

MGZ / MBZ / MB / WA

Screwed plug valves / Instrumentation
thread size from 1/4" up to 2"



Design Features

Design Characteristics

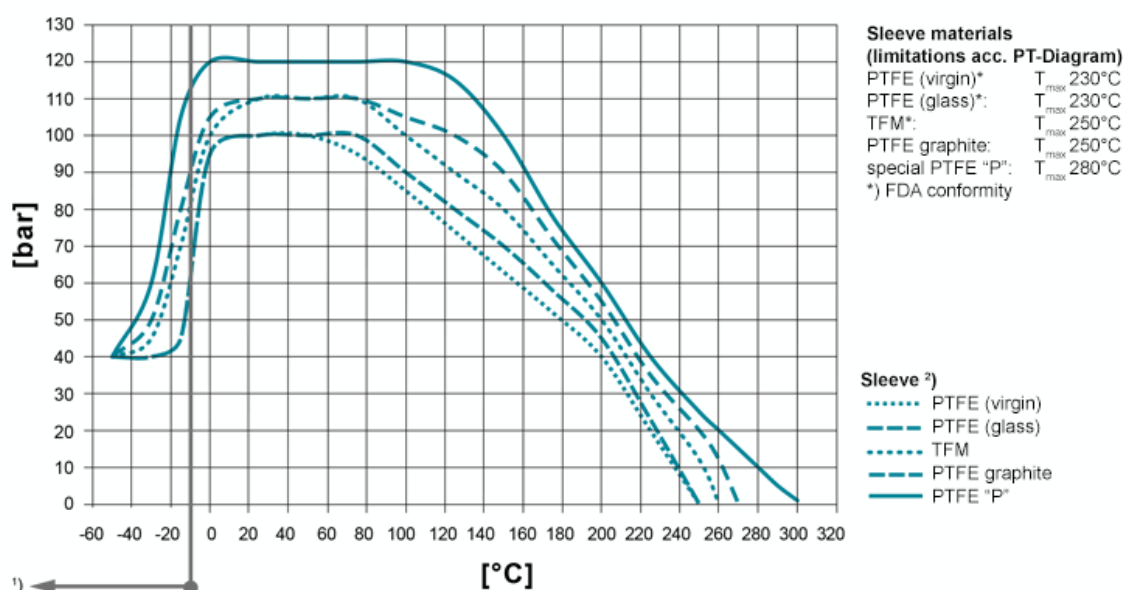
- available with female and male threads
- free of cavities
- maintenance free – self lubricating
- vacuum tight
- fugitive emission resp. clean air act certified (TA – Luft 2002 approval)
- Directive 2014/68/EU
- FDA conformity

Standard connections:

- tapered Whitworth pipe thread DIN 2999
- Whitworth pipe thread DIN ISO 228
- NPT pipe thread ANSI B 1.20.1
- BSP British standard pipe thread
- Ermeto EO progressive ring screwing
- Swagelok and Gyrolok tube fitting

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

Materials Type MGZ

- Stainless Steel 1.4408, ASTM A351 CF8M
- other materials on request **Materials Type MBZ/MB**
- Special Materials Titan, Nickel, Monel, Tantal, Alloy... **Materials Type WA**
- Stainless Steel 1.4408, ASTM A351 CF8M

Sealing Systems

Standard sealing for all major applications;
Tmax 230°C

Type STD

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

Type FSN

[read more \[...\]](#)

Firesafe sealing (API 607) with graphite packing for additional stem sealing; Tmax 230°C

Type FS

[read more \[...\]](#)

