

Fire Hose Testers

The FH series is the most versatile, reliable, and sought-after Fire Hose Tester on the market today. Models in this series offer “gallon per minute” flow rates up to 26 (GPM); with “pounds per square inch” testing capabilities up to 1000 (PSI). These hose testers are designed to safely test any diameter fire hose in accordance with NFPA 1962 testing standards. Available in Gasoline, Electric and Pneumatic driven models. RICE units can be “Build to Suit” with various voltage, phase, hertz, and explosion-proof motor configurations offered. A large 2 & 1/2 inch swivel inlet aids in the ability to quickly fill and eliminate excess air from the test environment. The FH Series is a safe, less costly and more efficient way to test your fire hose, keeping your pumper ready for action, where it should be.



FH3 3 GPM 500 PSI

- Five Year Full Product Warranty
- Four independently controlled 1 & 1/2 inch Stainless Steel outlet ballvalves with male (NST) couplings
- 2 & 1/2 inch Swivel inlet enables speedy filling of lines, and expedites the elimination of excess air
- 1 HP Electric motor TEFC, 110V or 220V, 50/60HZ
- Stainless Steel liquid filled gauge, ensures accurate readings with less flutter
- Included: Casters - 4 inch, 2 Rigid & 2 Swivel



EL-FHT 3 GPM 500 PSI

- Five Year Full Product Warranty
- Two independently controlled 1 & 1/2 inch Stainless Steel outlet ballvalves with male (NST) couplings
- Dual inlets - 3/4 inch and 2 & 1/2 inch Swivel inlet enables speedy filling of lines and expedites the elimination of excess air
- 1 HP Electric motor TEFC, 110V or 220V, 50/60HZ
- Stainless Steel liquid filled gauge, ensures accurate readings with less flutter
- Optional: Casters - 4 inch, 2 Rigid & 2 Swive



FH2-H 3.5 GPM 1000 PSI

- Five Year Full Product Warranty
- Four Independently controlled 1 & 1/2 inch Stainless Steel outlet ballvalves with male (NST) couplings
- 2 & 1/2 inch Swivel inlet enables speedy filling of lines and expedites the elimination of excess air
- 196 CC 6.5 HP, air cooled 4 cycle, with engine oil alert
- Stainless Steel liquid filled gauge, ensures accurate readings with less flutter
- Included: Casters - 4 inch, 2 Rigid & 2 Swivel

FH-12.5/500 12.5 GPM 500 PSI



- Five Year Full Product Warranty
- Four independently controlled 1 & 1/2 inch Stainless Steel outlet ballvalves with male (NST) couplings
- 2 & 1/2 inch Swivel inlet enables speedy filling of lines and expedites the elimination of excess air
- 270 CC 9 HP, air cooled 4 cycle, with engine oil alert
- Stainless Steel liquid filled gauge, ensures accurate readings with less flutter
- Included: Casters - 6 inch, 4 Swivel

FH5-E 5 GPM 800 PSI



FH4-E 4 GPM 1000 PSI

- Five Year Full Product Warranty
- Four independently controlled 1 & 1/2 inch Stainless Steel outlet ballvalves with male (NST) couplings
- 2 & 1/2 inch Swivel inlet enables speedy filling of lines and expedites the elimination of excess air
- 3 HP Electric motor TEFC, 220V, 60HZ
- Stainless Steel liquid filled gauge, ensures accurate readings with less flutter
- Included: Casters - 4 inch, 2 Rigid & 2 Swivel

FH Series Accessories

LINECAGE-1



- Meets NFPA 1962 requirements of securing and anchoring firehoses while being tested.
US Patent #7,905,455
- Locking hitch pins enclose and secure the hose into the Linecage
- Quick links for fast and easy anchoring of this device
- Safely limits the movement of the line in the event of rupture
- The Linecage is designed with multiple locking holes to accommodate various hose sizes
- Heavy gauge welded steel frame, powder coated to withstand the elements.



