

# Globe Valves

## Type 11C01 - Globe Valve FullX



**Top-Entry Cryogenic-Globe Valves, forged steel body, up to PN63  
A001 series**

Stainless steel body and topwork,  
"live loaded" gland packing  
"cleaned and degreased for oxygen service"

Butt weld connection for stainless steel pipes acc. to ISO 1127 or ASTM A312

Available options:

- Bellow, top position
- Bellow, bottom position
- Bellow monitoring
- Check function
- Control function
- Throttle function
- Purge port

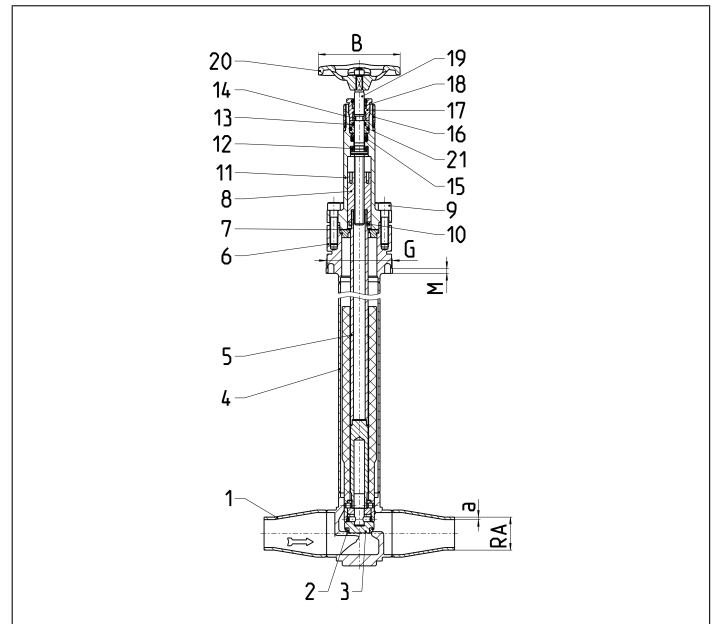
- on request only:
- Further connection types

### Applications:

Approved for hydrogen, air gases, vapours and cryogenic liquefied gases incl. LNG.  
Working temperature: -269°C / -452°F (4K) up to +80°C / +176°F (353K)



Materials	DIN EN	ASTM
1 Body	1.4571	A 313 Grade 316TI
2 Valve seal	PCTFE	
3 Disc	1.4571	A 313 Grade 316TI
4 Tube	1.4571	A 313 Grade 316TI
5 Hollow stem	1.4571	A 313 Grade 316TI
6 Flange	1.4404	A 276 Grade 316L
7 Bonnet gasket	PTFE / Elektrocarbon (25%)	
8 Bushing	CW452K	B 159 UNS C51900
9 Bolt	A4-70	A 194 B8M
10 Nut	1.4404	A 276 Grade 316L
11 Head piece	1.4404	A 276 Grade 316L
12 Ball bearing	1.4125	440C
13 Sliding bushing	CW452K	B 159 UNS C51900
14 Stem ring	CW452K	B 159 UNS C51900
15 Gasket	PTFE / Elektrocarbon (25%)	
16 Cap	PVC	
17 Gland bold	1.4404	A 276 Grade 316L
18 Wiper	PEEK	
19 Stem	1.4404	A 276 Grade 316L
20 Handwheel	1.4409	A 351 CF3M
21 O-ring	FPM (VITON)	



Nominal size	DN	10	15	20	25	32	40	50
Collar-Ø	G	68.0	68.0	68.0	68.0	84.4	84.4	100
Length	M	5	5	5	5	5	5	5
Handwheel-Ø	B	100	100	100	100	125	125	125
Outside pipe-Ø ISO	Ra	17.2	21.3	26.9	33.7	42.4	48.3	60.3
Wall thickness pipe ISO	a	1.8	2.0	2.3	2.6	2.6	2.6	2.9
Pipe-Ø ASTM A312		S10						

