



HM34 Series Carbon Steel Inverted Bucket Steam Traps

Description

The HM34 is an inverted bucket steam trap manufactured in carbon steel with an internal strainer fitted as standard. It is designed for use on horizontal installations and will operate on steam pressures up to 32 bar g.

Standards

This product fully complies with the requirements of the Pressure Equipment Directive (PED).

Certification

This product is available with certification to EN 10204 2.2.

Note: All certification/inspection requirements must be stated at the time of order placement.

Sizes and pipe connections

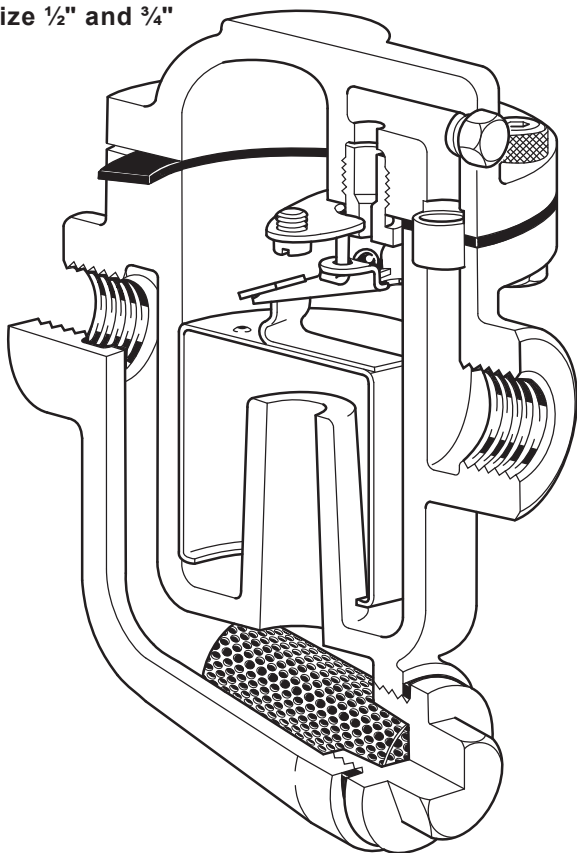
½", ¾" and 1" screwed BSP or NPT.

DN25 socket weld ends BS 3799 Class 3000.

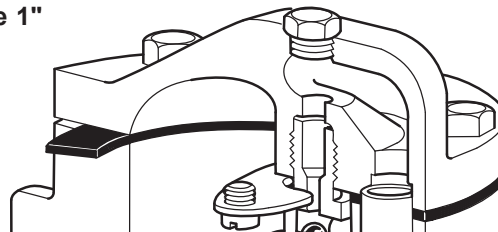
DN15, DN20 and DN25 standard flange EN 1092 PN40.

Available on request: Flanged Class 150 and Class 300 connections.

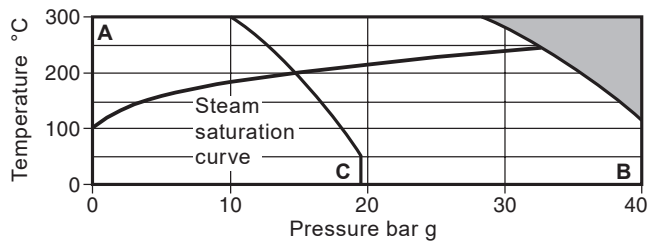
Size ½" and ¾"



Size 1"



Pressure/temperature limits (ISO 6552)



The product **must not** be used in this region.

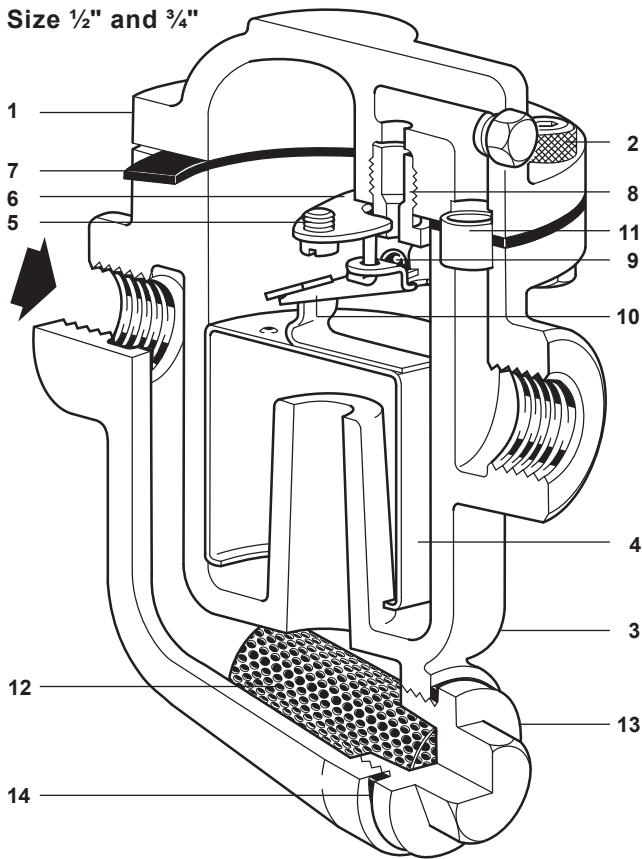
A - B Screwed, socket weld, flanged EN 1092 PN40 and Class 300.

