

**MUNCIE**<sup>®</sup>



# F4 SERIES

## GEAR PUMPS

# F4 SERIES

## GEAR PUMPS

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

### FEATURES:

- 12 STANDARD SIZES
- PRESSURES TO 3625 PSI (250 BAR)
- SPEEDS TO 3500 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

### APPLICATIONS:

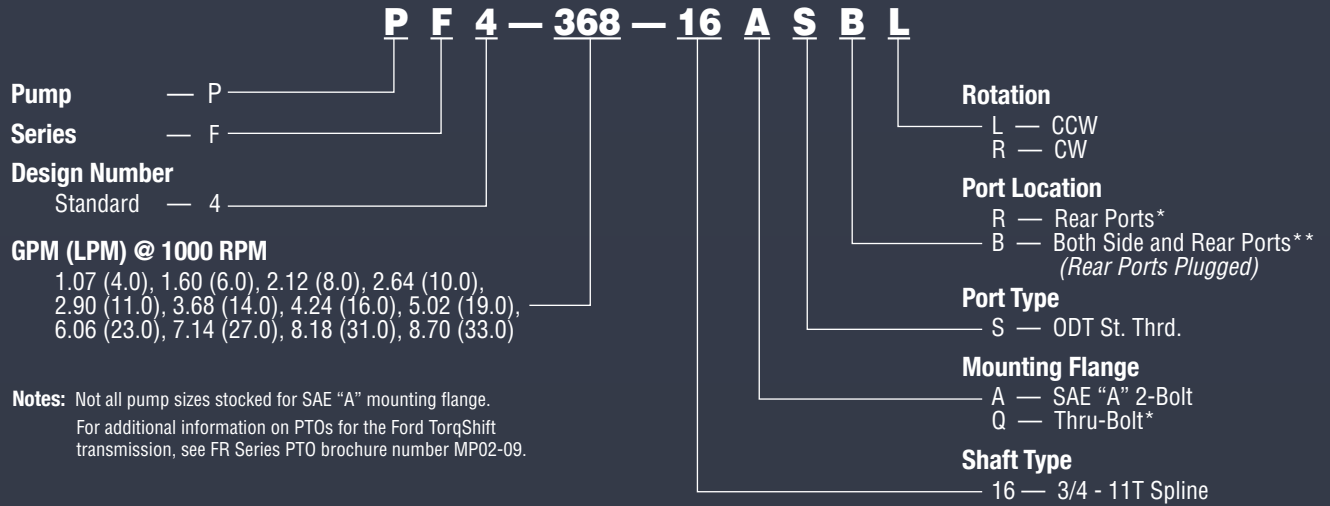
Designed to meet a multitude of truck mounted equipment including:

- TOW AND RECOVERY VEHICLES
- SNOW AND ICE REMOVAL
- CONTRACTOR SIZE DUMP BODIES
- LIFT GATES
- SMALL UTILITY EQUIPMENT
- AND OTHER LOW FLOW APPLICATIONS.



Muncie Power Products, Inc.

# F4 SERIES MODEL NUMBER CONSTRUCTION



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

# F4 SERIES PUMP SPECIFICATIONS

MODEL NUMBER	DISPL CU IN (CC)	MAX* RPM	MIN* RPM	MAX PSI (BAR)	O.D.T.** INLET REAR	O.D.T.** INLET SIDE	O.D.T.** OUTLET	MAX INLET VACUUM	WEIGHT LBS (KG)
PF4-107	0.24 0(4)	3500	1000	3625 (250)	1-1/16	1-5/16	7/8	6 In.Hg. (.20 bar)	07.51 (3.42)
PF4-160	0.37 0(6)	3500	900	3625 (250)	1-1/16	1-5/16	7/8	6 In.Hg. (.20 bar)	07.69 (3.49)
PF4-212	0.49 0(8)	3500	900	3625 (250)	1-1/16	1-5/16	7/8	6 In.Hg. (.20 bar)	07.86 (3.56)
PF4-264	0.61 (10)	3500	800	3625 (250)	1-1/16	1-5/16	7/8	6 In.Hg. (.20 bar)	08.02 (3.64)
PF4-290	0.67 (11)	3500	800	3625 (250)	1-1/16	1-5/16	7/8	6 In.Hg. (.20 bar)	08.12 (3.68)
PF4-368	0.85 (14)	3500	600	3625 (250)	1-1/16	1-5/16	7/8	6 In.Hg. (.20 bar)	08.38 (3.80)
PF4-424	0.98 (16)	3500	600	3625 (250)	1-1/16	1-5/16	7/8	6 In.Hg. (.20 bar)	08.55 (3.88)
PF4-502	1.16 (19)	2750	600	3625 (250)	1-1/16	1-5/16	7/8	6 In.Hg. (.20 bar)	08.81 (4.00)
PF4-606	1.40 (23)	2350	600	3400 (235)	1-1/16	1-5/16	7/8	6 In.Hg. (.20 bar)	09.15 (4.15)
PF4-714	1.65 (27)	2350	600	2750 (190)	1-1/16	1-5/16	7/8	6 In.Hg. (.20 bar)	09.49 (4.30)
PF4-818	1.89 (31)	2000	600	2400 (165)	1-1/16	1-5/16	7/8	6 In.Hg. (.20 bar)	09.84 (4.46)
PF4-870	2.01 (33)	2000	600	2250 (155)	1-1/16	1-5/16	7/8	6 In.Hg. (.20 bar)	10.01 (4.54)