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

Type CA

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

Type FSN-SL

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

Type CASN

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

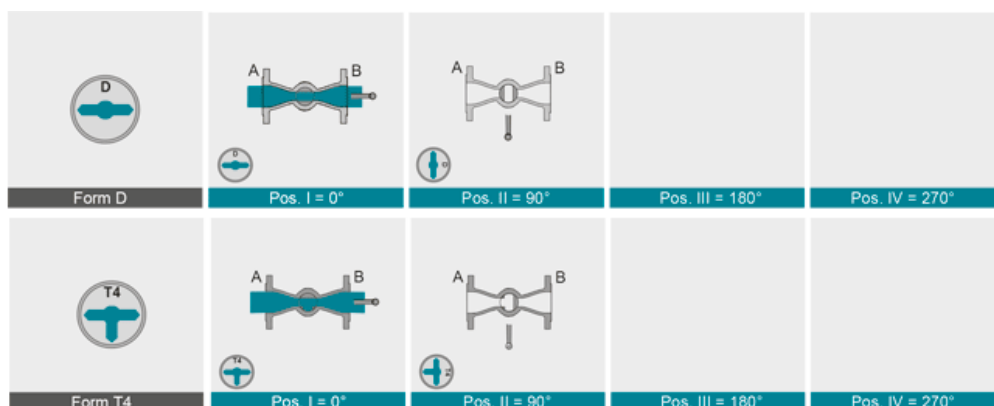
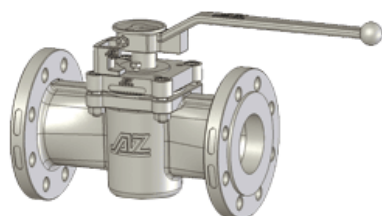
Type CASN-SL

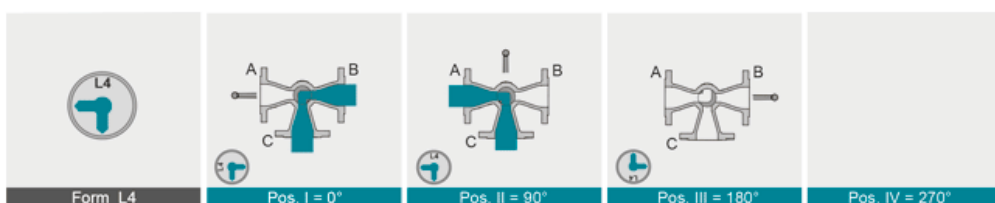
