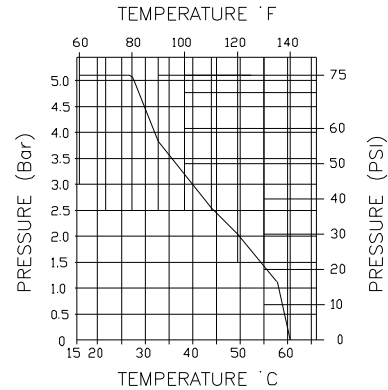
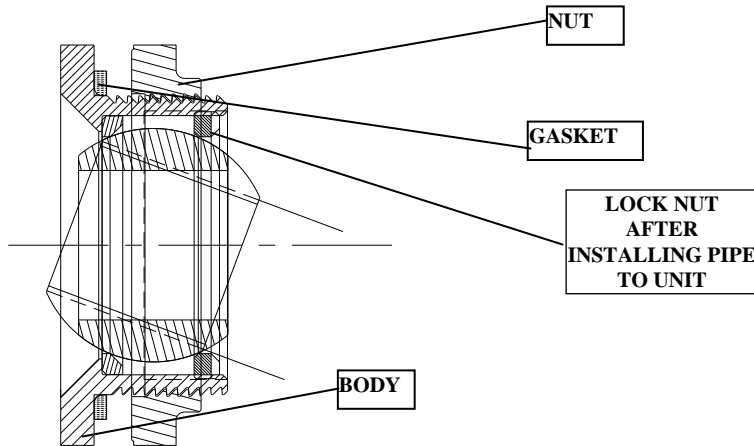


HAYWARD INDUSTRIAL PRODUCTS

INSTALLATION DATA FOR Self-Aligning BULKHEAD FITTING



PLEASE READ THE FOLLOWING INFORMATION PRIOR TO INSTALLING AND USING HAYWARD VALVES, STRAINERS, FILTERS, AND OTHER ASSOCIATED PRODUCTS. FAILURE TO FOLLOW THESE INSTRUCTIONS MAY RESULT IN SERIOUS INJURY.

- Hayward guarantees its products against defective material and workmanship only. Hayward assumes no responsibility for damage or injuries resulting from improper installation, misapplication, or abuse of any product.
- Hayward assumes no responsibility for damage or injury resulting from chemical incompatibility between its products and the process fluids to which they are subjected. Compatibility charts provided in Hayward literature are based on ambient temperatures of 70F and are for reference only. Customer should always test to determine application suitability.
- Consult Hayward literature to determine operating pressure and temperature limitations before installing any Hayward product. Note that the maximum recommended fluid velocity through any Hayward product is eight feet per second. Higher flow rates can result in possible damage due to the water hammer effect. Also note that maximum operating pressure is dependent upon material selection as well as operating temperature.
- Hayward products are designed primarily for use with non-compressible liquids. They should NEVER be used or tested with compressible fluids such as compressed air or nitrogen.
- Systems should always be depressurized and drained prior to installing or maintaining Hayward products.
- Temperature effect on piping systems should always be considered when the systems are initially designed. Piping systems must be designed and supported to prevent excess mechanical loading on Hayward equipment due to system misalignment, weight, shock, vibration, and the effects of thermal expansion and contraction.
- Because PVC and CPVC plastic products become brittle below 40F, Hayward recommends caution in their installation and use below this temperature.
- Published operating torque requirements are based upon testing of new valves using clean water at 70F. Valve torque is affected by many factors including fluid chemistry, viscosity, flow rate, and temperature. These should be considered when sizing electric or pneumatic actuators.
- Due to differential thermal expansion rates between metal and plastic, transmittal of pipe vibration, and pipe loading forces DIRECT INSTALLATION OF METAL PIPE INTO PLASTIC CONNECTIONS IS NOT RECOMMENDED. Wherever installation of plastic valves into metal piping systems is necessary, it is recommended that at least 10 pipe diameter in length of plastic pipe be installed upstream and downstream of the plastic valve to compensate for the factors mentioned above.

INSTALLATION INSTRUCTIONS:

PLEASE NOTE: THE SIZE ON THE "NUT" IS NOT THE SIZE OF THE PIPE FOR THE FITTING.

The following table in inches are recommended values.

Bulkhead Pipe size	NUT Size	Min Rigid Tank ID	Min Flexible Tank ID	Max Wall	Min Hole	Max Hole
1"	2"	25.75	19.38	1.50	3.25	3.28
2"	3"	42.50	36.25	1.14	4.50	4.54
3"	4"	90.00	76.81	1.69	5.72	5.78

THE SYSTEM AND TANK SHOULD BE DEPRESSURIZED AND DRAINED BEFORE ATTEMPTING TO INSTALL A BULKHEAD FITTING. VENTING AND PROPER PERSONAL PROTECTION EQUIPMENT SHOULD BE USED WHEN ENTERING TANKS.

THE BULKHEAD FITTING SHOULD BE INSTALLED WITH THE BODY AND THE **GASKET** ON THE INSIDE OF THE TANK. TIGHTEN THE NUT WHILE HOLDING THE BODY. THE NUT SHOULD BE TIGHTENED FROM THE OUTSIDE OF THE TANK BY HOLDING THE FLATS ON THE BODY INSIDE THE TANK WHILE TURNING THE NUT. PLEASE NOTE THE DIRECTION TO TIGHTEN ON THE NUT. IF THERE IS NO ARROW THE UNIT HAS RIGHT HAND THREADS. IF THERE IS AN ARROW THE UNITS HAVE LEFT HAND THREADS