**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.  
\* Maximum RPM shown at 0 In.Hg. Vacuum for -16 side inlet port.  
\*\* Port thread size shown

# 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: 7500 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 7500 SUS (1600 cST) at lowest startup temperature. Continuous operation should range between 60-100 SUS (10.5-21.6 cST) for all temperature ranges. Never use diesel fuel or kerosene to thin oil.

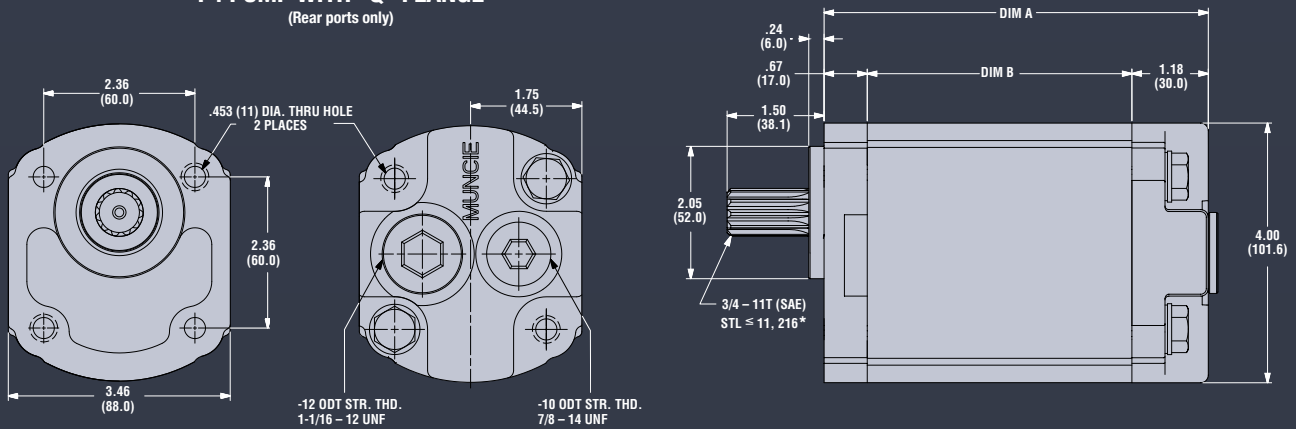
\*Anti-Wear Additives are optional. Typical not required for gear pump or gear motor anti-wear, but some motor manufacturers may recommend.



