

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 Lineage
- Quick links for fast and easy anchoring of this device
- Safely limits the movement of the line in the event of rupture
- The Lineage 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



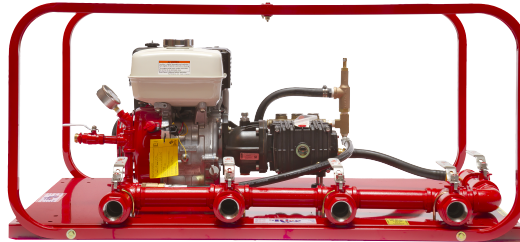
Adapters

- 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

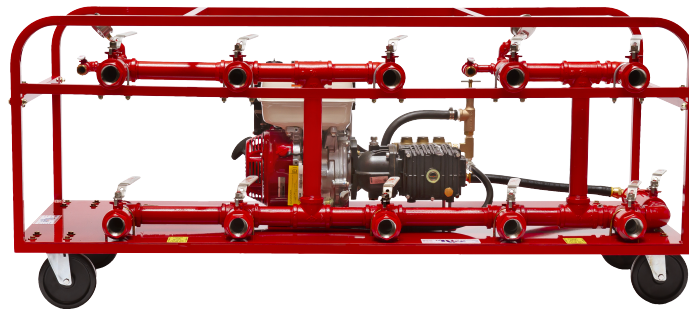
FH2H-L4

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



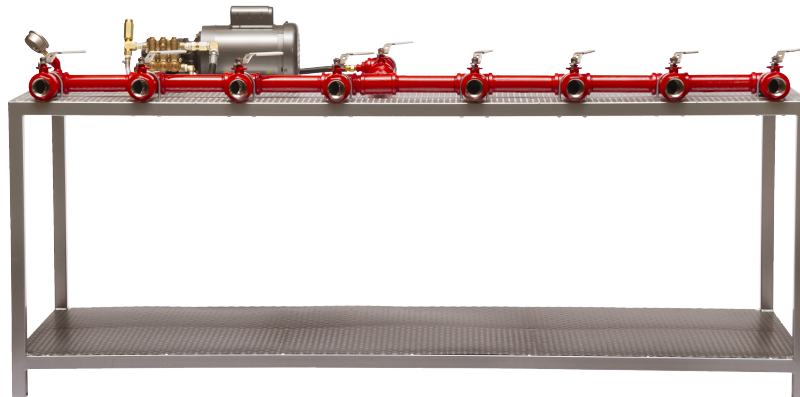
FH-12.5/500-TEN

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 hose to be filled through manifold. Do not turn pump on at this time.
3. To ensure air is safely bled from hoses, bleed each hose, one line at a time with hydrant volume and pressure, utilizing a nozzle at the end of each hose.
4. When each line 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 1½" ballvalves at the outlets and begin building pressure in one of the lines 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 ½" 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 with only hose stretch to overcome. If a hose ruptures, the only volume of water available is through GPM of the pump. NO SURGE OF VOLUME, NO WILD LINE.
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 hoses and couplings under pressure as dangerous.

NOTE: When dealing with existing pressured hoses or to re-pressurize hose, unit's existing manifold/piping pressure must be bled back down to 70 psi. **DO NOT LOWER PRESSURE ON HOSES OR TEST ENVIRONMENT**, 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: hoses 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 1½" outlet ballvalves closed holding existing pressure, open back bleed ½" ballvalve to release pressure in piping/manifold down to 70 PSI or below. Turn motor/unit on and close ½" 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 ½" ballvalves.

TROUBLE SHOOTING:

NOT building pressure

Inlet ballvalve has not been closed.

AIR, AIR AND MORE AIR

*Ensure air is bled from hoses, 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 MODEL FH3 & EL-FHT

Serial Numbers after 65326

RICE HYDRO, INC.

