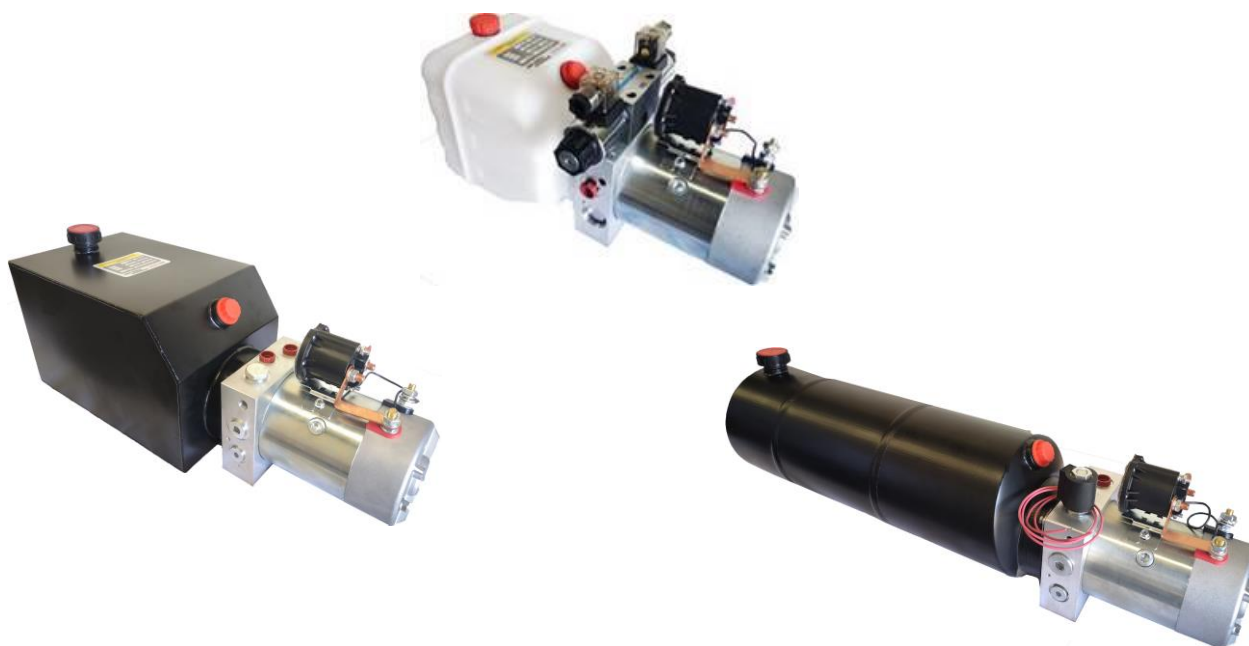


## Hydraulic Power Units

<i>Features</i>	2.02
<i>Order Code</i>	2.02
<i>Standard Power Unit Specifications</i>	2.03
<i>Oil Recommendation</i>	2.03
<i>Pump, Motor, Reservoir</i>	2.04
<i>Single Acting - Solenoid Control</i>	2.04
<i>Single Acting - Solenoid Control with Flow Control</i>	2.04
<i>Single Acting - Manual Control</i>	2.05
<i>Single Acting - Manual Control with Flow Control</i>	2.05
<i>Double Acting - Solenoid Control</i>	2.05
<i>Reservoirs</i>	2.06
<i>Double Acting - Mounting Styles</i>	2.07
<i>Double Acting - Manifolds &amp; Bolt Kits</i>	2.07
<i>Standard Cetop Valves for Power Units</i>	2.07
<i>Remote Mount Hand Pump &amp; Vertical Mounting Hardware</i>	2.08
<i>Weld Flange</i>	2.10
<i>Foot Bracket</i>	2.11
<i>Cable Controllers - Single Acting</i>	2.12
<i>Cable Controllers - Double Acting</i>	2.12
<i>Wireless Control Kits</i>	2.13
<i>HPU Gear Pumps</i>	2.15
<i>Gear Pump Mounting Bolt Kits</i>	2.15
<i>Electric Motors</i>	2.16
<i>Electric Motor Relays</i>	2.16
<i>Coils</i>	2.16
<i>HPU Accessories &amp; Spare Parts</i>	2.17



## Features

- ▶ **AMETEK®**  
**PRESTOLITE MOTORS** DC Motor range 1.6 kW (12V DC) & 2.2 kW (24V DC).
- ▶ Pump Displacements from 1.1 cc/rev to 3.2 cc/rev - 1.9 L/min to 9.5 L/min.
- ▶ Pressure to 210 bar (3000 psi) continuous, 275 bar (4000 psi) intermittent.
- ▶ Polyethylene and Steel Reservoirs - 4 to 15 litre capacity.
- ▶ Horizontal mount is standard, vertical mount optional (N/A RP15 reservoir).
- ▶ Standard Circuits - Pump, Motor, Reservoir - Single Acting - Double Acting.
- ▶ Numerous other circuits available including Bi-Rotational and custom designed to your specification.
- ▶ Full range of Handheld Cable and Wireless Remote Controls.

