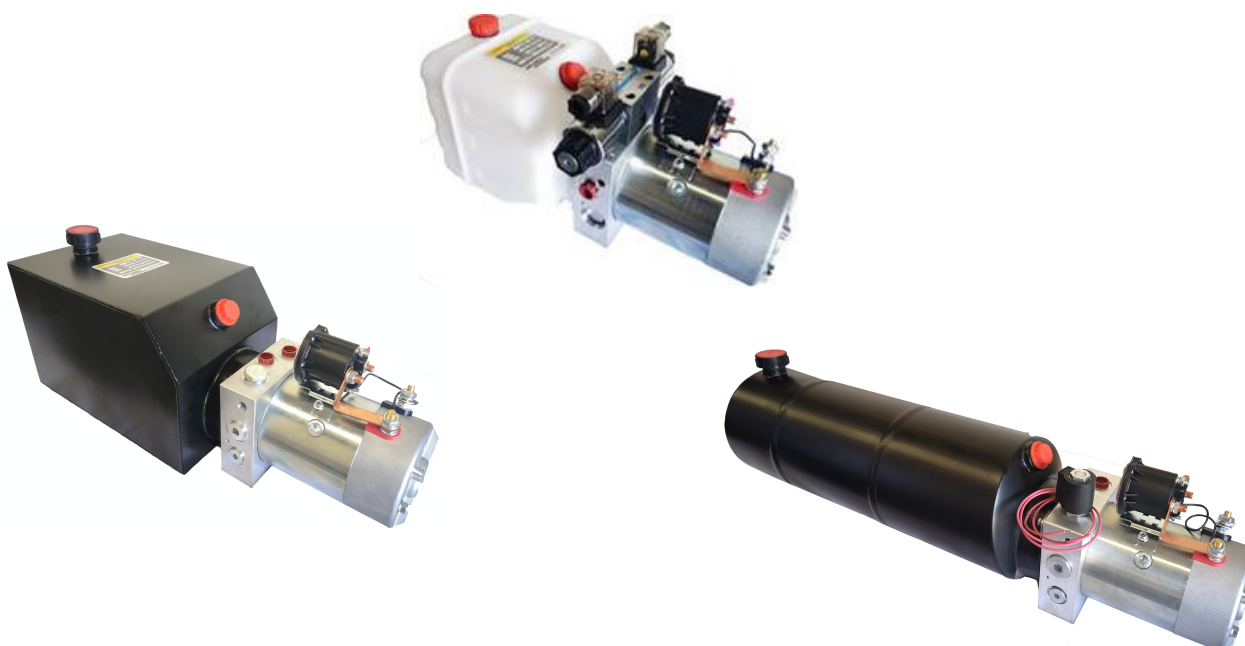


Hydraulic Power Units

<i>Features</i>	2.02
<i>Order Code</i>	2.02
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Features

- ▶ **AMETEK® PRESTOLITE MOTORS** DC Motor range from 0.3 kW to 4.0 kW - 12V DC & 24V DC.
- ▶ Pump Displacements from 1.1 cc/rev to 3.2 cc/rev - 1.9 L/min to 9.5 L/min.
- ▶ Pressures to 220 bar (3200 psi).
- ▶ Polyethylene and Steel Reservoirs - 4 to 15 litre capacity.
- ▶ Horizontal and Vertical mount is standard on all units (except 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

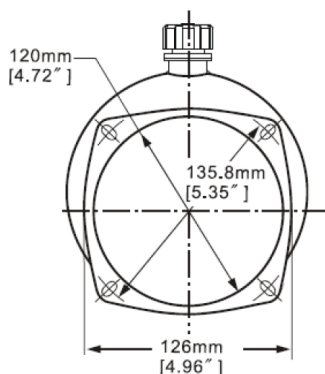
PU - D** - **** - 20TG21H - ***** - ****

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪

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

Note:

