

GEMÜ B44

Pneumatically operated ball valve



Features

- Checked delta ferrite material < 3% (1.4435)
- Material certificates for media wetted components
- Media wetted surfaces according to ASME SF5 (Ra 0.51 µm)
- Butt weld spigots in extended orbital welding design
- Optionally available with cavity-filled seat
- Suitable for vacuum applications
- Option: ATEX version
- Ball valve body assembled free of oil and grease

Description

The GEMÜ B44 3-piece 2/2-way metal ball valve is pneumatically operated. The 1.4435 stainless steel alloy material composition used for the ball valve body (compliant with 316L) with a low delta ferrite proportion of < 3% is particularly suited to applications in the supply sector for the pharmaceutical, foodstuffs processing and biotechnology (such as water treatment and sterile steam generation) industries. Only those plastics which are compliant with FDA, USP Class VI and Regulation (EU) No.10/2011 are used for the seals.

Technical specifications

- **Media temperature:** 14 to 428 °F
- **Ambient temperature:** -4 to 140 °F
- **Operating pressure:** 0 to 913.8 psi
- **Nominal sizes:** 1/4" (DN 8) to 4" (DN 100)
- **Body configurations:** 2/2-way body
- **Connection standards:** ASME | DIN | ISO | SMS
- **Body materials:** 1.4435 (316L), investment casting material
- **Seal materials:** PTFE TFM™
- **Conformities:** ATEX | EAC | FDA | Reg. (EU) No. 10/2011 | Regulation (EC) No. 1935/2004 | TA Luft (German Clean Air Act) | USP

Technical data depends on the respective configuration



further information
webcode: GW-B44

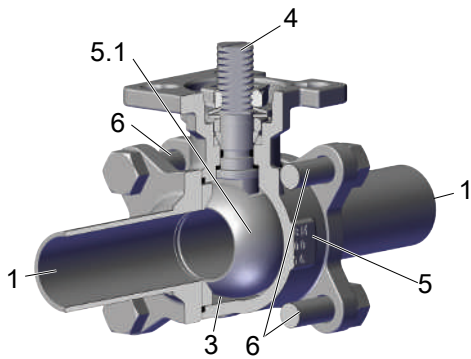


Product line

				
	GEMÜ BB04	GEMÜ B24	GEMÜ B44	GEMÜ B54
Operation				
With bare shaft	●	-	-	-
Manual	-	●	-	-
pneumatic	-	-	●	-
Motorized	-	-	-	●
Nominal sizes	1/4" (DN 8) to 4" (DN 100)	1/4" (DN 8) to 4" (DN 100)	1/4" (DN 8) to 4" (DN 100)	1/4" (DN 8) to 4" (DN 100)
Media temperature	14 to 428 °F	14 to 428 °F	14 to 428 °F	14 to 428 °F
Operating pressure	0 to 913,8 psi	0 to 913,8 psi	0 to 913,8 psi	0 to 913,8 psi
Connection types				
Clamp	●	●	●	●
Spigot	●	●	●	●

Product description

Construction



Item	Name	Materials
5	Ball valve body	ASTM A351/1.4435 (316L)
1	Pipe connections	ASTM A351/1.4435 (316L)
5.1	Ball	ASTM A351/1.4435 (316L)
4	Ball valve shaft	1.4409 (SS316L)
6	Bolt	A2 70
3	Seals	PTFE, TFM

Cavity-filled PTFE TFM seat (code 5H)



- The cavity-filled seat, which is made of PTFE TFM, is specially designed to reduce excess volumes in the ball cavity.
- Media that remains in the valve's dead spaces is unwanted during food production, for example, and may decontaminate this.
- These deposits accumulate and contaminate the entire process. Thanks to this special seal variant, the volume in the ball cavity is reduced to a minimum.

Application

- Water treatment
- Steam processing
- CIP/SIP
- Waste water treatment
- Storage and distribution
- Drying

GEMÜ CONEXO

The interaction between valve components equipped with RFID chips and the corresponding IT infrastructure actively increases process reliability.



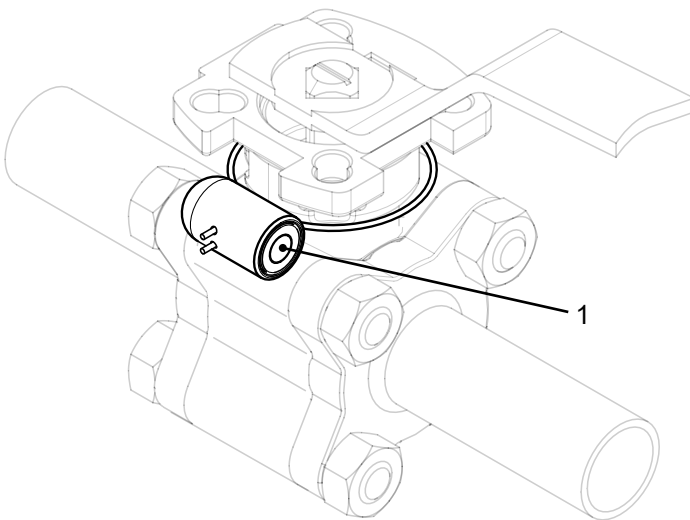
Thanks to serialization, every valve and every relevant valve component, such as the body, actuator, diaphragm or even automation components, can be clearly traced and read at any time using the RFID reader – the CONEXO pen. The CONEXO app, which can be installed on mobile devices, not only facilitates and improves the "installation qualification" process, but also makes the servicing process much more transparent and easier to document. The app actively guides the maintenance technician through the maintenance schedule and directly provides him with all the information assigned to the valve, such as test reports, testing documentation and maintenance histories. The CONEXO portal acts as a central element, helping to collect, manage and process all data.

For further information on GEMÜ CONEXO please visit:

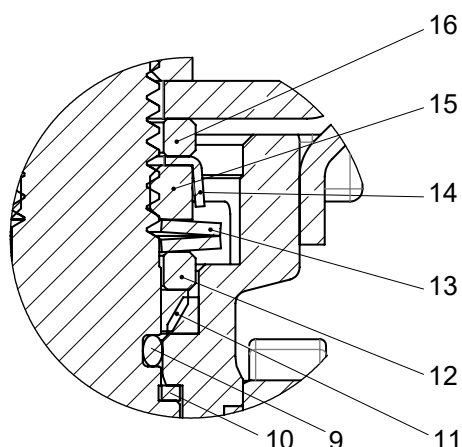
www.gemu-group.com/conexo

Installing the RFID chip

In the corresponding design with CONEXO, this product has an RFID chip (1) for electronic recognition. The position of the RFID chip can be seen below.



The spindle seal system



Item	Name	Material
9	O-ring	Viton
10	Seal	TFM
11	V-ring	TFM
12	Stainless steel sleeve	SS304 – 1.4301
13	Spring washer	SS304 – 1.4301
14	Cap	SS304 – 1.4301
15	Spindle nut	A2 70
16	Washer	SS304 – 1.4301

Long service life due to double spindle seal

- Conical spindle seal:

The seal **10** arranged at an angle of 45° effectively prevents the leakage of medium when operating the spindle

- Pretensioned self-adjusting spindle seal:

The spindle packing consists of several V-rings **11**, a spring washer **13** and a stainless steel sleeve **12**. The spring washer **13** is pretensioned via the spindle nut **14**. The pretension force is distributed to the V-rings **11** via the stainless steel sleeve **12**, thereby preventing the leakage of media. The pretension provides low maintenance and reliable spindle sealing even after a long service life.

