

P-SERIES HAND PUMP
OPERATING INSTRUCTIONS

WARNING:

- ◆ **PRESSURE TESTING IS INHERENTLY DANGEROUS. STRICT ADHERENCE TO THESE OPERATING INSTRUCTIONS AND INDUSTRY SAFETY PRACTICES COULD PREVENT INJURY TO PERSONNEL**
- ◆ **ALL PERSONNEL MUST BE CLEAR OF TEST AREA WHEN PRESSURE TESTING FOR SAFETY, AN INCOMPRESSIBLE LIQUID SUCH AS WATER SHOULD BE USED AS THE TEST MEDIUM.**

PSR-HP-3000 MANUAL HAND PUMP	
MAXIMUM OUTPUT PRESSURE PsiG (BarG)	INTERNAL LIQUID CAPACITY GALLONS (LITERS)
3000 (207)	5 (19)

PRIMING INSTRUCTIONS:

- ◆ Remove the cotter pin and washer from the clevis pin on the Plunger Clevis and Handle.
- ◆ Swing the Handle, while still attached to the Handle Link, away from the Plunger after removing clevis pin.
- ◆ Remove the plunger by pulling it completely out of the Tank Assy.
- ◆ Completely fill the reservoir tank with test medium through the Tank Cap.
- ◆ Once reservoir has been filled, re-install the Tank Cap leak-tight.
- ◆ Replace the plunger by sliding it completely into the pump body.
- ◆ Release any excess air pressure by opening up the Bleed Valve located on the Brass Bleed Valve Body.
- ◆ Attach the Handle using the cotter pin, washer, and clevis pin to the Plunger Clevis.
- ◆ The pump is now primed.

SEE PAGE 2 FOR DIAGRAM OF PARTS

PRIOR TO USE:

- ◆ Ensure the reservoir is filled with water, alcohol, or glycol.
- NOTE:** If an alternative test medium is desired, consult the EST Group Customer Service for suitability.
- ◆ Ensure the high-pressure hose is connected to the outlet connection, by means of the mating quick-connect fittings, located on the Brass Bleed Valve Body on the front of the pump.
 - ◆ Ensure the Bleed Valve is closed (turn clockwise) located on the front of the Brass Bleed Valve Body.

1. With the Bleed Valve closed (turn clock-wise), pump the Handle to remove any residual air in the system prior to connecting to the test subject.
2. Connect the outlet hose to the test subject using the swivel end, ensuring all connections are leak-tight.
3. After all appropriate connections are leak-tight; remove the Top Set Screw from the Brass Knurled Nut marked with pressure values. Loosen the Pressure Set Screw. Turn the Brass Knurled Nut so the desired output pressure value lines up with the notch on the housing. Begin pumping the handle while tightening the Pressure Set Screw until the desired output pressure has been achieved. Re-install the Top Set Screw to lock in the output pressure for further testing.

SEE PAGE 3 FOR DIAGRAM OF PARTS

4. Upon completion of testing, release the pressure by slowly opening the Bleed Valve (turn counter-clockwise) until the pressure is released.

Questions? Contact EST Group Customer Service at any of the following locations.



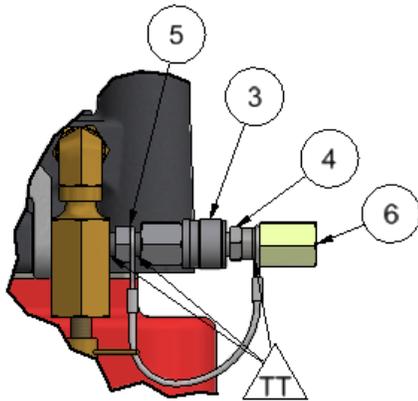
EST Group
www.cw-estgroup.com

North, Central & South America
 EST Group Corporate Office
 2701 Township Line Road
 Hatfield, PA 19440-1770 USA
 P: +1.215.721.1100
 +1.800.355.7044
 F: +1.215.721.1101
est-info@curtisswright.com