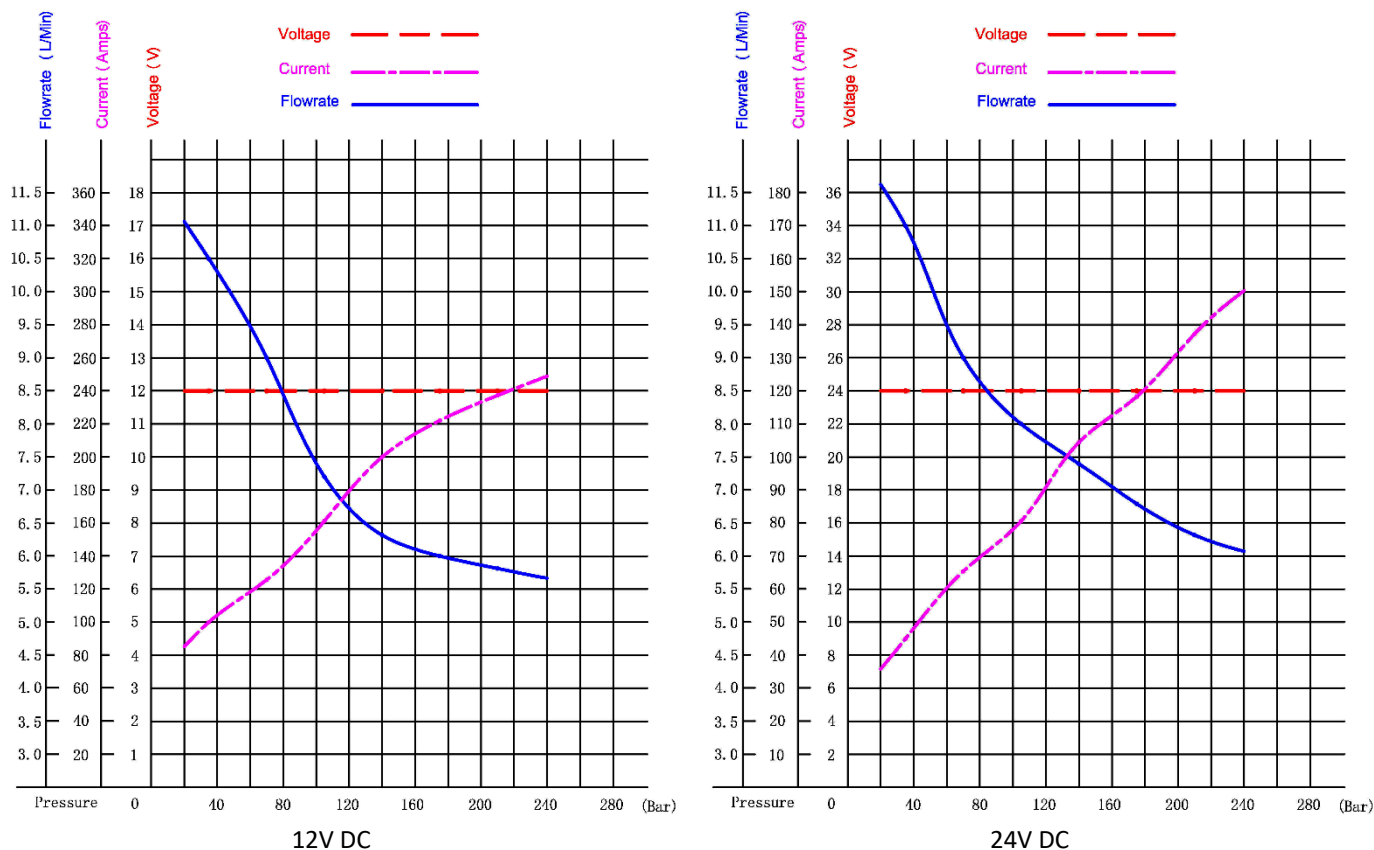
- Power Units ordered without a Reservoir are supplied without any pump suction hardware. Order separately from the table on [Page 2.10](#).
- If supplying your own reservoir, the flange dimensions must conform to the drawing below.