## Order Code

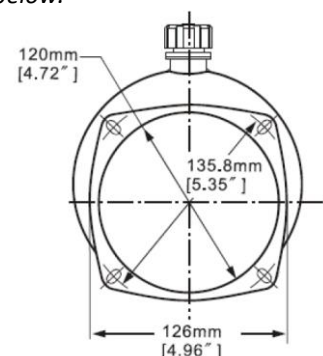
**PU\*\* - D\*\* - \*\*\*\* - 20TG21H - \*\*\*\*\* - \*\***

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪

- |  |  |
|--|--|
| <p>① <b>Circuit No.</b><br/>01, 03, 04, 05, 13, 42</p> <p>② <b>DC Voltage</b><br/>12, 24</p> <p>③ <b>Reservoir</b><br/>Steel (Cylindrical): LS04, LS06, LS08, LS10<br/>Steel (Rectangular): MT06, MT08, MT12, MT15<br/>Poly (Rectangular): RP04, RP06, RP08, RP10, RP12, RP15<br/>WF: Weld Flange<br/>XXXX: No Reservoir</p> <p>④ <b>Nominal Motor Power</b><br/>20T = 2 kW with Thermoswitch (4.5" Dia.) (Standard)</p> <p>⑤ <b>Gear Pump Displacement</b><br/>G11 = 1.1 cc/rev<br/>G13 = 1.3 cc/rev<br/>G16 = 1.6 cc/rev<br/>G21 = 2.1 cc/rev (Standard)<br/>G27 = 2.7 cc/rev<br/>G32 = 3.2 cc/rev</p> | <p>⑥ <b>Relief Valve</b><br/>H = 103 - 220 bar (Standard)<br/>(1500 - 3200 psi)<br/>L = 34 - 138 bar<br/>(500 - 2000 psi)</p> <p>⑦ <b>Coil Connector</b> (N/A Circuit 01, 04, 05)<br/>D = DIN - Circuit 03, 42 (Option)<br/>Circuit 13 (Standard)<br/>W = Wire - Circuit 03, 42 (Standard)<br/>Circuit 13 (N/A)</p> <p>⑧ <b>Locking Manual Override</b> (Circuit 03, 13, 42 only)<br/>Omit = Not required<br/>M = Circuit 03, 42 (Option)<br/>Circuit 13 (Standard)</p> <p>⑨ <b>Spool Type</b> (Circuit 13 only)*</p> <p>⑩ <b>Number of Valves</b> (Circuit 13 only)*<br/>1, 2, 3, 4</p> <p>⑪ <b>Mounting Style</b> (Circuit 13 only)<br/>Omit for Qty. 1 Valve<br/>L = Parallel to Motor<br/>T = Right Angle to Motor</p> |
|--|--|

### Note:

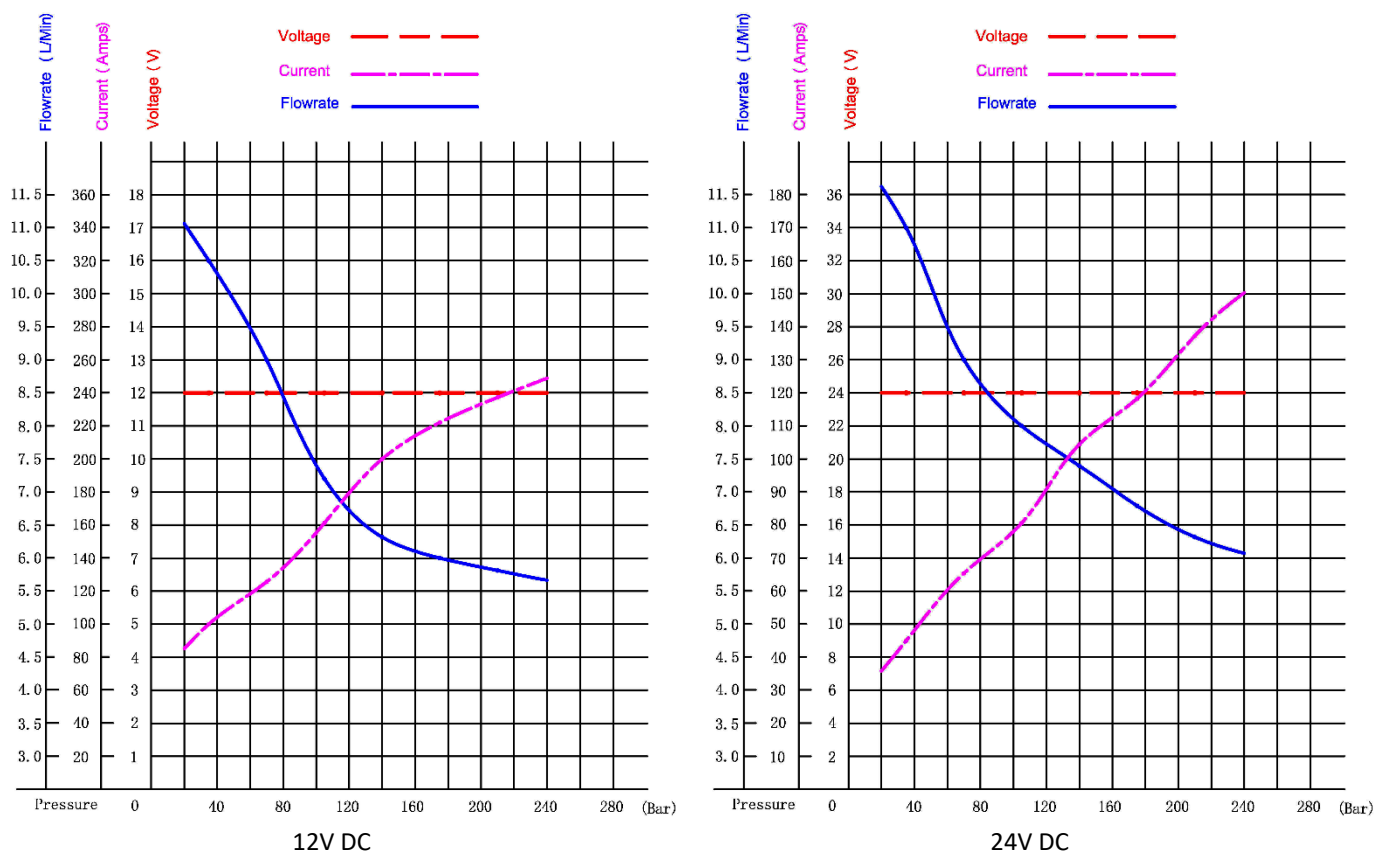
- *For Vertical Mount Power Units we recommend return oil is below the reservoir oil level. Order hardware separately from the table on [Page 2.08](#).*
- *Power Units ordered without a Reservoir are supplied without any pump suction hardware. Order separately from the table on [Page 2.10](#).*
- *If supplying your own reservoir, the flange dimensions must conform to the drawing below.*