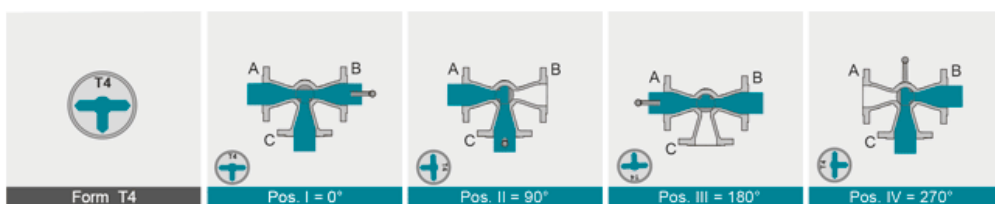
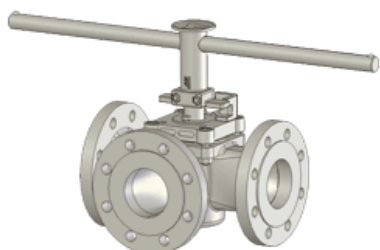
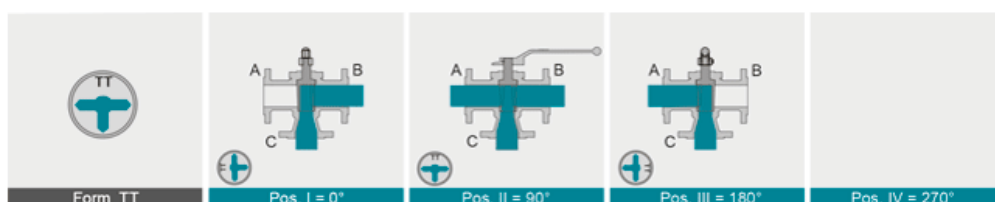
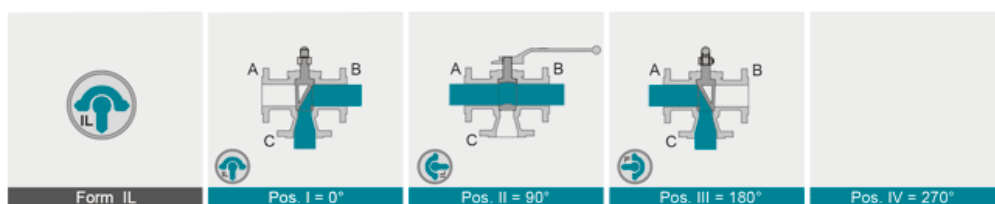
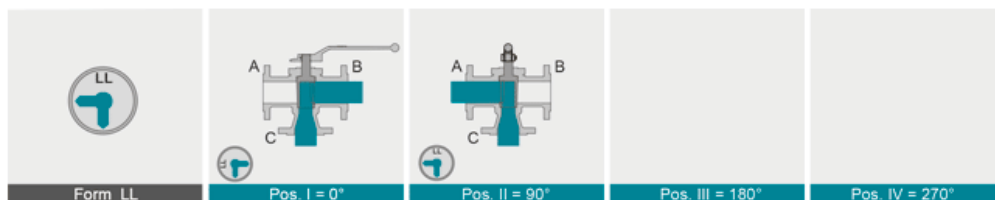
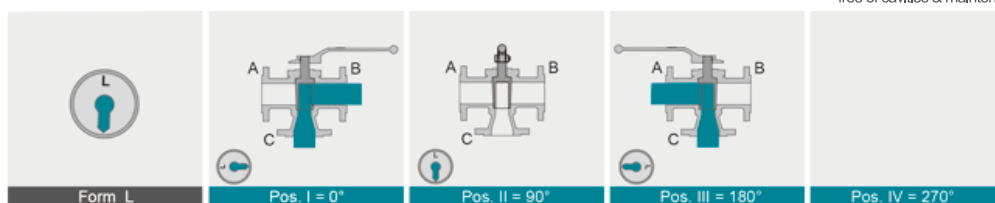
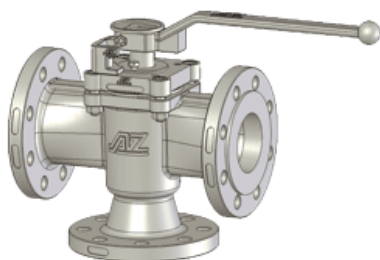
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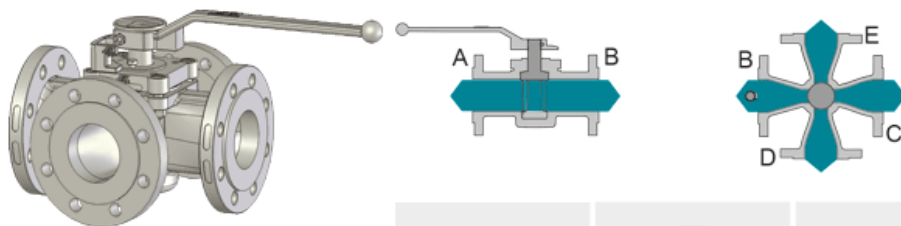
Port Forms


