ARMATUREN
free of cavities & maintenance

engineered.
fast.
dynamic.

Cross-Over-Valve and -Combination for Safety Valves

- **Durable** due to free of cavity design and protected sealing surfaces
- **Reliable** during continuous operation and cross-over process
- **Flow-optimized** with full cross section

Safety first !

Type SAVA2 - SOLO
without backflow

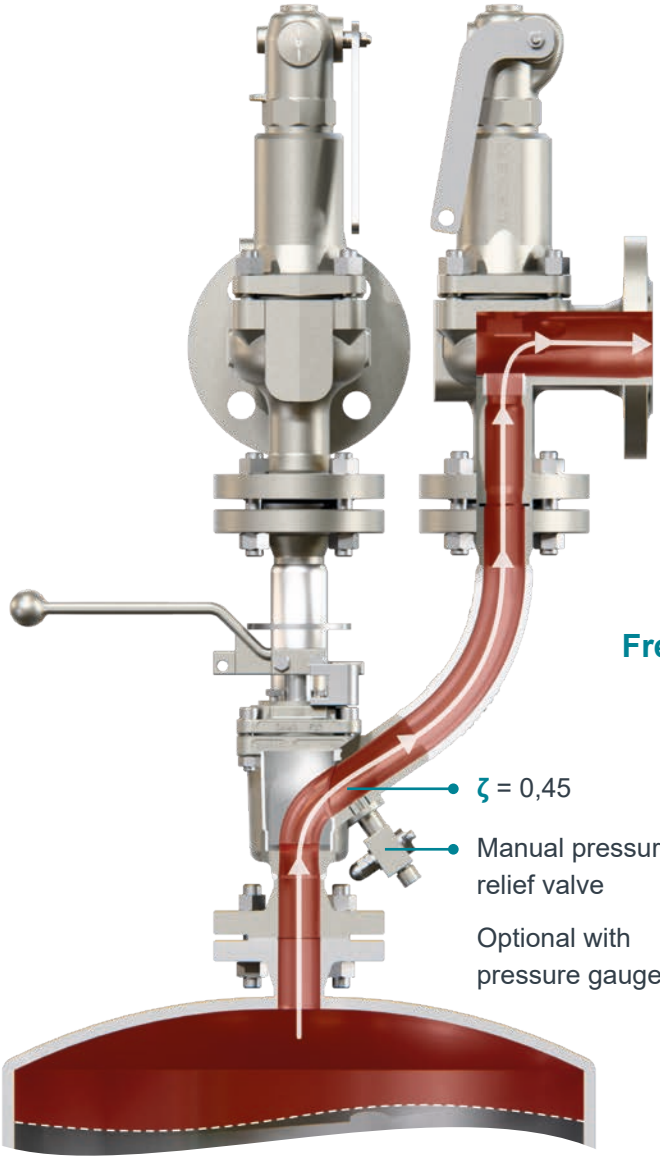
Type SAVA2 - COMBI
with backflow

Type SAVA2 S05

TYPE SAVA2-SOLO

Cross-Over Valve for Safety Valves

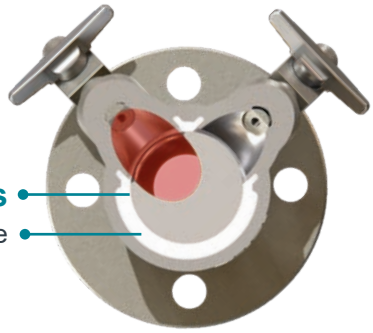
Vent to atmosphere (without backflow of blow-off media capacity)

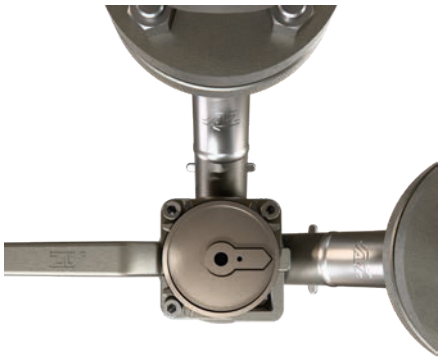


Perfect vessel protection!

Design characteristics

- Full-flow, round bore cross section
- **Max. 3 % Pressure loss**
  - No Safety valve float
- Valve sealing surfaces permanently protected from media by PTFE-Sleeve
- Error-proof operation
- Same flow coefficient – regardless of the flow path





Actuation

- Lever or gearbox
- Clearly visible position indicator
- Coded shaft connection (incorrect assembly prevented)

Safety first !

