

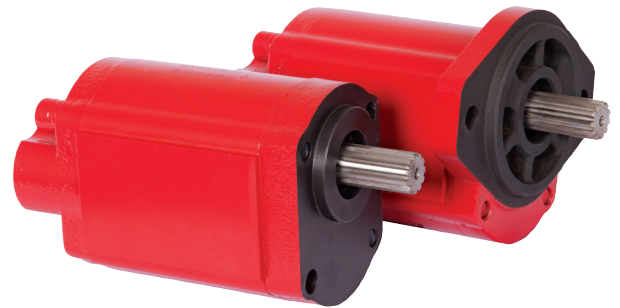
# F SERIES

## GEAR PUMPS (NEW STYLE)



### HIGH PERFORMANCE IN A COMPACT DESIGN

Ultimate power and performance in a small package best describes the F4 Series gear pumps. The pressure balanced bushing blocks and sleeve bearings provide both long life and high performance.



### KEY FEATURES

- 12 Standard sizes
- Pressures to 3,625 PSI (250 bar)
- Speeds to 3,000 RPM
- Low noise level
- Maximum efficiency
- Compact design
- Dowel pin design
- SAE spline
- SAE straight thread O-Ring ports
- Full one-year warranty
- 100% break in and test

### PUMP SPECIFICATIONS

MODEL NUMBER	DISPLACEMENT CUBIC IN (CC)	MAX* RPM	MIN* RPM	MAX PRES PSI (BAR)	O.D.T.** INLET REAR	O.D.T.** INLET SIDE	O.D.T.** OUTLET REAR/SIDE	MAX INLET VACUUM	WEIGHT LBS (KG)
PF4-107	0.24 0(4)	3,000	500	3,625 (250)	1 1/16	1 5/16	7/8	6 in.Hg. (.20 BAR)	07.51 (3.42)
PF4-160	0.37 0(6)	3,000	500	3,625 (250)	1 1/16	1 5/16	7/8	6 in.Hg. (.20 BAR)	07.69 (3.49)
PF4-212	0.49 0(8)	3,000	500	3,625 (250)	1 1/16	1 5/16	7/8	6 in.Hg. (.20 BAR)	07.86 (3.56)
PF4-264	0.61 (10)	3,000	500	3,625 (250)	1 1/16	1 5/16	7/8	6 in.Hg. (.20 BAR)	08.02 (3.64)
PF4-290	0.73 (12)	3,000	500	3,625 (250)	1 1/16	1 5/16	7/8	6 in.Hg. (.20 BAR)	08.12 (3.68)
PF4-368	0.85 (14)	3,000	500	3,625 (250)	1 1/16	1 5/16	7/8	6 in.Hg. (.20 BAR)	08.38 (3.80)
PF4-424	0.98 (16)	3,000	500	3,625 (250)	1 1/16	1 5/16	7/8	6 in.Hg. (.20 BAR)	08.55 (3.88)
PF4-502	1.16 (19)	3,000	500	3,625 (250)	1 1/16	1 5/16	7/8	6 in.Hg. (.20 BAR)	08.81 (4.00)
PF4-606	1.40 (23)	2,500	500	3,625 (250)	1 1/16	1 5/16	7/8	6 in.Hg. (.20 BAR)	09.15 (4.15)
PF4-714	1.71 (28)	2,500	500	2,900 (200)	1 1/16	1 5/16	7/8	6 in.Hg. (.20 BAR)	09.49 (4.30)
PF4-818	1.83 (30)	2,500	500	2,900 (200)	1 1/16	1 5/16	7/8	6 in.Hg. (.20 BAR)	09.84 (4.46)
PF4-870	2.01 (33)	2,500	500	2,320 (160)	1 1/16	1 5/16	7/8	6 in.Hg. (.20 BAR)	10.01 (4.54)

\* Maximum RPM shown at 0 in.Hg. Vacuum for -16 side inlet port.

