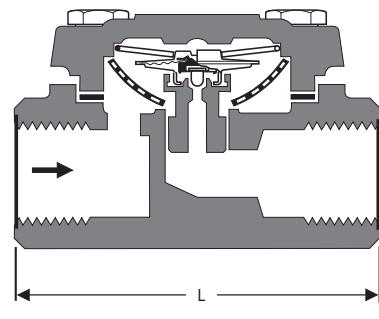
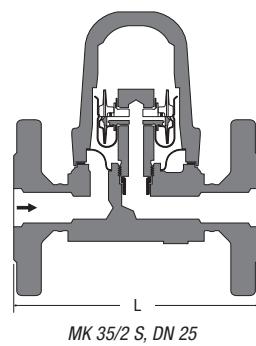


MK 45-1
DN 15, 20, 25

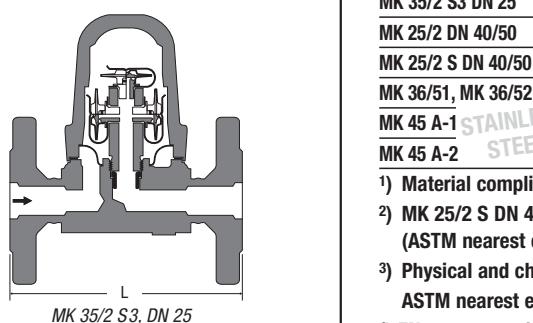
RHOMBUSline®



MK 35/31, DN 10, 15



MK 35/2 S, DN 25



MK 35/2 S3, DN 25

Features of the MK series

- Very sensitive response characteristic
- Function is not impaired by high back pressure
- Automatic air-venting (trap can be used for thermal air-venting in steam systems)
- Installation in any position (horizontal and vertical lines)
- High hot-water capacities even with low differential pressures
- With tandem seat (double sealing) for low condensate flowrates
- Built-in non-return valve
- Stainless steel internals (corrugated membrane of Hastelloy)
- Design "U" with undercooling capsule: utilization of a certain amount of sensible heat by banking-up of condensate, decreasing the amount of flash steam
- Optional extra: Integrated condensate monitoring for MK 45 (temperature or steam loss)

Specification

Type	Design/Application
MK 45-1 	With tandem seat (double sealing) For low condensate flowrates, steam-tracing, steam-line drainage, air-venting
MK 35/31¹⁾ 	With single seat For medium condensate flowrates, steam-tracing, drainage of heat exchangers, air-venting
MK 25/2¹⁾ MK 25/2 S¹⁾ MK 35/2 S¹⁾ MK 35/2 S3¹⁾	With single seat For large condensate flowrates, drainage of heat exchangers
MK 36/51¹⁾ MK 36/52¹⁾ 	With tandem seat (double sealing) – with flat gasket For small/large condensate flowrates, steam tracing, steam-line drainage, venting and vacuum-breaking. Also suitable for food, biological and pharmaceutical applications.
MK 45 A-1 MK 45 A-2  	For small and large condensate flowrates; steam-tracing, steam-line drainage, air-venting

¹⁾ Can also be used for vacuum breaking (aerating).

Air Venting

Steam Trap for Thermostatic Air-Venting with Membrane Regulator

The thermostatic steam traps with membrane regulators of the MK series can also be used for air-venting.

Application

Thermostatic steam trap for automatic air-venting and discharge of non-condensable gases and steam/air mixtures from steam lines and heat exchangers. A special type of membrane might be required.

Pressure/Temperature Ratings *

Type	PN	Δ PMX [bar]	Material		Max. Pressure/Temp. Rating PMA / TMA	PMA / TMA
			EN	ASTM		
MK 35/31	PN 25	21	P250 GH ¹⁾	A 105 ¹⁾	18.6 bar / 225 °C	14.4 bar / 400 °C
MK 35/32	PN 25	21	P250 GH ¹⁾	A 105 ¹⁾	18.6 bar / 225 °C	14.4 bar / 400 °C
MK 45-1	PN 40	22	P250 GH ¹⁾	A 105 ¹⁾	28.4 bar / 250 °C	23.1 bar / 400 °C
MK 45-2	PN 40	22	P250 GH ¹⁾	A 105 ¹⁾	28.4 bar / 250 °C	23.1 bar / 400 °C
MK 35/2 S DN 25	PN 40	22	P250 GH	A 105 ³⁾	28.4 bar / 250 °C	23.1 bar / 400 °C
MK 35/2 S3 DN 25	PN 40	22	P250 GH	A 105 ³⁾	28.4 bar / 250 °C	23.1 bar / 400 °C
MK 25/2 DN 40/50	PN 40	22	P250 GH	A 105 ³⁾	28.4 bar / 250 °C	23.1 bar / 400 °C
MK 25/2 S DN 40/50	PN 40	22	P250 GH ²⁾	A 105 ^{2,3)}	28.4 bar / 250 °C	23.1 bar / 400 °C
MK 36/51, MK 36/52	–	32	1.4301 ⁴⁾	A 182 F304	32 bar / 240 °C	32 bar / 240 °C
MK 45 A-1 	PN 40	22	1.4404 ¹⁾	A 182 F316 L ¹⁾	29.3 bar / 200 °C	24 bar / 400 °C
MK 45 A-2 	PN 40	22	1.4404 ¹⁾	A 182 F316 L ¹⁾	29.3 bar / 200 °C	24 bar / 400 °C