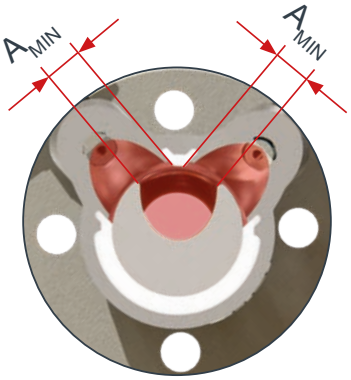
More info online!

Cross-Over action for 3-Way Plug Valve SAVA2

Pos. 1
Safety valve 1

ζ = 0,45

Cross-over action– guaranteed by A_{MIN}



Least cross section A_{MIN} during the cross-over phase (A_{MIN} × 2 = 0,65 × A)

- Full round bore
- Good drag coefficient ζ = 0,85

Pos.2
Safety valve 2

ζ = 0,45

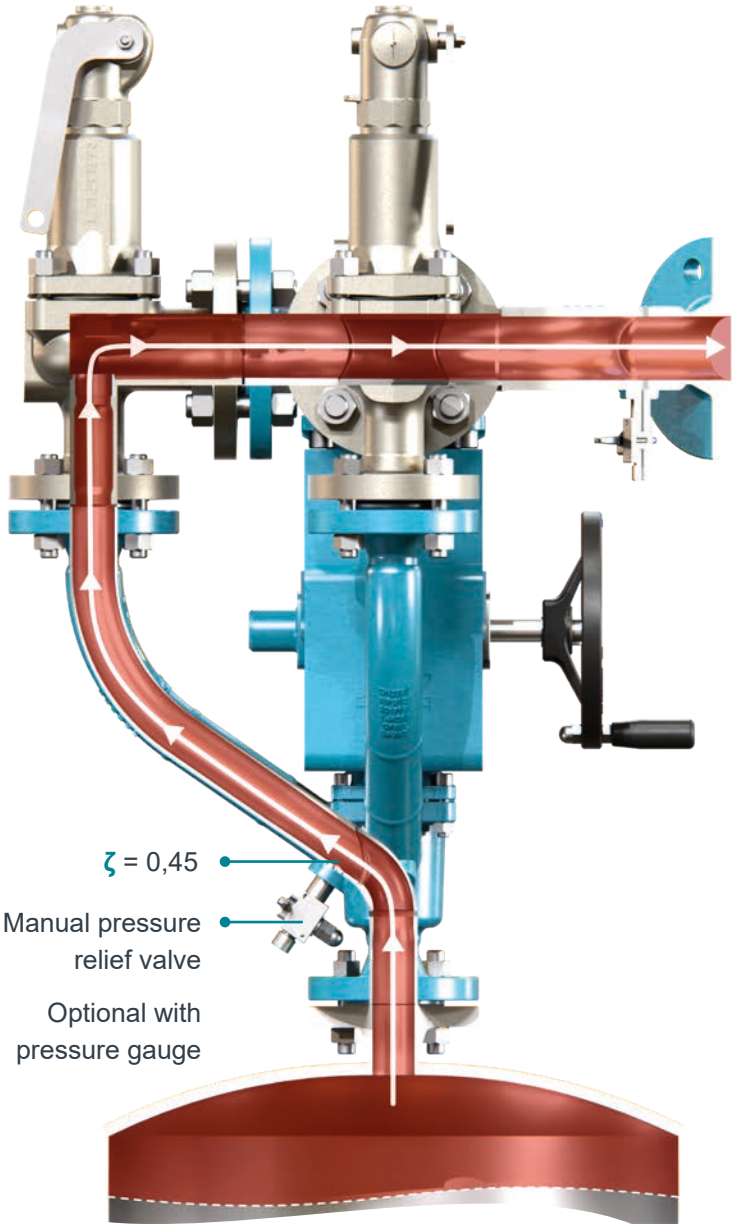
Why Choose an Cross-Over Safety Valve from AZ?

- 100% safety during continuous operation
- Vessel protection during the cross-over action
- Safety valve maintenance without interrupting operation
- DN 25E–600E, PN 10–100 / NPS 1E–24E, Class 150–600

TYPE SAVA2-COMBI

Cross-Over Combination for Safety Valves and handling of toxic media

With backflow of toxic blow-off media



Design characteristics

- Full-flow, round bore cross section
- **Max. 3 % Pressure loss**
  - No Safety valve float
- Valve sealing surfaces permanently protected from media by PTFE-Slevee
- Free of cavities
- Error-proof operation
- Same flow coefficient – regardless of the flow path selected

Actuation

- One gearbox
  – no complex linkage required
- Safe Synchronized operation through a fixed shaft connection (no Chain!)
- Clearly visible position indicator
- Coded shaft connection (incorrect assembly prevented)

Safety first !

More info online!

