

# Plenty Mirrlees

**SPX** Process Equipment

## TRIRO C6000

Triple Screw Pumps



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# Plenty Mirrlees Pumps

## C6000 Triple Screw Pumps

**C6000** Series pumps are designed principally to handle clean lubricating liquids within the viscosity range of 33 to 15,000 SSU. The **C6000** is part of the **TRIRO** family of pumps which include the **T, J, E** and **H** series.



Ductile Iron 6300 with Flanged Ported Case

### Applications

- Forced feed lubrication to machine bearings and gearing
- Fuel oil supply to boilers
- Compressor gland sealing
- Hydraulic pump for elevators, power packs, etc.
- API Rotary Pump Specification 676
- API Forced Lubrication Specification 614
- ... and many more

### Features

- Silent, vibration, and pulse-free operation
- Type 7 insert interchangeable with Roper 6000/Plenty type 3, 4, 5 and 6 pumps
- Extremely low NIPR
- Ductile Iron or Fabricated Carbon Steel Casings
- Fully integral replaceable insert can be used without any additional Ductile Iron or Fabricated Carbon Steel Casings
- Gear motors not required. Designed to normally operate at motor synchronous speeds. Can operate up to 5000 RPM

### Advantages

- Insert reduces downtime and maintenance costs
- Pump can be quickly repaired without disturbing the outer casing or piping
- Same insert can be used in any of the horizontal/vertical casing & mounting options
- Normal lead (NL) and Short lead (SL) inserts are interchangeable

### Materials of Construction

- **Pump Casing** Ductile Iron (ASTM A536 65-45-12) or Fabricated Carbon Steel (ASTM A106)
- **Seal / Bearing Housing** Carbon Steel (ASTM A108 1020)
- **Cover Plate** Carbon Steel (ASTM A108 1020)
- **Insert Casing** Aluminium (ASTM A356)
- **Idler Bearing Bushing** Aluminium (ASTM 6082)
- **Screwset** Power Rotor - Alloy Carbon Steel (ASTM A108 1040), Idler Rotors - Pearlitic Iron (ASTM A126 Class B)
- **Bearing** Single Row Sealed Ball Bearing
- **Shaft Seal** Single Mechanical Seal (Elastomer Bellows or Positive Drive)
- **Elastomers** Buna N - up to 210 F (100°C)  
FKM - up to 250 F (120° C)
- **Gaskets** Asbestos Free Synthetic Fiber

The Plenty Mirrlees C6000 series (horizontal foot mounted) ductile iron pump is dimensionally interchangeable with the IMO 3D series pump.

Plenty Pump	Imo Pump	Plenty Pump	Imo Pump
C6115	3D 156	C6350	3D 250
C6121	3D 187	C6380	3D 275
C6338	3D 218	C63120	3D 312

### Model Identification

**C6 0 00**

Example - **C6112**

**00** = Displacement (Theoretical capacity) / 1000 RPM

**0** = Case construction

1 = Ductile Iron / one piece NPT ported case

3 = Ductile Iron / two piece flanged ported case

5 = Fabricated steel case

8 = Insert only (no additional case)