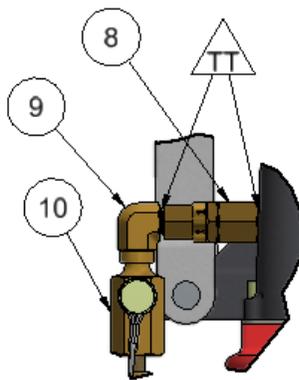
Europe / Middle East / Africa
 EST Group B.V.
 Hoorn 312a
 2404 HL Alphen aan den Rijn
 The Netherlands
 P: +31.172.418841
 F: +31.172.418849
est-emea@curtisswright.com

China
 P +86.400.636.5077
est-china@curtisswright.cn

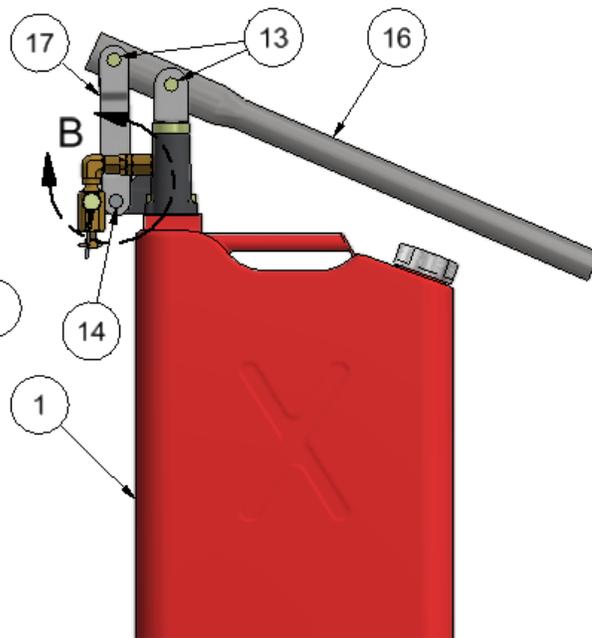
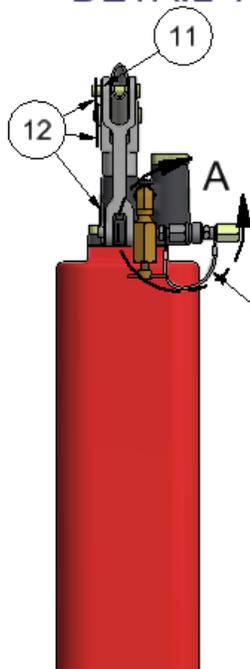
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 P +65.3158.5052
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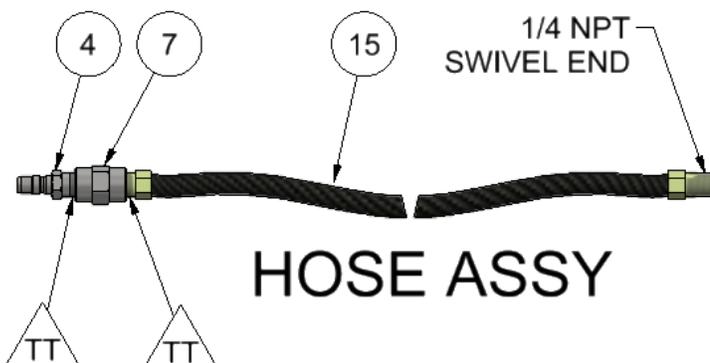
DETAIL A



DETAIL B



ITEM #	DESCRIPTION	QTY
1	TANK ASSY	1
2	CABLE	1
3	BODY QUICK CNT	1
4	STEM QUICK CNT	2
5	HEX NIPPLE	1
6	HP CAP	1
7	HEX COUPLING	1
8	CHECK VALVE	1
9	ELBOW	1
10	BLEED VALVE BODY	1
11	WASHERS	3
12	COTTER PIN	3
13	CLEVIS PIN LG	2
14	CLEVIS PIN SM	1
15	HOSE	1
16	HANDLE	1
17	HANDLE LINK	1
19	FRONT STICKER	1
20	BACK STICKER	1