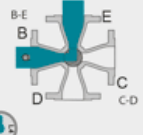
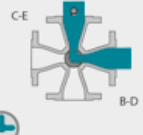
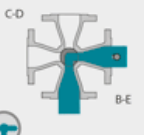
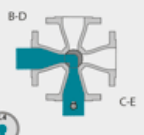


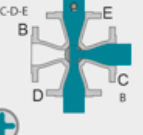
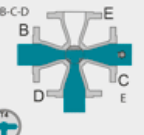
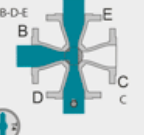

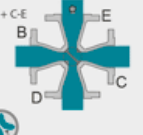



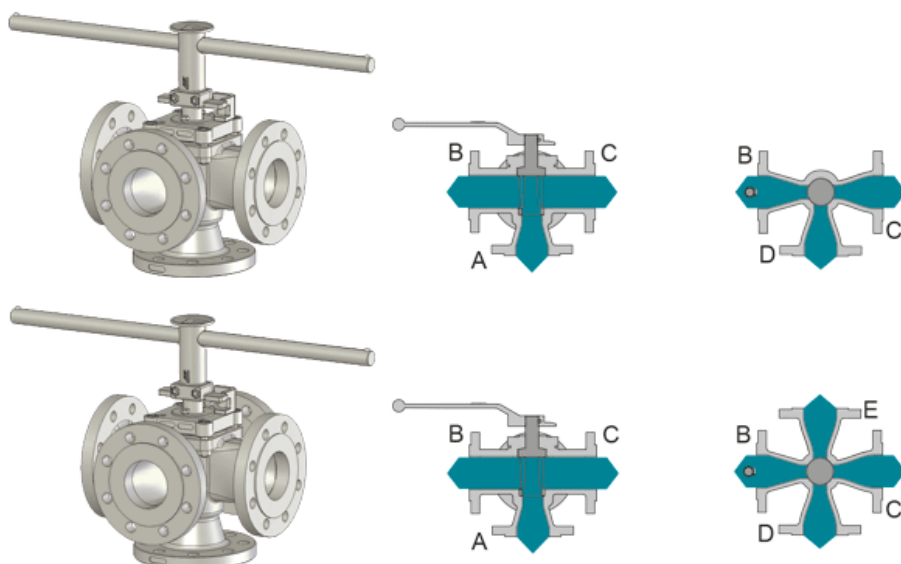
AZ plug valves are fitted with cast, rust proof position indicators. The position indicator is securely welded to the lever to prevent it from working loose.


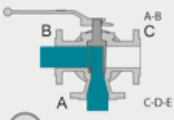
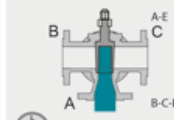
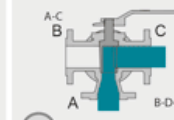
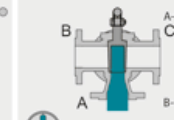

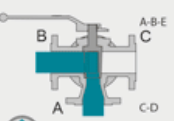
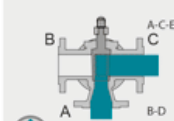
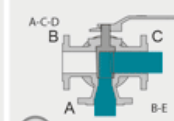
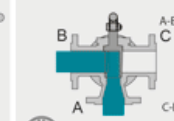

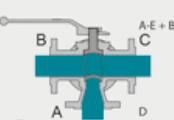
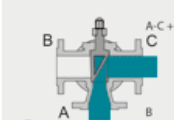
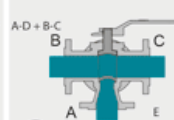



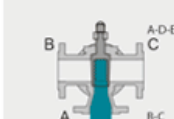
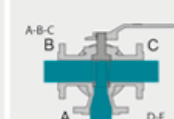
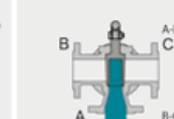

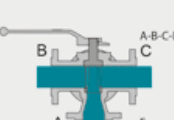


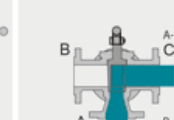






 Form L4	 Pos. I = 0°	 Pos. II = 90°	 Pos. III = 180°	 Pos. IV = 270°
 Form T4	 Pos. I = 0°	 Pos. II = 90°	 Pos. III = 180°	 Pos. IV = 270°
 Form LL4	 Pos. I = 0°	 Pos. II = 90°		

