

GEMÜ P600S

M-block diaphragm valve with flexible connection system



Features

- Combining several valves and pipe sections in one compact unit
- Combining several functions in one block: Control, batch, distribute, etc.
- Low maintenance
- Flexible design
- Savings on welding work
- Quick and flexible installation
- Extendable at a later time

Description

The GEMÜ P600S valve block made from stainless steel comprises one or more diaphragm valve seats. The individual modules can be combined together in any order. They are equipped with the pneumatically operated GEMÜ 9650 actuator.

Technical specifications

- **Media temperature :** -10 to 100 °C
- **Sterilization temperature:** max. 150 °C
- **Ambient temperature:** 0 to 60 °C
- **Operating pressure :** 0 to 10 bar
- **Nominal sizes:** DN 20 to 25
- **Connection types:** Clamp | Flange | Spigot
- **Body materials:** 1.4435 (316L), block material | 1.4435 (BN2), block material | 1.4539 (904L), block material
- **Conformities:** 3A | BSE/TSE | EAC | FDA | Reg. (EU) No. 10/2011 | Regulation (EC) No. 1935/2004 | Regulation (EC) No. 2023/2006 | USP

Technical data depends on the respective configuration

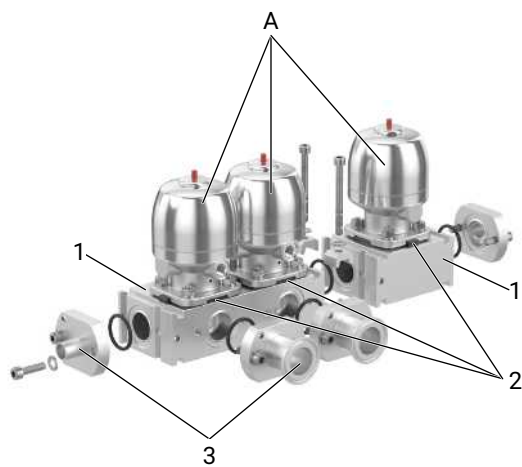


further information
webcode: GW-P600S



Product description

Construction



Item	Name
A	Actuators
1	Bodies
2	Diaphragms
3	Connection adapters

Availability of grades of surface finish

Internal surface finishes for block material bodies ¹⁾

Readings for Process Contact Surfaces	Mechanically polished ²⁾		Electropolished	
	Hygiene class DIN 11866	Code	Hygiene class DIN 11866	Code
Ra ≤ 0.80 µm	H3	1502	HE3	1503
Ra ≤ 0.60 µm	-	1507	-	1508
Ra ≤ 0.40 µm	H4	1536	HE4	1537
Ra ≤ 0.25 µm	H5	1527	HE5	1516

Readings for Process Contact Surfaces according to ASME BPE 2019 ³⁾	Mechanically polished ²⁾		Electropolished	
	ASME BPE Surface Designation	Code	ASME BPE Surface Designation	Code
Ra Max. = 0.76 µm (30 µinch)	SF3	SF3	-	-
Ra Max. = 0.64 µm (25 µinch)	SF2	SF2	SF6	SF6
Ra Max. = 0.51 µm (20 µinch)	SF1	SF1	SF5	SF5
Ra Max. = 0.38 µm (15 µinch)	-	-	SF4	SF4

Ra acc. to DIN EN ISO 4288 and ASME B46.1

- 1) Surface finishes of customized valve bodies may be limited in special cases.
- 2) Or any other finishing method that meets the Ra value (acc. to ASME BPE).
- 3) When using these surfaces, the bodies are marked according to the specifications of ASME BPE.
The surfaces are only available for valve bodies which are made of materials (e.g. GEMÜ material codes 41, 44) and use connections (e.g. GEMÜ connection codes 59, 80, 88) according to ASME BPE.

Order data

Order codes

1 Type	Code
Valve assembly	P600
2 Body configuration	Code
Standard blocks	S
3 Number of spigots	Code
2 spigots	02
3 spigots	03
4 spigots	04
Other connections on request	
4 Number of valve seats	Code
1 valve seat	01
2 valve seats	02
3 valve seats	03
Other valve seats on request	
5 Valve body material	Code
1.4435 (316L), block material	41
1.4435 (BN2), block material, $\Delta Fe < 0.5\%$	43
1.4539, block material	44
6 Diaphragm size	Code
Maximum diaphragm size in valve block	25
7 Type seat 1	Code
Diaphragm valve, pneumatically operated, stainless steel piston actuator electropolished, optical position indicator	650
8 Actuator control function seat 1	Code
Normally closed (NC)	1
Normally open (NO)	2
Double acting (DA)	3
9 Diaphragm material	Code
EPDM ethylene-propylene without fabric	13
EPDM	17
EPDM	19
PTFE/EPDM one-piece	54
PTFE/EPDM two-piece	5M
10 DN spigot 1	Code
DN 20	20
DN 25	25
11 Connection type, spigot 1	Code
Spigot	
Spigot DIN EN 10357 series B (2014 edition; formerly DIN 11850 series 1)	16
Spigot EN 10357 series A/DIN 11866 series A formerly DIN 11850 series 2	17
Spigot DIN 11850 series 3	18

