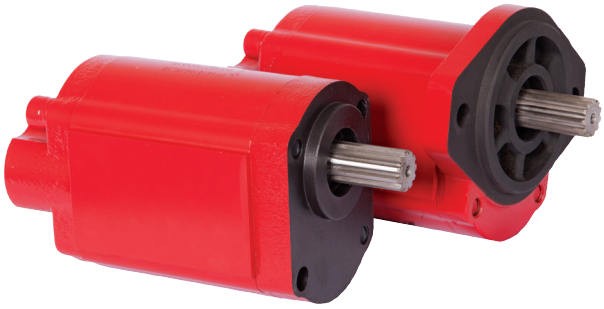
PF4 SERIES
GEAR PUMPS

HIGH PERFORMANCE IN A COMPACT DESIGN

Ultimate power and performance in a small package best describes the PF4 Series gear pumps. The pressure balanced bushing blocks and sleeve bearings provide both long life and high performance.



TARGET MARKETS

• Agricultural • Bulk Transport • Dump & Construction • Industrial

KEY FEATURES

- 11 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.)
PF4160	0.37 (06)	3,000	500	3,625 (250)	1 1/16	1 5/16	7/8	6 in.Hg. (.20 BAR)	07.69 (3.49)
PF4212	0.49 (08)	3,000	500	3,625 (250)	1 1/16	1 5/16	7/8	6 in.Hg. (.20 BAR)	07.86 (3.56)
PF4264	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)
PF4290	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)
PF4368	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)
PF4424	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)
PF4502	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)
PF4606	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)
PF4714	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)
PF4818	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)
PF4870	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)

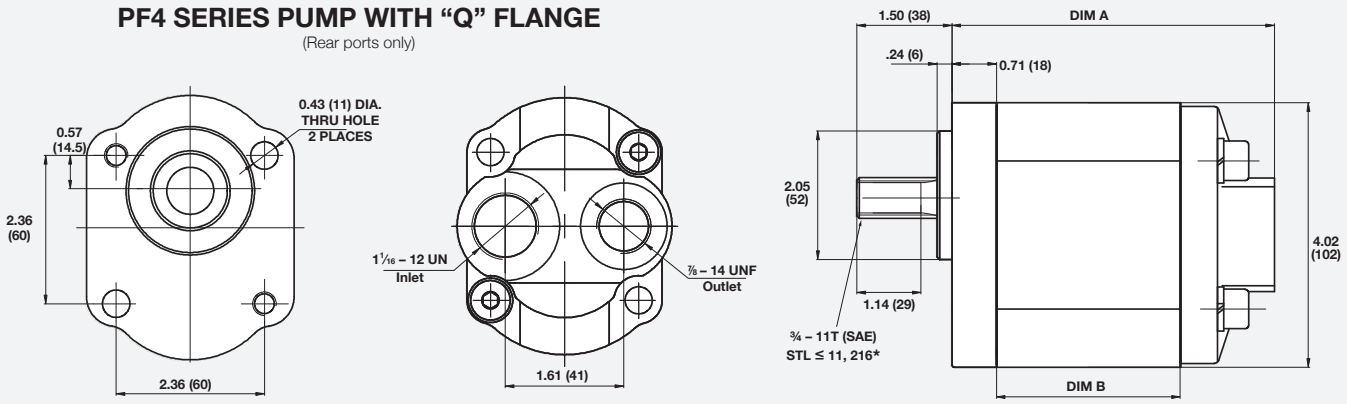
* Maximum RPM shown at 0 in.Hg. Vacuum for -16 side inlet port.
** Port thread size shown