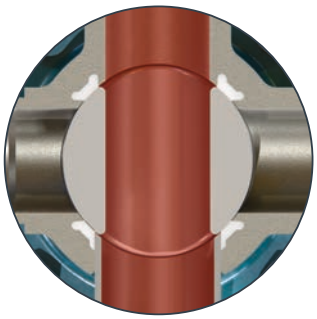
Cross-Over action for 3-way and 4-way Plug Valve SAVA2

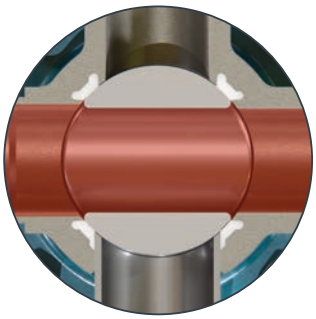
Pos. 1
Safety valve 1

Cross-over action – guaranteed by A_{MIN}

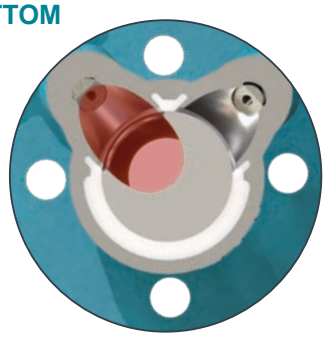
Pos.2
Safety valve 2

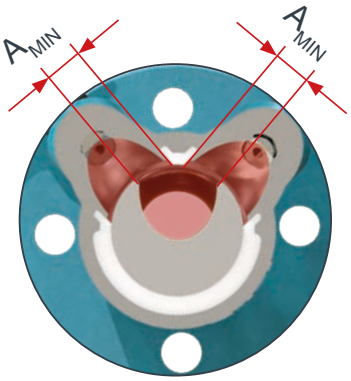
4-way Pluge Valve TOP





3-way Pluge Valve BOTTOM





ζ = 0,45

Least cross section A_{MIN} during the cross-over phase (A_{MIN} × 2 = 0,65 × A)

- Full round bore
- Good drag coefficient ζ = 0,85

ζ = 0,45

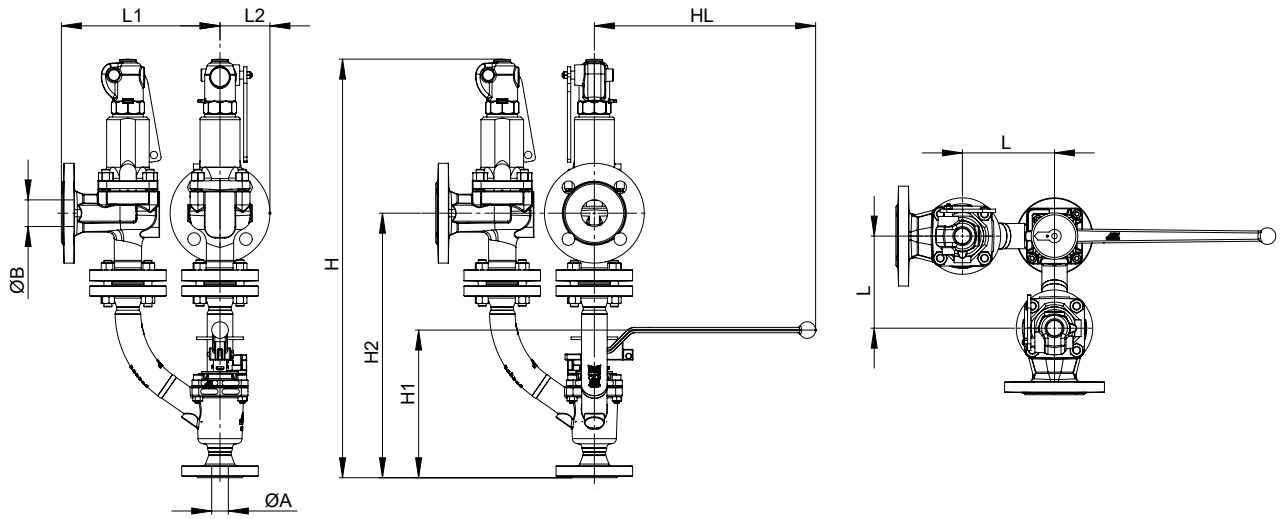
Areas of application

- Petrochemicals
- Chemical industry
- Oil and gas industry
- Nuclear industry
- Refrigeration
- Industrial gases
- Pharmaceutical industry

TECHNICAL DATA

Cross-Over Combination for Safety Valves

SAVA2 - SOLO



Class 150 [1]		PN10 - PN 40 [1]		H	H1	H2	L	L1	L2	HL	HR	K_{VS}*	ζ [2]*
ØA [NPS]	ØB [NPS]	ØA [DN]	ØB [DN]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[m³/h]	
1E	1½E	25E	40E	629	222	397,5	202	238,5	75	332,5	-	37	0,45
1½E	2E	40E	50E	-	-	-	-	-	-	-	-	-	-
2E	3E	50E	80E	-	-	-	-	-	-	-	-	-	-
3E	4E	80E	100E	-	-	-	-	-	-	-	-	-	-

