

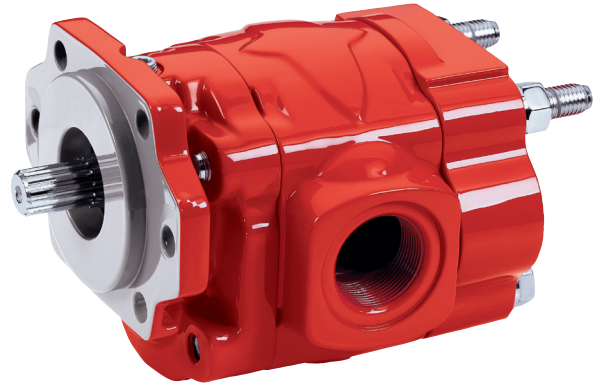
L SERIES

PUMP & MOTOR



BI-ROTATIONAL, FOUR PORT DESIGN

Muncie PL gear pumps come in sizes to fit higher flow rate applications. The PL Series pumps are cast iron and feature bi-rotational, four port construction. All can be either direct mounted to a power take-off, or remote mounted and shaft driven. PL pumps can also be used as high speed, low torque hydraulic motors.



KEY FEATURES

- Seven pump sizes
- Bi-rotational pump/motor
- High-grade cast iron
- Versatile 4-port design
- High pressures: Up to 3,000 PSI (207 BAR)
- Five shaft options
- Three mounting flange options
- Optional relief valve

PUMP AND MOTOR SPECIFICATIONS

MODEL NO.	DISPL. CU.IN.(CC)	MAX RPM	MIN RPM	MAX PRES PSI (BAR)	N.P.T. SIDE PORT	O.D.T. SIDE PORTS	N.P.T. REAR PORTS	PUMP O.D.T. REAR PORTS	WT. LBS. (KG)
PL1-14	3.18 (52)	3,000	600	3,000 (207)	1	1	1½	1¼	39.9 (18.1)
PL1-16	3.82 (63)	3,000	600	3,000 (207)	1	1	1½	1¼	41.7 (18.9)
PL1-19	4.46 (73)	3,000	600	3,000 (207)	1¼	1¼	1½	1¼	43.4 (19.7)
PL1-23	5.20 (85)	3,000	600	2,500 (172)	1¼	1¼	1½	1¼	45.2 (20.5)
PL1-25	5.73 (93)	2,500	600	2,500 (172)	1½	1½	1½	1¼	46.9 (21.3)
PL1-27	6.37 (104)	2,500	600	2,500 (172)	1½	1½	1½	1¼	48.7 (22.1)
PL1-30	7.01 (115)	2,500	600	2,000 (138)	1½	1½	1½	1¼	51.0 (23.2)

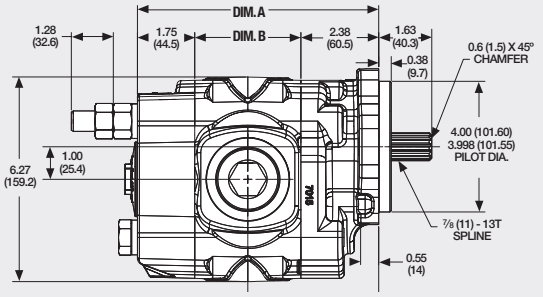
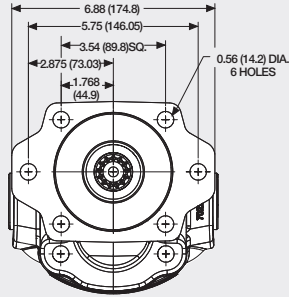
MAX INLET VACUUM - 5 IN.HG. (.17 BAR)

MAX INLET BACK PRESSURE - 150 PSI (10 BAR)

INSTALLATION DIMENSIONS

SINGLE PUMP "B" DIRECT MOUNT (SAE "B")

