MANUAL “BE” SERIES Test Benches

The CustomCrimp® Manual “BE” Series Test Benches are designed with features that make proof and burst testing of hydraulic hose assemblies a quick and easy procedure.

CUSTOMIZED AND SPECIAL DESIGN BENCHES

In addition to the standard Manual “BE” series test benches: BE1500, BE2500 and BE3500 special purpose test benches can be designed by our engineering department, as well as an extension trough can be designed to meet specific requirements.

MANUAL “BE” SERIES TEST BENCH OPERATORS MANUAL

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SAFETY PRECAUTIONS

SAFETY PRECAUTIONS

- READ INSTRUCTIONS AND IDENTIFY ALL COMPONENT PARTS BEFORE OPERATING BENCH.
- TEST BENCH PRODUCES EXTREMELY HIGH PRESSURE. USE CAUTION WHEN OPERATING.
- KEEP BOTH HANDS AWAY FROM PINCH POINTS.
- CONSULT HOSE AND FITTING MANUFACTURER'S SPECIFICATIONS FOR CORRECT TESTING PROCEDURE.
- ALWAYS WEAR EYE PROTECTION.

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TABLE OF CONTENT

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COMPONENT PARTS IDENTIFICATION

CONTROL PANEL

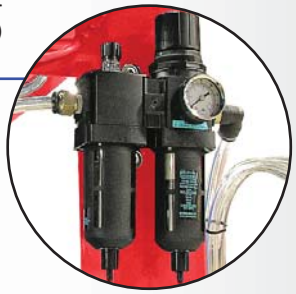
- High Pressure Gauge
- Low Pressure Gauge
- Water Pressure Gauge
- Light Switch
- Air Pressure (System) Actuation Valve Start / Stop Test
- Low Pressure Gauge Shut Off Valve
- Air Pressure Gauge
- Air Drive Throttle / Regulator
- Water Shut Off Valve

- Water Fill
- Water Drain

- Door Handle
- Door Lock
- Built-in Work Light
- Safety Switch
- Removable Side Panel
- 6 Port Multiple Outlet Manifold
- Regulated Air Inlet (Filter / Lubricator) set at 80-90 psi

Available Extension Trough

Storage Drawer to keep frequently used tools and your test bench accessories readily available.



Regulated Air Inlet (Filter / Lubricator)

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TECHNICAL DATA

TECHNICAL DATA	BE1500	BE2500	BE3500
Inside cabinet dimensions	L: 67" x W: 33" x H: 17"		
Overall dimensions	L: 85" x W: 39" x H:78" (Closed H: 52")		
Weight	955 lbs		
Maximum pressure	21,750 PSI	36,250 PSI	50,750 PSI
High pressure gage	30,000 PSI	40,000 PSI	60,000 PSI
Low pressure gage	5,000 PSI		

MANUAL "BE" SERIES Test Benches

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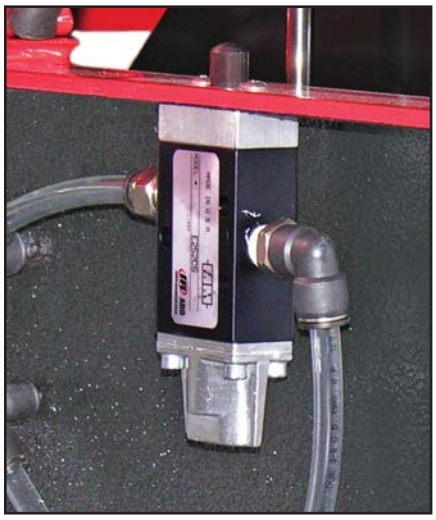
FEATURES

Control Panel with large dials and easy to use controls.



Safety Switch activates and drops pressure as soon as the lid is opened

Multi-Port Manifold Outlet, allows multiple hose assemblies to be tested at the same time.

Removable side panel permits the testing of longer hose assemblies with the attachment of an optional trough.

Available extension trough in 10 foot sections.