HOSE ASSY

△ APPLY TEFLON TAPE TO THREADS
TT AT LOCATIONS SHOWN PRIOR TO ASSEMBLY

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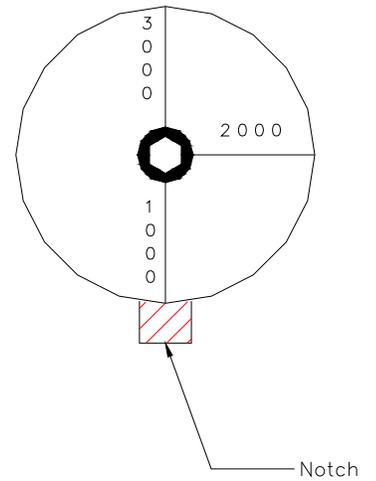
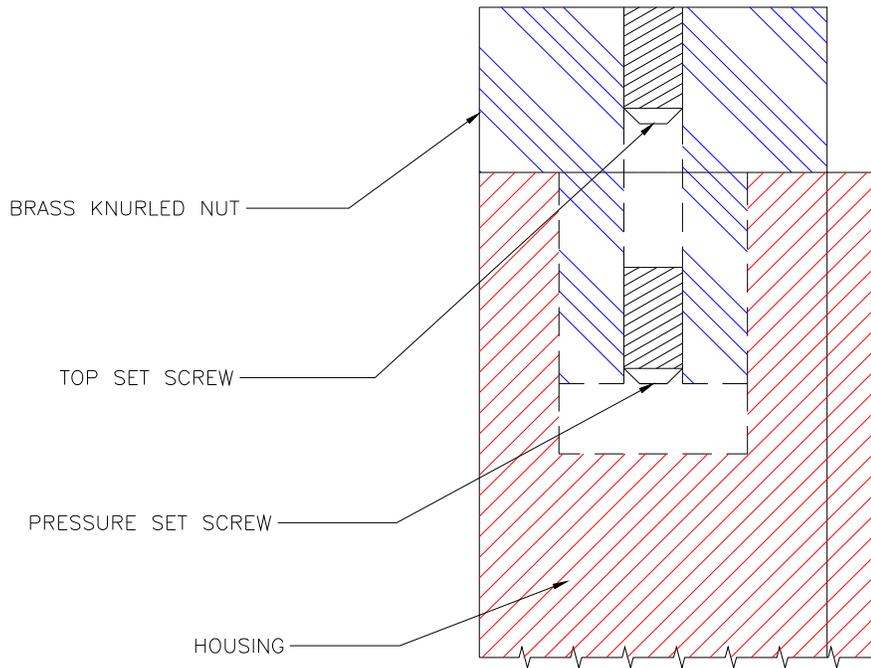
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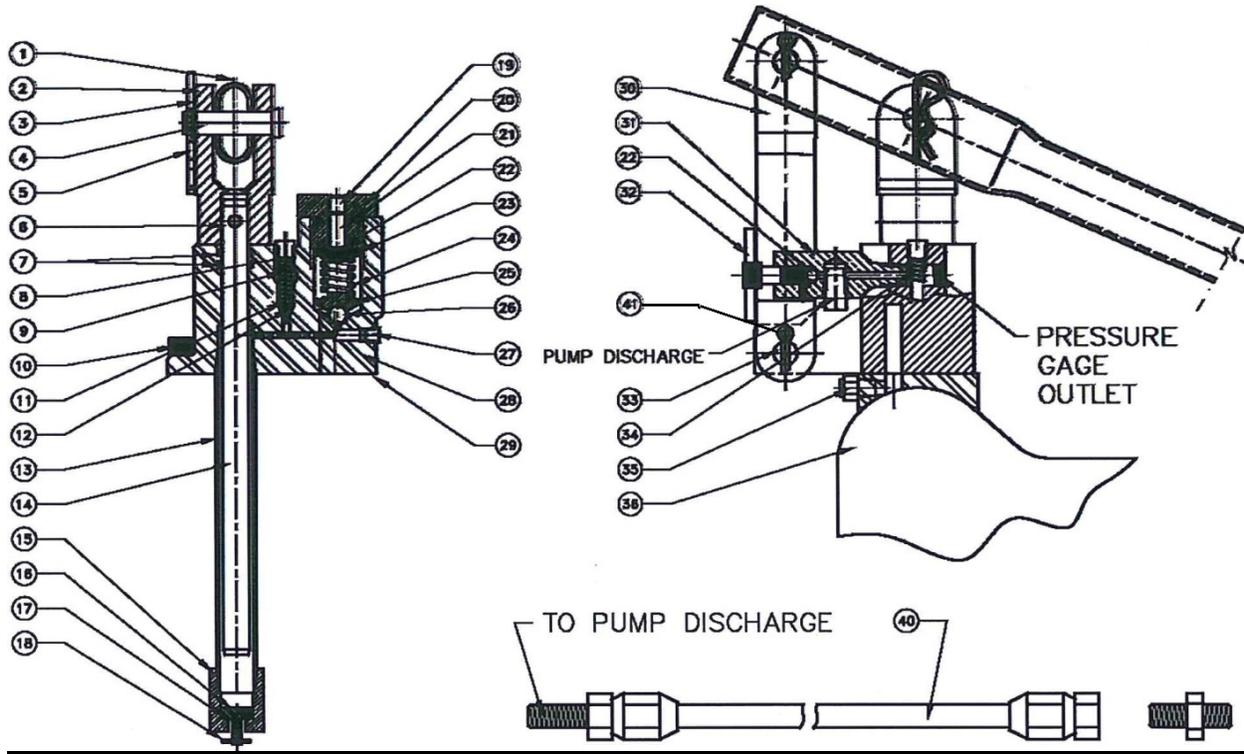
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Item	Description	Item	Description
1	HANDLE	20	PRESSURE SETTING SCREW
2	PLUNGER CLEVIS	21	SET SCREW
3	WASHER	22	1/4" STAINLESS STEEL BALL
4	CLEVIS PIN	23	SPRING SET PLATE
5	COTTER PIN	24	PRESSURE SETTING SPRING
6	ROLL PIN	25	SPRING BASE PLATE
7	O-RING PLUNGER	26	5/16" STAINLESS STEEL BALL
8	PIPE PLUG	27	PIPE PLUG
9	POPPET SPRING	28	BODY
10	CAP SCREW	29	BODY GASKET
11	DISCHARGE POPPET	30	HANDLE LINK
12	O-RING POPPET	31	BLEED VALVE ASSY
13	PUMP BARREL	32	BLEED VALVE SCREW
14	PLUNGER	33	CLEVIS PIN WITH WASHER
15	FOOT VALVE CAGE	34	PIPE PLUG
16	FOOT VALVE POPPET	35	VENT CHECK VALVE
17	O-RING FOOT VALVE	36	TANK ASSEMBLY
18	COTTER PIN	40	HOSE ASSEMBLY
19	SET SCREW	41	R-CLIP

