ISTD22

TECHNICAL DATA SHEET

THERMODYNAMIC STEAM TRAPS

IMPACTO
ENGINEERED STEAM PRODUCTS

Model	**ISTD22, ISTD22L**
Sizes	DN15, 20, 25
Connections	NPT/BSPT/BSP
Body Material	Stainless Steel
Options	
PMO Max. Operating Pressure	**42 bar (g)**
TMO Max. Operating Temperature	425°C
PMA Max. Allowable Pressure	**42 bar (g) at** 425°C
TMA Max. Allowable Temperature	425°C

WORKING

In a thermodynamic trap, the disc is the sole moving part. When steam enters the trap, it quickly causes the disc to slam shut against the seat, generating internal pressure above the disc that prevents steam from escaping. Over time, this internal pressure diminishes, allowing the trap to open. As condensate enters, it pushes the disc upward, enabling the discharge of condensate. If steam is detected, the trap immediately closes.

INSTALLATION

Ensure that the steam lines are flushed and cleaned before fitting the trap. Remove the protective end caps and fit the trap in the steam pipe line system. An arrow mark is punched on every trap body showing the flow direction. Install the trap by fixing the inlet & outlet ports accordingly. Thermodynamic Trap should be installed in a horizontal position such that disc movement must be in vertically up and down directions. Open the isolating valves slowly to avoid thermal shocks. Inspect the fitment for leaks after the trap has been fully pressurized.

FEATURES

- Well-suited for superheated steam.
- High pressure applications up to 42 bar(g).
- Hardened stainless steel seat and disc provide extended service life, even under high pressure.
- Ideal for fluctuating loads and pressures
- Well-suited for managing varying loads and pressures.
- The single trap is designed to operate across the full pressure range of 0.25 to 42 bar(g), with optimal performance recommended above 2 bar(g).

DESCRIPTION

Impacto thermodynamic steam trap constructed from durable materials such as stainless steel or other corrosion-resistant alloys. The disc and seat are hardened by an induction hardening process with seat harder than disc for integrity and longevity. The thermodynamic traps separate condensate and steam based on velocity. Ideal for header and main line drains, as well as drip legs.

MAINTENANCE

Hand gloves should be used while operating the blow down valve.
Before undertaking any maintenance of the product, it must be isolated from both supply line and return line and ensure pressure is normalized to atmosphere.
The product should then be allowed to cool. When re-assembling ensures that all joint faces are clean.

IMPORTANT

Place the trap as close as possible to the line being drained. For new pipelines, flush the lines thoroughly before installing the traps to prevent strainer blockages.

OPTIONS

Blowdown Valve – Opening the blowdown valve releases loose material collected by the strainer into the atmosphere. Since the valve requires a wrench to operate, the operator remains safely away from the

