



PIPE TOOLS & VISES  
SINCE 1896

## Bear Hug™ PE Squeeze Tool System

### Manual Hydraulic Pump PESMPA #04329 Operator's Manual

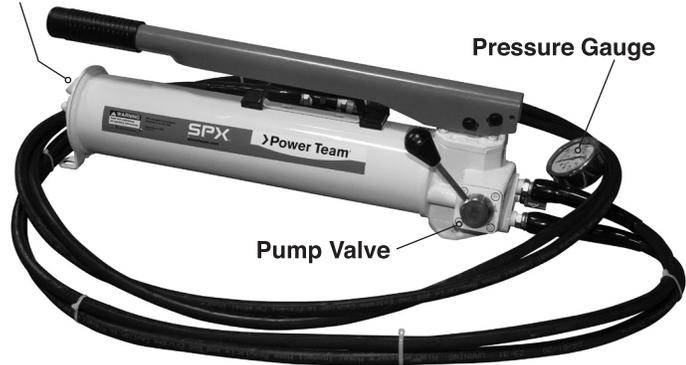


Manual Hydraulic Pump PESMPA is used in conjunction with PES8BT Base Tool. Read and follow #54343 instructions for the PES8BT also.

#### PUMP INFORMATION

- The manual hydraulic pump PESMPA is a 2-stage hand pump that provides high volume at low pressure (less than 1400 psi) and low volume at high pressure. The operator will feel handle resistance around 1400 psi, followed by a sudden release of resistance.
- The PESMPA has a 3-position pump valve. The positions are Release, Neutral, and Squeeze. The neutral position holds hydraulic pressure.
- The PESMPA has an internal pressure relief valve that will exhaust oil back into the reservoir beyond 10,000 psi.
- The PESMPA has a reservoir cap at the rear that is used for refilling the reservoir. The reservoir cap must be cracked open in order to bleed the system.
- Maintain the PESMPA with a medium grade (AW46)\* hydraulic fluid as needed. Oil reservoir should be 1/2 - 3/4 full, with the tool in the fully closed position.

#### Reservoir Cap



PESMPA #04329

#### SQUEEZE PROCEDURE:

##### WARNING:

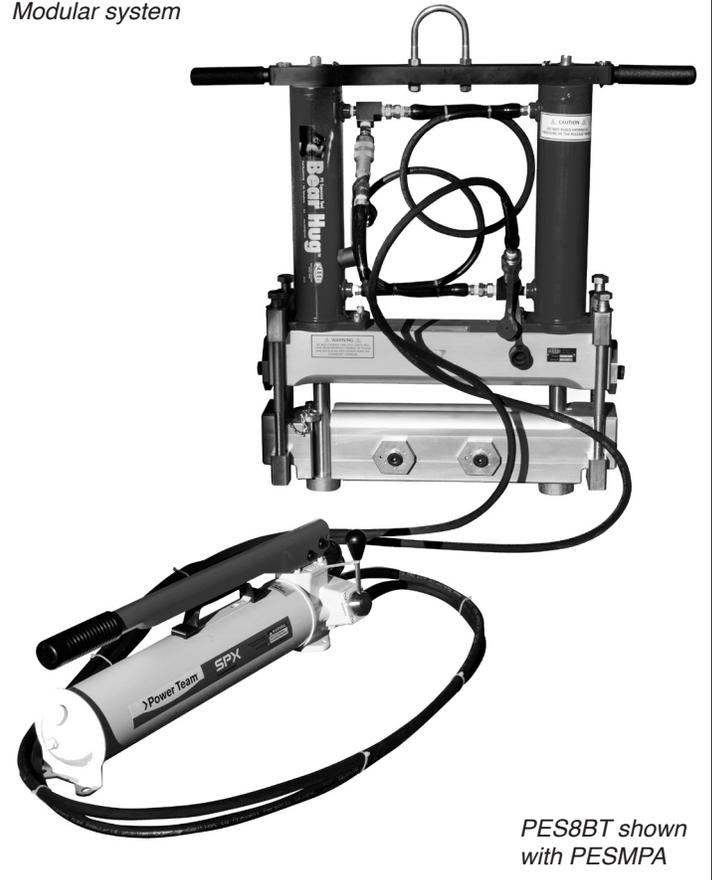
- Avoid binding the tool. Keep the squeeze bars parallel to each other to avoid tool damage.
- Do not build pressure in the release mode. If pressure or pumping effort builds, stop pumping immediately and relieve excess pressure.

#### PART 1: SQUEEZING PE PIPE

1. Connect pump couplers to the tool. Hand thread until the gap between mating couplers is closed.
2. Adjust pump lever to the release position.
3. Pump using the handle until the tool is open sufficiently for the pipe. Do not overextend.
4. Follow your company policy concerning static electric discharge at this stage of the procedure.