Availability

DN	NPS	Connection type code ¹⁾					
		17	37	59	60	80	93
8	1/4"	-	-	-	X	-	-
10	3/8"	X	-	-	X	-	-
15	1/2"	X	-	X	X	X	X
20	3/4"	X	X	X	X	X	X
25	1"	X	X	X	X	X	X
32	1¼"	X	-	-	X	-	-
40	1½"	X	X	X	X	X	X
50	2"	X	X	X	X	X	X
65	2½"	X	X	X	X	X	X
80	3"	X	X	X	X	X	X
100	4"	X	X	X	X	X	X

1) Connection type

Code 17: Spigot EN 10357 series A / DIN 11866 series A formerly DIN 11850 series 2

Code 37: Spigot SMS 3008

Code 59: Spigot ASME BPE/DIN 11866 series C

Code 60: Spigot ISO 1127/EN 10357 series C/DIN 11866 series B

Code 80: Clamp ASME BPE

Code 93: One side clamp ASME BPE corresponding to code 80, other side butt weld spigot code 59, for pipe ASME BPE

Actuator assignment

GEMÜ type DR/SC

Seal material TFM 1600, FDA compliant, cavity-filled seat seal (code 5H)

DN	NPS	Double acting DR	Code	Single acting SC	Code
8	1/4"	DR0015U F04NS11 A	DU01A00	SC0030U 6 F04NS11 A	SU03K00
10	3/8"	DR0015U F04NS11 A	DU01A00	SC0030U 6 F04NS11 A	SU03K00
15	1/2"	DR0015U F04NS11 A	DU01A00	SC0030U 6 F04NS11 A	SU03K00
20	3/4"	DR0015U F04NS11 A	DU01A00	SC0030U 6 F04NS11 A	SU03K00
25	1"	DR0015U F04NS11 A	DU01A00	SC0060U 6F05F07NS14 A	SU06KP0
32	1 1/4"	DR0015U F04NS11 A	DU01A00	SC0060U 6F05F07NS14 A	SU06KP0
40	1 1/2"	DR0060U F05F07NS17 A	DU06AC0	SC0150U 6F05F07NS17 A	SU15KC0
50	2"	DR0060U F05F07NS17 A	DU06AC0	SC0150U 6F05F07NS17 A	SU15KC0
65	2 1/2"	DR0150U F07F10NS17 A	DU15AE0	SC0300U 6F07F10NS22 A	SU30KD0
80	3"	DR0150U F07F10NS17 A	DU15AE0	SC0300U 6F07F10NS22 A	SU30KD0
100	4"	DR0220U F07F10NS22 A	DU22AD0	SC0450U 6F10F12NS27 A	SU45KG0

GEMÜ type DR/SC

Seal material TFM 1600, FDA compliant (code 5T)

DN	NPS	Double acting DR	Code	Single acting SC	Code
8	1/4"	DR0015U F04NS11 A	DU01A00	SC0030U 6 F04NS11 A	SU03K00
10	3/8"	DR0015U F04NS11 A	DU01A00	SC0030U 6 F04NS11 A	SU03K00
15	1/2"	DR0015U F04NS11 A	DU01A00	SC0030U 6 F04NS11 A	SU03K00
20	3/4"	DR0015U F04NS11 A	DU01A00	SC0030U 6 F04NS11 A	SU03K00
25	1"	DR0015U F04NS11 A	DU01A00	SC0030U 6 F04NS11 A	SU03K00
32	1 1/4"	DR0015U F04NS11 A	DU01A00	SC0060U 6F05F07NS14 A	SU06KP0
40	1 1/2"	DR0030U F05F07NS14 A	DU03AP0	SC0150U 6F05F07NS17 A	SU15KC0
50	2"	DR0030U F05F07NS14 A	DU03AP0	SC0150U 6F05F07NS17 A	SU15KC0
65	2 1/2"	DR0100U F05F07NS17 A	DU10AC0	SC0220U 6F07F10NS22 A	SU22KD0
80	3"	DR0100U F05F07NS17 A	DU10AC0	SC0220U 6F07F10NS22 A	SU22KD0
100	4"	DR0150U F07F10NS22 A	DU15AD0	SC0300U 6F07F10NS22 A	SU30KD0

GEMÜ type ADA/ASR

Seal material TFM 1600, FDA compliant, cavity-filled seat seal (code 5H)

DN	NPS	Double acting ADA	Code	Single acting ASR	Code
8	1/4"	ADA0020U F04YS14/S11A	BU02AA0	ASR0020US08 F04YS14/S11A	AU02FA0
10	3/8"	ADA0020U F04YS14/S11A	BU02AA0	ASR0020US08 F04YS14/S11A	AU02FA0
15	1/2"	ADA0020U F04YS14/S11A	BU02AA0	ASR0020US08 F04YS14/S11A	AU02FA0
20	3/4"	ADA0020U F04YS14/S11A	BU02AA0	ASR0040US14 F04S14/S11A	AU04KA0
25	1"	ADA0040U F05YS14/S11A	BU04AB0	ASR0040US14 F05YS14/S11A	AU04KB0
32	1 1/4"	ADA0040U F05YS14/S11A	BU04AB0	ASR0040US14 F05YS14/S11A	AU04KB0
40	1 1/2"	ADA0080U F05F07YS17/S14A	BU08AC0	ASR0130US14F05F07YS17/S14A	AU13KC0
50	2"	ADA0080U F05F07YS17/S14A	BU08AC0	ASR0130US14F05F07YS17/S14A	AU13KC0
65	2 1/2"	ADA0130U F05F07YS17/S14A	BU13AC0	ASR0300US14F07F10YS22 A	AU30KD0
80	3"	ADA0130U F05F07YS17/S14A	BU13AC0	ASR0300US14F07F10YS22 A	AU30KD0
100	4"	ADA0300U F07F10Y/S22 A	BU30AD0	ASR0850US14F10F12YS27 A	AU85KG0

GEMÜ type ADA/ASR

Seal material TFM 1600, FDA compliant (code 5T)

DN	NPS	Double acting ADA	Code	Single acting ASR	Code
8	1/4"	ADA0020U F04YS14/S11A	BU02AA0	ASR0020US08 F04YS14/S11A	AU02FA0
10	3/8"	ADA0020U F04YS14/S11A	BU02AA0	ASR0020US08 F04YS14/S11A	AU02FA0
15	1/2"	ADA0020U F04YS14/S11A	BU02AA0	ASR0020US08 F04YS14/S11A	AU02FA0
20	3/4"	ADA0020U F04YS14/S11A	BU02AA0	ASR0040US14 F04S14/S11A	AU04KA0
25	1"	ADA0020U F04YS14/S11A	BU02AA0	ASR0040US14 F05YS14/S11A	AU04KB0
32	1¼"	ADA0020U F04YS14/S11A	BU02AA0	ASR0040US14 F05YS14/S11A	AU04KB0
40	1½"	ADA0040U F05YS14/S11A	BU04AB0	ASR0080US14F05F07YS17/S14A	AU08KC0
50	2"	ADA0040U F05YS14/S11A	BU04AB0	ASR0080US14F05F07YS17/S14A	AU08KC0
65	2½"	ADA0130U F05F07YS17/S14A	BU13AC0	ASR0300US14F07F10YS22 A	AU30KD0
80	3"	ADA0130U F05F07YS17/S14A	BU13AC0	ASR0300US14F07F10YS22 A	AU30KD0
100	4"	ADA0300U F07F10Y/S22 A	BU30AD0	ASR0500US14F07F10YS22 A	AU50KD0

Order data

The order data provide an overview of standard configurations.

Please check the availability before ordering. Other configurations available on request.

Products ordered with **bold marked ordering options** are so-called preferred series. Depending on the nominal size, these are available more quickly.