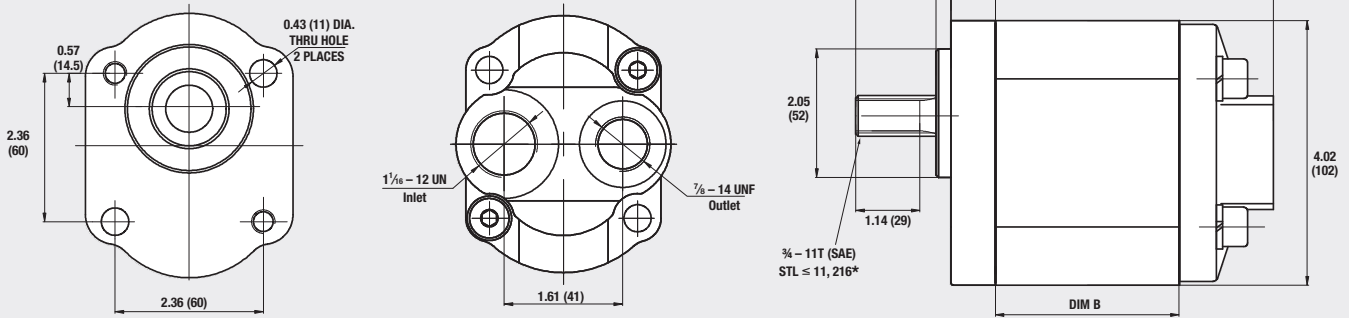
\*\* Port thread size shown

Notes: For Ford TorqShift® 4x4 applications, order pump code PF4-\*\*\* -16QSRL. PF4-502 & larger pump sizes are not applicable on Ford TorqShift® gas 4x4 application. Maximum oil temperature is 200°F (93.5°C). Buna N seals are standard.

# DIRECT MOUNT DIMENSIONS

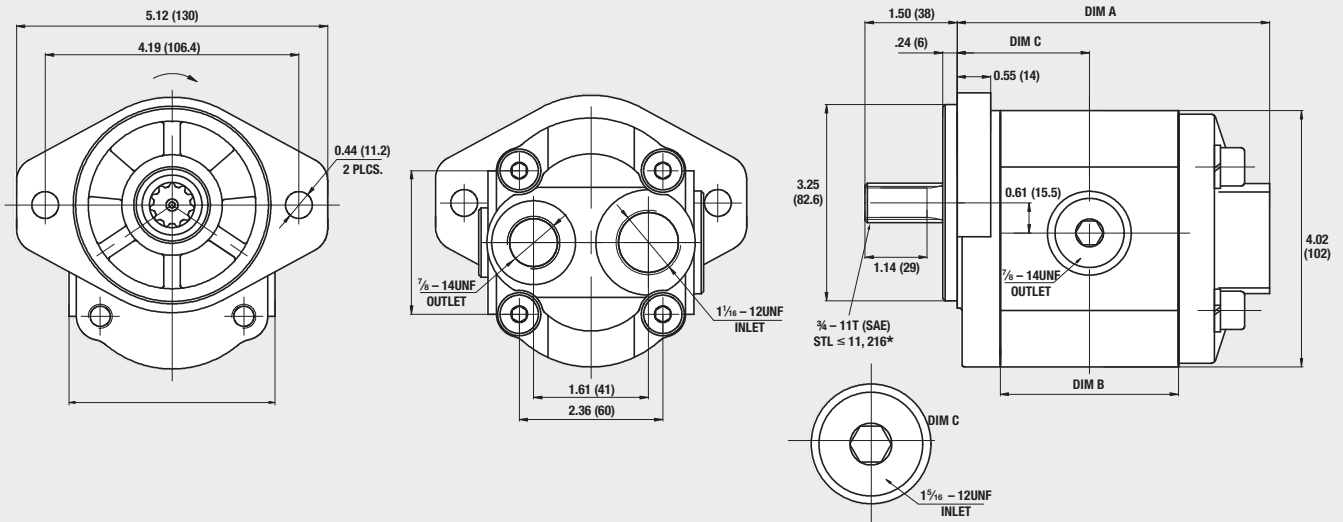
## F4 PUMP WITH "Q" FLANGE

(Rear ports only)



## F4 PUMP WITH "SAE A" FLANGE

(Side and rear ports shown)