FHWA-1

- Ideal for Haz-Mat and contaminated equipment wash down
- Dual tips offer the option of either spraying water only or a soap and water solution
- 50 feet of high-pressure hose for long range mobility
- Adjustable injector for soap and other cleaning solvents
- Quick disconnects for easy on/off hose connection
- Only available for the EL-FHT and FH3 models



Adapters

- Machined Brass for durability
- Male NST adapters facilitate test pump to hose connections
- Included: 1 & 1/2 male (NST) on all FH-Series hose testers, one adapter per outlet
- Optional: 1 & 1/2 X 2 & 1/2 male (NST)
- Made in the USA

We Offer Custom “Build to Suit Options”
Some Examples are Below

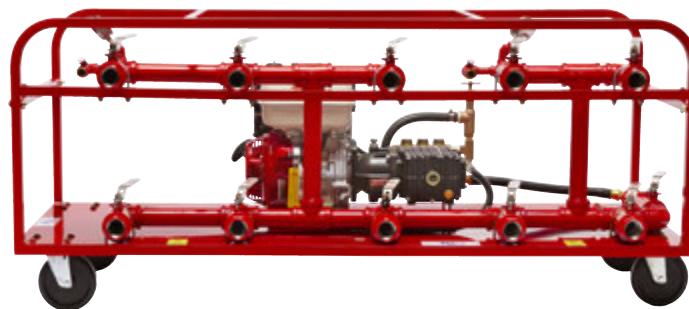
FH2H-L4

3.5 GPM up to 1000 PSI with Four Lay Flat Outlet Configuration



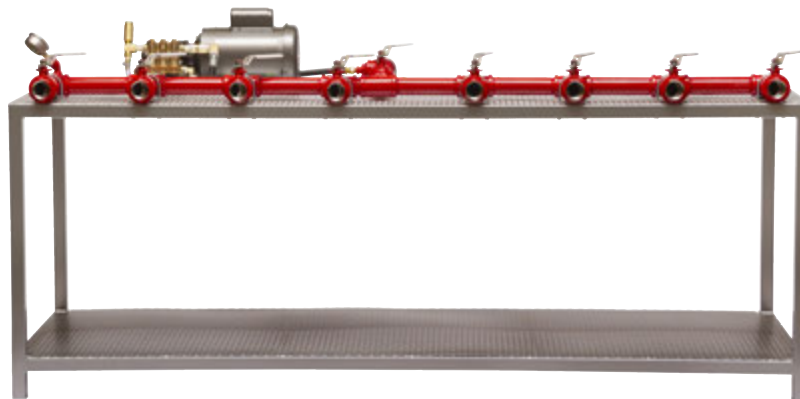
FH-12.5/500-TEN

12.5 GPM up to 500 PSI with Ten Outlet Configuration



FH3-8-BN

3 GPM up to 500 PSI Bench Mounted Eight Outlet Nozzle and Valve Tester



Contact The Factory with Your Requirements and Specifications



3500 Arrowhead Drive • Carson City • Nevada 89706

Web: ricehydro.com • Email: sales@ricehydro.com • Phone: 800-245-4777 • Fax: 800-998-7423

RICE HYDRO, INC.
MANUFACTURER'S OPERATING INSTRUCTIONS - FIRE HOSE TESTER SERIES
FOR WARRANTY REGISTRATION CALL: 1-800-245-4777

Hose Testing guidelines and procedures follow: NFPA 1962

CAUTIONS:

1. Power source must meet voltage, phase, hertz and amperage requirements of electric motor, as stated on label. If an extension cord is used, requires at least 12 gauge 3 wire with maximum of 25 foot length.
2. Check ALL fluid levels prior to operating the unit.
3. Protect the pump from freezing, FLUSH with anti-freeze.
4. DO NOT run dry or pump chlorine thru the unit.
5. **Supplying the unit with water, inlet pressure should not exceed 90 PSI.**
6. **Before use: Remove "shipping plug" on pump and replace with vented plug.**

CONNECTING THE PUMP:

1. Check oil level of pump use 30WT non-detergent, and engine use 10W30 oil.
 2. Connect inlet to fire hydrant.
 3. Connect fire hose to be tested to suitable adapters on manifold outlets. Hose should have nozzles on the end to bleed the air from the lines at full flow. Hoses should be lying up hill from pump if possible.
 4. Connect garden hose to back bleed & direct to a drain away for dry test area.
 5. ASSURE MOTOR IS "OFF". Connect the power cord to a standard wall outlet.
- Extension cord: when needed, a 12 gauge 3 wire, maximum 25 ft. length, plugged into a 20 amp breaker is required.**

OPERATING THE PUMP:

1. Close all ballvalves, slightly crack open the 1/2" bleeder ballvalve.
2. Open inlet ballvalve. Open outlet ballvalves one at a time and allow each valve to be filled through manifold. Do not turn pump on at this time.
3. To ensure air is safely bled from valves, bleed each valve, one at a time with hydrant volume and pressure.
4. When each valve is filled, free of air, with nozzle closed, close the ballvalve at the manifold outlet to seal the line. Bleed **ALL** outlets whether or not in use for testing. All air must be removed.
5. With back bleed open, turn on the pump. This will bleed air out of the pressure side of the pump - out to the drain area.
6. **Close the 1&1/2" ballvalve at the inlet of manifold/unit, directing water flow from the hydrant to pressure side of pump. No pressure will build until this ballvalve is closed.**
7. Slowly close the 1/2" back bleed ballvalve, check the gauge to verify pressure setting of relief valve.

8. The pressure regulator has been preset at the factory. **To change this setting you must make this adjustment while the water is flowing freely, and under NO pressure.** To adjust the pressure, first loosen the locknut. Turn the T-handle/Knob clockwise to increase and counterclockwise to decrease the pressure. To check pressure setting and re-adjust as necessary. Upon reaching desired pressure setting, tighten locknut and prepare to begin test.
9. Open one of the 1&1/2" ballvalves at the outlets and begin building pressure in one of the valves at a time. In the event there is an acceptable leak in the system that must be overcome by leaving the pump running.. Crack the 1/2" back bleed valve allowing a small amount of clean fresh water to flow while in bypass. **Once pressure has been reached, you may close all ballvalves and shut off pump, check for leaks; open ballvalves as needed to monitor existing pressure. If ballvalves are in the open position with the unit running during test duration, you must crack the back bleedvalve to allow the unit to pull in fresh cool water; leaving the unit running in bypass for long periods of time will cause the water to heat and possibly damage the pump.**
10. If the air has been bled as outlined, the pump will build pressure quickly and safely.
11. It is impossible to ensure that air is not caught behind couplings. If air is caught behind a coupling that fails - it could cause an explosion and fragmentary effect. **DO NOT BEND OVER THE TOP OF THE PUMP.** Treat valves and couplings under pressure as dangerous.

NOTE: When dealing with existing pressured valves or to re-pressurize valve, unit's existing manifold/piping pressure must be bled back down to 70 psi. **DO NOT LOWER PRESSURE ON HOSES OR TEST ENVIROMENT,** just in manifold/piping section of pump. High existing "head pressure" will cause motor to stall, not start at all, or pump to fail. Examples: valves are pre-filled and have existing pressure of 120 PSI, and you need to build to 150 PSI, the positive displacement pump will struggle with overcoming this existing head pressure. **TO OVERCOME:** with 1&1/2" outlet ballvalves closed holding existing pressure, open back bleed 1/2" ballvalve to release pressure in piping/manifold down to 70 PSI or below. Turn motor/unit on and close 1/2" back bleed ballvalve building pressure within piping/manifold to at least 30 psi above existing test pressure (this will allow the pump to overcome the existing head pressure) and begin to open individually the 1 1/2" ballvalves.

TROUBLE SHOOTING:

NOT building pressure

Inlet ballvalve has not been closed.