Order codes

1 Type	Code
Ball valve, metal, pneumatically operated, three-piece body, Sanitary, controlled delta ferrite material and media wetted surfaces according to ASME SF5, ISO 5211, top flange, lockable hand lever, low-maintenance spindle seal and blow-out proof shaft, with anti-static unit	B44

2 DN	Code
DN 8	8
DN 10	10
DN 15	15
DN 20	20
DN 25	25
DN 32	32
DN 40	40
DN 50	50
DN 65	65
DN 80	80
DN 100	100

3 Body/ball configuration	Code
2/2-way body	D

4 Connection type	Code
Spigot EN 10357 series A / DIN 11866 series A formerly DIN 11850 series 2	17
Spigot SMS 3008	37
Spigot ASME BPE/DIN 11866 series C	59
Spigot ISO 1127/EN 10357 series C/DIN 11866 series B	60
Clamp ASME BPE	80
One side clamp ASME BPE corresponding to code 80, other side butt weld spigot code 59, for pipe ASME BPE	93

5 Ball valve material	Code
1.4435 / ASTM A351, low ferrite <3% (equivalent to 316L Δ Fe<3%) (body, connection, ball), 1.4409 / SS316L (spindle)	C3

6 Seal material	Code
TFM 1600 (FDA certification)	5T
TFM 1600 (FDA certification), cavity filled	5H

7 Control function	Code
Normally closed (NC)	1
Normally open (NO)	2
Double acting (DA)	3

8 Actuator version	Code
Actuator GEMÜ ADA	
Actuator, pneumatic, double acting, clockwise rotation, ADA0020U F04 S14S11	BU02AA
Actuator, pneumatic, double acting, clockwise rotation, ADA0040U F05 S14S11	BU04AB
Actuator, pneumatic, double acting, clockwise rotation, ADA0080U F05/07S17S14	BU08AC
Actuator, pneumatic, double acting, clockwise rotation, ADA0130U F05/07S17S14	BU13AC
Actuator, pneumatic, double acting, clockwise rotation, ADA0300U F07/10 S22	BU30AD
Actuator GEMÜ ASR	
Actuator, pneumatic, single acting, clockwise rotation, spring closing, ASR0020US08F04 S14S11	AU02FA
Actuator, pneumatic, single acting, clockwise rotation, spring closing, ASR0040US14F04 S14S11	AU04KA
Actuator, pneumatic, single acting, clockwise rotation, spring closing, ASR0040US14F05 S14S11	AU04KB
Actuator, pneumatic, single acting, clockwise rotation, spring closing, ASR0080US14F05/07S17S14	AU08KC
Actuator, pneumatic, single acting, clockwise rotation, spring closing, ASR0130US14F05/07S17S14	AU13KC
Actuator, pneumatic, single acting, clockwise rotation, spring closing, ASR0300US14F07/10 S22	AU30KD
Actuator, pneumatic, single acting, clockwise rotation, spring closing, ASR0500US14F07/10 S22	AU50KD
Actuator, pneumatic, single acting, clockwise rotation, spring closing, ASR0850US14F10/12 S27	AU85KG
Actuator GEMÜ DR	
Actuator, pneumatic, double acting, clockwise rotation, DR0015U F04 S11	DU01AO
Actuator, pneumatic, double acting, clockwise rotation, DR0030U F05/07 S14	DU03AP
Actuator, pneumatic, double acting, clockwise rotation, DR0060U F05/07 S17	DU06AC
Actuator, pneumatic, double acting, clockwise rotation, DR0100U F05/07 S17	DU10AC
Actuator, pneumatic, double acting, clockwise rotation, DR0150U F07/10 S22	DU15AD
Actuator, pneumatic, double acting, clockwise rotation, DR0220U F07/10 S22	DU22AD

Order data

8 Actuator version	Code	12 CONEXO	Code
Actuator GEMÜ SC		Without	
Actuator, pneumatic, single acting, clockwise rotation, spring closing, SC0030U 6F04 S11	SU03KO	Integrated RFID chip for electronic identification and traceability	C
Actuator, pneumatic, single acting, clockwise rotation, spring closing, SC0060U 6F05/07 S14	SU06KP		
Actuator, pneumatic, single acting, clockwise rotation, spring closing, SC0150U 6F05/07 S17	SU15KC		
Actuator, pneumatic, single acting, clockwise rotation, spring closing, SC0220U 6F07/10 S22	SU22KD		
Actuator, pneumatic, single acting, clockwise rotation, spring closing, SC0300U 6F07/10 S22	SU30KD		
Actuator, pneumatic, single acting, clockwise rotation, spring closing, SC0450U 6F10/12 S27	SU45KG		
9 Actuator particulars	Code		
Gen. industrial version, housing alu, anodising layer 25-35µm, end caps alu, powder coated, shaft C steel + ENP, bolts A2	0		
10 Type of design	Code		
Standard			
Ra ≤ 0.4 µm (15 µin.) for media wetted surfaces *), in accordance with DIN 11866 HE4, electropolished internal/external, *) for inner pipe diameter ≤ 6 mm, in spigots Ra ≤ 0.8 µm	1537		
K-no. SF5, K-no. 5227, SF5 - Ra max. 0.51 µm (20 µin.) electropolished internal/external, 5227 - Thermal separation via mounting kit	7138		
K-no. SF5, K-no. 0101, SF5 - Ra max. 0.51 µm (20 µin.) electropolished internal/external, 0101 - Media wetted area cleaned to ensure suitability for paint applications	7140		
K-no. SF5, K-no. 0104, SF5 - Ra max. 0.51 µm (20 µin.) electropolished internal/external, 0104 - Media wetted parts cleaned for high purity media	7141		
K-no. SF5, K-no. 0107, SF5 - Ra max. 0.51 µm (20 µin.) electropolished internal/external, 0107 - Valve free of oil and grease, media wetted area cleaned	7142		
Ra max. 0.38 µm (15 µin.) for media wetted surfaces, in accordance with ASME BPE SF4, electropolished internal/external	SF4		
Ra max. 0.51 µm (20 µin.) for media wetted surfaces, in accordance with ASME BPE SF5, electropolished internal/external	SF5		
11 Special version	Code		
Without			
ATEX certification	X		

Order example

Order option	Code	Description
1 Type	B44	Ball valve, metal, pneumatically operated, three-piece body, Sanitary, controlled delta ferrite material and media wetted surfaces according to ASME SF5, ISO 5211, top flange, lockable hand lever, low-maintenance spindle seal and blow-out proof shaft, with anti-static unit
2 DN	15	DN 15
3 Body/ball configuration	D	2/2-way body
4 Connection type	59	Spigot ASME BPE/DIN 11866 series C
5 Ball valve material	C3	1.4435 / ASTM A351, low ferrite <3% (equivalent to 316L Δ Fe<3%) (body, connection, ball), 1.4409 / SS316L (spindle)
6 Seal material	5T	TFM 1600 (FDA certification)
7 Control function	1	Normally closed (NC)
8 Actuator version	BU02AA	Actuator, pneumatic, double acting, clockwise rotation, ADA0020U F04 S14S11
9 Actuator particulars	0	Gen. industrial version, housing alu, anodising layer 25-35µm, end caps alu, powder coated, shaft C steel + ENP, bolts A2
10 Type of design		Standard
11 Special version		Without
12 CONEXO		Without

Technical data

Medium

Working medium: Corrosive, inert, gaseous and liquid media and steam which have no negative impact on the physical and chemical properties of the body and seal material.

Temperature with note

Media temperature: 14 – 428 °F

For media temperatures > 212 °F, we recommend using a mounting kit with adapter between the ball valve and the actuator.

