Nut anti vibration
PLA-20-4	Plugs anti vibration



Tools for Preparing the Tubes

580.1000	Coning tool	without collet
581.9128	Collet	1/4" - 6-7mm
580.2040	Manual threading tool	1/4"
580.3040	Tube bending tool	1/4", R25

Application

All NOVASWISS components are delivered with glands and collars. Temperature range is from -50 °C to +65 °C (Centigrade Celsius).

The maximum allowable working pressure (MAWP) is marked on each component (body).

The maximum allowable working pressure (MAWP) is marked on each component (body).

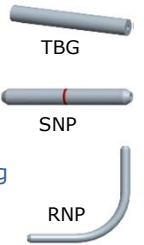
* On demand products

NOVASWISS Components for the Line 20-6M

Pressure:	20'000 psi	1'380 bar	Tube:	3/8"	9.5 mm	OD (outer diameter)
				0.2"	5.2 mm	ID (inner diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	MPCT	NOVASWISS Standard: 6M	
MPCT Medium Pressure Cone + Thread; imperial UNF thread						

Tubes and Nipples

TBG-20-6	Tubes in 6m length	OD 3/8" / ID 5.16 mm, 20 kpsi
TBG-20-6A * NACE	Tubes in 6m length	OD 3/8"/9.53 mm / ID 4.7 mm, 20 kpsi
SNP-20-6	Straight nipple with threads	3/8", 20 kpsi, 72 mm (2.83")
SNP-20-6A NACE	Straight nipple with threads	3/8", 20 kpsi, 72 mm (2.83"), NACE
SNA-20-6 *	Straight nipple with threads	3/8", 20kpsi, 117 mm (4.6"), for anti vibration assembling
RNP-20-6	Radius nipple with threads	90°, 3/8", 20 kpsi
RNA-20-6 *	Radius nipple with threads	90°, 3/8", 20 kpsi, for anti vibration assembling

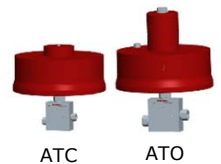
**Needle Valves (Hand Valves)**

NV1-20-6M	Straight valve	
NV2-20-6M	Angle valve	
NV3-20-6M *	T-valve	
NV5-20-6M	Valve with replaceable seat	
NV1-20-6M-7 *	Straight valve	with high cycling stem
NV1-20-6M-MV *	Straight valve	with metering stem

**Pneumatic Driven Needle Valves (air-operated needle valve; ATO: normally closed, ATC: normally open)**

The maximal actuator pressure is 7 bar (100 psi); the optimal operating pressure is indicated on the label of the air actuator

NV1-20-6M-ATO	Straight valve	Air to Open	
NV1-20-6M-ATC	Straight valve	Air to Close	
NV2-20-6M-ATO	Angle valve	Air to Open	
NV2-20-6M-ATC	Angle valve	Air to Close	
NV3-20-6M-ATO *	T-valve	Air to Open	
NV3-20-6M-ATC *	T-valve	Air to Close	
NV5-20-6M-ATO	V. with replaceable seat	Air to Open	
NV5-20-6M-ATC	V. with replaceable seat	Air to Close	
NV1-20-6M-ATO-1 *	Straight valve	Air to Open	Support for 2 induc. position sensors (without sensors)
NV1-20-6M-ATC-1 *	Straight valve	Air to Close	Support for 2 induc. position sensors (without sensors)
NV2-20-6M-ATO-1 *	Angle valve	Air to Open	Support for 2 induc. position sensors (without sensors)
NV2-20-6M-ATC-1 *	Angle valve	Air to Close	Support for 2 induc. position sensors (without sensors)

**Safety Valves**

not available

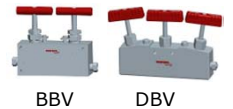
* On demand products

NOVASWISS Components for the Line 20-6M

Pressure:	20'000 psi	1'380 bar	Tube:	3/8"	9.5 mm	OD (outer diameter)
				0.2"	5.2 mm	ID (inner diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	MPCT	NOVASWISS Standard: 6M	
MPCT Medium Pressure Cone + Thread; imperial UNF thread						

Block Valves and Bleed Valves

BBV-20-6M	Block Bleed Valve
DBV-20-6M	Doubleblock Bleed Valve



Check Valves

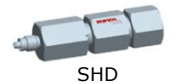
CVP-20-6M	Check valve
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Safety Heads

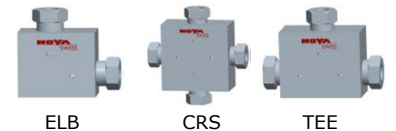
without bursting disk

SHD-20-6M	Safety head
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Fittings

ELB-20-6M	Elbow
TEE-20-6M	Tee
TEE-20-6M-4M *	Tee
CRS-20-6M	Fitting cross
CRS-20-6M-4M *	Fitting cross
BLK-20-6M	Bulkhead



Filters

suitable adaptors necessary: AMF206M6H - SNP606 / RNP606

FIL-40-6E	Filter	5 my, 3/8" Metric, 4000 bar
FIL-40-6E-10	Filter	10 my, 3/8" Metric, 4000 bar
FMI-40-6E-10 *	Filter mesh inline	10 my, 3/8" Metric, 4000 bar
FMI-40-6E-65 *	Filter mesh inline	65 my, 3/8" Metric, 4000 bar



Extended Temperature Valves

downgraded to 15 kpsi / 1000 bar

NV1-15-6M-ET-4 *	Needle Valve	H2 compatible	-200/+300°C
NV1-15-6M-ATO-ET-4 *	Needle Valve pneum. drive	H2 compatible	-200/+300°C



* On demand products

NOVASWISS Components for the Line 20-6M

Pressure:	20'000 psi	1'380 bar	Tube:	3/8"	9.5 mm	OD (outer diameter)
				0.2"	5.2 mm	ID (inner diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	MPCT	NOVASWISS Standard: 6M	
MPCT Medium Pressure Cone + Thread; imperial UNF thread						

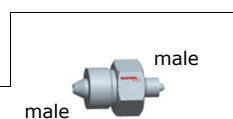
Hydrogen compatible components (H2 components)

Other hydrogen compatible components from the standard product lines are available on request.

NV1-15-6M-ET-4 *	Needle Valve	H2 compatible	-200/300°C
NV1-20-6M-4 *	Needle valve		straight valve
NV2-20-6M-4 *	Needle valve		angle valve
NV5-20-6M-4 *	Needle valve		valve with replaceable seat
NV1-15-6M-ATO-ET-4 *	Needle Valve pneum. driver	H2 compatible	-200/+300°C
NV1-20-6M-ATO-4 *	Air-operated needle valve		straight valve
NV1-20-6M-ATC-4 *	Air-operated needle valve		straight valve
NV2-20-6M-ATO-4 *	Air-operated needle valve		angle valve
NV2-20-6M-ATC-4 *	Air-operated needle valve		angle valve
NV5-20-6M-ATO-4 *	Air-operated needle valve		valve with replaceable seat
CVP-20-6M-4 *	Check valve H2		
SHD-20-6M-4 *	Safety head		
AMF-20-4M-6M-4 *	Adapter	female 3/8" MPCT	to male 1/4" MPCT
AMF-20-9M-6M-4 *	Adaptor	female 3/8" MPCT	to male 9/16" MPCT
AMF-20-6M-4M-4 *	Adaptor	male 3/8" MPCT	to female 1/4" MPCT
AMF-20-6M-9M-4 *	Adaptor	male 3/8" MPCT	to female 9/16" MPCT
AMF-20-6M-4H-4 *	Adaptor	male 3/8" MPCT	to female 1/4" HPCT
AMF-20-6M-6H-4 *	Adaptor	male 3/8" MPCT	to female 3/8" HPCT
AMF-20-6M-9H-4 *	Adaptor	male 3/8" MPCT	to female 9/16" HPCT
AMM-20-6M-6M-4 *	Connector	male 3/8" MPCT	to male 3/8" MPCT
FIL-20-6E-10-4 *	Filter	10 my, 3/8" Metric, 2000 bar, H2	

Adaptors, Couplings, Connectors

AFF-20-4M-6M	Coupling	female 3/8" MPCT	to	female 1/4" MPCT
AFF-20-6M-6M	Coupling	female 3/8" MPCT	to	female 3/8" MPCT
AFF-20-6M-9M	Coupling	female 3/8" MPCT	to	female 9/16" MPCT
AFF-20-6M-4H	Coupling	female 3/8" MPCT	to	female 1/4" HPCT
AFF-20-6M-6H	Coupling	female 3/8" MPCT	to	female 3/8" HPCT
AFF-20-6M-9H	Coupling	female 3/8" MPCT	to	female 9/16" HPCT
AFF-20-16M-6M *	Coupling	female 3/8" MPCT	to	female 1" MPCT
AMF-20-4H-6M	Adaptor	female 3/8" MPCT	to	male 1/4" HPCT
AMF-20-6H-6M	Adaptor	female 3/8" MPCT	to	male 3/8" HPCT
AMF-20-9H-6M	Adaptor	female 3/8" MPCT	to	male 9/16" HPCT
AMF-20-4M-6M	Adaptor	female 3/8" MPCT	to	male 1/4" MPCT
AMF-20-9M-6M	Adaptor	female 3/8" MPCT	to	male 9/16" MPCT
AMF-20-6M-4M	Adaptor	male 3/8" MPCT	to	female 1/4" MPCT
AMF-20-6M-9M	Adaptor	male 3/8" MPCT	to	female 9/16" MPCT
AMF-20-6M-4H	Adaptor	male 3/8" MPCT	to	female 1/4" HPCT
AMF-20-6M-6H	Adaptor	male 3/8" MPCT	to	female 3/8" HPCT
AMF-20-6M-9H	Adaptor	male 3/8" MPCT	to	female 9/16" HPCT
AMM-20-6M-6M	Connector	male 3/8" MPCT	to	male 3/8" MPCT



NOVASWISS Components for the Line 20-6M

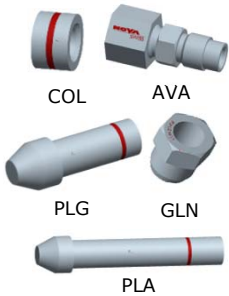
Pressure:	20'000 psi	1'380 bar	Tube:	3/8"	9.5 mm	OD (outer diameter)
				0.2"	5.2 mm	ID (inner diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	MPCT	NOVASWISS Standard: 6M	
MPCT Medium Pressure Cone + Thread; imperial UNF thread						

Gauge Couplings

GFF	not available
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Glands, Collars, Plugs - packages of 10 units

GLN-20-6M-10P	Glands
COL-20-6-10P	Collars
PLG-20-6-10P	Plugs
AVA-20-6M-10P	Anti vibration assembly (glands and collars)
AVA-20-6M-10P consisting of (not available separately):	
GLA-20-6	Glands anti vibration
COL-20-6	Collars anti vibration
COT-20-6	Collet anti vibro
NUT-20-6	Gland Nut anti vibration
PLA-20-6-10P	Plugs anti vibration



Tools for Preparing the Tubes

580.1000	Coning tool	without collet
581.9125	Collet	3/8" - 9-10mm
580.2020	Manual threading tool	3/8"

Application

All NOVASWISS components are delivered with glands and collars. Temperature range is from -50 °C to +65 °C (Centigrade Celsius).

All NOVASWISS components are designed, built and marked according to CE regulation.

The maximum allowable working pressure (MAWP) is marked on each component (body).

