

Integrated cryogenic valve and filter series with identical housing.

Compatible insert concept for quick and easy replacement of the valve set.

Easy installation in vacuum-insulated lines.

Clean room assembled.

Low heat input.

Exchange of valve without opening the vacuum line.

Please read and follow these safety instructions:

The STÖHR product catalogue, checklists, our sales personnel and our sales representatives will assist you in identifying and selecting your valve. The decision regarding a special valve type to choose as well as the proper installation, commissioning, operation and maintenance is, however, the responsibility of the system designer and user. The valve function, the type of sealing, material compatibility, operating pressure, operating temperature and the system environment must be taken into account.



Stickš

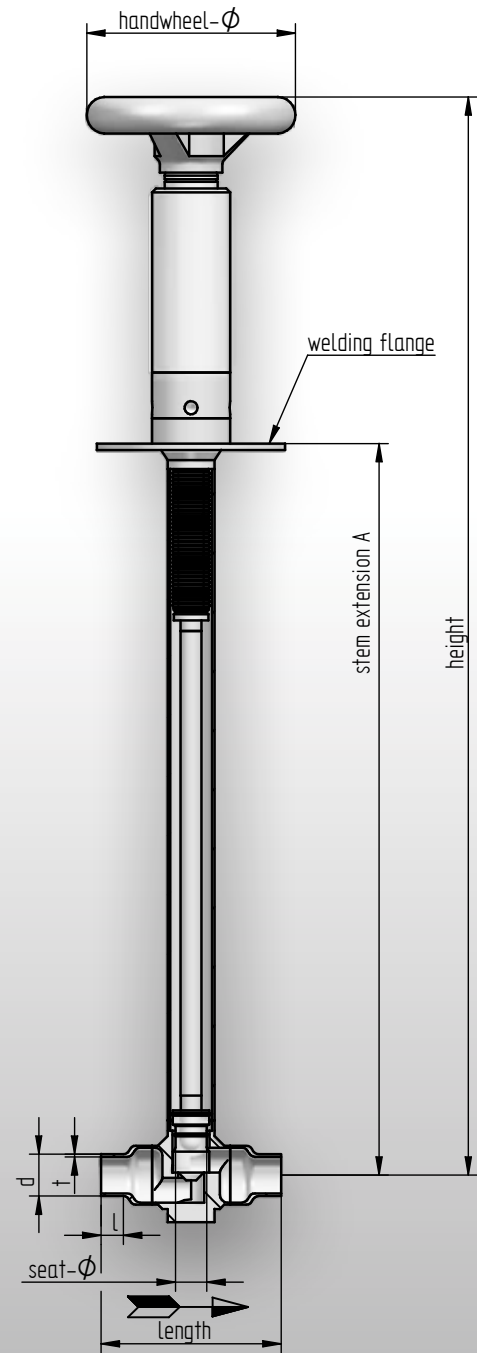
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Stickš 900

Manual Cryogenic Globe Valve

Straight or angle valve for vacuum insulated and cryogenic systems. For nitrogen, helium, hydrogen and other gases with extremely low heat inlet. Stainless steel bellow for long life and leak-tightness. The valve body is machined from one piece of solid stainless steel. End connections in butt-welded execution or according to customer specification. Welding flange for vacuum insulation as standard. Installation position up to 30° vertical. Ergonomic hand-wheel with position indication. Also available as Y valve.



Technical data	
Service fluids	N ₂ , O ₂ , Ar, H ₂ , He, NG*
Operating temp. fluid	-196°C (-269° C) to + 50°C
Operating temp. environment	-30°C to + 50°C
Actuator	hand-wheel
Body shape	straight, angle or Y-type
Seat sealing	metal/PCTFE seat leakage rate 1 x 10 ⁻⁶ mbar l/s
Body sealing	O-Ring (Viton) He leakage rate to atmosphere 1 x 10 ⁻⁸ mbar l/s
Stem sealing	stainless steel bellow physically tight
2. stem sealing	safety-O-Ring (Viton)
Surface treatment	machined, ground, electro-polished or passivated**
Installation position	horizontal in flow direction, actuator on top, max. 30° vertical
Body material	stainless steel
Material certificates	DIN EN 10204/3.1 AD2000-A4
Welding flange	acc. to specification for vacuum insulated tubes

* All dangerous, toxic, acid fluids with material selection.
 ** Execution of the surface treatment to customer specifications.