Ambient temperature: -4 – 140 °F

Storage temperature: -76 – 140 °F

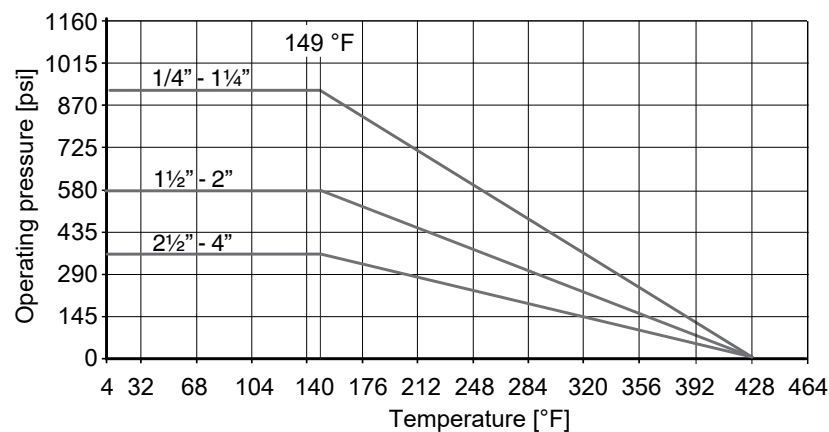
Pressure

Operating pressure: 0 – 913.8 psi

Vacuum: Can be used up to a vacuum of 1.5 inHg (absolute)

These values apply to room temperature and air. The values may deviate for other media and other temperatures.

Pressure/temperature diagram:



Use the clamped union with the correct pressure rating for a safe and correct pipeline design. Pressure ratings of the clamp alone are generally higher, but do not take into account the fully clamped assembly with gasket

Leakage rate: Leakage rate according to ANSI FCI70 – B16.104

Leakage rate according to EN12266, 6 bar air, leakage rate A

Leakage rate:

DN	NPS	Connection type (code)		
		17	37, 59, 80, 93	60
8	1/4"	8.19	-	8.19
10	3/8"	8.19	-	8.19
15	1/2"	21.06	10.53	21.06
20	3/4"	50.31	30.42	50.31
25	1"	90.09	65.52	90.09
32	1¼"	111.15	-	111.15
40	1½"	241.02	201.24	241.02
50	2"	402.48	382.59	402.48
65	2½"	704.34	603.72	704.34
80	3"	987.48	955.89	987.48
100	4"	1710.54	1609.92	1710.54

Cv values in gpm

Control pressure:

6 to 8 bar

Pressure rating:

DN	Connection type (code)			
	17	37, 59	60	80, 93
8	-	-	PN63	-
10	PN63	-	PN63	-
15	PN63	PN63	PN63	PN25
20	PN63	PN63	PN63	PN25
25	PN63	PN63	PN63	PN25
32	PN63	-	PN63	-
40	PN63	PN63	PN63	PN25
50	PN63	PN63	PN63	PN16
65	PN40	PN40	PN40	PN16
80	PN40	PN40	PN40	PN10
100	PN25	PN25	PN25	PN10

For clamp connections, the permissible pressures are designed for a temperature of 14 to 284 °F when using suitable clamps and sealing materials.

Product conformities**Machinery Directive:** 2006/42/EC**Pressure Equipment Directive:** 2014/68/EU

Food: FDA
Regulation (EC) No. 1935/2004
Regulation (EC) No. 10/2011

Explosion protection: ATEX (2014/34/EU), order code Special version X

ATEX marking: The ATEX marking of the product depends on the respective product configuration with valve body and actuator. It can be found in the product-specific ATEX documentation and the ATEX type plate.

Mechanical data

90° travel:

GEMÜ ADA /ASR: ±5° adjustable (85° - 95°)

GEMÜ DR /SC: 20° adjustable (75° - 95°)

Torques:

DN	NPS	Seal material (code)	
		5T	5H
8	1/4"	4	4
10	3/8"	4	4
15	1/2"	8	12
20	3/4"	8	12
25	1"	13	19
32	1¼"	16	22
40	1½"	32	47
50	2"	34	51
65	2½"	91	105
80	3"	104	120
100	4"	140	209

Free of oil and grease incl. 25% safety

Torques in Nm

Weight:

Ball valve

DN	NPS	Connection type (code)			
		17	37, 59	60	80, 93
8	1/4"	-	-	1.10	-
10	3/8"	-	-	1.10	-
15	1/2"	1.76	1.10	1.10	1.10
20	3/4"	1.76	1.10	1.76	1.10
25	1"	2.43	2.20	2.43	2.43
32	1¼"	3.53	-	3.53	-
40	1½"	5.95	4.63	5.95	4.85
50	2"	9.26	7.72	9.26	7.72
65	2½"	18.08	15.43	18.08	15.65
80	3"	25.57	24.25	25.57	26.01
100	4"	52.91	44.09	52.91	45.19

Weight in lb

Actuator type ADA/ASR

Type	ADA double act- ing	ASR single acting
0020U	3.09	3.31
0040U	4.63	5.07
0080U	6.61	8.16
0130U	8.38	10.58
0200U	12.35	16.09
0300U	18.74	23.81
0500U	24.69	33.95
0850U	37.26	48.94

Weight in lb

Weight:**Actuator type DR/SC**

Type	DR double act- ing	SC single acting
0015U	2.20	2.43
0030U	3.53	3.75
0060U	5.95	6.83
0100U	8.16	9.48
0150U	11.46	13.45
0220U	17.64	20.50
0300U	21.61	26.46
0450U	30.86	37.48

Weight in lb

Dimensions

Actuator dimensions

Note on actuator mounting:

Standard mounting orientation – actuator positioned in-line with piping

Only with flanged connections the actuator is mounted across the piping

Actuator type ADA/ASR

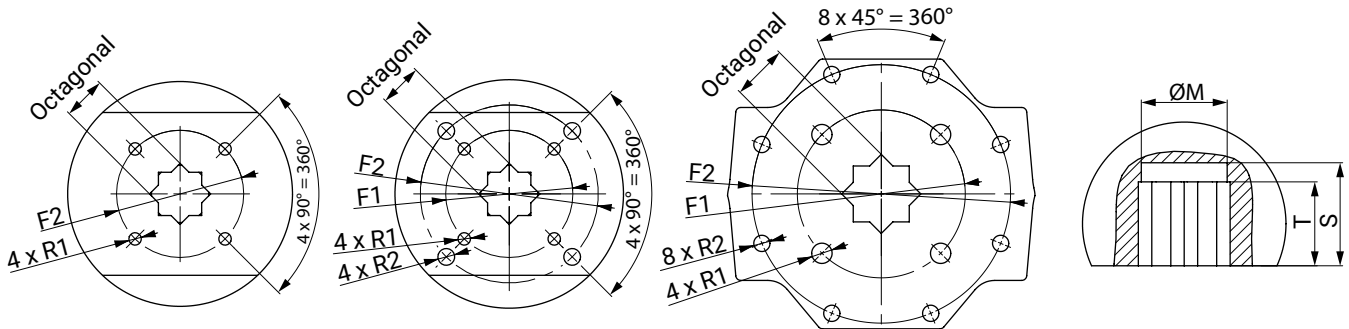
Actuator flange ISO 5211

Type 00010, 0020U, 0040U,
0500U, 0750U, 2100U, 2500U

Type 0020U, 0080U, 0130U,
0300U, 0850U, 1200U

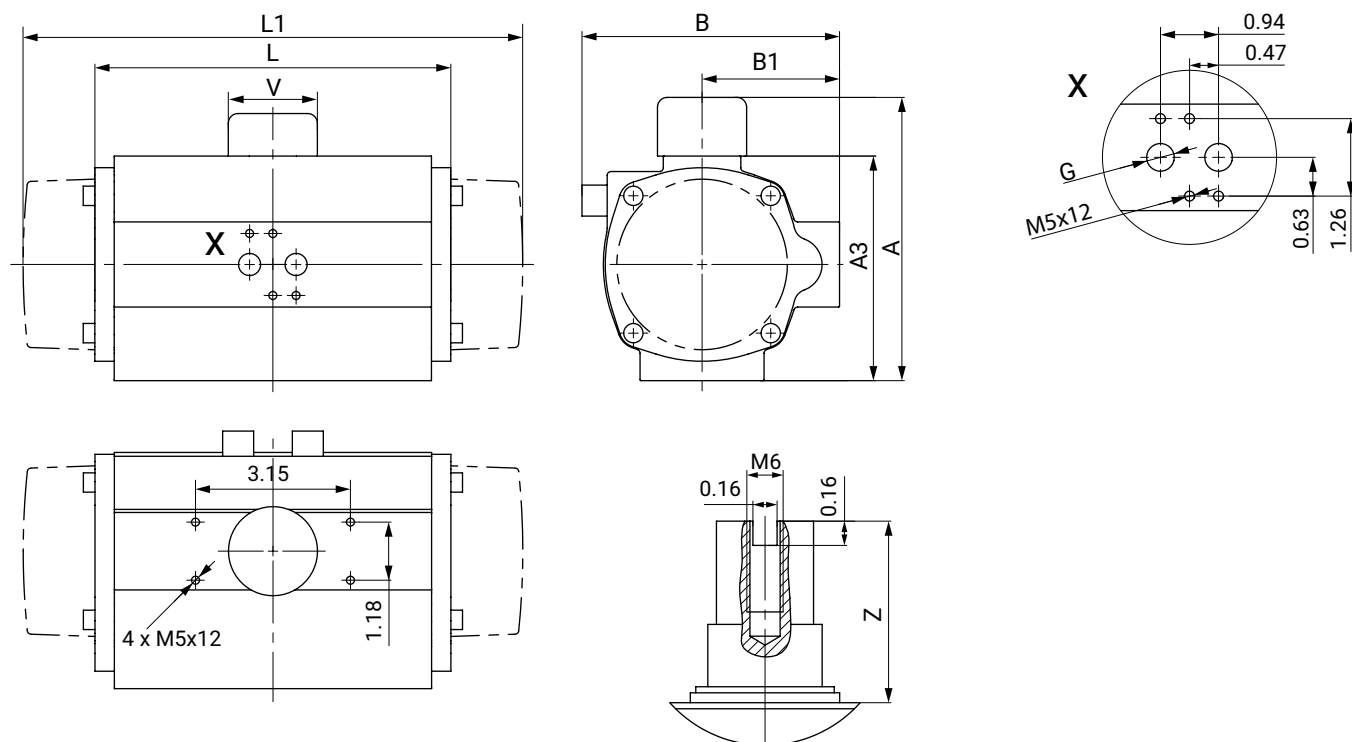
Type 4000U

Type 00010 - 4000U



Type	Actuator flange	Octagonal	M	T	S	F1	R1	F2	R2
0020U	F03 / F05	0.35	0.49	0.39	0.51	1.42	M5 x 3.15	1.97	M6 x 3.94
0020U	F04	0.55	0.71	0.47	0.59	1.65	M5 x 3.15	-	-
0020U	F05	0.55	0.71	0.47	0.63	1.97	M6 x 3.94	-	-
0040U	F04	0.55	0.71	0.47	0.63	1.65	M5 x 3.94	-	-
0040U	F05	0.55	0.71	0.47	0.63	1.97	M6 x 3.94	-	-
0080U	F05 / F07	0.67	0.89	0.75	0.91	1.97	M6 x 3.94	2.76	M8 x 6.30
0130U	F05 / F07	0.67	0.89	0.87	1.06	1.97	M6 x 3.94	2.76	M8 x 6.30
0200U	F07 / F10	0.67	0.89	0.91	1.10	2.76	M8 x 6.30	4.02	M10 x 6.30
0300U	F07 / F10	0.87	1.12	0.94	1.22	2.76	M8 x 6.30	4.02	M10 x 6.30
0500U	F10	0.87	1.12	1.26	1.54	4.02	M10 x 6.30	-	-
0850U	F10 / F12	1.06	1.44	1.54	1.93	4.02	M10 x 6.69	4.92	M12 x 7.87

Dimensions in inch



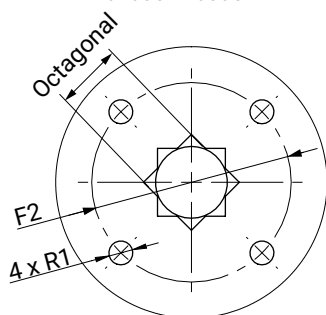
Type	A	A3	B	B1	G	L	L1	V	Z
0020U	3.78	2.60	2.99	1.89	G1/4"	5.71	6.42	1.57	1.18
0040U	4.53	3.35	3.58	2.20	G1/4"	6.22	7.68	1.57	1.18
0200U	6.50	5.31	5.33	3.07	G1/4"	8.86	11.77	1.57	1.18
0500U	7.83	6.65	6.81	3.78	G1/4"	11.97	15.63	1.57	1.18
0850U	8.70	7.52	7.54	4.17	G1/4"	14.65	18.62	1.57	1.18