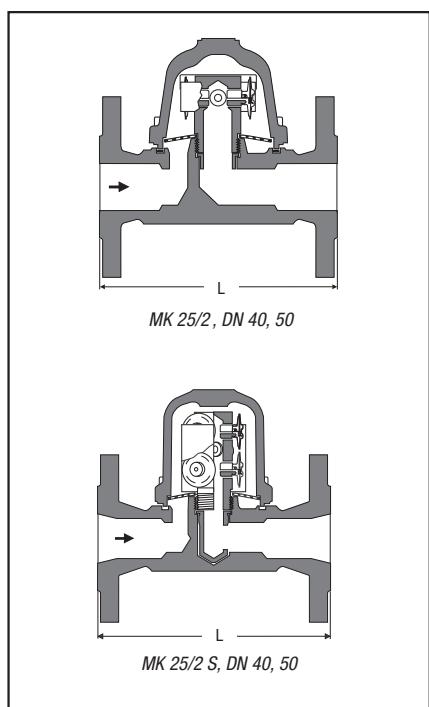
¹⁾ Material complies with EN and ASTM requirements.

²⁾ MK 25/2 S DN 40/50: cover made of cast steel GS-C 25
(ASTM nearest equivalent: A 216 Gr. WCB)

³⁾ Physical and chemical properties comply with EN grade.
ASTM nearest equivalent grade is stated for guidance only.

⁴⁾ EN nearest equivalent grade is stated for guidance only.

⁵⁾ For more information see data sheet.



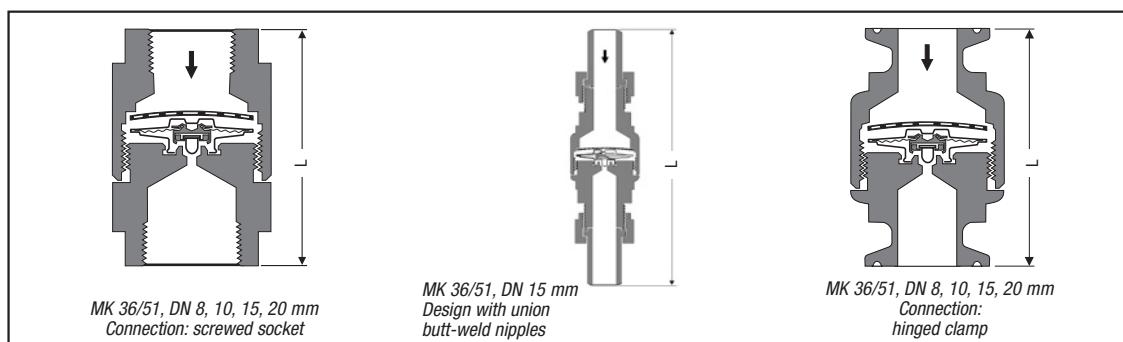
Available End Connections and Overall Length

Type	Connection	Overall length (L) in mm						
		DN 8 1/4"	DN 10 3/8"	DN 15 1/2"	DN 20 3/4"	DN 25 1"	DN 40 1 1/2"	DN 50 2"
MK 45-1	Flanged DIN PN 40	—	—	150	150	160	—	—
MK 45-2	Flanged ASME 150 ¹⁾	—	—	150	150	160	—	—
MK 45 A-1	Flanged ASME 300 ¹⁾	—	—	150	150	160	—	—
MK 45 A-2	Screwed sockets	—	—	95	95	95	—	—
MK 35/2 S3 only DN 25	Socket-weld (SW)	—	—	95	95	95	—	—
MK 35/2 S only DN 25	Butt-weld (BW) ²⁾	—	—	200	200	200	—	—
MK 35/31	Screwed sockets	—	70	70	—	—	—	—
MK 35/32	Socket-weld (SW)	—	—	95	—	—	—	—
MK 25/2 DN 40 – 50	Flanged DIN PN 40	—	—	—	—	—	230	230
MK 25/2 S DN 40 – 50	Flanged ASME 150	—	—	—	—	—	230	230
	Flanged ASME 300	—	—	—	—	—	230	230
	Screwed sockets	—	—	—	—	—	130	230
	Socket-weld (SW)	—	—	—	—	—	130	230
MK 36/51	Screwed sockets	65	65	65	65	—	—	—
MK 36/52	Union butt-weld nipples ³⁾	—	—	150	—	—	—	—
	Hinged clamp	—	65	65	65	65	—	—

¹⁾ MK 45 with ASME flanges: overall length 172 mm available on request.

²⁾ Only MK 45

³⁾ Made of carbon steel or stainless steel



Capacity Charts

The charts show the maximum hot condensate capacities.

MK 45-1 (Curve 1)
MK 45-2 (Curve 2)
MK 36/51 (Curve 3)

MK 35/31 (Curve 1)
MK 35/32 (Curve 2)
MK 36/52 (Curve 2)

MK 25/2 S, DN 40, 50 (Curve 1)
MK 25/2, DN 40, 50 (Curve 2)

MK 35/2 S3, DN 25 (Curve 3)
MK 35/2S, DN 25 (Curve 4)

