UK

Crossover Valve Combinations

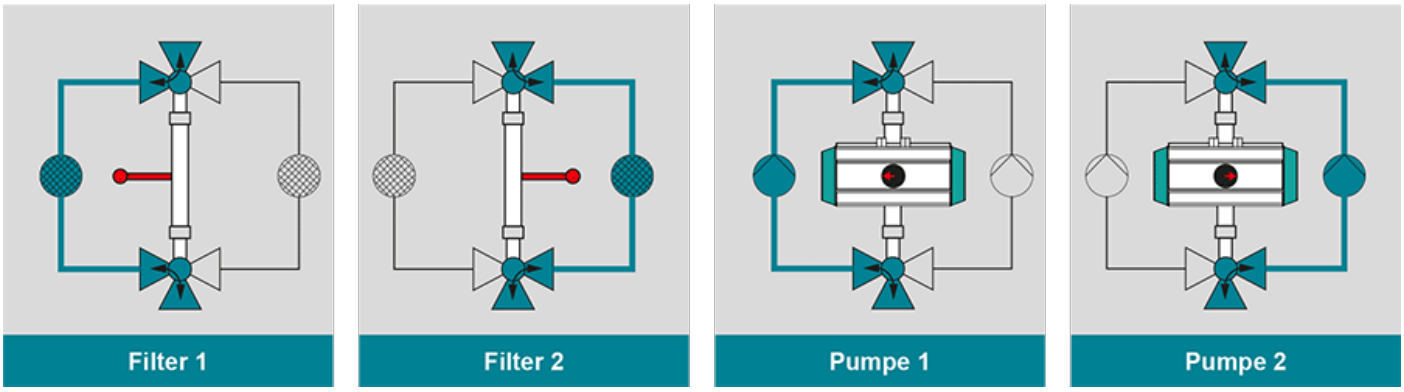
DIN: 15 – 500 / PN 10 – 40
ASME: NPS 1/2″ – 20“ / class 150 300
PT range: -30 < T < 230/280°C, vacuum 10-8 mbar

Design Features

Design Characteristics

- all types of AZ-valves combinable
- for cooling and heating cycles
- for pump cycles
- for safety-valves
- for filter-cycles
- for reactor cycles
- available hand-operated, gear-operated and with actuators