PART NUMBER..	DESCRIPTION..	QTY REQ'D
UD04-0006.09	BEARING	1
UD04-0007.18	SEAL	3
UD04-0007.24	SEAL	1
UD04-0009.09	RETAINER CLIP	1
UD04-0014.20	PLUNGER ROD	3
UD04-0021.15	WATER SEAL	3
UD04-0023.22	SUPPORT RING	1
UD04-0023.25	INTERMEDIATE RING	3
UD04-0031.45	CRANKSHAFT	1
UD04-0103.41	ALUMINUM CONNECTING ROD	3
UD04-0208.D7	BACK COVER	1
UD04-0208.E5	COVER	1
UD04-0209.02	CRANKCASE	1
UD04-0214.21	BEARING	1
UD04-0301.42	SLINGER RING	1
UD04-0303.18	PLUNGER NUT	1
UD04-0517.08	ELECTRIC FLANGE	1
UD02-0605.09	GASKET	1
UD04-0605.33	GASKET	3
UD04-0635.01	HIGH PRESSURE SEAL ASSY	3
UD04-1101.66	O-RING- BEARING COVER	1
UD04-1101.76	O-RING - OIL PLUG	1
UD04-1101.A2	O-RING - VALVE CAP	6
UD04-1101.A3	O-RING - VALVE	6
UD04-1101.A4	O-RING - PLUNGER	3
UD04-1101.A7	O-RING - LP SEAL RETAINER	3
UD04-1101.K8	O-RING - BACK COVER	1
UD04-1205.35	PLUNGER - 15 MM	3
UD04-1208.03	COVER	1
UD04-1212.10	SIDE PLATE	1
UD04-1221.11	LOW PRESSURE SEAL RETAINER	3
UD04-1411.01	WASHER	12
UD04-1502.15	CONNECTING ROD PIN	3
UD04-1506.26	SNAP RING	1
UD04-1603.34	PLUG	1
UD04-1603.64	3/8" PLUG	1
UD04-1603.69	SIGHT GLASS	1
UD04-1603.72	VALVE CAP	6
UD04-1604.C7	ALUMINUM MANIFOLD	1
UD04-1625.21	OIL PLUG	1
UD04-1805.21	BOLT	12
UD04-1805.39	BOLT	8
UD04-6006.25	VALVE ASSY w/o O-RING	6
CHECKVALVE-1/2F	1/2" FEMALE CHECKVALVE	1
BALLVALVE-1/2	1/2" BLEED VALVE	1
BALLVALVE-S-1&1/2	STAINLESS STEEL BALLVALVE	4
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
SWIVEL-INLET-FH3	2&1/2" FEMALE SWIVEL INLET	1
ADAPTER-NST-1&1/2	1&1/2" NPT X NST OUTLET ADAPTER	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

PARTS BREAKDOWN FOR MODEL FH3 & EL-FHT

Serial Numbers after 65326

RICE HYDRO, INC.

PART NUMBER..	DESCRIPTION..	REQ'D
KITS:	*Kits are all inclusive	
UD04-6061.01	VALVE KIT	1
UD04-6061.07	SEAL KIT	1
UD04-6061.13	BRASS KIT	1
UD04-6061.20	PLUNGER O-RING KIT	1

Prices subject to change without notice

Direct Drive, Electric Flange Models

5/8" Hollow Shaft with NEMA 56C Mounting Flange
1750 RPM



- Anodized Aluminum Manifold
- Heat Treated Crankshaft
- Stainless Steel Piston Guides
- High Strength Aluminum Alloy or Bronze Connecting Rods
- Industrial Quality Ball Bearings and Needle Bearings
- Solid Ceramic Plungers
- Stainless Steel Check Valves
- Heavy Duty Flat Base High Pressure Seals
- Dual Oil Sight Gauges
- 10.25 oz. Capacity Vented Oil Bath Crank Case
- 3/8" BSP-F Inlet. 3/8" BSP-F Outlet
- Max Fluid Temp, 160°F

PND Series 24mm Keyed Solid Shaft Plunger Pumps

PND Series standard duty plunger pumps include a wide range of models with flow rates from 0.5 to 4.0 GPM and pressures up to 2030 PSI.

Other drive options include 24mm solid shaft, gas engine flange, gas engine gear reduction and hydraulic motor flange.

Applications include general pressure cleaning, sewer jetting, vehicle wash equipment and fire fighting applications.