Dimensions in inch

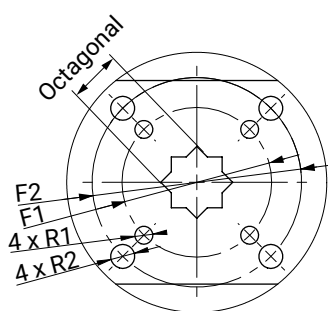
Actuator type DR/SC

Actuator flange ISO5211

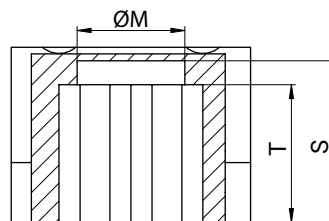
Type 0010U - 0030U
0900U - 4000U



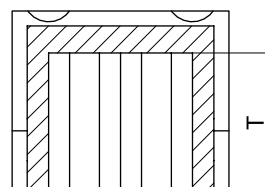
Type 0030U - 1200U, 5000U



Type 0010U - 1200U, 5000U



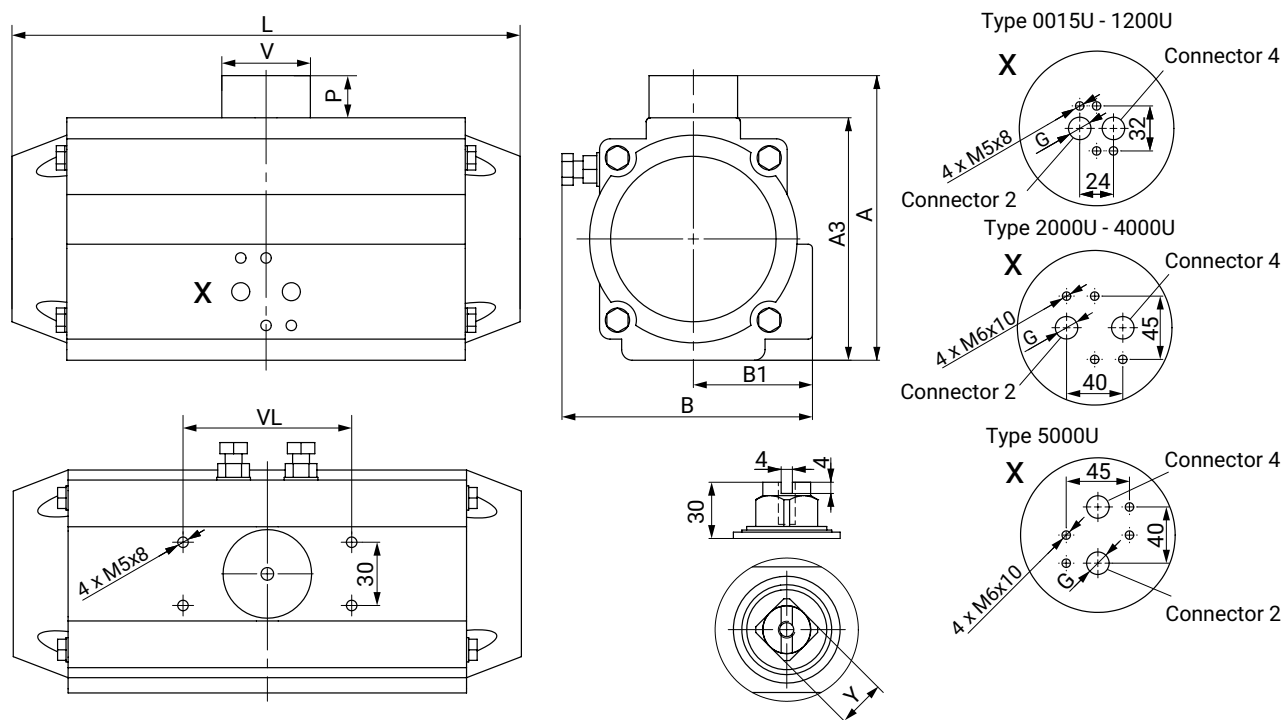
Type 2000U - 4000U



Type	Actuator flange	Octagonal	M	T	S	F1	R1	F2	R2
0015U	F04	0.43	0.61	0.45	0.53	1.65	M5	-	-
0030U	F04	0.43	0.57	0.57	0.75	1.65	M5	-	-
0030U	F05/F07	0.55	0.73	0.57	0.65	1.97	M6	2.76	M8
0060U	F05/F07	0.55	0.73	0.65	0.77	1.97	M6	2.76	M8
0060U	F05/F07	0.67	0.89	0.69	0.79	1.97	M6	2.76	M8
0100U	F05/F07	0.67	0.92	0.73	0.83	1.97	M6	2.76	M8
0150U	F05/F07	0.67	0.92	0.73	1.00	1.97	M6	2.76	M8
0150U	F07/F10	0.87	-	0.98	-	2.76	M8	4.02	M10
0220U	F07/F10	0.87	-	0.94	-	2.76	M8	4.02	M10
0300U	F07/F10	0.87	-	1.38	-	2.76	M8	4.02	M10
0450U	F10/F12	1.06	-	1.14	-	2.76	M10	4.02	M12

Dimensions in inch

Actuator dimensions

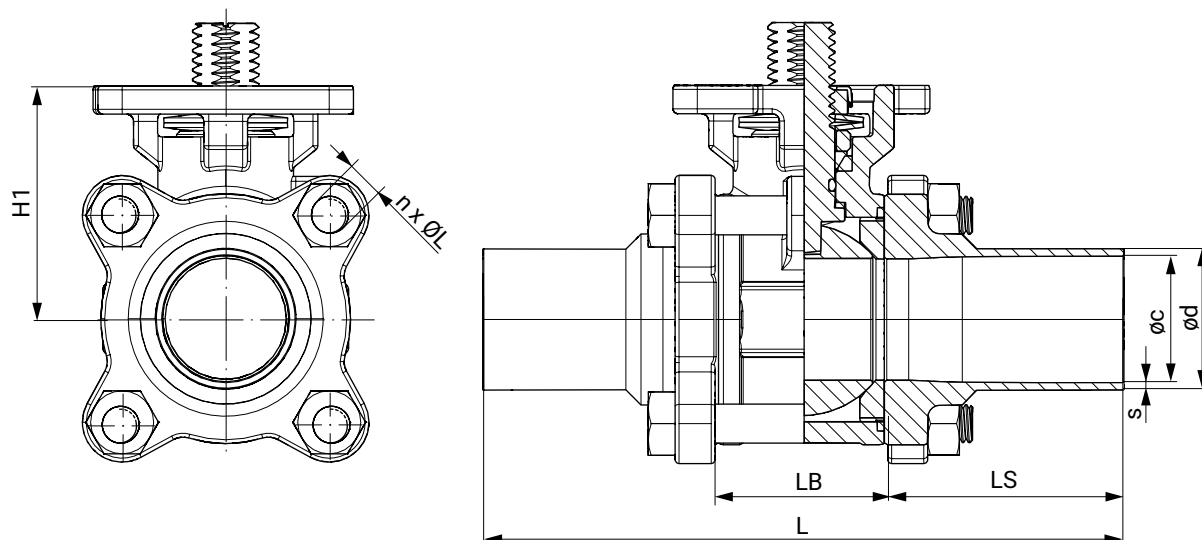


Type	A	A3	B	B1	V	VL	G	P	L	Y
0015U	3.50	2.72	2.83	1.69	1.65	3.15	G1/8"	0.79	5.35	0.43
0030U	4.13	3.35	3.33	1.91	1.65	3.15	G1/8"	0.79	6.04	0.43
0060U	4.80	4.02	3.66	1.99	1.65	3.15	G1/8"	0.79	8.01	0.67
0100U	5.31	4.53	4.17	2.22	1.65	3.15	G1/8"	0.79	9.49	0.67
0150U	5.79	5.00	4.67	2.48	1.65	3.15	G1/4"	0.79	10.20	0.67
0220U	6.89	5.71	5.35	2.83	2.28	3.15	G1/4"	1.18	11.97	1.06
0300U	7.36	6.18	5.77	3.03	2.28	3.15	G1/4"	1.18	13.11	1.06
0450U	8.15	6.97	6.54	3.39	2.66	3.15	G1/4"	1.18	15.53	1.06

Dimensions in inch

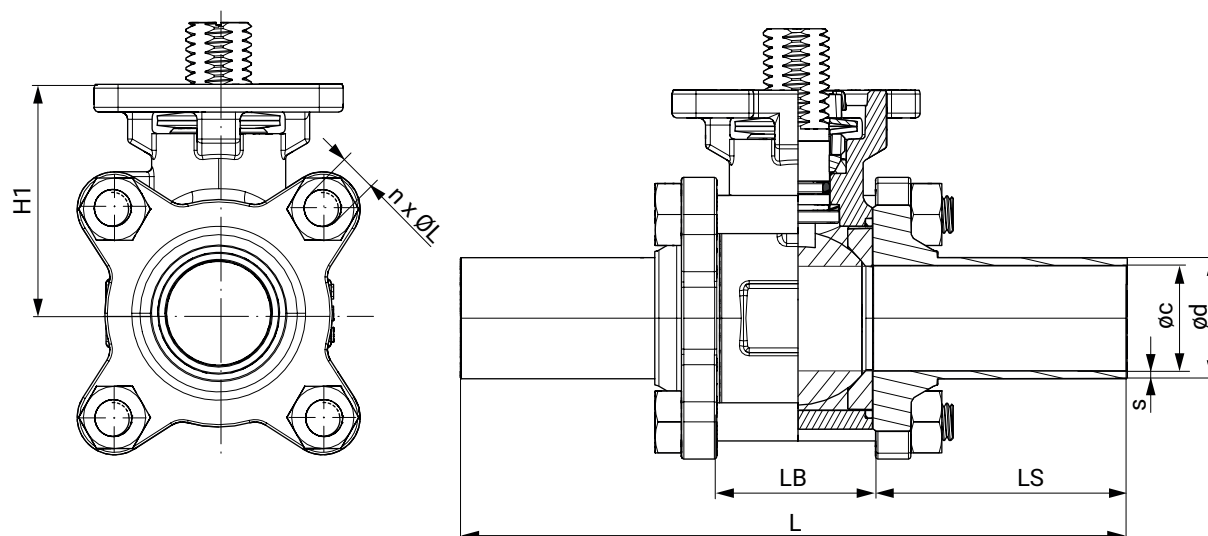
Body dimensions

Spigot DIN EN 10357 (connection code 17)