Sample applications



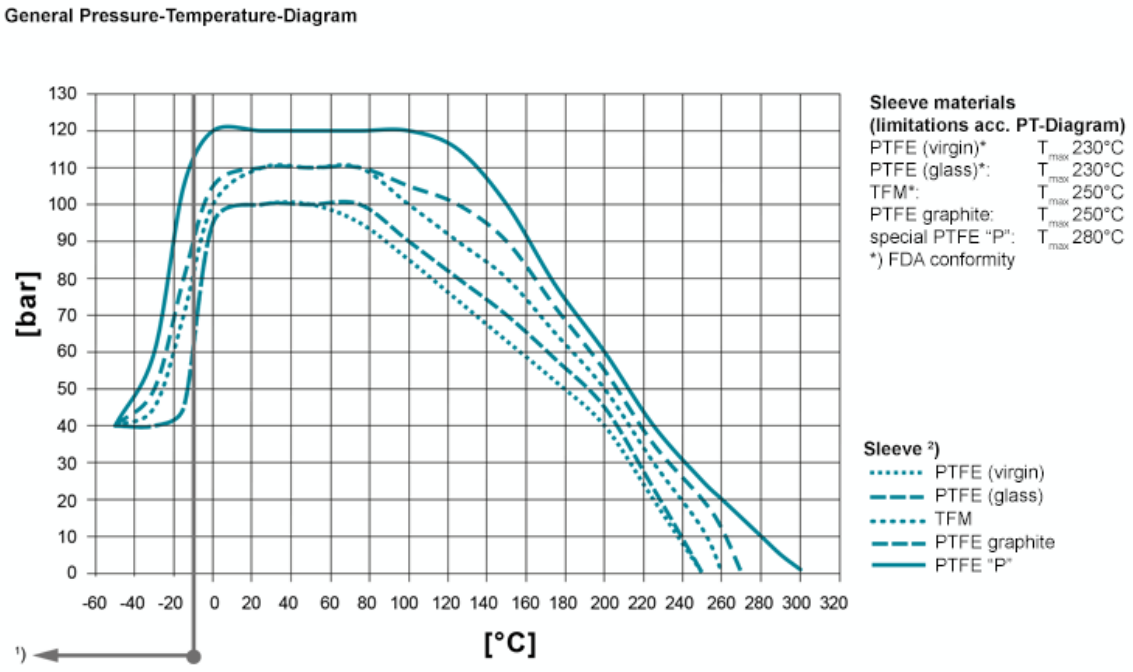
Filter-cycle

Replacement or cleaning of filter is possible without any problems by application of AZ-crossover-valve-combinations. When filter 1 is blocked up the valve combination is switched over to flow consequently regulated by filter 2. Therefore it is possible to replace the filter 1 without interruption of the continuous flow. If “LL”- plug is used moreover a continuous flow during the phase of switching is guaranteed. In this case a complete closing during switching is not possible.

Pump-cycle

On break-down of pump 1 an easy replacement of pump 1 is possible by switching the valve combination to pump 2 without interruption of the continuous flow. If “LL”- plug is used moreover a continuous flow during the phase of switching is guaranteed. In this case a complete closing during switching is not possible.

PT-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 reques

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

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

Type FS

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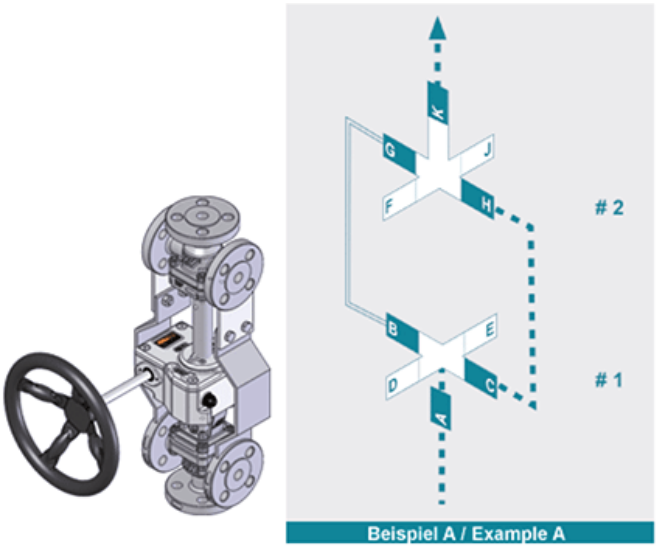
Chemical safety sealing for fluctuation temperatures
with 3x PTFE packing (live loaded disc springs) for additional stem sealing; Tmax 230°C

Type CASN-SL

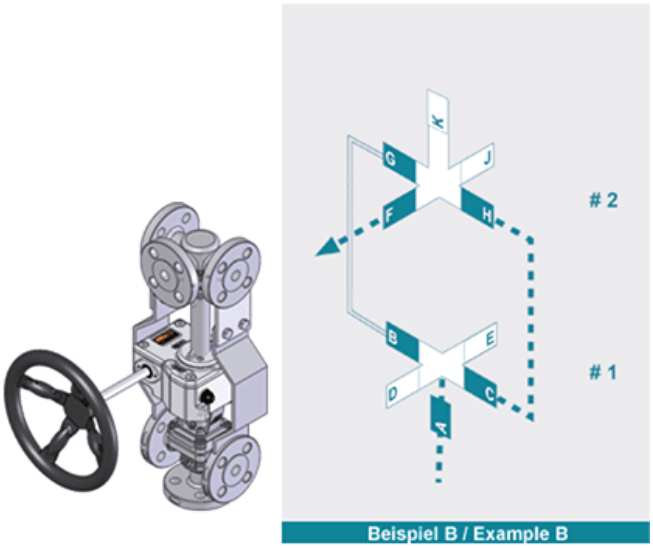
read more [...]

