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DESCRIPTION

The Apollo® Therma-Seal™ Thermal Insulating Tee Handle is designed to be used in applications where piping insulation is used, and a vapor-barrier style extended tee handle required. Manufactured from high strength glass reinforced nylon, these handles are ideally suited for the toughest commercial and industrial applications. Handles are available as a factory installed option (-11 option suffix) or as a kit for retrofits. See chart below for models and kit numbers.

FEATURES

- 2-1/4" Nominal Extended Tee-Handle
- High Strength Glass Reinforced Nylon Body (Non-thermally conductive)
- Heavy Duty Plated Steel Stop Plate
- Tee-Shaped Design Provides Positive Position Indication
- Visual Cap, plug and sleeve Design provides a Vapor Seal Against Outside Air and Helps Prevent Condensation When Used on Chilled Water Lines
- Simple, Patented Design Makes Retrofits or New Installations Easy
- Piping Insulation Can Be Secure Directly onto the Integrated Plastic Sleeve and Is Not Disturbed During Valve Operation

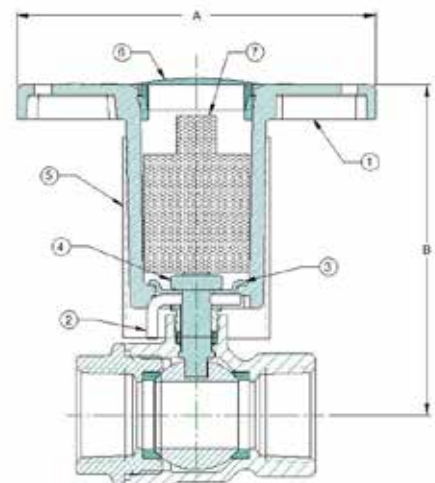
- Formed Holes are Provided for Identification Tagging
- Innovative Stop Plate Design Allows the Thermal Insulating Tee Handle to be Used on a Variety of Popular Apollo® 2 and 3 Piece Ball Valves
- Includes an Insulation Plug for Enhanced Sealing

APPROVALS

- UL 2043 Classified - Fire Test for Heat and Visible Smoke Release for Discrete Products and Their Accessories Installed in Air-Handling Spaces (Plenum Service)

STANDARD MATERIALS LIST

1	Molded Tee-Handle	Glass reinforced nylon
2	Stop Plate	Zinc plated steel
3	Cup Washer	Zinc plated steel
4	Handle Nut	Zinc plated steel
5	Plastic Sleeve	Clear CAB plastic
6	Plastic Cap	Heat stabilized nylon
7	Insulation Plug	Polystyrene Foam



**LEAD FREE: The wetted surfaces of this product shall contain no more than 0.25% lead by weighted average. Complies with Federal Public Law 111-380. ANSI 3rd party approved and listed.*

THERMA-SEAL HANDLE KITS - LEAD FREE (WHITE TEE)

Size	70LF Series			77WLF Original Version			77CLF-A 77WLF-A 77WCLF Series			77FLF/77VLF Series			82LF Series			76F-A Series		
	White Handle	Dim. (IN.)		Yellow Handle	Dim. (IN.)		White Handle	Dim. (IN.)		White Handle	Dim. (IN.)		White Handle	Dim. (IN.)		White Handle	Dim. (IN.)	
	Kit #	A	B	Kit #	A	B	Kit #	A	B	Kit #	A	B	Kit #	A	B	Kit #	A	B
1/4"																NO KIT AVAILABLE		
3/8"	78276801	4	3.48	78218301	4	3.48	78277101	4	3.34	78277101	4	3.47	78276801	4	3.59			
1/2"			3.52			3.52	78277201	4	3.37			3.52	78276901	4	3.69	78277001	4	3.56
3/4"			3.88			3.81			3.60			3.73			3.94	78276801		3.79
1"	78276901	4	3.99	78218401	4	4.00			3.93	78277201	4	3.92			4.48	78276901		4.09
1-1/4"			4.48			4.70	78276901	4	4.15	78276901	4	4.26	78277401	5.5	4.73			4.79
1-1/2"	78277401	5.5	4.67	78218501	5.5	4.86			4.56						4.98	78277401	5.5	4.90
			4.86			5.40	78277401	5.5	5.16			5.27			5.29			5.27
2"																		

THERMA-SEAL HANDLE KITS - NON LEAD FREE (YELLOW TEE)