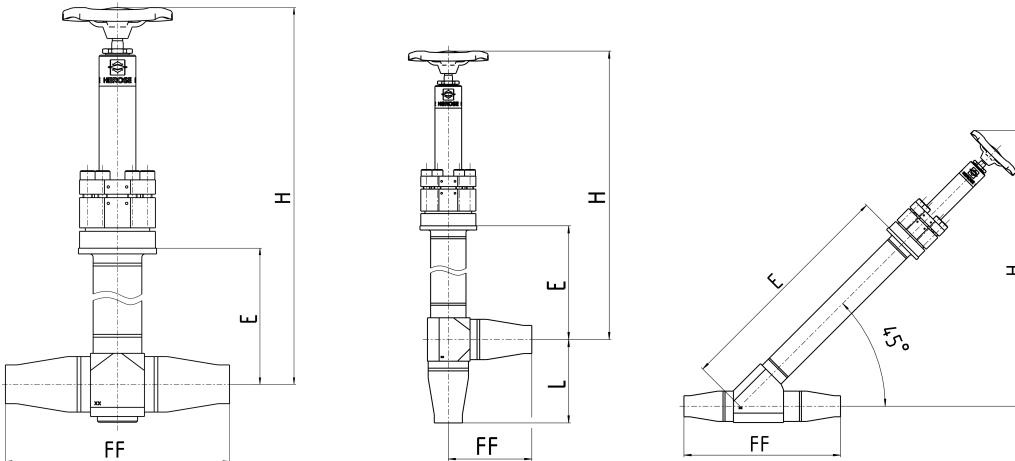
Dimensions in mm.

# Globe Valves

## Type 11C01 - Globe Valve FullX



### Body types



### Straight body

Nominal size	DN	10	15	20	25	32	40	50
Face-to-face dim.	FF	150	150	195	195	235	235	280
Height	H	535	535	535	535	690	690	775
Length	E	325	325	325	325	445	445	525
Kvs-value	m <sup>3</sup> /h	3.4	4.4	9.8	12.3	25.8	28.3	44.0
Kvs-value*	m <sup>3</sup> /h	3.4	4.4	9.5	12.0	25.8	28.3	44.0
Cv-value	gal/min	4.0	5.1	11.4	14.3	30.0	32.9	51.2
Cv-value*	gal/min	4.0	5.1	11.0	14.0	30.0	32.9	51.2
Weight	ca. kg	3.05	3.07	3.67	3.71	7.95	8.08	11.21

\* with bellow

### Body angle type

Nominal size	DN	10	15	20	25	32	40	50
Face-to-face dim.	FF	80	80	100	100	120	120	140
Height	H	535	535	535	535	690	690	775
Length	E	325	325	325	325	445	445	525
Length	L	80	80	100	100	120	120	140
Kvs-value	m <sup>3</sup> /h	4.7	5.7	19.8	22.3	41.1	43.6	80.0
Kvs-value*	m <sup>3</sup> /h	4.7	5.7	16.5	19.0	33.3	35.8	63.0
Cv-value	gal/min	5.5	6.6	23.0	25.9	47.8	50.7	93.0
Cv-value*	gal/min	5.5	6.6	19.2	22.1	38.7	41.6	73.3
Weight	ca. kg	3.03	3.05	3.62	3.66	7.73	7.76	10.54

\* with bellow

### Body Y type

Nominal size	DN	10	15	20	25	32	40	50
Face-to-face dim.	FF	185	185	250	250	285	285	340
Height	H	430	430	440	440	570	570	640
Length	E	365	365	370	370	505	505	600
Kvs-value	m <sup>3</sup> /h	4.2	5.2	11.9	14.4	34.4	36.9	69.8
Kvs-value*	m <sup>3</sup> /h	4.2	5.2	7.7	10.2	28.6	31.1	35.0
Cv-value	gal/min	4.9	6.0	13.8	16.7	40.0	42.9	81.2
Cv-value*	gal/min	4.9	6.0	9.0	11.9	33.3	36.2	40.7
Weight	ca. kg	3.36	3.37	4.36	4.40	9.15	9.18	13.51

\* with bellow

# Globe Valves

## Type 11C01 - Globe Valve FullX



**Top-Entry Cryogenic-Globe Valves, casted body, up to PN50  
A002 series**

Stainless steel body and topwork,  
"live loaded" gland packing  
"cleaned and degreased for oxygen service"

Butt weld connection for stainless steel pipes acc. to ISO 1127 or ASTM A312

Available options:

- Bellow, top position
- Bellow, bottom position
- Bellow monitoring
- Check function
- Control function
- Throttle function
- Purge port

- on request only:

- Further connection types

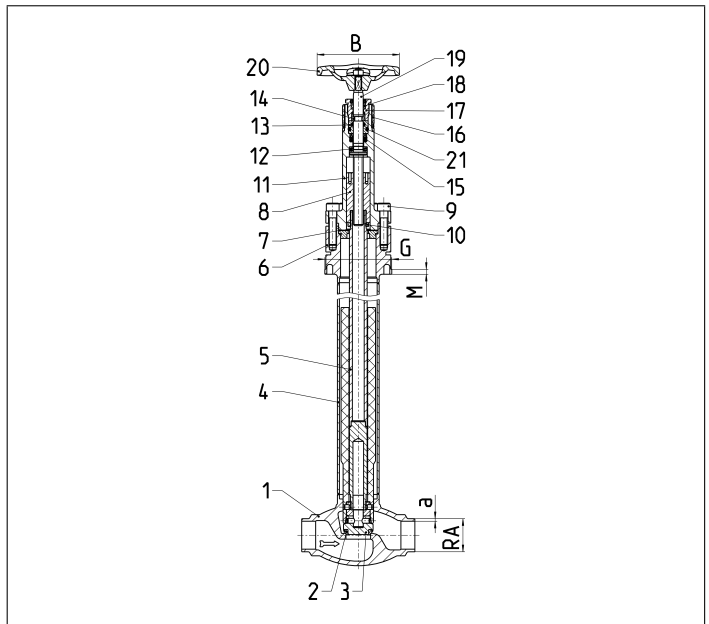
### Applications:

Approved for hydrogen, air gases, vapours and cryogenic liquefied gases incl. LNG.

Working temperature: -255°C / -427°F (18K) up to +80°C / +176°F (353K)



Materials	DIN EN	ASTM
1 Body	1.4409	A 351 CF3M
2 Valve Seal	PCTFE	
3 Disc	1.4571	A 313 Grade 316TI
4 Tube	1.4571	A 313 Grade 316TI
5 Hollow stem	1.4571	A 313 Grade 316TI
6 Flange	1.4404	A 276 Grade 316L
7 Bonnet gasket	PTFE / Elektrocarbon (25%)	
8 Bushing	CW452K	B 159 UNS C51900
9 Bolt	A4-70	A 194 B8M
10 Nut	1.4404	A 276 Grade 316L
11 Head piece	1.4404	A 276 Grade 316L
12 Ball bearing	1.4125	440C
13 Sliding bushing	CW452K	B 159 UNS C51900
14 Stem ring	CW452K	B 159 UNS C51900
15 Gasket	PTFE / Elektrocarbon (25%)	
16 Cap	PVC	
17 Gland bolt	1.4404	A 276 Grade 316L
18 Wiper	PEEK	
19 Stem	1.4404	A 276 Grade 316L
20 Handwheel	1.4409	A 351 CF3M
21 O-ring	FPM (VITON)	



Nominal size	DN	10	15	20	25	32	40	50
Collar-Ø	G	68.0	68.0	68.0	68.0	84.4	84.4	100
Length	M	5	5	5	5	5	5	5
Handwheel-Ø	B	100	100	100	100	125	125	125
Outside pipe-Ø ISO	Ra	13.5	21.3	26.9	33.7	42.4	48.3	60.3
Wall thickness pipe ISO	a	1.6	2.0	2.0	2.6	2.6	2.6	2.9
Pipe-Ø ASTM A312		S10						

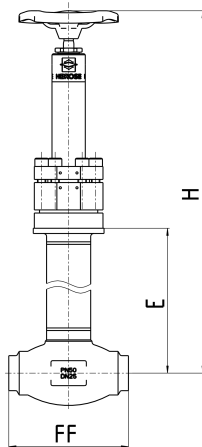
Dimensions in mm.

# Globe Valves

## Type 11C01 - Globe Valve FullX



### Body types



### Straight body

Nominal size	DN	10	15	20	25	32	40	50
Face-to-face dim.	FF	85	85	115	115	130	130	155
Height	H	535	535	535	535	690	690	775
Length	E	325	325	325	325	445	445	525
Kvs-value	m <sup>3</sup> /h	2.8	3.8	10.0	13.3	16.0	25.0	46.0
Kvs-value*	m <sup>3</sup> /h	3.4	4.4	9.5	12.0	25.8	28.3	44.0
Cv-value	gal/min	2.8	4.4	11.6	15.4	18.5	28.9	53.2
Cv-value*	gal/min	4.0	5.1	11.0	14.0	30.0	32.9	51.2
Weight	ca. kg	3.05	3.07	3.67	3.71	7.95	8.08	11.21