A - C Flanged Class 150

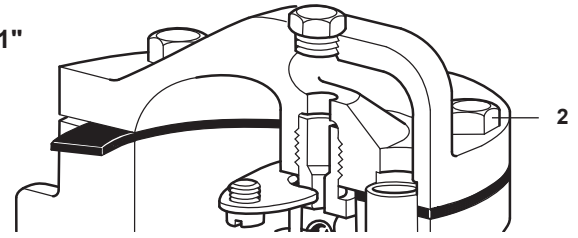
Body design conditions	PN40				
PMA Maximum allowable pressure	40 bar g @ 120 °C				
TMA Maximum allowable temperature	300 °C				
Minimum allowable temperature	-10 °C				
PMO Maximum operating pressure for saturated steam service	32 bar g				
TMO Maximum operating temperature	300 °C				
Minimum operating temperature	0 °C				
Δ PMX	Maximum differential pressure				
Size	4 bar	8.5 bar	12 bar	20 bar	32 bar
DN15 - 1/2"	HM34/8	HM34/7	HM34/6	HM34/5	HM34/4
DN20 - 3/4"	HM34/10	HM34/8	HM34/7	HM34/6	HM34/5
DN25 - 1"	HM34/12	HM34/10	HM34/8	HM34/6	HM34/5
Designed for a maximum cold hydraulic test pressure of:	60 bar g				

Materials

Size ½" and ¾"



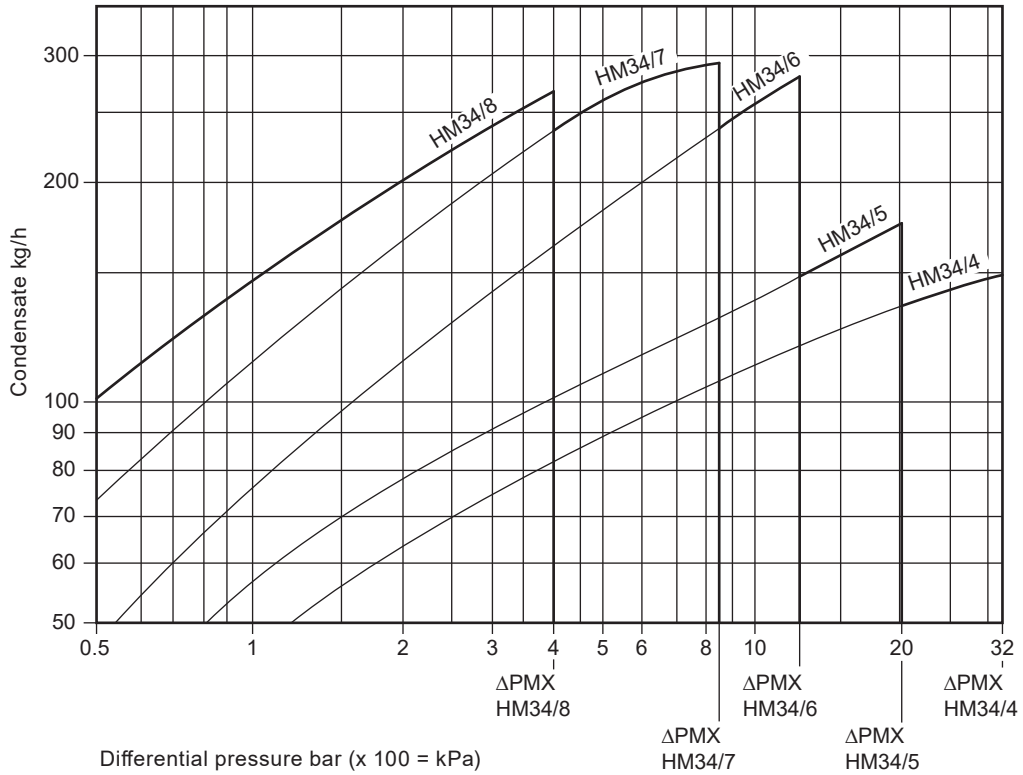
Size 1"