	Model	Flow		Pressure		Plunger Dia.	Crankshaft		Power	Seal Kit	Valve Kit	Wt.
		GPM	l/min	PSI	bar		Stroke	Code				
1750 RPM	PND 0.5/20 Z	0.5	2.0	2030	140	15mm	2.0mm	1	.75 EBHP	6061.07	6061.01	13 lbs
	PND 1.0/20 Z	1.0	3.8	2030	140	15mm	5.0mm	B	1.5 EBHP	6061.08	6061.01	13 lbs
	PND 1.5/20 Z	1.5	5.7	2030	140	15mm	7.5mm	H	2.0 EBHP	6061.07	6061.01	13 lbs
	PND 2.0/20 Z	2.0	7.6	2030	140	15mm	9.4mm	U	2.7 EBHP	6061.07	6061.01	13 lbs
	PND 3.0/15 ZA*	3.0	11.4	1450	100	15mm	12.5mm	S	3.0 EBHP	6061.07	6061.01	11 lbs
	PND 3.0/20 Z	3.0	11.4	2030	140	15mm	12.5mm	S	4.1 EBHP	6061.07	6061.01	13 lbs
	PND 3.5/15 Z	3.5	13.2	2030	140	18mm	10.5mm	O	4.7 EBHP	6061.08	6061.01	13 lbs
	PND 4.0/15 Z	4.0	15.0	2030	140	18mm	12.5mm	S	4.0 EBHP	6061.08	6061.01	13 lbs

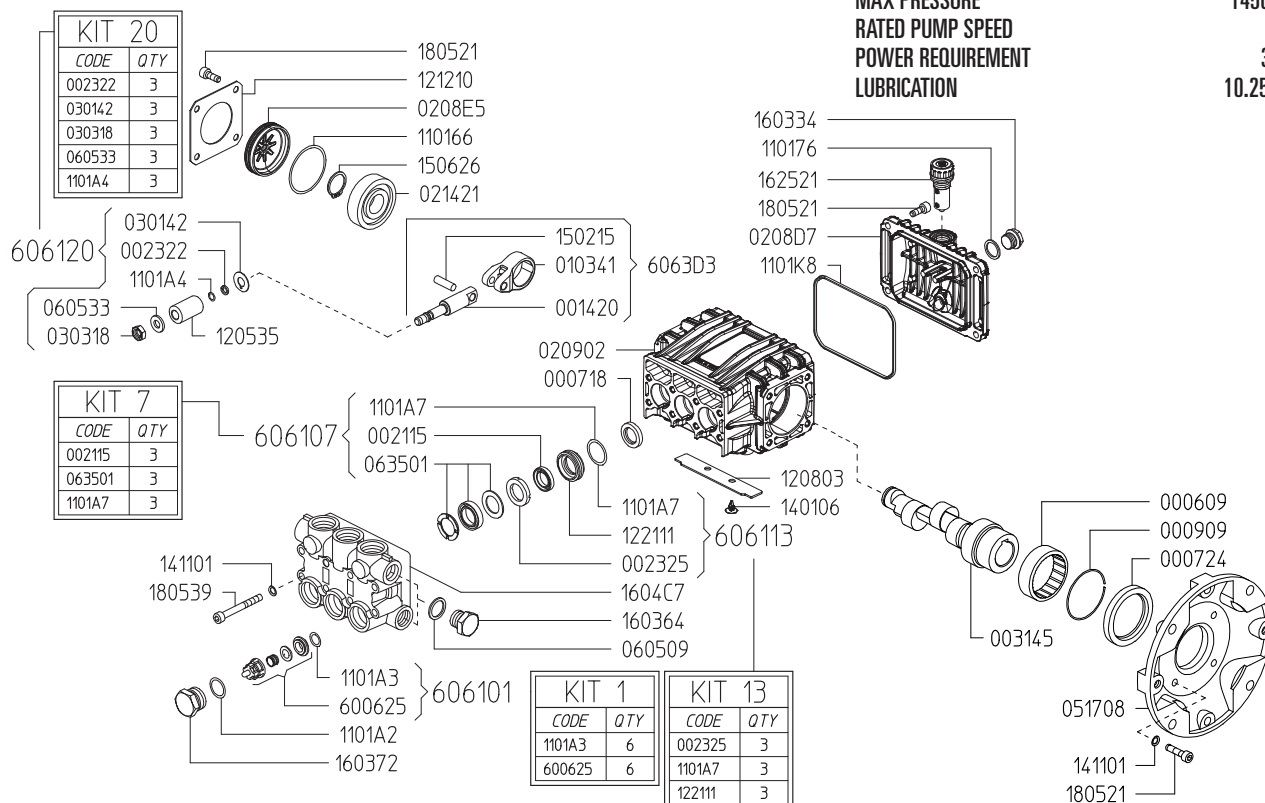
NOTE: All pump models available with left-hand drive option. Add 'L' to model number when ordering (ex. PND 1.5/20 ZL)

