

Elbow valve with full bore.

Optimal flow coefficient allows selection of smaller valve sizes.

Optimal cleaning (pigging capable).

Optimized installation space.

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.



# Ellipš

Manual Cryogenic Globe Valve . . . . . 46

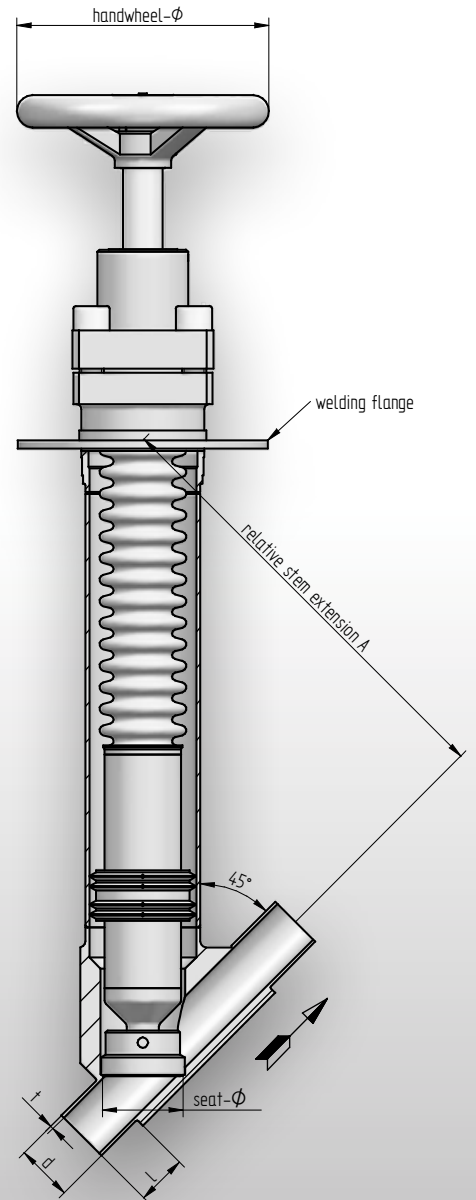
Pneumatic Cryogenic Globe Valve . . . . . 47





## Manual Cryogenic Globe Valve with stainless steel Bellow

High quality stainless steel globe valve for gaseous and liquid media. The bevel seat allows an optimal flow-rate value (Kv-value 33 m<sup>3</sup>/h with DN 25). The stainless steel bellow guarantees long life and physical tightness. The valve body is machined from one piece of solid stainless steel. End connections in butt-welded execution or according to customer specification. ELLIPSS has a very good ratio of seat diameters to Kv-values and allows the application of smaller valve sizes.



Technical data	
Service fluids	N <sub>2</sub> , O <sub>2</sub> , Ar, H <sub>2</sub> , He, N <sub>2</sub> O, CO <sub>2</sub> , NG*
Operating temp. fluid	-196°C(-269° C) to + 50°C
Operating temp. environment	-30°C to +50°C
Body material	stainless steel
Body type	bevel seat (with free flow)
Seat sealing	meta/PCTFE seat leakage rate 1 x 10 <sup>-6</sup> mbar l/s
	meta/PTFE seat leakage rate 1 x 10 <sup>-6</sup> mbar l/s
	meta/metal seat leakage rate 1 x 10 <sup>-3</sup> mbar l/s
Body sealing	metal seal ring He leakage rate to atmosphere 1 x 10 <sup>-8</sup> mbar l/s
Stem sealing	stainless steel bellow physically tight
Surface treatment	machined, ground, electro-polished or passivated**
Installation position	actuator on top, ca. 10° vertical, horizontal or vertical flow
Material certificates	DIN EN 10204/3.1B AD2000-A4
Welding flange	acc. to spec. for vacuum insulated tubes