No. Part		Material	
1	Cover	½", ¾"	Forged steel 1.0460 (C22.8)
		1"	Cast steel 1.0619 +N
	Cover screws	½", ¾"	Steel BS 4168 Gr. 8.8
2	Cover bolts	1"	Steel BS 3692 Gr. 8.8
	Cover nuts	½", ¾", 1"	Steel BS 3692 Gr. 8.8
3	Body		Cast steel 1.0619 +N
4	Bucket		Stainless steel BS 1449 304 S31
5	Valve guide plate screw		Stainless steel BS 4183 18/8 M 4.5 x 10
6	Valve guide plate		Stainless steel BS 1449 304 S11
7	Cover gasket		Reinforced exfoliated graphite
8	Valve seat		Stainless steel AISI 440B
9	Valve		Stainless steel AISI 440B
10	Valve lever		Stainless steel BS 1449 321 S31
11	Ferrule	½", ¾"	Stainless steel BS 970 321 S31
		1"	Stainless steel BS 3605 (CFS) 304 S14
12	Strainer screen		Stainless steel ASTM A240 316L
13	Strainer cap		Steel 1.0460 (C22.8)
14	Strainer gasket		Reinforced exfoliated graphite

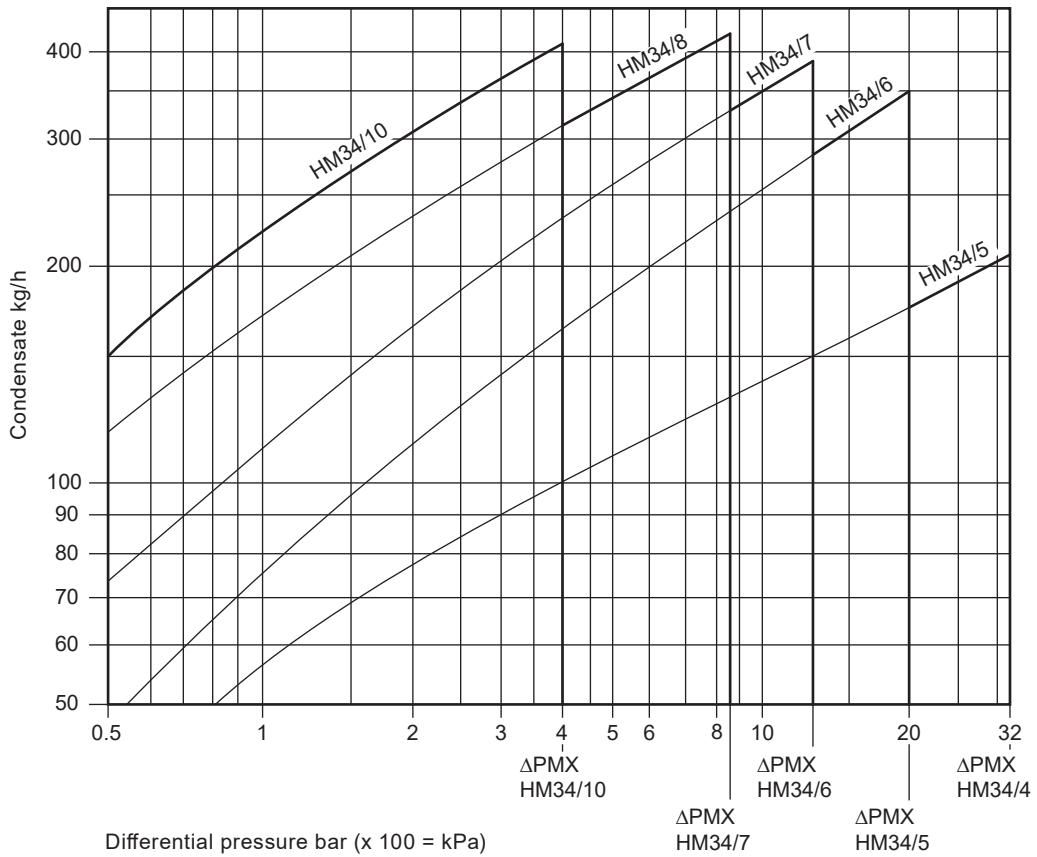
Capacities

1/2"
DN15



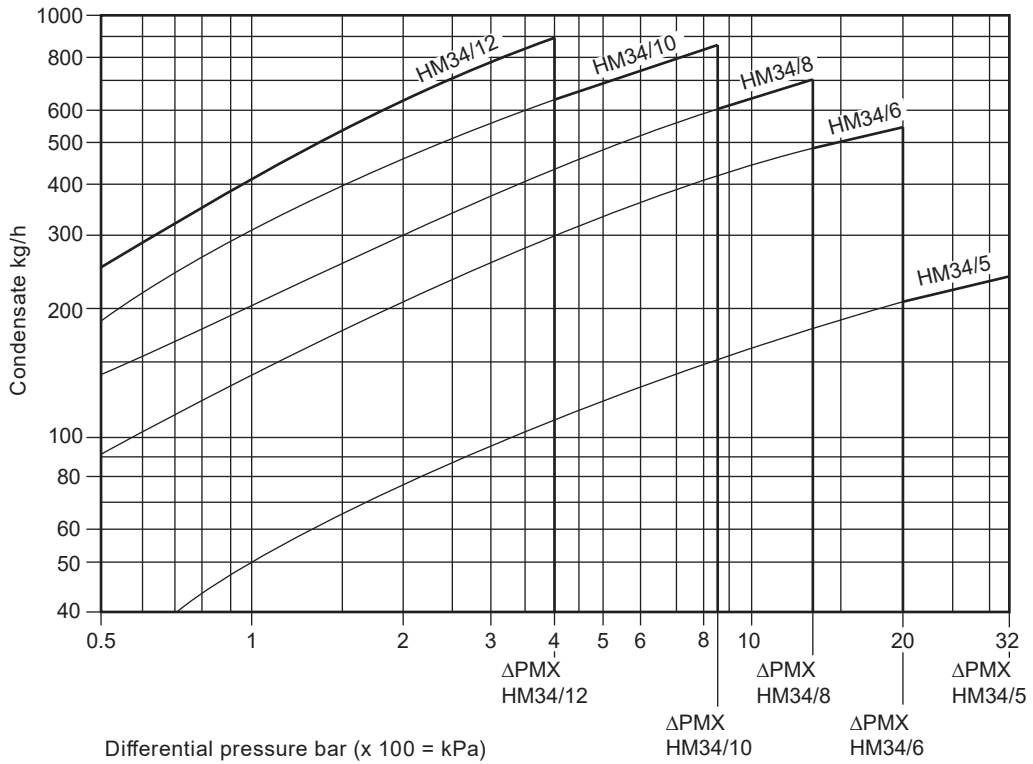
For selection see page 5

3/4"
DN20



For selection see page 5

1"
DN25



Selection note: Traps should be selected for the most appropriate working pressure differential and not on the basis of load, For example; DN25 HM34 with a load of 80 kg/h at 7 bar differential should be handled by an HM34/10 and not an HM34/5.

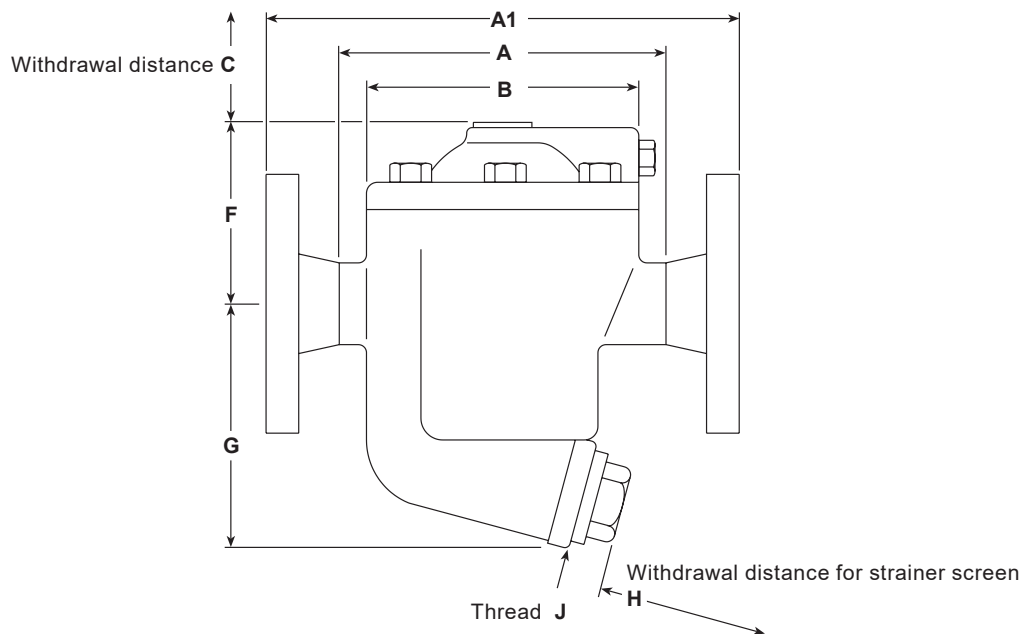
Dimensions/weights (approximate) in mm and kg