AIR, AIR AND MORE AIR

*Ensure air is bled from valves, manifold, piping.
The length of time to build pressure and test hoses
is directly related to overcoming air buildup.*

Motor will not Run

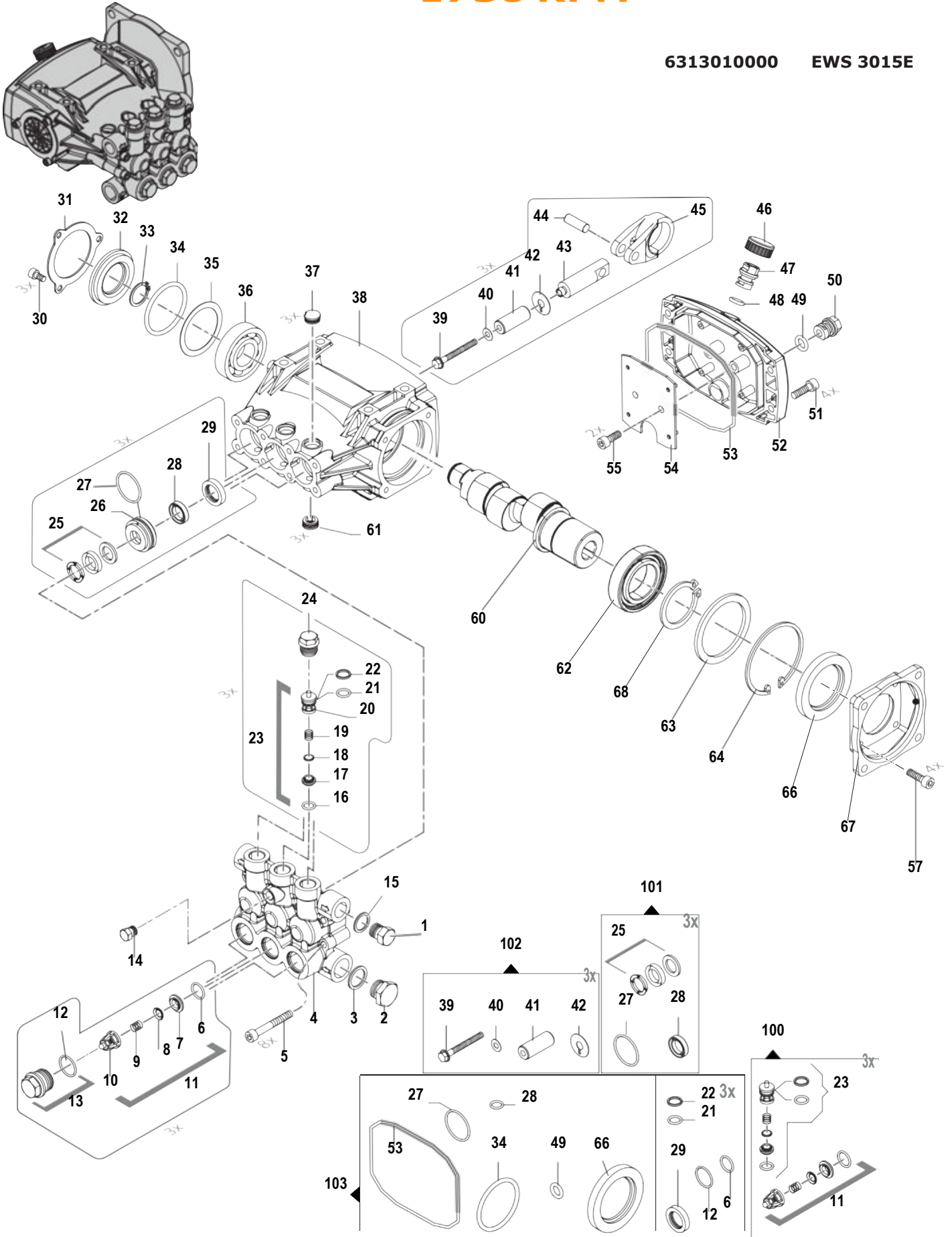
*Verify plugged directly into wall outlet, or using
minimum 12 gauge 3 wire, maximum 25' extension cord.
Push thermal overload button to reset.*

GAUGE

Pegged or faulty, order new gauge.



