



Decide with Confidence
DUNS NO. : 86-917-7745



THERMOWELLS

- Sizes: 1/2" to 2"
- NPT, ISO/BSP, Threads
- Stainless Steel (316L, 316, 304, 304L),
Brass, Carbon Steel, Monel, Inconel

Introduction

DS-LOK Thermowells are recommended for temperature instruments in process systems where pressure, velocity, or viscous, abrasive, and corrosive materials are present individually or in combination. A properly selected thermowell will protect the temperature instrument from damage resulting from these process variables. Additionally, a thermowell enables removal of the temperature instrument for replacement, repair or testing without affecting the process system.

DS-LOK thermowell specializes in the design and manufacture of all types of thermowells. The Thermowells are available in a variety of process connection sizes. Threaded, Tapered, Socket Weld, Weld-In, Raised Flange And a variety of other styles are available with PMT. Thermowells are available in U length from 2" to 41". The U length must equal or exceed the length of the sensitive portion of the temperature instrument stems. We offer thermowells in a variety of materials viz Brass, Carbon Steel, Stainless Steel 316 & 304, Monel, Inconel 600, Titanium etc. Other alloys or materials are also available upon customer request. Bore of each thermowell is designed to fit the sensing element of all major Temperature Instrument Manufacturers.

DS-LOK Thermowells is dedicated to unsurpassed quality, on-time delivery, and competitive pricing. This commitment has been recognized by the International Standards Organization (ISO). Our ISO 9001:2015 certification is additional assurance to our customers that their buying decisions can be made every day with a higher level of supplier confidence, and affirms our ongoing commitment to our quality policy.

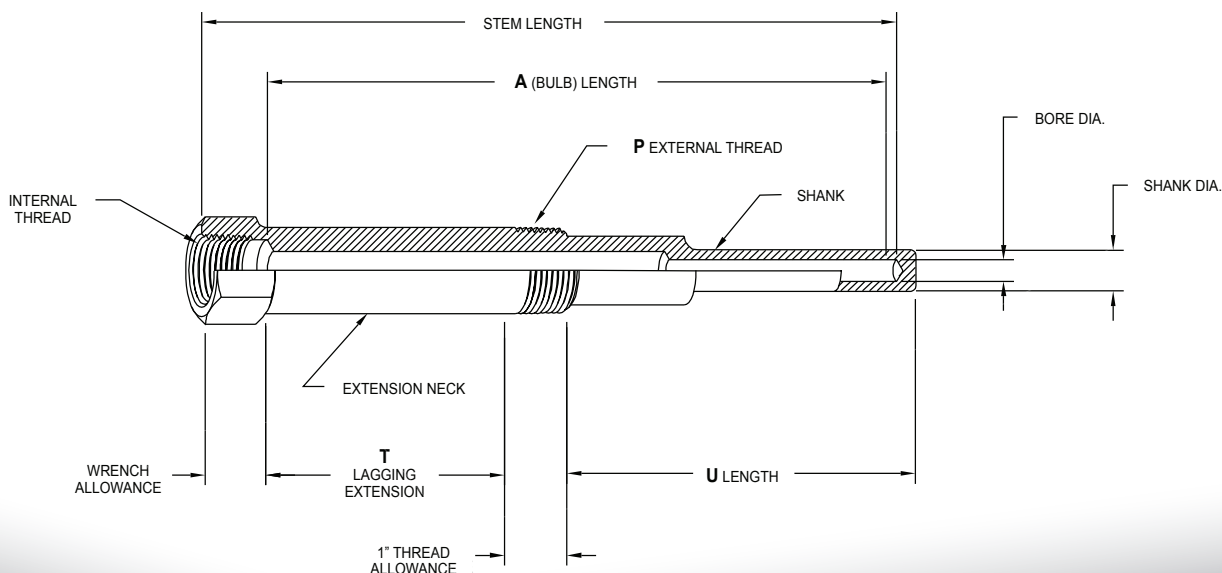
DS-LOK Thermowell will deliver products, services and information that meet or exceed customer requirements and expectations every time.

This product guide is intended to provide technical data to deal with most applications. For severe applications not adequately covered here, please contact the factory for assistance.

What is a Thermowell?

Definition

A thermowell is a pressure tight receptacle designed to accept a temperature sensing element and provide a means to insert that element into a vessel or pipe.



Principles of Operation

A thermowell acts as a barrier between a process medium and the sensing element of a temperature measuring device. It protects against corrosive process media, as well as media contained under pressure or flowing at a high velocity. A thermowell also allows the sensing element to be removed from the application while maintaining a closed system.

Connection

Trerice Thermowells are available in a variety of process connection styles. Threaded connections in 1/2", 3/4" and 1 NPT are the most widely specified. Socket weld, weld-in, raised face flanged, Van Stone flanged, and sanitary (Tri-Clamp) connection styles are also available.

All Trerice Bimetal Thermowells are provided with a 1/2 NPSM instrument connection to allow for pressure relief within the thermowell.

U-Length

The U-length (insertion length) of a thermowell indicates its insertion depth into a process vessel or piping system and is measured from the tip of the thermowell to the underside of the threads. The U-length must equal or exceed the length of the sensitive portion of the temperature instrument's stem or bulb. Trerice Thermowells are available in U-lengths from 2" to 72".

Material

The material chosen must be compatible with the process medium to which it is exposed. In applications of high pressure or velocity, the material may be chosen for its strength or durability. Trerice offers thermowells in a variety of materials, including: brass, carbon steel, stainless steel, Monel, Carpenter 20, Hastelloy B or C, Inconel 600, Incoloy 800, Nickel and Titanium. Other alloys or compounds may also be available, please consult factory.

Threaded, welded and Van Stone flanged thermowells are made from forgings or bar stock. Raised face flanged and sanitary thermowells are of a two-piece welded construction. **For materials selection kindly contact in the factory.**

Bore

The bore of each Trerice Thermowell is designed to fit the sensing element of a specific Trerice Temperature Instrument.

Shank

Trerice Thermowells are available in stepped, tapered, and straight shank configurations. Stepped shank thermowells are normally used on standard duty applications. Tapered shank thermowells are designed for use on heavy duty applications. Straight shank thermowells are designed for use with instruments that have wide stem diameters or short stem lengths.

Lagging Extension

Lagging extension thermowells are used on applications where insulation covers the vessel or piping system. The extension length (T-length) is the measurement between the instrument connection and process connection of the thermowell.

Test Wells

All Trerice Thermowells can be ordered with a protective cap and lanyard for use in non-permanent instrument installations.

All Trerice Thermowells should be carefully selected to meet the demands of the particular application. The information contained in this catalog is only offered as a guide to assist in making the proper selection. Improper application may cause failure of the thermowell, resulting in possible personal injury or property damage.

To ensure minimum response time, Trerice Heat Transfer Paste should be applied to the sensing portion of the instrument before installation into a thermowell.

Thermowell Terminology

Process Connection: External means to connect thermowell to process piping system. Wells can be threaded, bolted (to matching flange), clamped or welded in place.

Instrument Connection: Internal threads to connect temperature instrument to thermowell.

U Dimension: Length of well inserted into the piping system. Measured from the base of the process connection to the end tip of well.

T Dimension: Also called lagging extension. Extends length between the instrument and process connections to accommodate vessel or piping insulation. Standard length is 3" (2" for a well with a 2½" U dimension).

S Dimension: Instrument insertion length into well.

Bore Diameter: Dimension of internal bore to match the diameter of the instrument stem/bulb inserted into the well. The .260" and .385" bore sizes fit instrument stem/bulb diameters of 1/4" and 3/8" respectively. Bore length equals S dimension.

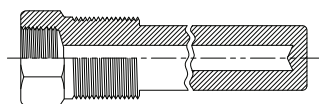
Root Diameter: Diameter of well shank below process connection. This dimension varies with process connection and/or shank design.

Tip Diameter: Diameter of well shank at the end tip of well. This dimension may vary with process connection and/or shank design.

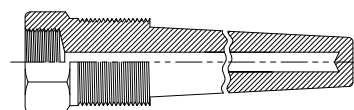
Reduced Shank: Also called reduced tip. The shank O.D. is reduced over the last 2½" of the U dimension from the standard root diameter to a ½" O.D. The stepped shank is available with a .260" bore size only.

Straight Shank: Shank O.D. is the same from the root diameter to the tip diameter. The straight shank is generally used with a .385" bore size but a .260" bore size is available.

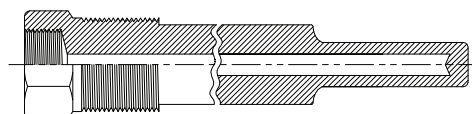
Tapered Shank: Shank O.D. is gradually reduced from the root diameter to the tip diameter. Available with a .260" or .385" bore size. The tapered shank is recommended for heavy duty applications characterized by high vibration, pressure, temperature and/or velocity.



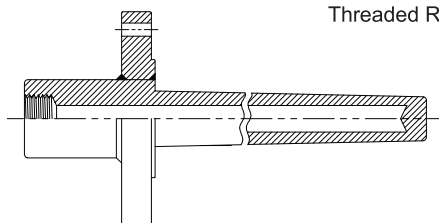
Threaded Straight Configuration



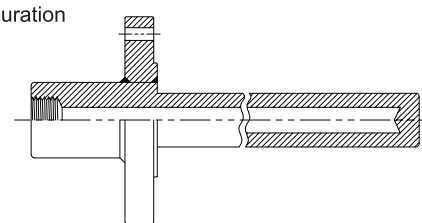
Threaded Tapered Configuration



Threaded Reduced (Stepped) Configuration



Flanged Tapered Configuration



Sanitary Reduced Configuration

Finishes & Welding

Surface Finish

In an ideal world as a machine cutting tool removes material from a part, it leaves no imperfections. Minute clearances in the machine tool, moving parts, vibration of the tool, wear of the cutting insert, small variations in the pressure applied by the machine to the cutting insert and irregularities in the material all affect the final surface finish of the part. There are two common methods of expressing roughness. They are the Arithmetic Average Roughness Height (AARH) and the Root Mean Square (RMS) Average. Calculation of the Arithmetic Average Roughness Height involves measuring the distance of the peaks and valleys and performing an arithmetic average of the measurements. Alternately the calculation of Root Mean Square Average involves measuring the distance of peaks and valleys, adding the square of these measurements and calculating the square root of the total. The RMS value is approximately 11% higher than the AARH value.

