

## P3 High Pressure/Super Charged Mobile Piston Pumps



P3 Piston Pumps are ideal for open circuit mobile applications with high self priming speed and operating pressure up to 4650 PSI (320 BAR). These high performance pumps are suited for mobile applications where inlet fill characteristics are not ideal; i.e. high altitudes, long inlet lines, cold weather and high pump drive speeds.

### Pump Performance Data

Model Series	Displacement in <sup>3</sup> /rev (cc/rev)	Max. Outlet Pressure PSI (BAR)	Rated Drive Speed RPM	Flow GPM (LPM)	Input Horsepower HP (KW)
P3075	4.58 (75)	4650 (320)	3000	57 (215.8)	173 (129.0)
P3105	6.41 (105)	4650 (320)	2600	67 (253.6)	210 (156.6)
P3145	8.85 (145)	4650 (320)	2500	90 (340.7)	270 (201.3)

### Markets

### Applications

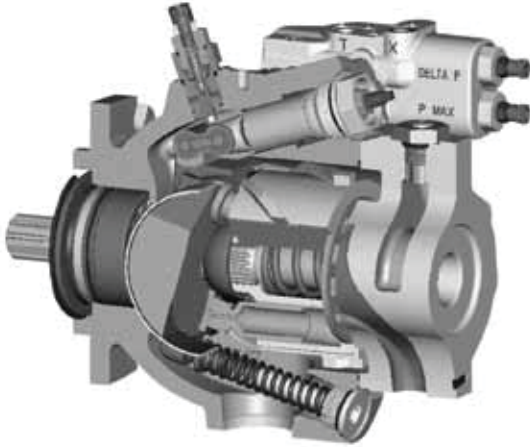
Forestry	Feller Bunchers, Knuckle Boom Loader, Skidder, Forwarder
Construction	Wheel Loader, Dozers, Off-Highway Trucks,
Mining	Drill Rigs, Loaders
Material Handling	Truck Mounted Cranes, Lift Trucks, Reachstacker



# Piston Pumps (Mobile)

## P3 High Pressure/Super Charged Mobile Piston Pumps

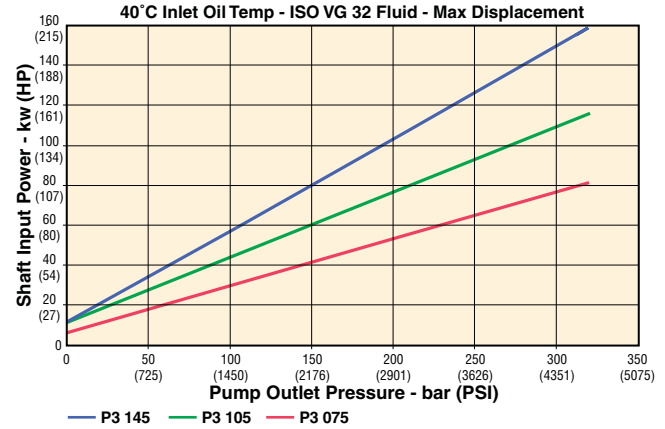
### Performance Characteristics



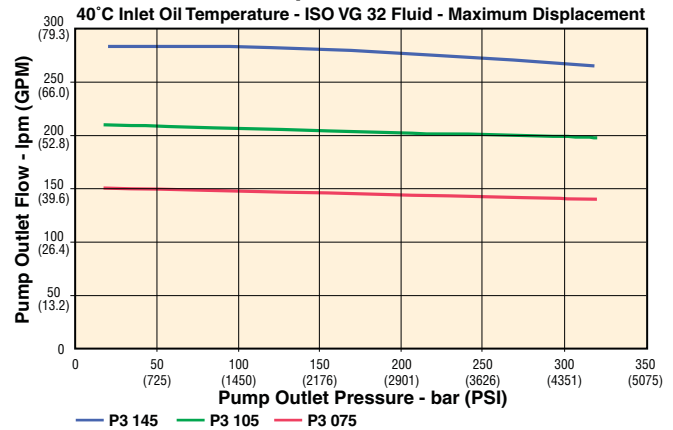
### Benefits/Features

- Compact
- Low noise level
- Sealed shaft bearing
- Service friendly
- Reliable
- Long-lasting
- Flexible
- Easy to install
- High self-priming speed

