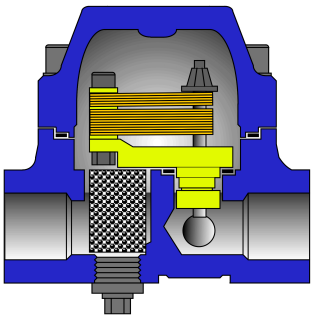
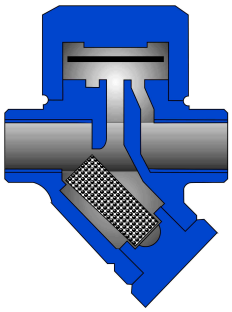
COMPARISON SHEET

VELAN STEAM TRAP VS. THERMODYNAMIC DISC DESIGN

Velan Steam Trap	Thermodynamic Disc Steam Trap
	
RAPID AIR VENTING At startup, the Velan steam trap is fully open, venting air quickly and efficiently. This results in a faster startup with fewer plant personnel required to supervise venting of main lines during warm-up. There is no external blow down needed to start up the steam line.	POOR AIR VENTING The thermodynamic disc steam trap has poor air handling characteristics. Due to the fact that the chamber above the disc traps air on start-up, and that air will not condense, it will stay shut. Thus, plant personnel may have to externally blow down the steam line to atmosphere to get the steam line hot.
STELLITE 6 TRIM STANDARD All Velan steam traps are fitted with Stellite 6® seat facings to resist wear by high velocity flow, dirt and scale. Stellite 6® has 3 times the wear resistance of induction hardened stainless steel.	NO ALLOY TRIM AVAILABLE Thermodynamic disc steam traps are not available with cobalt based alloy trim.
ENERGY EFFICIENT The Velan steam trap wastes no live steam during its operation. This can save a customer hundreds of dollars per trap annually.	NOT ENERGY EFFICIENT The thermodynamic disc steam trap requires 0.032 pounds of live steam to cycle. At 6 cycles a minute, this requires over $ 1,000 of steam annually.
MODULATED DISCHARGE The Velan steam trap modulates the condensate out of the system continuously. It is understood in industry that valves that modulate last much longer than valves that cycle on-off.	BLAST ON – BLAST OFF DISCHARGE The thermodynamic disc steam trap discharges condensate by blasting on and off. If the steam trap cycles 2 times per minute, it will cycle 1,000,000 times annually.
INTEGRAL CHECK VALVE The discharge valve in the trap acts as a check valve providing full back flow control.	NO CHECK VALVE AVAILABLE Check valves are not available on thermodynamic disc steam traps.
NO PLUGGING The valve on the Velan steam trap is in the downstream position. All flashing of condensate occurs after it has passed through the orifice. Copper oxides and Iron oxides will not foul or plug the orifice in the Velan steam trap.	PLUGS DUE TO DIRT AND COPPER OXIDES Condensate must flash through a restricted orifice before it enters the condensate return system. Dirt and copper oxides chemically bond to the inside of the orifice, eventually closing the flow path. This leads to plugging, water-logging, and freezing.
REDUCES CONDENSATE RETURN BACK PRESSURE Velan steam traps discharge condensate a few degrees below saturated steam temperature. Therefore, there is less flash steam created and less back pressure.	INCREASES CONDENSATE RETURN BACK PRESSURE Thermodynamic disc steam traps discharge live steam and steam hot condensate with every cycle. This increases the back pressure in the condensate system.