Standard Power Unit Specifications

Voltage	Nominal Motor Power	Actual Motor Power	Pump	Nominal Flow @ 180 bar	Relief Valve (bar)	Max. Pump Pressure (bar)			Ports
12V DC	2 kW	1.6 kW	2.1 cc/rev	5.9 L/min	103 - 220 (Factory Set 180)	P1	P2	P3	9/16" UNO (SAE 6)
24V DC		2.2 kW		6.7 L/min		200	250	280	

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



Oil Recommendation

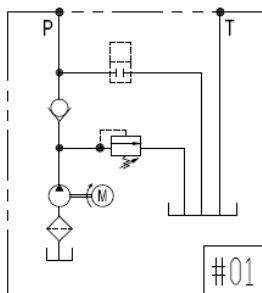
For normal operating conditions we recommend Mineral Based Hydraulic Oil with a viscosity of ISO 32 or 46 Centistokes (cSt).

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 & valve manufacturers as it will reduce component life.

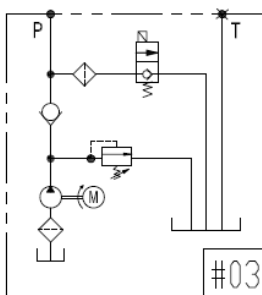


Pump, Motor, Reservoir (Circuit - 01)



Order Code	Reservoir
PU01-D**-XXXX-20TG21H	Add price from Page 2.06

Single Acting - Solenoid Control (Circuit - 03)



Order Code	Reservoir
PU03- D**-XXXX-20TG21H-W	Add price from Page 2.06

Note:

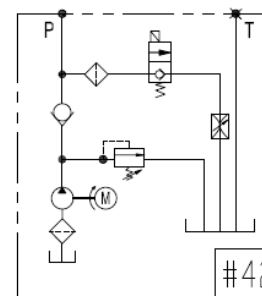
- DIN connector coil add \$11.00. (Includes Light Plug)
- Manual override add \$22.00

Operation of Manual Override Option:

Normal Operation (Closed Position) push red button in and turn clockwise.

To open the valve, push red button in, twist counter clockwise and release.

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



Order Code	Reservoir
PU42- D**-XXXX-20TG21H-W	Add price from Page 2.06

Note:

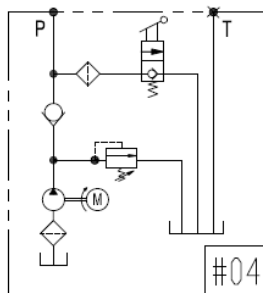
- DIN connector coil add \$11.00. (Includes Light Plug)
- Manual override add \$22.00

Operation of Manual Override Option:

Normal Operation (Closed Position) push red button in and turn clockwise.

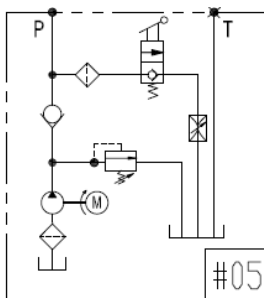
To open the valve, push red button in, twist counter clockwise and release.

Single Acting - Manual Control (Circuit - 04)



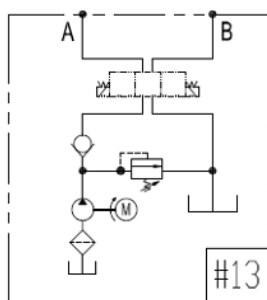
Order Code	Reservoir
PU04- D**-XXXX-20TG21H	Add price from Page 2.06

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



Order Code	Reservoir
PU05- D**-XXXX-20TG21H	Add price from Page 2.06

Double Acting - Solenoid Control (Circuit - 13)



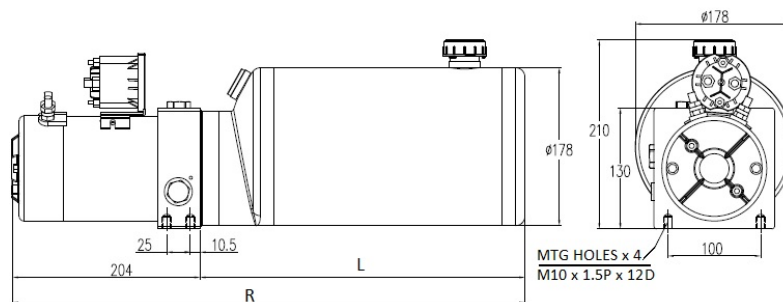
Order Code	Reservoir
PU13-D**-XXXX-20TG21H	Add price from Page 2.06