Welding

Welding is a process of joining two metals by heating the metals to a suitable temperature. It may be carried out with or without the application of pressure, and with or without a filler metal. If a filler metal is used then it must be compatible with the base materials. A partial penetration weld, on the other hand, consists of a partially welded interface with filler metal being laid on to the surface of the two metals. Welding is a generic term for several different welding processes. The process may be manual, semiautomatic or automatic. Generally arc welding is implied. Common techniques are Shielded Metal Arc Welding (SMAW), Gas Tungsten Arc Welding (GTAW) and Gas Metal Arc Welding (GMAW)

Flange Face Surface Finish

The American National Standards Institute (ANSI) code for flanges and flanged fittings (B16.5) requires that the flange face has a specific roughness to ensure that this surface be compatible with the gasket and provide a high quality seal. A serrated finish, either concentric or spiral, is required with 30 to 55 grooves per inch and a resultant roughness between 125 and 500 microinches.

Non-destructive testing (NDT)

Positive Material Identification (PMI)

As part of our quality assurance program, PMT Instruments traces all materials used to construct thermowells and protection tubes e.g., bar, flanges and pipe. For critical service where additional confidence in the materials is required, the material composition can be measured using a nuclear analyzer. This non-destructive technique utilizes a probe that exposes the metal to low energy Xrays. A sensor receives the resulting radiation from the metal and determines the chemical composition. The analyzer is limited to certain metals e.g., Cr, Ni, Mo, Mn, Ti, V, Nb, Cu, W, Co and Fe. Nonmetals such as Carbon, Sulphur and Phosphorus are not detected. This technique works best on stainless steels e.g., grade 304, 316, 410 and low alloy steels (Cr-Mo), but poorly on alloys with low Nickel content (less than 1%). PMI service is provided as an option and is carried out by independent technicians. Full reports are available on request.

Liquid Penetrant Inspection (LPI)

Liquid penetrant inspection is a non-destructive technique used to locate and evaluate surface defects on nonporous materials. It is used commonly on weldments where additional confidence is needed to ensure a high quality weld surface. The major advantages of this technique are cost, portability and ease of use. The surface to be examined must be cleaned before testing. A penetrant is applied to the surface. This penetrant leaches into any surface defects that may be present. After a short time, excess penetrant is removed and a developer is applied. The developer draws penetrant out of any defects that may be present and gives an indication of location, shape and approximate size. Following the test, both penetrant and developer are removed by washing to restore the original clean surface. PMT Instruments has qualified personnel, complete with documented procedures for performing liquid penetrant inspection. Inspection reports can be provided upon request.

Hydrostatic Pressure Testing (External and Internal)

Hydrostatic testing is a non-destructive test used to examine the integrity of a thermowell by subjecting it to a pressure for a specified time. The thermowell is tested for leaks or pressure drops using chart recorders and visual inspection methods. Test pressures are generally one and a half times the maximum allowable working pressure of the process and may be applied to the internal or external surface of the thermowell depending on the requirements of the customer. PMT Instruments has in-house capabilities for hydrostatic testing thermowells in both external and internal configurations. We are able to use these techniques to verify welds, threaded connections and wall thicknesses.

Installation

General

When installing a thermowell, the best practice is to position the tip in the middle third of the pipeline – see Fig. (A) This is less important when installing a thermowell in a heavily lagged pipeline.

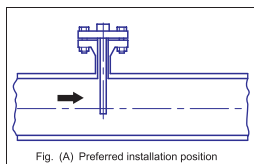


Fig. (A) Preferred installation position

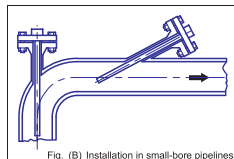


Fig. (B) Installation in small-bore pipelines

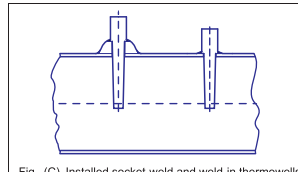


Fig. (C) Installed socket-weld and weld-in thermowells

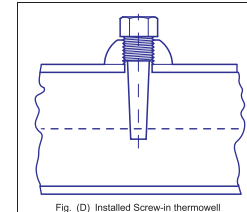


Fig. (D) Installed Screw-in thermowell

To prevent seal failure and process fluid leakage when fitting thermowells to the plant, it is important to ensure that welded parts are sufficiently strong enough, the correct nuts, bolts, studs and gaskets are used and that threads are tightened appropriately.

Thermal conduction errors

In order to obtain the most accurate readings it is important to know where potential for error exists. Heat conduction along a thermowell can produce a significant offset in the temperature experienced at the sensor. To avoid this, the thermowell must be 6 to 8 times longer than its tip diameter for use in liquids and 10 to 15 times longer than its tip diameter for gases. This can be problematic in small-bore pipelines so install the thermowell as shown in Fig. (B)

Using existing thermowells in changed process conditions

When an existing thermowell is to be used in a modified process conditions, ensure it is suitable for the new service. Pay particular attention to the following:

- Corrosion and erosion resistance
- Temperature limitations
- Wake frequency

Warning. Before installing a thermowell, ensure that the pipeline is depressurized and isolated. Failure to do so can create hazards to the operators and result in damage to equipment.

Thermowells with velocity collars

Velocity collars are used to change the resonance frequency of a thermowell by shortening the unsupported length of its stem. To ensure correct operation of a thermowell fitted with a velocity collar, a good fit between the collar and wall of the fitting is essential. Therefore, machining the standoff to achieve a tight sliding fit between the standoff wall and velocity collar is required. Contact PMT for advice if there are any doubts regarding acceptable tolerances.

Socket-weld and weld-in thermowells

- Remove all packaging and check that the thermowell is clean and free of damage and debris.
- Check the thermowell's tag number and ensure it is correct for thermowell for the location and that the material is suitable for welding.
- Insert the stem of the thermowell carefully into the bore.

Flanged and Van Stone thermowells

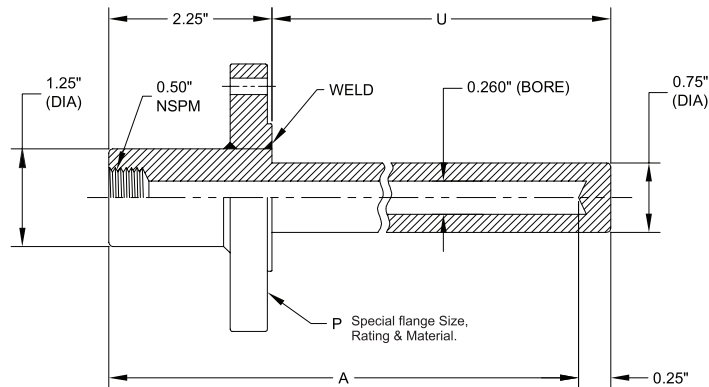
- Remove all packaging and check that the thermowell is clean and free of damage and debris.
- Check the thermowell's tag number and ensure it is the correct thermowell for the location and that the flange rating is the same as the mounting flange.
- Position the gasket on the mounting flange ensuring it does not protrude into the bore.
- Insert the thermowell stem carefully through the mounting flange until the thermowell flange contacts the gasket.
- Fit the bolts and tighten them evenly hand tight

Screw-in thermowells

- Remove all packaging and check that the thermowell is clean and free of damage and debris.
- Check the thermowell's tag number and ensure it is the correct thermowell for the location.
- Check that the thermowell's thread matches the thread of the socket.
- Apply a suitable sealant to the threads.
- Insert the thermowell carefully into the bore and tighten finger tight.
- Tightened fully to the correct torque figure for the thread type and size.

Warning. Always observe plant safety regulations. Before removing the thermowell, ensure the pipeline is depressurized and isolated.

Standard Flange Thermowells for 1/4" Elements (0.260 Bore)



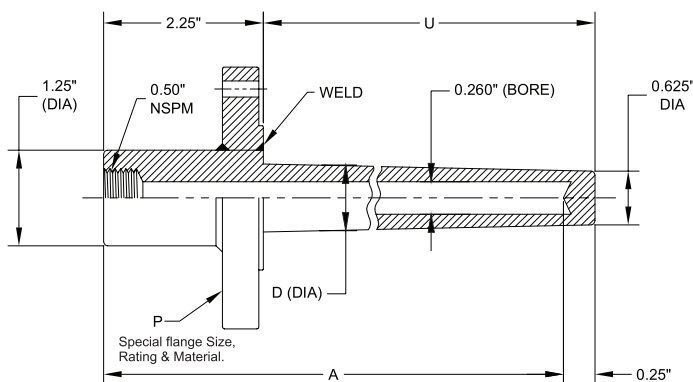
NOTES:

- Standard materials in stock. All other materials available upon request.
- Cap and chain are available upon request.
- Special finishes are available upon request.