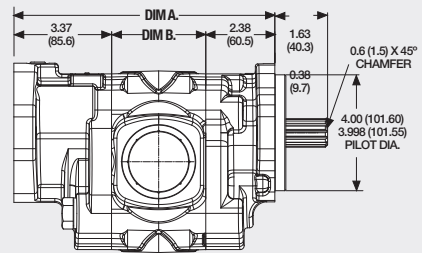
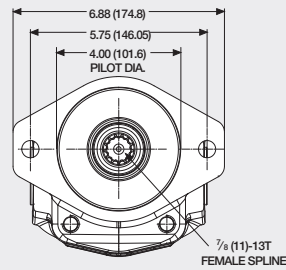
MODEL NUMBER	DIM A IN (MM)	DIM B IN (MM)
14	6.12 (155.4)	2.00 (50.8)
16	6.38 (162.1)	2.25 (57.2)
19	6.62 (168.1)	2.50 (63.5)
23	6.88 (174.8)	2.75 (69.9)
25	7.12 (180.8)	3.00 (76.2)
27	7.38 (187.5)	3.25 (82.6)
30	7.62 (193.5)	3.50 (88.9)



*ADD 1.00 (25.4) TO "A" DIMENSION FOR ROUND SHAFT WITH O.B. BEARING

TANDEM VERSATILE (FRONT PUMP) SAE "B" SHOWN

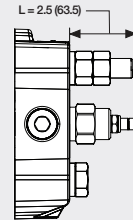
MODEL NUMBER	DIM A IN (MM)	DIM B IN (MM)	WT. LBS. (KG)
14	7.74 (196.6)	2.00 (50.8)	44.4 (20.1)
16	8.00 (203.2)	2.25 (57.2)	46.2 (21.0)
19	8.24 (209.3)	2.50 (63.5)	47.9 (21.7)
23	8.50 (215.9)	2.75 (69.9)	49.7 (22.5)
25	8.76 (222.4)	3.00 (76.3)	51.4 (23.3)
27	9.00 (228.7)	3.25 (82.6)	53.2 (24.1)



Rear Pump Flange
SAE "B" 2-Bolt

Rear Cover With
Relief Valve

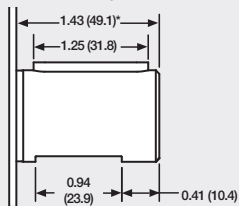
Bypass Port: -16 SAE or -16 N.P.T.
R.V. Preset: 2,000 PSI (138 BAR)