9 = Flange mounted pump insert with Suction Flange

**C6** = C6000 Series TRIRO triple screw pump

## Technical Data

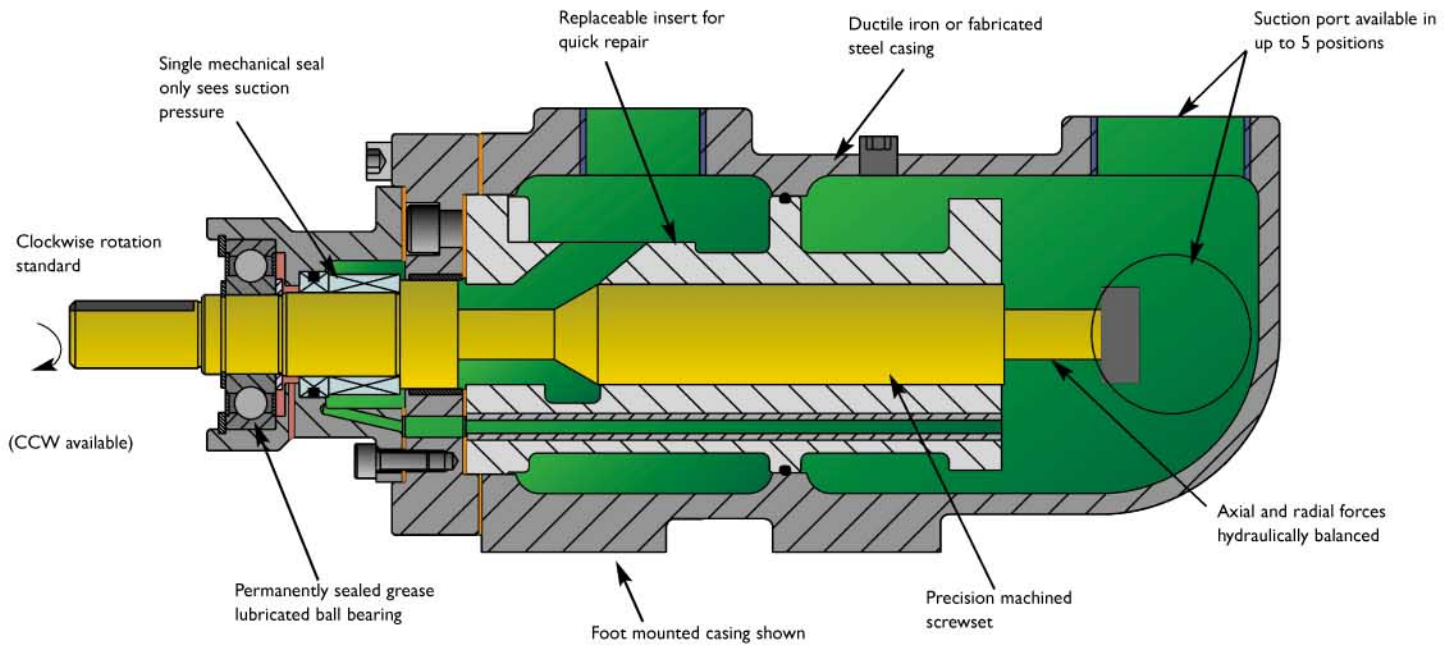
Pump Size	Insert Size	Displacement Per Revolution	Standard Capacity up To	Discharge Pressure up to	Standard Max RPM	Standard Temperature Range
C6 x 12	38-4 / SL	.012 Gal. (.045 Liter)	36 GPM (8.2 m3/hr)	720 PSI (50 bar)	3500	-4°F (-20°C) to 250°F (120°C)
C6 x 15	38-4 / NL	.015 Gal. (.057 Liter)	45 GPM (10.2 m3/hr)	600 PSI (41 bar)	3500	
C6 x 17	45-4 / SL	.017 Gal. (.064 Liter)	60 GPM (13.6 m3/hr)	720 PSI (50 bar)	3500	
C6 x 21	45-4 / NL	.021 Gal. (.079 Liter)	75 GPM (17.0 m3/hr)	600 PSI (41 bar)	3500	
C6 x 30	52-4 / SL	.030 Gal. (.114 Liter)	92 GPM (20.9 m3/hr)	720 PSI (50 bar)	3500	
C6 x 38	52-4 / NL	.038 Gal. (.144 Liter)	116 GPM (26.3 m3/hr)	600 PSI (41 bar)	3500	
C6 x 40	60-4 / SL	.040 Gal. (.151 Liter)	143 GPM (32.5 m3/hr)	720 PSI (50 bar)	3500	
C6 x 50	60-4 / NL	.050 Gal. (.189 Liter)	179 GPM (40.7 m3/hr)	600 PSI (41 bar)	3500	
C6 x 65	70-4 / SL	.065 Gal. (.246 Liter)	227 GPM (51.6 m3/hr)	720 PSI (50 bar)	3500	
C6 x 80	70-4 / NL	.080 Gal. (.303 Liter)	235 GPM (53.4 m3/hr)	600 PSI (41 bar)	2900	
C6 x 95	80-4 / SL	.095 Gal. (.360 Liter)	336 GPM (76.3 m3/hr)	720 PSI (50 bar)	3500	
C6 x 120	80-4 / NL	.120 Gal. (.454 Liter)	210 GPM (47.7 m3/hr)	600 PSI (41 bar)	1750	
Notes 1			2, 6	3, 6	2, 6	4, 6

Pump Size	Suction Size			Discharge Size		
	Model Type / Style			Model Type / Style		
	Aluminium Case Style 9	Ductile Iron Case Style 1 & 3	Fab. Steel Case Style 5	Aluminium Case Style 8 & 9	Ductile Iron Case Style 1 & 3	Fab. Steel Case Style 5
C6 x 12	1 1/2"	2"	2"	1 1/4"	1 1/2"	1 1/2"
C6 x 15	1 1/2"	2"	2"	1 1/4"	1 1/2"	1 1/2"
C6 x 17	2"	2 1/2"	3"	1 1/2"	1 1/2"	2"
C6 x 21	2"	2 1/2"	3"	1 1/2"	1 1/2"	2"
C6 x 30	2 1/2"	2 1/2"	3"	2"	2"	2"
C6 x 38	2 1/2"	2 1/2"	3"	2"	2"	2"
C6 x 40	3"	4"	4"	2"	2 1/2"	3"
C6 x 50	3"	4"	4"	2"	2 1/2"	3"
C6 x 65	3 1/2"	4"	4"	2 1/2"	3"	3"
C6 x 80	3 1/2"	4"	4"	2 1/2"	3"	3"
C6 x 95	4"	4"	6"	3"	3"	4"
C6 x 120	4"	4"	6"	3"	3"	4"
Notes 1			5, 6			5, 6

Notes:

- Second number is displacement (theoretical capacity) per 1000 RPM. Example C6 x 12 would be 12 Gals / 1000 RPM.
- Capacity is based on standard AC electrical motor full load RPM shown in chart. Higher speeds up to 5000 RPM may be achieved.
- Standard Maximum Inlet Pressure is 150 PSI (10.3 bar). Optionals available for up to 300 PSI (20.7 bar) and higher.
- Designs available up to 356 F (180°C).
- Style 5 pumps (fabricated steel casing) are available with non-standard flange sizes.
- Contact your local Plenty Pump representative or the factory for help with flows, pressures, temperatures, & port sizes if above standards listed.

## Construction



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