

**INSTALLATION AND MAINTENANCE  
INSTRUCTIONS FOR ASHCROFT®  
TYPE 91 SERIES ADAPTER KIT**



The Type 91 Series Adapter Sets were designed to provide a simple means of installing a bimetal dial thermometer into an existing industrial glass thermometer well.

The adapter set consists of:

1. A metal liner and spring assembly.
2. An adapter nut.
3. A small supply of heat conducting medium.

**METHOD OF SELECTING THE SET**

The Adapter Sets are available in four different sizes, to cover various depths of wells. The "Selection Chart" shows the Adapter Set number and the Bimetal Dial Thermometer stem length to use for any well depth from 3<sup>5</sup>/<sub>8</sub>" up to 25<sup>1</sup>/<sub>8</sub>".

To select the proper Adapter Set and Bimetal Dial Thermometer stem length, measure first the well depth by inserting a pencil, or any small diameter rod or stiff wire until it reaches the bottom. (See Figure 1.) Be sure the rod does not hang up on any shoulder inside the well. Using your thumb as an index, withdraw the rod and measure the distance from the end of the rod to the index point. (See Figure 2.)

Then use the chart to select the Adapter Set and the Bimetal Dial Thermometer stem length to fit the well.

Note that one stem length of thermometer covers several different well depths by using the correct Adapter Set.

For example, a thermometer with a 9" long stem can be used for well depths between 7<sup>1</sup>/<sub>8</sub>" and 10<sup>1</sup>/<sub>8</sub>", by choosing the correct Adapter Set.

The liner is tapped with a <sup>5</sup>/<sub>16</sub>"-18 machine thread so it can be removed from the well if desired.

**INSTALLATION**

Assemble the adapter nut into the well and tighten securely. (See Figure 3.)

Before installing the Bimetal Dial Thermometer into the adapter and well, coat the lower 3" section of the thermometer with a layer of heat conducting medium. This will improve the temperature response of the thermometer.

The metal liner is then slipped over the end of the thermometer stem and a coating of heat conducting medium is applied to the outside wall of the liner.

The thermometer and the liner are then inserted into the well and tightened in position. Do not tighten more than is necessary to prevent the thermometer from turning.

Where service temperatures exceed 350°F the heat conducting medium may smoke when first subjected to a high temperature. This is caused by the vehicle, in the heat conducting medium, vaporizing and leaving the dry solids behind. This should not be cause for alarm. The dry solids will act equally well as a heat conducting medium for temperatures up to 1000°F.

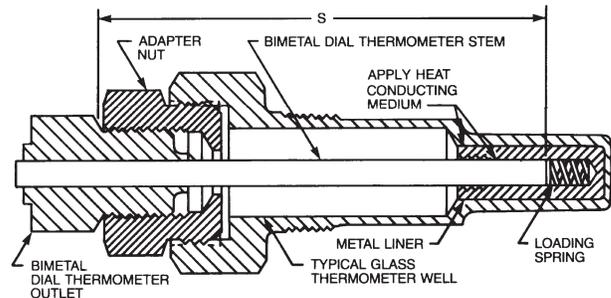


Figure 3

**SELECTION CHART**

WELL DEPTH IN INCHES	ADAPTER SET NO.	STEM LENGTH "S"	WELL DEPTH IN INCHES	ADAPTER SET NO.	STEM LENGTH "S"	WELL DEPTH IN INCHES	ADAPTER SET NO.	STEM LENGTH "S"	
3			10	91D	12	18	91B	18	
			11			19			91A
			12			20			
4	91B	4	13	91A	21				
5	91A	6	14	91D	15	22	91D	24	
6	91B		15	91C		23			
7	91A	9	16	91B	18	24	91B		
8	91D		17	91A		25	91A		
9	91C	9	18	91D	18				
10	91B			91C					

Note: If the measured well depth falls on the dividing line between two stem lengths and/or two Adapter Sets choose the stem and/or Adapter Set above the line.

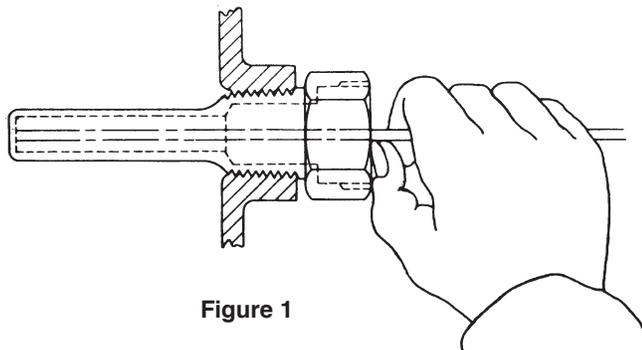


Figure 1

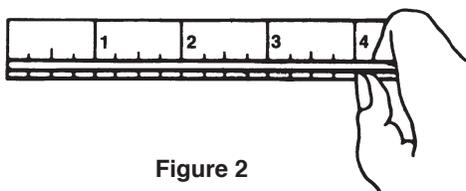


Figure 2