

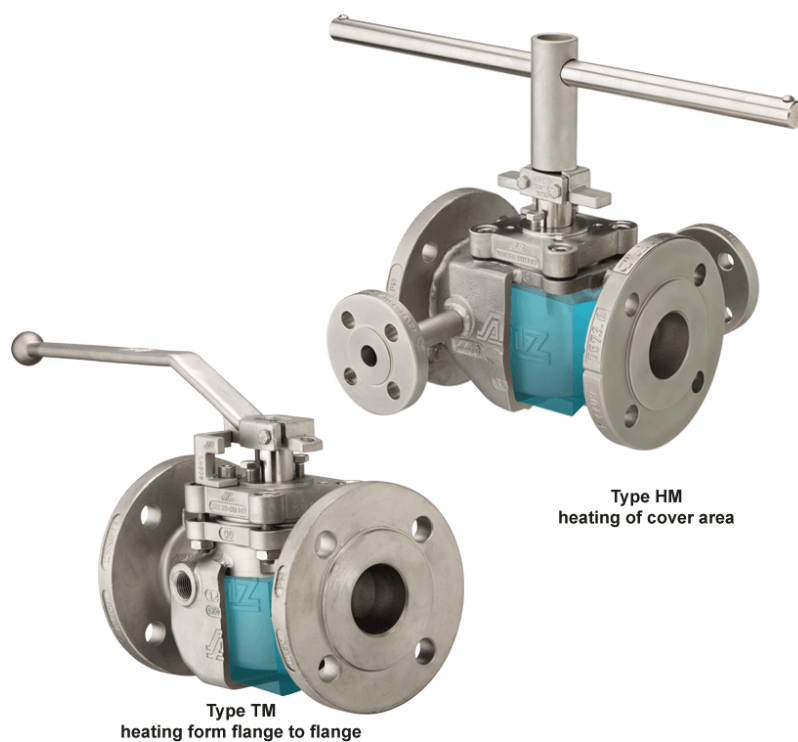
TM / HM

Plug valve with casted heating jacket

DIN-EN: DN 15 - 600 / PN 10 - 100

ASME: NPS ½" - 24" / class 150 - 600

PT range: $-30 < T < 230/280^{\circ}\text{C}$, vacuum 10-8 mbar



Design Features

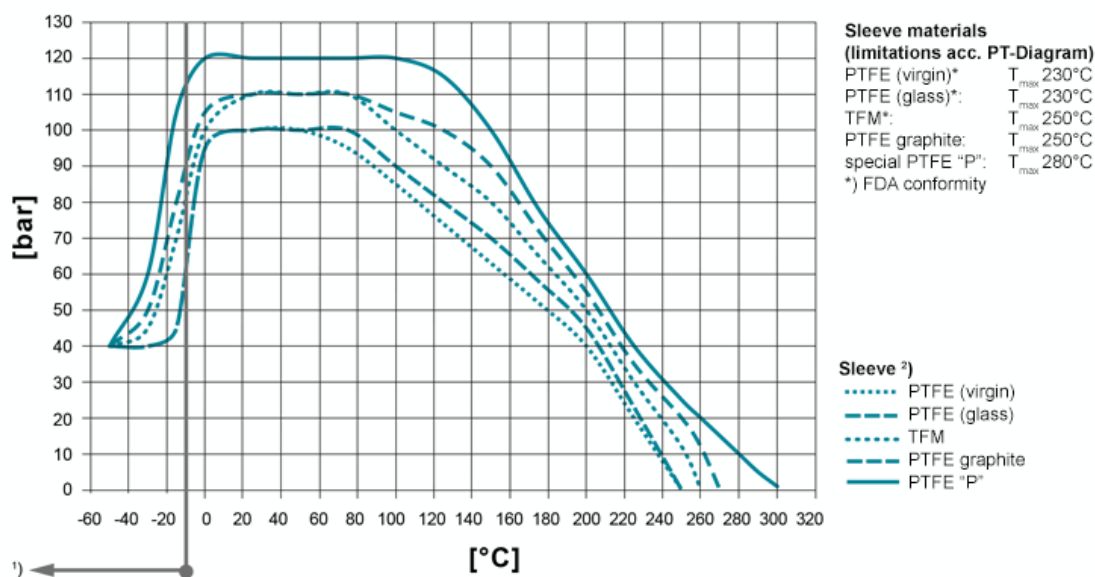
Design Characteristics

- Heating from flange to flange
- heating of cover area (type HM)
- solid casted heating jacket
- solid casted connections for heating medium
- several heating jacket connections available (e. g. female threads / flanges / weld ends)
- available with drain connection for condensate (optional)

- oversize design (optional)
- available for almost all valve types (e. g. plug valves with weld ends, sample valves, fully lined valves, sight glasses etc.)