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

DIRECT MOUNT DIMENSIONS

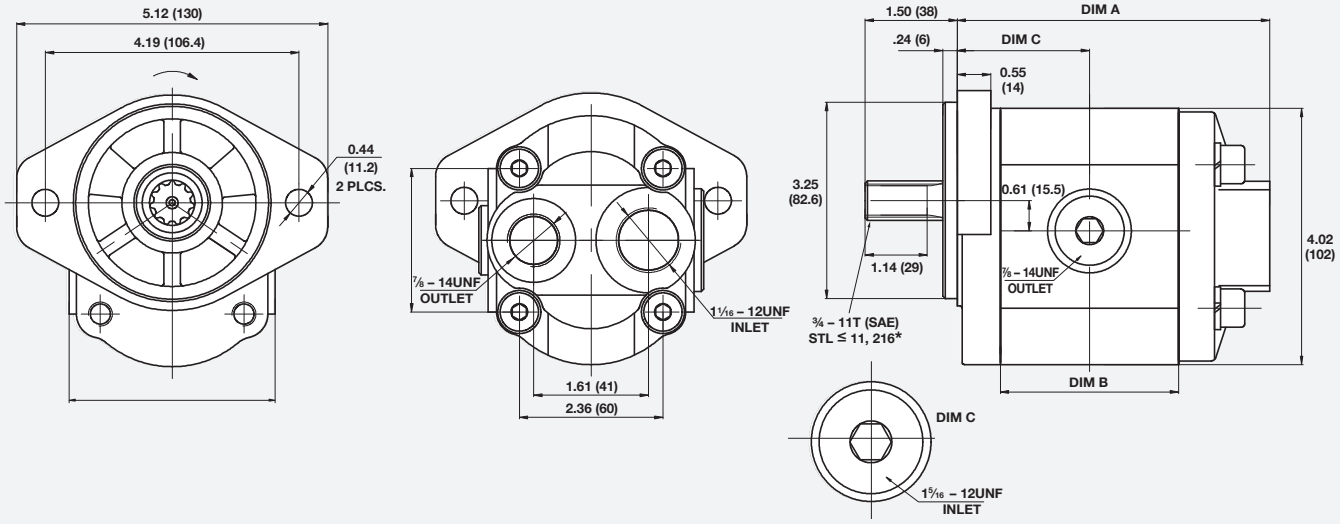
PF4 SERIES PUMP WITH "Q" FLANGE

(Rear ports only)



PF4 SERIES PUMP WITH SAE "A" FLANGE

(Side and rear ports shown)



OVERALL LENGTHS

MODEL NUMBER	DIM A IN (MM)	DIM B IN (MM)	DIM C IN (MM)
PF4160	4.33 (110)	2.13 (54)	1.77 (45)
PF4212	4.45 (113)	2.24 (57)	1.83 (46.5)
PF4264	4.57 (116)	2.36 (60)	1.89 (48)
PF4290	4.70 (119.5)	2.50 (63.5)	1.96 (49.8)
PF4368	4.82 (122.5)	2.62 (66.5)	2.02 (51.3)
PF4424	4.94 (125.5)	2.74 (69.5)	2.08 (52.8)
PF4502	5.16 (131)	2.95 (75)	2.19 (55.5)
PF4606	5.39 (137)	3.19 (81)	2.30 (58.5)
PF4714	5.69 (144.5)	3.48 (88.5)	2.45 (62.3)
PF4818	5.81 (147.5)	3.60 (91.5)	2.51 (63.8)
PF4870	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 × P < STL).

MODEL NUMBER CONSTRUCTION

PF-4-368 16-A-S-B-L

Series
PF — Gear Pump

Design Number
Standard — 4

Model CCs (GPM/LPM) @ 1,000 RPM
160 — (1.60/6.06)
212 — (2.12/8.03)
264 — (2.64/9.99)
290 — (2.90/10.98)
368 — (3.68/13.93)
424 — (4.24/16.05)
502 — (5.02/19.01)
606 — (6.06/22.93)
714 — (7.14/27.03)
818 — (8.18/30.96)
870 — (8.70/31.93)

Shaft Types
08 — SAE "A" ⅝ -9T Spline
11 — ⅝ Round, 5/32 Key
16 — ¾ -11T Spline

Mounting Flanges
A — SAE "A" 2-Bolt
Q — Thru-Bolt *

Port Type
S — ODT Straight Thread

Port Locations
R — Rear Ports *
B — Both Side and Rear Ports **
(Side Ports Plugged)

Rotation
L — CCW
R — CW

Note: Not all pump sizes stocked for SAE "A" mounting flange. For additional information on PTOs for the Ford TorqShift® transmission, see PTO brochure numbers MP16-07 and MP19-02.

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

OIL RECOMMENDATIONS

Muncie Power Products 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 *

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.

Muncie® Power Products

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