PN 25 on request. (Series 900 s)



DN	PN	end connection d x t x l	length	height	Extension A	seat Ø	Kv- Value	drawing no.
15	18	16,0 x 1,0 x 10	69	413	279	10	1,89	14-900
25	10	28,0 x 1,5 x 25	138	495	300	25	7,01	14-901
50	10	54,0 x 2,0 x 50	250	780	500	45	25,1	14-906

Dimensions for straight valves, for angle valves on request.
 all lengths in [mm], Kv-Value in [m³/h].

Stickš 900

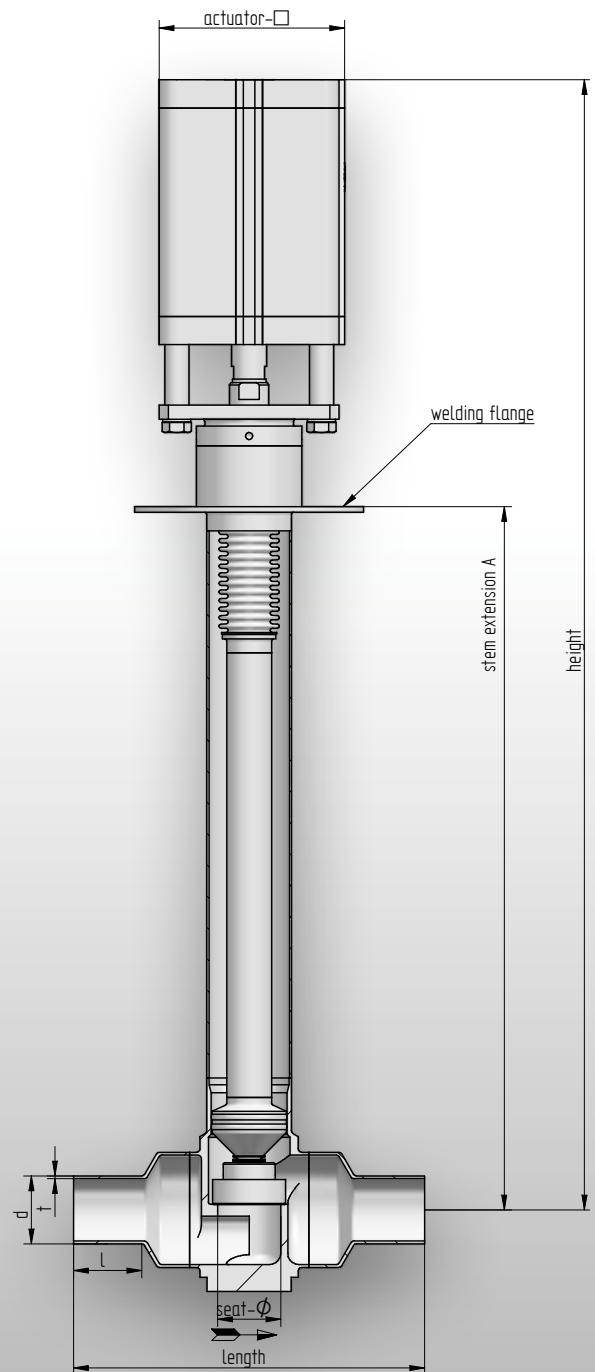
Pneumatic Cryogenic Globe Valve

Straight or angle valve for vacuum insulated and cryogenic systems. For nitrogen, helium, hydrogen and other gases with extremely low heat inlet. Stainless steel below for long life and leak-tightness. The valve body is machined from one piece of solid stainless steel. End connections in butt-welded execution or according to customer specification. Welding flange for vacuum insulation as standard. Installation position up to 30° vertical. Compact pneumatic piston actuator with safety position for safe opening and closing. Also available as Y valve. Limit switches, solenoid valves and further components on request.