11 Connection type, spigot 1	Code
Spigot JIS-G 3447	35
Spigot JIS-G 3459 schedule 10s	36
Spigot SMS 3008	37
Spigot BS 4825, part 1	55
Spigot ASME BPE/DIN EN 10357 series C (from 2022 edition)/DIN 11866 series C	59
Spigot ISO 1127/DIN EN 10357 series C (2014 edition)/DIN 11866 series B	60
Spigot ANSI/ASME B36.19M schedule 10s	63
Spigot ANSI/ASME B36.19M schedule 40s	65
Clamp	
Clamp DIN 32676 series B, for pipe EN ISO 1127	82
Clamp DIN 32676 series A	86
Clamp ISO 2852 for pipe ISO 2037, clamp SMS 3017 for pipe SMS 3008	87
Clamp ASME BPE, for pipe ASME BPE	88
Aseptic clamp DIN 11864-NKS, for pipe DIN 11866 series A and EN 10357 series A	E1
Aseptic clamp DIN 11864-BKS, for pipe DIN 11866 series A and EN 10357 series A	E2
Aseptic clamp DIN 11864-NKS, for pipe DIN 11866 series B and EN ISO 1127	E4
Aseptic clamp DIN 11864-BKS, for pipe DIN 11866 series B and EN ISO 1127	E5
Aseptic clamp DIN 11864-NKS, for pipe DIN 11866 series C / ASME BPE	E7
Aseptic clamp DIN 11864-BKS, for pipe DIN 11866 series C / ASME BPE	E8
Clamp DIN 32676 series C	8T
Flange	
Aseptic flange DIN 11864-NF, for pipe DIN 11866 series A and EN 10357 series A	A1
Aseptic flange DIN 11864-BF, for pipe DIN 11866 series A and EN 10357 series A	A2
Aseptic flange DIN 11864-NF, for pipe DIN 11866 series B and EN ISO 1127	A4
Aseptic flange DIN 11864-BF, for pipe DIN 11866 series B and EN ISO 1127	A5
Aseptic flange DIN 11864-NF, for pipe DIN 11866 series C and ASME BPE	A7
Aseptic flange DIN 11864-BF, for pipe DIN 11866 series C and ASME BPE	A8

Technical data

The detailed technical data can be found in the product types' datasheets in conjunction with the technical drawing of the valve block.

Medium

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

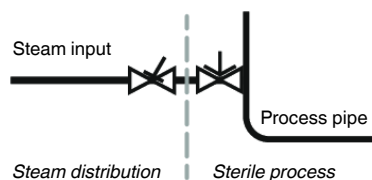
Temperature

Media temperature: -10 – 100 °C

Ambient temperature: 0 – 60 °C

Sterilization temperature:	EPDM (code 13)	max. 150 °C, max. 60 min per cycle
	EPDM (code 17)	max. 150 °C, max. 180 min per cycle
	EPDM (code 19)	max. 150 °C, max. 180 min per cycle
	PTFE/EPDM (code 54)	max. 150 °C, permanent temperature per cycle
	PTFE/EPDM (code 5M)	max. 150 °C, permanent temperature per cycle

The sterilization temperature is only valid for steam (saturated steam) or superheated water. If the sterilization temperatures listed above are applied to the EPDM diaphragms for longer periods of time, the service life of the diaphragms will be reduced. In these cases, maintenance cycles must be adapted accordingly. PTFE diaphragms can also be used as steam barriers; however, this will reduce their service life. This also applies to PTFE diaphragms exposed to high temperature fluctuations. The maintenance cycles must be adapted accordingly. GEMÜ 555 and 505 globe valves are particularly suitable for use in the area of steam generation and distribution. The following valve arrangement for interfaces between steam pipes and process pipes has proven itself over time: A globe valve for shutting off steam pipes and a diaphragm valve as an interface to the process pipes.