## Standard Power Unit Specifications

Voltage	Actual Motor Power	Pump	Nominal Flow @ 180 bar	Relief Valve (bar)	Max. Pump Pressure (bar)		Ports
12V DC	1.6 kW	2.1 cc/rev	5.9 L/min	103 - 220 (Factory Set 180)	Continuous	Intermittent	9/16" UNO (SAE 6)
24V DC	2.2 kW		6.7 L/min		210	275	

Testing conducted with 46 cSt oil @ 38°C and full voltage at the Electric Motor.



## Oil Recommendation

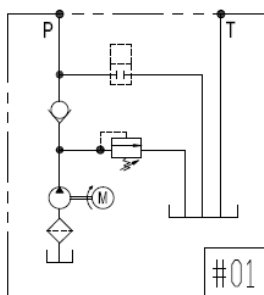
For normal operating conditions we recommend Mineral Based Hydraulic Oil with a viscosity of ISO 32 or 46 Centistokes (cSt).

As DC Power Units are used intermittently, the use of 68 cSt oil can cause pump cavitation, especially in the initial commissioning due to its high viscosity at low temperatures.

ATF is not recommended by the pump and valve manufacturers as it will reduce component life.

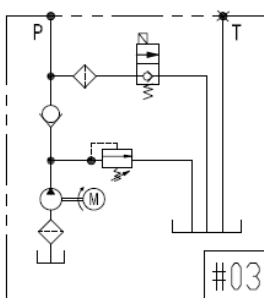


## Pump, Motor, Reservoir (Circuit - 01)



Order Code	Reservoir
PU01- D**-XXXX-20TG21H	Add price from <a href="#">Page 2.06</a>

## Single Acting - Solenoid Control (Circuit - 03)



Order Code	Reservoir
PU03- D**-XXXX-20TG21H-W	Add price from <a href="#">Page 2.06</a>

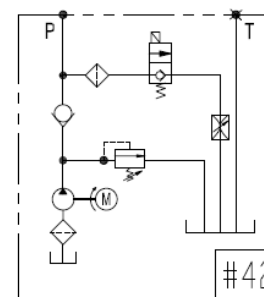
**Note:**

- DIN Connector Coil add \$13.00 (Includes Light Plug).
- Locking Manual Override add \$25.00.

**Operation of Locking Manual Override Option:**

- Normal Operation (Closed Position) push red button in and turn clockwise.
- To open the valve, push red button in, twist counterclockwise and release.

## Single Acting - Solenoid Control with Flow Control (Circuit - 42)



Order Code	Reservoir
PU42- D**-XXXX-20TG21H-W	Add price from <a href="#">Page 2.06</a>

**Note:**

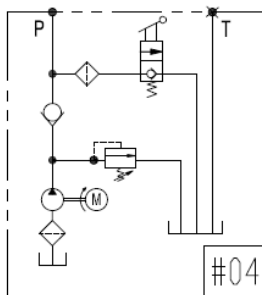
- DIN Connector Coil add \$13.00 (Includes Light Plug).
- Locking Manual Override add \$25.00.

**Operation of Locking Manual Override Option:**

- Normal Operation (Closed Position) push red button in and turn clockwise.
- To open the valve, push red button in, twist counterclockwise and release.

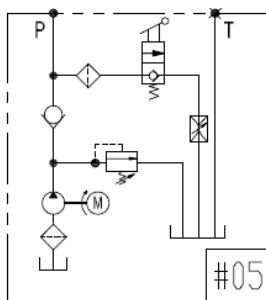
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## Single Acting - Manual Control (Circuit - 04)



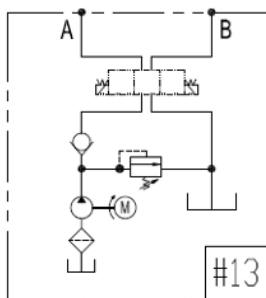
Order Code	Reservoir
PU04- D**-XXXX-20TG21H	Add price from <a href="#">Page 2.06</a>

## Single Acting - Manual Control with Flow Control (Circuit - 05)



Order Code	Reservoir
PU05- D**-XXXX-20TG21H	Add price from <a href="#">Page 2.06</a>

## Double Acting - Solenoid Control (Circuit - 13)



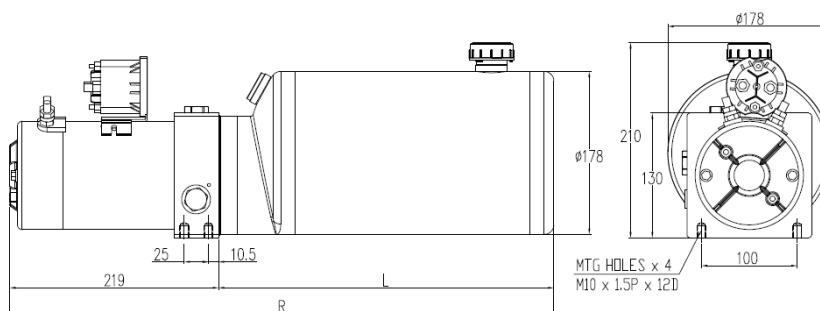
Order Code	Reservoir
PU13-D**-XXXX-20TG21H	Add price from <a href="#">Page 2.06</a>

### Note:

- Price does not include Solenoid Valve. Refer to [Page 2.07](#).
- Price does not include Modules. Refer to [Cetop Products](#) section.
- For 2 - 5 valves add the price of the Manifolds & Bolt Kit. Refer to [Page 2.07](#).
- We do not recommend single solenoid valves on DC Power Units. When de-energised they can shift quicker than the electric motor/pump takes to stop rotating and the actuator can reverse direction.