PART NO.	P	A	U
TW016-0200-F-260	1"	4"	2"
TW016-0400-F-260	1"	6"	4"
TW016-0700-F-260	1"	9"	7"
TW016-1000-F-260	1"	12"	10"
TW016-1300-F-260	1"	15"	13"
TW016-1600-F-260	1"	18"	16"
TW016-2200-F-260	1"	24"	22"
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TW024-0200-F-260	1-1/2"	4"	2"
TW024-0400-F-260	1-1/2"	6"	4"
TW024-0700-F-260	1-1/2"	9"	7"
TW024-1000-F-260	1-1/2"	12"	10"
TW024-1300-F-260	1-1/2"	15"	13"
TW024-1600-F-260	1-1/2"	18"	16"
TW024-2200-F-260	1-1/2"	24"	22"
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TW032-0200-F-260	2"	4"	2"
TW032-0400-F-260	2"	6"	4"
TW032-0700-F-260	2"	9"	7"
TW032-1000-F-260	2"	12"	10"
TW032-1300-F-260	2"	15"	13"
TW032-1600-F-260	2"	18"	16"
TW032-2200-F-260	2"	24"	22"

Heavy Duty Flange Thermowells for 1/4" Elements (0.260 Bore)



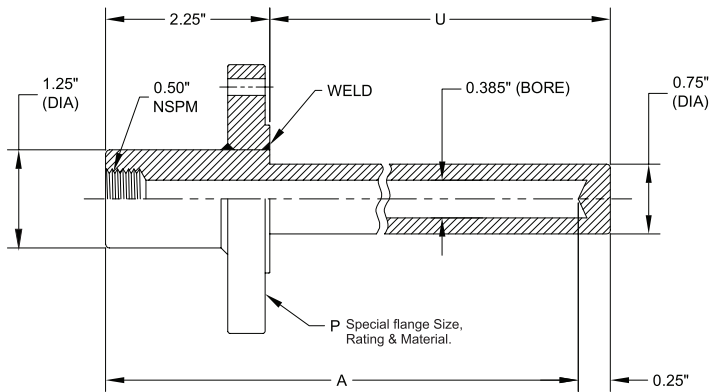
NOTES:

- Standard materials in stock. All other materials available upon request.
- Cap and chain are available upon request.
- Special finishes are available upon request.



PART NO.	P	A	U	D
TW016-0200-FH-260	1"	4"	2"	7/8"
TW016-0400-FH-260	1"	6"	4"	7/8"
TW016-0700-FH-260	1"	9"	7"	7/8"
TW016-1000-FH-260	1"	12"	10"	7/8"
TW016-1300-FH-260	1"	15"	13"	7/8"
TW016-1600-FH-260	1"	18"	16"	7/8"
TW016-2200-FH-260	1"	24"	22"	7/8"
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TW024-0200-FH-260	1-1/2"	4"	2"	1-1/16"
TW024-0400-FH-260	1-1/2"	6"	4"	1-1/16"
TW024-0700-FH-260	1-1/2"	9"	7"	1-1/16"
TW024-1000-FH-260	1-1/2"	12"	10"	1-1/16"
TW024-1300-FH-260	1-1/2"	15"	13"	1-1/16"
TW024-1600-FH-260	1-1/2"	18"	16"	1-1/16"
TW024-2200-FH-260	1-1/2"	24"	22"	1-1/16"
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TW032-0200-FH-260	2"	4"	2"	1-1/16"
TW032-0400-FH-260	2"	6"	4"	1-1/16"
TW032-0700-FH-260	2"	9"	7"	1-1/16"
TW032-1000-FH-260	2"	12"	10"	1-1/16"
TW032-1300-FH-260	2"	15"	13"	1-1/16"
TW032-1600-FH-260	2"	18"	16"	1-1/16"
TW032-2200-FH-260	2"	24"	22"	1-1/16"

Standard Flange Thermowells for 3/8" Elements (0.385 Bore)



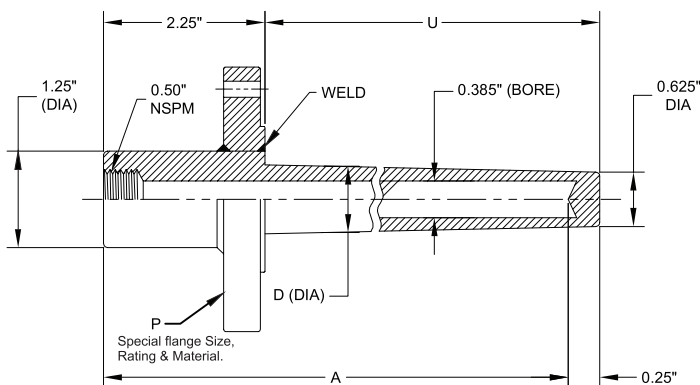
NOTES:

- Standard materials in stock. All other materials available upon request.
- Cap and chain are available upon request.
- Special finishes are available upon request.



PART NO.	P	A	U
TW016-0200-F-385	1"	4"	2"
TW016-0400-F-385	1"	6"	4"
TW016-0700-F-385	1"	9"	7"
TW016-1000-F-385	1"	12"	10"
TW016-1300-F-385	1"	15"	13"
TW016-1600-F-385	1"	18"	16"
TW016-2200-F-385	1"	24"	22"
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TW024-0200-F-385	1-1/2"	4"	2"
TW024-0400-F-385	1-1/2"	6"	4"
TW024-0700-F-385	1-1/2"	9"	7"
TW024-1000-F-385	1-1/2"	12"	10"
TW024-1300-F-385	1-1/2"	15"	13"
TW024-1600-F-385	1-1/2"	18"	16"
TW024-2200-F-385	1-1/2"	24"	22"
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TW032-0200-F-385	2"	4"	2"
TW032-0400-F-385	2"	6"	4"
TW032-0700-F-385	2"	9"	7"
TW032-1000-F-385	2"	12"	10"
TW032-1300-F-385	2"	15"	13"
TW032-1600-F-385	2"	18"	16"
TW032-2200-F-385	2"	24"	22"

Heavy Duty Flange Thermowells for 3/8" Elements (0.385 Bore)



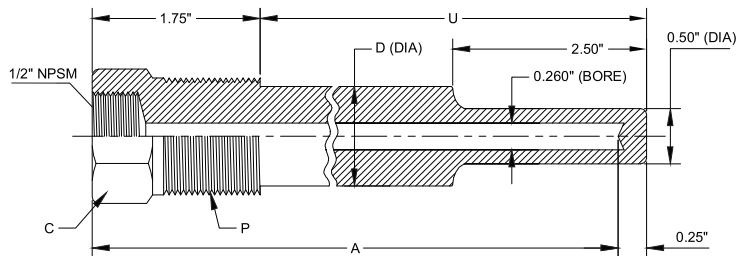
NOTES:

- Standard materials in stock. All other materials available upon request.
- Cap and chain are available upon request.
- Special finishes are available upon request.



PART NO.	P	A	U	D
TW016-0200-FH-385	1"	4"	2"	7/8"
TW016-0400-FH-385	1"	6"	4"	7/8"
TW016-0700-FH-385	1"	9"	7"	7/8"
TW016-1000-FH-385	1"	12"	10"	7/8"
TW016-1300-FH-385	1"	15"	13"	7/8"
TW016-1600-FH-385	1"	18"	16"	7/8"
TW016-2200-FH-385	1"	24"	22"	7/8"
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TW024-0200-FH-385	1-1/2"	4"	2"	1-1/16"
TW024-0400-FH-385	1-1/2"	6"	4"	1-1/16"
TW024-0700-FH-385	1-1/2"	9"	7"	1-1/16"
TW024-1000-FH-385	1-1/2"	12"	10"	1-1/16"
TW024-1300-FH-385	1-1/2"	15"	13"	1-1/16"
TW024-1600-FH-385	1-1/2"	18"	16"	1-1/16"
TW024-2200-FH-385	1-1/2"	24"	22"	1-1/16"
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TW032-0200-FH-385	2"	4"	2"	1-1/16"
TW032-0400-FH-385	2"	6"	4"	1-1/16"
TW032-0700-FH-385	2"	9"	7"	1-1/16"
TW032-1000-FH-385	2"	12"	10"	1-1/16"
TW032-1300-FH-385	2"	15"	13"	1-1/16"
TW032-1600-FH-385	2"	18"	16"	1-1/16"
TW032-2200-FH-385	2"	24"	22"	1-1/16"

Standard Threaded Thermowells for 1/4" Elements (0.260 Bore)



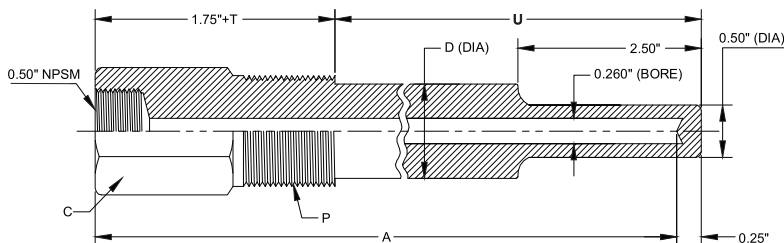
NOTES:

- Standard materials in stock. All other materials available upon request.
- Cap and chain are available upon request.
- Special finishes are available upon request.



PART NO.	P	A	U	C	D
TW08-0250-T-260	1/2"	4"	2-1/2"	1-1/8"	1/2"
TW08-0450-T-260	1/2"	6"	4-1/2"	1-1/8"	5/8"
TW08-0750-T-260	1/2"	9"	7-1/2"	1-1/8"	5/8"
TW08-1050-T-260	1/2"	12"	10-1/2"	1-1/8"	5/8"
TW08-1350-T-260	1/2"	15"	13-1/2"	1-1/8"	5/8"
TW08-1650-T-260	1/2"	18"	16-1/2"	1-1/8"	5/8"
TW08-2250-T-260	1/2"	24"	22-1/2"	1-1/8"	5/8"
TW012-0250-T-260	3/4"	4"	2-1/2"	1-1/8"	1/2"
TW012-0450-T-260	3/4"	6"	4-1/2"	1-1/8"	3/4"
TW012-0750-T-260	3/4"	9"	7-1/2"	1-1/8"	3/4"
TW012-1050-T-260	3/4"	12"	10-1/2"	1-1/8"	3/4"
TW012-1350-T-260	3/4"	15"	13-1/2"	1-1/8"	3/4"
TW012-1650-T-260	3/4"	18"	16-1/2"	1-1/8"	3/4"
TW012-2250-T-260	3/4"	24"	22-1/2"	1-1/8"	3/4"
TW016-0250-T-260	1"	4"	2-1/2"	1-3/8"	1/2"
TW016-0450-T-260	1"	6"	4-1/2"	1-3/8"	7/8"
TW016-0750-T-260	1"	9"	7-1/2"	1-3/8"	7/8"
TW016-1050-T-260	1"	12"	10-1/2"	1-3/8"	7/8"
TW016-1350-T-260	1"	15"	13-1/2"	1-3/8"	7/8"
TW016-1650-T-260	1"	18"	16-1/2"	1-3/8"	7/8"
TW016-2250-T-260	1"	24"	22-1/2"	1-3/8"	7/8"

Standard Threaded Thermowells for 1/4" Elements (0.260 Bore) w/Lagging Extension

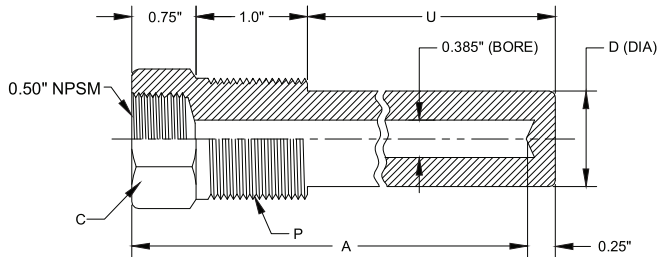


NOTES:

- Standard materials in stock. All other materials available upon request.
- Cap and chain are available upon request.
- Special finishes are available upon request.

