

SAFETY QUICK SHUT-OFF VALVES

FOR OIL

Safety devices with automatic shut-off function

Production series	Nominal diameter
ASV	DN 15, 20, 25
KVAZ	DN 32, 40, 50
KVAZ for high pressure	DN 15, 20, 25, 32, 40, 50

Accessories	Nominal diameter
Dirt trap also for high pressure	DN 15 to 50

The electro-pneumatically controlled safety shut-off devices are DIN checked and they conform to DIN EN ISO 23553-1 (DIN EN 264 (DIN-CERTCO)).
Certification program: safety shut-off equipment for firing systems with liquid fuels.

The safety shut-off devices correspond to the common specifications, the DGRL 97/23/EG, AD datasheets and DIN (ASTM) standards.

General

The function and working of the safety quick shut-off valves is conceived such that dangerous operating conditions are avoided and the system is protected.

If the auxiliary power fails, the safety quick shut-off valves are closed by the spring force.
Closing time: within 1 second / in control function, within 5 seconds.

Use area:	Fuel oil EL, M, S and oils not according to DIN 51603, other oils on request
Operating pressure:	max. 40 bar to +120°C max. 32 bar to +200°C max. 28 bar to +230°C max. 24 bar to +300°C
- High pressure valves:	max. 100 bar to +120°C max. 80 bar to +200°C
Operating temperature:	-20°C to +300°C
Ambient temperature:	-20°C to +80°C
Valve Casing:	Flange connections and weld-on ends according to DIN and ANSI
Casing material:	
- DIN	GP240GH (1.0619); P250GH (1.0460); G-X6CrNiMo18 10 (1.4408); X6CrNiMoTi17-12-2 (1.4571);
- ANSI	A105, A216 WCB Special materials Material certificates according to EN 10204
Valve stem material	
- with bellows:	X6CrNiTi1810-10 (1.4541) / X6CrNiMoTi17-12-2 (1.4571) and special materials
- with rod sealing system:	X5CrNi1810 (1.4301)
Control medium:	Compressed air min. 3 / max. 10 bar
Control voltage:	24 VDC; 230 VAC other voltages on request
Protection type:	IP65 standard
Limit switch:	Design according to customer wish (mechanical or contact-less) Dimensions of the limit position indicator depending on design
Special design:	Other nominal diameter and higher pressures on request

Note:

Corresponding to DIN EN264, a dirt trap which prevents the penetration of bigger foreign bodies must be installed before each shut-off device.

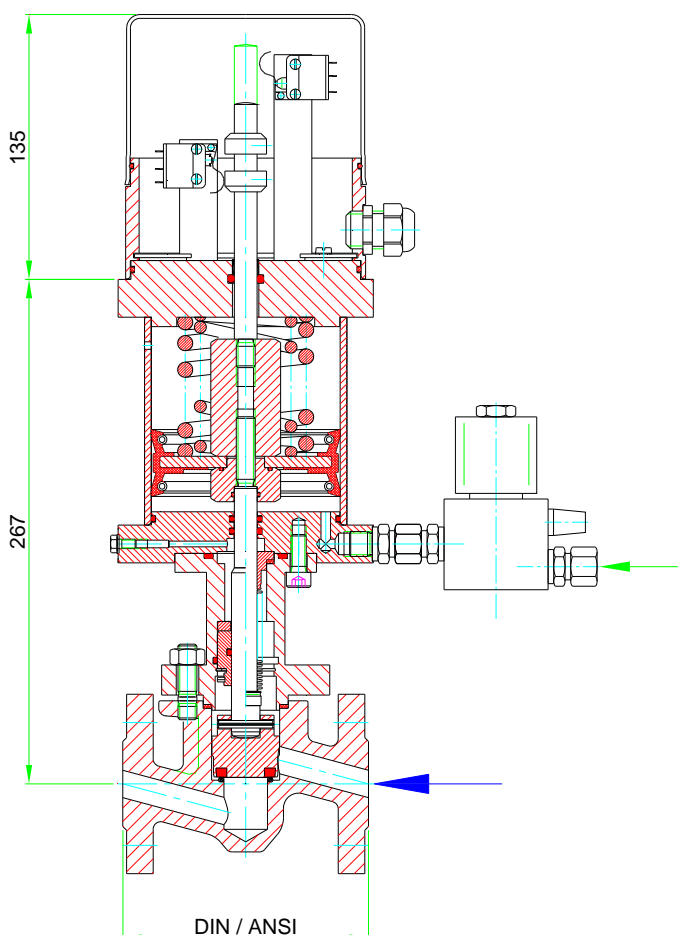
At the steam boiler firings, the shut-off devices according to TRD must be provided in the form of two independent and self-closing safety quick shut-off valves as double actuators.