Large capacity cabinet and fork truck accessible chamber make testing large hoses easy.

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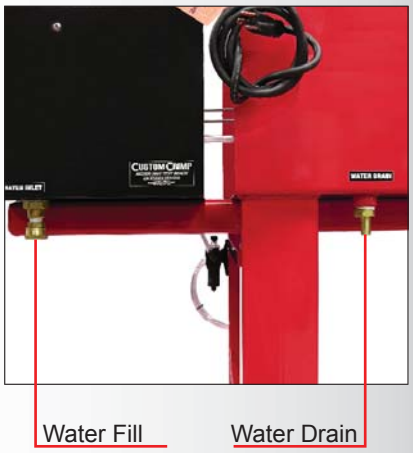
TEST BENCH CONNECTIONS



• Connect a water source (standard garden hose connection) to the water inlet connection located at the rear of the control cabinet.

Note: Water supply pressure should not exceed 100 psi. If water pressure booster pump is on the tester, the water pressure should not exceed 50 psi. Damage to the booster pump can occur and can lead to water leaks that can be fairly significant.

• Connect a water drain hose (standard garden hose connection or barbed fitting) to the water drain connection located at the rear of the test cabinet. Run the drain to an appropriate drainage area.

• Connect an air supply of no more than 90 psi to the air inlet. Make sure the air lubricator is filled with oil. This must be checked periodically to assure proper operation of the pump.
(Drip rate: 1 drip per 20 pump cycles).

Note: Air pressure greater than 90 psi can damage vital equipment on the tester.

• Plug in electrical cord to a standard 15 amp 110VAC outlet. The 110VAC power is only needed to run the internal work light in the test cabinet.

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MANUAL PRE TEST SET UP

• Prior to operating the bench, make sure that the pressure regulator (throttle) knob is adjusted all the way out (counterclockwise). The air pressure gauge on the front of the control cabinet should read 0 psi. (as shown in photo 1).

• Raise the tank lid and connect hose to be tested to the manifold block.

Note: The manifold block standardly has 6 useable ports, 4 on the main face and 2 along the top (as shown in photo 2).

The ports are standard with either HF4 (High Pressure) or LM9 (Medium-Low Pressure) connections. These connections are cone and seat style connections.

• Secure any unused ports with the supplied plugs.

• Bleed the hose of air. Open the water shutoff valve to allow water to begin flowing through the system and into the test hose(s). (as shown in photo 3).

• While bleeding the hose, hold the opposite end of the hose higher than the manifold block. This forces the air out the end of the hose.

• Once a steady stream of water is exiting the end of the hose, either cap the end of the hose off or use the needle valve included to close the end of the hose.

• Place the supplied rubber mat over the hose(s). This will help contain the hose and ends if a hose failure occurs.

• Lower the tank lid and make sure the latch engages to ensure it is fully closed (as shown in photo 4).

• Set the gauge max pressure indicator (red pointer) to zero. (as shown in photo 5).

Photo 1

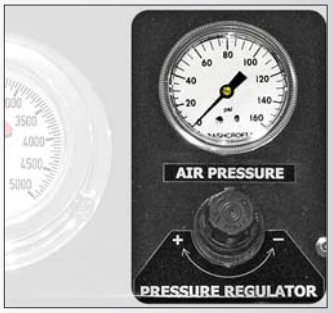

Photo 2

Photo 3

Photo 4

Photo 5

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HIGH PRESSURE TEST PROCEDURE

- Open the water shutoff valve if not already open (as shown in photo 1).

- Make sure the low pressure shutoff valve is closed.
This will isolate 0-5000 psi gauge from the test.

Note: Performing a high pressure test without closing this valve will expose high pressure to the 0-5,000 psi gauge. This can lead to the gauge becoming permanently damaged.

Photo 1

- Pull the air pressure actuation valve palm button. This opens the air supply to the pressure pump and hipco valve (as shown in photo 2).

Photo 2

- Begin raising the air pressure regulator (Air Drive Throttle) until the desired test pressure has been achieved.

