

## Electric Series

### *Hydrostatic Test Pumps*

The EL series is the most versatile and sought-after Electric Hydrostatic Test Pump on the market today. Designed for testing sprinkler systems, irrigation lines, pressure vessels, plant process piping and standard water lines. Models in this series offer “gallon per minute” flow rates from 1.5 to 12.5 (GPM); with “pounds per square inch” testing capability up to 1800 (PSI). RICE units can be “Build to Suit” with various voltage, phase, hertz and explosion-proof motor configurations offered. Contact the factory for special order options available or with your specifications.



#### **EL1A 3 GPM up to 500 PSI**

- One year complete product warranty
- Triplex plunger pump with oil inner bath ensures long life
- 1 HP electric motor TEFC, 110 or 220V reads 50/60 HZ
- Stainless Steel liquid filled gauge, ensures accurate readings less flutter
- 8 foot 1/2 inch outlet hose included
- Optional wheel and handle kit



#### **EL1 3 GPM up to 300 PSI**

- One year complete product warranty
- Triplex plunger pump with oil inner bath ensures long life
- 1/2 HP electric motor TEFC, 110 or 220V 60 HZ
- Stainless Steel liquid filled gauge, ensures accurate readings less flutter
- 8 foot 1/2 inch outlet hose included
- Optional wheel and handle kit



#### **EL2 1.5 GPM up to 1000 PSI**

- One year complete product warranty
- Triplex plunger pump with oil inner bath ensures long life
- 1 HP electric motor TEFC, 110 or 220V reads 50/60 HZ
- Stainless Steel liquid filled gauge, ensures accurate readings less flutter
- 8 foot 3/8 inch outlet hose included
- Optional wheel and handle kit



### **EL3 1.5 GPM up to 1500 PSI**

- One year complete product warranty
- Triplex plunger pump with oil inner bath ensures long life
- 1.5 HP electric motor TEFC, 110 or 220V reads 50/60 HZ
- Stainless Steel liquid filled gauge, ensures accurate readings less flutter
- 8 foot 3/8 inch outlet hose included
- Optional wheel and handle kit



### **EL-4/18 4 GPM up to 1800 PSI**

- One year complete product warranty
- Triplex plunger pump with oil inner bath ensures long life
- 5 HP electric motor TEFC, 1 phase, 230V, 60 HZ
- Stainless Steel liquid filled gauge, ensures accurate readings less flutter
- 8 foot 3/8 inch outlet hose included
- Optional wheel and handle kit



### **EL-5/500 5 GPM up to 500 PSI**

- One year complete product warranty
- Triplex plunger pump with oil inner bath ensures long life
- 2 HP electric motor TEFC, 110 or 220V, 60 HZ
- Stainless Steel liquid filled gauge, ensures accurate readings less flutter
- 8 foot 1/2 inch outlet hose included
- Optional wheel and handle kit



### **EL-8/12 8 GPM up to 1200 PSI**

### **EL-12.5/300 12.5 GPM up to 300 PSI**

- One year complete product warranty
- Triplex plunger pump with oil inner bath ensures long life
- 7.5 HP electric motor TEFC, 3 phase 230 or 460V, 60 HZ
- Stainless Steel liquid filled gauge, ensures accurate readings less flutter
- 8 foot 3/8 inch outlet hose included
- Optional wheel and handle kit

# Wheel & Handle Kits



## RI-6

- Wheel & handle kit, for small units
- Instantly makes your hydrostatic test pump truly mobile
- Includes heavy duty metal handle and v-rest along with casters and all hardware needed for installation



## WK-STD

- Wheel & handle kit, for standard units
- Instantly makes your hydrostatic test pump truly mobile
- Includes heavy duty metal handle, axel and v-rest along with “No Flat” tires and all hardware needed for installation



## RI-10

- Wheel & handle kit, for large units
- Instantly makes your hydrostatic test pump truly mobile
- Includes heavy duty metal handle, axel and footrest along with “No Flat” tires and all hardware needed for installation




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RICE HYDRO, INC.  
MANUFACTURER'S OPERATING INSTRUCTIONS  
EL-SERIES MODEL TEST PUMPS

**FOR WARRANTY REGISTRATION CALL: 1-800-245-4777**

 **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](http://www.p65warnings.ca.gov)

**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. Use a sound 3/4" or larger supply hose.
4. Protect the pump from freezing, FLUSH with anti-freeze.
5. DO NOT run dry or pump chlorine thru the unit.