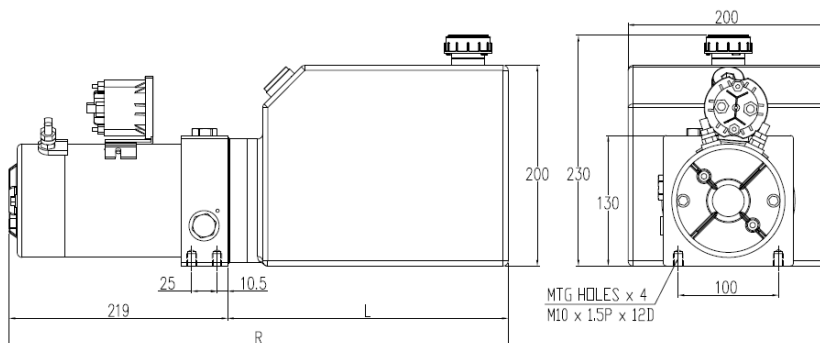
## Reservoirs

### LS Series - Steel



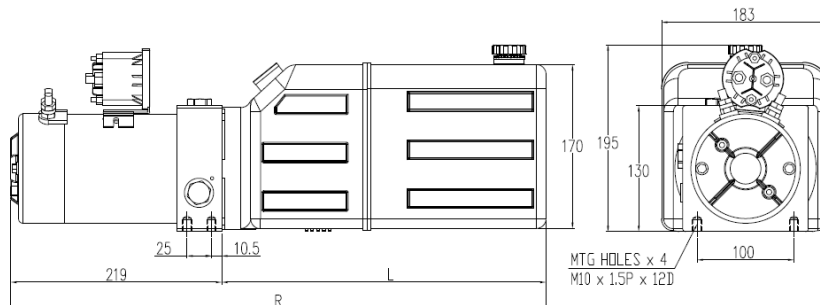
Order Code	Capacity (Litres)	L (mm)	R (mm)
LS04	04	270	489
LS06	06	350	569
LS08	08	440	659
LS10	10	540	759

### MT Series - Steel



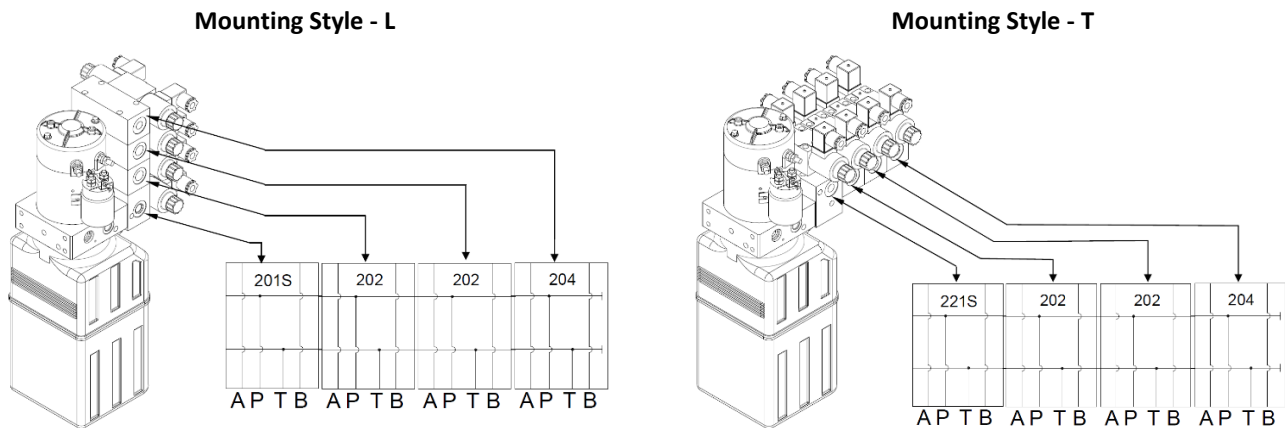
Order Code	Capacity (Litres)	L (mm)	R (mm)
MT06	06	200	419
MT08	08	280	499
MT10	10	340	559
MT12	12	400	619
MT15	15	510	729

### RP Series - Polyethylene



Order Code	Capacity (Litres)	L (mm)	R (mm)
RP04	04	200	419
RP06	06	290	509
RP08	08	335	554
RP10	10	440	659
RP12	12	550	769
RP15 (Horizontal mounting only)	15	690	909

## Double Acting - Mounting Styles



## Double Acting - Manifolds & Bolt Kits

Order Code	Description
201S-SAE6	Manifold - L Style (includes O Rings & Bolt Kit for assembly to Central Manifold & Steel Plugs for A & B ports on Central Manifold)
221S-SAE6	Manifold - T Style (includes O Rings & Bolt Kit for assembly to Central Manifold & Steel Plugs for A & B ports on Central Manifold)
202-SAE6	Manifold - Centre (includes O Rings)
203-SAE6	Manifold - PU13 - P & T Tapping (includes O Rings) – 40 mm thick
204-SAE6	Manifold - End (includes O Rings)
205-SAE6	Manifold - End with 9/16" UNO (SAE 6) P & T Ports (includes O Rings)
BKM6x50	Bolt Kit (for assembly of manifolds with 2 x DCV)
BKM6x100	Bolt Kit (for assembly of manifolds with 3 x DCV)
BKM6x150	Bolt Kit (for assembly of manifolds with 4 x DCV)
BKM6x200	Bolt Kit (for assembly of manifolds with 5 x DCV)