Pressure

Operating pressure: 0 – 10 bar

Product conformity

Pressure Equipment Directive: 2014/68/EU

Machinery Directive: 2006/42/EC

BSE/TSE: The product conforms to EMA/410/01 revision 3 and is free of animal substances

EAC: TR CU 010/2011

Food: 3A
 FDA
 USP Class VI
 Regulation (EC) No. 1935/2004
 Regulation (EC) No. 2023/2006
 Regulation (EC) No. 10/2011

Materials

Materials:

Valve body
1.4435 (316L), block material
1.4435 (BN2), block material
1.4435 (904L), block material

Diaphragm
EPDM
PTFE/EPDM

O-ring
EPDM
FEP/FKM

Mechanical data

Weight:

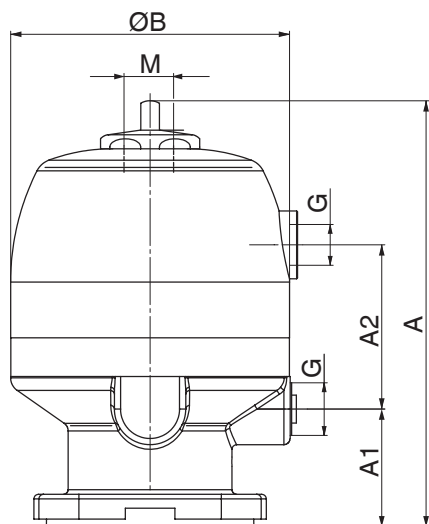
Actuator size 2T1, 2R1

1.9 kg

The mechanical data can be found in the product types' datasheets in conjunction with the technical drawing of the valve block.

Dimensions

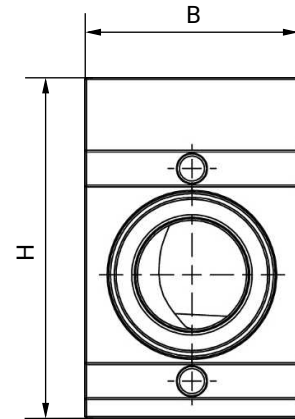
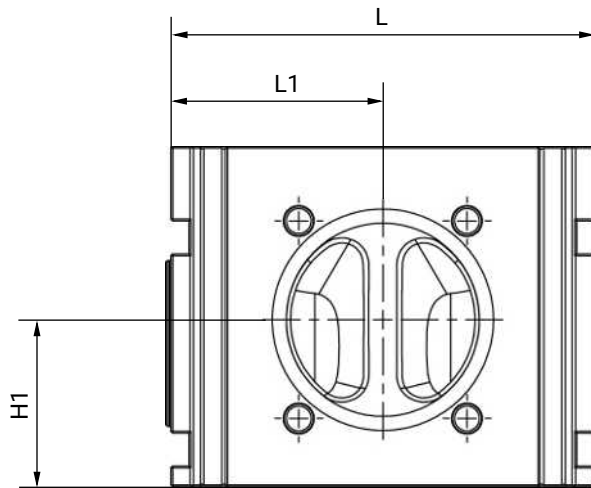
Actuator dimensions



MG	DN	AG	A	A1	A2	øB	G	M
25	15 - 25	2T1, 2R1	137.5	38.0	53.0	90.0	G 1/4	M16x1

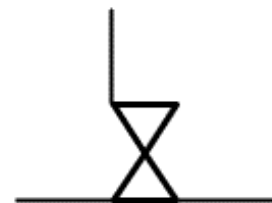
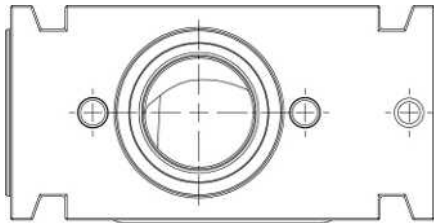
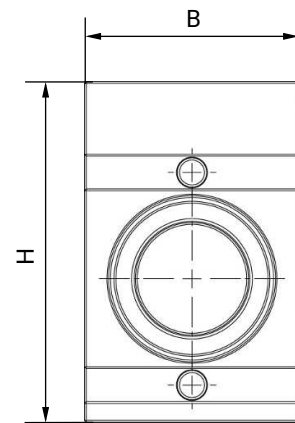
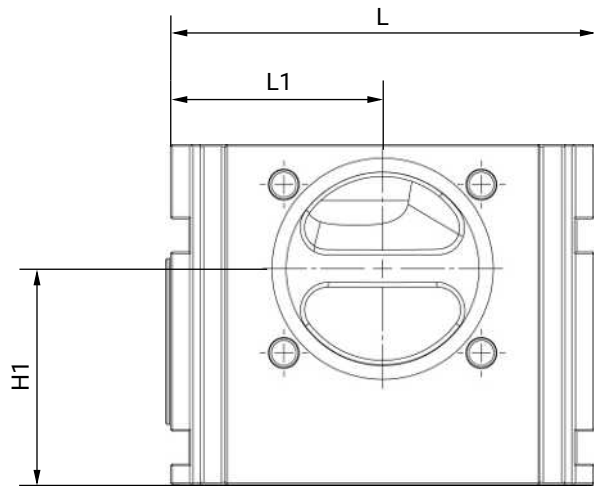
AG = actuator size
Dimensions in mm