*Aluminum Manifold



MAX FLOW
MAX PRESSURE
RATED PUMP SPEED
POWER REQUIREMENT
LUBRICATION

3.0 GPM / 11.4 L/MIN
1450 PSI / 100 BAR
1750 RPM
3.0 HP ELECTRIC
10.25 OZ UDOR LUBE



Revised 10-3-2024

Part #	Description	Qty	Part #	Description	Qty
0006.09	BUSHING D45X52X16 HK45-16	1	1101.K8	O-RING - BACK COVER	1
0007.18	OIL SEAL D15X24X4	3	1205.35	CERAMIC PLUNGER D15X30 "PN"	3
0007.24	OIL SEAL D40X52X7	1	1208.03	COVER - PN 2024	1
0009.09	ELASTIC RING D52X2.5	1	1212.10	METAL COVER "PN"	1
0014.20	PLUNGER GUIDE D15/18 "PN"	3	1221.11	LOW PRESS. SEAL RETAINER D15 ^{C E}	3
0021.15	WATER SEAL LP. D15 ^{B E}	3	1401.06	RIVED D4X10	2
0023.22	RING D6.3X9X1.3 2021 "PN/C/G" ^{C E}	3	1411.01	SERATED WASHER D6	12
0023.25	INTERMEDIATE RING D15 "PN"	3	1502.15	PIN D7X25.5	3
0031.45	HOLLOW SHAFT "PN" D5/8"	1	1506.26	SNAP RING D20	1
0103.41	CONNECTING ROD "PN/PS"	3	1603.34	PLUG G1/4	1
0208.D7	BACK COVER "PN"	1	1603.64	PLUG G3/8	1
0208.E5	COVER "PN"	1	1603.69	OIL PLUG G1/4+GASKET	1
0209.02	CRANKCASE "PN/PS"	1	1603.72	VALVE PLUG "PN"PISTON D15/18 ^A	3
0214.21	BALL BEARING D20X52X15	1	1604.C7	HEAD "PN" PISTON D15/18 ALUMINUM	1
0301.42	SLINGER RING "PN/PK/PKWT/PS" ^D	3	1625.21	OIL PLUG G3/8 "PN"	1
0303.18	NUT "PN/PK/PKWT/PS M8XH5 ^D	3	1805.21	ALLEN BOLT M6X22	12
0517.08	ENGINE FLANGE "PN" NEMA 56H	1	1805.39	ALLEN BOLT M6X60	8
0605.09	GASKET D17X23X1.5 (G3/8)	1	6006.25	VALVE ASSY "PN" W/O O-RING ^{A E}	6
0605.33	GASKET D8X14X2 ^D	3	6017.20	COMPLETE MANIFOLD ASSEMBLY	1
0635.01	HIGH PRESS. SEAL ASSY D15 ^{B E}	3	6061.01	KIT 1 - VALVE KIT "PN/PW"	1
1101.66	O-RING - BEARING COVER	1	6061.07	KIT 7 - WATER SEAL KIT D15 "PN/PK"	1
1101.76	O-RING - OIL PLUG	1	6061.13	KIT 13 - BRASS RING KIT D15 "PN"	1
1101.A2	O-RING - VALVE CAP ^E	6	6061.20	Kit 20 - PLUNGER KIT D15/18 "PN"	1
1101.A3	O-RING - VALVE ^{A E}	6			
1101.A4	O-RING - PLUNGER ^D	3			
1101.A7	O-RING - LP SEAL RETAINER ^{B C E}	3			

^A Parts in 6061.01 (Kit 1).