## Standard Cetop Valves for Power Units

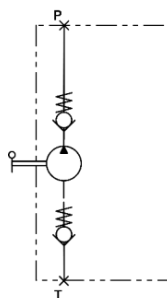
Basic Symbol 	Transient Condition 	Spool Code	Description of Spool Function
		3C2	Closed centre spool. Commonly Called a Cylinder spool. All ports blocked in the centre position and during crossover.
		3C3	Open centre spool. All ports connected in the centre position and during crossover. Minimises shock during crossover.
		3C4	Commonly called a Motor spool. Pressure port blocked. Both A & B ports connected to tank.
		3C6	Tandem centre spool with open crossover. During transition from centre to offset position, all ports are interconnected to minimise shock in the system.

### Note:

- Valves supplied with DIN Light Plugs & Bolt Kit (for valve only, not for valve with modules).
- Additional information on Cetop Valves, Modules and Bolt Kits in [Cetop Products](#) section.
- We do not recommend single solenoid valves on DC Power Units. When de-energised they can shift quicker than the electric motor/pump takes to stop rotating and the actuator can reverse direction.*



## Remote Mount Hand Pump & Vertical Mounting Hardware

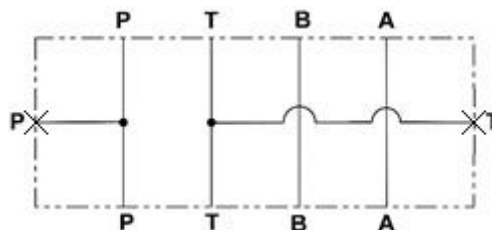
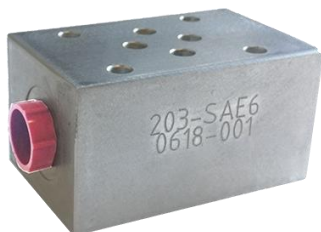


**PRBC20EM**

Order Code	Description	Displacement (cm <sup>3</sup> )	Max. Pressure (bar)	Ports	Release Knob
PRBC-4104206	PRBC20EM	20	350	P = G 3/8 (Male) T = G 1/2 (Female)	No

**Note:**

- Displacement is per cycle. One cycle is extend and retract of the handle.
- All Hand Pumps are supplied with a Bellows over piston shaft and a Handle.
- PRBC Hand Pumps do not have a Relief Valve.



Order Code	Description	Ports	Thickness (mm)
203-SAE6	Manifold - PU13 - P & T Tapping	9/16" UNO (SAE 6)	40

**Note:**

- 203-SAE6 only required for PU13 with 1 valve. Bolt Kit Information on [Page 5.38](#).
- For PU13 with L or T manifold (2 or more valves) use P/N 205-SAE6 (Manifold - End with P & T Ports).
- For PU01, PU03, PU04, PU05 & PU42 connect Hand Pump to T port on Central Manifold.
- Additional Suction Hardware is to be ordered separately from the table below.
- For Vertical Mount Power Units we recommend return oil is below the reservoir oil level. Order hardware separately from the table below.



Order Code	Qty.	Description
STFT-3F-DN10	1	R 3/8 Female x Ø 10mm Barbed Fitting
STFT-3M-DN10	1	R 3/8 Male x Ø 10mm Barbed Fitting
STC-13	2	Hose Clamp for Ø 10 mm ID Hose
STT-10	As Required	Suction Hose - Ø 10 mm ID

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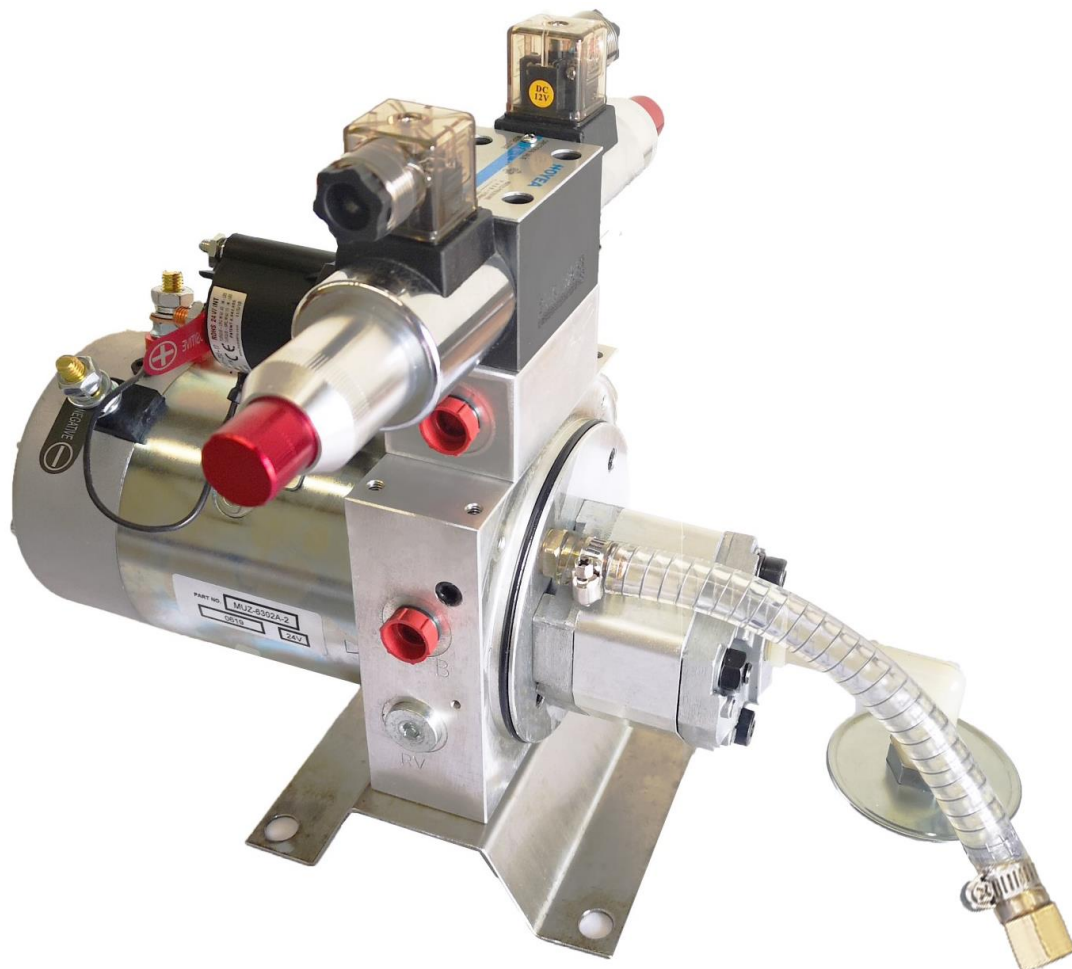