Body dimensions



MG	DN	B	H	H1	L	L1
25	20, 25	58.4	93.0	45.6	116.0	58.0

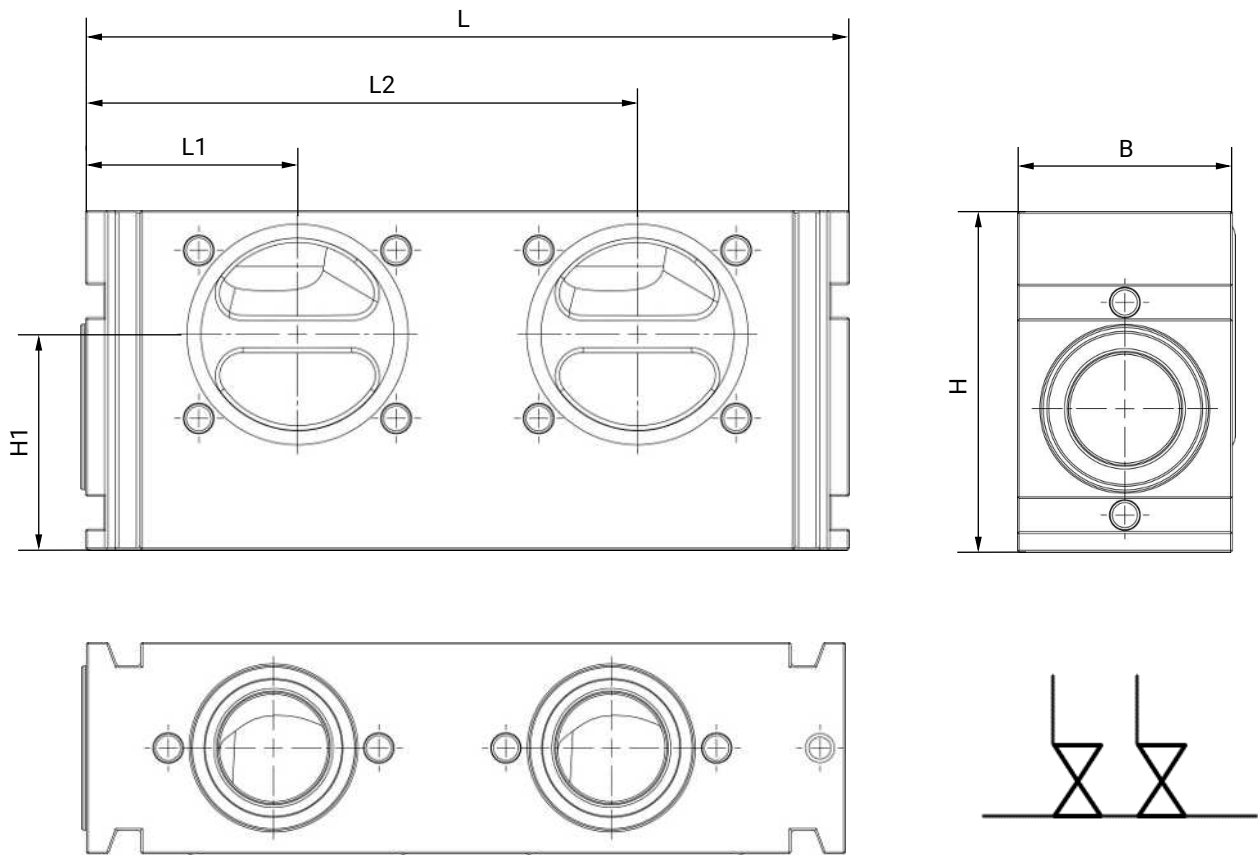
Dimensions in mm



MG	DN	B	H	H1	L	L1
25	20, 25	58.4	93.0	59.0	116.0	58.0