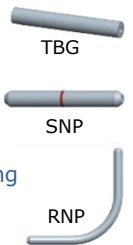
* On demand products

NOVASWISS Components for the Line 20-9M

Pressure:	20'000 psi	1'380 bar	Tube:	9/16"	14.3 mm	OD (outer diameter)
				0.31"	7.9 mm	ID (inner diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	MPCT	NOVASWISS Standard: 9M	
MPCT Medium Pressure Cone + Thread; imperial UNF thread						

Tubes and Nipples

TBG-20-9		Tubes in 6m length	OD 9/16" / ID 7.87 mm, 20 kpsi
TBG-20-9A	NACE	Tubes in 6m length	OD 9/16"/14.29 mm / ID 7.0 mm, 20 kpsi
SNP-20-9		Straight nipple with threads	9/16", 20 kpsi, 88 mm (3.46")
SNP-20-9A	NACE	Straight nipple with threads	9/16", 20 kpsi, 88 mm (3.46"), NACE
SNA-20-9 *		Straight nipple with threads	9/16", 20kpsi, 140 mm (5.51"), for anti vibration assembling
RNP-20-9		Radius nipple with threads	90°, 9/16", 20 kpsi
RNA-20-9 *		Radius nipple with threads	90°, 9/16", 20 kpsi, for anti vibration assembling

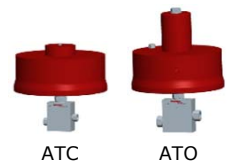
**Needle Valves (Hand Valves)**

NV1-20-9M	Straight valve	
NV2-20-9M	Angle valve	
NV3-20-9M *	T-valve	
NV5-20-9M	Valve with replaceable seat	
NV5-20-9M-7 *	Valve with replaceable seat	with high cycling stem

**Pneumatic Driven Needle Valves (air-operated needle valve; ATO: normally closed, ATC: normally open)**

The maximal actuator pressure is 7 bar (100 psi); the optimal operating pressure is indicated on the label of the air actuator

NV1-20-9M-ATO	Straight valve	Air to Open	
NV1-20-9M-ATC	Straight valve	Air to Close	
NV2-20-9M-ATO	Angle valve	Air to Open	
NV2-20-9M-ATC	Angle valve	Air to Close	
NV3-20-9M-ATO *	T-valve	Air to Open	
NV3-20-9M-ATC *	T-valve	Air to Close	
NV5-20-9M-ATO	V. with replaceable seat	Air to Open	
NV5-20-9M-ATC	V. with replaceable seat	Air to Close	
NV1-20-9M-ATO-7 *	Straight valve	Air to Open	with high cycling stem
NV5-20-9M-ATO-7 *	V. with replaceable seat	Air to Open	with high cycling stem
NV5-20-9M-ATC-7 *	V. with replaceable seat	Air to Close	with high cycling stem
NV1-20-9M-ATO-1 *	Straight valve	Air to Open	Support for 2 induc. position sensors (without sensors)
NV2-20-9M-ATO-1 *	Angle valve	Air to Open	Support for 2 induc. position sensors (without sensors)
NV2-20-9M-ATC-1 *	Angle valve	Air to Close	Support for 2 induc. position sensors (without sensors)

**Safety Valves**

not available

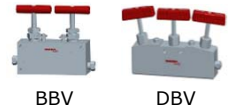
* On demand products

NOVASWISS Components for the Line 20-9M

Pressure:	20'000 psi	1'380 bar	Tube:	9/16"	14.3 mm	OD (outer diameter)
				0.31"	7.9 mm	ID (inner diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	MPCT	NOVASWISS Standard: 9M	
MPCT Medium Pressure Cone + Thread; imperial UNF thread						

Block Valves and Bleed Valves

DBV-20-9M *	Doubleblock Bleed Valve
BBV	not available

**Check Valves**

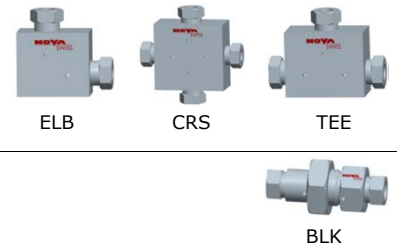
CVP-20-9M	Check valve
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**Safety Heads** without bursting disk

SHD-20-9M	Safety head
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**Fittings**

ELB-20-9M	Elbow
TEE-20-9M	Tee
TEE-20-9M-4M *	Tee
CRS-20-9M	Fitting cross
BLK-20-9M	Bulkhead

**Filters**

FIL	not available
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**Extended Temperature Valves** downgraded to 15 kpsi / 1000 bar

NV1-15-9M-ET *	Needle Valve	-200/+300°C
NV1-15-9M-ET-4 *	Needle Valve, H2 compatible	-200/+300°C
NV1-15-9M-ATC-ET *	Needle Valve air to close	-200/+300°C
NV1-15-9M-ATC-ET-4 *	Needle Valve air to close, H2 compatible	-200/+300°C
NV1-15-9M-ATO-ET *	Needle Valve air to open	-200/+300°C
NV1-15-9M-ATO-ET-4 *	Needle Valve air to open, H2 compatible	-200/+300°C



* On demand products

NOVASWISS Components for the Line 20-9M

Pressure:	20'000 psi	1'380 bar	Tube:	9/16"	14.3 mm	OD (outer diameter)
				0.31"	7.9 mm	ID (inner diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	MPCT	NOVASWISS Standard: 9M	
MPCT Medium Pressure Cone + Thread; imperial UNF thread						

Hydrogen compatible components (H2 components)

Other hydrogen compatible components from the standard product lines are available on request.

NV1-20-9M-4 *	Needle valve	straight valve				
NV5-20-9M-4 *	Needle valve	valve with replaceable seat				
NV1-15-9M-ATC-ET-4 *	Needle Valve air to close, H2 compatible	-200/+300°C				
NV1-15-9M-ATO-ET-4 *	Needle Valve air to open, H2 compatible	-200/+300°C				
NV1-20-9M-ATO-4 *	Air-operated needle valve	straight valve				
NV1-20-9M-ATC-4 *	Air-operated needle valve	straight valve				
NV2-20-9M-ATO-4 *	Air-operated needle valve	angle valve				
NV5-20-9M-ATO-4 *	Air-operated needle valve	valve with replaceable seat				
NV1-20-9M-ATO-14 *	Air-operated needle valve	straight valve				
CVP-20-9M-4 *	Check valve H2					
SHD-20-9M-4 *	Safety head	(without bursting disk)				
AMF-20-4M-9M-4 *	Adaptor	female	9/16" MPCT	to	male 1/4" MPCT	
AMF-20-6M-9M-4 *	Adaptor	female	9/16" MPCT	to	male 3/8" MPCT	
AMF-20-9M-4M-4 *	Adaptor	male	9/16" MPCT	to	female 1/4" MPCT	
AMF-20-9M-6M-4 *	Adaptor	male	9/16" MPCT	to	female 3/8" MPCT	
AMF-20-9M-12M-4 *	Adaptor	male	9/16" MPCT	to	female 3/4" MPCT	
AMF-20-9M-16M-4 *	Adaptor	male	9/16" MPCT	to	female 1" MPCT	
AMF-20-9M-4H-4 *	Adaptor	male	9/16" MPCT	to	female 1/4" HPCT	
AMF-20-9M-6H-4 *	Adaptor	male	9/16" MPCT	to	female 3/8" HPCT	
AMF-20-9M-9H-4 *	Adaptor	male	9/16" MPCT	to	female 9/16" HPCT	
AMM-20-9M-9M-4 *	Connector	male	9/16" MPCT	to	male 9/16" MPCT	
GFF-20-8B-9M-4 *	Gauge coupling H2	9/16" MPCT - 1/2" BSPP, 20 kpsi				

Adaptors, Couplings, Connectors

AFF-20-4M-9M	Coupling	female	9/16" MPCT	to	female 1/4" MPCT	
AFF-20-6M-9M	Coupling	female	9/16" MPCT	to	female 3/8" MPCT	
AFF-20-9M-9M	Coupling	female	9/16" MPCT	to	female 9/16" MPCT	
AFF-20-9M-4H	Coupling	female	9/16" MPCT	to	female 1/4" HPCT	
AFF-20-9M-6H	Coupling	female	9/16" MPCT	to	female 3/8" HPCT	
AFF-20-9M-9H	Coupling	female	9/16" MPCT	to	female 9/16" HPCT	
AFF-20-16M-9M *	Coupling	female	9/16" MPCT	to	female 1" MPCT	
AMF-20-4H-9M	Adaptor	female	9/16" MPCT	to	male 1/4" HPCT	
AMF-20-6H-9M	Adaptor	female	9/16" MPCT	to	male 3/8" HPCT	
AMF-20-9H-9M	Adaptor	female	9/16" MPCT	to	male 9/16" HPCT	
AMF-20-4M-9M	Adaptor	female	9/16" MPCT	to	male 1/4" MPCT	
AMF-20-6M-9M	Adaptor	female	9/16" MPCT	to	male 3/8" MPCT	
AMF-20-12M-9M *	Adaptor	female	9/16" MPCT	to	male 3/4" MPCT	
AMF-20-16M-9M *	Adaptor	female	9/16" MPCT	to	male 1" MPCT	

* On demand products

NOVASWISS Components for the Line 20-9M

Pressure:	20'000 psi	1'380 bar	Tube:	9/16"	14.3 mm	OD (outer diameter)
				0.31"	7.9 mm	ID (inner diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	MPCT	NOVASWISS Standard: 9M	
MPCT Medium Pressure Cone + Thread; imperial UNF thread						

Adaptors, Couplings, Connectors (continued)

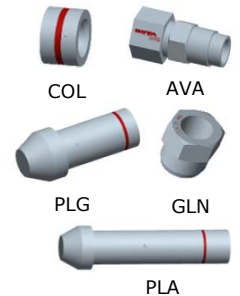
AMF-20-9M-4M	Adaptor	male	9/16" MPCT	to	female 1/4" MPCT	
AMF-20-9M-6M	Adaptor	male	9/16" MPCT	to	female 3/8" MPCT	
AMF-20-9M-12M *	Adaptor	male	9/16" MPCT	to	female 3/4" MPCT	
AMF-20-9M-16M *	Adaptor	male	9/16" MPCT	to	female 1" MPCT	
AMF-20-9M-4H	Adaptor	male	9/16" MPCT	to	female 1/4" HPCT	
AMF-20-9M-6H	Adaptor	male	9/16" MPCT	to	female 3/8" HPCT	
AMF-20-9M-9H	Adaptor	male	9/16" MPCT	to	female 9/16" HPCT	
AMM-20-9M-9M	Connector	male	9/16" MPCT	to	male 9/16" MPCT	

Gauge Couplings

GFF-20-8B-9M-4 *	Gauge coupling H2	9/16" MPCT - 1/2" BSPP, 20 kpsi
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Glands, Collars, Plugs - packages of 10 units

GLN-20-9M-10P	Glands
COL-20-9-10P	Collars
PLG-20-9-10P	Plugs
AVA-20-9M-10P	Anti vibration assembly (glands and collars)
AVA-20-9M-10P consisting of (not available separately):	
GLA-20-9	Glands anti vibration
COL-20-9	Collars anti vibration
COT-20-9	Collet anti vibro
NUT-20-9	Gland Nut anti vibration
PLA-20-9-10P	Plugs anti vibration

**Tools for Preparing the Tubes**

580.1000	Coning tool	without collet
581.9124	Collet	9/16" - 14-15mm
580.2010	Manual threading tool	9/16"

Application

All NOVASWISS components are delivered with glands and collars. Temperature range is from -50 °C to +65 °C (Centigrade Celsius).

All NOVASWISS components are designed, built and marked according to CE regulation.

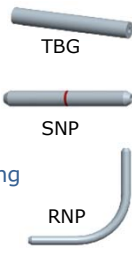
The maximum allowable working pressure (MAWP) is marked on each component (body).

* On demand products

NOVASWISS Components for the Line 20-12M

Pressure:	20'000 psi	1'380 bar	Tube:	3/4"	19.1 mm	OD (outer diameter)
				0.44"	11.1 mm	ID (inner diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	MPCT	NOVASWISS Standard: 12M	
MPCT Medium Pressure Cone + Thread; imperial UNF thread						

Tubes and Nipples

TBG-20-12	Tubes in 6m length	OD 3/4" / ID 11.1 mm, 20 kpsi	
TBG-20-12-A * NACE	Tubes in 6m length	OD 3/4"/19.05 mm / ID 9.5 mm, 20 kpsi	
SNP-20-12	Straight nipple with threads	3/4", 20 kpsi, 104 mm (4.09")	
SNP-20-12-A * NACE	Straight nipple with threads	3/4", 20 kpsi, 104 mm (4.09"), NACE	
SNA-20-12 *	Straight nipple with threads	3/4", 20 kpsi, 165 mm (6.49"), for anti vibration assembling	
RNP-20-12	Radius nipple with threads	90°, 3/4", 20 kpsi	
RNA-20-12 *	Radius nipple with threads	90°, 3/4", 20 kpsi, for anti vibration assembling	

Needle Valves (Hand Valves)

NV1-20-12M	Straight valve	
NV2-20-12M	Angle valve	
NV3-20-12M *	T-valve	
NV5-20-12M *	Valve with replaceable seat	

Pneumatic Driven Needle Valves (air-operated needle valve; ATO: normally closed, ATC: normally open)

The maximal actuator pressure is 7 bar (100 psi); the optimal operating pressure is indicated on the label of the air actuator

NV	not available	
		ATC ATO

Safety Valves

not available

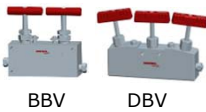
* On demand products

NOVASWISS Components for the Line 20-12M

Pressure:	20'000 psi	1'380 bar	Tube:	3/4"	19.1 mm	OD (outer diameter)
				0.44"	11.1 mm	ID (inner diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	MPCT	NOVASWISS Standard: 12M	
MPCT Medium Pressure Cone + Thread; imperial UNF thread						

Block Valves and Bleed Valves

BBV	not available
DBV	not available



Check Valves

CVP-20-12M	Check Valve	3/4" MP, 20 kpsi
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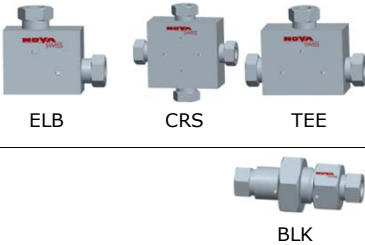
Safety Heads

SHD	not available
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Fittings

ELB-20-12M	Elbow	3/4" MP, 20 kpsi
TEE-20-12M	Tee	3/4" MP, 20 kpsi
TEE-20-4M-12M *	Tee	2 x 1/4"MP, 1 x 3/4"MP, 20 kpsi
CRS-20-12M	Fitting Cross	3/4" MP, 20 kpsi
BLK-20-12M	Bulkhead	3/4" MP, 20 kpsi



Filters

FIL	not available
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Extended Temperature Valves

NV-...-ET	not available
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NOVASWISS Components for the Line 20-12M

Pressure:	20'000 psi	1'380 bar	Tube:	3/4"	19.1 mm	OD (outer diameter)
				0.44"	11.1 mm	ID (inner diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	MPCT	NOVASWISS Standard: 12M	
MPCT Medium Pressure Cone + Thread; imperial UNF thread						

Hydrogen compatible components (H2 components)

Other hydrogen compatible components from the standard product lines are available on request.