PART NO.	P	A	U	C	D	T
TW08-0250-TL-260	1/2"	6"	2-1/2"	1-1/8"	1/2"	2"
TW08-0450-TL-260	1/2"	9"	4-1/2"	1-1/8"	5/8"	3"
TW08-0750-TL-260	1/2"	12"	7-1/2"	1-1/8"	5/8"	3"
TW08-1050-TL-260	1/2"	15"	10-1/2"	1-1/8"	5/8"	3"
TW08-1350-TL-260	1/2"	18"	13-1/2"	1-1/8"	5/8"	3"
TW08-1950-TL-260	1/2"	24"	19-1/2"	1-1/8"	5/8"	3"
TW012-0250-TL-260	3/4"	6"	2-1/2"	1-1/8"	1/2"	2"
TW012-0450-TL-260	3/4"	9"	4-1/2"	1-1/8"	3/4"	3"
TW012-0750-TL-260	3/4"	12"	7-1/2"	1-1/8"	3/4"	3"
TW012-1050-TL-260	3/4"	15"	10-1/2"	1-1/8"	3/4"	3"
TW012-1350-TL-260	3/4"	18"	13-1/2"	1-1/8"	3/4"	3"
TW012-1950-TL-260	3/4"	24"	19-1/2"	1-1/8"	3/4"	3"
TW016-0250-TL-260	1"	6"	2-1/2"	1-3/8"	1/2"	2"
TW016-0450-TL-260	1"	9"	4-1/2"	1-3/8"	7/8"	3"
TW016-0750-TL-260	1"	12"	7-1/2"	1-3/8"	7/8"	3"
TW016-1050-TL-260	1"	15"	10-1/2"	1-3/8"	7/8"	3"
TW016-1350-TL-260	1"	18"	13-1/2"	1-3/8"	7/8"	3"
TW016-1950-TL-260	1"	24"	19-1/2"	1-3/8"	7/8"	3"

Standard Threaded Thermowells for 3/8" Elements (0.385 Bore)



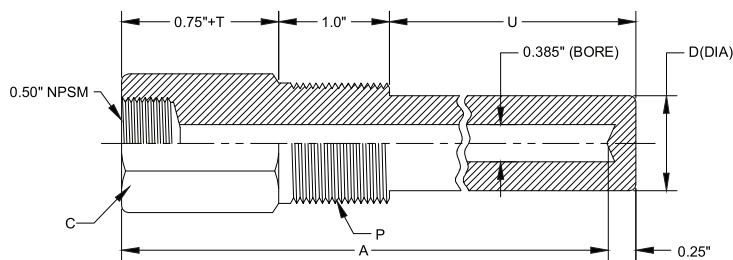
NOTES:

- Standard materials in stock. All other materials available upon request.
- Cap and chain are available upon request.
- Special finishes are available upon request.



PART NO.	P	A	U	C	D
TW08-0250-T-385	3/4"	4"	2-1/2"	1-1/8"	49/64"
TW08-0450-T-385	3/4"	6"	4-1/2"	1-1/8"	49/64"
TW08-0750-T-385	3/4"	9"	7-1/2"	1-1/8"	49/64"
TW08-1050-T-385	3/4"	12"	10-1/2"	1-1/8"	49/64"
TW08-1350-T-385	3/4"	15"	13-1/2"	1-1/8"	49/64"
TW08-2250-T-385	3/4"	24"	22-1/2"	1-1/8"	49/64"
TW016-0250-T-260	1"	4"	2-1/2"	1-3/8"	7/8"
TW016-0450-T-385	1"	6"	4-1/2"	1-3/8"	7/8"
TW016-0750-T-385	1"	9"	7-1/2"	1-3/8"	7/8"
TW016-1050-T-385	1"	12"	10-1/2"	1-3/8"	7/8"
TW016-1350-T-385	1"	15"	13-1/2"	1-3/8"	7/8"
TW016-2250-T-385	1"	24"	22-1/2"	1-3/8"	7/8"

Standard Threaded Thermowells for 3/8" Elements (0.385 Bore) w/Lagging Extension



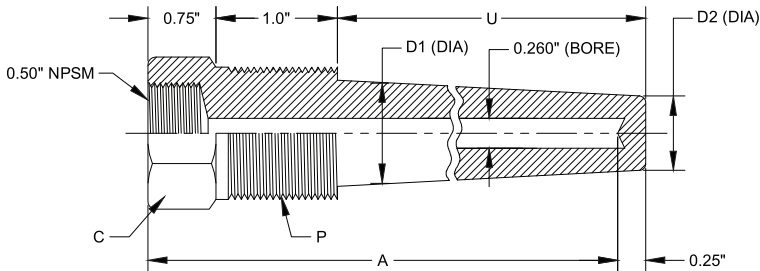
NOTES:

- Standard materials in stock. All other materials available upon request.
- Cap and chain are available upon request.
- Special finishes are available upon request.



PART NO.	P	A	U	C	D	T
TW08-0250-TL-385	3/4"	6"	2-1/2"	1-1/8"	49/64"	2"
TW08-0450-TL-385	3/4"	9"	4-1/2"	1-1/8"	49/64"	3"
TW08-0750-TL-385	3/4"	12"	7-1/2"	1-1/8"	49/64"	3"
TW08-1050-TL-385	3/4"	15"	10-1/2"	1-1/8"	49/64"	3"
TW08-1350-TL-385	3/4"	18"	13-1/2"	1-1/8"	49/64"	3"
TW08-1950-TL-385	3/4"	24"	19-1/2"	1-1/8"	49/64"	3"
TW016-0250-TL-260	1"	6"	2-1/2"	1-3/8"	7/8"	2"
TW016-0450-TL-385	1"	9"	4-1/2"	1-3/8"	7/8"	3"
TW016-0750-TL-385	1"	12"	7-1/2"	1-3/8"	7/8"	3"
TW016-1050-TL-385	1"	15"	10-1/2"	1-3/8"	7/8"	3"
TW016-1350-TL-385	1"	18"	13-1/2"	1-3/8"	7/8"	3"
TW016-1950-TL-385	1"	24"	19-1/2"	1-3/8"	7/8"	3"

Threaded Heavy Duty Thermowells for 1/4" Elements (0.260 Bore)



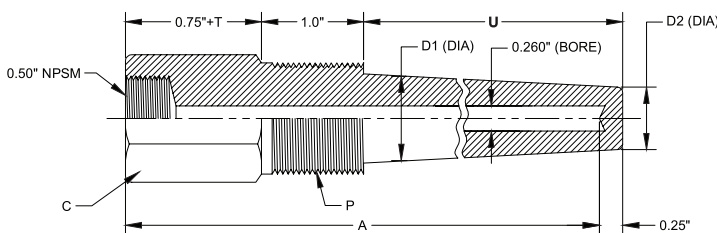
NOTES:

- Standard materials in stock. All other materials available upon request.
- Cap and chain are available upon request.
- Special finishes are available upon request.



PART NO.	P	A	U	C	D1	D2
TW08-0250-HT-260	1/2"	4"	2-1/2"	1-1/8"	5/8"	1/2"
TW08-0450-HT-260	1/2"	6"	4-1/2"	1-1/8"	5/8"	1/2"
TW08-0750-HT-260	1/2"	9"	7-1/2"	1-1/8"	5/8"	1/2"
TW08-1050-HT-260	1/2"	12"	10-1/2"	1-1/8"	5/8"	1/2"
TW08-1350-HT-260	1/2"	15"	13-1/2"	1-1/8"	5/8"	1/2"
TW08-1650-HT-260	1/2"	24"	16-1/2"	1-1/8"	5/8"	1/2"
TW08-1950-HT-260	1/2"	24"	19-1/2"	1-1/8"	5/8"	1/2"
TW012-0250-HT-260	3/4"	4"	2-1/2"	1-1/8"	7/8"	5/8"
TW012-0450-HT-260	3/4"	6"	4-1/2"	1-1/8"	7/8"	5/8"
TW012-0750-HT-260	3/4"	9"	7-1/2"	1-1/8"	7/8"	5/8"
TW012-1050-HT-260	3/4"	12"	10-1/2"	1-1/8"	7/8"	5/8"
TW012-1350-HT-260	3/4"	15"	13-1/2"	1-1/8"	7/8"	5/8"
TW012-1650-HT-260	3/4"	18"	16-1/2"	1-1/8"	7/8"	5/8"
TW012-2250-HT-260	3/4"	24"	22-1/2"	1-1/8"	7/8"	5/8"
TW016-0250-HT-260	1"	4"	2-1/2"	1-3/8"	1-1/16"	5/8"
TW016-0450-HT-260	1"	6"	4-1/2"	1-3/8"	1-1/16"	5/8"
TW016-0750-HT-260	1"	9"	7-1/2"	1-3/8"	1-1/16"	5/8"
TW016-1050-HT-260	1"	12"	10-1/2"	1-3/8"	1-1/16"	5/8"
TW016-1350-HT-260	1"	15"	13-1/2"	1-3/8"	1-1/16"	5/8"
TW016-1650-HT-260	1"	18"	16-1/2"	1-3/8"	1-1/16"	5/8"
TW016-2250-HT-260	1"	24"	22-1/2"	1-3/8"	1-1/16"	5/8"

Threaded Heavy Duty Thermowells for 1/4" Elements (0.260 Bore) w/Lagging Extension



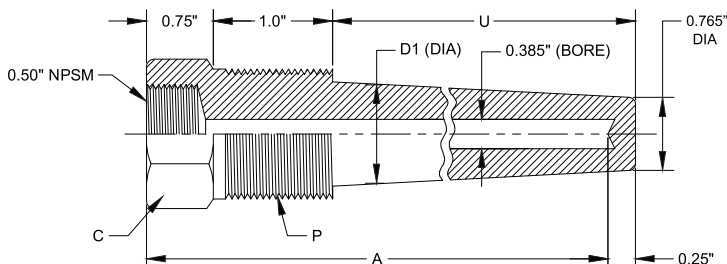
NOTES:

- Standard materials in stock. All other materials available upon request.
- Cap and chain are available upon request.
- Special finishes are available upon request.