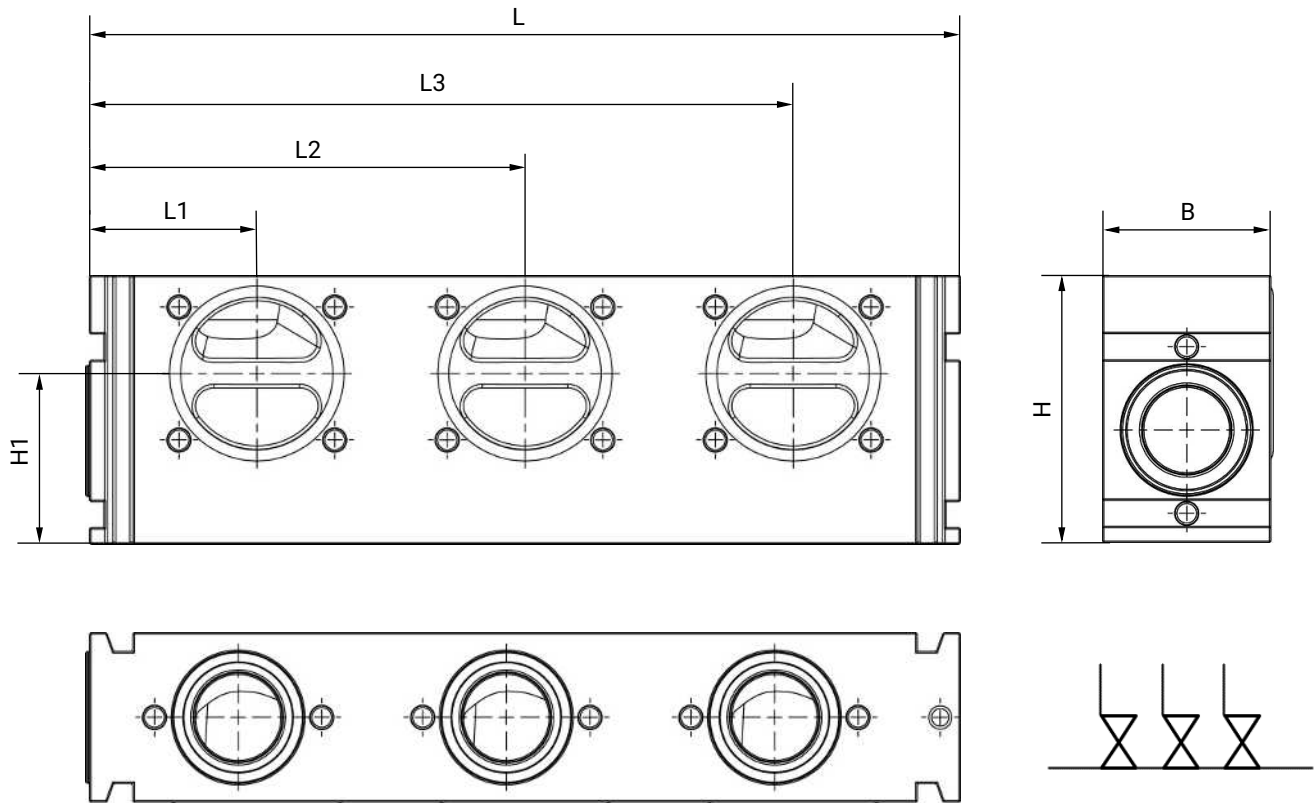
Dimensions in mm

Dimensions



MG	DN	B	H	H1	L	L1	L2
25	20, 25	58.4	93.0	59.0	209.0	58.0	151.0

Dimensions in mm

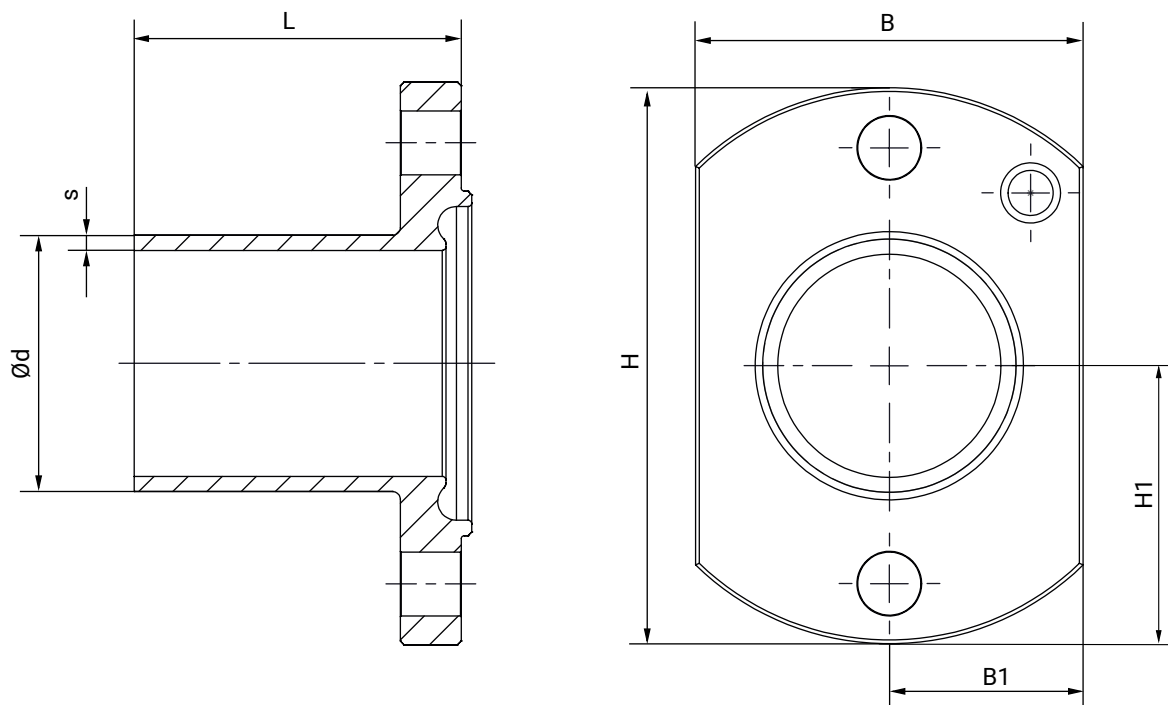


MG	DN	B	H	H1	L	L1	L2	L3