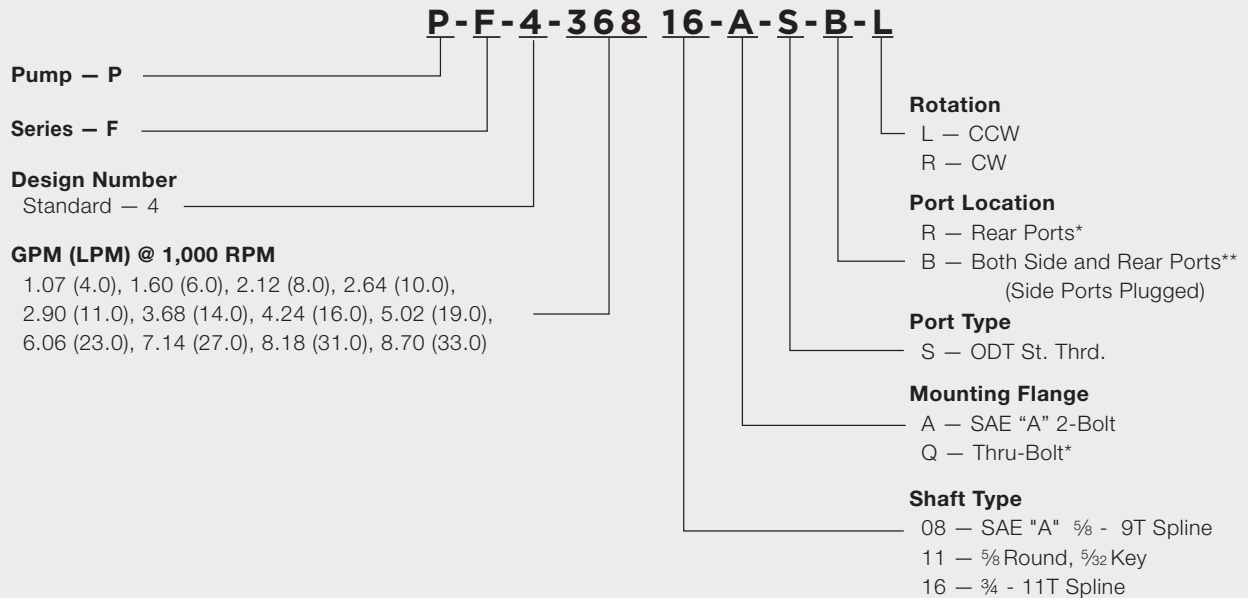


## OVERALL LENGTHS

MODEL	DIM A IN (MM)	DIM B IN (MM)	DIM C IN (MM)
PF4-107	4.19 (106.5)	1.99 (50.5)	1.70 (43.3)
PF4-160	4.33 (110)	2.13 (54)	1.77 (45)
PF4-212	4.45 (113)	2.24 (57)	1.83 (46.5)
PF4-264	4.57 (116)	2.36 (60)	1.89 (48)
PF4-290	4.70 (119.5)	2.50 (63.5)	1.96 (49.8)
PF4-368	4.82 (122.5)	2.62 (66.5)	2.02 (51.3)
PF4-424	4.94 (125.5)	2.74 (69.5)	2.08 (52.8)
PF4-502	5.16 (131)	2.95 (75)	2.19 (55.5)
PF4-606	5.39 (137)	3.19 (81)	2.30 (58.5)
PF4-714	5.69 (144.5)	3.48 (88.5)	2.45 (62.3)
PF4-818	5.81 (147.5)	3.60 (91.5)	2.51 (63.8)
PF4-870	5.98 (152)	3.78 (96)	2.60 (66)

\* NOTE: The pump input shaft can withstand torques up to the designed shaft torque limitation (STL). This figure is based on multiplying the pump cu. in. displacement times the pump pressure ( $D \times P < STL$ ).

## MODEL NUMBER CONSTRUCTION



Notes: Not all pump sizes stocked for SAE “A” mounting flange.  
For additional information on PTOs for the Ford TorqShift®  
transmission, see FR Series PTO brochure number MP02-09.

\* Required for 16Q shaft and flange

\*\* Not Available on Q Flange. Recommended for 16A shaft  
and flange.

## 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 (1,600 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 (10.5-21.6 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.



*A Member of the Interpump Group*

MP15-16 (Rev. 02-19)

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201 East Jackson Street • Muncie, Indiana 47305  
800-367-7867 • Fax 765-284-6991 • [info@munciepower.com](mailto:info@munciepower.com) • [www.munciepower.com](http://www.munciepower.com)  
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