Size	70 Series			77W Original Version			77 Series			77C-A 77W-A Series			77F/77V Series			82 Series		
	Yellow Handle	Dim. (IN.)		Yellow Handle	Dim. (IN.)		Yellow Handle	Dim. (IN.)		Yellow Handle	Dim. (IN.)		Yellow Handle	Dim. (IN.)		Yellow Handle	Dim. (IN.)	
	Kit #	A	B	Kit #	A	B	Kit #	A	B	Kit #	A	B	Kit #	A	B	Kit #	A	B
1/4"																		
3/8"	78219001	4	3.48	78218301	4	3.48	78219001	4	3.55	78233001	4	3.34	78233001	4	3.47	78219001	4	3.59
1/2"			3.52			3.52			3.58			3.37			3.52	78219101	4	3.69
3/4"			3.88			3.81	78219101	4	3.93	78233101	4	3.60			3.73			3.94
1"	78219101	4	3.99	78218401	4	4.00			4.54			3.93	78233101	4	3.92			4.48
1-1/4"			4.48			4.70	78219201	5.5	4.76	78219101	4	4.15	78219101	4	4.26	78219201	5.5	4.73
1-1/2"	78219201	5.5	4.67	78218501	5.5	4.86			4.71			4.56			4.69			4.98
2"			4.86			5.40			5.11	78219201	5.5	5.16	78219201	5.5	5.27			5.29

Installation of the Apollo® Therma-Seal™ thermal insulating tee-handle is simple and can be accomplished without any specialized tools.

Warning: Do not attempt to work on any valve under pressure. De-pressurize the piping system before any work begins. Use appropriate protective gear as required to protect against possible burns or uncontrolled release of fluids.

Step 1: Remove any existing handle or other operating mechanism and set aside.

Step 2: Install the stop plate, item 2, as shown in figures 1 and 2.

Step 3: Place the plastic sleeve, item 5, over the molded tee-handle, item 1. See figure 2.

Step 4: Place the molded handle and sleeve over the stop plate as shown. Make certain the stop plate and tee-handle are properly aligned.

Step 5: Position the cup washer, item 3, and handle nut, item 4, as shown. Tighten the handle nut to the torque shown in table 1. An appropriately sized deep well socket and torque wrench will be required to complete this step.

Step 6: Insert the foam insulation plug, item 7, into the molded handle.

Step 7: Complete the assembly by pressing the plastic cap, Item 6, into the molded tee-handle.



Figure 1: Exploded View

Kit Number	Handle Nut Torque
78218301	35-40 in. lbs.
78218401	50-55 in. lbs.
78218501	100-110 in. lbs.
78219001	50-55 in. lbs.
78219101	70-75 in. lbs.
78219201	95-105 in. lbs.
78231001	144-216 in. lbs.
78233001	55-65 in. lbs.
78233101	55-65 in. lbs.

Table 1: Handle Nut Assembly Torque

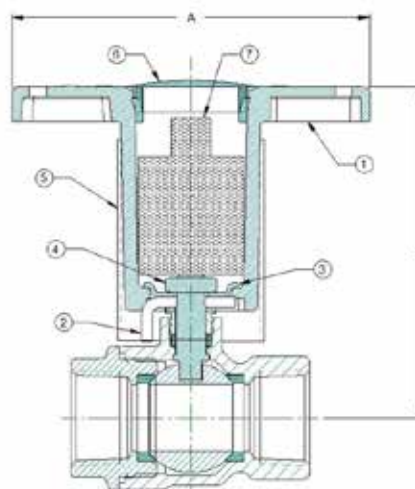


Figure 2: Sectional View

Item	Name	Material
1	Molded Tee-Handle	Glass reinforced nylon
2	Stop Plate	Zinc plated steel
3	Cup Washer	Zinc plated steel
4	Handle Nut	Zinc plated steel
5	Plastic Sleeve	Clear CAB plastic
6	Plastic Cap	Heat stabilized nylon
7	Insulation Plug	Polystyrene Foam

Table 2: Standard Materials List

Caution: Handle should not be used in applications where its temperature will exceed 275°F. When installing solder valves with the Therma-Seal™ factory installed, Slide the clear plastic sleeve away from contact with the valve body, wrap the Therma-Seal™ handle and sleeve with a damp cloth to protect from heat, and direct the flame away from the center of the valve during heating.