Note: The high pressure pump is driven by air pressure. As the air pressure is increased using the regulator (throttle), the water pressure will increase. The more air pressure supplied, the higher the test pressure.

Photo 3

- When the test is complete, turn the air pressure regulator (air drive throttle) back down to 0 psi (counterclockwise) (as shown in photo 3).

- Push the air pressure actuation valve palm button to relieve the system pressure and end the test (as shown in photo 4).

Note: it is easier on the high pressure gauge to push the palm button in slowly to release the pressure in the system slowly.
Rapid depressurization can lead up to a damaged pressure gauge.

Photo 4

- Use the max pressure indicator (red pointer) to record the max pressure (as shown in photo 5).

- Open the test cabinet lid and remove tested hose(s).

Photo 5

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LOW PRESSURE TEST PROCEDURE

- Open the water shutoff valve if not already open (as shown in photo 1).

- Make sure the low pressure shutoff valve is open. This will open the pressure to the 0-5000 psi gauge during the test.

Photo 1

- Pull the air pressure actuation valve palm button. This opens the air supply to the high pressure pump and hipco valve (as shown in photo 2).

- Begin raising the air pressure regulator (Air Drive Throttle) until the desired test pressure has been achieved.

Photo 2

Note: It is recommended to not exceed 4500 psi on a low pressure test. The gauge can lose accuracy past 4500 psi. Also, an accidental pressure spike can take the pressure above 5000 psi and potential damage the gauge.

Note: A pressure relief valve is installed and set for 4500 psi to reduce the risk of damage to gauge.

Note: The high pressure pump is driven by air pressure, as the air pressure is increased using the regulator (throttle), the water pressure will increase. The more air pressure supplied, the higher the test pressure.

Photo 3

- When the test is complete, turn the air pressure regulator (air drive throttle) back down to 0 psi (counterclockwise) (as shown in photo 3).

- Push the air pressure actuation valve palm button to relieve the system pressure and end the test (as shown in photo 4).

Photo 4

Note: It is easier on the gauge to push valve button in slowly to release pressure. Rapid depressurization can lead up to a damaged pressure gauge.

- Use the max pressure indicator (red pointer) to record the max pressure (as shown in photo 5).

- Open the test cabinet lid and remove tested hose(s).