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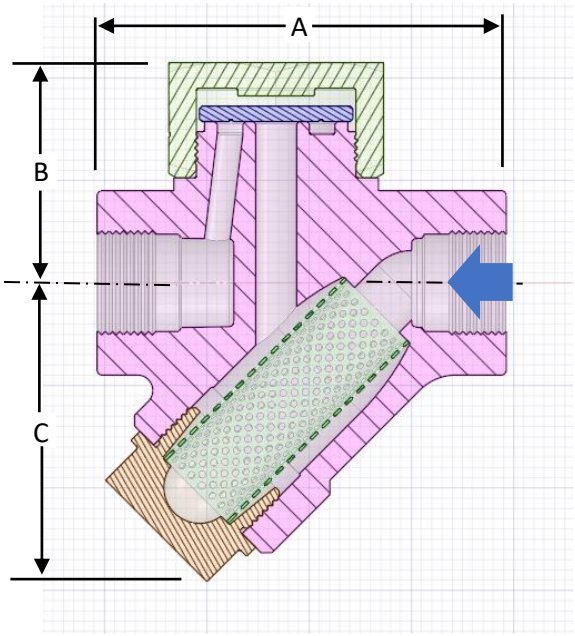
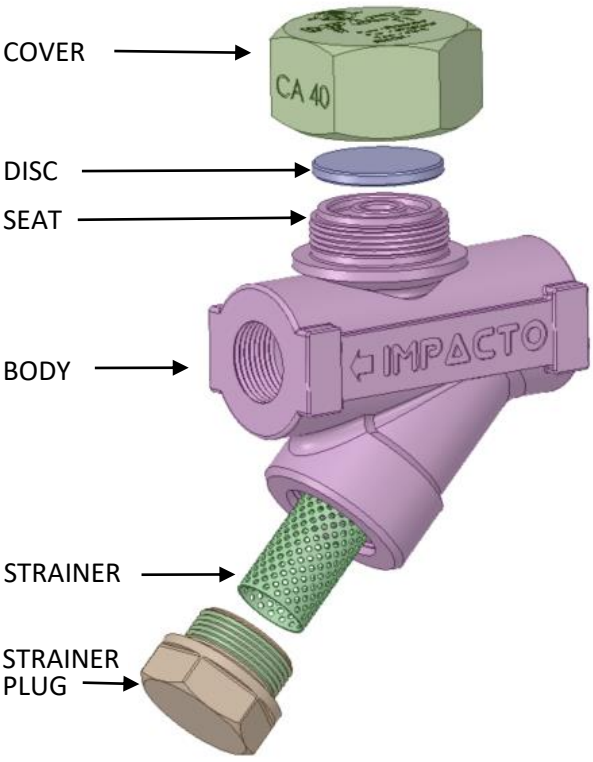


DIMENSIONS & WEIGHTS

SIZE	MODEL	CONNECTION	A	B	C	WEIGHT
Series ISTD22 (Strainer)						
DN15	ISTD22-15	NPT	80	101	48	2.17
DN20	ISTD22-20	NPT	80	101	48	2.17
DN25	ISTD22-25	NPT	96	122	58	4.12
Series ISTD22 (Strainer & Blowdown Valve)						
DN15	ISTD22B-15	NPT	80	101	58	2.47
DN20	ISTD22B-20	NPT	80	101	58	2.47
DN25	ISTD22B-25	NPT	96	122	68	4.31



MATERIALS

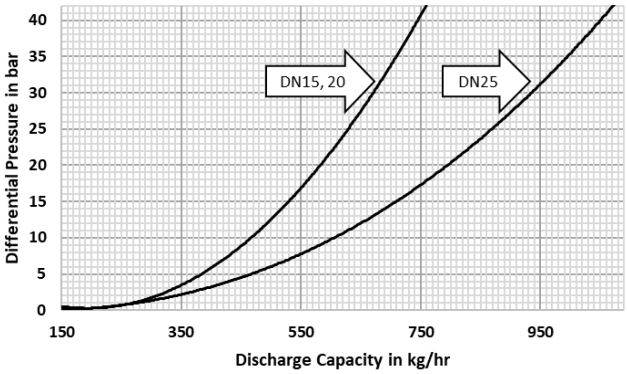
BODY	Stainless Steel, AISI 420
DISC	Stainless Steel, AISI 410
COVER	Stainless Steel, AISI 420
STARINER SCREEN	Stainless Steel, AISI 304
STARINER PLUG	Stainless Steel, AISI 420
SEAT	Stainless Steel, AISI 420

TOOL KIT

SIZE	COMPONENT	SPANNER SIZE
DN15-20	Disc Cap	Spanner A/F 42mm
DN25	Disc Cap	Spanner A/F 58mm
DN15-20-25	Strainer Cap	Spanner A/F 28mm

TORQUE REQUIREMENT

SIZE	COMPONENT	TORQUE
DN15-20	Disc Cap	12
DN25	Disc Cap	12
DN15-20-25	Strainer Cap	10



HOW TO SIZE/ ORDER

Select working pressure; follow column down to correct capacity (kg/hr) block. Example:	
Application:	500 kg/hr at 6.9 bar(g) working inlet pressure
Size/Model:	DN20 ISTD22-20

Note: Maximum back pressure not to exceed 80% of inlet pressure (measured in absolute pressure) or trap may not close.

Note: For optimum performance, recommended for operating pressure above 30 PSIG.

In view of technical progress design and dimensions are subjected to change without notice.