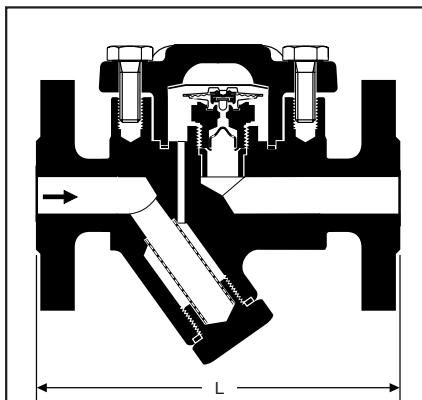
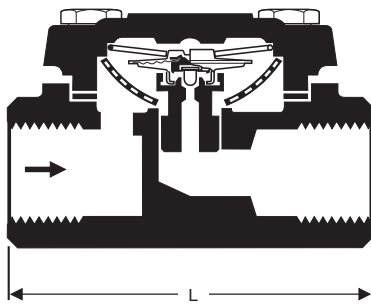


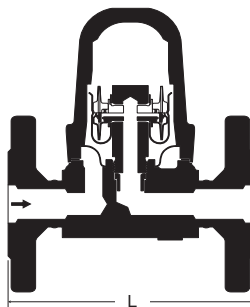
Thermostatic Steam Traps MK with Membrane Regulator PN 25 – PN 40



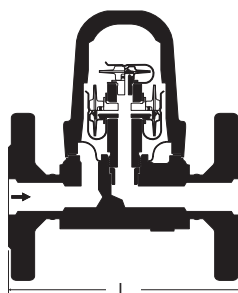
MK 45-1
DN 15, 20, 25 mm



MK 35/31, DN 10, 15 mm



MK 35/2 S, DN 25 mm



MK 35/2 S3, DN 25 mm

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 MK 35/31 ¹⁾	With tandem seat (double sealing) For low condensate flowrates, steam-tracing, steam-line drainage, air-venting
MK 45-2 MK 35/32 ¹⁾	With single seat For medium condensate flowrates, steam-tracing, drainage of heat exchangers, air-venting
MK 25/2 ¹⁾ MK 25/2 S ¹⁾ MK 35/2 S ¹⁾ MK 35/2 S3 ¹⁾	With single seat For large condensate flowrates, drainage of heat exchangers
MK 36/51 ¹⁾	With tandem seat (double sealing) For low 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	
			EN	ASTM	PMA / TMA	PMA / TMA
MK 35/31	PN 25	21	1.0460 ¹⁾	A 105 ¹⁾	18.6 bar / 225 °C	14.4 bar / 400 °C
MK 35/32	PN 25	21	1.0460 ¹⁾	A 105 ¹⁾	18.6 bar / 225 °C	14.4 bar / 400 °C
MK 45-1	PN 40	22	1.0460 ¹⁾	A 105 ¹⁾	28.4 bar / 250 °C	23.1 bar / 400 °C
MK 45-2	PN 40	22	1.0460 ¹⁾	A 105 ¹⁾	28.4 bar / 250 °C	23.1 bar / 400 °C
MK 35/2 S DN 25	PN 40	22	1.0460	A 105 ³⁾	28.4 bar / 250 °C	23.1 bar / 400 °C
MK 35/2 S3 DN 25	PN 40	22	1.0460	A 105 ³⁾	28.4 bar / 250 °C	23.1 bar / 400 °C
MK 25/2 DN 40/50	PN 40	22	1.0460	A 105 ³⁾	28.4 bar / 250 °C	23.1 bar / 400 °C
MK 25/2 S DN 40/50	PN 40	22	1.0460 ²⁾	A 105 ²⁾³⁾	28.4 bar / 250 °C	23.1 bar / 400 °C
MK 36/51	–	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)

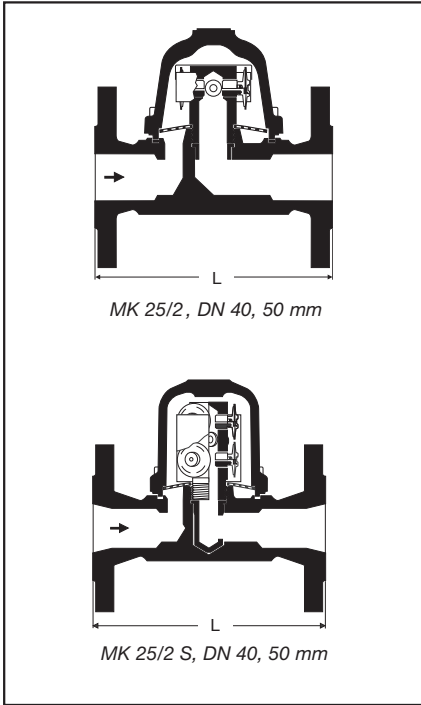
³⁾ Physical and chemical properties comply with EN grade.

ASTM nearest equivalent grade is stated for guidance only.

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

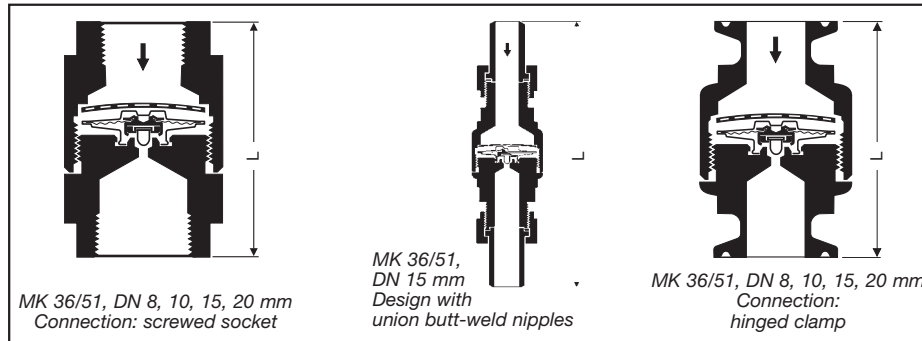
*) For more information see data sheet.

Thermostatic Steam Traps MK with Membrane Regulator PN 25 – PN 40



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	–	–
	Flanged ASME 300 ¹⁾	–	–	150	150	160	–	–
MK 45 A-1	Screwed sockets	–	–	95	95	95	–	–
MK 45 A-2	Socket-weld (SW)	–	–	95	95	95	–	–
	Butt-weld (BW)	–	–	200	200	200	–	–
MK 35/31	Screwed sockets	–	70	70	–	–	–	–
MK 35/32	Socket-weld (SW)	–	–	95	–	–	–	–
MK 25/2	Flanged DIN PN 40	–	–	–	–	160	230	230
MK 25/2 S	Flanged ASME 150	–	–	–	–	160	230	230
MK 25/2 S	Flanged ASME 300	–	–	–	–	160	230	230
MK 35/2 S	Screwed sockets	–	–	–	–	95	130	230
MK 35/2 S3	Socket-weld (SW)	–	–	–	–	95	130	230
MK 36/51	Screwed sockets	65	65	65	65	–	–	–
	Union butt-weld nipples ²⁾	–	–	150	–	–	–	–
	Progressive ring fitting	–	93.5	93.5	93.5	–	–	–
	Hinged clamp	–	65	65	65	65	–	–



- MK 45 with ASME flanges: overall length 172 mm available on request.**
- Made of carbon steel or stainless steel 1.4435**

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 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)