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 and the 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.*

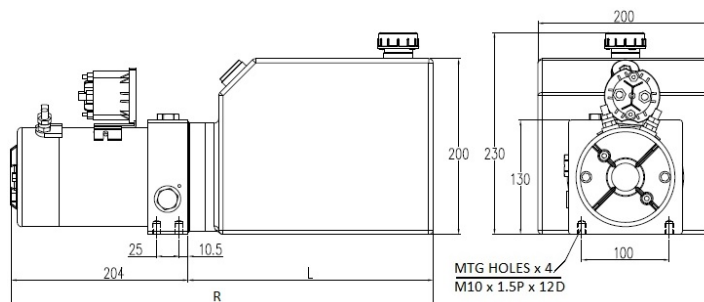
Reservoirs

LS Series - Steel



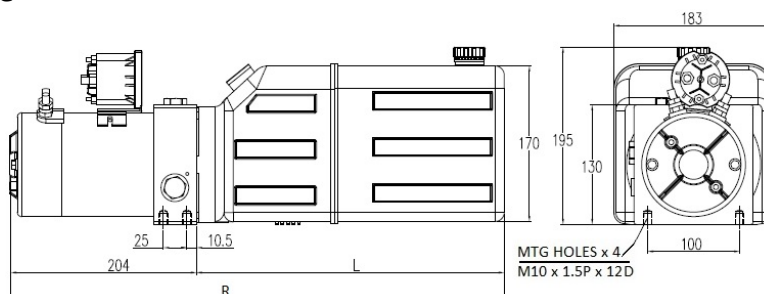
Order Code	Capacity (Litres)	L (mm)	R (mm)
LS04	04	270	474
LS06	06	350	554
LS08	08	440	644
LS10	10	540	744

MT Series - Steel



Order Code	Capacity (Litres)	L (mm)	R (mm)
MT06	06	200	404
MT08	08	280	484
MT10	10	340	544
MT12	12	400	604
MT15	15	510	714

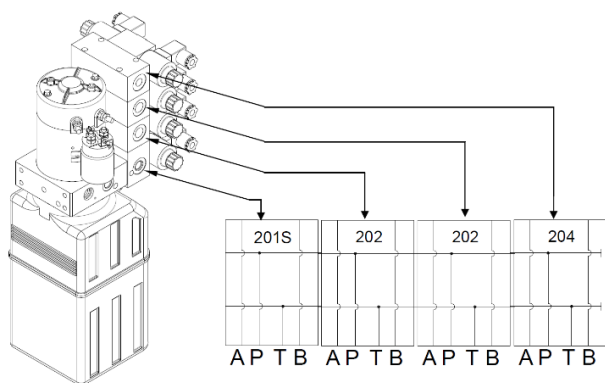
RP Series - Polyethylene



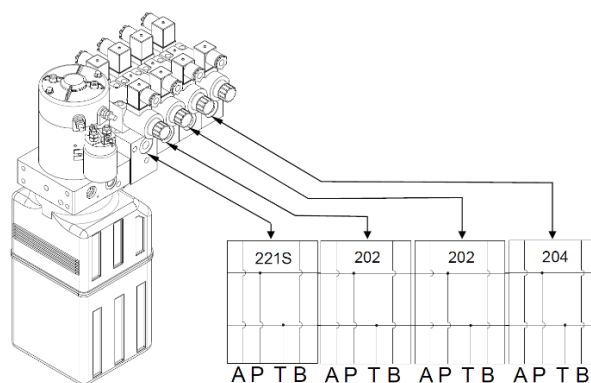
Order Code	Capacity (Litres)	L (mm)	R (mm)
RP04	04	200	404
RP06	06	290	494
RP08	08	335	539
RP10	10	440	644
RP12	12	550	754
RP15 (Horizontal mounting only)	15	690	894