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MAINTENANCE AND TROUBLE SHOOTING

1. Remove the bleed valve screw, item number 32.
2. Remove the ¼" stainless steel ball, item number 22. If the ball is stuck, lightly tap the back of the body, item number 28, to dislodge the ball from the bleed valve assembly, item number 31.
3. Once removed, replace with one of the ¼" stainless steel ball supplied inside of a heat sealed bag within the instructions.
4. When the ball is installed, screw the bleed valve screw back into the appropriate hole.
5. Refer to page 1 of the instructions for priming and testing instruction to verify that the problem has been resolved.
6. In the event that replacing the stainless steel ball does not fix the problem then contact EST Group for a replacement bleed valve assembly.

BLEED VALVE ASSEMBLY REPLACEMENT

1. Remove the high pressure quick connect from the bleed valve assembly, item number 31.
2. Remove the bleed valve assembly, item number 31, from the external check valve Elbow ⑨.
3. Prepare the replacement bleed valve assembly, item number 31, by applying Teflon tape, in a clockwise motion, to the male NPT threads.
4. Install the replacement bleed valve assembly, item number 31, into the check valve Elbow ⑨.
5. Apply Teflon tape, in a clockwise motion, to the male NPT threads of the high pressure quick connect.
6. Install the high pressure quick connect into the bleed valve assembly, item number 31.
7. Slide the plunger, item number 14, into the tank assembly; item number 36, until it is fully installed.
8. Install the clevis pin with washer, item number 33, into the handle link, item number 30 and the slot in the body, item number 28.
9. Install the R-Clip into the clevis pin, item number 33.
10. Refer to page 1 of the instructions for priming and testing instruction to verify proper assembly.
11. In the event that replacing the bleed valve assembly does not fix the problem then contact EST Group for a further pump support.

