

OPERATING CHARACTERISTICS
OF STEAM TRAPS

ATTRIBUTE		F & T	INVERTED BUCKET	BALANCED PRESSURE THERMOST.	BIMETAL THERMOST.	IMPULSE	DISC THERMO-DYNAMIC
MODE OF OPERATION	No Load	No Action	Small Dribble	No Action	No Action	Small Dribble	No Action
	Light Load	Usually Continuous may cycle at high pressures	Intermittent	May Dribble	Usually Dribble Action	Usually Continuous w/ Blast at High Loads	Intermittent
	Normal Load	Usually Continuous may cycle at high pressures	Intermittent	Intermittent	May blast at high pressures	Usually continuous w/ blast at high loads	Intermittent
	Full or Overload	Continuous	Continuous	Continuous	Continuous	Continuous	Continuous
Suitable for Superheated System		No	Yes	No	Yes	Yes	Yes
Freezeproof		No	No	Yes	Yes		Yes
Prone to Water Hammer		Yes	No	Yes	No	Yes	No
Vents air and gases at Steam Temperatures		No	Yes	No	operates at one set temp.	Yes	No
Air Venting Capability At low pressure		Excellent	Poor	Good	Good	Excellent	Bad Application
Response to Surges of Condensate		Fast	Fast	Slow	Slow		Slow

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Trap Failure Open or Closed	Closed	Open	Could Fail ei- ther way D/B will fail, open		Open	Open Could Fail
Approximate Pressure Ranges	Vacuum to 250 psig	10 to 2700 psig	Vacuum thru 25 psig (comfort heating)	0 to 3100 psig		50 to 600 psig
Operation with Back pressure	Good	Good	Good		Bad	Bad
Maximum Capacities Approximate Lbs/hr.	50,000 @ 150 psi	19,000 @ 200 psi	670 @ 25 psi			2700 @ 200 psi
Good for Start-up Loads	Excellent	Fair	Excellent	Excellent	Good	Bad
Corrosion Resistance	Good	Excellent	Good	Excellent		Excellent
Resistance to Wear	Good	Excellent	Fair			Bad
Ability to Handle Dirt	Poor	Excellent	Fair	Poor	Poor	Poor
Operating Efficiency (Loss of Steam)	Good	Good	Good	Fair	Poor	Fair

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Trap Life		Good	Excellent	Fair			Poor
°F Subcooling Req'd for Capacity Tests (WWT-696)		5°	5°	20°	20°	30°	5°
Safety Factor Recommended in (WWT-696)		1.5-2.5	2-4	2-4	2-4	1.2-2.	1.2-2
Orifice Change for a Pressure Change		Yes	Yes	No	No	No	No
Relative Size and Weight		Large	Large	Small	Small	Small	Small
Relative Cost		High	Moderate	Moderate			Low
			TRAP APPLICATION				
Air Heating Coils	Mod. Valve Control- ed	Small Booster	2	N	1		N
		Large	1	N	N		N
	Full Line Press. at all Times	Small Booster	2	2	1		N
		Large	1	1	N		1
Radiation		2	N	1			N
Propeller fan Unit Heaters		1	1	N			1

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Steam to Water Heat Exchangers	Mod. Valve Controlled	1	N	N			N
	Full Line Pressure at all times	1	1	N			1
Absorption Machine		1	N	N			N
Steam Main Drip Points		1	1	N			1
Flash Tanks (use a closed float trap)		N	N	N			N

Note: (1) Under trap application section a "1" denotes first choice a "2" denotes 2nd choice and a "N" denotes not a recommended choice.

(2) These attributes were taken from many sources. A specific trap by any manufacturer may not follow all of the attributes above. There may be exceptions to the list, it is offered as a general guide only.