Double Acting - Mounting Styles

Mounting Style - L



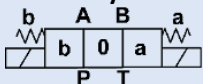
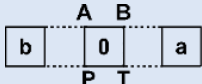




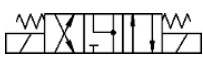

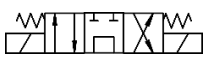
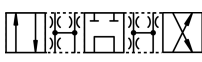
Mounting Style - T



Double Acting - Manifolds & Bolt Kits

Order Code	Description
201S-SAE6	Manifold - L Style (includes O Rings & Bolt Kit for assembly to Central Manifold and steel plugs for A & B ports on Central Manifold)
221S-SAE6	Manifold - T Style (includes O Rings & Bolt Kit for assembly to Central Manifold and 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)

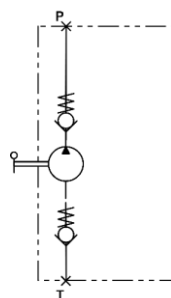
Standard Cetop Valves for Power Units

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 and 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 for PU13

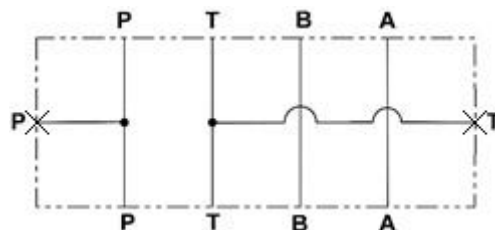


PRBC20EM

Order Code	Description	Displacement (cm ³)	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 & a Handle.
- PRBC Hand Pumps do not have a Relief Valve.



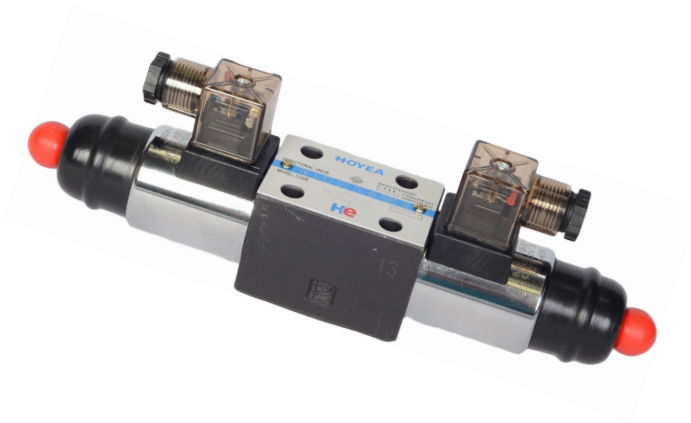
Order Code	Description	Ports	Thickness (mm)
203-SAE6	Manifold - PU13 - P & T Tapping	9/16" UNO (SAE 6)	40

Note:

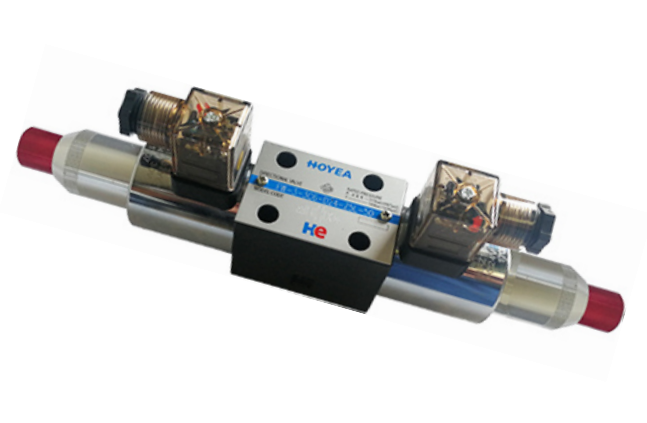
- 203-SAE6 only required for PU13 single valve. Bolt Kit Information on [Page 5.33](#).
- For PU13 with L or T manifold (2 or more valves) use P/N 205-SAE6 (Manifold - End with P & T Ports).
- Additional Suction Hardware is to be ordered separately from the table below.