SHAFT OPTIONS

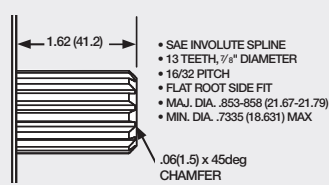
SHAFT TYPE: 01

1.00" RND. - 1/4" Key • STL ≤ 16,900



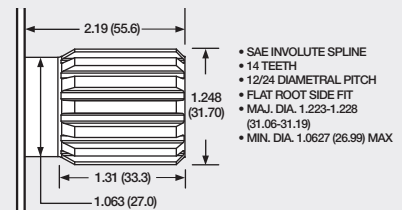
SHAFT TYPE: 02

7/8" - 13T (SAE "B") • STL ≤ 16,550



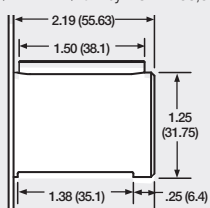
SHAFT TYPE: 05

1 1/4" - 14T (SAE "C") • STL ≤ 35,900



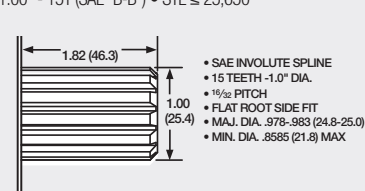
SHAFT TYPE: 07

1-1/4" RND. - 5/16" Key • STL ≤ 33,300



SHAFT TYPE: 17

1.00" - 15T (SAE "B-B") • STL ≤ 25,650

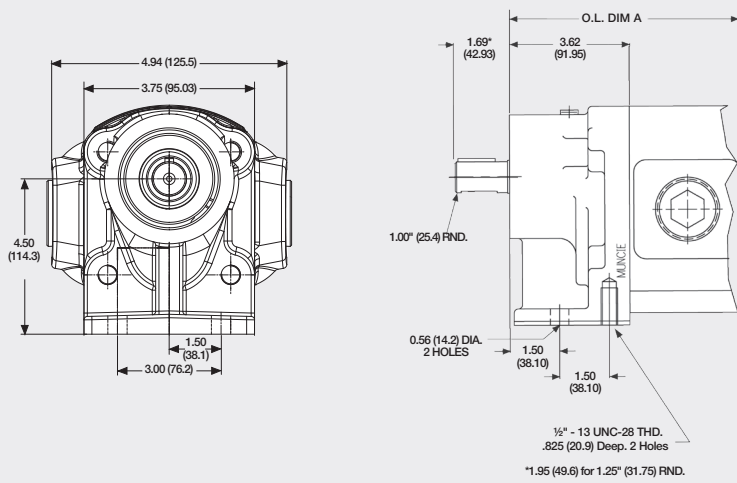
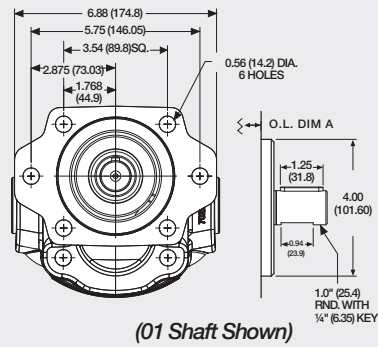


* "R" Mount - .23(5.8) shorter

FRONT COVER OPTIONS

“B” DIRECT MOUNT (SAE “B”) IN(MM)

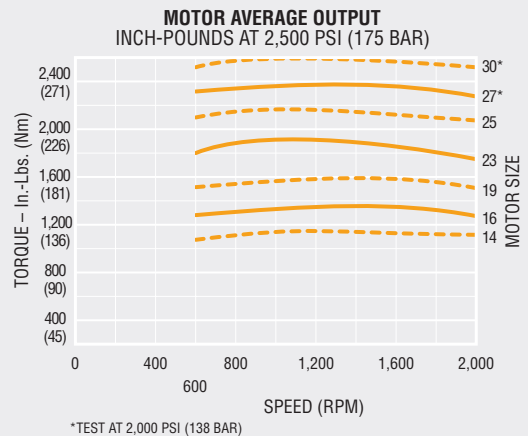
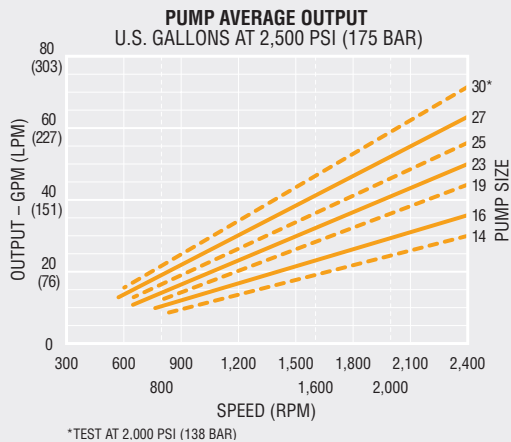
MODEL NUMBER	O.L. DIM A
14	7.12 (180.8)
16	7.38 (187.5)
19	7.62 (193.5)
23	7.88 (200.2)
25	8.12 (206.2)
27	8.38 (212.9)
30	8.62 (218.9)