NV1-20-12M-4 *	Needle valve	straight valve				
CVP-20-12M-4 *	Check valve	3/4" MP, 20 kpsi, H2				
AMF-20-9M-12M-4 *	Adaptor	female	3/4" MPCT	to	male 9/16" MPCT	

Adaptors, Couplings, Connectors

AFF-20-12M-12M	Coupling	female	3/4" MPCT	to	female 3/4" MPCT	
AMF-20-9M-12M	Adaptor	female	3/4" MPCT	to	male 9/16" MPCT	
AMF-20-16M-12M	Adaptor	female	3/4" MPCT	to	male 1" MPCT	
AMF-20-12M-4M	Adaptor	male	3/4" MPCT	to	female 3/4" MPCT	
AMF-20-12M-9M	Adaptor	male	3/4" MPCT	to	female 3/4" MPCT	

Gauge Couplings

GFF	not available
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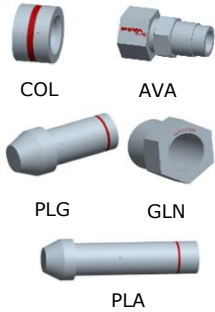
* On demand products

NOVASWISS Components for the Line 20-12M

Pressure:	20'000 psi	1'380 bar	Tube:	3/4"	19.1 mm	OD (outer diameter)
				0.44"	11.1 mm	ID (inner diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	MPCT	NOVASWISS Standard: 12M	
MPCT Medium Pressure Cone + Thread; imperial UNF thread						

Glands, Collars, Plugs - packages of 10 units

GLN-20-12M-10P	Glands
COL-20-12-10P	Collars
PLG-20-12-10P	Plugs
AVA-20-12M-10P	Anti vibration assembly (glands and collars)
AVA-20-12M-10P consisting of (not available separately):	
GLA-20-12	Glands anti vibration
COL-20-12	Collars anti vibration
COT-20-12	Collet anti vibro
NUT-20-12	Gland Nut anti vibration
PLA-20-12-10P	Plugs anti vibration



Tools for Preparing the Tubes

not available

Application

All NOVASWISS components are delivered with glands and collars. Temperature range is from -50 °C to +65 °C (Centigrade Celsius).

All NOVASWISS components are designed, built and marked according to CE regulation.

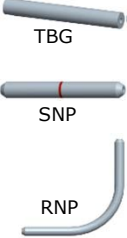
The maximum allowable working pressure (MAWP) is marked on each component (body).

* On demand products

NOVASWISS Components for the Line 20-16M

Pressure:	20'000 psi	1'380 bar	Tube:	1"	25.4 mm	OD (outer diameter)
				0.56"	14.3 mm	ID (inner diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	MPCT	NOVASWISS Standard 16M	
MPCT Medium Pressure Cone + Thread; imperial UNF thread						

Tubes and Nipples

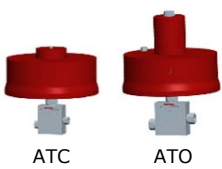
TBG-20-16	Tubes in 6m length	OD 1" / ID 9/16", 20 kpsi	
TBG-20-16-A * NACE	Tubes in 6m length	OD 1"/25.4 mm / ID 12.6 mm, 20 kpsi	
SNP-20-16	Straight nipple with threads	1", 20 kpsi, 138 mm (5.43")	
SNP-20-16-A * NACE	Straight nipple with threads	1", 20 kpsi, 138 mm (5.43"), NACE	
SNA-20-16 *	Straight nipple with threads	1", 20 kpsi, 222 mm (8.74"), for anti vibration assembling	
RNP-20-16	Radius nipple with threads	90°, 1", 20 kpsi	
RNA-20-16 *	Radius nipple with threads	90°, 1", 20 kpsi, for anti vibration assembling	

Needle Valves (Hand Valves)

NV1-20-16M	Straight valve	
NV2-20-16M	Angle valve	
NV3-20-16M *	T-valve	
NV5-20-16M *	Valve with replaceable seat	

Pneumatic Driven Needle Valves (air-operated needle valve; ATO: normally closed, ATC: normally open)

The maximal actuator pressure is 7 bar (100 psi); the optimal operating pressure is indicated on the label of the air actuator

NV5-20-16M-ATO-12	V. with replaceable seat	Type 5, 1" MP, 20 kpsi, ATO, spez.	
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Safety Valves

not available

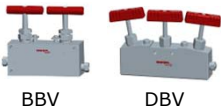
* On demand products

NOVASWISS Components for the Line 20-16M

Pressure:	20'000 psi	1'380 bar	Tube:	1"	25.4 mm	OD (outer diameter)
				0.56"	14.3 mm	ID (inner diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	MPCT	NOVASWISS Standard 16M	
MPCT Medium Pressure Cone + Thread; imperial UNF thread						

Block Valves and Bleed Valves

BBV	not available
DBV	not available



Check Valves

CVP-20-16M	Check valve
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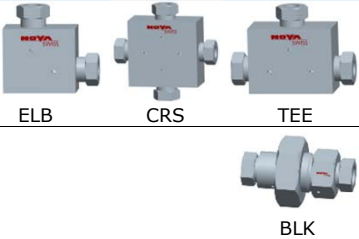
Safety Heads

SHD	not available
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Fittings

ELB-20-16M	Elbow
TEE-20-16M	Tee
CRS-20-16M	Fitting cross
BLK-20-16M	Bulkhead



Filters

FIL	not available
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Extended Temperature Valves

NV.-...-ET	not available
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NOVASWISS Components for the Line 20-16M

Pressure:	20'000 psi	1'380 bar	Tube:	1"	25.4 mm	OD (outer diameter)
				0.56"	14.3 mm	ID (inner diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	MPCT	NOVASWISS Standard 16M	
MPCT Medium Pressure Cone + Thread; imperial UNF thread						

Hydrogen compatible components (H2 components)

Other hydrogen compatible components from the standard product lines are available on request.

NV5-20-16M-4 *	Needle valve	valve with replaceable seat				
NV5-15-16M-ATO-4	Air-operated needle valve	valve with replaceable seat	pressure downgraded to 15 kpsi			
CVP-20-16M-4 *	Check valve					
AMF-20-9M-16M-4 *	Adaptor	female	1" MPCT	to	male 9/16" MPCT	

Adaptors, Couplings, Connectors

AFF-20-16M-6M *	Coupling	female	1" MPCT	to	female 3/8" MPCT	 male
AFF-20-16M-9M *	Coupling	female	1" MPCT	to	female 9/16" MPCT	
AFF-20-16M-16M	Coupling	female	1" MPCT	to	female 1" MPCT	
AFX-20-16M	Coupling	female	1" MPCT	to	blank	 blank female
AMF-20-9M-16M *	Adaptor	female	1" MPCT	to	male 9/16" MPCT	 female
AMF-20-9H-16M *	Adaptor	female	1" MPCT	to	male 9/16" HPCT	
AMF-20-16M-4M	Adaptor	male	1" MPCT	to	female 1/4" MPCT	
AMF-20-16M-9M	Adaptor	male	1" MPCT	to	female 9/16" MPCT	
AMF-20-16M-12M	Adaptor	male	1" MPCT	to	female 3/4" MPCT	

Gauge Couplings

GFF	not available
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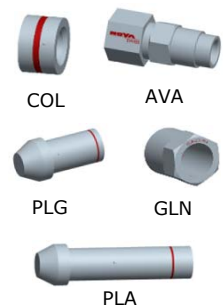
* On demand products

NOVASWISS Components for the Line 20-16M

Pressure:	20'000 psi	1'380 bar	Tube:	1"	25.4 mm	OD (outer diameter)
				0.56"	14.3 mm	ID (inner diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	MPCT	NOVASWISS Standard 16M	
MPCT Medium Pressure Cone + Thread; imperial UNF thread						

Glands, Collars, Plugs - packages of 10 units

GLN-20-16M-10P	Glands
COL-20-16-10P	Collars
PLG-20-16-10P	Plugs
AVA-20-16M-10P	Anti vibration assembly (glands and collars)
AVA-20-16M-10P consisting of (not available separately):	
GLA-20-16M	Glands anti vibration
COL-20-16	Collars anti vibration
COT-20-16	Collet anti vibro
NUT-20-16	Gland Nut anti vibration
PLA-20-16-10P	Plugs anti vibration



Tools for Preparing the Tubes

not available

Application

All NOVASWISS components are delivered with glands and collars. Temperature range is from -50 °C to +65 °C (Centigrade Celsius).

All NOVASWISS components are designed, built and marked according to CE regulation.

The maximum allowable working pressure (MAWP) is marked on each component (body).

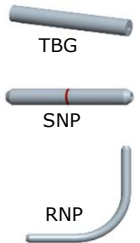
* On demand products

NOVASWISS Components for the Line 30-4H

Pressure:	30'000 psi	2'070 bar	Tube:	1/4"	6.4 mm	OD (outer diameter)
				0.09"	2.4 mm	ID (inner diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	HPCT	NOVASWISS Standard: 4H	
HPCT High Pressure Cone + Thread, imperial UNF thread						

Tubes and Nipples

TBG-30-4A *	Tubes in 6m length	OD 1/8"/6.35 mm / ID 2.38 mm, 30 kpsi
SNP-30-4A *	Straight nipple with threads	1/4", 30 kpsi, 64 mm (2.52"), NACE
RNP	not available	

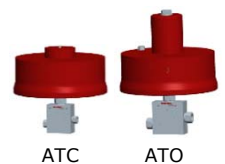
**Needle Valves (Hand Valves)**

NV1-30-4H *	Straight valve	
NV1-30-4H-MV *	Straight valve	with metering stem
NV2-30-4H *	Angle valve	
NV3-30-4H *	T-valve	
NV5-30-4H *	Valve with replaceable seat	
NV5-30-4H-MV *	Valve with replaceable seat	with metering stem

**Pneumatic Driven Needle Valves (air-operated needle valve; ATO: normally closed, ATC: normally open)**

The maximal actuator pressure is 7 bar (100 psi); the optimal operating pressure is indicated on the label of the air actuator

NV1-30-4H-ATO *	Straight valve	Air to Open	
NV1-30-4H-ATC *	Straight valve	Air to Close	
NV2-30-4H-ATO *	Angle valve	Air to Open	
NV2-30-4H-ATC *	Angle valve	Air to Close	
NV3-30-4H-ATO *	T-valve	Air to Open	
NV3-30-4H-ATC *	T-valve	Air to Close	
NV5-30-4H-ATO *	V. with replaceable seat	Air to Open	
NV5-30-4H-ATC *	V. with replaceable seat	Air to Close	
NV5-30-4H-ATO-7 *	V. with replaceable seat	Air to Open	with high cycling stem
NV1-30-4H-ATC-1 *	Straight valve	Air to Close	Support for 2 induc. position sensors (without sensors)

**Safety Valves**

		setting range	
HPSV2-36-M105	High Pressure Safety Valve	0.07/36 kpsi	5/2500 bar
HPSV2-36-M105-ET	High Pressure Safety Valve extreme temperature	0.07/36 kpsi	5/2500 bar

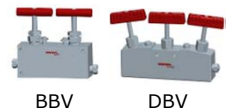
* On demand products

NOVASWISS Components for the Line 30-4H

Pressure:	30'000 psi	2'070 bar	Tube:	1/4"	6.4 mm	OD (outer diameter)
				0.09"	2.4 mm	ID (inner diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	HPCT	NOVASWISS Standard: 4H	
HPCT High Pressure Cone + Thread, imperial UNF thread						

Block Valves and Bleed Valves

BBV	not available
DBV	not available



Check Valves

CVP-30-4H *	Check valve
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Safety Heads

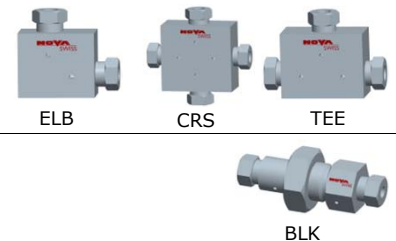
without bursting disk

SHD-30-4H *	Safety head
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Fittings

ELB-30-4H *	Elbow
TEE-30-4H *	Tee
CRS-30-4H *	Fitting cross
BLK-30-4H *	Bulkhead



Filters

suitable nipple necessary: SNP604 / RNP604

FIL-40-4E	Filter	5 my, 1/4" Metric, 4000 bar
FIL-40-4E-10	Filter	10 my, 1/4" Metric, 4000 bar
FIL-40-4E-2 *	Filter	2 my, 1/4" Metric, 4000 bar
FMI-40-4E-10 *	Filter mesh inline	10 my, 1/4" Metric, 4000 bar
FMI-40-4E-65 *	Filter mesh inline	65 my, 1/4" Metric, 4000 bar



Extended Temperature Valves

NV.-.-.-ET	not available
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* On demand products

NOVASWISS Components for the Line 30-4H

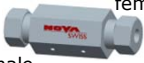
Pressure:	30'000 psi	2'070 bar	Tube:	1/4"	6.4 mm	OD (outer diameter)
				0.09"	2.4 mm	ID (inner diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	HPCT	NOVASWISS Standard: 4H	
HPCT High Pressure Cone + Thread, imperial UNF thread						

Hydrogen compatible components (H2 components)

Other hydrogen compatible components from the standard product lines are available on request.