PT-Diagram

General Pressure-Temperature-Diagram



Operating temperatures < -30°C and > 220 °C have to be checked and approved by AZ according to the operating conditions.

Besides the P/T value of the sleeve the limitations of the valve bodies also have to be considered. Please refer to the EN 12516-1 resp. ASME B16.34 in order to choose a proper pressure rating (PN/class). The shown values refer to austenitic stainless steel 1.4408 (A351 Gr. CF8M).

- 1) For operating temperatures below -10°C low temperature / austenitic steels are required.
- 2) Sleeve: There are different sleeve materials / compounds available.

Materials

Standard body materials

- Carbon Steel 1.0619, ASTM A216 WCB
- Stainless Steel 1.4408, ASTM A351 CF8M
- Stainless Steel 1.4308, ASTM A351 CF8
- Unalloyed stainless steel casting (low Temp.) 1.1138, LCC/LCB/A352

Standard plug materials

- Stainless Steel 1.4408, ASTM A351 CF8M
- Stainless Steel 1.4308, ASTM A351 CF8

Special materials

- Alloy
- Monel
- Nickel
- Zirconium
- Titan
- Tantal
- other materials on request

Sealng Systems

Standard sealing for all major applications;
T_{max} 230°C

Type STD

Firesafe sealing (API 607) with graphite packing for
additional
stem sealing; T_{max} 230°C

Type FS

Chemical sealing to prevent fugitive emission of
aggressive and toxic media
with PTFE packing for additional stem sealing; T_{max} 230°C

Type CA

Firesafe safety sealing (API 607) for fluctuating temperatures
with 3x graphite packing (adjustable) for additional
stem sealing; T_{max} 280°C

Type FSN

Firesafe safety sealing (API 607) for fluctuating temperatures
with 3x graphite packing (live loaded disc springs) for additional
stem sealing; T_{max} 280°C

Type FSN-SL

Chemical safety sealing for fluctuating temperatures
with 3x PTFE packing (adjustment) for additional stem sealing;
T_{max} 230°C