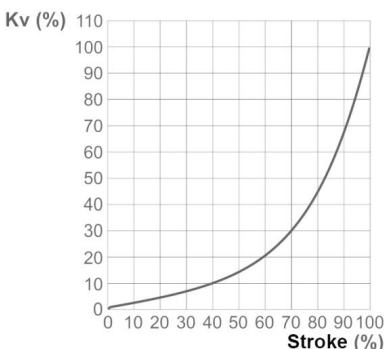
\* with bellows

**Flow coefficient for Control Valves - Control characteristic equal percentage Kvs-Value in m<sup>3</sup>/h, Cv-Value in gal/min. These figures refer to measurements for the flow direction.**

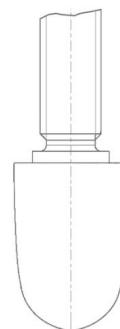
### Type 11C01 control function - A001 and A002 series

DN	Kvs [m <sup>3</sup> /h]	Cv [gal/min]	Stroke [mm]
10	1.0	1.2	10
15	3.5	4.1	10
20	4.0	4.7	10
25	6.3	7.3	10
32	10.0	11.6	20
40	19.0	22.1	20
50	30.0	34.9	20

Ideal inherent equal percentage characteristic curve acc. to DIN IEC 60534 Part 2-4



Sample drawing cone, control characteristic equal percentage



### Configurable options

For configurable types, the HEROSE part number consists as follows:

Type	Series	Dimension code	Option codes
11C01.	A001.	0250.	ESR-MYJ-CBQ-QXY-KCZ-JRB-LYV-SNP-HTW-GCX
1	2	3	4 up to 13

Selection of the type					Type
1	Type	Product group	Market segment	Valve design	Product approval
	Globe Valve FullX	Cryogenic	Top Entry	PED	11C01

Selection of the series				Series
2	Series	increased external tightness	medium pressure rating	A001
		normal external tightness	medium pressure rating	A002

Selection of the nominal size			Dimension code
3	Nominal sizes		
		DN10	0100
		DN15	0150
		DN20	0200
		DN25	0250
		DN32	0320
		DN40	0400
		DN50	0500

Selection of options			Option codes
4	Pressure rating		
		PN50	JAT
		PN63	ESR

5	Approvals		MYJ
		PED DIN EN 1626	

6	Body types		
		Body angle type	CBQ
		Straight body	HJC
		Body Y type	PYU

7	Disc function		
		lockable function	KCZ
		lockable check function	JDA
		lockable control function	SWX
		lockable throttle function	WVV

8	Operation		
		manual	YFW
		actuated 'diaphragm actuator'	RQZ
		actuated 'piston actuator'	CEA

9	Handwheel options	Material 1.4409	silver (natural)	JRB

10	Bellow options	Bellow	Bellow position	Bellow monitoring	Dimension bellow monitoring	
		not selected	not selected	not selected	not selected	not selected
		selected	top	not selected	not selected	MUR
		selected	bottom	not selected	not selected	FYX
		selected	top	selected	DIN EN ISO 8434-1-WDS-S6	GXD
		selected	bottom	selected	DIN EN ISO 8434-1-WDS-S6	XHA

11	Collar options	Nominal size	Body type	Collar diameter Ø [mm]	Collar height (M) [mm]	Collar position (E) [mm]	
		DN10-25	Body angle type/ Straight body	68.0	5.0	325.0	YWF
		DN10/15	Body Y type	68.0	5.0	365.0	YTU
		DN20/25	Body Y type	68.0	5.0	370.0	XCX
		DN32/40	Body angle type/ Straight body	84.4	5.0	445.0	RBD
		DN32/40	Body Y type	84.4	5.0	505.0	DML
		DN50	Body angle type/ Straight body	100.0	5.0	525.0	UAC
		DN50	Body Y type	100.0	5.0	600.0	WQA

12	Purge port		
		w/o purge port	
		with NPT 1/8"	EPH
		with VCR 1/4"	ANK

13	Valve height	Nominal size	Body type	Bonnet extension	Valve height (H) [mm]	
		DN10/15	Body angle type/ Straight body	with	535.0	GCX
		DN10/15	Body Y type	with	430.0	HDP
		DN20/25	Body angle type/ Straight body	with	535.0	GCX
		DN20/25	Body Y type	with	440.0	VCG
		DN32/40	Body angle type/ Straight body	with	690.0	AKQ
		DN32/40	Body Y type	with	570.0	WAM
		DN50	Body angle type/ Straight body	with	775.0	QJN
		DN50	Body Y type	with	640.0	FTP