SHD-30-4H-4 * Safety head (without bursting disk)

Adaptors, Couplings, Connectors

AFF-30-4H-4H *	Coupling	female 1/4" HPCT	to	female 1/4" HPCT	 female
AFF-30-4H-6H *	Coupling	female 1/4" HPCT	to	female 3/8" HPCT	
AFF-30-4H-9H *	Coupling	female 1/4" HPCT	to	female 9/16" HPCT	
AMF-30-6H-4H *	Adaptor	female 1/4" HPCT	to	male 3/8" HPCT	 female
AMF-30-9H-4H *	Adaptor	female 1/4" HPCT	to	male 9/16" HPCT	
AMF-30-4H-6H *	Adaptor	male 1/4" HPCT	to	female 3/8" HPCT	
AMF-30-4H-9H *	Adaptor	male 1/4" HPCT	to	female 9/16" HPCT	
AMM-30-4H-4H *	Connector	male 1/4" HPCT	to	male 1/4" HPCT	 male

Gauge Couplings

GFF not available

* On demand products

NOVASWISS Components for the Line 30-4H

Pressure:	30'000 psi	2'070 bar	Tube:	1/4"	6.4 mm	OD (outer diameter)
				0.09"	2.4 mm	ID (inner diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	HPCT	NOVASWISS Standard: 4H	
HPCT High Pressure Cone + Thread, imperial UNF thread						

Glands, Collars, Plugs - packages of 10 units

GLN-60-4H-10P	Glands
COL-60-4-10P	Collars
PLG-60-4-10P	Plugs
AVA-60-4H-10P	Anti vibration assembly (glands and collars)
	AVA-60-4H-10P consisting of:
GLA-60-4H-10P	Glands anti vibration
COA-60-4-10P	Collars anti vibration



Tools for Preparing the Tubes

580.1000	Coning tool	without collet
581.9128	Collet	1/4" - 6-7mm
580.2040	Manual threading tool	1/4"
580.3040	Tube bending tool	1/4", R25

Application

All NOVASWISS components are delivered with glands and collars. Temperature range is from -50 °C to +65 °C (Centigrade Celsius).

All NOVASWISS components are designed, built and marked according to CE regulation.

The maximum allowable working pressure (MAWP) is marked on each component (body).

* On demand products

NOVASWISS Components for the Line 30-6H

Pressure:	30'000 psi	2'070 bar	Tube:	3/8"	9.5 mm	OD (outer diameter)
				0.13(A)	3.2(A) mm	ID (inner diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	HPCT	NOVASWISS Standard: 6H	
				HPCT High Pressure Cone + Thread, imperial UNF thread		

Tubes and Nipples

TBG-30-6A * NACE	Tubes in 6m length	OD 3/8"/9.53 mm / ID 3.18 mm, 30 kpsi NACE	
SNP-30-6A * NACE	Straight nipple with threads	3/8", 30 kpsi, 82 mm (3.23"), NACE	
RNP	not available		

Needle Valves (Hand Valves)

NV1-30-6H *	Straight valve	
NV2-30-6H *	Angle valve	
NV3-30-6H *	T-valve	
NV5-30-6H *	Valve with replaceable seat	

Pneumatic Driven Needle Valves (air-operated needle valve; ATO: normally closed, ATC: normally open)

The maximal actuator pressure is 7 bar (100 psi); the optimal operating pressure is indicated on the label of the air actuator

NV1-30-6H-ATO *	Straight valve	Air to Open	 ATC ATO	
NV1-30-6H-ATC *	Straight valve	Air to Close		
NV2-30-6H-ATO *	Angle valve	Air to Open		
NV2-30-6H-ATC *	Angle valve	Air to Close		
NV3-30-6H-ATO *	T-valve	Air to Open		
NV3-30-6H-ATC *	T-valve	Air to Close		
NV5-30-6H-ATO *	V. with replaceable seat	Air to Open		
NV5-30-6H-ATC *	V. with replaceable seat	Air to Close		
NV5-30-6H-ATO-7 *	V. with replaceable seat	Air to Open		with high cycling stem
NV1-30-6H-ATC-1 *	Straight valve	Air to Close		Support for 2 induc. position sensors (without sensors)

Safety Valves

not available

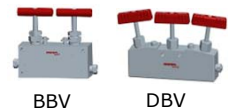
* On demand products

NOVASWISS Components for the Line 30-6H

Pressure:	30'000 psi	2'070 bar	Tube:	3/8"	9.5 mm	OD (outer diameter)
				0.13(A)	3.2(A) mm	ID (inner diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	HPCT	NOVASWISS Standard: 6H	
HPCT High Pressure Cone + Thread, imperial UNF thread						

Block Valves and Bleed Valves

BBV	not available
DBV	not available



Check Valves

CVP-30-6H *	Check valve
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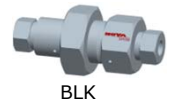
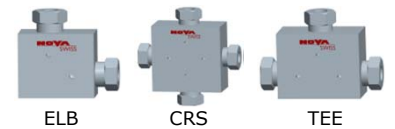
Safety Heads

SHD-30-6H *	Safety head
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Fittings

ELB-30-6H *	Elbow
TEE-30-6H *	Tee
CRS-30-6H *	Fitting cross
BLK-30-6H *	Bulkhead



Filters

FIL-40-6E	Filter	5 my, 3/8" Metric, 4000 bar
FIL-40-6E-10	Filter	10 my, 3/8" Metric, 4000 bar
FMI-40-6E-10 *	Filter mesh inline	10 my, 3/8" Metric, 4000 bar
FMI-40-6E-65 *	Filter mesh inline	65 my, 3/8" Metric, 4000 bar



Extended Temperature Valves

NV-...-ET	not available
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* On demand products

NOVASWISS Components for the Line 30-6H

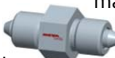
Pressure:	30'000 psi	2'070 bar	Tube:	3/8"	9.5 mm	OD (outer diameter)
				0.13(A)	3.2(A) mm	ID (inner diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	HPCT	NOVASWISS Standard: 6H	
HPCT High Pressure Cone + Thread, imperial UNF thread						

Hydrogen compatible components (H2 components)

Other hydrogen compatible components from the standard product lines are available on request.

NV1-30-6H-4 *	Needle valve	straight valve
SHD-30-6H-4 *	Safety head	(without bursting disk)

Adaptors, Couplings, Connectors

AFF-30-4H-6H *	Coupling	female 3/8" HPCT	to	female 1/4" HPCT	 female
AFF-30-6H-6H *	Coupling	female 3/8" HPCT	to	female 3/8" HPCT	
AFF-30-6H-9H *	Coupling	female 3/8" HPCT	to	female 9/16" HPCT	
AMF-30-4H-6H *	Adaptor	female 3/8" HPCT	to	male 1/4" HPCT	 female
AMF-30-9H-6H *	Adaptor	female 3/8" HPCT	to	male 9/16" HPCT	
AMF-30-6H-4H *	Adaptor	male 3/8" HPCT	to	female 1/4" HPCT	
AMF-30-6H-9H *	Adaptor	male 3/8" HPCT	to	female 9/16" HPCT	
AMM-30-6H-6H *	Connector	male 3/8" HPCT	to	male 3/8" HPCT	 male

Gauge Couplings

GFF	not available
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* On demand products

NOVASWISS Components for the Line 30-6H

Pressure:	30'000 psi	2'070 bar	Tube:	3/8"	9.5 mm	OD (outer diameter)
				0.13(A)	3.2(A) mm	ID (inner diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	HPCT	NOVASWISS Standard: 6H	
				HPCT High Pressure Cone + Thread, imperial UNF thread		

Glands, Collars, Plugs - packages of 10 units

GLN-60-6H-10P	Glands
COL-60-6-10P	Collars
PLG-60-6-10P	Plugs
AVA-60-6H-10P	Anti vibration assembly (glands and collars)
	AVA-60-6H-10P consisting of:
GLA-60-6H-10P	Glands anti vibration
COA-60-6-10P	Collars anti vibration



Tools for Preparing the Tubes

580.1000	Coning tool	without collet
581.9125	Collet	3/8" - 9-10mm
580.2020	Manual threading tool	3/8"

Application

All NOVASWISS components are delivered with glands and collars. Temperature range is from -50 °C to +65 °C (Centigrade Celsius).

All NOVASWISS components are designed, built and marked according to CE regulation.

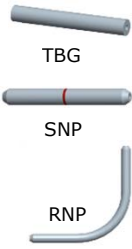
The maximum allowable working pressure (MAWP) is marked on each component (body).

* On demand products

NOVASWISS Components for the Line 30-9H

Pressure:	30'000 psi	2'070 bar	Tube:	9/16"	14.3 mm	OD (outer diameter)
				0.19(A)"	4.8(A) mm	ID (inner diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	HPCT	NOVASWISS Standard: 9H	
HPCT High Pressure Cone + Thread, imperial UNF thread						

Tubes and Nipples

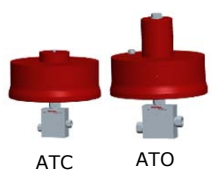
TBG-30-9A	NACE	Tubes in 6m length	OD 9/16"/14.29 mm / ID 4.76 mm, 30 kpsi	
SNP-30-9A	* NACE	Straight nipple with threads	9/16", 30 kpsi, 104 mm (4.09"), NACE	
RNP		not available		

Needle Valves (Hand Valves)

NV1-30-9H	*	Straight valve	
NV2-30-9H	*	Angle valve	
NV3-30-9H	*	T-valve	
NV5-30-9H	*	Valve with replaceable seat	
NV1-30-9H-MV	*	Straight valve with metering stem	

Pneumatic Driven Needle Valves (air-operated needle valve; ATO: normally closed, ATC: normally open)

The maximal actuator pressure is 7 bar (100 psi); the optimal operating pressure is indicated on the label of the air actuator

NV1-30-9H-ATO	*	Straight valve	Air to Open	
NV1-30-9H-ATC	*	Straight valve	Air to Close	
NV2-30-9H-ATO	*	Angle valve	Air to Open	
NV2-30-9H-ATC	*	Angle valve	Air to Close	
NV3-30-9H-ATO	*	T-valve	Air to Open	
NV3-30-9H-ATC	*	T-valve	Air to Close	
NV5-30-9H-ATO	*	V. with replaceable seat	Air to Open	
NV5-30-9H-ATC	*	V. with replaceable seat	Air to Close	

Safety Valves

not available

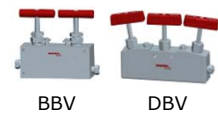
* On demand products

NOVASWISS Components for the Line 30-9H

Pressure:	30'000 psi	2'070 bar	Tube:	9/16"	14.3 mm	OD (outer diameter)
				0.19(A)"	4.8(A) mm	ID (inner diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	HPCT	NOVASWISS Standard: 9H	
HPCT High Pressure Cone + Thread, imperial UNF thread						

Block Valves and Bleed Valves

BBV	not available
DBV	not available



Check Valves

CVP-30-9H *	Check valve
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Safety Heads

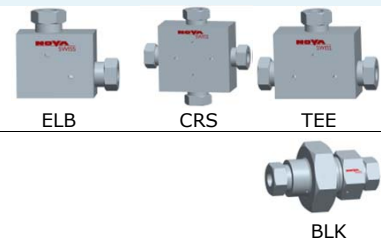
without bursting disk

SHD-30-9H *	Safety head
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Fittings

ELB-30-9H *	Elbow
TEE-30-9H *	Tee
CRS-30-9H *	Fitting cross
BLK-30-9H *	Bulkhead



Filters

FIL	not available
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Extended Temperature Valves

NV-...-ET	not available
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* On demand products

NOVASWISS Components for the Line 30-9H

Pressure:	30'000 psi	2'070 bar	Tube:	9/16"	14.3 mm	OD (outer diameter)
				0.19(A)"	4.8(A) mm	ID (inner diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	HPCT	NOVASWISS Standard: 9H	
HPCT High Pressure Cone + Thread, imperial UNF thread						

Hydrogen compatible components (H2 components)

Other hydrogen compatible components from the standard product lines are available on request.

SHD-30-9H-4 * Safety head (without bursting disk)

Adaptors, Couplings, Connectors

AFF-30-4H-9H *	Coupling	female	9/16" HPCT	to	female 1/4" HPCT	
AFF-30-6H-9H *	Coupling	female	9/16" HPCT	to	female 3/8" HPCT	
AFF-30-9H-9H *	Coupling	female	9/16" HPCT	to	female 9/16" HPCT	
AMF-30-4H-9H *	Adaptor	female	9/16" HPCT	to	male 1/4" HPCT	
AMF-30-6H-9H *	Adaptor	female	9/16" HPCT	to	male 3/8" HPCT	
AMF-30-9H-4H *	Adaptor	male	9/16" HPCT	to	female 1/4" HPCT	
AMF-30-9H-6H *	Adaptor	male	9/16" HPCT	to	female 3/8" HPCT	
AMM-30-9H-9H *	Connector	male	9/16" HPCT	to	male 9/16" HPCT	

Gauge Couplings

GFF not available

* On demand products

NOVASWISS Components for the Line 30-9H

Pressure:	30'000 psi	2'070 bar	Tube:	9/16"	14.3 mm	OD (outer diameter)
				0.19(A)"	4.8(A) mm	ID (inner diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	HPCT	NOVASWISS Standard: 9H	
				HPCT High Pressure Cone + Thread, imperial UNF thread		

Glands, Collars, Plugs - packages of 10 units

GLN-60-9H-10P	Glands
COL-60-9-10P	Collars
PLG-60-9-10P	Plugs
AVA-60-9H-10P	Anti vibration assembly (glands and collars)
	AVA-60-9H-10P consisting of:
GLA-60-9H-10P	Glands anti vibration
COA-60-9-10P	Collars anti vibration



Tools for Preparing the Tubes

580.1000	Coning tool	without collet
581.9124	Collet	9/16" - 14-15mm
580.2010	Manual threading tool	9/16"

Application

All NOVASWISS components are delivered with glands and collars. Temperature range is from -50 °C to +65 °C (Centigrade Celsius).