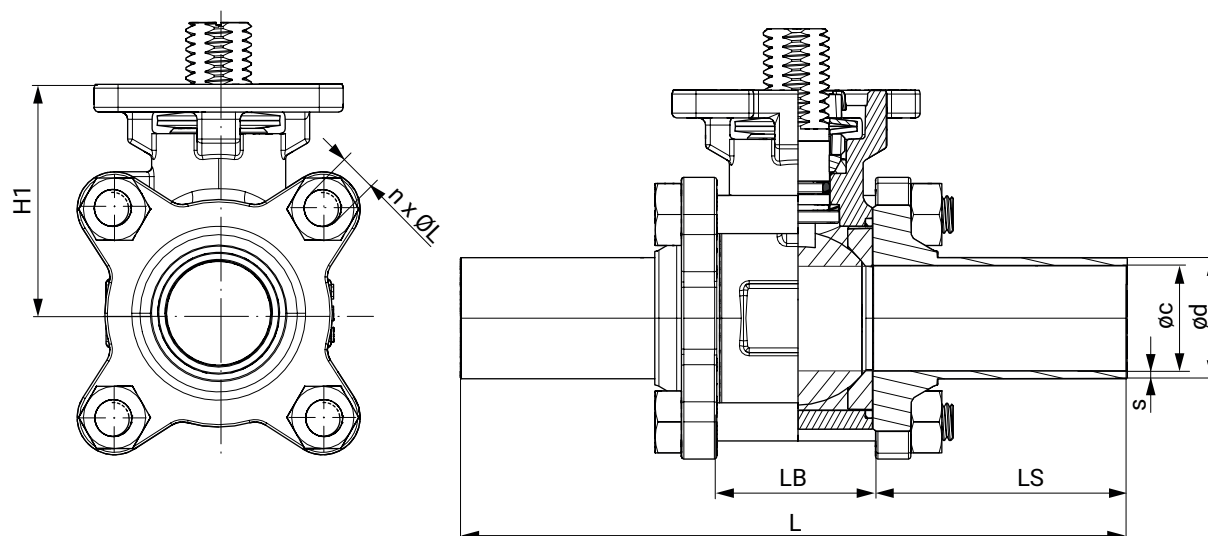
DN	Øc	Ød	L	LB	LS	H1	n x ØL	s
10	0.39	0.51	4.73	0.96	1.89	1.46	4 x M6	0.06
15	0.63	0.75	5.52	0.96	2.28	1.46	4 x M6	0.06
20	0.79	0.91	5.51	1.23	2.14	1.57	4 x M8	0.06
25	1.02	1.14	5.98	1.34	2.32	1.89	4 x M8	0.06
32	1.26	1.38	6.50	1.73	2.38	2.09	4 x M10	0.06
40	1.50	1.61	7.48	2.17	2.66	2.48	4 x M12	0.06
50	1.97	2.09	7.99	2.71	2.64	2.83	4 x M14	0.06
65	2.60	2.76	10.00	3.23	3.39	3.62	4 x M14	0.08
80	3.19	3.35	11.02	3.78	3.62	4.02	4 x M16	0.08
100	3.94	4.09	12.13	4.80	3.66	5.20	6 x M20	0.08

Dimensions in inch

Spigot SMS 3008 (connection code 37)

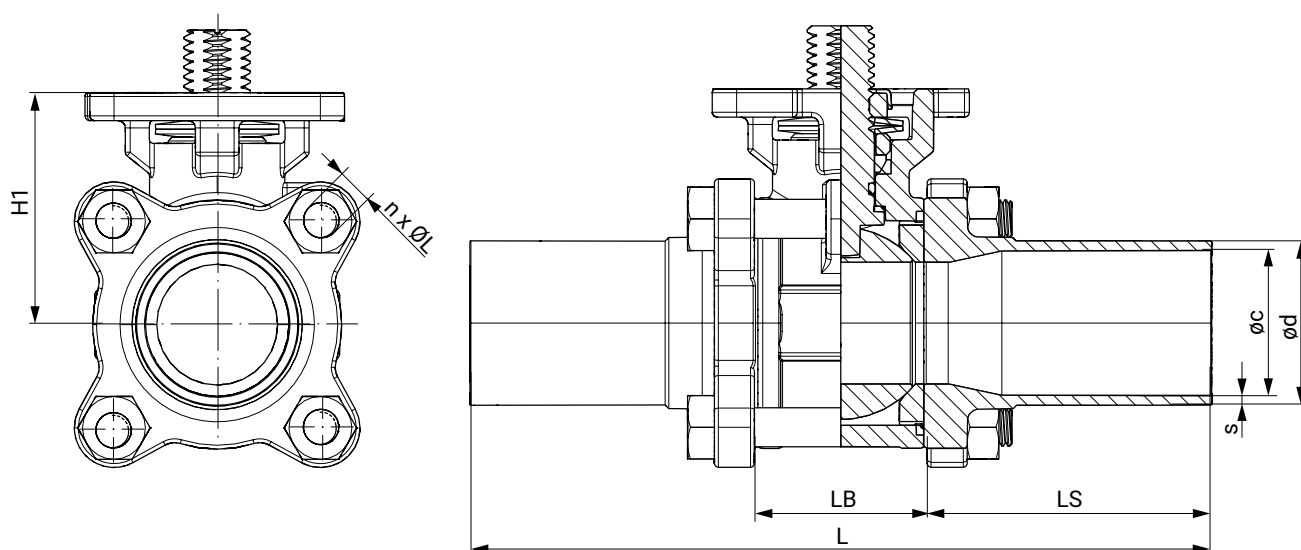
DN	Øc	Ød	s	t	L	LB	LS	H1	n x ØL
20	0.63	0.71	0.04	0.24	5.60	1.10	2.31	1.50	4 x M6
25	0.89	0.98	0.05	0.29	6.39	1.26	2.56	1.89	4 x M8
40	1.40	1.50	0.05	0.33	7.17	1.81	2.68	2.36	4 x M12
50	1.91	2.01	0.05	0.40	7.60	2.35	2.63	2.72	4 x M14
65	2.37	2.50	0.06	0.49	10.00	3.04	3.48	3.50	4 x M14
80	2.87	3.00	0.06	0.55	10.90	3.61	3.65	3.86	4 x M16
100	3.84	4.00	0.08	0.57	12.00	4.66	3.67	5.12	6 x M16

Dimensions in inch

Spigot ASME BPE (connection code 59)


DN	Øc	Ød	s	L	LB	LS	H1	n x ØL
15	0.37	0.50	0.06	4.90	0.98	1.96	1.50	4 x M6
20	0.62	0.75	0.06	5.60	1.10	2.31	1.50	4 x M6
25	0.87	1.00	0.06	6.39	1.26	2.56	1.89	4 x M8
40	1.37	1.50	0.06	7.17	1.81	2.68	2.36	4 x M12
50	1.87	2.00	0.06	7.60	2.35	2.63	2.72	4 x M14
65	2.37	2.50	0.06	10.00	3.04	3.48	3.50	4 x M14
80	2.87	3.00	0.06	10.90	3.61	3.65	3.86	4 x M16
100	3.83	4.00	0.08	12.00	4.66	3.67	5.12	6 x M16

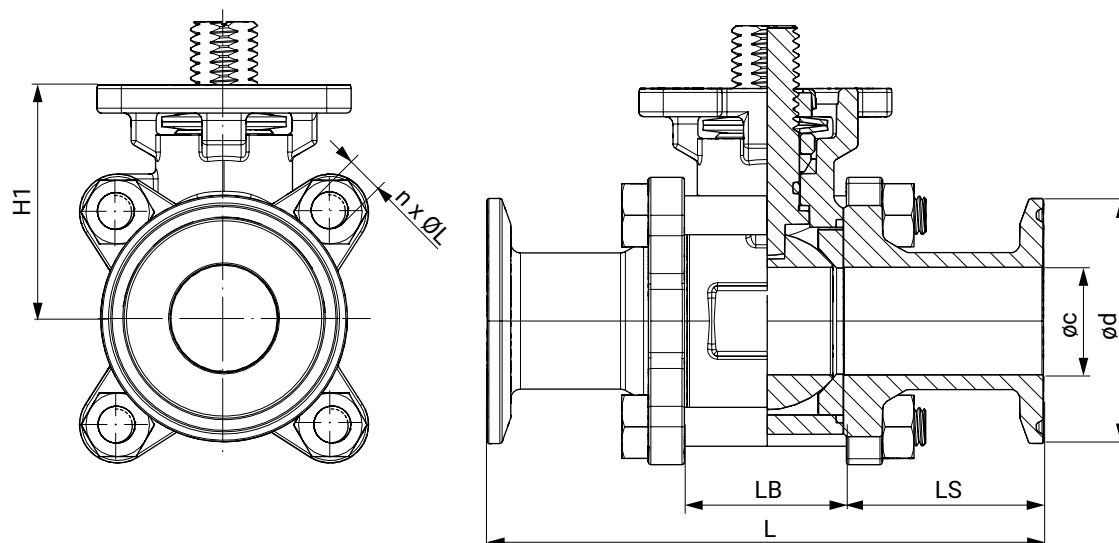
Dimensions in inch

Spigot ISO 1127 / EN 10357 (connection code 60)