FW-3-\*\*\*-\*\*\*-Z5L-N9-RBRC-50



FW-3-\*\*\*-\*\*\*-Z5L-LMO-50

Cetop 3 (NG6) Valve Manual Override Options	
Order Code	Description
FW-3-DC-LMO-50	DC Locking Manual Override
FW-3-DC-CT-N9-50	DC Core Tube with N9 Manual Override – M5 Male Thread
FW-3-RC-50	Rubber Cap (no manual override) – use with FW-3-DC-CT-N9-50
FW-RB	Red Ball – use with FW-3-DC-CT-N9-50



## Weld Flange



Order Code	Description
WF-HPU-130	Weld Flange 130 x 130 (Ø122 hole required)

**Note:** Weld Flange is supplied without any pump suction hardware. Order separately from the table below.

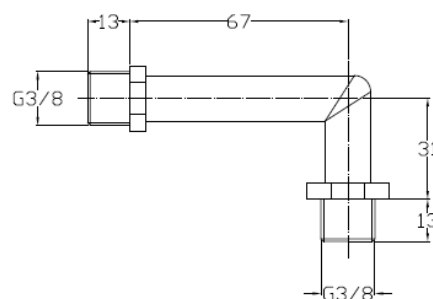
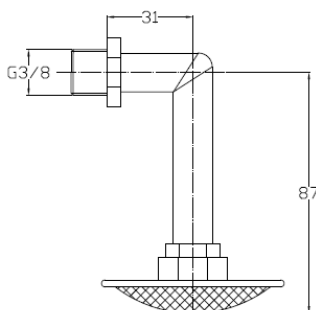
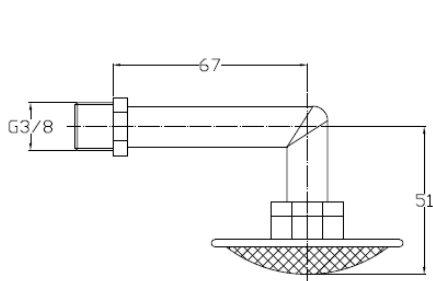
Order Code	Qty	Description
STPR-2	1	Suction Strainer - G 3/8 Female
AND		
STPR-1	1	Suction Pipe – R 3/8 Male x R 3/8 Male
OR		
STFT-3M-DN10	2	R 3/8 Male x Ø 10mm Barbed Fitting
STC-13	2	Hose Clamp for Ø 10 mm ID Hose
STT-10	As Required	Suction Hose - Ø 10 mm ID (Max. Length 400 mm)