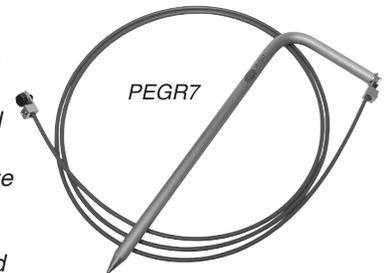


#### Modular system



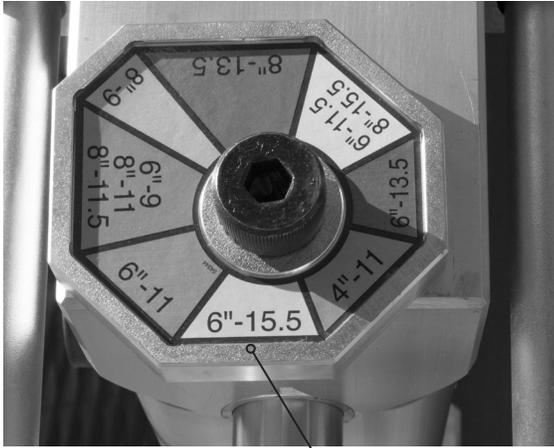
PES8BT shown with PESMPA

**NOTE: Reed strongly recommends use of the PEGR7 Static Grounding Device #04621 with PE Squeeze Tools.** The threaded connection for the PEGR7 on the PES8BT tool is on the top squeeze bar. Use a grounding accessory as a precaution against static build-up. Dissipate the charge and minimize the possibility of ignition. Additional information on static electricity is available in the PPI Handbook of Polyethylene Pipe 2nd Edition.



5. Remove latch pin and swing out bottom squeeze bar.
6. Mount the tool onto the pipe. Slightly lift latch end of bottom squeeze bar and close; insert latch pin.

**CAUTION: Center the pipe along the width of the bars and square the pipe relative to the cylinder rods.**



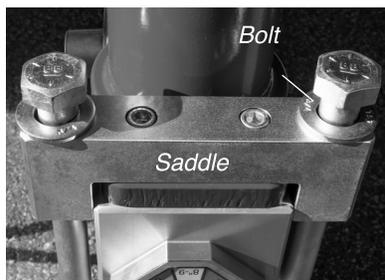
This stop position (at bottom) is set to squeeze 6" 15.5 DR pipe. Stops on both sides of tool must match for proper use. And, desired setting must be in this bottom orientation.

7. Select both pipe stops based on pipe diameter and SDR. Position both pipe stops so that the corresponding flat is facing the bottom squeeze bar. Stops must match one another.
8. Adjust the pump lever to the squeeze position. Pump using handle to raise pressure. As the squeeze bars move closer together and the 4 saddle bolts begin to rise, continually hand thread in the saddle bolts. Recommended squeeze rate to avoid pipe damage is 2.0 inches/min. Pump until pipe stops are contacted or 10,000 psig is reached. If 10,000 psig is reached wait for the pipe to relax (10-15 min.) and pump back up to pressure.

**CAUTION: Stop pumping when pipe stops contact bottom squeeze bar, further pumping will cause tool damage.**

*NOTE: Pipe stops don't need to contact bottom squeeze bar in order to satisfactorily control flow.*

9. **IMPORTANT: Ensure all 4 saddle bolts are hand tight and the saddle bolt heads are in contact with the top saddle clamps.**



## PART 2: DISCONNECTING HYDRAULICS DURING SQUEEZE (optional)

1. Quickly adjust the pump valve to the neutral position.

*NOTE: Adjusting the pump lever under pressure may take more effort – this is normal.*

2. Slowly move the pump valve to the squeeze position, until all pressure is on the saddle bolts. Pressure gauge should read zero (0).
3. The hydraulics can now be disconnected.

## PART 3: RELEASING PE PIPE

1. Reconnect hydraulics and adjust the pump lever to the squeeze position. Pump to raise pressure until the saddle bolts are loose enough to rotate.
2. **IMPORTANT: Loosen and fully disengage threads on the 4 saddle bolts before releasing pipe.**
3. Quickly adjust the pump valve to the neutral position.

*NOTE: Adjusting the pump lever under pressure may take more effort – this is normal.*

4. Slowly and carefully move the pump valve to the release position, while carefully watching the squeeze bars for movement. Move lever back to neutral as necessary to maintain desired release rate. The recommended release rate to avoid pipe damage is 0.5 inches/min.
5. When the squeeze bars no longer open due to pipe pressure, move the pump lever to the release position. Pump until there is enough room around the pipe to remove the tool.
6. Remove the latch pin and swing bottom squeeze bar clear of the pipe. Remove the tool from the pipe.

## PART 4: CARE AND MAINTENANCE

1. Wipe down and clean the tool.
2. Store in a dry place with tool in the closed position.

\*SDS sheets are on file with Reed Manufacturing and can be found online at [www.reedmfgco.com](http://www.reedmfgco.com). For the Bear Hug™ series, REED uses an SDS for AW Hydraulic Oil ISO 46.