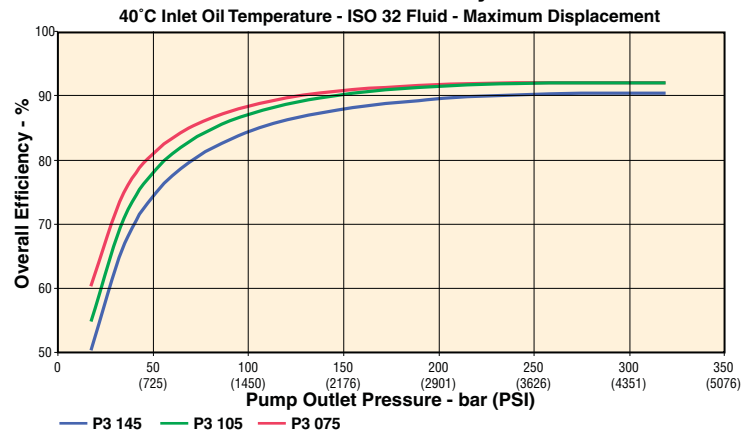
**P3 Series Input Drive Power - 2000 RPM**



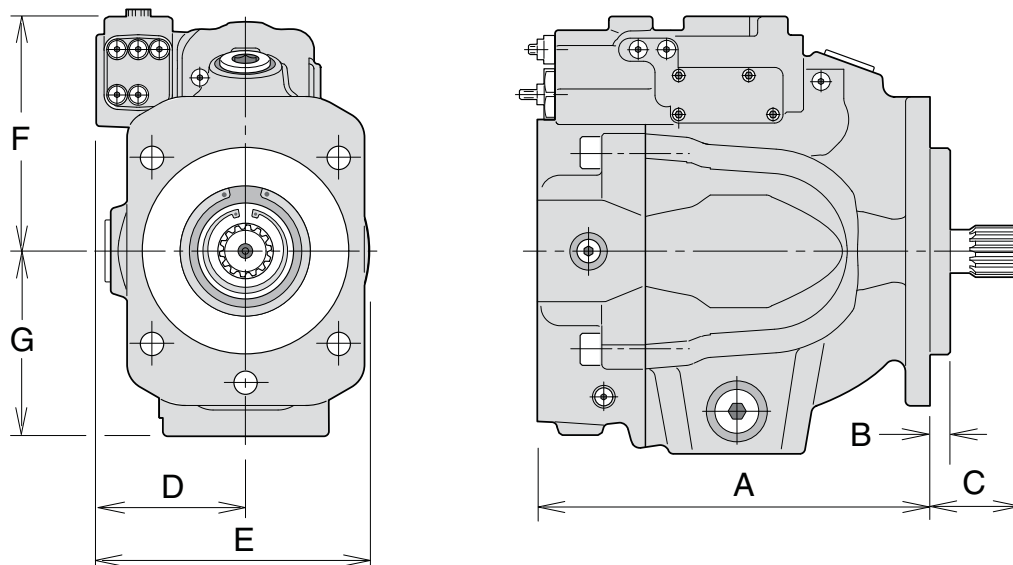
**P3 Series Pump Outlet Flow - 2000 RPM**



**P3 Series Overall Efficiency - 2000 RPM**



## P3 High Pressure/Super Charged Mobile Piston Pumps



### Dimensions, inch (mm)

Series	A Max*	B Max.	C Max.	D	E Max.	F	G
P3075	12.89 (327.5)	14.76 (12.5)	2.44 (62)	4.41 (112)	6.86 (176)	5.71 (145)	4.72 (120)
P3105	12.89 (327.5)	0.49 (12.5)	2.98 (75.6)	4.41 (112)	8.26 (210)	7.17 (182)	5.87 (150)
P3145	14.76 (375.0)	0.50 (12.7)	2.98 (75.6)	4.49 (114)	8.98 (228)	7.13 (181)	6.34 (161)

\* With thru-shaft option

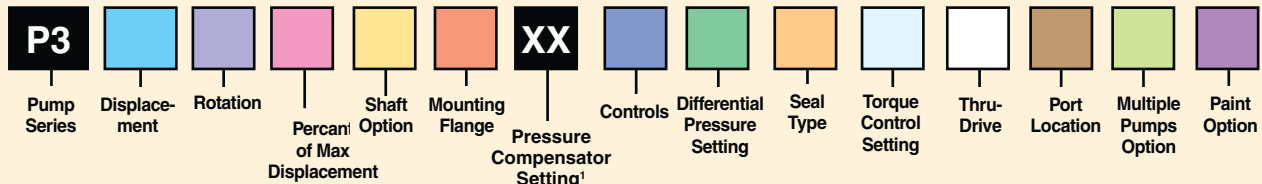
### Thru-drive Kits for P2 Series (Nitrile Seals, UNC Threads, Couplings)

Thru-drive Mounting	P3075 Kit #	P3105 Kit #	P3145 Kit #
SAE A with 9 tooth spline	P2-075-0215-01N	P2-105-0215-01N	P2-145-0215-01N
SAE B with 13 tooth spline	P2-075-0216-03N	P2-105-0216-03N	P2-145-0216-03N
SAE B with 15 tooth spline	P2-075-0217-03N	P2-105-0217-03N	P2-145-0217-03N
SAE C with 14 tooth spline	P2-075-0218-03N	P2-105-0218-03N	P2-145-0218-03N
SAE D with 13 tooth spline	Not Available	Not Available	P2-145-0220-03N



# Piston Pumps

## P3 Model Ordering Code



Code	Displacement in <sup>3</sup> /rev (cm <sup>3</sup> /rev)
075	4.6 (75)
105	6.4 (105)
145	8.8 (145)

Code	Rotation*
R	Right (CW)
L	Left (CCW)

\* Viewed from shaft end.