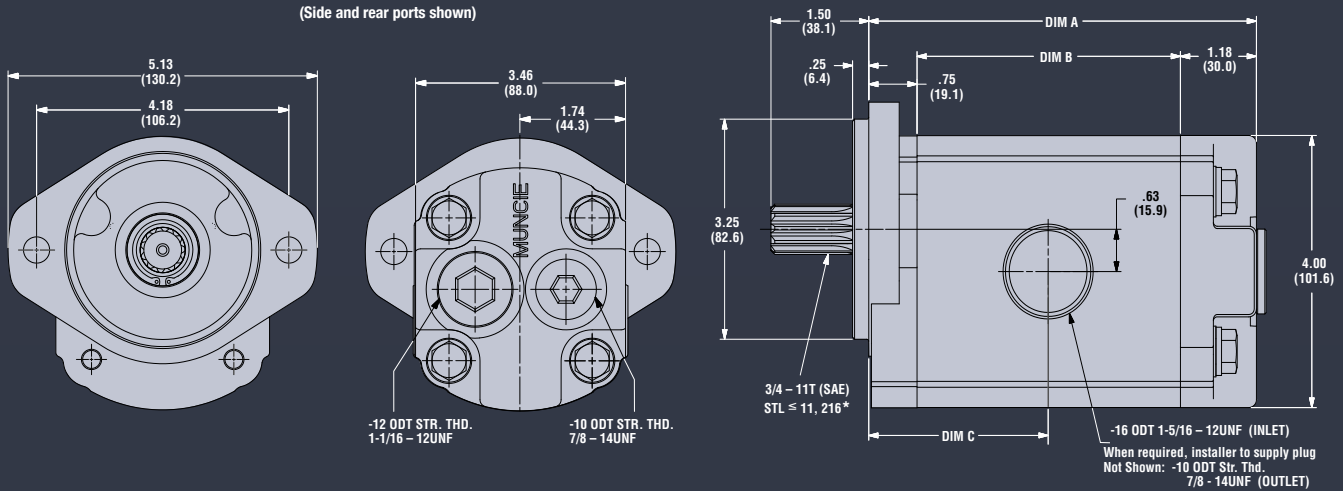
# MOUNTING DIMENSIONS

IN INCHES (MM)