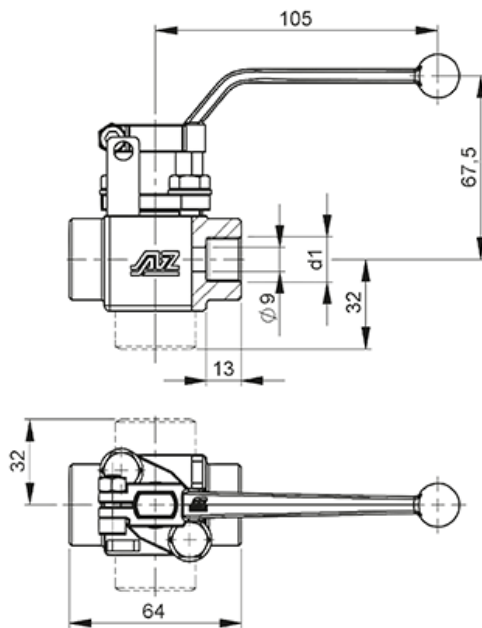


 Form L	 Pos. I = 0°	 Pos. II = 90°	 Pos. III = 180°	 Pos. IV = 270°
 Form LL	 Pos. I = 0°	 Pos. II = 90°	 Pos. III = 180°	 Pos. IV = 270°
 Form IL	 Pos. I = 0°	 Pos. II = 90°	 Pos. III = 180°	 Pos. IV = 270°
 Form T	 Pos. I = 0°	 Pos. II = 90°	 Pos. III = 180°	 Pos. IV = 270°
 Form TT	 Pos. I = 0°	 Pos. II = 90°	 Pos. III = 180°	 Pos. IV = 270°

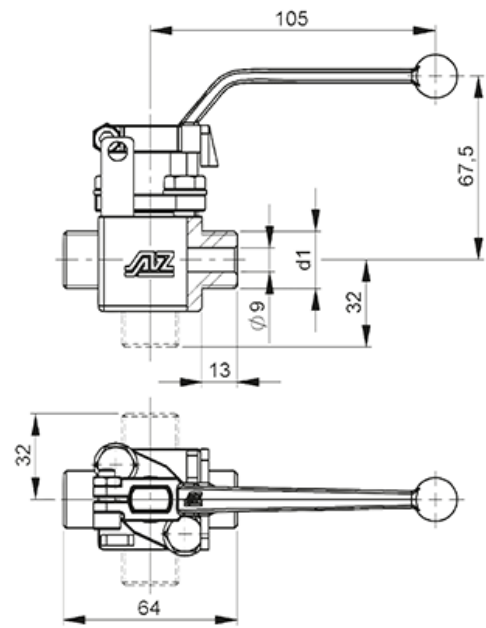
Dimensions

MG / MGZ / MBZ / MB	Connection		MGZ	MBZ/MB	WA
	NPT Pipe thread ANSI B 1.20.1	female	1/4" - 3/4"	1/4" - 1"	
		male	1/4" - 3/4"	1/4" - 1"	
	Tapered Whitworth Pipe Thread	female	Rp 1/4" - Rp 3/4"	Rp 1/4" - Rp 1"	
		male	R 1/4" - R 3/4"	R 1/4" - R 3/4"	
	Witworth Pipe Thread DIN ISO 228	female	G 1/4" - G 3/4"	G 1/4" - G 1"	
		male	G 1/4" - G 3/4"	G 1/4" - G 1"	G 1/4"
	BSP British Standard Pipe Thread	female	R 1/4" - R 3/4"	R 1/4" - R 1"	
		male	R 1/4" - R 3/4"	R 1/4" - R 1"	
	ERMETO EO Progressive Pipe Thread	light **	10-15 mm M16x1,5-M22x1,5)	6-22 mm (M12x1,5-M30x1,5)	
		heavy **	10-14 mm (M18x1,5-M22x1,5)	6-14 mm (M14x1,5-M22x1,5)	
	GYROLOG Tube Fitting	metric pipe **	pipe AD 10-14 mm	pipe AD 3-25 mm	
		ANSI pipe **	pipe AD 3/8" - 1/2"	pipe AD 1/15"-1"	
	SWAGELOK Tube Fitting	metric pipe **	pipe AD 10-14 mm	pipe AD 3-25 mm	
		ANSI pipe **	pipe AD 3/8" - 1/2"	pipe AD 1/15"-1"	