Complete Suction Pipe Assembly



Complete Suction Hose Assembly

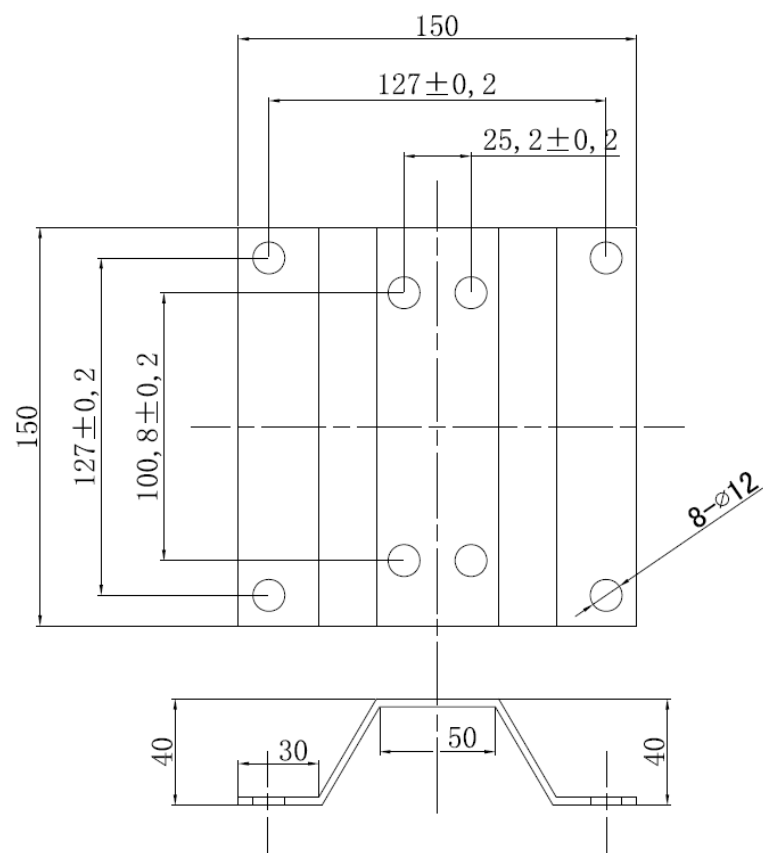


Complete Suction Pipe Assembly

Foot Bracket



Order Code	Description
FB-HPU130-M10	Foot Bracket 130 x 130 (Includes SHCS, Flat & Spring Washers to fit to HPU)



## Cable Controllers - Single Acting



Order Code	Description	Cable Length
KCB21-03	Cable Controller - Single Acting without Cable Plug	3 m
KCB21C-03C	Cable Controller - Single Acting with Cable Plug	
KCB21-06	Cable Controller - Single Acting without Cable Plug	6 m
KCB21C-06C	Cable Controller - Single Acting with Cable Plug	
KCB-BK	KCB Bracket	

**Note:** KCB-BK Bracket sold separately.

## Cable Controllers - Double Acting



Order Code	Description		Cable Length
KCB22-03	Cable Controller - Double Acting without Cable Plug	1 x DCV	3 m
KCB22C-03C	Cable Controller - Double Acting with Cable Plug	1 x DCV	
KCB22-06	Cable Controller - Double Acting without Cable Plug	1 x DCV	6 m
KCB22C-06C	Cable Controller - Double Acting with Cable Plug	1 x DCV	
KCB42C-03C	Cable Controller - Double Acting with Cable Plug	2 x DCV	3 m
KCB62C-03C	Cable Controller - Double Acting with Cable Plug	3 x DCV	
KCB82C-03C	Cable Controller - Double Acting with Cable Plug	4 x DCV	
KCB-BK	KCB Bracket		

**Note:** KCB-BK Bracket sold separately. Not suitable for KCB82C-03C.

## Wireless Control Kits



Order Code	Description	Voltage	Cable Length
WRB21C-03C-12V-2WRM2A	Wireless & Cable Control Kit - Single Acting with Cable Plug	12V DC	3 m
WRB21C-03C-24V-2WRM2A		24V DC	
WRB22C-03C-12V-2WRM2A	Wireless & Cable Control Kit - Double Acting with Cable Plug 1 x DCV (Double Solenoid)	12V DC	
WRB22C-03C-24V-2WRM2A		24V DC	
WRB-BK	WRB Bracket		

**Note:**

- WRB Wireless Control Kit includes 1 x Receiver, 2 x Wireless Remotes (Handheld Transmitter) and 1 x WRB-BK Bracket.
- Receiver has control buttons and can be removed from the bracket and used as a Cable Controller.
- Receiver has a LED Light and can be removed from the bracket and used as a torch.
- Wireless Remote range is up to 15 m, depending on operating conditions.



Order Code	Description	Voltage	Cable Length
TX21-02-12V-1WRM2B	Wireless Control Kit - Single Acting without Cable Plug	12V DC	2 m
TX21-02-24V-1WRM2B		24V DC	
TX22-02-12V-1WRM2B	Wireless Control Kit - Double Acting without Cable Plug 1 x DCV (Double Solenoid)	12V DC	
TX22-02-24V-1WRM2B		24V DC	
TX42-02-12V-1WRM4B	Wireless Control Kit - Double Acting without Cable Plug 2 x DCV (Double Solenoid)	12V DC	
TX42-02-24V-1WRM4B		24V DC	
TX62-02-12V-1WRM6B	Wireless Control Kit - Double Acting without Cable Plug 3 x DCV (Double Solenoid)	12V DC	
TX62-02-24V-1WRM6B		24V DC	
TX82-02-12V-1WRM8B	Wireless Control Kit - Double Acting without Cable Plug 4 x DCV (Double Solenoid)	12V DC	
TX82-02-24V-1WRM8B		24V DC	

**Note:**

- TX Wireless Control Kit includes 1 x Receiver and 1 x Wireless Remote (Handheld Transmitter).
- Receiver has no control buttons. It is fixed to the machine and a bracket is not required.
- Wireless Remote range is up to 15 m, depending on operating conditions.

Continued Next Page





Order Code	Description	Voltage	Cable Length
WRC21-01-1WRM2B	Wireless Control Kit - Single Acting without Cable Plug	12V / 24V DC	1 m
WRC22-01-1WRM2B	Wireless Control Kit - Double Acting without Cable Plug 1 x DCV (Double Solenoid)		
WRC42-01-1WRM4B	Wireless Control Kit - Double Acting without Cable Plug 2 x DCV (Double Solenoid)		
WRC62-01-1WRM6B	Wireless Control Kit - Double Acting without Cable Plug 3 x DCV (Double Solenoid)		
WRC82-01-1WRM8B	Wireless Control Kit - Double Acting without Cable Plug 4 x DCV (Double Solenoid)		

**Note:**

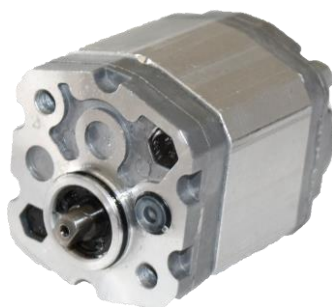
- WRC Wireless Control Kit includes 1 x Receiver and 1 x Wireless Remote (Handheld Transmitter).
- Receiver has no control buttons. It is fixed to the machine and a bracket is not required.
- Wireless Remote range is up to 30 m, depending on operating conditions.
- The user can pair up a replacement or an additional Wireless Remote.