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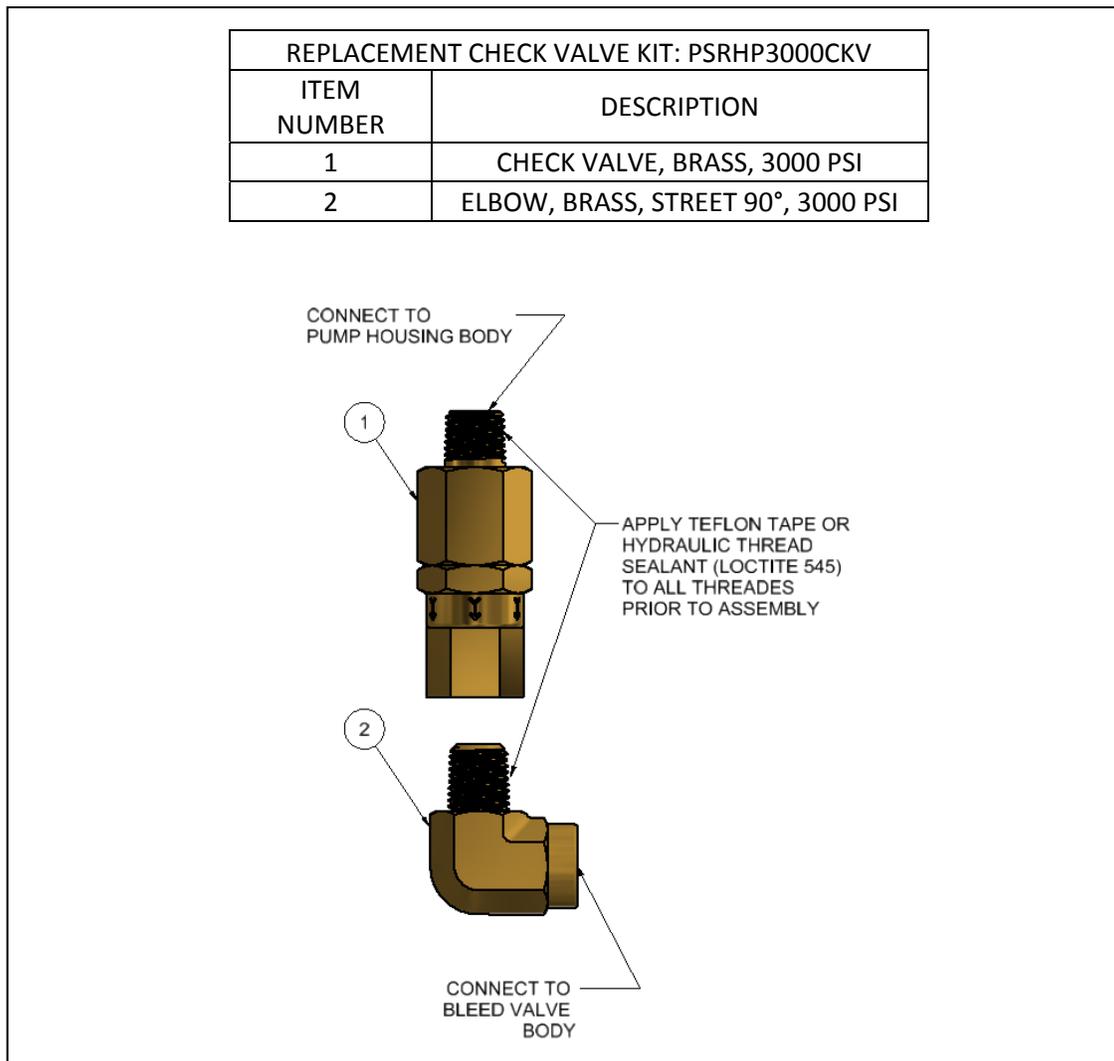
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EST Group has available a replacement bleed valve assembly for the P-Series Hand Pump (PSR-HP-3000-RK). Should maintenance be required, it should only be performed by competent personnel, or a Qualified EST Group Technician. Contact an EST Group representative for more information.

PSR-HP-3000-RK BLEED VALVE REPLACEMENT COMPONENTS		
Quantity	Item Number	Description
1	22	1/4" STAINLESS STEEL BALL
1	31	BLEED VALVE ASSY
1	32	BLEED VALVE SCREW



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