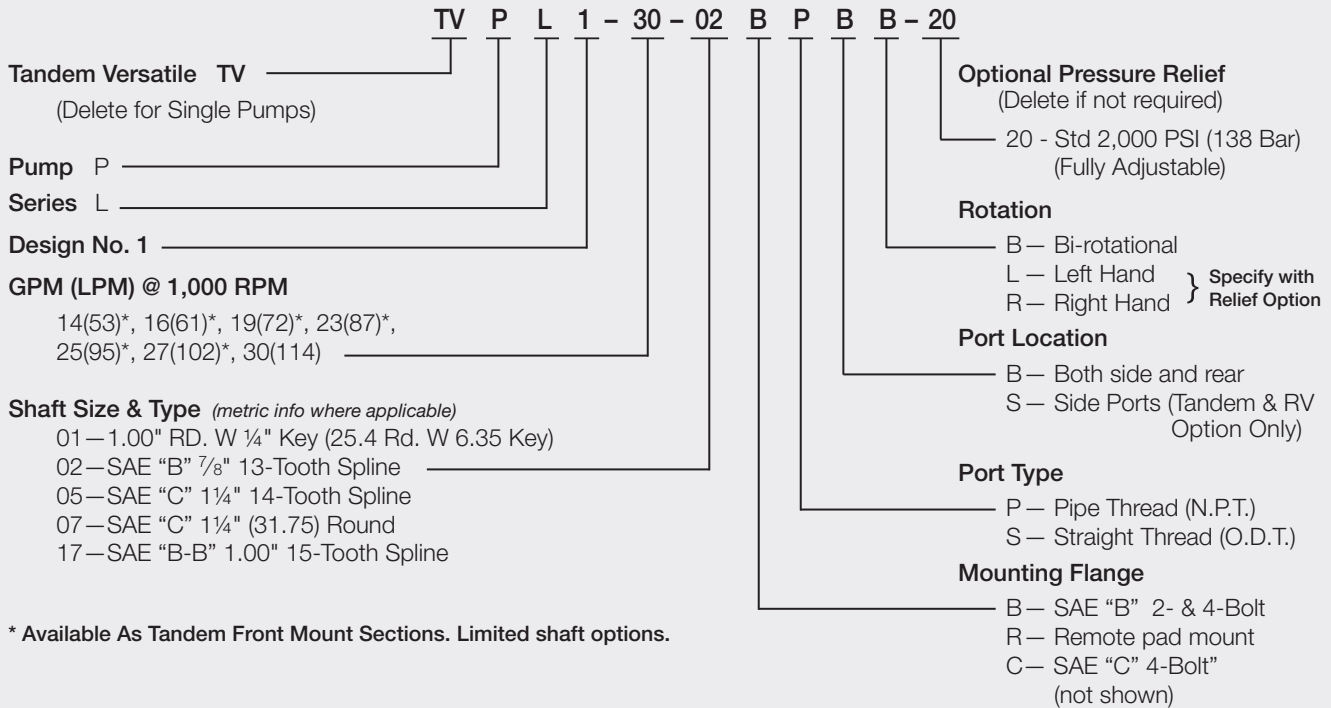
“R” REMOTE MOUNT IN(MM)

MODEL NUMBER	O.L. DIM A
14	7.38 (187.5)
16	7.62 (193.5)
19	7.88 (200.2)
23	8.12 (206.2)
25	8.38 (212.9)
27	8.62 (218.9)
30	8.88 (225.6)

OUTPUT



MODEL NUMBER CONSTRUCTION



OIL RECOMMENDATIONS

Muncie does not promote specific manufacturers' brands of oil. Recommendations below are guidelines; consult oil manufacturer for exact application needs.

Viscosity Range:

- Viscosity Minimum: 50-60 SUS (7.5-10.5 cST)
- Viscosity Optimum Continuous: 60-100 SUS (10.5-21.6 cST)
- Viscosity Maximum @ Startup: 7,500 SUS (1600 cST)
- Viscosity Index: 90 Minimum

Aniline Point: 175 Minimum

- Pour Point: 15°F (-10°C) Maximum
- Foam Resistance: Recommended
- Rust Resistance Inhibitors: Recommended
- Corrosion Resistance: Recommended
- Oxidation Stability: Recommended
- Anti-Wear Additive: .06% Zinc Minimum*

Note: Cold weather operation requires special oil considerations. Viscosity should not exceed 7,500 SUS (1,600 cST) at lowest startup temperature. Continuous operation should range between 60-1,000 SUS (10.5-216 cST) for all temperature ranges. Never use diesel fuel or kerosene to thin oil.

*Anti-Wear Additives may be recommended by some motor manufacturers. However, they are optional and typically not required for gear pump or gear motors.