WARNING: Operating, servicing and maintaining this equipment can expose you to chemicals including engine exhaust, carbon monoxide and lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. To minimize exposure, avoid breathing exhaust, do not idle the engine except as necessary, operate and service your equipment in a well-ventilated area and wear gloves or wash your hands frequently when servicing your equipment. For more information go to: www.p65warnings.ca.gov



PARTS BREAKDOWN FOR MODELS EL-FHT & FH3
RICE HYDRO, INC.

Serial numbers (EL-FHT 55760 & after) (FH3 56269 & after)

REF#	PART NUMBER..	DESCRIPTION..	QTY REQ'D
1	EWS-3200-0007	CAP	1
2	EWS-3202-0015	CAP	1
3	EWS-2811-0086	WASHER	1
4	EWS-3218-0596	PUMP MANIFOLD	1
5	EWS-3609-0090	SCREW	8
11	EWS-1220-0194	SUCTION VALVE ASSY KIT	3
12	EWS-1210-0669	O-RING	3
13	EWS-3202-0441	SUCTION CAP KIT	3
14	EWS-3202-0018	CAP	1
15	EWS-2811-0084	WASHER	1
23	EWS-1220-0215	DELIVERY VALVE ASSY KIT	3
24	EWS-3202-0279	DELIVERY CAP	3
25	EWS-1241-0087	PACKING	3
26	EWS-0009-1021	PACKING RETAINER	3
27	EWS-1210-0223	O-RING	3
28	EWS-1241-0028	PACKING	3
29	EWS-0019-0095	OIL SEAL	3
30	EWS-3609-0088	SCREW	3
31	EWS-1004-0012	CRANKCASE FLANGE	1
32	EWS-0402-0360	TRANSPARENT COVER	1
33	EWS-3019-0011	OUTER SEEGER	1
34	EWS-1210-0386	O-RING	1
35	EWS-0009-0275	SPACER	1
36	EWS-0438-0137	BALL BEARING	1
37	EWS-3202-0435	CAP	3
38	EWS-0403-0534	PUMP CRANKCASE	1
39	EWS-3605-0152	SPECIAL SCREW	3
40	EWS-2811-0235	WASHER	3
41	EWS-0202-0163	CERAMIC BUSHING	3
42	EWS-2812-0129	WASHER	3
43	EWS-2409-0291	PISTON GUIDE	3
44	EWS-3011-0014	GUDGEON PIN	3
45	EWS-0205-0048	CONNECTING ROD	3
46	EWS-0402-0537	PLUG COVER	1
47	EWS-3202-0434	BREATHER PLUG	1
48	EWS-1210-0056	O-RING	1
49	EWS-1210-0557	O-RING	1
50	EWS-3202-0220	PLUG	1
51	EWS-3625-0062	SCREW	4
52	EWS-0402-0530	CRANKCASE COVER	1
53	EWS-1210-0769	O-RING	1
54	EWS-2404-0218	PLATE	1
55	EWS-3625-0051	SCREW	1
57	EWS-3606-0032	SCREW	4
60	EWS-0001-0532	ECCENTRIC SHAFT	1
61	EWS-3202-0440	DRILLED CAP	3
62	EWS-0438-0015	BALL BEARING	1
63	EWS-2812-0064	SPACER	1

KITS:

100	EWS-5025-0075	COMPLETE VALVE KIT
101	EWS-5019-0799	WATER SEAL KIT
102	EWS-2409-0347	PISTON KIT
103	EWS-5019-0800	OIL SEAL KIT

PARTS BREAKDOWN FOR MODELS EL-FHT & FH3
RICE HYDRO, INC.