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

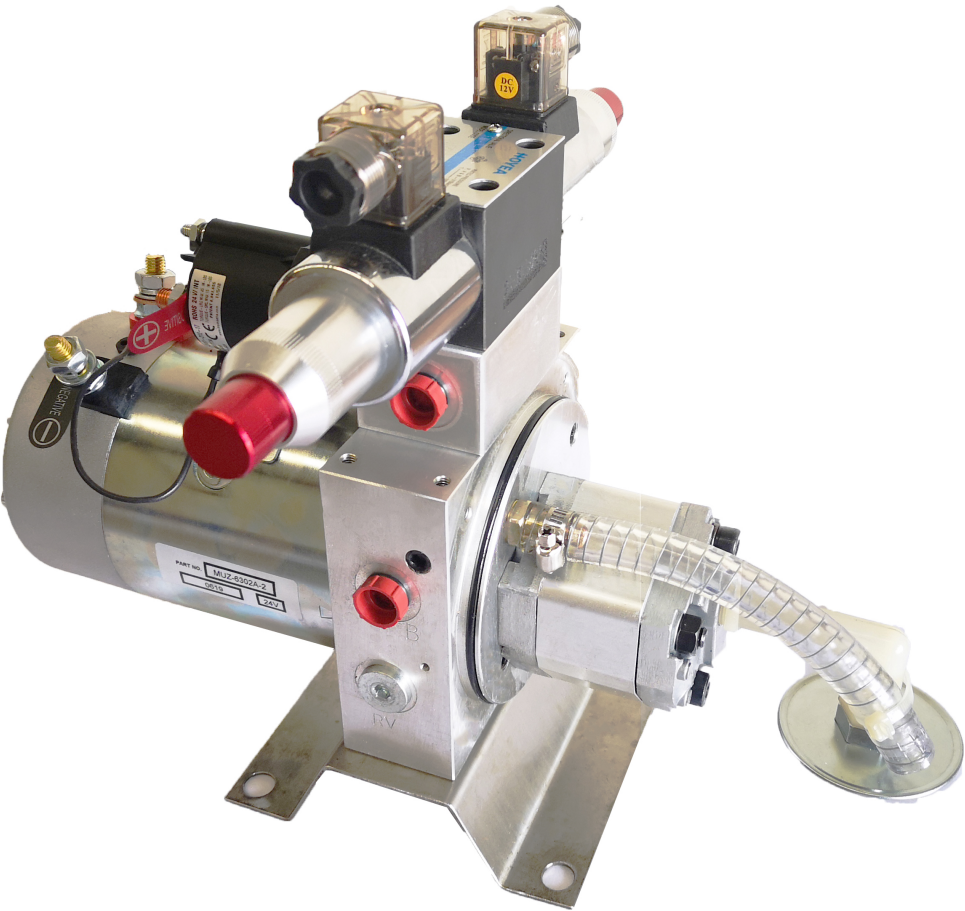


FW-3-***-***-Z5L-N9-RBRC-50



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.

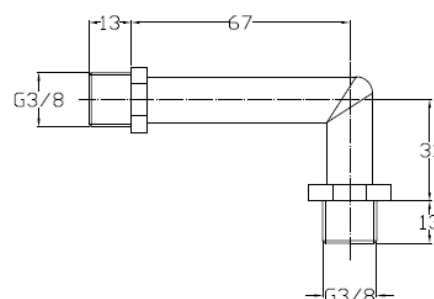
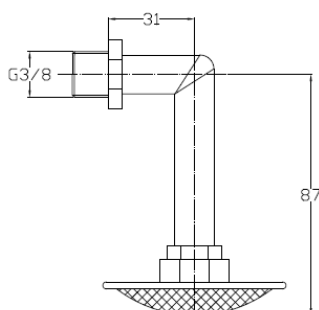
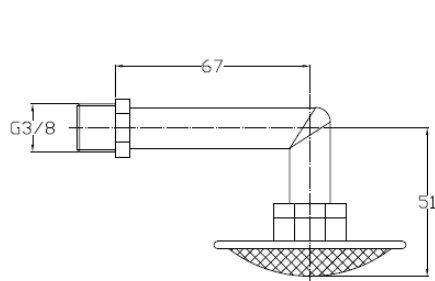
Order Code	Qty	Description
STPR-2	1	Suction Strainer - G 3/8 Female Thread
AND		
STPR-1	1	Suction Pipe – R 3/8 male x R 3/8 male
OR		
STFT-3-DN10	2	Barbed Fitting – R 3/8 male x 10 mm ID Hose
STC-13	2	Hose Clamp for 10 mm ID Hose
STT-10	As Required	Suction Hose - 10 mm ID (Max. Length 400 mm)