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



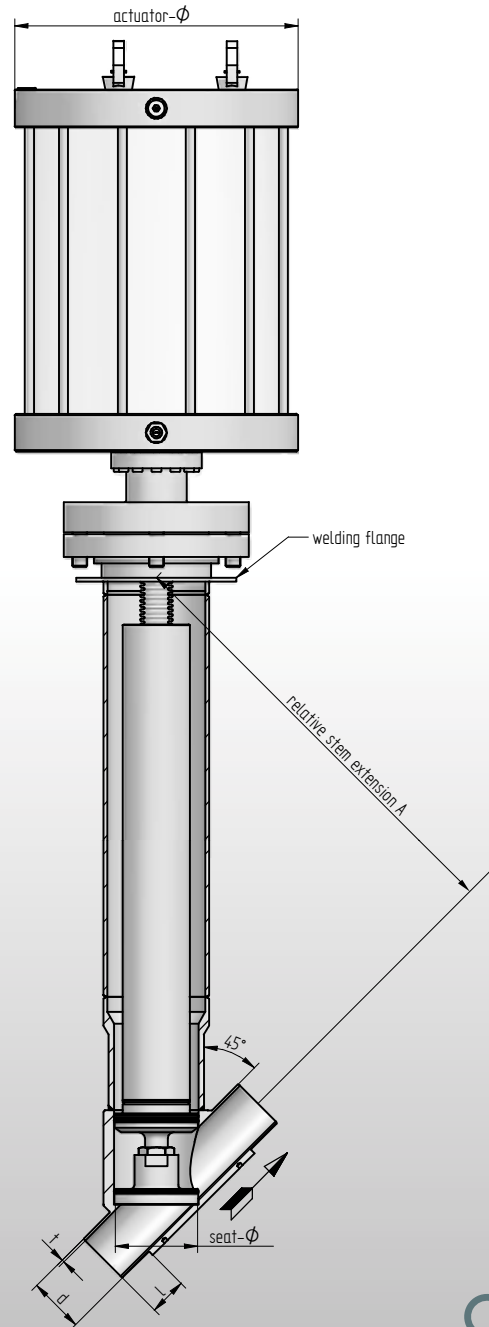
DN	PN	end connection d x t x l	Kv- Value	drawing no.		
8	25	10,0 x 1,0 x 25	3	14-1700.12.1		
10	25	12,0 x 1,0 x 25	5	14-1700.12.2		
15	25	18,0 x 1,5 x 25	12	14-1701.12.1		
20	25	23,0 x 1,5 x 25	21	14-1702.12.1		
25	25	28,0 x 1,5 x 30	33	14-1703.12.1		
32	25	35,0 x 1,5 x 30	54	14-1704.12.1		
40	25	41,0 x 1,5 x 35	84	14-1705.12.1		
50	25	53,0 x 1,5 x 50	132	14-1706.12.1		
65	25	70,0 x 2,0 x 50	223	14-1707.12.1		
80	25	85,0 x 2,0 x 50	338	14-1708.12.1		
100	25	104,0 x 2,0 x 50	528	14-1709.12.1		

All length [mm], Kv-Value [m<sup>3</sup>/h]

# Ellips<sup>®</sup> 1700

## Pneumatic Cryogenic Globe Valve with stainless steel Bellow

High quality stainless steel globe valve for gaseous and liquid media. The bevel seat allows an optimal flow-rate value (Kv-value 33 m<sup>3</sup>/h with DN 25). The stainless steel bellow guarantees long life and physical tightness. The valve body is machined from one piece of solid stainless steel. End connections in butt-welded execution or according to customer specification. ELLIPS has a very good ratio of seat diameters to Kv-values and allows the application of smaller valve sizes. Limit switches, solenoid valves and further components on request.



Technical data	
Service fluids	N <sub>2</sub> , O <sub>2</sub> , Ar, H <sub>2</sub> , 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	bevel seat (with free flow)
Seat sealing	metal/PCTFE seat leakage rate 1 x 10 <sup>-6</sup> mbar l/s
	metal/PTFE seat leakage rate 1 x 10 <sup>-6</sup> mbar l/s
	metal/metal seat leakage rate 1 x 10 <sup>-3</sup> mbar l/s
Body sealing	metal seal ring He leakage rate to atmosphere 1 x 10 <sup>-8</sup> 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)
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	actuator on top, ca. 10° vertical, horizontal or vertical flow
Body material	stainless steel
Material certificates	DIN EN 10204/3.1 AD2000-A4

DN	PN	end connection d x t x l	Kv- Value	drawing no.			
8	25	10,0 x 1,0 x 25	3	18-1700.12.1			
10	25	12,0 x 1,0 x 25	5	18-1700.12.2			
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\* All dangerous, toxic, acid fluids with material selection.

\*\* Execution of the surface treatment to customer specifications.

All length [mm], Kv-Value [m<sup>3</sup>/h].

# 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  $-196^{\circ}\text{C}$
- 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