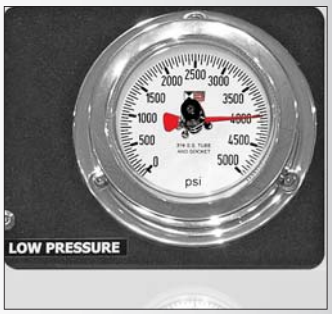

Photo 5

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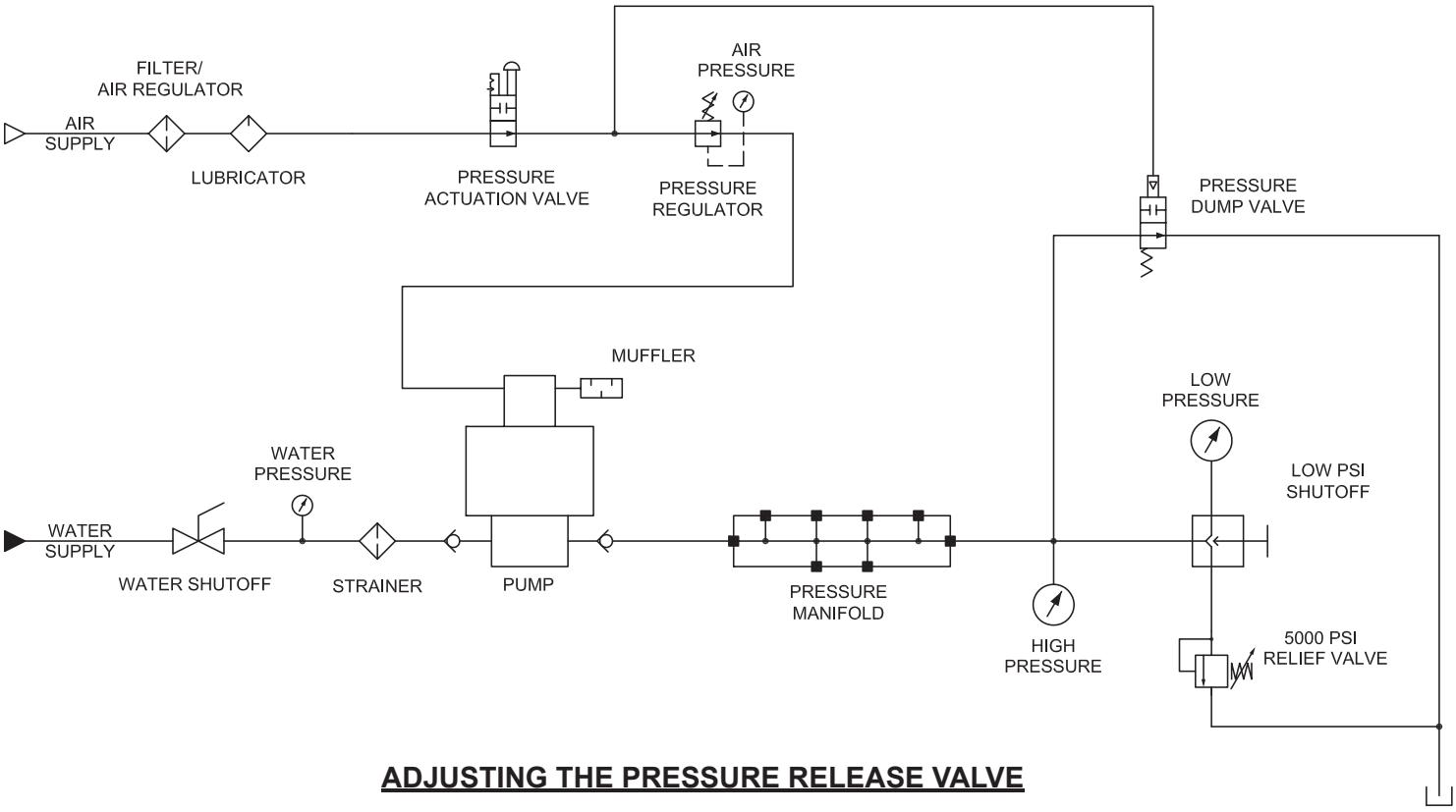
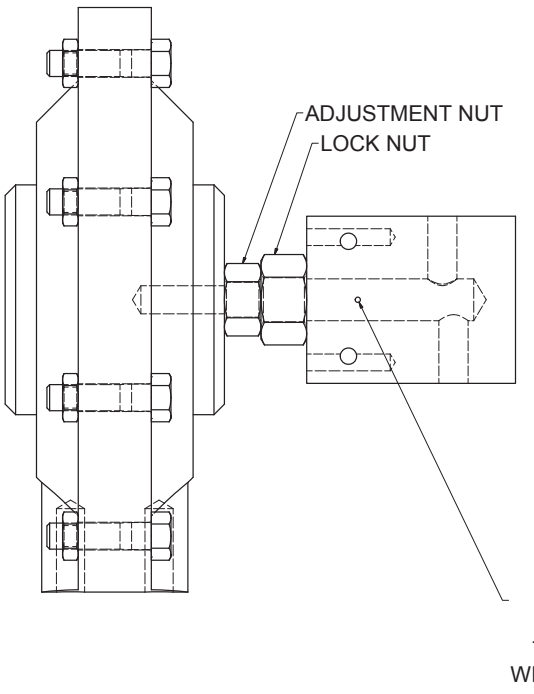
DIAGRAM



