



Visit our homepage for additional support parker.com/pmde



Truck Hydraulics

Series GPA, GP1, F1, T1, F2, F3, VP1,
Fixed and Variable Displacement Pumps,
Motors and Accessories



ENGINEERING YOUR SUCCESS.

Archivierung: 04/2022

● Basic formulas for hydraulic pumps

Flow (q)	D – displacement [cm ³ /rev]
$q = \frac{D \times n \times \eta_v}{1000}$ [l/min]	n – shaft speed [rpm]
Torque (M)	η_v – volumetric efficiency
$M = \frac{D \times \Delta p}{63 \times \eta_{hm}}$ [Nm]	Δp – differential pressure [bar] (between inlet and outlet)
Power (P)	η_{hm} – mechanical efficiency
$P = \frac{q \times \Delta p}{600 \times \eta_t}$ [kW]	η_t – overall efficiency ($\eta_t = \eta_v \times \eta_{hm}$)

Conversion factors

1 kg	2.20 lb
1 N.....	0.225 lbf
1 Nm.....	0.738 lbf ft
1 bar	14.5 psi
1 l	0.264 US gallon
1 cm ³	0.061 cu in
1 mm	0.039 in
$\frac{9}{5} \text{ }^\circ\text{C} + 32$	1°F
1 kW.....	1.34 hp

On our website, www.parker.com/pmde,
 you can find:
 2D & 3D drawings,
 Installation Manuals,
 Service Manuals,
 Spare Parts Lists

Content	Page
General product information	4
Pump and Line selection.....	12
GPA and GP1 pumps.....	16
F1 Pump ISO	22
F1 Pump SAE.....	30
T1 Pump	33
F1 Motor	37
F2 Twin-flow Pump.....	39
F3 Pump	42
VP1 Pump	47
BLA.....	55
Suction Fittings.....	56
Auxiliary Valves	58
Accessories.....	68
Installation and start-up information	73

Accessories

Adaptor kits and accessories for F1, T1, F2, F3 and VP1 pumps

BLA

Boost unit.

See page 55

Fittings

Suction fittings and fitting kits

See page 56

Bypass valve

BPV-F1/-T1, BPV-F1-25 and -81, BPV-F2,

See page 59 ff

Unloading valve

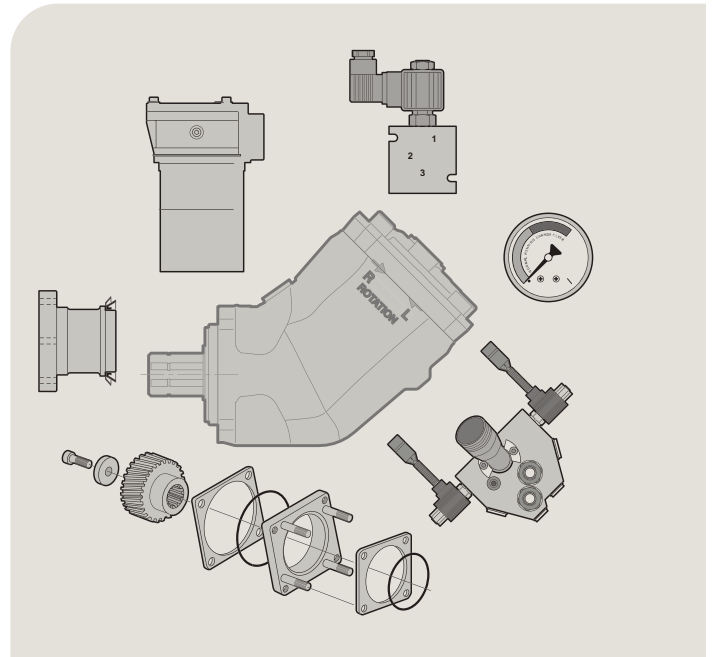
BPV-VP1, BPV-L.

See page 66

Accessories

Universal PTO air valve kits, PTO adapter kits for engines, cardan shafts, pump couplings and mounting brackets, and splitter boxes (SB 1-1,18, 1-1,54)

See page 68



Suction fittings for series F1, F2, F3 and T1 pumps also VP1-095, -110 and -130

NOTE: A suction fitting must be ordered separately (not included with the pump).
To choose the correct dimension of suction connection, see page 13 ff.

Suctions fittings for VP1-045/075 see page 57.
 'Straight' suction fittings for F1, T1, F2, F3, VP1-095/-110/-130

Ordering no.	A mm	B mm	ØC dia. mm (in.)
378 0635 ¹⁾	0	85	38 (1½")
378 0636 ²⁾	17	136	50 (2")
378 0637 ³⁾	25	145	63 (2½")
378 3523 ³⁾	32	174	75 (3")

45° suction fittings for F1, T1, F2, F3, VP1-095/-110/-130

Ordering no.	A mm	B mm	ØC dia. mm (in.)
378 1234 ¹⁾	60	104	32 (1¼")
378 0633 ¹⁾	60	104	38 (1½")
378 0364 ²⁾	67	110	50 (2")
378 0634 ³⁾	75	117	63 (2½")
378 3367 ³⁾	95	138	75 (3")
378 1062	67	110	40
378 0975	67	110	45

90° suction fittings for F1, T1, F2, F3, VP1-095/-110/-130

Ordering no.	A mm	B mm	ØC dia. mm (in.)
378 0978 ¹⁾	126	83	38 (1½")
378 0979 ²⁾	135	83	50 (2")
378 1980 ³⁾	147	83	63 (2½")
378 0976	135	83	45
378 8690 ³⁾	185	83	75 (3")

145° suction fitting for F1, T1, F2, F3, VP1-095/-110/-130

Ordering no.	A mm	B mm	ØC dia. mm (in.)
378 1867	165	73	50 (2")

¹⁾ Recommended for frame size F1-25.

²⁾ Recommended for frame size F1-41,-51,-61,-81, -101.

³⁾ (3 clamps and 3 screws)

Spare parts

Additional Hold-down-clamp kit consists of:
 hold-down-clamp cap screw and O-ring
 Ordering no. 378 1321

Additional Hold-down-clamp kit for mounting on BPV
 Ordering no. 378 2439

A 'suction fitting' consists of a straight, 45°, 90° or 135° suction fitting, clamps, cap screws and O-ring.