PART NO.	P	A	U	C	D1	D2	T
TW08-0250-HTL-260	1/2"	6"	2-1/2"	1-1/8"	5/8"	1/2"	2"
TW08-0450-HTL-260	1/2"	9"	4-1/2"	1-1/8"	5/8"	1/2"	3"
TW08-0750-HTL-260	1/2"	12"	7-1/2"	1-1/8"	5/8"	1/2"	3"
TW08-1050-HTL-260	1/2"	15"	10-1/2"	1-1/8"	5/8"	1/2"	3"
TW08-1350-HTL-260	1/2"	18"	13-1/2"	1-1/8"	5/8"	1/2"	3"
TW08-1950-HTL-260	1/2"	24"	19-1/2"	1-1/8"	5/8"	1/2"	3"
TW012-0250-HTL-260	3/4"	6"	2-1/2"	1-1/8"	7/8"	5/8"	2"
TW012-0450-HTL-260	3/4"	9"	4-1/2"	1-1/8"	7/8"	5/8"	3"
TW012-0750-HTL-260	3/4"	12"	7-1/2"	1-1/8"	7/8"	5/8"	3"
TW012-1050-HTL-260	3/4"	15"	10-1/2"	1-1/8"	7/8"	5/8"	3"
TW012-1350-HTL-260	3/4"	18"	13-1/2"	1-1/8"	7/8"	5/8"	3"
TW012-1950-HTL-260	3/4"	24"	19-1/2"	1-1/8"	7/8"	5/8"	3"
TW016-0250-HTL-260	1"	6"	2-1/2"	1-3/8"	1-1/16"	5/8"	2"
TW016-0450-HTL-260	1"	9"	4-1/2"	1-3/8"	1-1/16"	5/8"	3"
TW016-0750-HTL-260	1"	12"	7-1/2"	1-3/8"	1-1/16"	5/8"	3"
TW016-1050-HTL-260	1"	15"	10-1/2"	1-3/8"	1-1/16"	5/8"	3"
TW016-1350-HTL-260	1"	18"	13-1/2"	1-3/8"	1-1/16"	5/8"	3"
TW016-1950-HTL-260	1"	24"	19-1/2"	1-3/8"	1-1/16"	5/8"	3"

Threaded Heavy Duty Thermowells for 3/8" Elements (0.385 Bore)



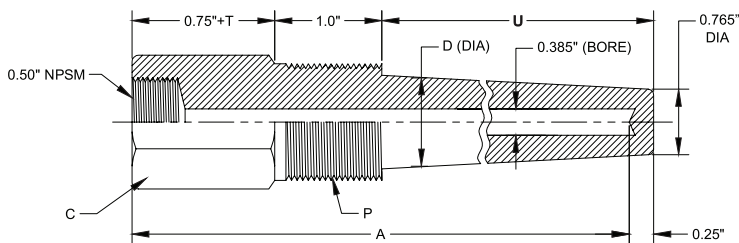
NOTES:

- Standard materials in stock. All other materials available upon request.
- Cap and chain are available upon request.
- Special finishes are available upon request.



PART NO.	P	A	U	C	D
TW012-0250-GT-385	3/4"	4"	2-1/2"	1-1/8"	7/8"
TW012-0450-GT-385	3/4"	6"	4-1/2"	1-1/8"	7/8"
TW012-0750-GT-385	3/4"	9"	7-1/2"	1-1/8"	7/8"
TW012-1050-GT-385	3/4"	12"	10-1/2"	1-1/8"	7/8"
TW012-1350-GT-385	3/4"	15"	13-1/2"	1-1/8"	7/8"
TW012-1650-GT-385	3/4"	18"	16-1/2"	1-1/8"	7/8"
TW012-1950-GT-385	3/4"	24"	22-1/2"	1-1/8"	7/8"
TW016-0250-GT-260	1"	4"	2-1/2"	1-3/8"	1-1/16"
TW016-0450-GT-385	1"	6"	4-1/2"	1-3/8"	1-1/16"
TW016-0750-GT-385	1"	9"	7-1/2"	1-3/8"	1-1/16"
TW016-1050-GT-385	1"	12"	10-1/2"	1-3/8"	1-1/16"
TW016-1350-GT-385	1"	15"	13-1/2"	1-3/8"	1-1/16"
TW016-1950-GT-385	1"	18"	16-1/2"	1-3/8"	1-1/16"
TW016-1950-GT-385	1"	24"	22-1/2"	1-3/8"	1-1/16"

Threaded Heavy Duty Thermowells for 3/8" Elements (0.385 Bore)w/Lagging Extension



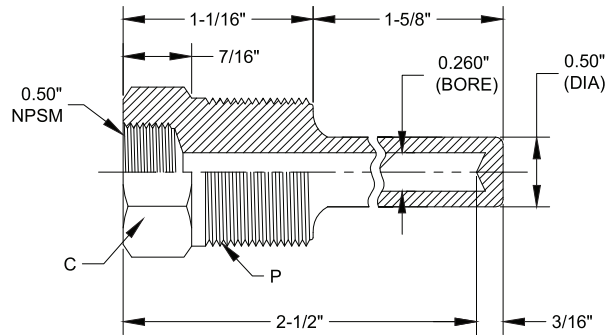
NOTES:

- Standard materials in stock. All other materials available upon request.
- Cap and chain are available upon request.
- Special finishes are available upon request.



PART NO.	P	A	U	C	D	T
TW012-0250-HTL-385	3/4"	6"	2-1/2"	1-1/8"	7/8"	2"
TW012-0450-HTL-385	3/4"	9"	4-1/2"	1-1/8"	7/8"	3"
TW012-0750-HTL-385	3/4"	12"	7-1/2"	1-1/8"	7/8"	3"
TW012-1050-HTL-385	3/4"	15"	10-1/2"	1-1/8"	7/8"	3"
TW012-1350-HTL-385	3/4"	18"	13-1/2"	1-1/8"	7/8"	3"
TW012-1950-HTL-385	3/4"	24"	19-1/2"	1-1/8"	7/8"	3"
TW016-0250-HTL-260	1"	6"	2-1/2"	1-3/8"	1-1/16"	2"
TW016-0450-HTL-385	1"	9"	4-1/2"	1-3/8"	1-1/16"	3"
TW016-0750-HTL-385	1"	12"	7-1/2"	1-3/8"	1-1/16"	3"
TW016-1050-HTL-385	1"	15"	10-1/2"	1-3/8"	1-1/16"	3"
TW016-1350-HTL-385	1"	18"	13-1/2"	1-3/8"	1-1/16"	3"
TW016-1950-HTL-385	1"	24"	19-1/2"	1-3/8"	1-1/16"	3"

Limited Space Thermowells for 1/4" Elements (0.260 Bore)

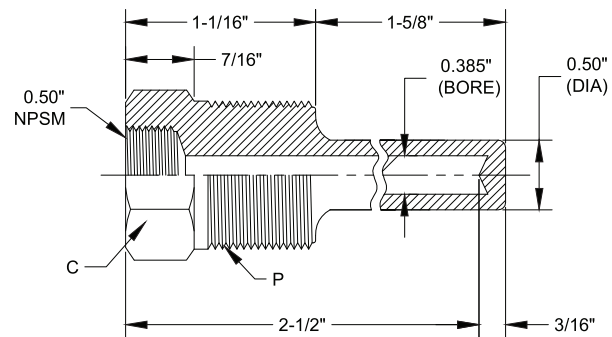


NOTES:

- Standard materials in stock. All other materials available upon request.
- Cap and chain are available upon request.
- Special finishes are available upon request.

PART NO.	P	C
TW04-LS-T-260	1/4"	1-1/8"
TW012-LS-T-260	3/4"	1-1/8"
TW016-LS-T-260	1"	1-3/8"

Limited Space Thermowells for 3/8" Elements (0.385 Bore)

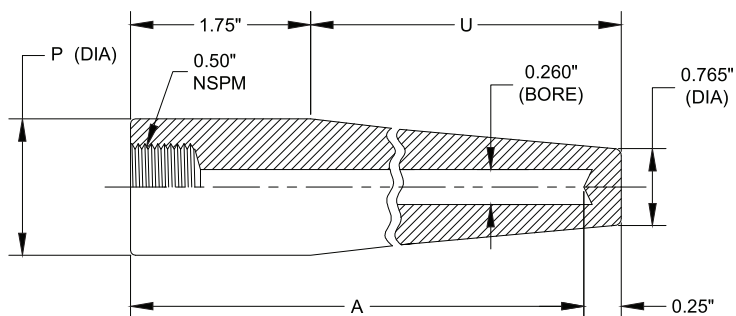


NOTES:

- Standard materials in stock. All other materials available upon request.
- Cap and chain are available upon request.
- Special finishes are available upon request.

PART NO.	P	C
TW08-LS-T-385	1/4"	1-1/8"
TW012-LS-T-385	3/4"	1-1/8"
TW016-LS-T-385	1"	1-3/8"

Weld-In Thermowells for 1/4" Elements (0.260 Bore)



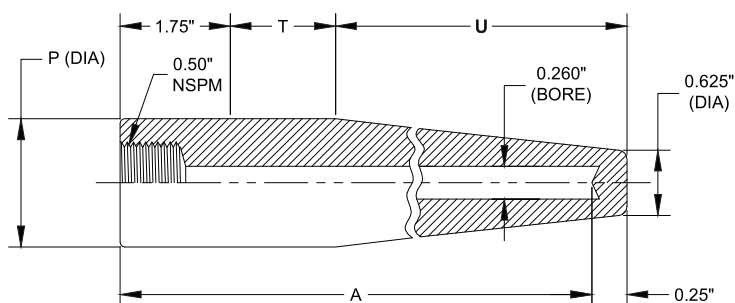
NOTES:

- Standard materials in stock. All other materials available upon request.
- Cap and chain are available upon request.
- Special finishes are available upon request.