Code	Percent of Max. Displacement
00	100% Stroke, standard factory setting
XX	Range is 70-99 (70% to 99%)

Code	Shaft Option			
	Type	075	105	145
C1	SAE C Spline	x	x	x
C2	SAE CC Spline <sup>(2)</sup>	x	x	
C3	SAE C Spline <sup>(2)</sup>	x	x	x
C5	SAE C Key	x	x	x
C6	SAE CC Key <sup>(2)</sup>	x	x	x
D1	SAE D Spline		x	x
D3	SAE D Key			x

<sup>(2)</sup> 075 thru-drive version only

Code	Mounting Flange		
	075	105	145
C	SAE C 2/4-Bolt	SAE C 2/4-Bolt	SAE C 2-Bolt
D			SAE D 4-Bolt

Code	Controls
PA <sup>(4)</sup>	Std. max pressure control (Pmax), 100-320 bar (1450-4600 PSI)
LA	Load sensing (2 spool)/Pmax without bleed orifice
LB	Load sensing (2 spool)/Pmax with bleed orifice
TA <sup>(3)</sup>	Torque/LS/Pmax without bleed orifice, Torque range 20-60% of max
TB <sup>(3)</sup>	Torque/LS/Pmax with bleed orifice, Torque range 20-60% of max
TC <sup>(3)</sup>	Torque/LS/Pmax without bleed orifice, Torque range 50-90% of max
TD <sup>(3)</sup>	Torque/LS/Pmax with bleed orifice, Torque range 50-90% of max

<sup>(3)</sup> See table at left for information and example.

<sup>(4)</sup> For Remote Pressure Compensator, order the "PA" model and remove plug from "X" port.

■ = Not Available

<sup>1</sup> For example, 32 = 320 bar setting

Code	Differential Pressure Setting
20	Recommended Initial Factory Setting
00	Use with PA Control only
XX	Factory set in bar – Range 10-35

Code	Seal Type
N	Nitrile, single shaft seal
D	Nitrile, double shaft seal – "wet flange"
V	Fluorocarbon, single shaft seal
T	Fluorocarbon, double shaft seal – "wet flange"

Code	Torque Control Setting (%)
00	For Non-torque Control Pumps
XX	20-90% of Max. Rated Torque <sup>(3)</sup>

<sup>(3)</sup> See table at bottom left for information and example.

Code	Thru-drive
S1	No Thru-drive
T1	Thru-drive with Cover
A1	SAE A – 2-Bolt with SAE A Spline
B1	SAE B – 2-Bolt with SAE B Spline
B2	SAE B – 2-Bolt with SAE BB Spline
C2	SAE C – 2-Bolt with SAE CC Spline (145 only)
C3	SAE C – 4-Bolt with SAE C Spline
C4	SAE C – 4-Bolt with SAE CC Spline (145 only)
D3	SAE D – 4-Bolt with SAE D Spline (145 only)

### P3 Torque Control Options TA, TB, TC, TD Ordering Guide

Model	Maximum Rated Torque		TA/TB Adj. Range 20%-60% of Max Torque		TC/TD Adj. Range, 50%-90% of Max Torque	
	Nm	lb-in	Nm	lb-in	Nm	lb-in
P3075	424	3755	85-254	751-2253	212-382	1877-3379
P3105	594	5257	119-356	1051-3154	297-535	2628-4731
P3145	820	7259	164-492	1451-4355	410-738	3629-6533

The input torque limit is factory set at a percentage of the maximum rated input torque. The percentage needs to be specified in Torque Control Setting (%) box of the ordering code. For example, for a P3075-TC pump with an input torque limit setting required of 300 Nm, divide 300 into 424, which equals 71%, so 71 is specified in Torque Control Setting (%) box.

Code	Port Location
A	Side Flanges, UNC
B	Side Flanges, ISO 6149 (Metric)

Code	Multiple Pump Option
1	Single Pump
2	Front Pump of Multiple Pumps
3	Middle Pump of Multiple Pumps
4	Rear Pump of Multiple Pumps

Code	Paint Option
P	Parker Black
U	No Paint