Serial numbers (EL-FHT 55760 & after) (FH3 56269 & after)

REF#	PART NUMBER..	DESCRIPTION..	QTY REQ'D
	CHECKVALVE-1/2F	1/2" FEMALE CHECKVALVE	1
	BALLVALVE-1/2	1/2" BLEED VALVE	1
	BALLVALVE-S-1&1/2	STAINLESS STEEL BALLVALVE	3
	GAUGE-600	0-600 PSI LIQUID GAUGE	1
	VALVE-RELIEF-500PSI	50-500 PSI PRESSURE REGULATOR	1
	HOSE-1/2X2-RH	FH SERIES HOSE	1
	HOSESWIVEL-1/2"	1/2" x 3/4" INLET HOSE SWIVEL (EL-FHT ONLY)	1
	SWIVEL-INLET-FH3	2&1/2" FEMALE SWIVEL INLET	1
	ADAPTER-NST-1&1/2	1&1/2" NPT X NST OUTLET ADAPTER	2 or 4
	ADAPTER-NST-2&1/2	2&1/2" NPT X NST OUTLET ADAPTER	2 or 4
	CASTER-SWIVEL-4	4" SWIVEL CASTER	2
	CASTER-RIGID-4	4" RIGID CASTER	2
	LABEL-KIT-FH	INSTRUCTION AND CAUTION STICKERS	1
	MOTOR-1HP-CFACE	1HP 110/220V 1 PHASE 50/60HZ	1

MUST ORDER THE FOLLOWING WHEN REPLACING PND TO EWS PUMP

	PUMP-PLGR-3/5	TRIPLEX PLUNGER PUMP	1
	EL-BR-1/2Mx1/2MJIC	BRASS ELBOW	1
	HOSEBARB-BR-1/2x3/8	90 DEGREE BRASS HOSEBARB	1

Prices subject to change without notice



3295 Cobb International Blvd. Kennesaw, Georgia 30152 • Tel: 800-367-1377 • Fax: 770-429-0795 • website: www.picgauges.com

CERTIFICATE OF COMPLIANCE

***RIC445-1 4001-4LW SEC-201L-254K
SEC-201L-254N SEC-201L-254O SEC-201L-254P
SEC-201L-254Q SEC-201L-254S SEC-201L-254U***

The Products Listed Above:

- [X] Are manufactured to ANSI B40.1 standards***
- [X] Are Designed to Meet the Specifications & Requirements of those Standards***
- [X] Are Designed to Meet all Catalog Specifications***

This is to certify that the item(s) listed above are manufactured to meet ASME Standard B40.100 - 1998 in all aspects including Dimensions, Materials of Construction and Accuracy, and that the products are tested and calibrated during the manufacturing process and are suitable for general use. For further information please refer to ASME Standard B40.100 – 1998.

Note:

1. All of our products are manufactured to be in accordance with ASME B-40.100-1998.
2. Each product is individually tested and calibrated during the assembly process.
3. Although each product is individually tested, they are not individually traceable to NIST Standards and therefore not Certified as a standard of production.
4. If certification of accuracy is required independent testing against a known and traceable standard (i.e.; a certified dead weight tester) will be required.

Although all of our products are manufactured and tested to be accurate and in calibration, rough handling during shipment may cause products to be 'knocked out' of calibration. This can happen even though good packaging practice was used.

The American National Standard on products (ASME B40.100 - 1998), recognizes this by including the following paragraph: ***“CAUTION TO USERS: PRODUCTS CAN BE RENDERED INACCURATE DURING SHIPMENT DESPITE CARE TAKEN IN PACKAGING. TO INSURE CONFORMANCE TO THE STANDARD GRADE TO WHICH THE PRODUCT WAS MANUFACTURED, IT SHOULD BE CHECKED BEFORE USE.”***

Please make sure your customers are aware of this information.