ADJUSTING THE PRESSURE RELEASE VALVE



- **Follow the instructions on page 12-13.**

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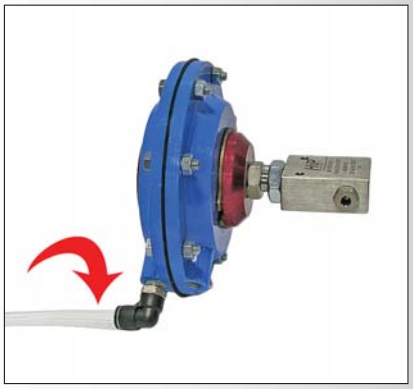
ADJUST THE PRESSURE RELEASE VALVE

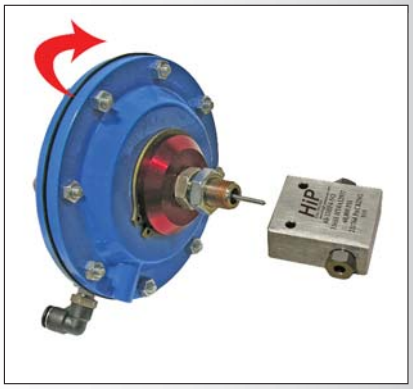
1). Disconnect the Air Line.



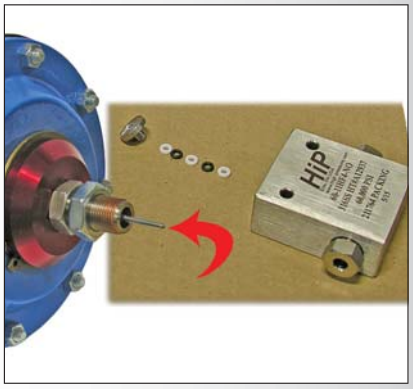
2). Use a 1" wrench to grab the Adjustment Nut and with a 1-⅛ " wrench to loosen the Lock Nut, until spins freely.

(Adjustment Nut will be closest to Blue Diaphragm).

3). Rotate the Blue Diaphragm counter-clockwise to remove it from the Block.



4). Clean the Blue Diaphragm Needle and apply grease.
Remove the Packing from the block and clean them.
Place the Packing on the Blue Diaphragm Needle.



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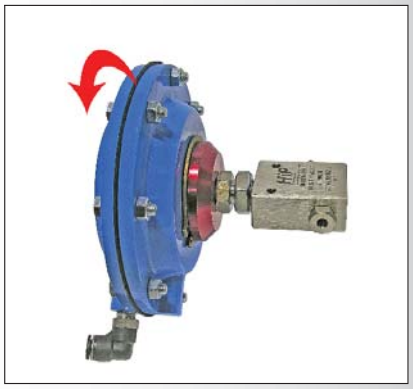
ADJUST THE PRESSURE RELEASE VALVE

5). The Packing must follow the order as shown.
Apply grease all over the packing.

6). Place the Blue Diaphragm Needle (Packing installed) into the Block and rotate the Blue Diaphragm clockwise until you can feel the packing (Seals) make contact with the valve cone.

Note: Do not tighten past this point, damage to stem and packing can occur. Tightening past this point will begin to compress the packing and will also make the stem stick again.

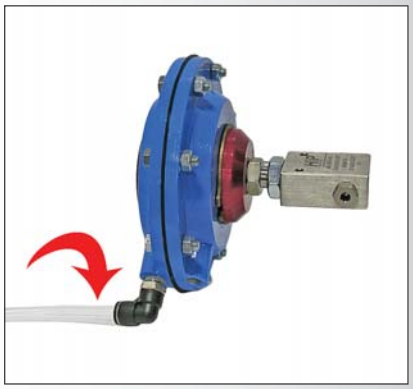


7). Use a 1 inch wrench to grab the Adjustment Nut and with a 1-⅛" wrench to tighten the Lock Nut. (Just snug tight).

8). Reinstall in machine to check operation.

- Best to plug off manifold and test to a pressure.
- If water comes out of weeping hole than go back to step 6 and snug stem slightly more.