Type MGZ
with female thread

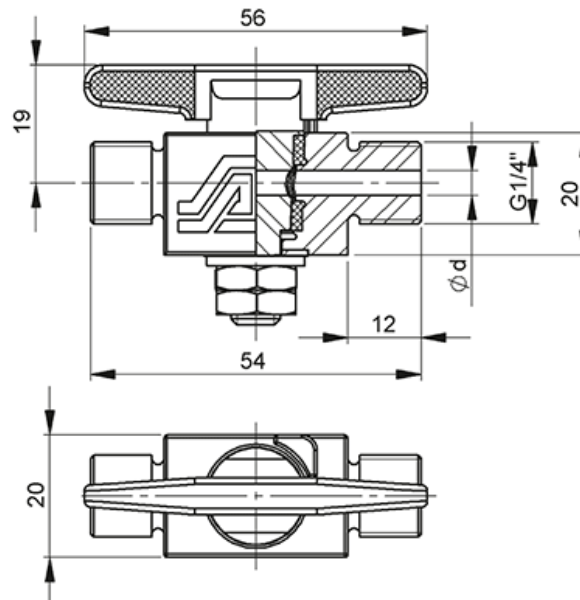


Type MGZ
with male thread

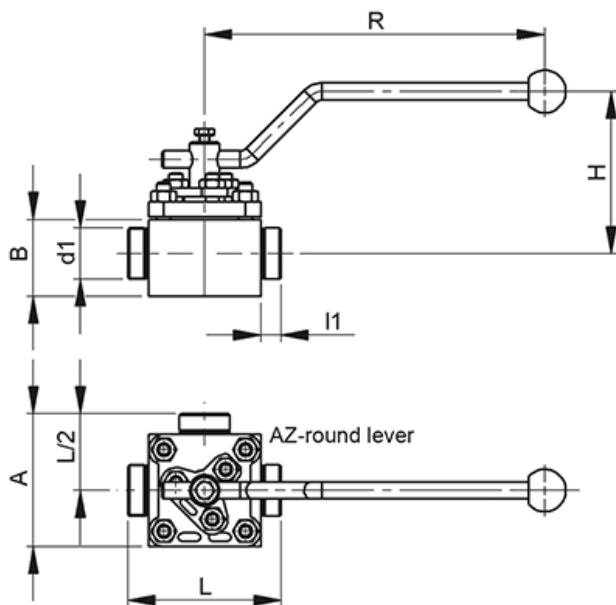


All sizes same dimensions (R $\frac{1}{4}$ " - R $\frac{1}{2}$ ")

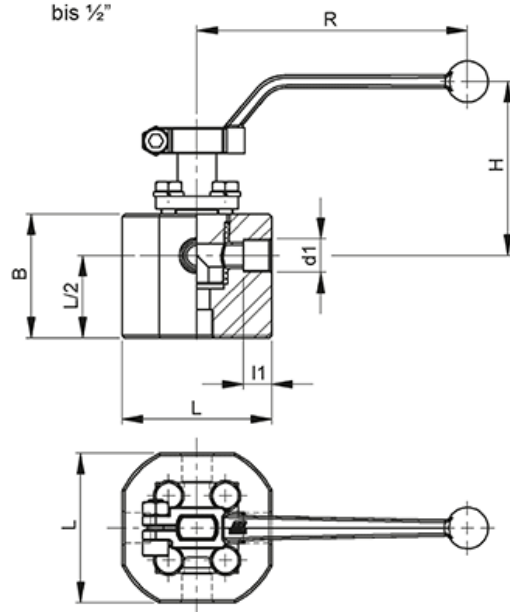
Type WA with male thread
 $\varnothing d = 4$ or 6 mm



Type MB (M-3-W)
with male thread
von 3/4" bis 1"