These valve combinations are normally designed with an intermediate flange including G1/2 test connection. Further connection options to the intermediate flange on request.

ASV Production series

The designs of the safety quick shut-off valve as poppet valve in small production size can be delivered in different variations having different properties.

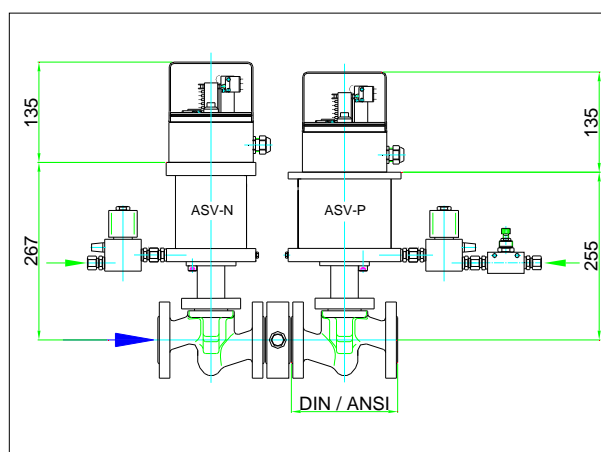
	DIN	ANSI
Nominal diameter:	DN15, 20, 25	DN½", ¾", 1"
Nominal pressure:	PN10-40	PN150 lbs, 300 lbs
Casing material:	P250GH (1.0460)	A105, A216 WCB
Permissible operating pressure:	max. 40 bar	
Stem sealing:	Stainless steel bellows or rod sealing system	
Variants:	<ul style="list-style-type: none"> - ASV/N Standard design - ASV/B With hydraulic opening retardation - ASV/P With pneumatic opening retardation - ASV/D 3-way design - ASV/Z Opening in 2 phases - ASV/R With control function 	



ASV/N

DN	Length, face-to-face (mm)			Weight (kg)
	DIN PN10-40	ANSI 150lbs	ANSI 300lbs	DIN PN10-40
15	130	108	152	12
20	150	117	178	13
25	160	127	203	14

Weight figures for the ASV/N variant without attachments



Design example:

Valve combination ASV/N – ASV/P

Intermediate flange with G1/2 test connection

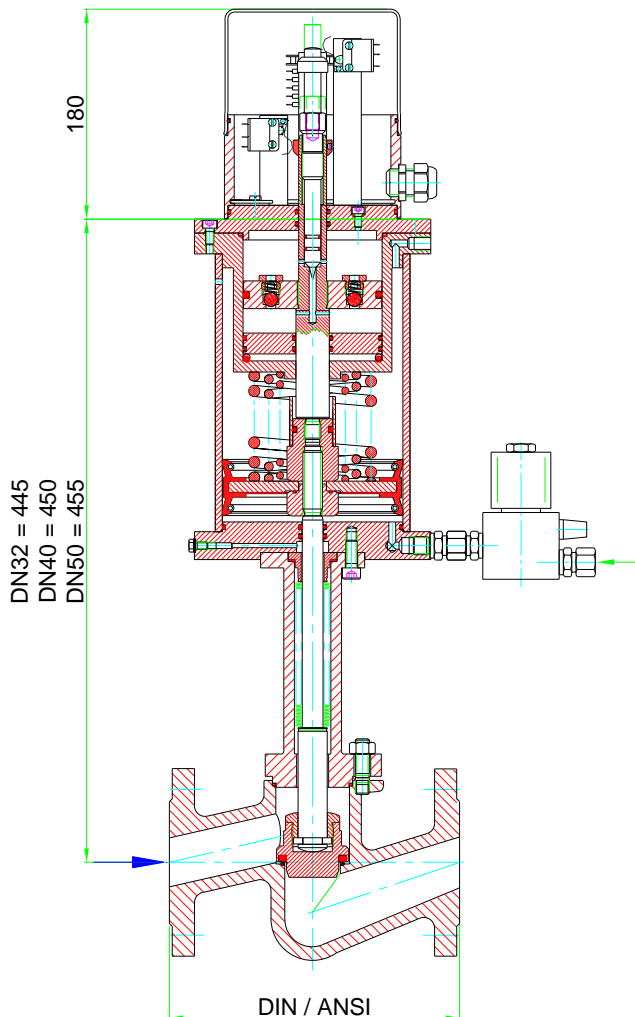
Attachments: 3/2-way solenoid valve, throttle non-return valve and micro limit switches for "Open" and "Closed" position

KVAZ Production series

The design of the safety quick shut-off valve as poppet valve in small production size can be delivered in different variations for different use areas.