**CONNECTING THE PUMP:**

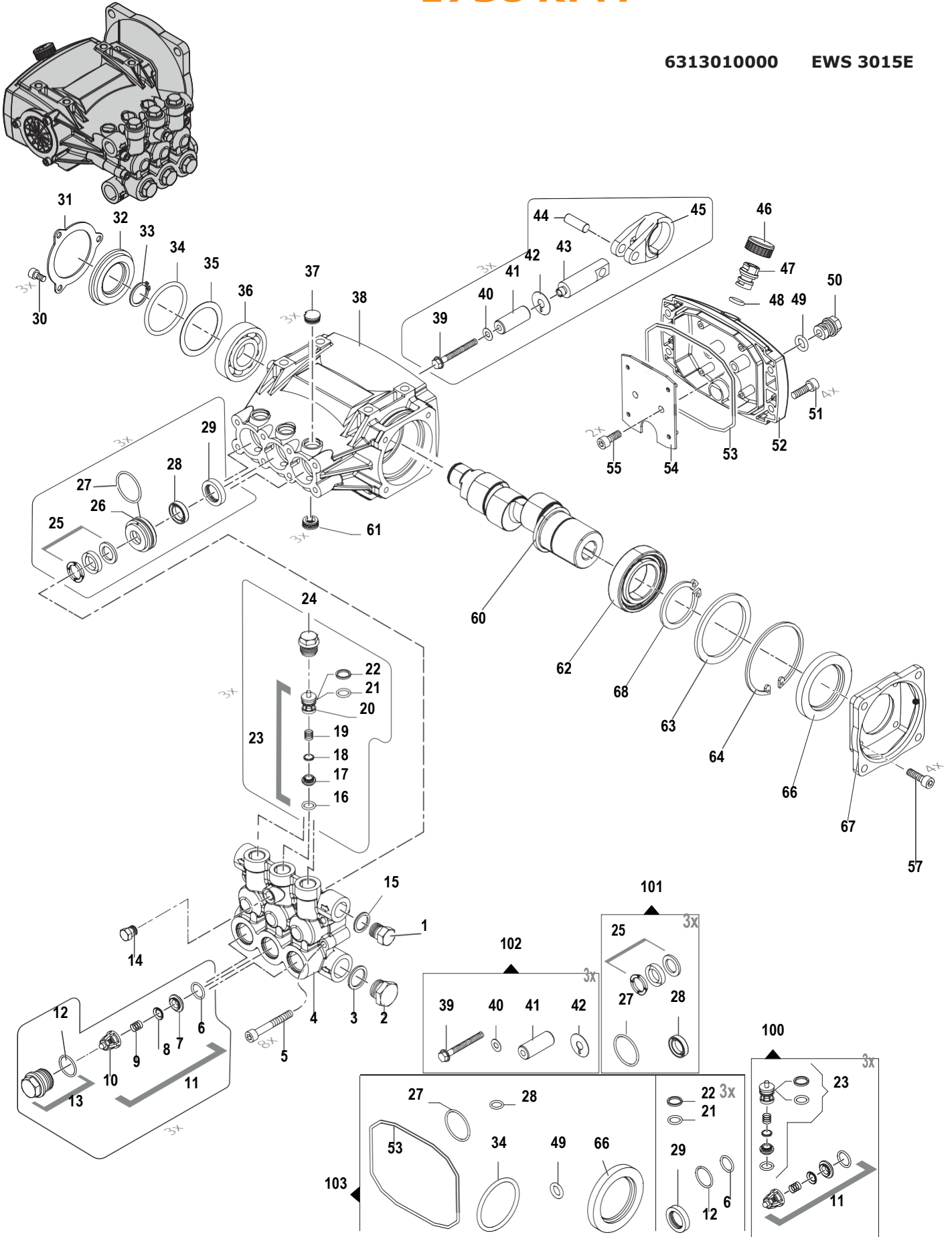
1. With motor switch in the off position, connect power cord of motor to a standard wall outlet. *Extension cord: when needed, requires a 12 gauge 3 wire, **maximum 25 foot length** plugged into a 20 or larger amp breaker, depending on individual motor requirements.*
2. Connect **CLEAN** pressurized water source to the inlet of the pump. It is recommended that the unit be pressure fed. For gravity feed locate water within 8 feet and elevated above level of unit, and then prime the pump.
3. Connect high-pressure outlet hose to the pump and your test environment.