Technical data	
Service fluids	N ₂ , O ₂ , Ar, H ₂ , He, NG*
Operating temp. fluid	-196°C (-269°C) to + 50°C
Operating temp. environment	-30°C to + 50°C
Actuator	piston actuator, pneumatic single-acting
Body shape	straight, angle or Y-type
Seat sealing	metal/PCTFE seat leakage rate 1×10^{-6} mbar l/s
Body sealing	O-Ring (Viton) He leakage rate to atmosphere 1×10^{-8} mbar l/s
Stem sealing	stainless steel bellow physically tight
2. stem sealing	safety-O-Ring (Viton)
Safety position	normally closed (NC) or normally open (NO)
Position indication	optional
Actuating pressure	6 + 0,5/-0,0 bar, dry compressed air or nitrogen
End connect. for actuating air	female thread G 1/8"
Surface treatment	machined, ground, electro-polished or passivated**
Installation position	horizontal in flow direction, actuator on top, max. 30° vertical
Body material	stainless steel
Material certificates	DIN EN 10204/3.1 AD2000-A4

* All dangerous, toxic, acid fluids with material selection.

** Execution of the surface treatment to customer specifications.



PN 25 on request. (Series 900 s)

DN	PN	end connection d x t x l	length	height	Exten- sion A	seat Ø	actuator square	Kv- Value	drawing no.
15	18	16,0 x 1,0 x 10	69	495	279	10	62,5	1,89	18-900
25	10	28,0 x 1,5 x 25	138	579	300	25	91	7,01	18-901
50	10	54,0 x 2,0 x 50	250	805	500	45	132	25,1	18-906

Dimensions fro straight valves, for angle valves on request.
all lengths in [mm], Kv-Value in [m³/h].