Larger nominal sizes and material combinations on request

[1]) Dimensions acc. to ASME B16.5 / 16.10 - DIN EN 1092-1 / 558 for type ISO-EXTRA / EXTRA

[2]) Values refer to the lower valve (F-3-S-90°)

* Flow rates were determined using flow simulation (VDI/VDE 2173 Kv value ±10%) with water (20°C) at a pressure drop of 1 bar. Opening angle and flow values may vary due to manufacturing tolerances.

Special dimensions on request

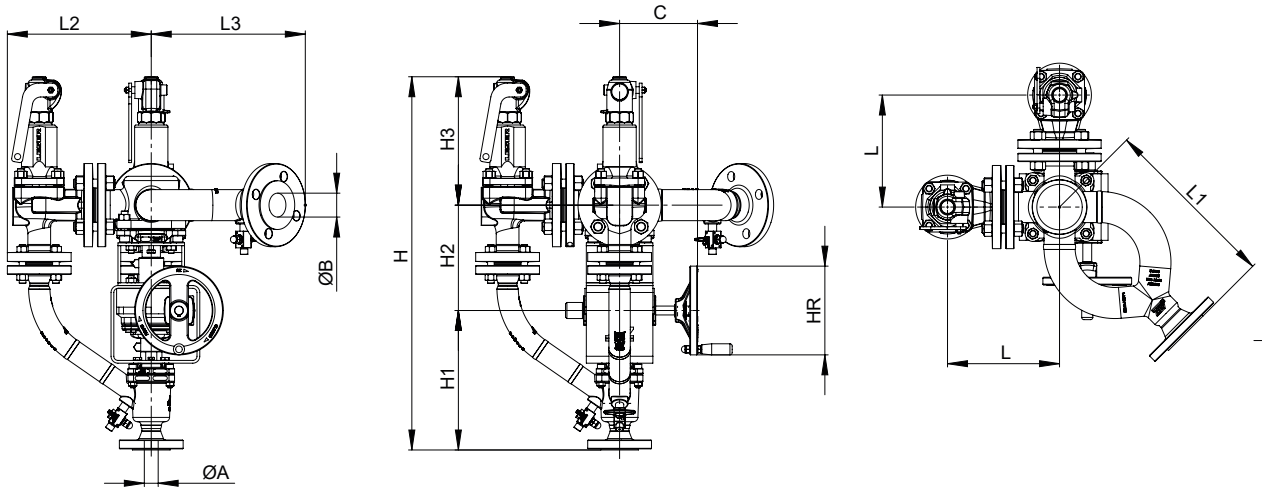
Gearbox available from DN40E / NPS 1½E

PT diagram, sealing systems, material selection: see catalogue part **ENGINEERING**

Safety first !

More info online!

SAVA2 - COMBI



Class 150 [1]		PN10 - PN 40 [1]		C	H	H1	H2	H3	L	L1	L2	L3	HR	K_{VS}*	ζ [2]*
$Ø_A$ [NPS]	$Ø_B$ [NPS]	$Ø_A$ [DN]	$Ø_B$ [DN]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[m³/h]	
1E	1½E	25E	40E	140,5	673	251,5	190	231,5	202	322	259,5	278	160	37	0,45
1½E	2E	40E	50E	-	-	-	-	-	-	-	-	-	-	-	-
2E	3E	50E	80E	179	1097	370	292	435	277	467	359,5	403,5	315	168	0,45
3E	4E	80E	100E	-	-	-	-	-	-	-	-	-	-	-	-

Larger nominal sizes and material combinations on request

[1]) Dimensions acc. to ASME B16.5 / 16.10 - DIN EN 1092-1 / 558 for type ISO-EXTRA / EXTRA

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Special dimensions on request
Gearbox available from DN40E / NPS 1½E

PT diagram, sealing systems, material selection: see catalogue part **ENGINEERING**

Product Range

Safety first !

Plug Valves with PTFE-sleeve
- two-way and multi-way valves

HIGH PERFORMANCE valves
- for processes with demanding requirements

Valves with PFA/ FEP lining
- full safety for operator and environment

Sampling systems
- pressure-less, representative, specific, safe and reliable

Control plug valves
- precise equal percentage or linear control

Piping accessories
- metallic or with PFA / FEP lining

Actuation
- aligned, verified and tested components

Special solutions
- customized solutions

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GB - 09/2026 - Subject to technical change without notice