All NOVASWISS components are designed, built and marked according to CE regulation.

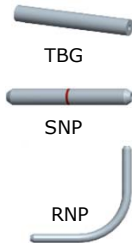
The maximum allowable working pressure (MAWP) is marked on each component (body).

* On demand products

NOVASWISS Components for the Line 60-4H

Pressure:	60'000 psi	4'140 bar	Tube:	1/4"	6.4 mm	OD (outer diameter)
				0.09"	2.4 mm	ID (inner diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	HPCT	NOVASWISS Standard 4H	
HPCT High Pressure Cone + Thread, imperial UNF thread						

Tubes and Nipples

TBG-60-4	Tubes in 6m length	OD 1/4" / ID 3/32", 60 kpsi	
SNP-60-4	Straight nipple with threads	1/4", 60 kpsi, 64 mm (2.52")	
RNP-60-4	Radius nipple with threads	90°, 1/4", 60 kpsi	

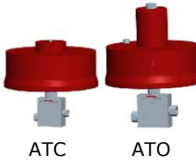
Needle Valves (Hand Valves)

NV1-60-4H	Straight valve	
NV2-60-4H	Angle valve	
NV3-60-4H *	T-valve	
NV5-60-4H	Valve with replaceable seat	
NV2-60-4H-MV *	Angle valve	

with metering stem

Pneumatic Driven Needle Valves (air-operated needle valve; ATO: normally closed, ATC: normally open)

The maximal actuator pressure is 7 bar (100 psi); the optimal operating pressure is indicated on the label of the air actuator

NV1-60-4H-ATO	Straight valve	Air to Open	
NV1-60-4H-ATC	Straight valve	Air to Close	
NV2-60-4H-ATO	Angle valve	Air to Open	
NV2-60-4H-ATC	Angle valve	Air to Close	
NV3-60-4H-ATO *	T-valve	Air to Open	
NV3-60-4H-ATC *	T-valve	Air to Close	
NV5-60-4H-ATO	V. with replaceable seat	Air to Open	
NV5-60-4H-ATC	V. with replaceable seat	Air to Close	
NV1-60-4H-ATO-7 *	Straight valve	Air to Open	

with high cycling stem

Safety Valves

not available

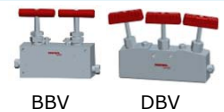
* On demand products

NOVASWISS Components for the Line 60-4H

Pressure:	60'000 psi	4'140 bar	Tube:	1/4"	6.4 mm	OD (outer diameter)
				0.09"	2.4 mm	ID (inner diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	HPCT	NOVASWISS Standard 4H	
HPCT High Pressure Cone + Thread, imperial UNF thread						

Block Valves and Bleed Valves

BBV	not available
DBV	not available



Check Valves

CVP-60-4H	Check valve
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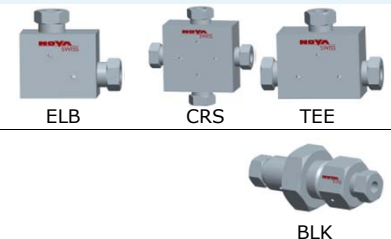
Safety Heads

SHD-60-4H	Safety head
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Fittings

ELB-60-4H	Elbow
TEE-60-4H	Tee
CRS-60-4H	Fitting cross
BLK-60-4H	Bulkhead



Filters

FIL-40-4E	Filter	5 my, 1/4" Metric, 4000 bar
FIL-40-4E-10	Filter	10 my, 1/4" Metric, 4000 bar
FIL-40-4E-2 *	Filter	2 my, 1/4" Metric, 4000 bar
FMI-40-4E-65 *	Filter mesh inline	65 my, 1/4" Metric, 4000 bar
FMI-40-4E-10 *	Filter mesh inline	10 my, 1/4" Metric, 4000 bar



Extended Temperature Valves

NV.-...-ET	not available
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* On demand products

NOVASWISS Components for the Line 60-4H

Pressure:	60'000 psi	4'140 bar	Tube:	1/4"	6.4 mm	OD (outer diameter)
				0.09"	2.4 mm	ID (inner diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	HPCT	NOVASWISS Standard 4H	
HPCT High Pressure Cone + Thread, imperial UNF thread						

Hydrogen compatible components (H2 components)

Other hydrogen compatible components from the standard product lines are available on request.

NV1-60-4H-4 *	Needle valve		straight valve
NV1-60-4H-ATO-4 *	Air-operated needle valve		straight valve
NV1-60-4H-ATC-4 *	Air-operated needle valve		straight valve
NV5-60-4H-ATO-4 *	air-operated needle valve		valve with replaceable seat
NV1-60-4H-ATO-14 *	Straight valve	Air to Open	Support for 2 induc. position sensors (without sensor)
CVP-60-4H-4 *	Check valve		
SHD-60-4H-4 *	Safety head	(without bursting disk)	

Adaptors, Couplings, Connectors

AFF-60-4H-4H	Coupling	female 1/4" HPCT	to	female 1/4" HPCT	 female
AFF-60-6H-4H	Coupling	female 1/4" HPCT	to	female 3/8" HPCT	
AFF-60-9H-4H	Coupling	female 1/4" HPCT	to	female 9/16" HPCT	
AMF-60-6H-4H	Adaptor	female 1/4" HPCT	to	male 3/8" HPCT	 female
AMF-60-9H-4H	Adaptor	female 1/4" HPCT	to	male 9/16" HPCT	
AMF-60-4H-6H	Adaptor	male 1/4" HPCT	to	female 3/8" HPCT	
AMF-60-4H-9H	Adaptor	male 1/4" HPCT	to	female 9/16" HPCT	

Gauge Couplings

GFF	not available
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* On demand products

NOVASWISS Components for the Line 60-4H

Pressure:	60'000 psi	4'140 bar	Tube:	1/4"	6.4 mm	OD (outer diameter)
				0.09"	2.4 mm	ID (inner diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	HPCT	NOVASWISS Standard 4H	
HPCT High Pressure Cone + Thread, imperial UNF thread						

Glands, Collars, Plugs - packages of 10 units

GLN-60-4H-10P	Glands
COL-60-4-10P	Collars
PLG-60-4-10P	Plugs
AVA-60-4H-10P	Anti vibration assembly (glands and collars)
	AVA-60-4H-10P consisting of:
GLA-60-4H-10P	Glands anti vibration
COA-60-4-10P	Collars anti vibration



Tools for Preparing the Tubes

580.1000	Coning tool	without collet
581.9128	Collet	1/4" - 6-7mm
580.2040	Manual threading tool	1/4"
580.3040	Tube bending tool	1/4", R25

Application

All NOVASWISS components are delivered with glands and collars. Temperature range is from -50 °C to +65 °C (Centigrade Celsius).

All NOVASWISS components are designed, built and marked according to CE regulation.

The maximum allowable working pressure (MAWP) is marked on each component (body).

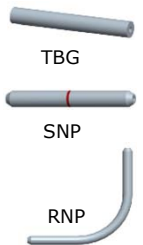
* On demand products

NOVASWISS Components for the Line 60-6H

Pressure:	60'000 psi	4'140 bar	Tube:	3/8"	9.5 mm	OD (outer diameter)
				0.13"	3.2 mm	ID (inner diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	HPCT	NOVASWISS Standard: 6H	
HPCT High Pressure Cone + Thread, imperial UNF thread						

Tubes and Nipples

TBG-60-6	Tubes in 6m length	OD 3/8" / ID 1/8", 60 kpsi
SNP-60-6	Straight nipple with threads	3/8", 60 kpsi, 82 mm (3.23")
RNP-60-6	Radius nipple with threads	90°, 3/8", 60 kpsi

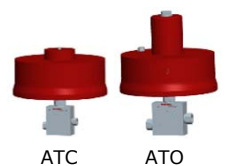
**Needle Valves (Hand Valves)**

NV1-60-6H	Straight valve	
NV2-60-6H	Angle valve	
NV3-60-6H *	T-valve	
NV5-60-6H	Valve with replaceable seat	
NV5-60-6H-7 *	Valve with replaceable seat	with high cycling stem

**Pneumatic Driven Needle Valves (air-operated needle valve; ATO: normally closed, ATC: normally open)**

The maximal actuator pressure is 7 bar (100 psi); the optimal operating pressure is indicated on the label of the air actuator

NV1-60-6H-ATO	Straight valve	Air to Open	
NV1-60-6H-ATC	Straight valve	Air to Close	
NV2-60-6H-ATO	Angle valve	Air to Open	
NV2-60-6H-ATC	Angle valve	Air to Close	
NV3-60-6H-ATO *	T-valve	Air to Open	
NV3-60-6H-ATC *	T-valve	Air to Close	
NV5-60-6H-ATO	V. with replaceable seat	Air to Open	
NV5-60-6H-ATC	V. with replaceable seat	Air to Close	
NV2-60-6H-ATC-7 *	Angle valve	Air to Close	with high cycling stem
NV5-60-6H-ATO-7 *	V. with replaceable seat	Air to Open	with high cycling stem
NV5-60-6H-ATC-7 *	V. with replaceable seat	Air to Close	with high cycling stem
NV1-60-6H-ATO-1 *	Straight valve	Air to Open	Support for 2 induc. position sensors (without sensors)
NV1-60-6H-ATC-1 *	Straight valve	Air to Close	Support for 2 induc. position sensors (without sensors)
NV3-60-6H-ATO-1 *	T-valve	Air to Open	Support for 2 induc. position sensors (without sensors)
NV5-60-6H-ATO-1 *	V. with replaceable seat	Air to Open	Support for 2 induc. position sensors (without sensors)

**Safety Valves**

not available

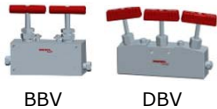
* On demand products

NOVASWISS Components for the Line 60-6H

Pressure:	60'000 psi	4'140 bar	Tube:	3/8"	9.5 mm	OD (outer diameter)
				0.13"	3.2 mm	ID (inner diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	HPCT	NOVASWISS Standard: 6H	
HPCT High Pressure Cone + Thread, imperial UNF thread						

Block Valves and Bleed Valves

BBV	not available
DBV	not available



Check Valves

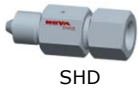
CVP-60-6H	Check valve
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Safety Heads

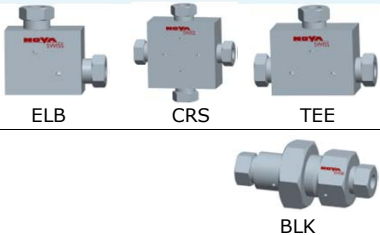
without bursting disk

SHD-60-6H	Safety head
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Fittings

ELB-60-6H	Elbow
TEE-60-6H	Tee
CRS-60-6H	Fitting cross
BLK-60-6H	Bulkhead



Filters

suitable nipple necessary: SNP606 / RNP606

FIL-40-6E	Filter	5 my, 3/8" Metric, 4000 bar
FIL-40-6E-10	Filter	10 my, 3/8" Metric, 4000 bar
FMI-40-6E-10 *	Filter mesh inline	10 my, 3/8" Metric, 4000 bar
FMI-40-6E-65 *	Filter mesh inline	65 my, 3/8" Metric, 4000 bar



Extended Temperature Valves

NV.-.-.-ET	not available
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* On demand products

NOVASWISS Components for the Line 60-6H

Pressure:	60'000 psi	4'140 bar	Tube:	3/8"	9.5 mm	OD (outer diameter)
				0.13"	3.2 mm	ID (inner diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	HPCT	NOVASWISS Standard: 6H	
HPCT High Pressure Cone + Thread, imperial UNF thread						

Hydrogen compatible components (H2 components)

Other hydrogen compatible components from the standard product lines are available on request.