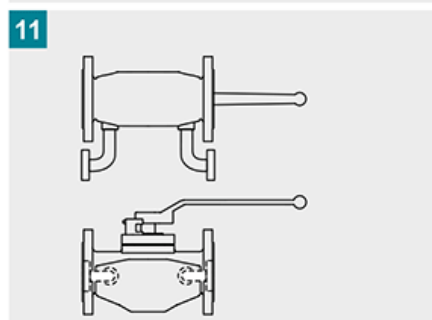
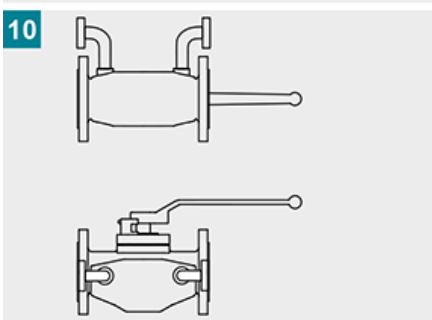
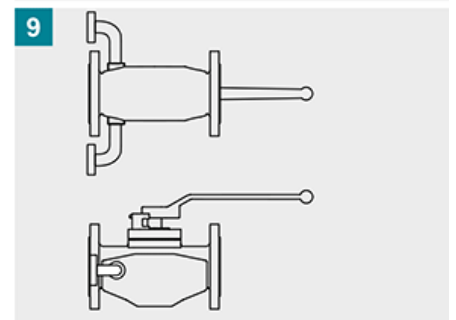
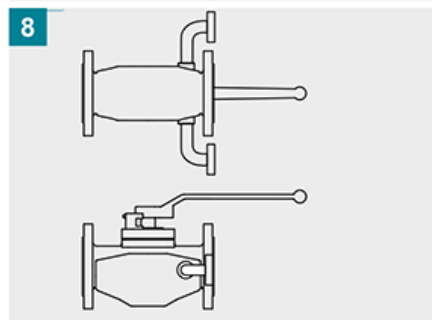
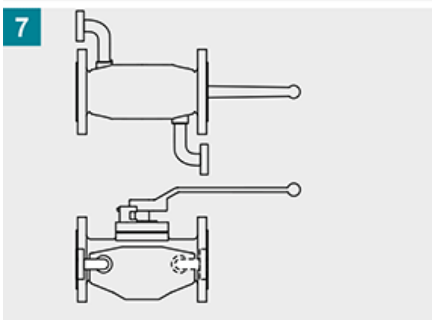
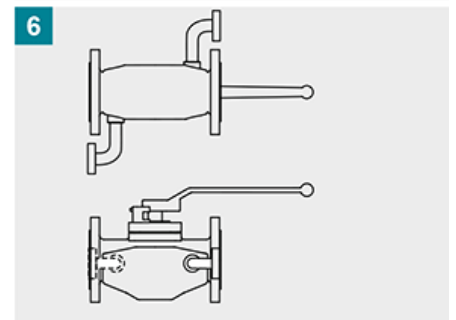
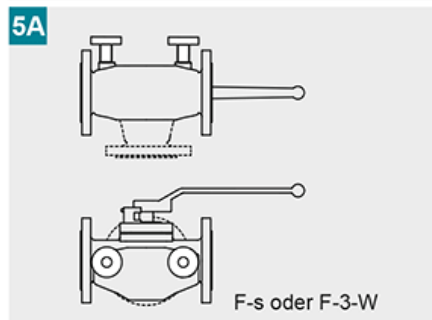
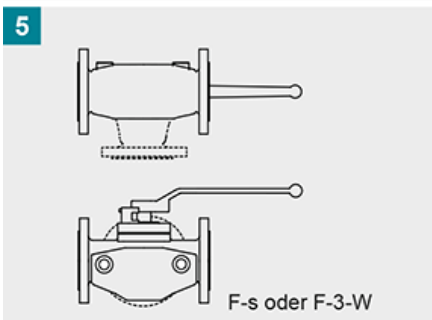
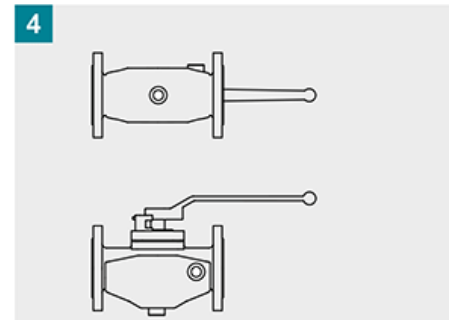
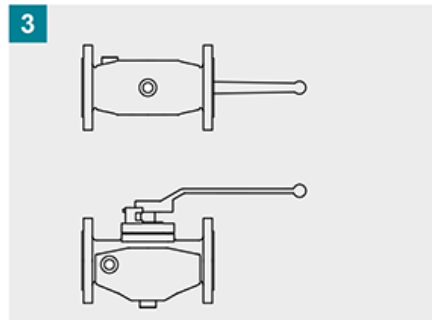
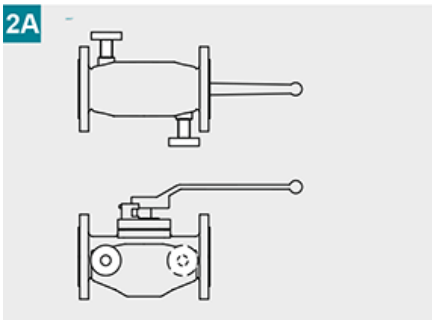
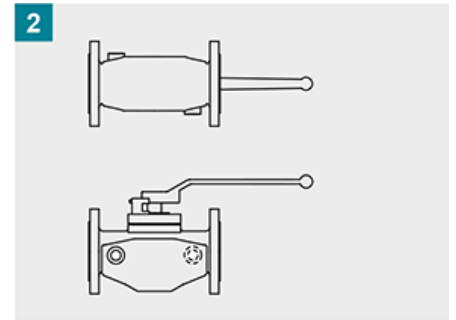
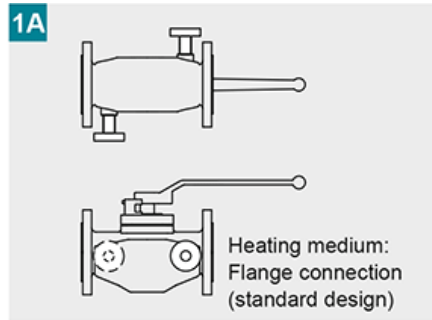
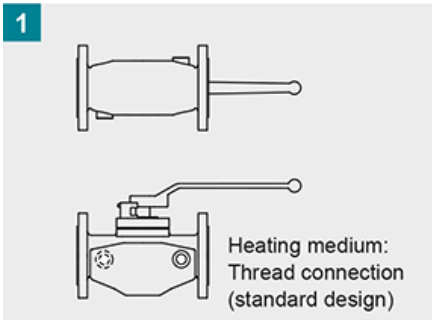
Type CASN

