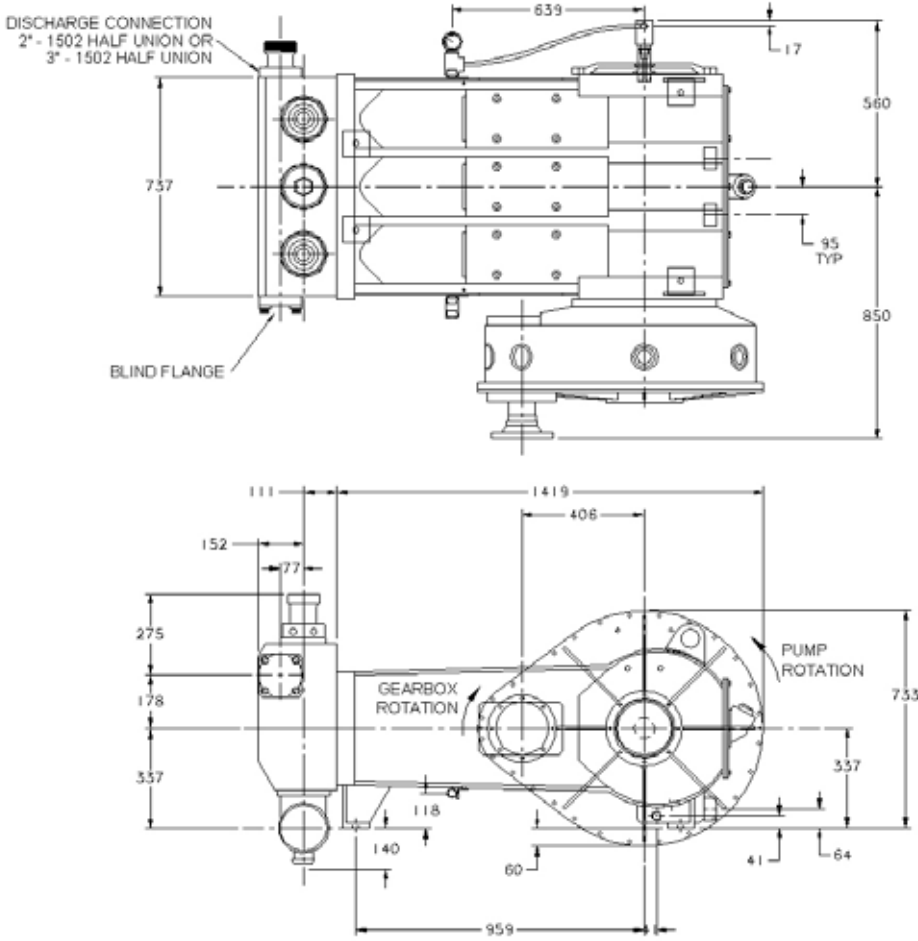


CRI 450 Triplex Plunger Pump



Flange Connections

Discharge Connection Sizes	Suction Connection Sizes
2 (50.8) 1502 Half Union	4 (101.6) Grooved Pipe
3 (76.2) 1502 (Optional)	6 (152.4) Optional
2 (50.8) 1502 Half Union	4 (101.6) Grooved Pipe

Specifications

Pump Type:

Horizontal Reciprocating Power Pump. Positive Displacement with Single-Acting Plungers

Maximum Input Power:

450kW Intermittent, 300kW Continuous

Stroke Length: 150mm

Maximum Rod Load: 445 kN (100,000 lbs)

Approximate Weight: 2,300 Kgs

Pump Power End:

Fabricated from High Strength Alloy Steel

Gears: Helical. External Gearbox

Gear Ratio: 4.68:1

Rod Bearings: Shell Type Replaceable

Main Bearings: Straight Roller

Pinion Bearings: Tapered Roller

Crankshaft: One Piece Forged Alloy Steel

Connecting Rod: Cast Steel

Crosshead Guide: Cast Iron

Fluid-End:

Plunger Type Mono-Block Design

Machined from High Strength Alloy Steel

Heat Treated and Ultrasonic Tested

Plunger Diameter: 70mm to 130mm

Discharge Outlet: 2 or 3 inch 1502 Half Union

Forged Steel Connection - Either Side

Suction Inlet: 6" ANSI 150 lb RF

Valves and Seals:

Hardened Steel, Replaceable Inserts

Power End Lubrication:

100 Lpm Required, Optional Hydraulic Lubrication System w/Sump Available



CRI 450 Triplex Plunger Pump

INNOVATION THROUGH EXPERIENCE

CALDER
A PG FLOW SOLUTIONS COMPANY

Intermittent Duty Performance Chart

2 3/4" to 5" Plunger x 6" Stroke, Single Acting Triplex Plunger Pump

IMPERIAL UNITS

Plunger Diameter	Displacement Factors@100% Volumetric Efficiency	Pump Speed in Crankshaft Revolutions per Minute (RPM)									
		50		100		200		300		450	
		Capacity @100% VE**	Discharge Pressure	Capacity @100% VE**	Discharge Pressure	Capacity @100% VE**	Discharge Pressure	Capacity @100% VE**	Discharge Pressure	Capacity @100% VE**	Discharge Pressure
US Gallons/Rev	GPM	Max @ Capacity	GPM	Max @ Capacity	GPM	Max @ Capacity	GPM	Max @ Capacity	GPM	Max @ Capacity	
Inches	GPR	GPM	PSIG	GPM	PSIG	GPM	PSIG	GPM	PSIG	GPM	PSIG
5	1.53	76	5093	153	5041	306	3025	459	2016	688	1344
4.5	1.239	62	6288	124	6224	248	3734	372	2489	558	1660
4	0.979	49	7958	98	7877	196	4726	294	3151	441	2100
3.5	0.75	37	10394	75	10288	150	6173	225	4115	337	2744
3	0.551	28	14147	55	14003	110	8402	165	5601	248	3734
2.75	0.463	23	16836	46	16665	93	9999	139	6666	208	4444
Input Power @ 90% ME***	BHP	297		500		600		600		600	
Pinion RPM @ 4.58 : 1 Gear Ratio		234		468		936		1404		2106	

** Volumetric Efficiency

*** Mechanical Efficiency

METRIC UNITS

Plunger Diameter	Displacement Factors@100% Volumetric Efficiency	Pump Speed in Crankshaft Revolutions per Minute (RPM)									
		50		100		200		300		450	
		Capacity @100% VE**	Discharge Pressure	Capacity @100% VE**	Discharge Pressure	Capacity @100% VE**	Discharge Pressure	Capacity @100% VE**	Discharge Pressure	Capacity @100% VE**	Discharge Pressure
Litres per Rev											
	LPR	LPM	Bar	LPM	Bar	LPM	Bar	LPM	Bar	LPM	Bar
127	5.8	290	351	580	347	1159	208	1739	139	2608	93
114.3	4.7	235	433	469	429	939	257	1408	172	2112	114
101.6	3.7	185	549	371	543	742	326	1113	217	1669	145
88.9	2.8	142	716	284	709	568	426	852	284	1278	189
76.2	2.1	104	975	209	966	417	579	626	386	939	257
69.9	1.8	88	1161	175	1150	351	689	526	460	789	306
Input Power @ 90% ME***	KW	222		373		447		447		447	
Pinion RPM @ 4.58 : 1 Gear Ratio		234		468		936		1404		2106	



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