Stickš

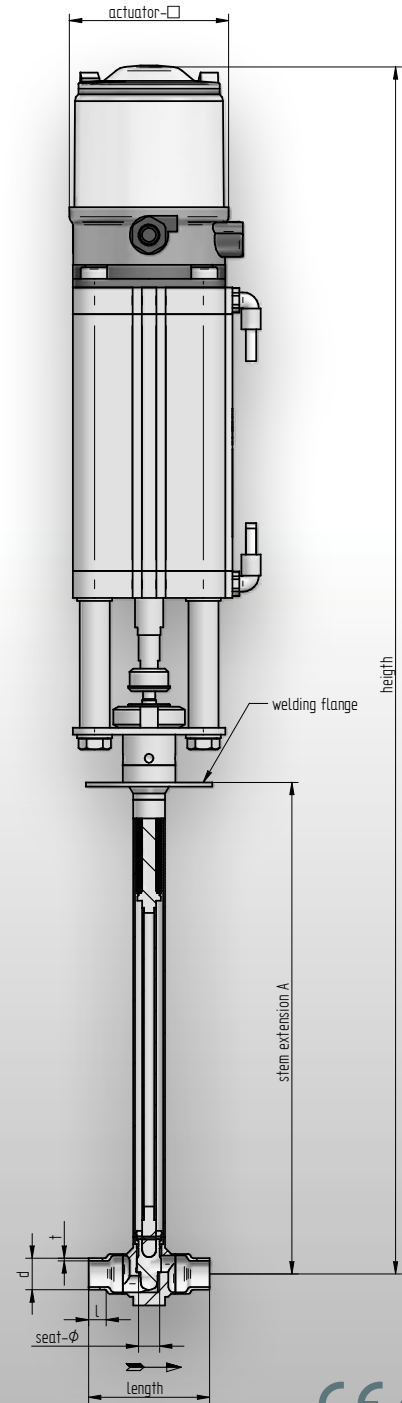
900

Pneumatic Cryogenic Regulation Valve

High quality stainless steel regulation valve für gaseous and liquid media for cryogenic service with particular low heat inlet. Compact design with equal percentage regulation (please specify A, B or C). Individual linear regulation or equal percentage regulation possible. Welding flange for vacuum insulation as standard. Straight valve or angle valve configuration with stainless steel bellow for long life and leak-tightness. The valve body is machined from one piece of solid stainless steel. End connections in butt-welded or according customer specification. Installation position max. 30° vertical. Exactly regulating pneumatic actuator with compact and space-saving integrated IP-positioner. Y Valve configuration possible.

Technical data	
Service fluids	N ₂ , O ₂ , Ar, H ₂ , He, NG*
Operating temp. fluid	-196°C(-269° C) to + 50°C
Operating temp. environment	-30°C to + 50°C
Actuator	piston actuator, pneumatic single-acting
Position regulation	integrated IP-positioner
Standard regulation	equal percentage
Body shape	straight, angle or Y-type
Seat sealing	metal/PCTFE seat leakage rate 1 x 10 ⁻⁶ mbar l/s
Body sealing	O-Ring (Viton) He leakage rate to atmosphere 1 x 10 ⁻⁸ mbar l/s
Stem sealing	stainless steel bellow physically tight
2. stem sealing	safety-O-Ring (Viton)
Safety position	normally closed (NC) or normally open (NO)
Position indication	optional
Actuating pressure	6 + 0,5/-0,0 bar, dry compressed air or nitrogen
End connect. for actuating air	female thread G 1/8" G 1/4"
Surface treatment	machined, ground, electro-polished or passivated**
Installation position	horizontal in flow direction, actuator on top, max. 30° vertical
Body material	stainless steel
Material certificates	DIN EN 10204/3.1 AD2000-A4

* All dangerous, toxic, acid fluids with material selection.
 ** Execution of the surface treatment to customer specifications.



PN 25 on request (Series 900 s)

DN	PN	end connection d x s x l	length	height	Extension A	seat Ø	actuator square	regulation	kv-value	drawing-no.
15	18	16,0 x 1,0 x 10	69	689	279	10	91	A	1,5	R18-900
25	10	28,0 x 1,5 x 25	138	720	300	25	91	A	2,5	R18-901
25	10	28,0 x 1,5 x 25	138	720	300	25	91	B	5	R18-901
25	10	28,0 x 1,5 x 25	138	720	300	25	91	C	8	R18-901
50	10	54,0 x 2,0 x 50	250	1075	500	45	132	A	7,5	R18-906
50	10	54,0 x 2,0 x 50	250	1075	500	45	132	B	15	R18-906
50	10	54,0 x 2,0 x 50	250	1075	500	45	132	C	25	R18-906

Dimensions for straight valves, for angle valves on request. All lengths in [mm], Kv-Value in [m³/h]



