



# Topaz GEM® Trap

Hygienic Venturi Orifice Steam Trap. Rev 7 April 2013

## The GEM® Trap

The GEM Trap is a staged venturi orifice steam trap. It has no moving parts so will not wear and cannot fail. 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 10 year performance guarantee\*, and a full sizing and commissioning service.

## The Topaz GEM® Trap

- Designed for hygienic and clean steam applications
- FDA guideline compliant
- '316L' stainless steel to BS 970
- Crevice free body
- No moving parts and therefore less susceptible to bacterial growth than an equivalent mechanical trap
- All Topaz Traps are degreased before packing and dispatch

## Suitable Applications

- Hygienic and clean steam applications
- Process applications
- Low condensate duty applications
- 'Dockweiler' and 'Triclover' fittings

## Operating parameters

- PMA 10 Bar (145psi)
- TMA 200°C (392°F)

*Maximum temperatures and pressures are subject to the gaskets used in the fittings.*

## Available Spares

No spares required



## Sizes and Connection Types Available

	'Dockweiler' Clamp	'Tri-clover' Clamp
DN15 / 1/2 "	✓	✓
DN20 / 3/4 "	✓	✓
DN25 / 1"	✓	✓

## 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



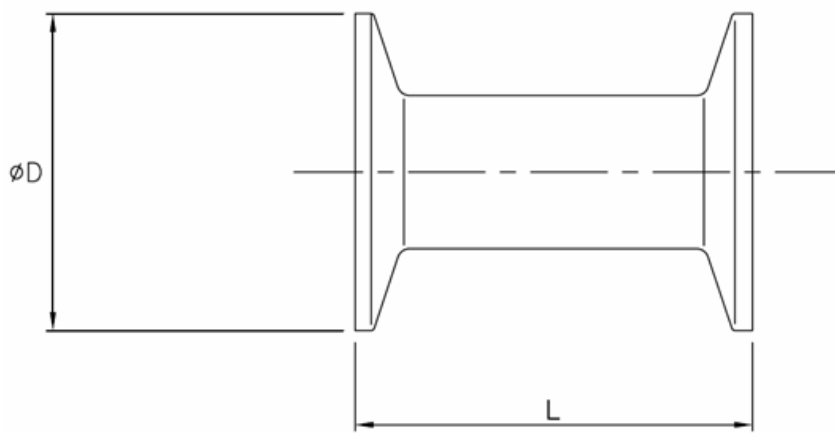
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## Dimensions and Weights



	Fittings	Ø D (mm)	L (mm)	Weight (kg)
<b>T15</b> (DN15 / 1/2")	1/2" clamp pipe	25	55	0.1
<b>T20</b> (DN20 / 3/4")	1/2" clamp pipe	25	55	0.1
<b>T25</b> (DN25 / 1")	1" clamp pipe	52	65	0.3

## Surface Finish

- > Smooth internal surfaces to 0.8µm (micron Ra) (Equivalent to 180 grit)
- > External surfaces have a surface finish of 1.2µm Ra, (excluding the clamp.)

Internal stages of 19.5 dia and 10 mm dia are checked mechanically using a suretronic measuring machine which produces a reading that relates to a centre line average from peak to trough in surface profile. An inspection report can be provided with each trap if requested at time of order.

Surface finish can be further improved by electropolishing the trap. Electropolishing removes additional voids and deformation on a micro level achieving a further improvement in the micro-roughness of the finish of up to 1/2 the original as machined Ra value. Electropolishing increases the corrosion resistance of the surface and as a result of removing the surface roughness, its non stick capabilities further reduce areas for bacterial growth. Electropolishing will incur additional cost, quotations supplied on request.

## Materials

Part	Material
Body	316L Stainless Steel

- Full product traceability is part of our Quality Assurance procedure.
  - Type 3.1 material certification to BS EN 10204:2004 (E).
- All certification/inspection requirements must be stated at time of order placement.*