Chemical safety sealing for fluctuation temperatures
with 3x PTFE packing (live loaded disc springs) for additional
stem sealing; T_{max} 230°C

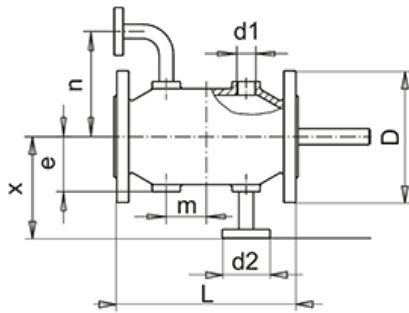
Type CASN-SL

Connection Version

Standard connection version, other on request



Dimensions



$$"n" \text{ min} = \frac{(\varnothing D + \varnothing d2)}{2} + 5 \text{ [mm]}$$

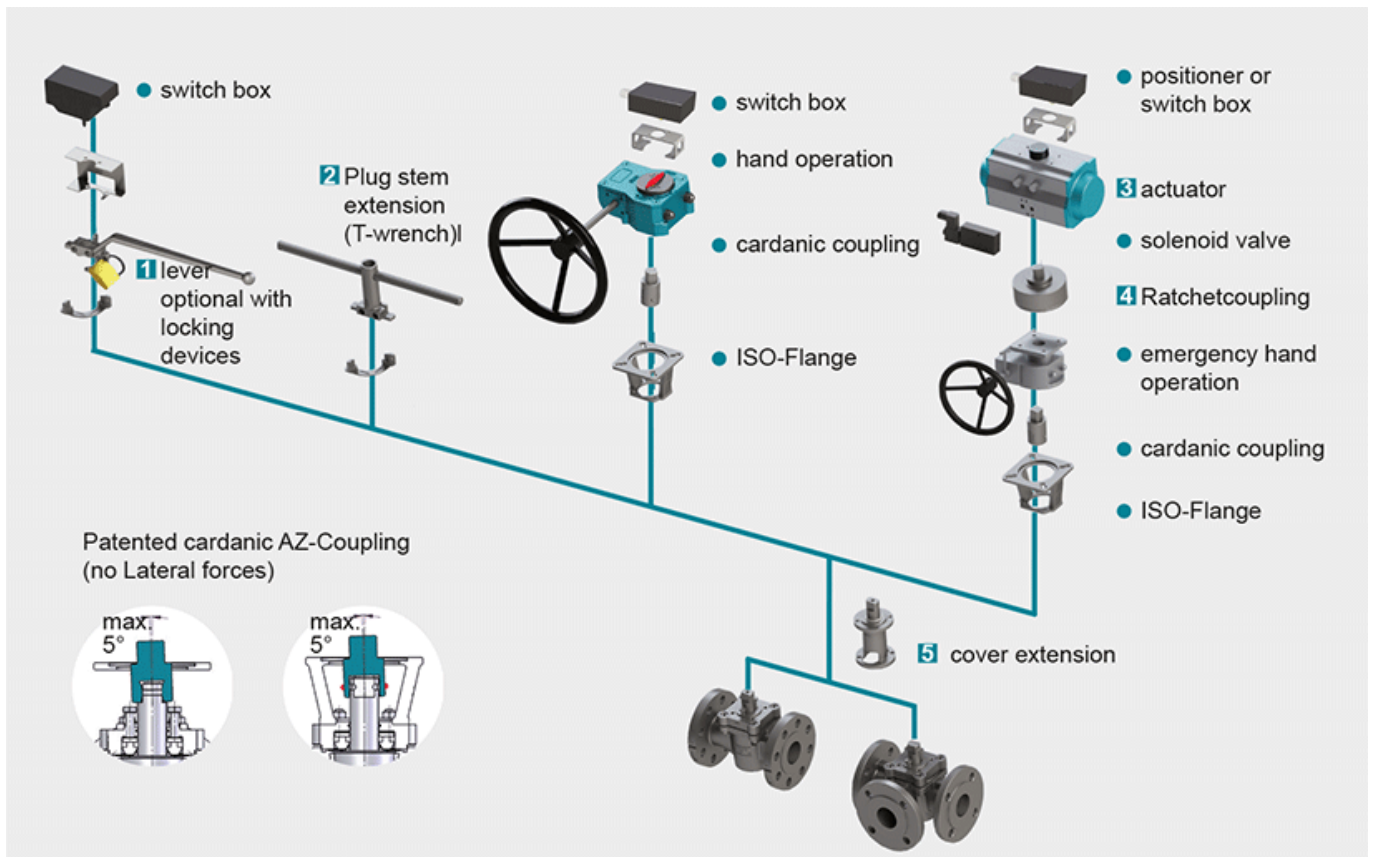
	DIN																	
	DN	15	15E	20E	25 **	25E	32	40	50	65	80	100	100S	125	150	200	250	300
x	100	*	*	140	*	140	150	160	170	170	175	185	200	200	255	*	290	
m	25	*	*	30	*	32,5	45	50	87,5	90	110	110	75	86	90	*	90	
e	41	*	*	45	*	50	51	62	75	74	77	87,5	108	113	156	*	168	
d1	G 3/8"			G 1/2"			G 3/4"			G 1"								
d2	DN 15																	
OverSize	40	40	40	50	50	50	65	80	80	100	150	150	150	200	250	*	350	
L	130	130	150	160	160	180	200	230	290	310	310	350	350	325	350	400	*	500
	200	200	200	230	230	230	290	310	310	350	350	350	350	400	450		550	
NPS	1/2"	3/4"	1" **	1 1/2"	2"	3"	4"	4"S	6"	8"	10"	12"	14"	16"	18"	20"	24"	
x	90	90	90	100	110	125	125	140	185	205	215	*	*	*	*	*	*	
m	0	0	15	30	35	40	45	40	50	45	65	*	*	*	*	*	*	
e	40	40	45	53	60	74	72	93	106	128	165	*	*	*	*	*	*	
d1	G 3/8"			G 1/2"			G 3/4"			G 1"								
d2	NPS 1/2"																	
OverSize	1 1/2"	1 1/2"	2"	3"	3"	4"	6"	6"	8"	10"	12"	*	*	*	*	*	*	