Complete Suction Pipe Assembly

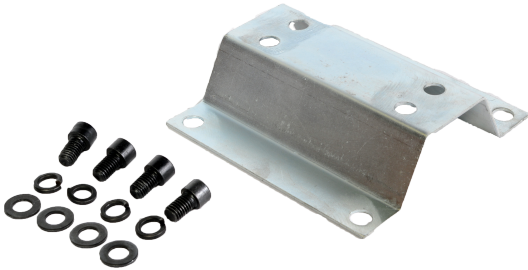


Complete Suction Hose Assembly

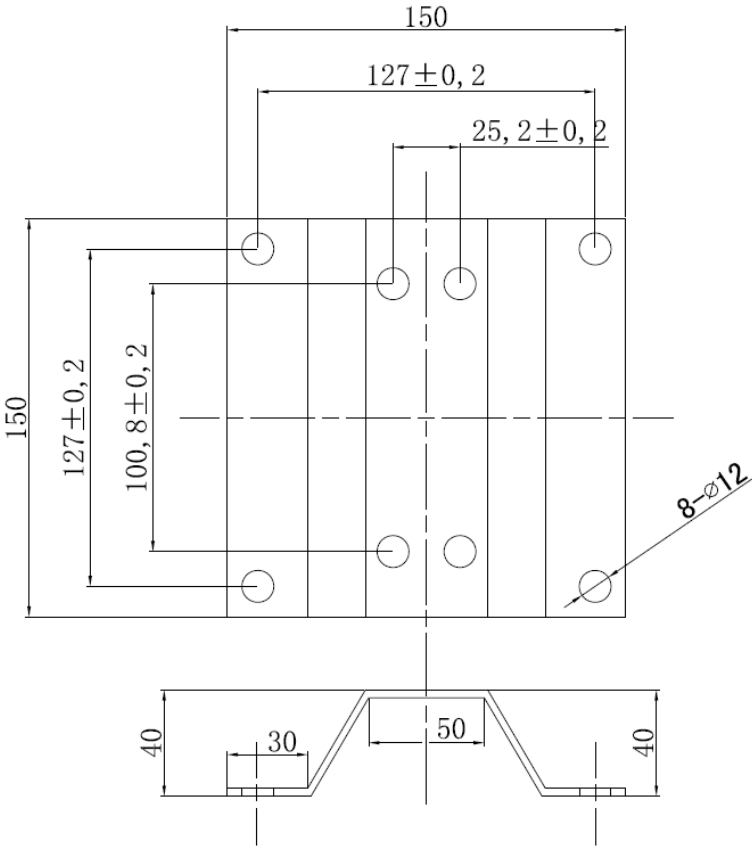


Complete Suction Pipe Assembly

Foot Bracket



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



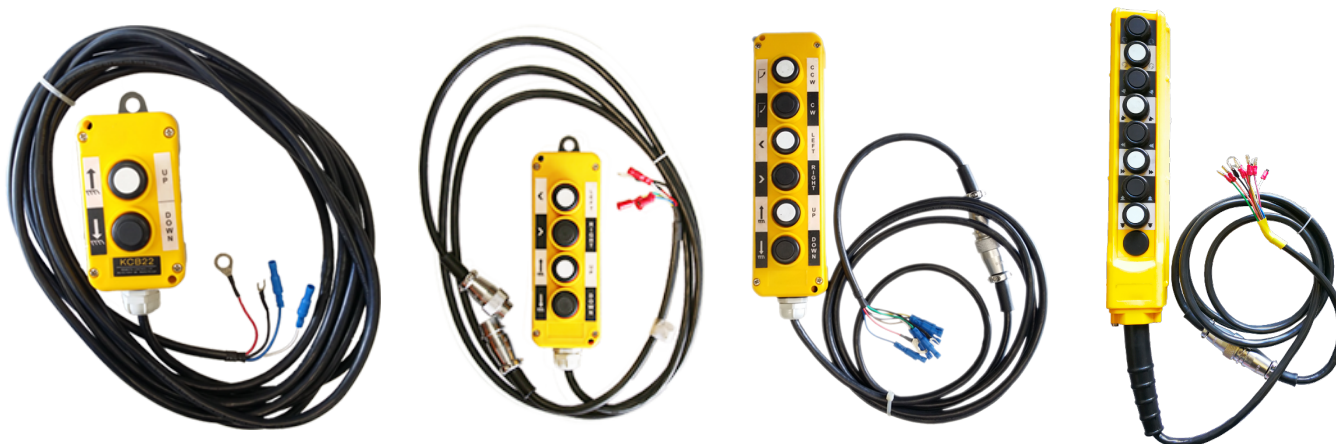
Cable Controllers - Single Acting



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	3 m
KCB22C-03C	Cable Controller - Double Acting with Cable Plug	
KCB22-06	Cable Controller - Double Acting without Cable Plug	6 m
KCB22C-06C	Cable Controller - Double Acting with Cable Plug	
KCB42C-03C	Cable Controller - Double Acting with Cable Plug	3 m
KCB62C-03C	Cable Controller - Double Acting with Cable Plug	
KCB82C-03C	Cable Controller - Double Acting with Cable Plug	
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 Control Kit - Single Acting with Cable Plug	12V DC	3 m
WRB21C-03C-24V-2WRM2A		24V DC	
WRB22C-03C-12V-2WRM2A	Wireless 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 & 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.

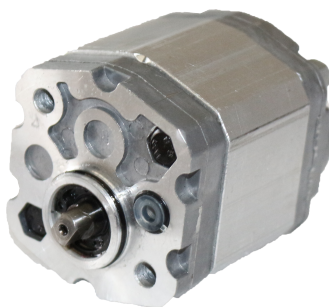


Order Code	Description	Voltage	Cable Length
TX21-02-12V-1WRM2B	Wireless Control Kit - Single Acting without Cable Plug	12V DC	2 m
TX21-02-24V-1WRM2B		24V DC	