25	20, 25	58.4	93.0	59.0	302.0	58.0	151.0	244.0

Dimensions in mm

Connection dimensions

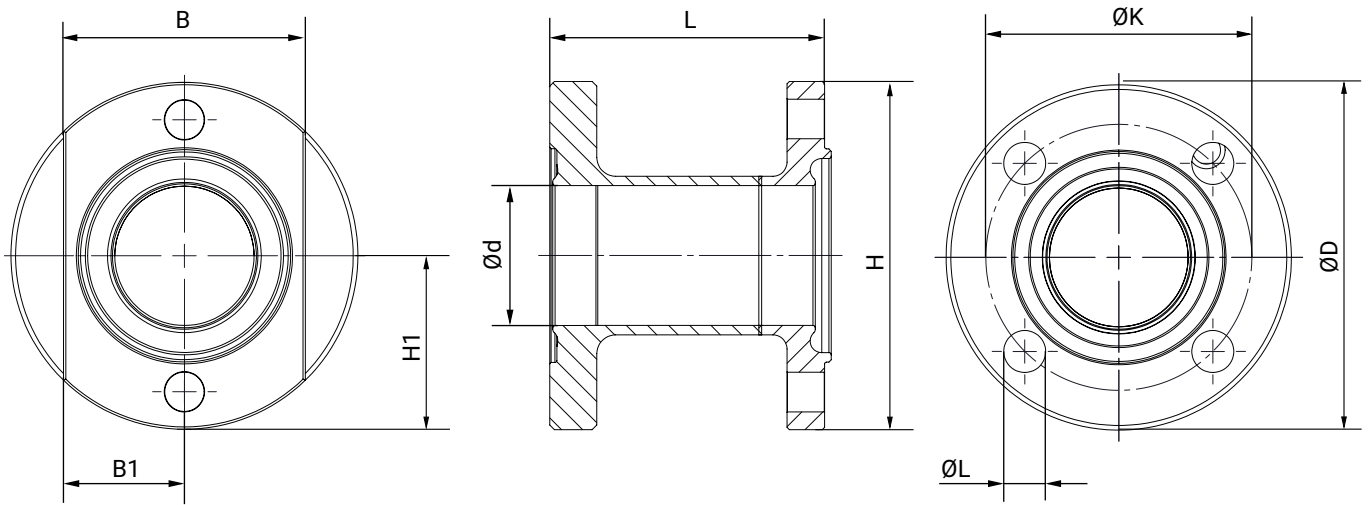
Butt weld spigot adapter (code 16, 17, 18, 60, 35, 36, 37, 55, 59, 63, 65)