PART NO.	P	A	U
TW012-0250-W-260	3/4" (Nomial 1.05" Dia)	4"	2-1/2"
TW012-0450-W-260	3/4" (Nomial 1.05" Dia)	6"	4-1/2"
TW012-0750-W-260	3/4" (Nomial 1.05" Dia)	9"	7-1/2"
TW012-1050-W-260	3/4" (Nomial 1.05" Dia)	12"	10-1/2"
TW012-1350-W-260	3/4" (Nomial 1.05" Dia)	15"	13-1/2"
TW012-1650-W-260	3/4" (Nomial 1.05" Dia)	18"	16-1/2"
TW012-2250-W-260	3/4" (Nomial 1.05" Dia)	24"	22-1/2"
TW016-0250-W-260	1" (Nomial 1.315" Dia)	4"	2-1/2"
TW016-0450-W-260	1" (Nomial 1.315" Dia)	6"	4-1/2"
TW016-0750-W-260	1" (Nomial 1.315" Dia)	9"	7-1/2"
TW016-1050-W-260	1" (Nomial 1.315" Dia)	12"	10-1/2"
TW016-1350-W-260	1" (Nomial 1.315" Dia)	15"	13-1/2"
TW016-1650-W-260	1" (Nomial 1.315" Dia)	18"	16-1/2"
TW016-2250-W-260	1" (Nomial 1.315" Dia)	24"	22-1/2"

Weld-In Thermowells for 1/4" Elements (0.260 Bore) w/Lagging Extension



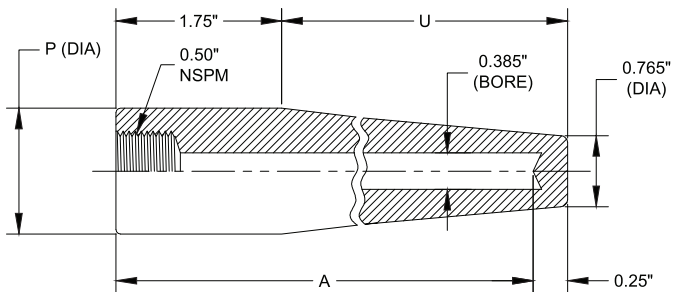
NOTES:

- Standard materials in stock. All other materials available upon request.
- Cap and chain are available upon request.
- Special finishes are available upon request.



PART NO.	P	A	U	T
TW012-0450-WL-260	3/4" (Nomial 1.05" Dia)	6"	2-1/2"	2"
TW012-0750-WL-260	3/4" (Nomial 1.05" Dia)	9"	4-1/2"	3"
TW012-1050-WL-260	3/4" (Nomial 1.05" Dia)	12"	7-1/2"	3"
TW012-1350-WL-260	3/4" (Nomial 1.05" Dia)	15"	10-1/2"	3"
TW012-1650-WL-260	3/4" (Nomial 1.05" Dia)	18"	13-1/2"	3"
TW012-2250-WL-260	3/4" (Nomial 1.05" Dia)	24"	19-1/2"	3"
TW016-0450-WL-260	1" (Nomial 1.315" Dia)	6"	2-1/2"	2"
TW016-0750-WL-260	1" (Nomial 1.315" Dia)	9"	4-1/2"	3"
TW016-1050-WL-260	1" (Nomial 1.315" Dia)	12"	7-1/2"	3"
TW016-1350-WL-260	1" (Nomial 1.315" Dia)	15"	10-1/2"	3"
TW016-1650-WL-260	1" (Nomial 1.315" Dia)	18"	13-1/2"	3"
TW016-2250-WL-260	1" (Nomial 1.315" Dia)	24"	19-1/2"	3"

Weld-In Thermowells for 3/8" Elements (0.385 Bore)



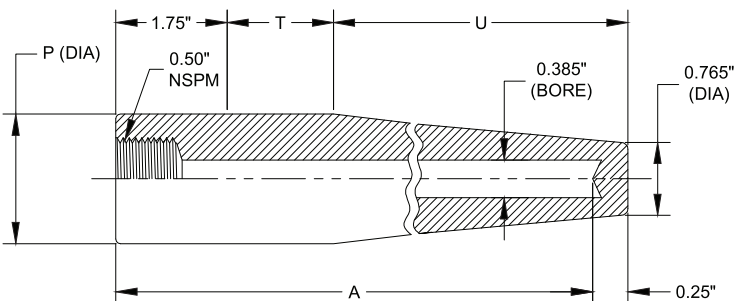
NOTES:

- Standard materials in stock. All other materials available upon request.
- Cap and chain are available upon request.
- Special finishes are available upon request.



PART NO.	P	A	U
TW012-0250-W-385	3/4" (Nomial 1.05" Dia)	4"	2-1/2"
TW012-0450-W-385	3/4" (Nomial 1.05" Dia)	6"	4-1/2"
TW012-0750-W-385	3/4" (Nomial 1.05" Dia)	9"	7-1/2"
TW012-1050-W-385	3/4" (Nomial 1.05" Dia)	12"	10-1/2"
TW012-1350-W-385	3/4" (Nomial 1.05" Dia)	15"	13-1/2"
TW012-1650-W-385	3/4" (Nomial 1.05" Dia)	18"	16-1/2"
TW012-2250-W-385	3/4" (Nomial 1.05" Dia)	24"	22-1/2"
TW016-0250-W-385	1" (Nomial 1.315" Dia)	4"	2-1/2"
TW016-0450-W-385	1" (Nomial 1.315" Dia)	6"	4-1/2"
TW016-0750-W-385	1" (Nomial 1.315" Dia)	9"	7-1/2"
TW016-1050-W-385	1" (Nomial 1.315" Dia)	12"	10-1/2"
TW016-1350-W-385	1" (Nomial 1.315" Dia)	15"	13-1/2"
TW016-1650-W-385	1" (Nomial 1.315" Dia)	18"	16-1/2"
TW016-2250-W-385	1" (Nomial 1.315" Dia)	24"	22-1/2"

Weld-In Thermowells for 3/8" Elements (0.385 Bore) w/Lagging Extension



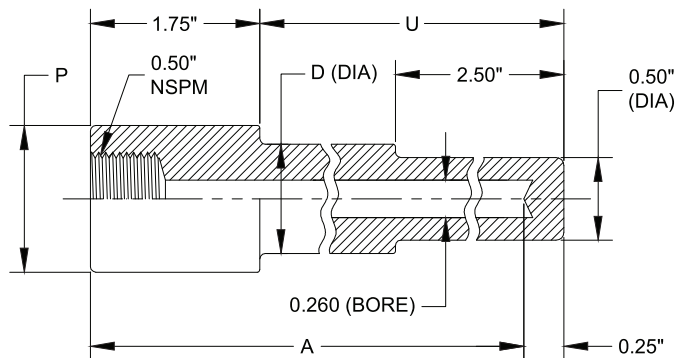
NOTES:

- Standard materials in stock. All other materials available upon request.
- Cap and chain are available upon request.
- Special finishes are available upon request.



PART NO.	P	A	U	T
TW012-0450-WL-385	3/4" (Nomial 1.05" Dia)	6"	2-1/2"	2"
TW012-0750-WL-385	3/4" (Nomial 1.05" Dia)	9"	4-1/2"	3"
TW012-1050-WL-385	3/4" (Nomial 1.05" Dia)	12"	7-1/2"	3"
TW012-1350-WL-385	3/4" (Nomial 1.05" Dia)	15"	10-1/2"	3"
TW012-1650-WL-385	3/4" (Nomial 1.05" Dia)	18"	13-1/2"	3"
TW012-2250-WL-385	3/4" (Nomial 1.05" Dia)	24"	19-1/2"	3"
TW016-0450-WL-385	1" (Nomial 1.315" Dia)	6"	2-1/2"	2"
TW016-0750-WL-385	1" (Nomial 1.315" Dia)	9"	4-1/2"	3"
TW016-1050-WL-385	1" (Nomial 1.315" Dia)	12"	7-1/2"	3"
TW016-1350-WL-385	1" (Nomial 1.315" Dia)	15"	10-1/2"	3"
TW016-1650-WL-385	1" (Nomial 1.315" Dia)	18"	13-1/2"	3"
TW016-2250-WL-385	1" (Nomial 1.315" Dia)	24"	19-1/2"	3"

Socket-Weld Thermowells for 1/4" Elements (0.260 Bore)



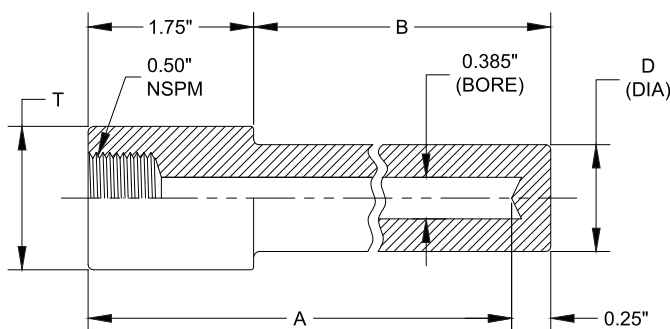
NOTES:

- Standard materials in stock. All other materials available upon request.
- Cap and chain are available upon request.
- Special finishes are available upon request.