L	108	117	127	165	178	203	229	229	267	292	330							
Class 150	165	165	178	203	203	229	267	267	292	330	356							
L	140	152	165	190	216	282	305	305	403	419	457	*	*	*	*	*	*	
Class 300	190	190	216	282	282	305	403	403	419	457	502							

OverSize: For flange oversizes, specify the desired face-to-face length "L", the values in bold are standard face-to-face lengths.

* further nominal sizes on request

** jacket connection DIN / ANSI 10/18 mm below valve centre line

Actuation



1 Locking Devices

Pilot valve combinations, pad lock eyelets, linear key conception, indexing plunger arrestor.

2 Plug stem extension

Solid construction in stainless steel with T-wrench, Standard extension 100 mm or 150 mm, non standard lengths are available on request

3 Actuators

Actuators for mounting-flange acc. to DIN ISO 5211

NEW: Pneumatic actuator AIR GEAR for plug valves with high torque =150.000 Nm

4 Ratched coupling

To usw on multiport valves with standard 90° actuator for bigger switchpositions than 90°

5 Cover extension

Solid construction in stainless steel, Standard extension 100 mm or 150 mm high, non standard lengths are available on request . Hexagonal bolts on adjustment ring freely accessible. Note: Don't use with sealing FSN/FSN-SL and CASN/CASN-SL