MG	DN	Code	Ød	s	B	B1	H	H1	L
25	20	16	22.0	1.0	58.0	29.0	76.0	33.2	40.0
25	20	17	23.0	1.5	58.0	29.0	76.0	33.2	40.0
25	20	18	24.0	2.0	58.0	29.0	76.0	33.2	40.0
25	20	60	26.9	1.6	58.0	29.0	76.0	35.0	40.0
25	20	35	-	-	-	-	-	-	-
25	20	36	27.2	2.1	58.0	29.0	76.0	34.7	40.0
25	20	37	-	-	-	-	-	-	-
25	20	55	19.05	1.2	58.0	29.0	76.0	31.5	40.0
25	20	59	19.05	1.65	58.0	29.0	76.0	31.0	40.0
25	20	63	26.7	2.11	58.0	29.0	76.0	34.4	40.0
25	20	65	26.7	2.87	58.0	29.0	76.0	33.6	40.0
25	25	16	28.0	1.0	58.0	29.0	76.0	36.2	40.0
25	25	17	29.0	1.5	58.0	29.0	76.0	36.2	40.0
25	25	18	30.0	2.0	58.0	29.0	76.0	36.2	40.0
25	25	60	33.7	2.0	58.0	29.0	76.0	38.0	40.0
25	25	35	25.4	1.2	58.0	29.0	76.0	34.7	40.0
25	25	36	34.0	2.8	58.0	29.0	76.0	37.4	40.0
25	25	37	25.0	1.2	58.0	29.0	76.0	34.5	40.0
25	25	55	-	-	-	-	-	-	-
25	25	59	25.4	1.65	58.0	29.0	76.0	34.2	40.0
25	25	63	33.4	2.77	58.0	29.0	76.0	37.1	40.0
25	25	65	33.4	3.38	58.0	29.0	76.0	36.5	40.0

Dimensions in mm

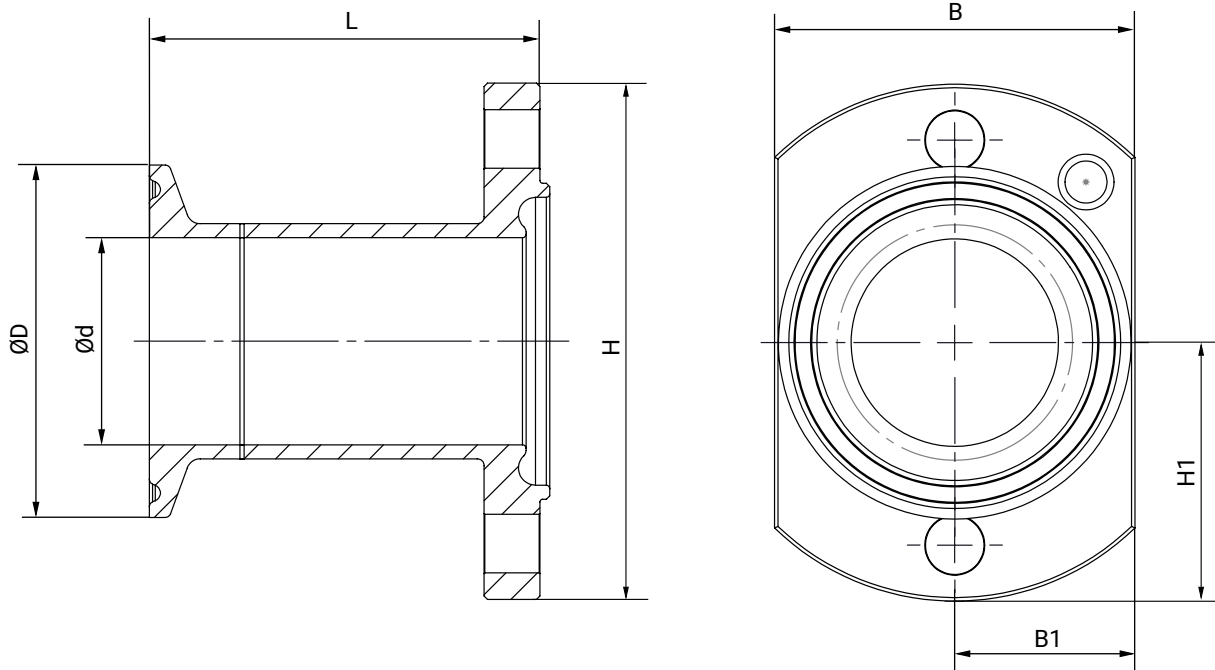
Flange adapter (code A1, A2, A4, A5, A6, A7)