DN	Øc	Ød	s	L	LB	LS	H1	n x ØL
8	0.41	0.53	0.06	4.73	0.96	1.89	1.46	4 x M6
10	0.55	0.68	0.06	4.73	0.96	1.89	1.46	4 x M6
15	0.71	0.84	0.06	5.52	0.96	2.28	1.46	4 x M6
20	0.93	1.06	0.06	5.51	1.23	2.14	1.57	4 x M8
25	1.17	1.33	0.08	5.98	1.34	2.32	1.89	4 x M8
32	1.51	1.67	0.08	6.50	1.73	2.38	2.09	4 x M10
40	1.74	1.90	0.08	7.48	2.17	2.66	2.48	4 x M12
50	2.22	2.37	0.08	7.99	2.71	2.64	2.83	4 x M14
65	2.84	3.00	0.08	10.00	3.23	3.39	3.62	4 x M14
80	3.32	3.50	0.09	11.02	3.78	3.62	4.02	4 x M16
100	4.32	4.50	0.09	12.13	4.80	3.66	5.20	6 x M20

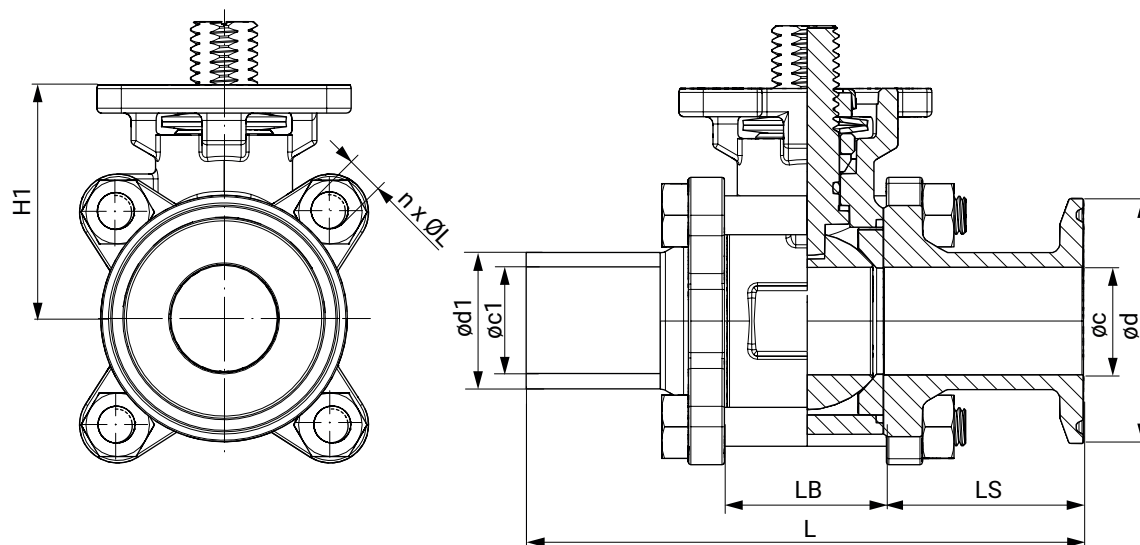
Dimensions in inch

Clamp ASME BPE (connection code 80)



DN	$\varnothing c$	$\varnothing d$	s	L	LB	LS	H1	$n \times \varnothing L$
15	0.37	0.98	0.06	3.50	0.98	1.26	1.50	4 x M6
20	0.62	0.98	0.06	4.00	0.98	1.51	1.50	4 x M6
25	0.87	1.98	0.06	4.50	1.26	1.62	1.89	4 x M8
40	1.37	1.98	0.06	5.50	1.81	1.85	2.36	4 x M12
50	1.87	2.52	0.06	6.25	2.35	1.95	2.72	4 x M14
65	2.37	3.05	0.06	6.75	3.04	1.86	3.50	4 x M14
80	2.87	3.58	0.06	7.73	3.61	2.06	3.86	4 x M16
100	3.83	4.68	0.08	9.50	4.66	2.42	5.12	6 x M16

Dimensions in inch

Mixed ends ASME BPE (connection code 93)

DN	Øc	Ød	Øc1	Ød1	s	t	L	LB	LS	H1	n x ØL
15	0.37	0.98	0.37	0.50	0.06	0.24	4.20	0.98	1.96	1.50	4 x M6
20	0.62	0.98	0.62	0.75	0.06	0.24	4.80	1.10	2.31	1.50	4 x M6
25	0.87	1.98	0.87	1.00	0.06	0.29	5.44	1.26	2.56	1.89	4 x M8
40	1.37	1.98	1.37	1.50	0.06	0.33	6.34	1.81	2.68	2.36	4 x M12
50	1.87	2.52	1.87	2.00	0.06	0.40	6.93	2.35	2.63	2.72	4 x M14
65	2.37	3.05	2.37	2.50	0.06	0.49	8.38	3.04	3.48	3.50	4 x M14
80	2.87	3.58	2.87	3.00	0.06	0.55	9.31	3.61	3.65	3.86	4 x M16
100	3.83	4.68	3.83	4.00	0.08	0.57	10.75	4.66	3.67	5.12	6 x M16

Dimensions in inch

Add-on components



GEMÜ LSF

Inductive dual sensor for quarter turn valves

The GEMÜ LSF inductive dual sensor is suitable for mounting to manually and pneumatically operated quarter turn valves. It is also fitted with an optical position indicator for visual confirmation of position.



GEMÜ LSC

Limit switch box for quarter turn actuators

The GEMÜ LSC limit switch box is suitable for mounting to manually and pneumatically operated quarter turn valves. It is also fitted with an optical position indicator for visual confirmation of position.

Accessories

GEMÜ ADH

Mounting sleeve

The mounting sleeve accessories are available in the square and star geometry designs. These are used for the shaft and hub support for quarter turn actuators. Both sleeves have an internal square drive (please observe stated measurement dimensions here). The sleeve material is sintered metal and they are chemically nickel plated with a surface of 25 µm.



GEMÜ 2022

Dual throttle

The GEMÜ 2022 throttle valves are available as throttle valve, throttle check valve and dual throttle check valve. In pneumatic actuators they are used to regulate the compressed air depending on the function for the supply or exhaust air and can be set independently of each other in the case of dual throttle check valves.



GEMÜ 8500

Electrically operated pilot solenoid valve

The GEMÜ 8500 servo assisted 3/2 or 5/2-way pilot solenoid valve is indirectly controlled. The body is made of aluminium. The plastic encapsulated coil is detachable. The piston valve has a soft elastomer seal.



GEMÜ 8500DRN

Throttle plate

Throttle plates can be used to continuously adjust the travel times of pneumatic quarter turn actuators in both the "OPEN" and "CLOSED" directions independently of one another. They are installed between the NAMUR valve and the quarter turn actuator.



GEMÜ 1751

Silencer

Damping of vent hole or suction noises and coarse filtering of the suction air for pneumatic applications

Certificates

Certificate	Standard	Item number
2.2 Ferrite content measurement		88081058
2.2 Surface roughness measurement	EN10204 - EN ISO 4288	88079146
3.1 Surface roughness measurement		88094384
3.1 Material	EN 10204	88333336



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