TX22-02-12V-1WRM2B	Wireless Control Kit - Double Acting without Cable Plug 1 x DCV (Double Solenoid)	12V DC	
TX22-02-24V-1WRM2B		24V DC	
TX42-02-12V-1WRM4B	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 & 1 x Wireless Remote.
- 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.

HPU Gear Pumps



Order Code	Displacement	Motor Dia.	Max. Pressure (bar)			Speed Max.	Speed Min.
			P1	P2	P3		
S026	0.26 cc/rev	3.15"	200	230	250	7000	1000
S038	0.38 cc/rev						
G110	1.10 cc/rev	4.5"	230	250	270	6000	1000
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		210	230	250	5000	800

Gear Pump Mounting Bolt Kits



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

Electric Motors



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

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	
CP18-43	DC HPU Drive Coupling	
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)	
SK-GP	Seal Kit - G Series Gear Pump	
STC-13	Hose Clamp for 10 mm ID Hose	
STFT-3-DN10	Barbed Fitting - R 3/8 male x 10 mm ID Hose	
STT-10	Suction Hose - 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 Thread	
SVP08NC (Standard)	2W2P N.C. Cartridge	
SVP08NCM	2W2P N.C. Cartridge with Manual Override	
T0110	Breather without Dipstick (Standard - RP Reservoirs)	3/4" NPT
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	