**OPERATING THE PUMP:**

1. Turn the outlet ballvalve to the open position, start the motor.
2. 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 the unit is under NO pressure.** To adjust the pressure, first loosen the locknut. Turn the T-handle/Knob clockwise to increase and counter-clockwise to decrease the pressure. Place a ballvalve or similar open and close valve at the end of the outlet hose, open and close this valve multiple times as needed, to check pressure setting and re-adjust as necessary. It is also recommended that you open and close the hosebib located under the gauge to bleed excess air from piping and ensure accurate pressure gauge readings. Upon reaching desired pressure setting, tighten locknut and prepare to begin test.
3. With the ballvalve open begin building pressure in the test environment. Be sure to bleed the air from hosebib under gauge at least once during this process. Once test pressure has been reached, close the ballvalve and shut-off motor. An inlet checkvalve prevents water pressure from bleeding back into the pump.
4. Once the outlet ballvalve is closed and your test begins, you have now isolated the test pump from the test environment, any loss of pressure is due to leaks or trapped air being compressed in the test environment.

**RECOMMENDED MAINTENANCE**

1. Pumps use non-detergent 30wt oil, gear reductions use 90wt gear oil.



PARTS BREAKDOWN FOR MODELS: EL1, EL1A  
RICE HYDRO INC.

**\*\*Serial numbers 55264 & 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 OCVER	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: EL1, EL1A  
RICE HYDRO INC.

**\*\*Serial numbers 55264 & after\*\***

REF#	PART NUMBER..	DESCRIPTION..	QTY REQ'D
<b>OUTLET HOSES:</b>			
	HOSE-1/2X8-RH	8' FOOT OUTLET HOSE - STANDARD	1
	<i>*1/2" Male Rigid Fitting &amp; 1/2" Male Swivel Fitting included on 8ft outlet hose</i>		
	COUPLERBODY-1/2	QC FEMALE PUMP OUTLET - HOSE	1
	COUPLERPLUG-1/2	QC MALE PUMP OUTLET - PIPING	1
	HOSE-1/2-2500XFT	SPECIFY LENGTH OF HOSE	
	1/2" Male Rigid Fitting & 1/2" Male Swivel Fitting		1
<b>MOTORS &amp; PUMPS:</b>			
	MOTOR-1/2HP (EL1)	1/2HP 110/220V 1 PHASE 60HZ	1
	MOTOR-1HP-CFACE (EL1A)	1HP 110/220V 1 PHASE 50/60HZ	1
	PUMP-PLGR-3/5 (EL1/1A)	TRIPLEX PLUNGER PUMP	1
<b>** MUST ORDER THE FOLLOWING WHEN REPLACING PND TO EWS PUMP **</b>			
	HOSEBARB-BR-1/2X3/8	BRASS HOSEBARB	1
	NIP-BRASS-1/2	1/2" BRASS NIPPLE	1
<b>MISCELLANEOUS PARTS:</b>			
	HOESWIVEL-1/2	HOSE SWIVEL INLET	1
	HOESCREEN&WASHER	INLET HOSE SCREEN	1
	BALLVALVE-1/2	OUTLET BALLVALVE	1
	GAUGE-600	0-600 PSI LIQUID GAUGE	1
	LABEL-KIT-EL	INSTRUCTION AND CAUTION STICKERS	1
	VALVE-RELIEF-500PSI	PRESSURE REGULATOR	1
	<i>BLUE SPRING 50-500 PSI</i>		

# 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.