Screwed and socket weld connections

Size	A	A1	B	C	F	G	H	J	Weight
½"	120	210	105	100	67	89	65	M28	2.6
¾"	120	210	105	100	88	107	65	M28	4.0
1"	180	230	160	160	145	120	85	M32	10.4

Flanged connections

Size	A	A1	B	C	F	G	H	J	Weight
DN15	120	210	105	100	67	89	65	M28	4.5
DN20	120	210	105	100	88	107	65	M28	7.0
DN25	180	230	160	160	145	120	85	M32	12.0



Safety information, installation and maintenance

For full details see the Installation and Maintenance Instructions (IM-S03-11) supplied with the product.

Installation note

The trap must be installed with the body upright so that the bucket is rising and falling vertically. The inlet and outlet connections should be in a horizontal plane, with the trap installed below the drain point so that a water seal can be maintained around the open end of the bucket.

Disposal

This product is recyclable. No ecological hazard is anticipated with the disposal of this product providing due care is taken.

How to order

Example: 1 off Spirax Sarco ½" HM34/8 inverted bucket steam trap with screwed BSP connections.

Spare parts

The spare parts available are shown in solid outline. Parts shown in a grey line are not supplied as spares.

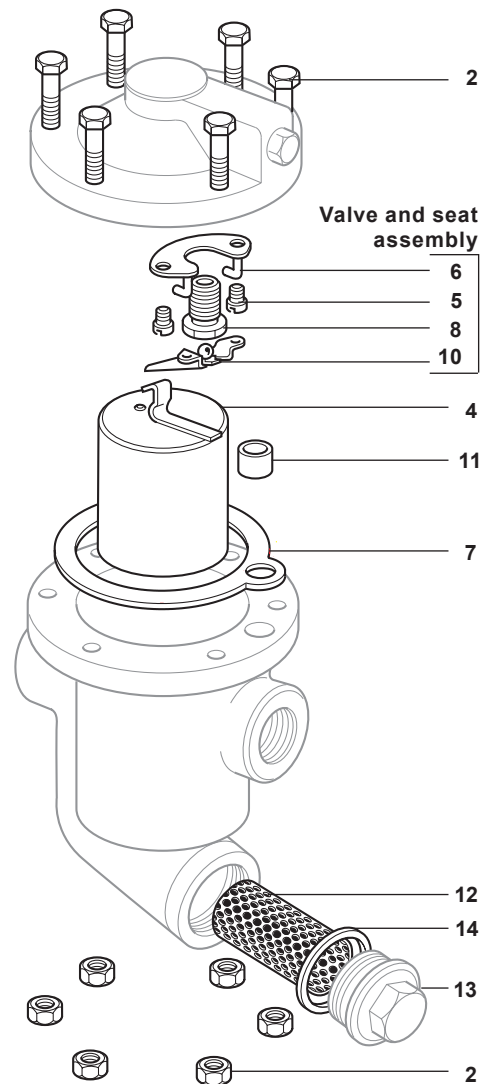
Available spares

Valve and seat assembly		5 (2 off), 6, 8, 10
Bucket		4
Cover gasket and ferrule	(packet of 3 each)	7, 11
Strainer screen		12
Strainer screen gasket	(packet of 3 each)	14
Set of cover bolts and nuts	(set of 6)	2



How to order spares

Always order spare parts by using the description given in the column headed 'Available spares' and state the size, type of trap and pressure range.

Example: 1 off Valve and seat assembly for a Spirax Sarco DN25 HM34/7 inverted bucket steam trap.



Recommended tightening torques

Item	Size	or		N m
			mm 	
2	1/2", 3/4"		M8 x 30	25 - 28
	1"		M12 x 45	25 - 28
8	1/2", 3/4"	13	-	50 - 55
	1"	13	-	80 - 88
13	1/2", 3/4"	22	M28	90 - 100
	1"	27	M32	125 - 145