#### JOINT TESTER EQUIPMENT SET-UP AND INSTRUCTIONS

Initial Setup: This procedure must be done when first placed into the pipe and before a test is conducted. Failure to do so could result in Injury, Death and/or Property Damage. Check with your safety officer about wearing all of the necessary PPE. Test should be conducted in clean, dry pipe. Before placing Joint Tester into the pipe, measure the width of the bladder and divide that in half to determine the center of the bladder (where the test port is). With the Joint Tester in the pipe, adjust the wheels so that the unit is centered in the pipe, vertically and side to side. Then, with a ruler and chalk/marker, measure from the joint the measurement you took earlier (half of the width of the bladder) and make marks at 10, 2, 5 and 7 o'clock. Roll Joint Tester so that the trailing edge of the bladder lines up with the 4 marks. Adjust the wheel assemblies to make the unit line up with all four marks, making it square in the pipe. This procedure must be repeated when changing pipe diameters.

### MAKE SURE THAT THE RED ANTI-ROTATION BARS ARE INSTALLED BEFORE USE!

### Joint Air Testing: (0-15psi test)

1. Turn TEST MEDIA SELECT to AIR. Turn TEST GAUGE SELECT to AIR.

2. Determine test pressure. Set TEST CAVITY REGULATOR to exact test pressure. Set BLADDER REGULATOR to 50psi over the test pressure. **DO NOT change the regulators once they are set!** 

3. Position Joint Tester centered over the joint: With a ruler and chalk/marker, measure from the joint the measurement you took earlier (half of the width of the bladder) and make a mark. Roll Joint Tester so that the trailing edge of the bladder lines up with the mark.

# 4. Connect Test Panel with 20ft supply lines. Move the Test Panel a minimum of 15ft away and ALWAYS stay clear of the Joint Tester.

5. Inflate bladder to a minimum of 50psi above test pressure, not to exceed maximum inflation pressure of bladder. Do this by turning the BLADDER control to FILL. Open the ball valve on the 3rd hose coming back to the panel. Now apply air to the test area by turning the TEST CAVITY control to FILL. Air should blow out of the ball valve, proving the test port is centered over the joint. If air comes out of the ball valve, turn TEST CAVITY control to HOLD, close the ball valve on the hose and move to Step 6. (If no air is coming out of the ball valve, turn the TEST CAVITY control to OUT, deflate the bladder by turning the BLADDER control to OUT, and reposition the tester. Repeat above until air comes out of the ball valve and then close it and move to Step 6.)

6. Pressurize center cavity with air to determined test pressure by turning the TEST CAVITY control to FILL. Allow pressure in cavity to stabilize (approx. 10 seconds) then turn the TEST CAVITY control to OFF.

7. If the pressure in the cavity holds or drops 1psi (.069bar) over 5 seconds, the joint is to be found to be acceptable. If the pressure drops more than 1 psi in 5 seconds, the joint is defective. This is practically a go-no-go test.

8. When the joint test is completed, exhaust all pressure from the cavity by turning the TEST CAVITY control to OUT. Then exhaust the bladder inflation pressure to 0 psi by turning the BLADDER control to OUT. Transport Joint Tester to the next joint to be tested.

## Joint Water Testing: (0-100psi test)

1. Set TEST MEDIA SELECT to WATER. Turn TEST GAUGE SELECT to WATER.

2. Determine test pressure. Set BLADDER REGULATOR to 50psi over the test pressure. **DO NOT** change the regulator once it is set!

3. Position Joint Tester centered over the joint: With a ruler and chalk/marker, measure from the joint the measurement you took earlier (half of the width of the bladder) and make a mark. Roll Joint Tester so that the trailing edge of the bladder lines up with the mark.

4. Connect Test Panel with 20ft supply lines. Move the Test Panel a minimum of 15ft away and ALWAYS stay clear of the Joint Tester.

5. Inflate bladder to a minimum of 50psi above test pressure, not to exceed maximum inflation pressure of bladder. Do this by turning the BLADDER control to FILL. Open the ball valve on the 3rd hose coming back to the panel. Now apply water to the test area by turning the TEST CAVITY control to FILL. Air should blow out of the ball valve, proving the test port is centered over the joint. If air comes out of the ball valve, turn TEST CAVITY control to HOLD, close the ball valve on the hose and move to Step 6. (If no air is coming out of the ball valve, turn the TEST CAVITY control to OUT, deflate the bladder by turning the BLADDER control to OUT, and reposition the tester. Repeat above until air comes out of the ball valve and then close it and move to Step 6.)

6. Continue filling the test area with water until water comes out of the ball valve (meaning all of the air is purged from the test cavity). Turn the TEST CAVITY control to OFF and then close ball valve.

7. Pressurize test cavity with water to the determined test pressure by turning the TEST CAVITY control to FILL. Allow pressure in cavity to stabilize (approx. 10 seconds) then turn the TEST CAVITY control to OFF.

8. If the pressure in the cavity holds or drops 1psi (.069bar) over 5 seconds, the joint is to be found to be acceptable. If the pressure drops more than 1 psi in 5 seconds, the joint is defective. This is practically a go-no-go test.

9. When the joint test is completed, exhaust all pressure from the cavity by turning the TEST CAVITY control to OUT. Then exhaust the bladder inflation pressure to 0 psi by turning the BLADDER control to OUT. Transport Joint Tester to the next joint to be tested.

It is recommended that the pipe sections being tested be backfilled to keep joints from separating while performing an air or water test.

## **EXAMPLE OF ANTI-ROTATION BAR ASSEMBLY**