NV1-60-6H-4 *	Needle valve	straight valve
SHD-60-6H-4 *	Safety head	(without bursting disk)

Adaptors, Couplings, Connectors

AFF-60-6H-4H	Coupling	female	3/8" HPCT	to	female 1/4" HPCT	 female
AFF-60-6H-6H	Coupling	female	3/8" HPCT	to	female 3/8" HPCT	
AFF-60-9H-6H	Coupling	female	3/8" HPCT	to	female 9/16" HPCT	
AMF-60-4H-6H	Adaptor	female	3/8" HPCT	to	male 1/4" HPCT	 male
AMF-60-9H-6H	Adaptor	female	3/8" HPCT	to	male 9/16" HPCT	
AMF-60-6H-4H	Adaptor	male	3/8" HPCT	to	female 1/4" HPCT	
AMF-60-6H-9H	Adaptor	male	3/8" HPCT	to	female 9/16" HPCT	
AMX-60-6H *	Connector	male	3/8" HPCT	to	blank	 male

Gauge Couplings

GFF	not available
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* On demand products

NOVASWISS Components for the Line 60-6H

Pressure:	60'000 psi	4'140 bar	Tube:	3/8"	9.5 mm	OD (outer diameter)
				0.13"	3.2 mm	ID (inner diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	HPCT	NOVASWISS Standard: 6H	
HPCT High Pressure Cone + Thread, imperial UNF thread						

Glands, Collars, Plugs - packages of 10 units

GLN-60-6H-10P	Glands
COL-60-6-10P	Collars
PLG-60-6-10P	Plugs
AVA-60-6H-10P	Anti vibration assembly (glands and collars)
	AVA-60-6H-10P consisting of:
GLA-60-6H-10P	Glands anti vibration
COA-60-6-10P	Collars anti vibration



Tools for Preparing the Tubes

580.1000	Coning tool	without collet
581.9125	Collet	3/8" - 9-10mm
580.2020	Manual threading tool	3/8"

Application

All NOVASWISS components are delivered with glands and collars. Temperature range is from -50 °C to +65 °C (Centigrade Celsius).

All NOVASWISS components are designed, built and marked according to CE regulation.

The maximum allowable working pressure (MAWP) is marked on each component (body).

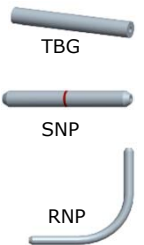
* On demand products

NOVASWISS Components for the Line 60-9H

Pressure:	60'000 psi	4'140 bar	Tube:	9/16"	14.3 mm	OD (outer diameter)
				0.19"	4.8 mm	ID (inner diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	HPCT	NOVASWISS Standard: 9H	
HPCT High Pressure Cone + Thread, imperial UNF thread						

Tubes and Nipples

TBG-60-9	Tubes in 6m length	OD 9/16" / ID 3/16", 60 kpsi
SNP-60-9	Straight nipple with threads	9/16", 60 kpsi, 104 mm (4.09")
RNP-60-9	Radius nipple with threads	90°, 9/16", 60 kpsi

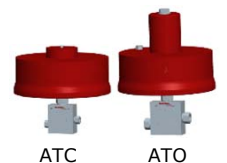
**Needle Valves (Hand Valves)**

NV1-60-9H	Straight valve	
NV2-60-9H	Angle valve	
NV3-60-9H *	T-valve	
NV5-60-9H	Valve with replaceable seat	
NV5-60-9H-MV *	Valve with replaceable seat	with metering stem

**Pneumatic Driven Needle Valves (air-operated needle valve; ATO: normally closed, ATC: normally open)**

The maximal actuator pressure is 7 bar (100 psi); the optimal operating pressure is indicated on the label of the air actuator

NV1-60-9H-ATO	Straight valve	Air to Open	
NV1-60-9H-ATC	Straight valve	Air to Close	
NV2-60-9H-ATO	Angle valve	Air to Open	
NV2-60-9H-ATC	Angle valve	Air to Close	
NV3-60-9H-ATO *	T-valve	Air to Open	
NV3-60-9H-ATC *	T-valve	Air to Close	
NV5-60-9H-ATO	V. with replaceable seat	Air to Open	
NV5-60-9H-ATC	V. with replaceable seat	Air to Close	
NV1-60-9H-ATC-7 *	Straight valve	Air to Close	with high cycling stem
NV5-60-9H-ATO-7 *	V. with replaceable seat	Air to Open	with high cycling stem
NV5-60-9H-ATC-7 *	V. with replaceable seat	Air to Close	with high cycling stem
NV1-60-9H-ATO-1 *	Straight valve	Air to Open	Support for 2 induc. position sensors (without sensors)
NV1-60-9H-ATC-1 *	Straight valve	Air to Close	Support for 2 induc. position sensors (without sensors)

**Safety Valves**

not available

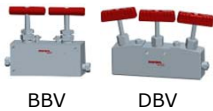
***On demand Products**

NOVASWISS Components for the Line 60-9H

Pressure:	60'000 psi	4'140 bar	Tube:	9/16"	14.3 mm	OD (outer diameter)
				0.19"	4.8 mm	ID (inner diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	HPCT	NOVASWISS Standard: 9H	
HPCT High Pressure Cone + Thread, imperial UNF thread						

Block Valves and Bleed Valves

BBV	not available
DBV	not available



Check Valves

CVP-60-9H	Check valve
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Safety Heads

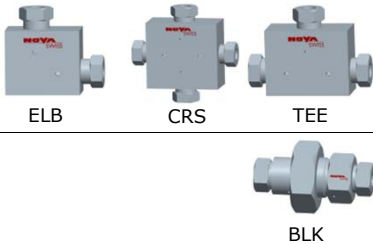
without bursting disk

SHD-60-9H	Safety head
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Fittings

ELB-60-9H	Elbow
TEE-60-9H	Tee
CRS-60-9H	Fitting cross
BLK-60-9H	Bulkhead



Filters

FIL	not available
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Extended Temperature Valves

NV-...-ET	not available
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*On demand Products

NOVASWISS Components for the Line 60-9H

Pressure:	60'000 psi	4'140 bar	Tube:	9/16"	14.3 mm	OD (outer diameter)
				0.19"	4.8 mm	ID (inner diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	HPCT	NOVASWISS Standard: 9H	
HPCT High Pressure Cone + Thread, imperial UNF thread						

Hydrogen compatible components (H2 components)

Other hydrogen compatible components from the standard product lines are available on request.

SHD-60-9H-4 * Safety head (without bursting disk)

Adaptors, Couplings, Connectors

AFF-60-9H-4H	Coupling	female 9/16" HPCT	to	female 1/4" HPCT	
AFF-60-9H-6H	Coupling	female 9/16" HPCT	to	female 3/8" HPCT	
AFF-60-9H-9H	Coupling	female 9/16" HPCT	to	female 9/16" HPCT	
AMF-60-4H-9H	Adaptor	female 9/16" HPCT	to	male 1/4" HPCT	
AMF-60-6H-9H	Adaptor	female 9/16" HPCT	to	male 3/8" HPCT	
AMF-60-9H-4H	Adaptor	male 9/16" HPCT	to	female 1/4" HPCT	
AMF-60-9H-6H	Adaptor	male 9/16" HPCT	to	female 3/8" HPCT	

Gauge Couplings

GFF not available

*On demand Products

NOVASWISS Components for the Line 60-9H

Pressure:	60'000 psi	4'140 bar	Tube:	9/16"	14.3 mm	OD (outer diameter)
				0.19"	4.8 mm	ID (inner diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	HPCT	NOVASWISS Standard: 9H	
				HPCT High Pressure Cone + Thread, imperial UNF thread		

Glands, Collars, Plugs - packages of 10 units

GLN-60-9H-10P	Glands
COL-60-9-10P	Collars
PLG-60-9-10P	Plugs
AVA-60-9H-10P	Anti vibration assembly (glands and collars)
	AVA-60-9H-10P consisting of:
GLA-60-9H-10P	Glands anti vibration
COA-60-9-10P	Collars anti vibration



Tools for Preparing the Tubes

580.1000	Coning tool	without collet
581.9124	Collet	9/16" - 14-15mm
580.2010	Manual threading tool	9/16"

Application

All NOVASWISS components are delivered with glands and collars. Temperature range is from -50 °C to +65 °C (Centigrade Celsius).

All NOVASWISS components are designed, built and marked according to CE regulation.

The maximum allowable working pressure (MAWP) is marked on each component (body).

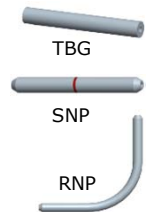
*On demand Products

NOVASWISS Components for the Line 40-4E

Pressure:	4'000 bar	58'000 psi	Tube:	1/4"	6.4 mm	OD (outer diameter)
				0.09"	2.4 mm	ID (inner diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	Metric	NOVASWISS Standard: 4E	
Metric thread according to ISO						

Tubes and Nipples

TBG-60-4	Tubes in 6m length	OD 1/4" / ID 3/32", 60 kpsi
SNP-60-4	Straight nipple with threads	1/4", 60 kpsi, 64 mm (2.52")
RNP-60-4	Radius nipple with threads	90°, 1/4", 60 kpsi

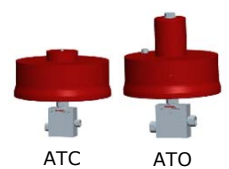
**Needle Valves (Hand Valves)**

NV1-40-4E	Straight valve	
NV2-40-4E	Angle valve	
NV3-40-4E *	T-valve	
NV5-40-4E	Valve with replaceable seat	
NV6-40-4E *	3-way valve, manifold	
NV1-40-4E-7 *	Straight valve	with high cycling stem
NV1-40-4E-MV *	Straight valve	with metering stem
NV2-40-4E-MV *	Angle valve	with metering stem

**Pneumatic Driven Needle Valves (air-operated needle valve; ATO: normally closed, ATC: normally open)**

The maximal actuator pressure is 7 bar (100 psi); the optimal operating pressure is indicated on the label of the air actuator

NV1-40-4E-ATO	Straight valve	Air to Open	
NV1-40-4E-ATC	Straight valve	Air to Close	
NV2-40-4E-ATO	Angle valve	Air to Open	
NV2-40-4E-ATC	Angle valve	Air to Close	
NV3-40-4E-ATO *	T-valve	Air to Open	
NV3-40-4E-ATC *	T-valve	Air to Close	
NV5-40-4E-ATO	V. with replaceable seat	Air to Open	
NV5-40-4E-ATC	V. with replaceable seat	Air to Close	
NV1-40-4E-ATO-7 *	Straight valve	Air to Open	with high cycling stem
NV1-40-4E-ATC-7 *	Straight valve	Air to Close	with high cycling stem
NV2-40-4E-ATO-7 *	Angle valve	Air to Open	with high cycling stem
NV5-40-4E-ATC-7 *	V. with replaceable seat	Air to Close	with high cycling stem
NV5-40-4E-ATC-12 *	V. with replaceable seat	Air to Close	with high cycling stem and anti corrosion
NV6-40-4E-ATO-7 *	3-way valve, manifold	Air to Open	with high cycling stem

**Safety Valves**

not available

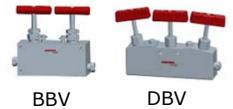
* On demand products

NOVASWISS Components for the Line 40-4E

Pressure:	4'000 bar	58'000 psi	Tube:	1/4"	6.4 mm	OD (outer diameter)
				0.09"	2.4 mm	ID (inner diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	Metric	NOVASWISS Standard: 4E	
Metric thread according to ISO						

Block Valves and Bleed Valves

BBV	not available
DBV	not available

**Check Valves**

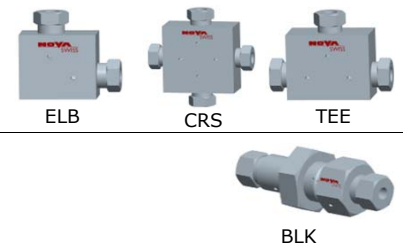
CVP-40-4E	Check valve
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**Safety Heads** without bursting disk

SHD-40-4E	Safety head
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**Fittings**

ELB-40-4E	Elbow
TEE-40-4E	Tee
CRS-40-4E	Fitting cross
BLK-40-4E	Bulkhead

**Filters** suitable nipple necessary: SNP604 / RNP604

FIL-40-4E	Filter	5 my, 1/4" Metric, 4000 bar
FIL-40-4E-10	Filter	10 my, 1/4" Metric, 4000 bar
FIL-40-4E-2 *	Filter	2 my, 1/4" Metric, 4000 bar
FMI-40-4E-65 *	Filter mesh inline	65 my, 1/4" Metric, 4000 bar
FMI-40-4E-10 *	Filter mesh inline	10 my, 1/4" Metric, 4000 bar

**Extended Temperature Valves**

NV-...-ET	not available
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* On demand products

NOVASWISS Components for the Line 40-4E

Pressure:	4'000 bar	58'000 psi	Tube:	1/4"	6.4 mm	OD (outer diameter)
				0.09"	2.4 mm	ID (inner diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	Metric	NOVASWISS Standard: 4E	
Metric thread according to ISO						

Hydrogen compatible components (H2 components)

Other hydrogen compatible components from the standard product lines are available on request.

