



## INSTALLATION INSTRUCTIONS

### Cooling Water Flow Control Valves

#### 1/2" and 3/4" HAT/RA-LP

#### 3/8" and 1/2" TV/HAT/RA-LP

#### OPERATION:

These valves are self-operating temperature actuated valves that control cooling water flow rate based on cooling water temperature flowing through the valve itself. Typically these valves are installed as “afterflow controllers” since they are installed in the cooling water outlet line from water cooled equipment such as heat exchangers, water cooled compressors, welding machines, water cooled lasers, machine bearing cooling (aka bearing flush lines) and many other types of water cooled equipment. The valves are open at and above the customer specified setpoint temperature and typically close off about 10°F below the open temperature, except for control leakage. All such valves with “LP” code in the model number have this “leak port” or control leakage. Purpose of the control leakage is to allow some small flow through the valve even when it is closed; typically control leakage is 1/4" gpm @ 60psig or as otherwise specified. During cold startup, these valves are closed except for control leakage, so the control leakage allows the increasing temperature cooling water from inside the equipment to flow to the valve so it can sense changing water temperature and control flow accordingly.

#### INSTALLATION:

- 1) Valves should be installed on the cooling water outlet line at the outlet of the water cooled equipment. Valve must be installed with flow direction as indicated on valve label.
- 2) Best response is when valve is as close to the outlet of the water cooled equipment as possible.
- 3) Valve connections are pipe threads for “HAT” type valves and tube compression fitting ends for “TV” type valves.
- 4) Outlet from valve should be piped to drain or water recovery system at lower pressure than inlet water pressure.

#### WARRANTIES AND DISCLAIMERS:

**Therm-Omega-Tech Inc.** warrants this product to be free from defects in material and workmanship for a period of 36 months. Cost of replacement will be prorated on the basis of the issue date of each unit. Units found to be defective will be replaced on a one to one basis, FOB Warminster, PA USA. Installation and use of this product is outside the control of **Therm-Omega-Tech Inc.**; therefore, **Therm-Omega-Tech Inc.** disclaims any and all liabilities arising from its installation and or use, and furthermore, **Therm-Omega-Tech Inc.** makes no guarantees, either expressed or implied, in connection with its installation or use.