



Opal GEM® Trap

Line Drainage Venturi Orifice Steam Trap. Rev 6 June 2014

The GEM® Trap

The GEM Trap is a low maintenance steam trap with no moving parts; it will not wear and its performance is guaranteed* on saturated steam for 10 years. The unique venturi orifice technology utilises the expansion of the flash steam created by the pressure differential across the trap to control the flow of condensate.

Operating over variable loads, the GEM Trap will suit all industrial applications. The single piece bodies are manufactured from wear and corrosion resistant grades of stainless steel.

The GEM Trap is the most energy efficient steam trap on the market and is supplied with a full sizing and commissioning service.

The Opal GEM® Trap

- Same face to face dimension as mechanical traps
- Quick and easy to install
- Fully maintainable in-line
- Easy access to both strainer basket and orifice chamber

Opal Traps contain GEM's inverted cone technology and a robust reinforced mesh strainer basket with large surface area to further protect the orifice from debris.

Suitable Applications

- Low condensate duty applications
- Line drainage / trace heating

Sizes and Connection Types Available

	Flanged	Threaded BSP / NPT	Socket Weld
DN15 / 1/2 "	On request	✓	✓
DN20 / 3/4 "	On request	✓	✓

Ancillary Parts

- Insulation Jacket
- Optional drainage valve



Operating Parameters

- TMA 400°C (750°F)
 - PMA 50 Bar (730psi) - Threaded
 - PMA 100 Bar (1450psi) – Socket Weld
 - PMA 100 Bar (1450psi) – Flanged†
- † Flanged Opal rating is limited by the specification of the flange selected

Available Spares

- Quality SS reinforced graphite gaskets
- Robust SS reinforced strainer basket

Key GEM® Trap Benefits

Quality, Efficiency, Reliability and Service

- > 10 Year performance guarantee*
- > No moving parts to wear or fail
- > No inserts - no leak path
- > No ongoing trap surveys
- > Minimal annual maintenance
- > Does not contribute to waterhammer
- > No pressurisation of condensate return system
- > Inherently more efficient than mechanical traps
- > Typical payback < 2 years
- > Permanent energy savings
- > Each traps supplied with full sizing and commissioning service

* Reduced guarantee offered for superheated steam



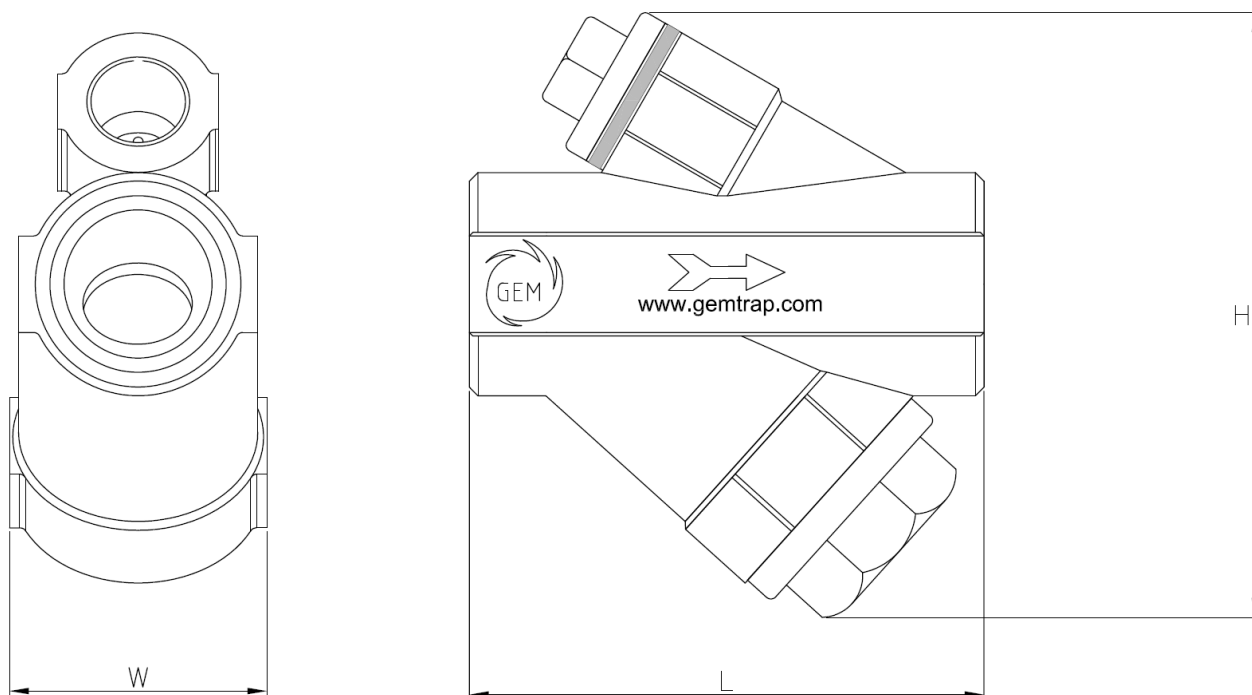
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Dimensions and Weights



	H (mm)	L (mm)	W (mm)	Weight (kg)
OP15 (DN15 / 1/2")	97	80	40	0.75
OP20 (DN20 / 3/4")	97	80	40	0.75

Materials

Part	Material
Body	Cast Stainless Steel ASTM A351 CF8M / BSEN10213 GX5CrNiMo 19-11-2 EN 1.4408
Orifice Cap	Stainless Steel ASTM A276 304L / BSEN10088 EN 1.4307
Strainer Basket	Reinforced 316 Stainless Steel 60 Mesh
Gaskets	METACAM 316 Stainless Steel Core/Graphite faced
Strainer Cap	Cast Stainless Steel ASTM A351 CF8M

- Full product traceability is part of our Quality Assurance procedure
- Type 3.1 material certification to BS EN 10204:2004 (E)
- Thermal Energy reserve the right to amend material specifications

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