NV1-40-4E-4 *	Needle valve	straight valve
CVP-40-4E-4 *	Check valve	
SHD-40-4E-4 *	Safety head	(without bursting disk)
GFF-20-4B-4E-4 *	Gauge coupling H2	1/4" BSPP - 1/4" Metric, 2000 bar
GFF-20-8B-4E-4 *	Gauge coupling H2	1/2"BSPP-1/4" Metric, 2000 bar

Adaptors, Couplings, Connectors

AFF-40-4E-4E	Coupling	female	1/4" Metric	to	female	1/4" Metric	 female
AFF-40-6E-4E	Coupling	female	1/4" Metric	to	female	3/8" Metric	
AFF-40-9E-4E	Coupling	female	1/4" Metric	to	female	9/16" Metric	
AFX-40-4E	Coupling	female	1/4" Metric	to	blank		 blank female
AMF-40-4E-6E	Adaptor	male	1/4" Metric	to	female	3/8" Metric	 female male
AMF-40-4E-9E	Adaptor	male	1/4" Metric	to	female	9/16" Metric	
AMF-40-6E-4E	Adaptor	female	1/4" Metric	to	male	3/8" Metric	
AMF-40-9E-4E	Adaptor	female	1/4" Metric	to	male	9/16" Metric	
AMM-40-4E-4E	Connector	male	1/4" Metric	to	male	1/4" Metric	 male
AMX-40-4E	Connector	male	1/4" Metric	to	blank		 blank male

Gauge Couplings

GFF-20-4B-4E-4 *	Gauge coupling H2	1/4" BSPP - 1/4" Metric, 2000 bar
GFF-20-8B-4E-4 *	Gauge coupling H2	1/2"BSPP-1/4" Metric, 2000 bar



* On demand products

NOVASWISS Components for the Line 40-4E

Pressure:	4'000 bar	58'000 psi	Tube:	1/4"	6.4 mm	OD (outer diameter)
				0.09"	2.4 mm	ID (inner diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	Metric	NOVASWISS Standard: 4E	
Metric thread according to ISO						

Glands, Collars, Plugs - packages of 10 units - same as for 70-4E line

GLN-70-4E-10P	Glands
COL-70-4E-10P	Collars
PLG-70-4E-10P	Plugs
AVA-70-4E-10P	Anti vibration assembly (glands and collars)
	AVA-70-4E-10P consisting of:
GLA-70-4E-10P	Glands anti vibration
COA-70-4E-10P	Collars anti vibration



Tools for Preparing the Tubes

580.1000	Coning tool	without collet
581.9128	Collet	1/4" - 6-7mm
580.2040	Manual threading tool	1/4"
580.3040	Tube bending tool	1/4", R25

Application

All NOVASWISS components are delivered with glands and collars. Temperature range is from -50 °C to +65 °C (Centigrade Celsius).

All NOVASWISS components are designed, built and marked according to CE regulation.

The maximum allowable working pressure (MAWP) is marked on each component (body).

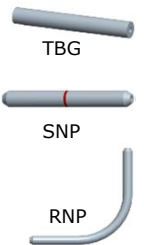
* On demand products

NOVASWISS Components for the Line 40-6E

Pressure:	4'000 bar	58'000 psi	Tube:	3/8"	9.5 mm	OD (outer diameter)
				0.13"	3.2 mm	ID (inner diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	Metric	NOVASWISS Standard: 6E	
				Metric thread according to ISO		

Tubes and Nipples

TBG-60-6	Tubes in 6m length	OD 3/8" / ID 1/8", 60 kpsi
SNP-60-6	Straight nipple with threads	3/8", 60 kpsi, 82 mm (3.23")
RNP-60-6	Radius nipple with threads	90°, 3/8", 60 kpsi

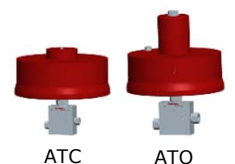
**Needle Valves (Hand Valves)**

NV1-40-6E	Straight valve	
NV2-40-6E	Angle valve	
NV3-40-6E *	T-valve	
NV5-40-6E	Valve with replaceable seat	
NV6-40-6E *	3-way valve, manifold	
NV1-40-6E-MV *	Straight valve	with metering stem
NV2-40-6E-MV *	Angle valve	with metering stem
NV3-40-6E-MV *	T-valve	with metering stem

**Pneumatic Driven Needle Valves (air-operated needle valve; ATO: normally closed, ATC: normally open)**

The maximal actuator pressure is 7 bar (100 psi); the optimal operating pressure is indicated on the label of the air actuator

NV1-40-6E-ATO	Straight valve	Air to Open
NV1-40-6E-ATC	Straight valve	Air to Close
NV2-40-6E-ATO	Angle valve	Air to Open
NV2-40-6E-ATC	Angle valve	Air to Close
NV3-40-6E-ATO *	T-valve	Air to Open
NV3-40-6E-ATC *	T-valve	Air to Close
NV5-40-6E-ATO	V. with replaceable seat	Air to Open
NV5-40-6E-ATC	V. with replaceable seat	Air to Close
NV1-40-6E-ATO-1 *	Straight valve	Air to Open
NV2-40-6E-ATO-1 *	Angle valve	Air to Open
NV3-40-6E-ATO-1 *	T-valve	Air to Open
NV3-40-6E-ATC-1 *	T-valve	Air to Close



Support for 2 induc. position sensors (without sensors)
 Support for 2 induc. position sensors (without sensors)
 Support for 2 induc. position sensors (without sensors)
 Support for 2 induc. position sensors (without sensors)

Safety Valves

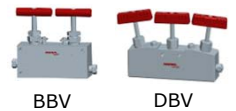
not available

NOVASWISS Components for the Line 40-6E

Pressure:	4'000 bar	58'000 psi	Tube:	3/8"	9.5 mm	OD (outer diameter)
				0.13"	3.2 mm	ID (inner diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	Metric	NOVASWISS Standard: 6E	
Metric thread according to ISO						

Block Valves and Bleed Valves

BBV	not available
DBV	not available

**Check Valves**

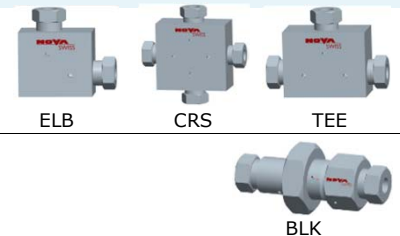
CVP-40-6E	Check valve
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**Safety Heads** without bursting disk

SHD-40-6E	Safety head
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**Fittings**

CRS-40-6E	Fitting cross
TEE-40-6E	Tee
CRS-40-6E	Fitting cross
BLK-40-6E	Bulkhead

**Filters** suitable nipple necessary: SNP606 / RNP606

FIL-40-6E	Filter	5 my, 3/8" Metric, 4000 bar
FIL-40-6E-10	Filter	10 my, 3/8" Metric, 4000 bar
FMI-40-6E-10 *	Filter mesh inline	10 my, 3/8" Metric, 4000 bar
FMI-40-6E-65 *	Filter mesh inline	65 my, 3/8" Metric, 4000 bar

**Extended Temperature Valves**

NV.-.-.-ET	not available
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* On demand products

NOVASWISS Components for the Line 40-6E

Pressure:	4'000 bar	58'000 psi	Tube:	3/8"	9.5 mm	OD (outer diameter)
				0.13"	3.2 mm	ID (inner diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	Metric	NOVASWISS Standard: 6E	
Metric thread according to ISO						

Hydrogen compatible components (H2 components)

Other hydrogen compatible components from the standard product lines are available on request.

SHD-40-6E-4 *	Safety head	(without bursting disk)
GFF-20-4B-6E-4 *	Gauge coupling H2	1/4" BSPP - 3/8" Metric, 2000 bar
GFF-20-8B-6E-4 *	Gauge coupling H2	1/2" BSPP - 3/8" Metric, 2000 bar

Adaptors, Couplings, Connectors

AFF-40-6E-4E	Coupling	female	3/8" Metric	to	female	1/4" Metric	
AFF-40-6E-6E	Coupling	female	3/8" Metric	to	female	3/8" Metric	
AFF-40-9E-6E	Coupling	female	3/8" Metric	to	female	9/16" Metric	
AFX-40-6E	Coupling	female	3/8" Metric	to	blank		
AMF-40-4E-6E	Adaptor	female	3/8" Metric	to	male	1/4" Metric	
AMF-40-9E-6E	Adaptor	female	3/8" Metric	to	male	9/16" Metric	
AMF-40-6E-4E	Adaptor	male	3/8" Metric	to	female	1/4" Metric	
AMF-40-6E-9E	Adaptor	male	3/8" Metric	to	female	9/16" Metric	
AMX-40-6E	Connector	male	3/8" Metric	to	blank		

Gauge Couplings

GFF-20-4B-6E-4 *	Gauge coupling H2	1/4" BSPP - 3/8" Metric, 2000 bar
GFF-20-8B-6E-4 *	Gauge coupling H2	1/2" BSPP - 3/8" Metric, 2000 bar

* On demand products

NOVASWISS Components for the Line 40-6E

Pressure:	4'000 bar	58'000 psi	Tube:	3/8"	9.5 mm	OD (outer diameter)
				0.13"	3.2 mm	ID (inner diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	Metric	NOVASWISS Standard: 6E	
				Metric thread according to ISO		

Glands, Collars, Plugs - packages of 10 units

GLN-40-6E-10P	Glands
COL-60-6-10P	Collars
PLG-60-6-10P	Plugs
AVA-40-6E-10P	Anti vibration assembly (glands and collars)
	AVA-40-6E-10P consisting of:
GLA-40-6E-10P	Glands anti vibration
COA-60-6-10P	Collars anti vibration



Tools for Preparing the Tubes

580.1000	Coning tool	without collet
581.9125	Collet	3/8" - 9-10mm
580.2020	Manual threading tool	3/8"

Application

All NOVASWISS components are delivered with glands and collars. Temperature range is from -50 °C to +65 °C (Centigrade Celsius).

All NOVASWISS components are designed, built and marked according to CE regulation.

The maximum allowable working pressure (MAWP) is marked on each component (body).

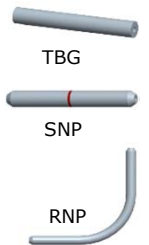
* On demand products

NOVASWISS Components for the Line 40-9E

Pressure:	4'000 bar	58'000 psi	Tube:	9/16"	14.3 mm	OD (outer diameter)
				0.19	4.8 mm	ID (inner diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	Metric	NOVASWISS Standard: 9E	
Metric thread according to ISO						

Tubes and Nipples

TBG-60-9	Tubes in 6m length	OD 9/16" / ID 3/16", 60 kpsi
SNP-60-9	Straight nipple with threads	9/16", 60 kpsi, 104 mm (4.09")
RNP-60-9	Radius nipple with threads	90°, 9/16", 60 kpsi

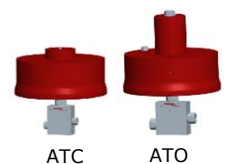
**Needle Valves (Hand Valves)**

NV1-40-9E	Straight valve
NV2-40-9E	Angle valve
NV3-40-9E *	T-valve
NV3-40-9E-4E *	T-valve
NV5-40-9E	Valve with replaceable seat
NV5-40-9E-7 *	Valve with replaceable seat with high cycling stem

**Pneumatic Driven Needle Valves (air-operated needle valve; ATO: normally closed, ATC: normally open)**

The maximal actuator pressure is 7 bar (100 psi); the optimal operating pressure is indicated on the label of the air actuator

NV1-40-9E-ATO	Straight valve	Air to Open	
NV1-40-9E-ATC	Straight valve	Air to Close	
NV2-40-9E-ATO	Angle valve	Air to Open	
NV2-40-9E-ATC	Angle valve	Air to Close	
NV3-40-9E-ATO *	T-valve	Air to Open	
NV3-40-9E-ATC *	T-valve	Air to Close	
NV5-40-9E-ATO	V. with replaceable seat	Air to Open	
NV5-40-9E-ATC	V. with replaceable seat	Air to Close	
NV1-40-9E-ATO-7 *	Straight valve	Air to Open	with high cycling stem
NV5-40-9E-ATO-7 *	V. with replaceable seat	Air to Open	with high cycling stem
NV5-40-9E-ATC-7 *	V. with replaceable seat	Air to Close	with high cycling stem
NV1-40-9E-ATO-1 *	Straight valve	Air to Open	Support for 2 induc. position sensors (without sensors)
NV1-40-9E-ATC-1 *	Straight valve	Air to Close	Support for 2 induc. position sensors (without sensors)

**Safety Valves**

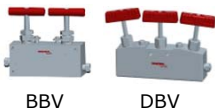
not available

NOVASWISS Components for the Line 40-9E

Pressure:	4'000 bar	58'000 psi	Tube:	9/16"	14.3 mm	OD (outer diameter)
				0.19	4.8 mm	ID (inner diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	Metric	NOVASWISS Standard: 9E	
Metric thread according to ISO						

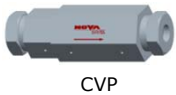
Block Valves and Bleed Valves

BBV	not available
DBV	not available



Check Valves

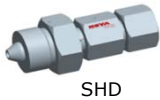
CVP-40-9E	Check valve
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Safety Heads

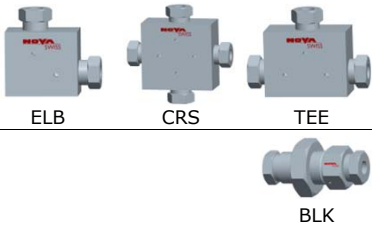
without bursting disk

SHD-40-9E	Safety head
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Fittings

ELB-40-9E	Elbow
TEE-40-9E	Tee
CRS-40-9E	Fitting cross
BLK-40-9E	Bulkhead



Filters

FIL	not available
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Extended Temperature Valves

NV.-...-ET	not available
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NOVASWISS Components for the Line 40-9E

Pressure:	4'000 bar	58'000 psi	Tube:	9/16"	14.3 mm	OD (outer diameter)
				0.19	4.8 mm	ID (inner diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	Metric	NOVASWISS Standard: 9E	
Metric thread according to ISO						

Hydrogen compatible components (H2 components)

Other hydrogen compatible components from the standard product lines are available on request.