PART NO.	P	A	U	D
TW012-0250-SW-260	3/4" (Nomial 1.05" Dia)	4"	2-1/2"	1/2"
TW012-0450-SW-260	3/4" (Nomial 1.05" Dia)	6"	4-1/2"	3/4"
TW012-0750-SW-260	3/4" (Nomial 1.05" Dia)	9"	7-1/2"	3/4"
TW012-1050-SW-260	3/4" (Nomial 1.05" Dia)	12"	10-1/2"	3/4"
TW012-1350-SW-260	3/4" (Nomial 1.05" Dia)	15"	13-1/2"	3/4"
TW012-1650-SW-260	3/4" (Nomial 1.05" Dia)	18"	16-1/2"	3/4"
TW012-2250-SW-260	3/4" (Nomial 1.05" Dia)	24"	22-1/2"	3/4"
TW016-0250-SW-260	1" (Nomial 1.315" Dia)	4"	2-1/2"	7/8"
TW016-0450-SW-260	1" (Nomial 1.315" Dia)	6"	2-1/2"	7/8"
TW016-0750-SW-260	1" (Nomial 1.315" Dia)	9"	4-1/2"	7/8"
TW016-1050-SW-260	1" (Nomial 1.315" Dia)	12"	7-1/2"	7/8"
TW016-1350-SW-260	1" (Nomial 1.315" Dia)	15"	10-1/2"	7/8"
TW016-1650-SW-260	1" (Nomial 1.315" Dia)	18"	13-1/2"	7/8"
TW016-2250-SW-260	1" (Nomial 1.315" Dia)	24"	19-1/2"	7/8"

Socket-Weld Thermowells for 3/8" Elements (0.385 Bore) w/Lagging Extension



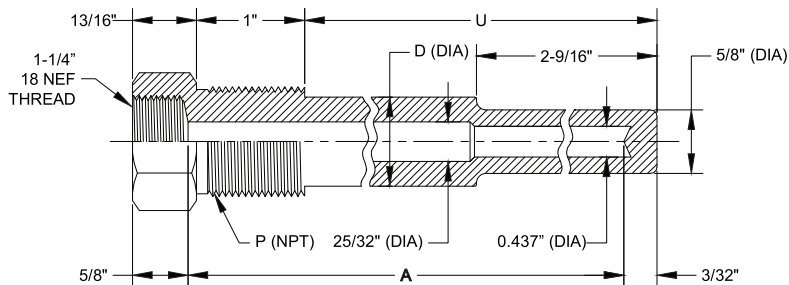
NOTES:

- Standard materials in stock. All other materials available upon request.
- Cap and chain are available upon request.
- Special finishes are available upon request.



PART NO.	T	A	B	D
TW012-0250-SW-385	3/4" (Nomial 1.05" Dia)	4"	2-1/2"	49/64"
TW012-0450-SW-385	3/4" (Nomial 1.05" Dia)	6"	4-1/2"	49/64"
TW012-0750-SW-385	3/4" (Nomial 1.05" Dia)	9"	7-1/2"	49/64"
TW012-1050-SW-385	3/4" (Nomial 1.05" Dia)	12"	10-1/2"	49/64"
TW012-1350-SW-385	3/4" (Nomial 1.05" Dia)	15"	13-1/2"	49/64"
TW012-1650-SW-385	3/4" (Nomial 1.05" Dia)	18"	16-1/2"	49/64"
TW012-2250-SW-385	3/4" (Nomial 1.05" Dia)	24"	22-1/2"	49/64"
TW016-0250-SW-385	1" (Nomial 1.315" Dia)	4"	2-1/2"	7/8"
TW016-0450-SW-385	1" (Nomial 1.315" Dia)	6"	4-1/2"	7/8"
TW016-0750-SW-385	1" (Nomial 1.315" Dia)	9"	7-1/2"	7/8"
TW016-1050-SW-385	1" (Nomial 1.315" Dia)	12"	10-1/2"	7/8"
TW016-1350-SW-385	1" (Nomial 1.315" Dia)	15"	13-1/2"	7/8"
TW016-1650-SW-385	1" (Nomial 1.315" Dia)	18"	16-1/2"	7/8"
TW016-2250-SW-385	1" (Nomial 1.315" Dia)	24"	22-1/2"	7/8"

Thermowells for Industrial Glass Thermometer



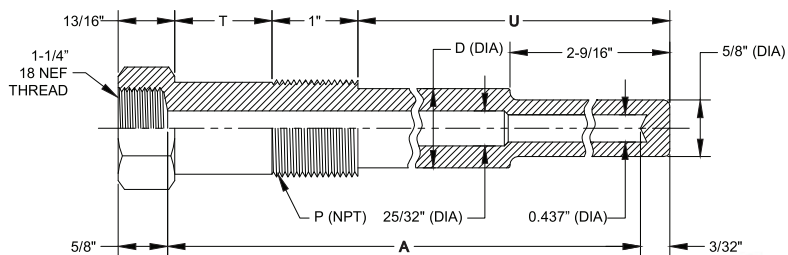
PART NO.	P	NOMINAL ELEMENT LENGTH	A	U	D
TW012-0350-TI-260	3/4"	3-1/2"	3-5/8"	2-9/16"	-
TW012-0600-TI-260	3/4"	6"	6-1/8"	5-1/16"	7/8"
TW012-0900-TI-260	3/4"	9"	9-1/8"	8-1/16"	7/8"
TW012-1200-TI-260	3/4"	12"	12-1/8"	11-1/16"	7/8"
TW012-1800-TI-260	3/4"	18"	18-1/8"	17-1/16"	7/8"
TW012-2400-TI-260	3/4"	24"	24-1/8"	23-1/16"	7/8"
TW016-0350-TI-260	1"	3-1/2"	3-5/8"	2-9/16"	-
TW016-0600-TI-260	1"	6"	6-1/8"	5-1/16"	1"
TW016-0900-TI-260	1"	9"	9-1/8"	8-1/16"	1"
TW016-1200-TI-260	1"	12"	12-1/8"	11-1/16"	1"
TW016-1800-TI-260	1"	18"	18-1/8"	17-1/16"	1"
TW016-2400-TI-260	1"	24"	24-1/8"	23-1/16"	1"

NOTES:

- Standard materials in stock. All other materials available upon request.
- Cap and chain are available upon request.
- Special finishes are available upon request.



Thermowells for Industrial Glass Thermometer (w/Lagging Extension)



PART NO.	P	NOMINAL ELEMENT LENGTH	A	U	D	T
TW012-0600-TIL-260	3/4"	6"	6-5/8"	2-9/16"	-	2-1/2"
TW012-0900-TIL-260	3/4"	9"	9-1/8"	5-1/16"	7/8"	3"
TW012-1200-TIL-260	3/4"	12"	12-1/8"	8-1/16"	7/8"	3"
TW012-1800-TIL-260	3/4"	18"	18-1/8"	14-1/16"	7/8"	3"
TW012-2400-TIL-260	3/4"	24"	24-1/8"	20-1/16"	7/8"	3"
TW016-0600-TIL-260	1"	6"	6-5/8"	2-9/16"	-	2-1/2"
TW016-0900-TIL-260	1"	9"	9-1/8"	5-1/16"	1"	3"
TW016-1200-TIL-260	1"	12"	12-1/8"	8-1/16"	1"	3"
TW016-1800-TIL-260	1"	18"	18-1/8"	14-1/16"	1"	3"
TW016-2400-TIL-260	1"	24"	24-1/8"	20-1/16"	1"	3"

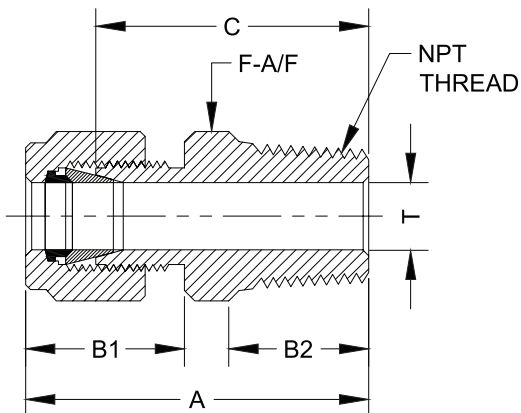
NOTES:

- Standard materials in stock. All other materials available upon request.
- Cap and chain are available upon request.
- Special finishes are available upon request.



