GLOSSARY OF TERMS

Celtron Capsule - The thermodynamic capsule comprising the operational components of most Nicholson thermodynamic traps.

Convoluted Bellows - Offered as the standard design actuator on Nicholson thermostatic traps, this bellows excels in sensitivity and value. Convoluted bellows tend to fail close in the event of bellows failure and should be specified if fail closed is desired. Convoluted bellows are available in monel and bronze depending on model. Nicholson traps equipped with the convoluted bellows are offered with a one-year warranty.

Differential Pressure - The pressure upstream of the steam trap less the pressure after the trap is referred to as differential pressure. When sizing Nicholson traps the capacity charts are based on the differential pressures across the trap.

HC - This is a suffix on some Nicholson thermostatic traps indicating a high capacity option. Sometimes called OS.

ISO - See Subcooling fill.

L - A suffix on some Nicholson thermostatic and thermodynamic traps indicating a low capacity option.

OS - See HC

R - A suffix on some Nicholson thermostatic traps indicating a reduced capacity option.

Saturated Temperature - The temperature at which water boils at a given pressure. Water changes phase into steam along a pressure temperature curve. These pressures and temperatures may be found in the steam tables.

Skirted Seat (SK) - This is an option employing a seat that diffuses the condensate discharge reducing the possibility of internal body erosion. This option, available on the N300 and N650, should be specified when the steam service pressure is in the top third of the trap's pressure rating.

Spiral Wound Gasket - This class of gasket is utilized throughout our higher pressure traps and the Uniflex union. It is characterized by utilizing a metal winding, often stainless steel, sandwiching a filler, often a graphite material. While relatively expensive, the sealing performance of this class of gasket is generally considered superior to most others.

Steam Lock Release (SLR) - This is an orifice from .0225 to .03125 inches dependent on model, added to a steam trap to prevent flash steam locking. This option is recommended when condensate piping must rise over an obstacle before draining to a trap. A typical application would be a coil in a kettle whose outlet must rise over the side before dropping to the steam trap. An alternate usage typically involves thermostatic traps in clean steam or sterilizer applications. The SLR is specified to increase sensitivity and minimize condensate backup.

Sterilizer Trim - This option typically employs an alternate seat. Internal geometries are altered in such a fashion that trap sensitivity is increased. The option takes its name from the service often requiring the most sensitive of thermostatic traps. Sterilizer trim is occasionally combined with high capacity and SLR options thus yielding a super sensitive high capacity steam trap.

Subcool - often associated with the sensitivity of a thermostatic trap this term indicates a temperature below the saturated steam curve. Thermostatic traps actuate at temperatures below saturated. Standard Nicholson Traps typically actuate in the 8° to 10°F subcool range i.e. they expel condensate 8° to 10°F below saturated steam temperature.

Subcooling Fill - An optional bellows utilizing an alternate fill enabling the trap to release condensate at 30° to 40°F below saturated temperature. This option should be specified when reducing the volume of flash steam created by condensate is desired or when pressures exceeding 500 psi are expected. Also referred to as ISO.

Welded Bellows - offered as an option on all Nicholson thermostatic traps, this bellows is more rugged yet may be less sensitive than the convoluted designs. Welded bellows tend to fail open in the event of bellows failure and should be specified if fail open is desired. Welded bellows are available in stainless steel and inconel depending on model. Nicholson traps equipped with the welded bellows are offered with a three-year warranty.