	DIN	ANSI
Nominal diameter:	DN32, 40, 50	DN1½", 2"
Nominal pressure:	PN10-40	PN150 lbs, 300 lbs
Casing material:	P250GH (1.0460)	A216 WCB
Permissible operating pressure:	max. 40 bar	
Stem sealing:	Stainless steel bellows	
Variants:	<ul style="list-style-type: none"> - KVAZ Standard design - KVAZ/S With hydraulic opening retardation - KVDK Opening in 2 phases 	

Further nominal diameter/variants without type check or with individual acceptance



DN	Length, face-to-face (mm)			Weight (kg)
	DIN PN10-40	ANSI 150lbs	ANSI 300lbs	DIN PN10-40
32	180	-	-	25
40	200	165	229	27
50	130	203	267	31

Weight figures for the KVAZ variant without attachments

Design example (graphic):

KVAZ/S with hydraulic opening retardation

Attachments: 3/2-way solenoid valves and micro limit switches for "Open" and "Closed" position



Design example (photograph):

Valve combination consisting of KVAZ-KVAZ/S and venting valve ASV/O in corner design with 3/2-way solenoid valves (redundancy) and micro limit switches for "Open" and "Closed" position, wiring in terminal box

KVAZ Production series with high pressure

DIN

Nominal diameter: DN15 to 50

Nominal pressure: PN63-160

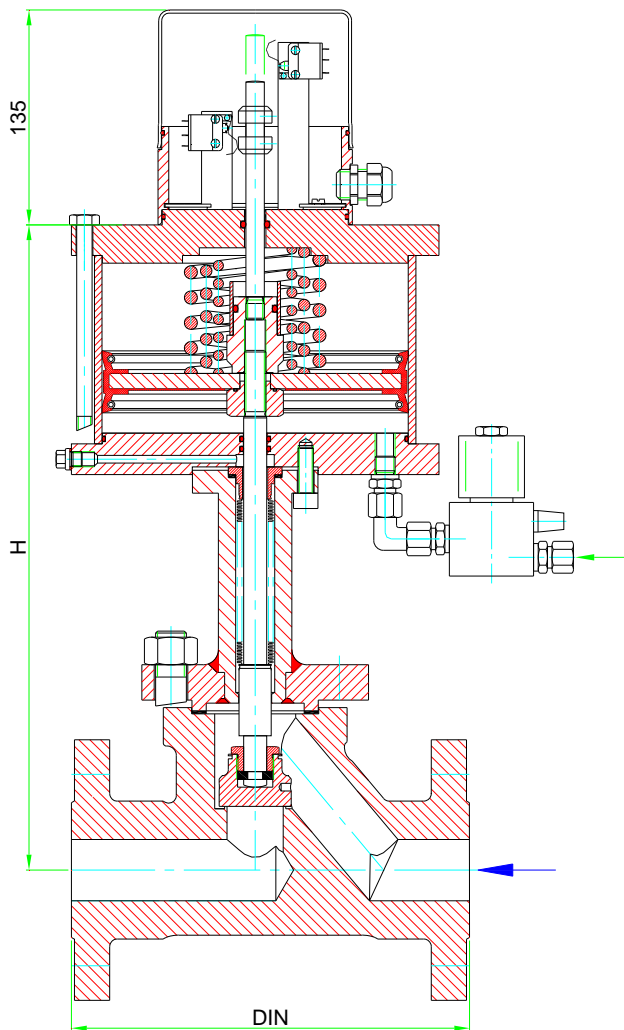
Casing material: P250GH (1.0460)

Permissible operating pressure: 100 bar to +120°C
80 bar to +200°C

Stem sealing: Stainless steel bellows

Variants: - KVAZ Standard design
- KVAZ/S With hydraulic opening retardation
- KVDK Opening in 2 phases

Further nominal diameter/variants without type check
or with individual acceptance



	Length, face-to- face (mm)	Height (mm)	Weight (kg)
DN	DIN PN63-100	Variant KVAZ	DIN
15	210	460	19
20	230	460	20
25	230	460	21
32	260	420	32
40	260	420	34
50	300	390	38
<i>Weight figures for the KVAZ variant without attachments</i>			