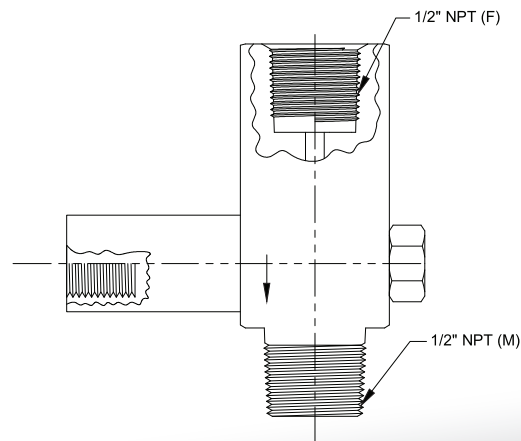
PRESSURE GAUGE ACCESSORIES

Bore through male connector

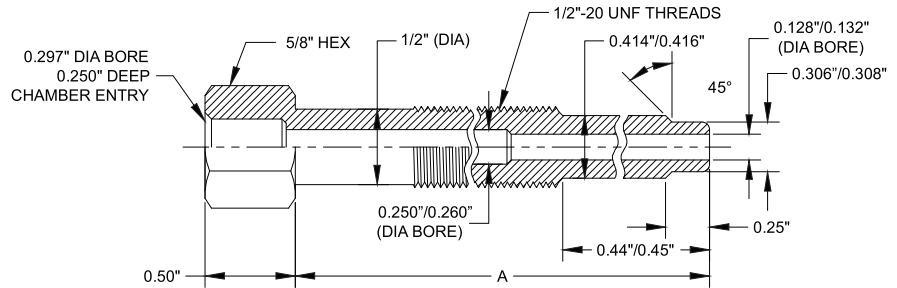


PART NO.	TUBE O.D	NPT PIPE THREAD	A	B1	B2	C	F-A/F
BMC-01-01-BT	1/16"	1/16"	0.93"	0.43"	0.38"	0.78"	5/16"
BMC-01-02-BT	1/16"	1/8"	1.03"	0.43"	0.38"	0.88"	7/16"
BMC-01-04-BT	1/16"	1/4"	1.23"	0.43"	0.56"	1.08"	9/16"
BMC-02-01-BT	1/8"	1/16"	1.17"	0.60"	0.38"	0.91"	3/8"
BMC-02-02-BT	1/8"	1/8"	1.20"	0.60"	0.38"	0.94"	7/16"
BMC-02-04-BT	1/8"	1/4"	1.40"	0.60"	0.56"	1.14"	9/16"
BMC-03-02-BT	3/16"	1/8"	1.23"	0.64"	0.38"	0.97"	7/16"
BMC-03-04-BT	3/16"	1/4"	1.43"	0.64"	0.56"	1.17"	9/16"
BMC-04-02-BT	1/4"	1/8"	1.29"	0.70"	0.38"	1.00"	1/2"
BMC-04-04-BT	1/4"	1/4"	1.49"	0.70"	0.56"	1.20"	9/16"
BMC-04-06-BT	1/4"	3/8"	1.60"	0.70"	0.56"	1.22"	11/16"
BMC-04-08-BT	1/4"	1/2"	1.87"	0.70"	0.75"	1.47"	7/8"
BMC-05-04-BT	5/16"	1/4"	1.52"	0.73"	0.56"	1.22"	9/16"
BMC-06-04-BT	3/8"	1/4"	1.57"	0.76"	0.56"	1.28"	5/8"
BMC-06-06-BT	3/8"	3/8"	1.57"	0.76"	0.56"	1.28"	11/16"
BMC-06-08-BT	3/8"	1/2"	1.82"	0.76"	0.75"	1.53"	7/8"
BMC-06-12-BT	3/8"	3/4"	1.88"	0.76"	0.75"	1.59"	1-1/16"
BMC-08-08-BT	1/2"	1/2"	1.93"	0.87"	0.76"	1.53"	7/8"
BMC-08-12-BT	1/2"	3/4"	1.99"	0.87"	0.75"	1.59"	1-1/16"
BMC-10-12-BT	5/8"	3/4"	1.99"	0.87"	0.75"	1.59"	1-1/16"
BMC-12-12-BT	3/4"	3/4"	1.99"	0.87"	0.56"	1.59"	1-1/16"
BMC-16-16-BT	1"	1"	2.46"	1.05"	0.94"	1.97"	1-3/8"

Gauge gaurd PE-SNU

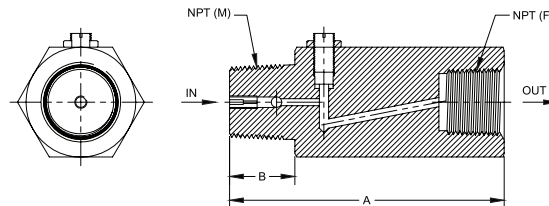


Melt Bolt - X/125



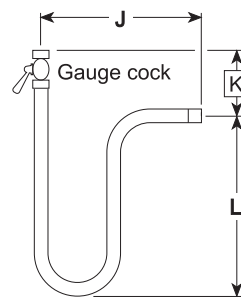
PART NO.	L
PMT-MB-3/125	3"
PMT-MB-4/125	4"
PMT-MB-6/125	6"
PMT-MB-9/125	9"

Pulsation Dampner / Snubber



PART NO.	DESCRIPTION (PIPE)	THREAD SIZE	A	B	MAX. W. P. P.S.I.G. (bar)
PMT-SN-150BH	MALE X FEMALE	1/2" NPT	2.31"	0.75"	5,000 (340)
PMT-SN-150SO	MALE X FEMALE	1/4" NPT	1.73"	0.56"	5,000 (340)

"U" Type Syphon



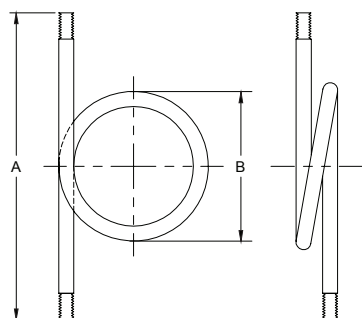
'U' syphon

'U' syphon

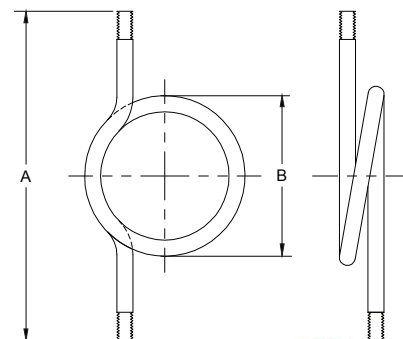
J	K	L	Weight	
			Syphon	Cock
216	92	175	0.90	0.23

Syphon

PIGTAIL SYPHON



COIL SYPHON

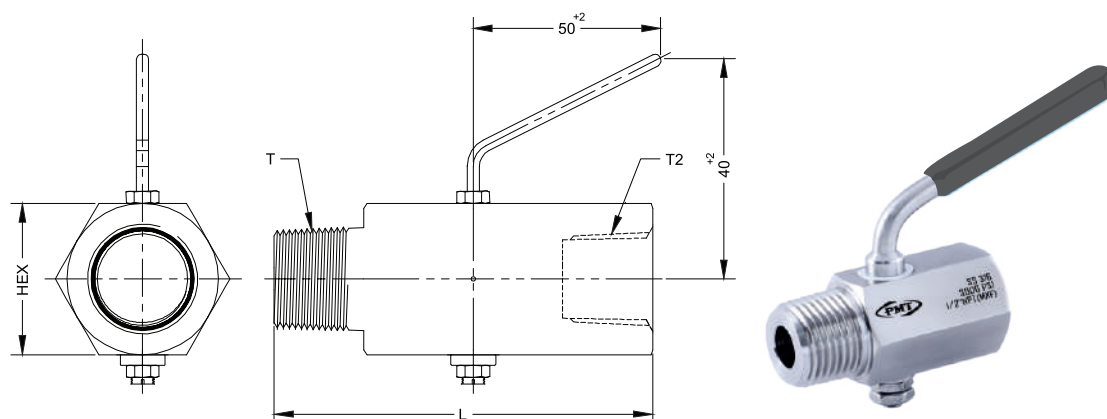


Part Number	Body Material	Size	Press. Rating (PSI)	Temp. Rating (°F)	A (in.) ± 0.25	B (in.) ± 0.25
D-B-2	Brass	1/4" NPT	250	400	5.5	2.5
D-ST-24	Steel, Sch 40	1/4" NPT	500	400	5.5	2.5
D-S-24	316SS, Sch 40	1/4" NPT	500	400	5.5	2.5
D-S-48	316SS, Sch 80	1/2" NPT	2600	500	9.0	4.13

Part Number	Body Material	Size	Press. Rating (PSI)	Temp. Rating (°F)	A (in.) ± 0.25	B (in.) ± 0.25
D-B-2	Brass	1/4" NPT	250	400	7.25	2.63
D-ST-24	Steel, Sch 40	1/4" NPT	500	400	7.25	2.63
D-ST-28	Steel, Sch 80	1/4" NPT	3360	400	7.25	2.63
D-ST-48	Steel, Sch 80	1/2" NPT	3000	400	12.0	2.63
D-ST-416	Steel, Sch 160	1/2" NPT	3620	700	12.0	4.13
D-S-48	316SS, Sch 80	1/2" NPT	2650	500	12.0	4.13
D-S-416	316SS, Sch 160	1/2" NPT	5600	500	12.0	4.13

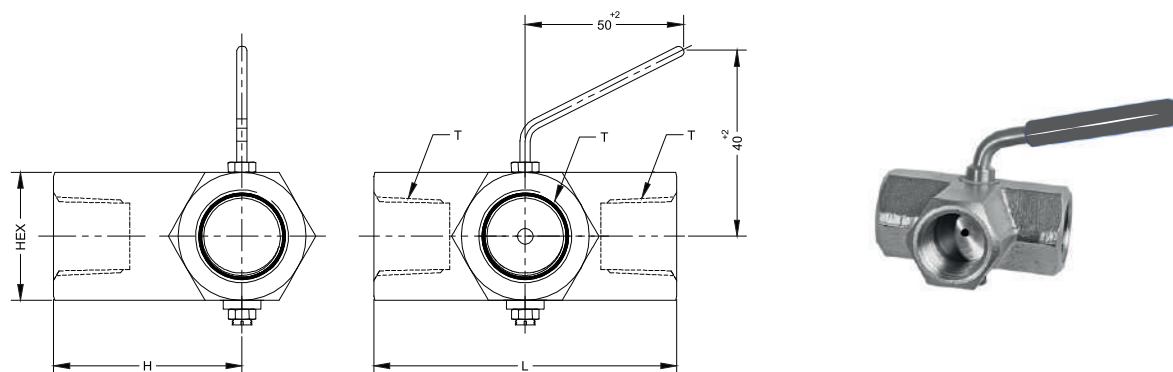
Gauge Cock

2 WAY GAUGE COCK - MALE FEMALE



PART NO.	T (THD.)	T 1 (THD.)	HEX	L (LENGTH)
D-GC-2MF-04	1/4"	1/4"	25	50
D-GC-2MF-06	3/8"	3/8"	25	55
D-GC-2MF-12	1/2"	1/2"	28	60

3 WAY GAUGE COCK - FEMALE FEMALE



PART NO.	T (THD.)	H	HEX	L (LENGTH)
D-GC-3FF-04	1/4"	50	25	55
D-GC-3FF-06	3/8"	55	25	60
D-GC-3FF-12	1/2"	60	28	65



DS-LOK

INSTRUMENTATION VALVES AND FITTINGS



Valves

- Needle Valves
- Manifold Valves
- In Line Check Valve
- Proportional Relief Valves
- Instrument Ball Valves
- Mono Flange Valves
- Integral Block & Bleed Valves
- Bleed & Purge Valves
- Thermowells
- Pressure gauge Accessories

Fittings

- Tube Fittings
- Pipe Fittings
- High Pressure- Pipe Fittings
- Hydraulic Fittings
(DIN 2353, JIC Fittings, ORFS Fittings)

Forged Steel Valves

- Forged Steel Globe Valves (Cryogenic Available)
- Forged Steel Gate Valves (Cryogenic Available)
- Forged Steel Lift check Valves
- Forged Steel Ball Valves (Cryogenic Available)