MG	DN	Code	Ød	ØD	B	B1	H	H1	L	ØK	ØL
25	20	A1, A2	20.0	64.0	58.0	29.0	76.0	33.2	65.0	47.0	9.0
25	20	A4, A5	23.7	69.0	58.0	29.0	76.0	35.0	65.0	52.0	9.0
25	20	A6, A7	15.75	59.0	58.0	29.0	76.0	31.0	65.0	42.0	9.0
25	25	A1, A2	26.0	70.0	58.0	29.0	76.0	36.2	65.0	53.0	9.0
25	25	A4, A5	29.7	74.0	58.0	29.0	76.0	38.0	65.0	57.0	9.0
25	25	A6, A7	22.1	66.0	58.0	29.0	76.0	34.2	65.0	49.0	9.0

Dimensions in mm

Clamp adapter (code 82, 86, 87, 88, E1, E2, E4, E5, E7, E8, 8T)



MG	DN	Code	Ød	ØD	B	B1	H	H1	L
25	20	82	23.7	50.5	58.0	29.0	76.0	35.0	53.0
25	20	86	20.0	34.0	58.0	29.0	76.0	33.2	53.0
25	20	87	-	-	-	-	-	-	-
25	20	88	15.75	25.0	58.0	29.0	76.0	31.0	53.0
25	20	E1, E2	20.0	50.5	58.0	29.0	76.0	33.2	53.0
25	20	E4, E5	23.7	50.5	58.0	29.0	76.0	35.0	53.0
25	20	E7, E8	15.75	34.0	58.0	29.0	76.0	31.0	53.0
25	20	8T	-	-	-	-	-	-	-
25	25	82	29.7	50.5	58.0	29.0	76.0	38.0	53.0
25	25	86	26.0	50.5	58.0	29.0	76.0	36.2	53.0
25	25	87	22.6	50.5	58.0	29.0	76.0	34.5	53.0
25	25	88	22.1	50.5	58.0	29.0	76.0	34.2	53.0
25	25	E1, E2	26.0	50.5	58.0	29.0	76.0	36.2	53.0
25	25	E4, E5	29.7	50.5	58.0	29.0	76.0	38.0	53.0
25	25	E7, E8	22.1	50.5	58.0	29.0	76.0	34.2	53.0
25	25	8T	22.1	50.5	58.0	29.0	76.0	34.2	53.0

Dimensions in mm

Specification | GEMÜ P600S

Modular M-block stainless steel diaphragm valve

Operating pressure: _____ bar

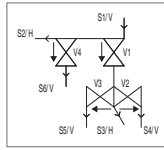
Medium temperature: _____ °C

Valve block material:
 1.4435
 1.4435 BN 2 ($\Delta Fe < 0.5\%$)
 1.4539
 Other _____

Shut-off diaphragm material:
 EPDM Code _____
 PTFE Code _____
 Other _____

Surface finish of valve block:
 1502 (Ra) $\leq 0.8 \mu\text{m}$
 1503 (Ra) $\leq 0.8 \mu\text{m}$ electropolished
 1507 (Ra) $\leq 0.6 \mu\text{m}$
 1508 (Ra) $\leq 0.6 \mu\text{m}$ electropolished
 1536 (Ra) $\leq 0.4 \mu\text{m}$
 1537 (Ra) $\leq 0.4 \mu\text{m}$ electropolished
 1527 (Ra) $\leq 0.25 \mu\text{m}$
 1516 (Ra) $\leq 0.25 \mu\text{m}$ electropolished
 Other _____

Quantity: _____

Example:

Please draw functional diagram.

Important: Please ensure that the table and functional diagram correspond.

Please specify the design (e.g. M600 06-04.P1) if possible:

Spigot/Valve seat: S1, S2, etc./V1, V2, etc. Flow direction (medium): →

Preferred installation position:

Horizontal/Vertical

Draining direction: →

Valve seat:



Spigot no.	Pipe connection				Actuator			Other
	DN	Code	$\varnothing d(a)$ [mm]	s [mm]	Actuator type	Control function	Actuator size	Comment/accessories
S1					V1			
S2					V2			
S3					V3			
S4					V4			
S5					V5			
S6					V6			
S7					V7			
S8					V8			
S9					V9			
S10					V10			
S11					V11			
S12					V12			

The technical details of each enquiry must be checked by GEMÜ.

Contact (GEMÜ): _____

Customer: _____

Department: _____

Address: _____

Phone: _____ **E-mail:** _____

Please do not write here!

K-No.:

P600:

M600:

X:



GEMÜ Gebr. Müller Apparatebau GmbH & Co. KG
Fritz-Müller-Straße 6-8, 74653 Ingelfingen-Criesbach, Germany
Phone +49 (0) 7940 1230 · info@gemue.de
www.gemu-group.com