Port Forms

Order the desired combination, port form select by AZ.



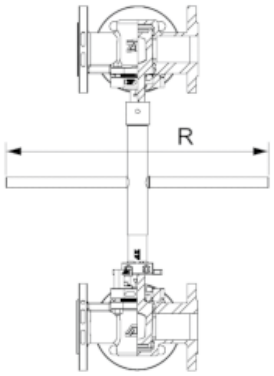
Beispiel A / Example A



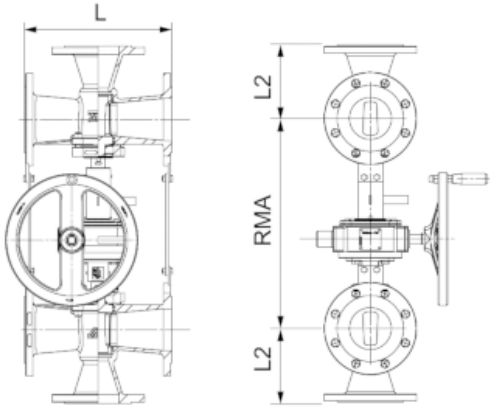
Beispiel B / Example B

Dimensionsn

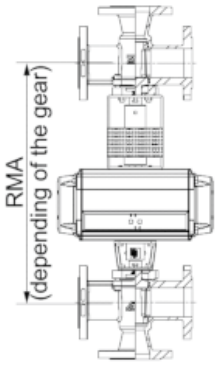
Type UK with plug stem extension (T-wrench)



Typ UK with gearbox



Type UK with pneumatic actuator



für Typ ISO-STANDARD, PN 10 - 40 gemäß DIN EN 1092-1 / 558

DN	PN	L [mm]	L2 [mm]
15	10 - 40	130	65
20	10 - 40	150	75
25	10 - 40	160	80
32	10 - 40	180	90
40	10 - 40	200	100
50	10 - 40	230	115
65	10 - 40	290	245
80	10 - 40	310	155
100	10 - 40	350	175
125	10 - 40	325	162
150	10 - 40	350	200
200	10 - 40	400	220
250	10 - 40	450	275

für Typ ISO-STANDARD, Class 150 / 300 gemäß ASME B16.10

NPS		L [mm]	L2 [mm]
½"	150	108	54
	300	140	70
¾"	150	118	59
	300	152	76
1"	150	127	64
	300	165	83
1½"	150	165	82,5
	300	191	95
2"	150	178	89
	300	216	108
3"	150	203	102
	300	283	142
4"	150	228	152
	300	305	172
5"	150	254	178
	300	325	163
6"	150	267	191
	300	403	216
8"	150	292	228
	300	418	254
10"	150	330	331
	300	457	331
12"	150	356	349
	300	502	356

