
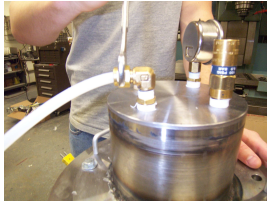
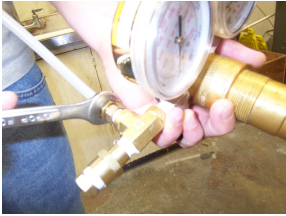
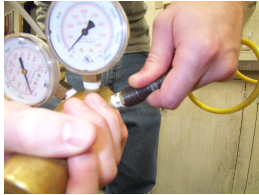







Set-up Instructions:

Warning: Choking hazard: some hardware included may present a choking hazard if swallowed. This is not a toy. Keep out of reach of small children.

1.	Pipe tape all brass fittings that will be attached to the pressure vessels.	
2.	Attach air supply port and the connector pipeline to pressure vessel.	
3.	Attach the pressure regulator to connector pipeline.	
4.	Attach a pressure regulator to the air supply line if using a gas cylinder. If using shop air, the supply should be connected to a screw-down valve suitable for throttling the flow.	
5.	Attach pressure transducer to remaining port on high pressure vessel.	


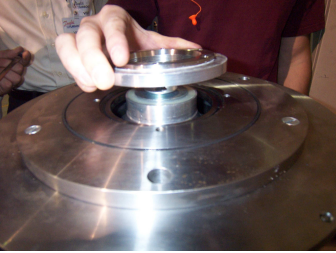

6.	Attach transducer to data board.	
7.	Attach data board to designated computer.	
8.	Unbolt high pressure vessel from test rig.	

Caution: Portions of the test rig are extremely heavy. Lift with care to avoid damage to parts or harm to one-self.

9.	Remove high pressure vessel from test rig and set aside.	
10.	Place desired seal in test rig (see seal placement instructions)	
11.	Adjust concentricity as desired (see concentricity adjustment instructions)	
12.	Reattach high pressure vessel to the test rig, making sure all bolts are securely fastened.	


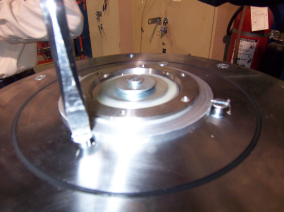
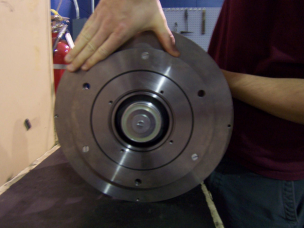


You are now ready to begin testing.

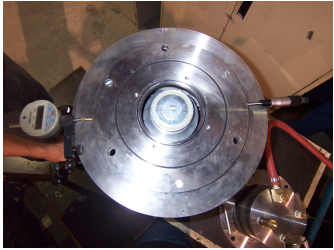

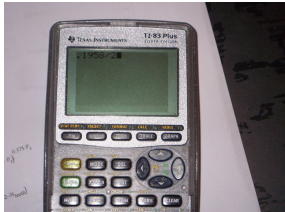

Seal Placement Instructions:

1.	Unscrew the four alignment screw.	
1.a	If there is already a seal in place, remove it.	
3.	Place desired seal and seal adapter plate into vacant cavity. *Note: The seal should come already mounted to the adapter plate. Each seal size should have its own fitted adapter plate.	
4.	Replace alignment screws and tighten them so that the adapter plate is securely fixed in place.	

Concentricity Adjustment:

Caution: Portions of the test rig are extremely heavy. Lift with care to avoid damage to parts or harm to one's self.

1.	Turn rig so that it is resting horizontally on its side.	
2.	Unscrew mounting plate screws, leaving loosely in their holes	
3.	With the aid of gravity, slide mounting plate to the minimum y-plane position so that the shaft and seal are in contact. This completes the concentricity adjustments for non-concentric testing conditions.	
4.	Magnetically attach dial gauge indicator to rig body so that micrometer tip is in contact with the seal adapter plate.	
5.	Zero the dial gauge indicator.	

<p>6.</p>	<p>Attach the micrometer head so that it is in parallel with desired movement direction.</p>	
<p>7.</p>	<p>Using the micrometer head, shift the adapter plate the maximum distance allowed.</p>	
<p>8.</p>	<p>Read the distance from the dial gauge indicator.</p>	
<p>9.</p>	<p>Divide this distance by number required to achieve desired concentricity. (Example: Perfect concentricity would require dividing by two.)</p>	
<p>10.</p>	<p>Using the micrometer head to make fine adjustment and the dial gauge indicator to read the movement distance, adjust seal to desired location.</p>	
<p>11.</p>	<p>Rotate test rig 90 degrees.</p>	
<p>12.</p>	<p>Repeat steps 3-10 in the new plane.</p>	
<p>13.</p>	<p>To prevent un-alignment, carefully re-tighten mounting plate screws and bolts.</p>	


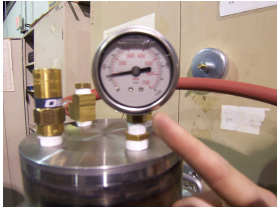
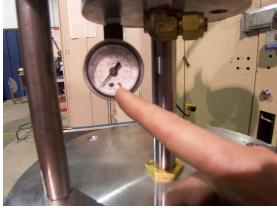
Testing Procedure:

Warning: To prevent hearing damage it is strongly advised that proper ear protection be worn.

Warning: Eye protection is advised.

1.	Double check that all fittings are tight to avoid leakage.	
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Danger: Do not attempt to pressurize the chamber to or above 100 psi.

2.	Slowly open air supply.	
3.	Monitor both high and low pressure gauges.	 <p>High Pressure Gauge</p>  <p>Low Pressure Gauge</p>
4.	At the desired interval, hold air supply constant and take pressure readings	

Danger: Do not attempt to pressurize the chamber to or above 100 psi.

5.	Increase the air supply and pressure as desired.	
6.	Turn off air supply to depressurize test rig.	