**F4 PUMP WITH "Q" FLANGE**  
(Rear ports only)



**F4 PUMP WITH "SAE A" FLANGE**  
(Side and rear ports shown)



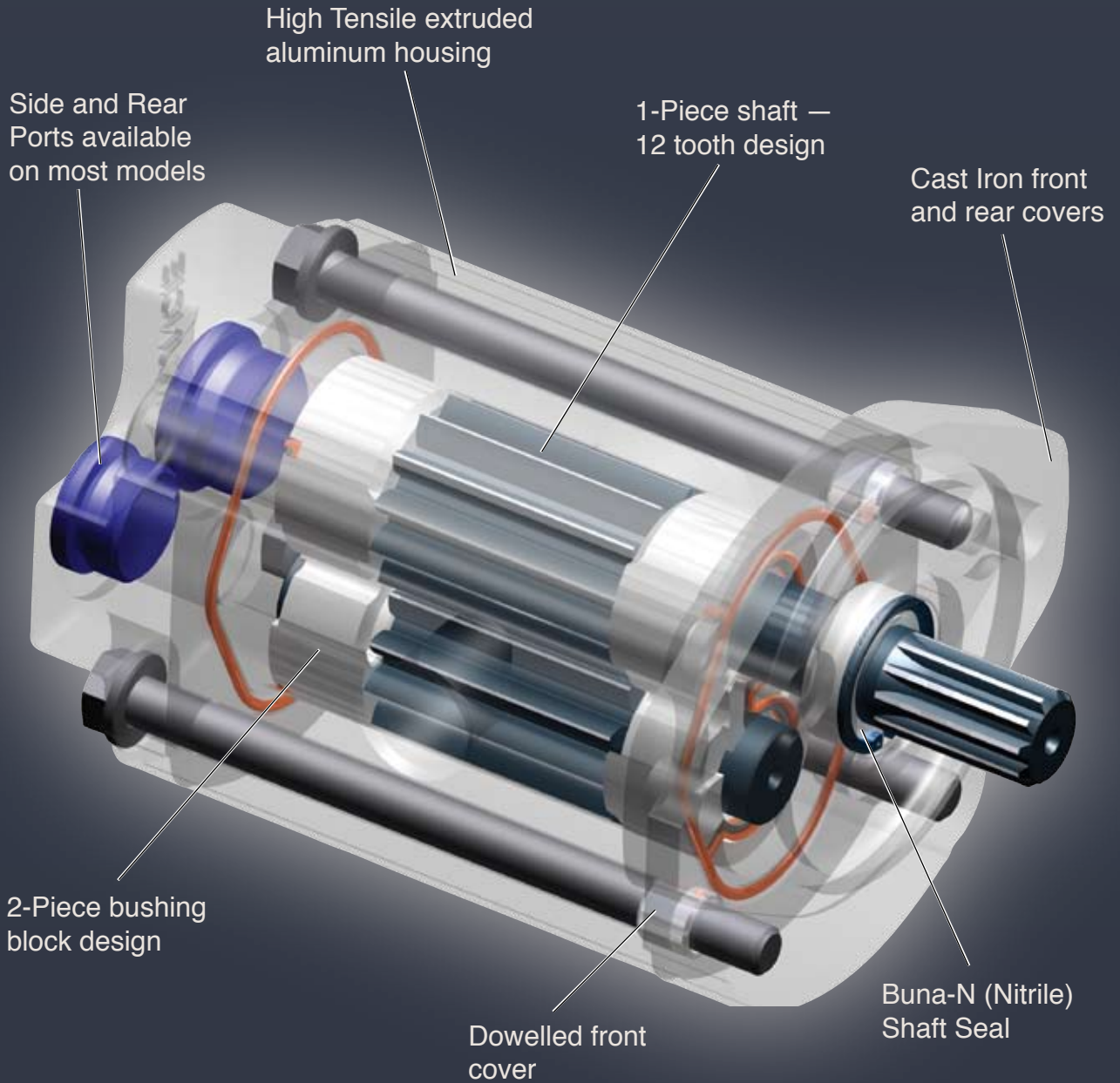
## OVERALL LENGTHS

MODEL	DIM A	DIM B	DIM C	MODEL	DIM A	DIM B	DIM C
PF4-107	3.78(96.0)	1.85(47)	1.68(42.6)	PF4-424	4.96(125.9)	3.03(77)	2.26(57.5)
PF4-160	3.91(99.2)	1.97(50)	1.73(44.1)	PF4-502	5.14(130.6)	3.23(82)	2.35(59.8)
PF4-212	4.03(102.4)	2.09(53)	1.80(45.7)	PF4-606	5.39(136.9)	3.46(88)	2.48(63.0)
PF4-264	4.15(105.5)	2.20(56)	1.86(47.3)	PF4-714	5.63(143.1)	3.70(94)	2.60(66.1)
PF4-290	4.22(107.1)	2.28(58)	1.89(48.1)	PF4-818	5.88(149.4)	3.94(100)	2.72(69.2)
PF4-368	4.40(111.8)	2.48(63)	2.00(50.7)	PF4-870	6.01(152.6)	4.09(104)	2.79(70.8)

\* 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 x P < STL).



# F4 SERIES PUMP CONSTRUCTION





## F4 SERIES GEAR PUMP WARRANTY

The Muncie "F" Series Gear Pump is warranted against any defect in material and workmanship which existed at the time of sale by Muncie, according to the following provisions, subject to the requirements that the Pump must be used only in accordance with catalogue and package instructions.

The Pump is warranted for a period of one year from the date of installation. If during the warranty period the Pump fails to operate to Muncie's specifications due to a defect in any part in material or workmanship that existed at the time of sale by Muncie, the defective part will be repaired or replaced, at Muncie's election, at no charge, if the defective part is returned to Muncie with transportation prepaid.

**WARNING.** The above warranty shall terminate if any alterations or repairs are made to the Pump other than at a Service Center owned by Muncie, or if the Pump is used on any equipment other than the equipment upon which it is first installed. As to any Muncie "F" Series Gear Pump which is rebuilt and retested at a Service Center owned by Muncie, the period of the above warranty is extended for a period of one additional year from the retest date.



**THE FOREGOING WARRANTIES ARE IN LIEU OF ALL OTHER OBLIGATIONS AND LIABILITIES, INCLUDING NEGLIGENCE AND ALL WARRANTIES OF MERCHANTABILITY AND SUITABILITY, EXPRESSED OR IMPLIED AND STATE MUNCIE'S ENTIRE AND EXCLUSIVE LIABILITY AND BUYER'S EXCLUSIVE REMEDY FOR ANY CLAIM OF DAMAGES IN CONNECTION WITH THE SALE, REPAIR OR REPLACEMENT OF THE ABOVE GOODS, THEIR DESIGN, INSTALLATION OR OPERATION. MUNCIE WILL IN NO EVENT BE LIABLE FOR ANY DIRECT, INDIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES WHATSOEVER, AND OUR LIABILITY UNDER NO CIRCUMSTANCES WILL EXCEED THE CONTRACT PRICE FOR THE GOODS FOR WHICH LIABILITY IS CLAIMED.**

Distributed By:

---



**Muncie®  
Power  
Products**

**Muncie Power Products, Inc.** Member of the Interpump Hydraulics Group  
General Offices and Distribution Center • P.O. Box 548 • Muncie, IN 47308-0548  
(765) 284-7721 • FAX (765) 284-6991 • E-mail [info@munciepower.com](mailto:info@munciepower.com)  
Web site <http://www.munciepower.com>

Drive Products, Exclusive Agents for Canada. ISO Certified by an Accredited Registrar