NV1-40-9E-ATO-4 *	Air-operated needle valve	straight valve
CVP-40-9E-4 *	Check valve	
SHD-40-9E-4 *	Safety head	(without bursting disk)

Adaptors, Couplings, Connectors

AFF-40-9E-4E	Coupling	female	9/16" Metric	to	female 1/4" Metric	
AFF-40-9E-6E	Coupling	female	9/16" Metric	to	female 3/8" Metric	
AFF-40-9E-9E	Coupling	female	9/16" Metric	to	female 9/16" Metric	
AFX-40-9E	Coupling	female	9/16" Metric	to	blank	
AMF-40-4E-9E	Adaptor	female	9/16" Metric	to	male 1/4" Metric	
AMF-40-6E-9E	Adaptor	female	9/16" Metric	to	male 3/8" Metric	
AMF-40-9E-4E	Adaptor	male	9/16" Metric	to	female 1/4" Metric	
AMF-40-9E-6E	Adaptor	male	9/16" Metric	to	female 3/8" Metric	
AMM-40-9E-4H *	Connector	male	9/16" Metric	to	male 1/4" HPCT	
AMM-40-9E-9E *	Connector	male	9/16" Metric	to	male 9/16" Metric	
AMX-40-9E	Connector	male	9/16" Metric	to	blank	

Gauge Couplings

GFF	not available
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* On demand products

NOVASWISS Components for the Line 40-9E

Pressure:	4'000 bar	58'000 psi	Tube:	9/16"	14.3 mm	OD (outer diameter)
				0.19	4.8 mm	ID (inner diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	Metric	NOVASWISS Standard: 9E	
Metric thread according to ISO						

Glands, Collars, Plugs - packages of 10 units

GLN-40-9E-10P	Glands
COL-60-9-10P	Collars
PLG-60-9-10P	Plugs
AVA-40-9E-10P	Anti vibration assembly (glands and collars)
	AVA-40-9E-10P consisting of:
GLA-40-9E-10P	Glands anti vibration
COA-60-9-10P	Collars anti vibration

**Tools for Preparing the Tubes**

580.1000	Coning tool	without collet
581.9124	Collet	9/16" - 14-15mm
580.2010	Manual threading tool	9/16"

Application

All NOVASWISS components are delivered with glands and collars. Temperature range is from -50 °C to +65 °C (Centigrade Celsius).

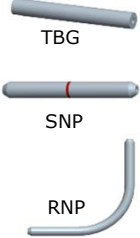
All NOVASWISS components are designed, built and marked according to CE regulation.

The maximum allowable working pressure (MAWP) is marked on each component (body).

NOVASWISS Components for the Line 70-4E

Pressure:	7'000 bar	101'000 psi	Tube:	1/4"	6.4 mm	OD (outer diameter)
				1/16"	1.6 mm	ID (inner diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	Metric	NOVASWISS Standard: 4E	
				Metric thread according to ISO		

Tubes and Nipples

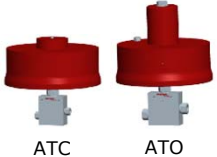
TBG-100-4	Tubes in 6m length	OD 1/4" / ID 1/16", 101 kpsi / 7000 bar	
SNP-100-4	Straight nipple with threads	1/4", 101 kpsi / 7000 bar, 64 mm (2.52")	
RNP-100-4	Radius nipple with threads	90°, 1/4", 101 kpsi	

Needle Valves (Hand Valves)

NV1-70-4E	Straight valve	
NV3-70-4E *	T-valve	
NV5-70-4E	Valve with replaceable seat	
NV6-70-4E *	3-way valve, manifold	

Pneumatic Driven Needle Valves (air-operated needle valve; ATO: normally closed, ATC: normally open)

The maximal actuator pressure is 7 bar (100 psi); the optimal operating pressure is indicated on the label of the air actuator

NV1-70-4E-ATO	Straight valve	Air to Open	
NV1-70-4E-ATC	Straight valve	Air to Close	
NV5-70-4E-ATO	V. with replaceable seat	Air to Open	
NV5-70-4E-ATC	V. with replaceable seat	Air to Close	

Safety Valves

not available

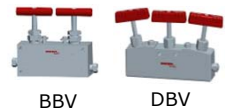
* On demand products

NOVASWISS Components for the Line 70-4E

Pressure:	7'000 bar	101'000 psi	Tube:	1/4"	6.4 mm	OD (outer diameter)
				1/16"	1.6 mm	ID (inner diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	Metric	NOVASWISS Standard: 4E	
Metric thread according to ISO						

Block Valves and Bleed Valves

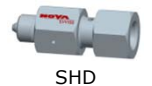
BBV	not available
DBV	not available

**Check Valves**

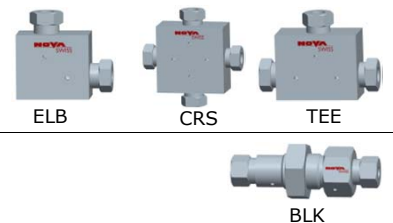
CVP-70-4E	Check valve
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**Safety Heads** without bursting disk

SHD-70-4E	Safety head
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**Fittings**

ELB-70-4E	Elbow
TEE-70-4E	Tee
CRS-70-4E	Fitting cross
BLK-70-4E	Bulkhead

**Filters** suitable nipple necessary: SNP1004 / RNP1004

FIL-70-4E-10 *	Filter	10 my, 1/4" Metric, 7000 bar
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**Extended Temperature Valves**

NV-...-ET	not available
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* On demand products

NOVASWISS Components for the Line 70-4E

Pressure:	7'000 bar	101'000 psi	Tube:	1/4"	6.4 mm	OD (outer diameter)
				1/16"	1.6 mm	ID (inner diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	Metric	NOVASWISS Standard: 4E	
				Metric thread according to ISO		

Hydrogen compatible components (H2 components)

Other hydrogen compatible components from the standard product lines are available on request.

NV5-70-4E-4 *	Needle valve	Valve with replaceable seat
NV5-70-4E-ATO-4 *	Air-operated needle valve	Valve with replaceable seat
NV5-70-4E-ATO-14 *	V. with replaceable seat Air to Open	Support for 2 induc. position sensors (without sensors)

Adaptors, Couplings, Connectors

AFF-70-4E-4E	Coupling	female	1/4" Metric	to	female	1/4" Metric	
							female
AFX-70-4E *	Coupling	female	1/4" Metric	to	blank		
							female

Gauge Couplings

GFF	not available
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* On demand products

NOVASWISS Components for the Line 70-4E

Pressure:	7'000 bar	101'000 psi	Tube:	1/4"	6.4 mm	OD (outer diameter)
				1/16"	1.6 mm	ID (inner diameter)
Material:	EN 1.4404	316L (USA, AISI)	Connection:	Metric	NOVASWISS Standard: 4E	
				Metric thread according to ISO		

Glands, Collars, Plugs - packages of 10 units

GLN-70-4E-10P	Glands
COL-70-4E-10P	Collars
PLG-70-4E-10P	Plugs
AVA-70-4E-10P	Anti vibration assembly (glands and collars)
	AVA-70-4E-10P consisting of:
GLA-70-4E-10P	Glands anti vibration
COA-70-4E-10P	Collars anti vibration

**Tools for Preparing the Tubes**

580.1000	Coning tool	without collet
581.9128	Collet	1/4" - 6-7mm
580.2040	Manual threading tool	1/4"
580.3040	Tube bending tool	1/4", R25

Application

All NOVASWISS components are delivered with glands and collars. Temperature range is from -50 °C to +65 °C (Centigrade Celsius).

All NOVASWISS components are designed, built and marked according to CE regulation.

The maximum allowable working pressure (MAWP) is marked on each component (body).

NOVASWISS Components for the Line 100-3H

Pressure:	10'000 bar	145'000 psi	Tube:	3/16"	4.76 mm	OD (outer diameter)
					0.6 / 1.6 mm	ID (inner diameter)
Material:	1.4305/4542/6582/4404		Connection:	HPCT	NOVASWISS Standard:	3H
				HPCT High Pressure Connection, imperial UNF thread		

Pressure intensifier for 10'000 bar

550.6564-53M	Pressure Intensifier 10kbar;	transmission ratio: 1 to 16
	High pressure connection 3/16" HPCT	
	Low pressure connection 1/4" metric (see NOVASWISS line 40-4E)	



Tubes and Nipples

511.1666	Tubing	10'000 bar; 3/16" x 0,6mm; 316TI
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Needle Valves (Hand Valves)

530.0501	Straight valve	10kbar, HP3/16", NW1.6
530.0504	V. with replaceable seat	10kbar, HP3/16", NW1.6
NV570/1004E	V. with replaceable seat	Type 5, 1/4" metric, 7'000 / 10'000 bar



Pneumatic Driven Needle Valves (air-operated needle valve; ATO: normally closed, ATC: normally open)

The maximal actuator pressure is 4 bar (100 psi); the optimal operating pressure is indicated on the label of the air actuator

NV570/1004EATC	Air-operated needle valve	Typ 5, 1/4" metric, 7'000 / 10'000 bar, ATC
	V. with replaceable seat	



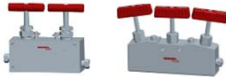
Safety Valves	not available
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* On demand products

NOVASWISS Components for the Line 100-3H

Pressure:	10'000 bar	145'000 psi	Tube:	3/16"	4.76 mm	OD (outer diameter)
					0.6 / 1.6 mm	ID (inner diameter)
Material:	1.4305/4542/6582/4404		Connection:	HPCT	NOVASWISS Standard: 3H	
				HPCT High Pressure Connection, imperial UNF thread		

Block Valves and Bleed Valves

BBV	not available	
DBV	not available	
		BBVDBV

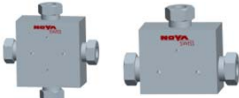
Check Valves

525.0141	Check valve	HPCT 3/16"; 10kbar
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Safety Heads

SHD	not available
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Fittings

525.0081	Tee	3/16" HPCT; 10'000 bar	
525.0120	Cross	3/16" HPCT; 10'000 bar	
			CRSTE

Filters

FIL	not available	
		FIL

Extended Temperature Valves

NV.-...-ET	not available
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* On demand products

NOVASWISS Components for the Line 100-3H

Pressure:	10'000 bar	145'000 psi	Tube:	3/16"	4.76 mm	OD (outer diameter)
					0.6 / 1.6 mm	ID (inner diameter)
Material:	1.4305/4542/6582/4404		Connection:	HPCT	NOVASWISS Standard: 3H	
				HPCT High Pressure Connection, imperial UNF thread		

Hydrogen compatible components (H2 components)

Other hydrogen compatible components from the standard product lines are available on request.

not available

Adaptors, Couplings, Connectors

525.0155	Coupling	female HPCT 3/16" - female HPCT 3/16", NW 1.6
525.0136	Coupling	female HPCT 3/16" - female 1/8" metric, NW 1.6
525.0173	Coupling	female HPCT 3/16" - female 1/4" metric, NW 1.6
525.0142	Coupling	female HPCT 3/16" - female 3/8" metric, NW 1.6
525.0163	Bulkhead coupling	female HPCT 3/16" - female HPCT 3/16", NW 1.6
525.0150	Adaptor	female HPCT 3/16" - male 1/4" metric, NW 1.6
525.0178-1	Adaptor	female HPCT 3/16" - male 3/8" metric, NW 1.6



525.0155

* On demand products

NOVASWISS Components for the Line 100-3H

Pressure:	10'000 bar	145'000 psi	Tube:	3/16"	4.76 mm	OD (outer diameter)
					0.6 / 1.6 mm	ID (inner diameter)
Material:	1.4305/4542/6582/4404		Connection:	HPCT	NOVASWISS Standard:	3H
				HPCT High Pressure Connection, imperial UNF thread		

Glands, Collars, Plugs - packages of 10 units - same as for 70-4E line

521.9746	Gland	3/8"-24UNF
521.9745	Collar	10-32 UNF LH
521.9877	Plug	HPCT 3/16"; 10 kbar



Tools for Preparing the Tubes

581.9138	Collet	3/16" - 4-5mm
581.9232	Die	10-32 UNF-2A-LH
581.0133	Guiding Ring	3/16"

Application

All NOVASWISS components are delivered with glands and collars. Temperature range is from 0 °C to +35 °C (Centigrade Celsius).

All NOVASWISS components are designed, built and marked according to CE regulation.

The maximum allowable working pressure (MAWP) is marked on each component (body).

* On demand products

The Company NOVASWISS



High-Pressure Technology



Engine Components



Surface Technology



Maintenance of Valves

Nova Werke AG is a Swiss high-tech company headquartered in Effretikon with subsidiaries in France and Germany. The company comprises the four divisions:

- High Pressure Technology
- Engine Components
- Surface Technology
- Maintenance of Valves

Nova Werke AG develops and supplies innovative and top quality products and services for high-performance applications.

NOVA SWISS® is the trade mark of Nova Werke AG, and is acknowledged worldwide.



The management system

Quality is for all products, production processes and services of vital importance.

Nova Werke AG is certified according to ISO 9001/1400/OHSAS 18001. The continuous improvement process is a major component of these requirements. It is systematically practiced in all areas.

The division «Engine Components» conforms to the standard of ISO/TS 16949 and thereby meets the highest demands on technical specification, system and process quality and management processes according to the automotive industry.

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