# Installation

The Series TY-B, Upright and Pendent Intermediate Level Sprinklers must be installed in accordance with this section.

#### **General Instructions**

Do not install any bulb type sprinkler if the bulb is cracked or there is a loss of liquid from the bulb. With the sprinkler held horizontally, a small air bubble should be present. The diameter of the air bubble is approximately 1/16 in. (1,6 mm) for the 135°F (57°C) to 3/32 in. (2,4 mm) for the 360°F (182°C) temperature ratings.

A leak tight 1/2 in. NPT sprinkler joint should be obtained with a torque of 7 to 14 b-ft (9,5 to 19,0 N·m). A leak tight 3/4 in. NPT sprinkler joint should be obtained with a torque of 10 to 20 lb-ft (13,4 to 26,8 N·m). Higher levels of torque may distort the sprinkler inlet and cause leakage or impairment of the sprinkler.

#### **Upright Sprinklers**

The Series TY-B Intermediate Level Upright Sprinklers must be installed in accordance with the following instructions.

**Step 1.** With pipe thread sealant applied to the pipe threads, hand tighten the sprinkler into the sprinkler fitting.

Step 2. Tighten the sprinkler into the sprinkler fitting using only the W-Type 6 Sprinkler Wrench (refer to Figure 3), except that an 8 in. or 10 in. adjustable Crescent wrench is to be used for wax coated sprinklers. With reference to Figure 1 or 2, the W-Type 6 Sprinkler Wrench or the Crescent wrench, as applicable, is to be applied to the wrench flats.

## **Pendent Sprinklers**

The Series TY-B Intermediate Level Pendent Sprinklers must be installed in accordance with the following instructions.

**Step A.** Thread the S2 Shield onto the sprinkler threads with the stamped markings toward the deflector and just to the end of the threads. The final assembly step is easier to accomplish if the Shield is not disengaged by continuing to turn the Shield past the threads

**Step B.** Roll the O-Ring over the sprinkler threads until it seats against the Shield.

**Step C.** With pipe thread sealant applied to the pipe threads, hand tighten the sprinkler into the sprinkler fitting.

**Step D.** Tighten the sprinkler into the sprinkler fitting using only the W-Type 6 Sprinkler Wrench (refer to Figure 3). With reference to Figure 1 or 2, the W-Type 6 Sprinkler Wrench is to be applied to the wrench flats.

**Step E.** Rotate the S2 Shield clockwise (looking up) so that it slightly compresses the O-Ring between the Shield and sprinkler fitting.

## **Wax Coated Sprinklers**

When installing wax coated sprinklers with the adjustable Crescent wrench, additional care needs to be exercised to prevent damage to the wax coating on the sprinkler wrench flats or frame arms and, consequently, exposure of bare metal to the corrosive environment. The jaws of the wrench should be opened sufficiently wide to pass over the wrench flats without damaging the wax coating. Before wrench tightening the sprinkler, the jaws of the wrench are to be adjusted to just contact the sprinkler wrenching flanges. After wrench tightening the sprinkler, loosen the wrench jaws before removing the wrench.

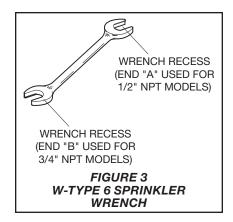
After installation, the sprinkler wrench flats and frame arms must be inspected and the wax coating retouched (repaired) whenever the coating has been damaged and bare metal is exposed. The wax coating on the wrench flats can be retouched by gently applying a heated 1/8 in. diameter steel rod to the areas of wax that have been damaged, to smooth it back over areas where bare metal is exposed.

## **NOTES**

Only retouching of the wax coating applied to the wrench flats and frame arms is permitted, and the retouching is to be performed only at the time of the initial sprinkler installation.

The steel rod should be heated only to the point at which it can begin to melt the wax, and appropriate precautions need to be taken, when handling the heated rod, in order to prevent the installer from being burned.

If attempts to retouch the wax coating with complete coverage are unsuccessful, additional wax can be ordered



in the form of a wax stick (the end of which is color coded). Only the correct color coded wax is to be used, and retouching of wrench flats and frame arms is only permitted at the time of initial sprinkler installation. With the steel rod heated as previously described, touch the rod to the area requiring additional wax with the rod angled downward, and then touch the wax stick to the rod approximately one-half inch away from the area requiring retouching. The wax will melt and run down onto the sprinkler.