If there are any questions concerning this Certificate of Compliance,
Please fax them to (770) 429-0795; Attention Q.A. Department

SMC Model 555 Balanced Pressure Regulator

FEATURES:

Simple construction. Minimum number of parts to wear. Seals, piston, and seat assembly easily replaced. Ideal for self service car wash installations, particularly those with trigger gun and weep systems also carpet cleaning machine and RO application. Can be used on multi-outlet systems with varying size nozzles. Working pressure is maintained in the system regardless of what percent of the liquid is bypassed. Off the line mounting - No pressure loss from valve restriction - Capacity to 10 G.P.M. In line mounting - Capacity to 7 G.P.M. Does not pulse or surge. Smooth gentle discharge Model 555 also is available in partial or all stainless steel.

INSTRUCTIONS:

Mount **off-line** unit in a tee, off the discharge line or manifold, see Fig. #1. Mount **in line** unit, in-line - see Fig. #2.

Ideal for use in car wash or pressure wash application where a weep gun is used or bypass can be returned to a supply tank. When used on a pressure wash system where bypass is piped back to inlet and standard shut off gun is used it is advisable to install a thermal relief valve to insure that heat build up in the pump and short loop does not exceed a fixed temperature (160°-180°). Note: This can done only if pump is pressure fed or has net positive suction head from gravity feed.

To increase pressure, turn adjusting cap clockwise. To reduce pressure turn adjusting cap counter-clockwise.

The SMC regulator is not preset for pressure. Start the pump with the spring in a relaxed position (7 threads showing). With the discharge gun open check gauge pressure as you turn the adjusting cap clockwise to increase the pressure to the desired operating range (2000 PSI max.). There may be some by-pass if the nozzle is undersize. Do not adjust above the working pressure as this will unnecessarily increase pressure when the gun is shut-off.

If used in a system that is equipped with more than one outlet gun set the valve pressure with one outlet gun open and again with all outlet guns open to verify proper setting.

If there is extreme pulsating in the system (single or two cylinder pump or a pump with mechanical valves) there may be a light trickle at the bypass. The addition of a pulsation damper you can set the valve slightly higher than normal to stop the trickle (there will be a slightly higher pressure rise than normal with all outlet guns shut-off).

NOTE: Do not use Teflon Tape on threads. Please use a thread locker for best results. Teflon Tape ends up in piston bore causing regulator to be ineffective.

PARTS LIST:

- | | | |
|-----|---------|--|
| 1. | 5550040 | CAP |
| 2. | 5550120 | Standard Spring, 200-2000 PSI |
| | 5550130 | Medium Spring, 100-900 PSI |
| | 5550140 | Low Spring, 50-500 PSI |
| 3. | 5550390 | Thrust Plate |
| 4. | 8200260 | Ring Retainer |
| 5. | 5550370 | Brass Washer, Piston Retainer |
| 6. | 5550230 | Piston 316SS |
| 7. | 5550490 | Seal Kit - Buna-N w/Teflon |
| | 5551690 | Seal Kit - Ethylene Propylene w/Teflon |
| | 5551990 | Seal Kit - Fluroelastomer w/Teflon |
| 8. | 5550330 | Off Line Body Assembly |
| 8A. | 5550350 | In Line Body Assembly |
| 9. | 5550590 | Kit Seat w/Buna-N O-Ring |
| | 5552090 | Kit Seat w/Ethylene Propylene O-Ring |
| | 5552190 | Kit Seal w/Fluroelastomer O-Ring |

SPECIFICATIONS:

- All Body Parts — Brass
- Piston and Seat — Hardened Stainless Steel
- O-Rings — Buna-N, Ethylene Propylene, or Viton
- Piston Seal — Buna-N, Ethylene Propylene, or Viton
- Seal Backup — Filled Teflon
- Adjusting Spring — Chrome Vanadium
- Porting — 3/8 F. N. P. T. Inlet (All Ports)
- Temperature Range — to 180° F
- Volume Range —
 - Off line Mount to 10 GPM
 - In Line Mount to 7 GPM
- Pressure Range —
 - Standard Spring, 200-2000 PSI
 - Medium Spring, 100-900 PSI
 - Low Spring, 50-500 PSI
- Weight — 12 oz.