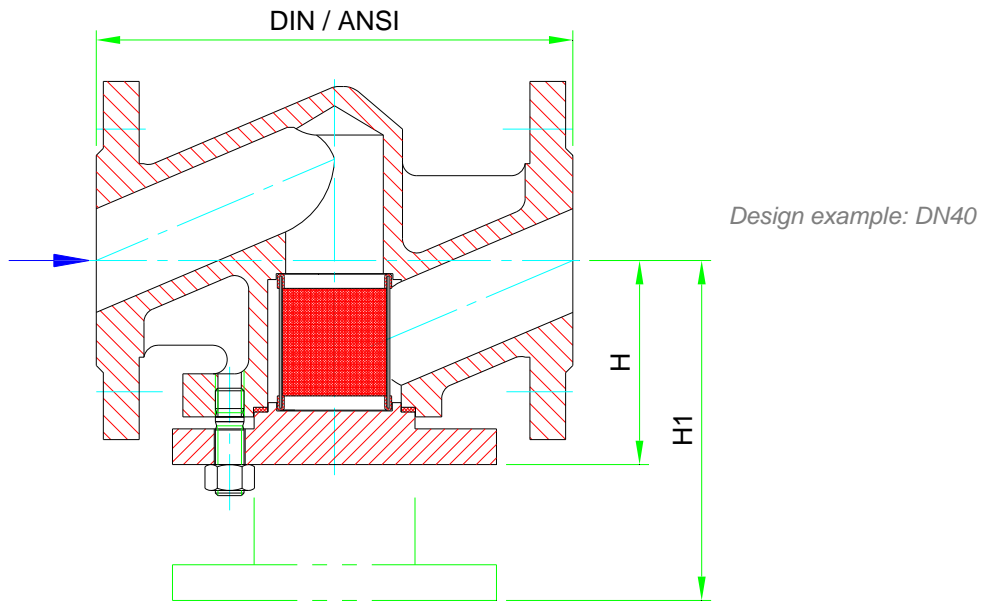
*Design example:
KVAZ with 3/2-way solenoid valve
and micro limit switches for
"Open" and "Closed" position*

Dirt trap accessory

Straight-type dirt trap with replaceable filter basket.

	DIN	ANSI
Nominal diameter:	DN15 bis 50	DN½" bis 2"
Nominal pressure:	PN10-160	PN150 lbs, 300 lbs
Casing material:	P250GH (1.0460)	A105, A216 WCB
Fine filter material:	X 5 CrNi Mo 17 22 2 (1.4401)	
Supporting basket material:	X5CrNi1810 (1.4301)	
Permissible operating pressure:	max. 100 bar	
Filter mesh width:	0.5 mm	

Note: A design with differential pressure display (optical or with electrical contact) can be delivered for monitoring the degree of pollution.



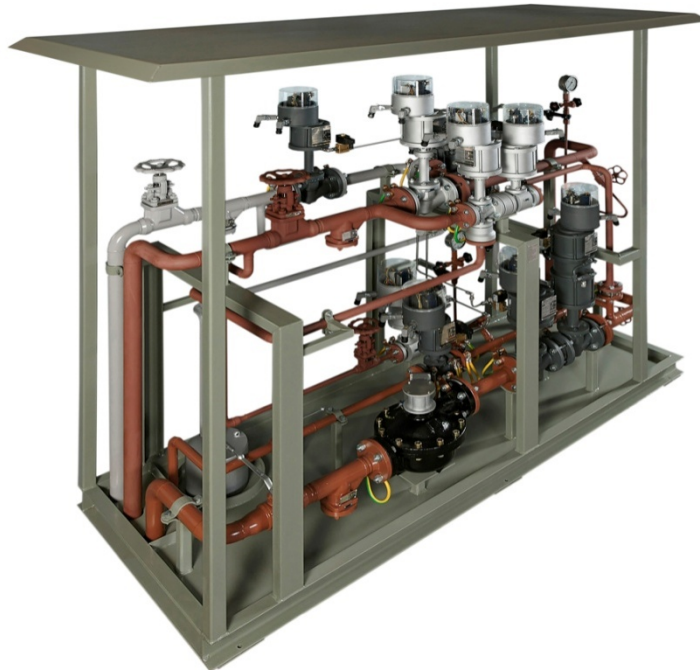
	DN	15	20	25	32	40	50
Height (mm)	H	70	70	80	85	95	110
Removal height (mm)	H1	110	110	130	130	145	155
Length, face-to-face (mm)	DIN PN40	130	150	160	180	200	230
	ANSI 150lbs	108	117	127	-	165	203
	ANSI 300lbs	152	178	203	-	229	267
Weight (kg)	DIN PN40	4	5	6	7	10	12

Use examples

References for use in valve stations

Valve Station DN50 for liquid fuels

Oil-side with volume measurement and start control
air-steam changeover as atomizer medium



Combined valve station for gaseous and liquid fuels

- Gas-side:
DN150 PN16
- Oil-side:
DN25 PN40
- Steam-side:
DN15 PN40



Use examples

References for use in valve stations

Valve Station DN25 PN40 for oil return burner



Combined valve station for gaseous and liquid fuels according to ASME standard

- Natural gas line:
DN6" 150lbs
- Ignition gas line:
DN1/2" 150lbs
- Diesel oil line:
DN1" 300lbs
- Atomizer line:
DN1" 150lbs