Umschaltkombinationen für Typ ISO-STANDARD

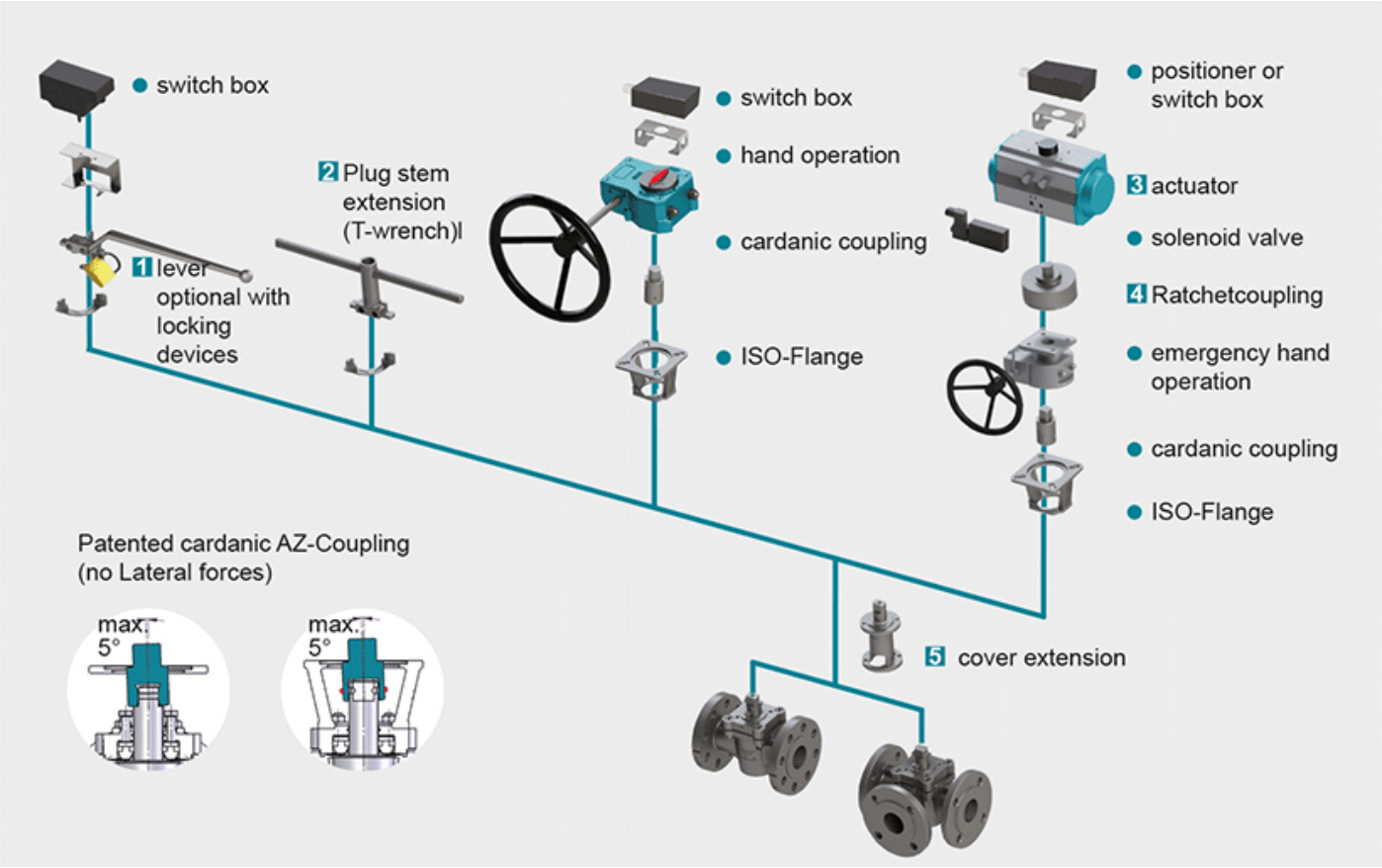
Valve 1	Valve 2	R [mm]	RMA min [mm] T-wrench	RMA min [mm] gearbox
15	15	250	200	270
	20		200	270
	25		210	280
20	20	250	200	270
	25		210	280
	40		240	310
25	25	250	220	280
	40		240	320
	50		270	330
40	40	400	260	340
	50		290	350
	65		310	360
50	50	500	310	370
	65		340	380
	80		340	380
80	80			400
100	100			430
	150			500
100S	100			450
	150			510
	200			590
150	150			570
	200			650
200	200			690
	250			720
250	250			750

*) UK design with gearbox

other nominal sizes on request

Specify desired dimension (RMA), minimum size = RMA_{min}

Actuation



1 Locking Devices
Pilot valve combinations, pad lock eyelets, linear key conception, indexing plunger arrestor.
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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
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3 Actuators
Actuators for mounting-flange acc. to DIN ISO 5211
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NEW: Pneumatic actuator AIR GEAR for plug valves with high torque ≥150.000 Nm
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4 Ratched coupling
To usw on multiport valves with standard 90° actuator for bigger switchpositions than 90°
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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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