Stickš 900

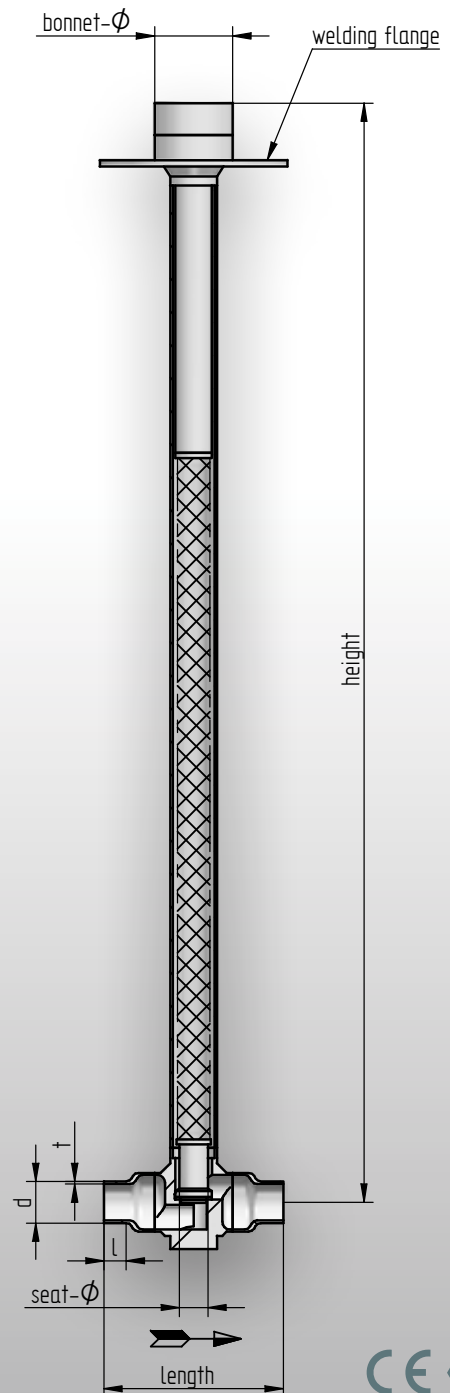
Cryogenic Filter

Filter unit with filter element made from stainless steel wire mesh. Optional sinter filter for vacuum insulation and cryogenic service with extremely low heat inlet. For nitrogen, helium, hydrogen and other gases. Regenerative filter element. Different filtration spectra from 100 up to 1μ and low differential pressures. The valve body is machined from one piece of solid stainless steel. Straight filter or angle filter configuration. End connections in butt-welded execution or according to customer specification.

Technical data	Technical Design
Service fluids	N ₂ , O ₂ , Ar, H ₂ , He, NG*
Operating temp. fluid	-196°C (-269° C) to + 50°C
Operating temp. environment	-30°C to + 50°C
Body shape	straight or angle
Seat sealing	metal/PCTFE
Body sealing	O-Ring (Viton) He leakage rate to atmosphere 1×10^{-8} mbar l/s
Surface treatment	machined, ground, electro-polished or passivated**
Filter insert	wire mesh pipe filter, nominal 40, 100, 30, 20, 10 oder 1μ
Installation position	horizontal in flow direction, bonnet on top, max. 30° vertical
Body material	stainless steel
Material certificates	DIN EN 10204/3.1 AD2000-A4
Welding flange	acc. to specification for vacuum insulated tubes

* All dangerous, toxic, acid fluids with material selection.

** Execution of the surface treatment to customer specifications.



DN	PN	end connection d x t x l	length	height	seat Ø	drawing no.
15	18	16,0 x 1,0 x 10	69	330	10	40-900
25	10	28,0 x 1,5 x 25	138	330	25	40-901
50	10	54,0 x 2,0 x 50	250	580	45	40-906

Dimensions fro straight valves, for angle valves on request. All lengths in [mm].

Certificates

Key aspects of the Quality Programme

Rules and standards:

STÖHR ARMATUREN standard is the Pressure Vessel Code (DruckGRL).

Optional are rules like ASME, KTA etc.

Existing testing facilities:

- hydraulic pressure test up to 1600 bar
- helium leak test by He leak detector
to $\leq 1,0 \times 10^{-10}$ mbar l/sec. at room temp. and -196°C
- oxygen-compatible surface cleaning possible
- surface improvement by grinding and electro-polishing to $Ra \leq 0,25\mu\text{m}$ possible
- clean room assembly to class 100 possible.
- welding with valid WPQ (Welding Procedure Qualifications) and welder's performance qualification
- 100% test record of the welding seams (acc. to DIN EN 473) by:
 - visual test
 - surface crack test
 - ultrasonic test
 - X-ray examination.

Existing certifications:

- AD2000-HPO
- DIN 2303 - Q2 BK2
- DIN EN ISO 9001:2008
- Pressure Vessel Code - module H
- KTA 1401
- Qualification for transfer of identification acc. to AD2000-HPO