## WRC Wireless Remotes (Handheld Transmitter)



Order Code	Description	Suits
WRC-WRM2B	Wireless Remote 2 Button	WRC21-01-1WRM2B & WRC22-01-1WRM2B
WRC-WRM4B	Wireless Remote 4 Button	WRC42-01-1WRM4B
WRC-WRM6B	Wireless Remote 6 Button	WRC62-01-1WRM6B
WRC-WRM8B	Wireless Remote 8 Button	WRC82-01-1WRM8B

## HPU Gear Pumps



Order Code	Displacement	Motor Dia.	Max. Pressure (bar)		Speed Max.	Speed Min.
			Continuous	Intermittent		
S026	0.26 cc/rev	3.15"	200	230	7000	1000
S038	0.38 cc/rev					
G110	1.10 cc/rev	4.5"	210	275	4000	500
G130	1.30 cc/rev					
G160	1.60 cc/rev					
G210 (Standard)	2.10 cc/rev					
G270	2.70 cc/rev					
G320	3.20 cc/rev					

## Gear Pump Mounting Bolt Kits



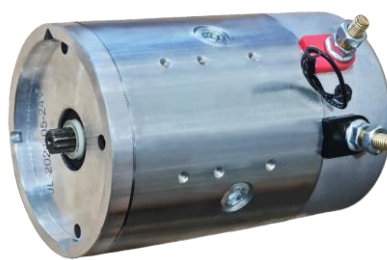
Gear Pump	Order Code
G110	BKG110-G130-G160
G130	
G160	
G210	BKG210
G270	BKG270
G320	BKG320



## Electric Motors



Old Design



New Design

Order Code	Diameter	Voltage	Thermoswitch	Power	Protection
MUP-6303-2 (Old Design)	4.5"	12V DC	No	1.6 kW	IP54
MUP-6308A-2 (Old Design)			Yes		
MUP-6308B-2 (New Design)		24V DC	No	2.2 kW	
MUZ-6302-2 (Old Design)			Yes		
MUZ-6302A-2 (Old Design)					
MUZ-6302B-2 (New Design)					
T0298	Copper Wiring Strap (suits silver metal relay)				
T0300	Copper Wiring Strap (suits black plastic relay)				

**Note:** If replacing **Old Design** with **New Design** the Drive Coupling must be replaced with P/N CP-18-55, refer to [Page 2.17](#) and the Copper Wiring Strap must be rebent.

## Electric Motor Relays



Order Code	Motor Dia.	Description
684-1261-212-17	3.15" & 4.5"	Relay 12V DC
684-2461-212-17		Relay 24V DC
T0298	Copper Wiring Strap (suits silver metal relay) 32 mm x 32 mm	
T0300	Copper Wiring Strap (suits black plastic relay) 45 mm x 60 mm	

## Coils



Order Code	Voltage	Connector
D12D	12V DC	DIN (Light Plug included)
D12W		Wire
D24D	24V DC	DIN (Light Plug included)
D24W		Wire

**Note:** Coil must be installed with letters up, so they are closest to the Coil Retaining Nut.

## HPU Accessories & Spare Parts



Order Code	Description		
AS-RP	PU Reservoir Retainer Kit		
CP-18-43	DC HPU Drive Coupling Tang / Tang (Old Design Electric Motor)		
CP-18-55	DC HPU Drive Coupling Spline / Tang (New Design Electric Motor)		
CVP08R	Check Valve Cartridge		
MV2L08M	Manual 2W2P Valve with Switch		
NVA08	Flow Control Valve		
OR-9.0x1.6-N90	O Ring - Circuit 13 Manifold		
OR-103.8x3.1-N80	O Ring - LS/MS/MT/RP Reservoir		
PLUG-C08-2-A	Cavity Plug - Alloy		
PLUG-SAE6-S	9/16" UNO - Steel Port Plug		
PLUG-SAE8-S	3/4" UNO - Steel Port Plug		
RVD08-H (Standard)	Relief Valve 103 - 220 bar (1500 - 3200 psi)		
RVD08-L	Relief Valve 34 - 138 bar (500 - 2000 psi)		
STC-13	Hose Clamp for Ø 10 mm ID Hose		
STFT-3F-DN10	R 3/8 Female x Ø 10mm Barbed Fitting		
STFT-3M-DN10	R 3/8 Male x Ø 10mm Barbed Fitting		
STT-10	Suction Hose - Ø 10 mm ID		
STPR-1	Suction Pipe - R 3/8 Male x R 3/8 Male (Suits MT06, RP04, RP15)		
STPR-2	Suction Strainer - G 3/8 Female		
SVP08NC (Standard)	2W2P N.C. Cartridge		
SVP08NCM	2W2P N.C. Cartridge with Manual Override		
BE-HPU100	Breather Extension - 100mm	SUS304	3/4" NPT
BE-HPU150	Breather Extension - 150mm		
BE-HPU200	Breather Extension - 200mm		
T0110	Breather without Dipstick (Standard - RP Reservoirs)		
T0111	Reservoir Plug - DC PU		
T0112	Breather with Dipstick (Standard - LS & MT Reservoirs)		
T0298	Copper Wiring Strap (suits silver metal relay) 32 mm x 32 mm		
T0300	Copper Wiring Strap (suits black plastic relay) 45 mm x 60 mm		