

### 1214, 1315, 1416 & 1517 Style Steel Saddle Service Punch Tee Installation Instructions 1 1/4" IPS & Larger Steel Mains Metallic Pipe (Conductive) Compression Outlet

1. Before installing the service tee, confirm the punch is rated for the steel pipe to be tapped.
  - 3/8" tip punches are rated for 0.280" maximum wall thickness and 70 ksi maximum yield strength.
  - 1/4", 1/2", 3/4" & 1" tip punches are rated for 0.250" maximum wall thickness and 65 ksi maximum yield strength.
2. Verify that the outlet on the service tee is the correct size for the service line.
3. Clean the main of all coatings, rust, dirt, etc., in the area where the saddle is to be installed. The elastomer seal should not be installed over pits or gouges in the pipe where the sealing integrity might be compromised.
4. Remove saddle bolt and place saddle in the desired position.
5. Replace saddle bolt and tighten leak tight, taking care not to rotate saddle on the main. It is recommended that the bolt be tightened between 25 to 40 foot pounds of torque.  
**DO NOT OVER TORQUE BOLT.**
6. Make the service connection. See other side for outlet assembly instructions.
7. To assure proper assembly and to comply with 49 CFR 192 Subpart J—Test Requirements, the joint shall be leak tested.
8. **Lubricant must be applied to the punch threads and punch tip.** Acceptable lubricants include thread cutting oil, tapping fluid or tapping grease.
9. Insert punch in saddle tee and turn clockwise by hand to avoid cross threading.
10. Use a ratchet wrench with Continental drive key and bushing to make the tap.
  - For 1/2" body tees, use 23-3691-00 Hex Drive Key, Bushing & Socket Adapter
  - For 3/4" body tees, use 23-3692-00 Hex Drive Key, Bushing & Socket Adapter
  - For 1" body tees, use 23-0941-00 Square Drive Key, Bushing & Socket Adapter
  - For 1 1/4" body tees, use 23-0940-00 Square Drive Key, Bushing & Socket Adapter

#### IMPORTANT

**Pressure Rating: 300 psig MAOP**

**Operating Temperature: -20 to 140° F**

**Material: Carbon Steel**

**IMPORTANT:** To insure retention of the coupon - coupon retaining punches should be run all the way down until the punch seats on the main.

11. To allow gas to the service line, back punch up until it is flush with the top of the tee.
12. Apply thread sealant and install pipe cap leak tight.

**NOTE:** If desirable at a later date, the service may be interrupted by running the punch valve down until it seats on the main.

## Compression Outlets — 1/2" OD & 5/8" OD Lock Type Conductive

1. Clean metallic pipe ends thoroughly. Remove any coatings, dirt, etc.
2. Loosen compression nut and insert pipe until it bottoms in outlet.
3. Tighten compression nut until it bottoms on shoulder (metal to metal).

Size	Metallic Pipe Pullout Resistance
1/2" OD	500 lbs
5/8" OD	2,000 lbs

**NOTE:** The conductive compression outlet is not a full restraint joint. WHERE PIPE PULLOUT COULD OCCUR, THE PIPE JOINT MUST BE ANCHORED.

## Compression Outlets — 3/4" IPS & Larger Non-Lock Type Conductive

1. Clean metallic pipe ends thoroughly. Remove any coatings, dirt, etc.
2. Loosen compression nut and insert pipe until it bottoms in outlet. Pipe misalignment shall be no more than 3 ½°.
3. Tighten compression nut to the torque values listed.

Size	Torque Ftlbs	Metallic Pipe Pullout Resistance
3/4" IPS	120-140	575 lbs
1" IPS	120-140	900 lbs
1 1/4" IPS	280-300	1,000 lbs

**NOTE:** The conductive compression outlet is not a full restraint joint. WHERE PIPE PULLOUT COULD OCCUR, THE PIPE JOINT MUST BE ANCHORED.