^B Parts in 6061.07 (Kit 7).

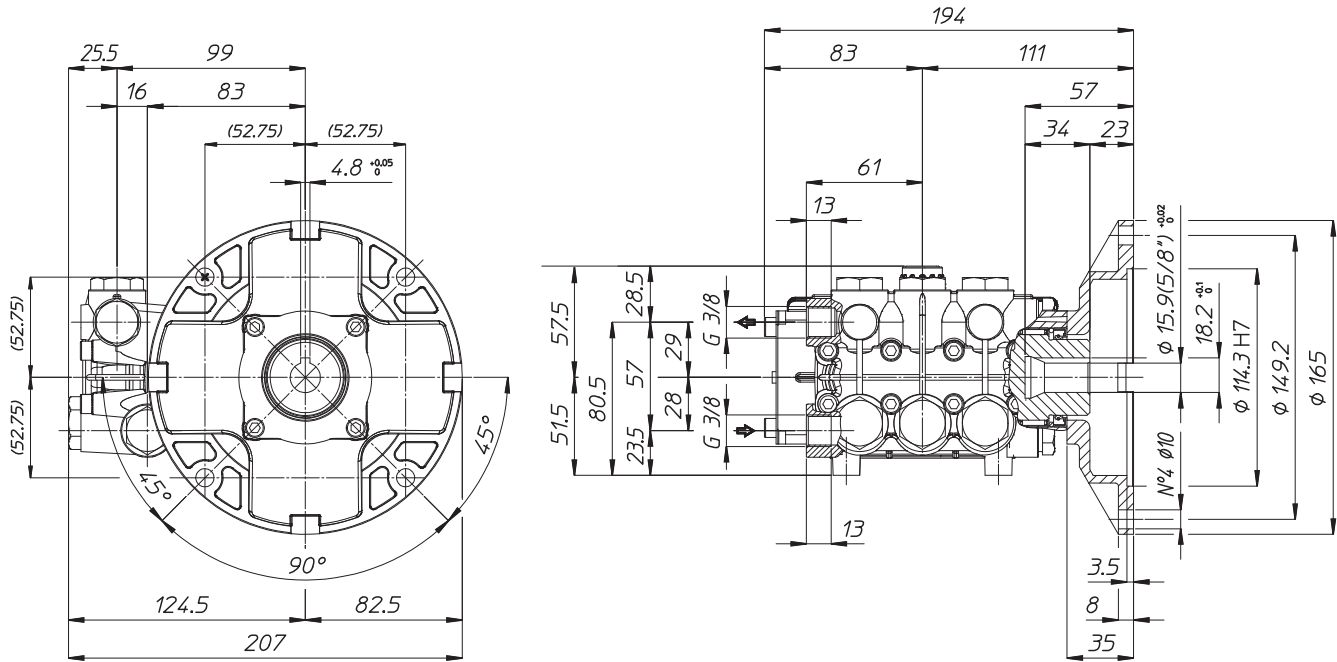
^C Parts in 6061.13 (Kit 13).

^D Parts in 6061.20 (Kit 20).

^E Parts in 6017.20 (Complete Manifold Assembly).

*Dimensional Drawings are
Shown in Millimeters.
To Convert to Inches,
Multiply Dimension x 0.03937*

PN SERIES PUMPS - 5/8" HOLLOW SHAFT w/ NEMA 56C FLANGE



TORQUE SPECS

Ref.	Description	Ft./lb.	Nm	Loctite®
1	Head Bolts	8	11	-
2	Valve Caps	75	100	243
3	Inlet Cap	60	80	-
4	Outlet Cap	60	80	243
5	Bearing Flange Bolts	8	11	-
6	Rear Cover Bolts	8	11	-
7	Connecting Rod Bolts	-	-	-
8	Plunger Bolts	11	15	270
9	Valve Cover Bolts	-	-	-
10	Oil Drain Plug	6	8	-