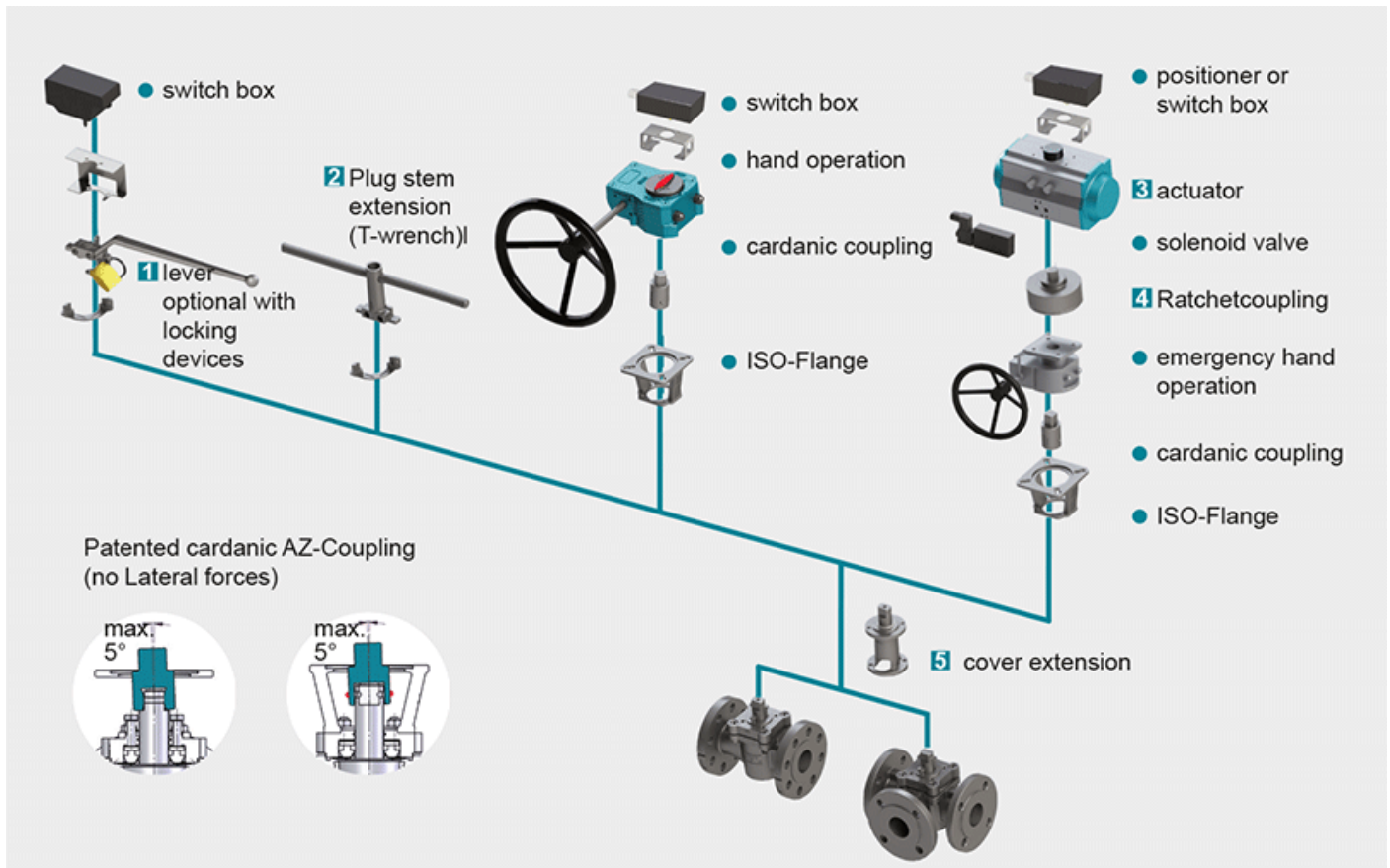


Type MBZ (M-5)
with female thread
bis 1/2"



MBZ / MB	d1	l1	L	L2	h	B	A	R (MBT)	R (MB)	H	external pipe dimension Ø	ERMETO [Ø mm]	SWAGELOG [Ø mm]	GYROLOK [Ø mm]
1/4"	13/10*	64/58*	32	16	32	48	105	100	67,5			-	-	-
3/8"	13/10*	64/58*	32	16	32	48	105	100	67,5			-	-	-
1/2"	13	64/80*	32/40*	16/22,5*	32	48/62,5*	105/200*	100/210*	67,5/110			L 6-8 / S 6**	3 - 6	3 - 6
3/4"	13	80	40	22,5	45	62,5	200	210	110			L 10-12 / S 8-10**	8 - 12	8 - 12
1"	13	80	40	22,5	45	62,5	200	210	110			L 15-22 / S 14-20**	14 - 16	14 - 16

Actuation



1 Locking Devices

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

[read more \[...\]](#) 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

[read more \[...\]](#) 3 Actuators

Actuators for mounting-flange acc. to DIN ISO 5211

[read more \[...\]](#) NEW: Pneumatic actuator AIR GEAR for plug valves with high torque ≥ 150.000 Nm

[read more \[...\]](#) 4 Ratched coupling

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

[read more \[...\]](#) 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

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