Note: The objective is to tighten the Adjustment Nut so that the packing seals around the needle and still allows the Blue Diaphragm to move the needle back and forth to build pressure and drain.



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REPLACEMENT PARTS

¼" NPT P/N:103687-04

⅜" NPT P/N:103687-06

½" NPT P/N:103687-08

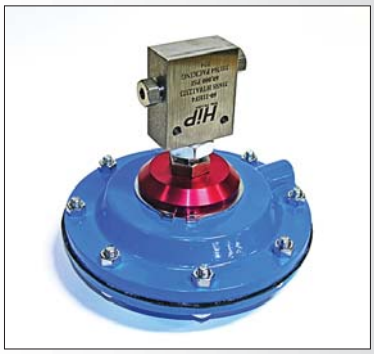
¾" NPT P/N:103687-12

½" JIC P/N:104428-08

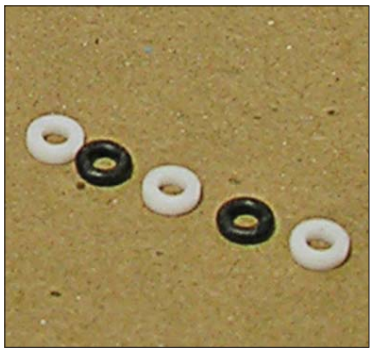
⅜" JIC P/N:104428-06

2WAY NEEDLE VALVE P/N:104352

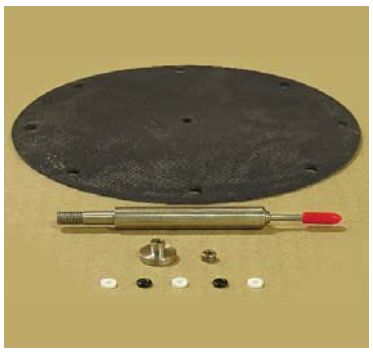
5000 PSI RELIEF VALVE P/N:104642



RELIEF VALVE P/N:104241



REPAIR SEALS P/N:104241-SEALS



HIPCO 60K AIR VALVE REPAIR KIT
P/N:104241-KIT

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REPLACEMENT PARTS

AIR REGULATOR P/N:104115

MANIFOLD BLOCK P/N:102100

BE 1500 PUMP P/N:103860

BE 2500 PUMP P/N:103861

BE 3500 PUMP P/N:103862

5000 PSI GAUGE P/N:104130

30,000 PSI GAUGE P/N:104131

40,000 PSI GAUGE P/N:104132

60,000 PSI GAUGE P/N:104133

CUSTOMCRIMP® "NO-NONSENSE" WARRANTY STATEMENT

CustomCrimp® "No-Nonsense" Warranty Statement

All CustomCrimp® Products are warranted to be free of defects in workmanship and materials for one year from the date of installation. This warranty ends when the product becomes unusable for reasons other than defects in workmanship or material.

Any CustomCrimp® Product proven to be defective in workmanship or material will be repaired or replaced at no charge. To obtain benefits of this warranty, first, contact Warranty Repair Department at Custom Machining Services at **(219) 462-6128** and then deliver via prepaid transportation the complete hydraulic product to:

ATTN: WARRANTY REPAIR DEPT.
Custom Machining Services, Inc.
318 North Co. Rd 400 East
Valparaiso IN 46383

If any product or part manufactured by CustomCrimp® is found to be defective by CustomCrimp®, at its option, CustomCrimp® will either repair or replace the defective part or product and return via ground transportation, freight prepaid.

CustomCrimp® will not cover any incoming or outgoing freight charges for machines sold outside The United States.

This warranty does not cover any product or part which is worn out, abused, altered, used for a purpose other than for which it was intended, or used in a manner which was inconsistent with any instructions regarding its use.

Electric motors are separately warranted by their manufacturer under the conditions stated in their separate warranty.

CONTACT US

CUSTOMCRIMP®, YOUR SINGLE SOURCE FOR HOSE ASSEMBLY PRODUCTS.

Products and services to support industry wide hose assembly needs.

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