

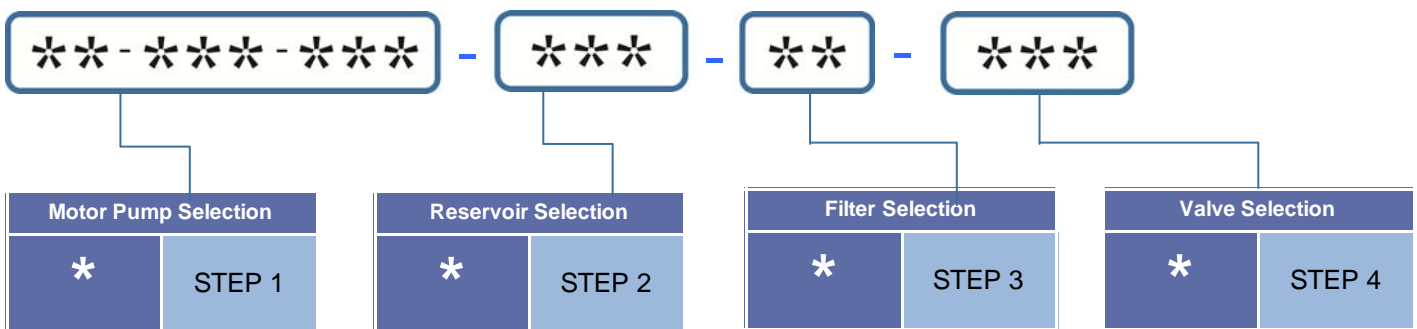
JANUS POWER PACKS PICK A PACK

Design

A system for producing bespoke power units from a range of standard components has been developed. The building blocks give maximum flexibility to the systems designer without incurring high manufacture costs. By using kits of parts that can be stocked individually minimising stock holding a specific solution can be produced in very short lead time. **MAXIMUM FLEXIBILITY WITH MINIMUM COST.**

ASSEMBLY ORDERING CODE

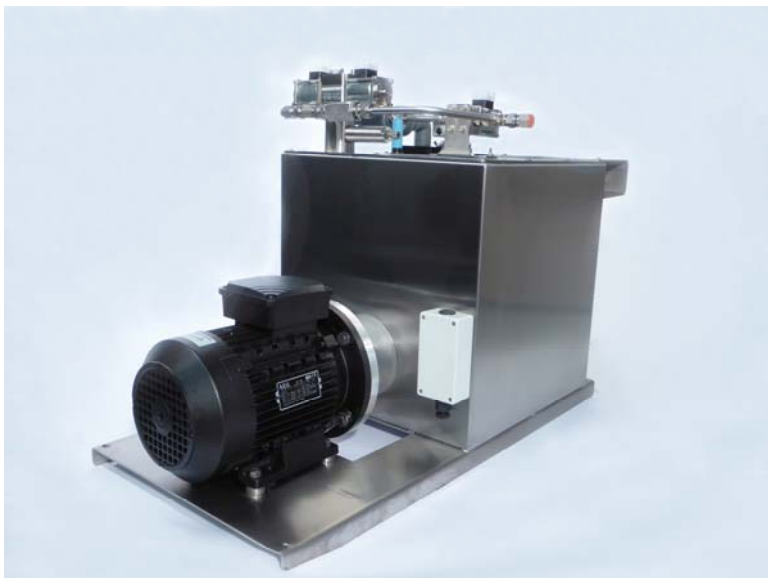
Follow the following steps to build your bespoke system



Example

- (STEP 1) You require a pump assembly to produce 90Bar Pressure with a flow rate of 6L/min. **(P6-060-M09)**
- (STEP 2) The usable Volume of the System is 55Litres. **(S55)**
- (STEP 3) The filter arrangement will need a Protection Switch, Temperature Switch & Fill valve. **(4B)**
- (STEP 4) Adding a relief valve and Your Janus Control Valves. **(C05)**
- (Note: Janus Control Valves must be ordered separately, please refer to the Janus Control Valves ordering codes).*

Ordering Code:- **P6-060-M09-S55-4B-C05**



NOTE: Special Power Packs are available upon request.

Optional Extras

- Control Valves
- Heat Exchanger
- Hand Pumps

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STEP 1: PUMP MOTOR SELECTION

PUMP	(CC/REV)	PRESSURE - BARG								
		10	20	40	60	80	100	120	140	160
P1	0.8 (1.2 l/min @ 1500 rpm)	1.1 l/min	1.0 l/min	0.9 l/min	0.8 l/min	0.7 l/min	0.6 l/min			
		0.12 KW	0.12 KW	0.12 KW	0.18 KW	0.18 KW	0.25 KW			
		63 Frame	63 Frame	63 Frame	63 Frame	63 Frame	71 Frame			
	PC100-0.8W	P1-008-M01			P1-008-M02		P1-008-M03			
	1.2 (1.8 l/min @ 1500 rpm)	1.7 l/min	1.6 l/min	1.5 l/min	1.4 l/min	1.2 l/min	1.1 l/min			
		0.12 KW	0.12 KW	0.18 KW	0.25 KW	0.37 KW	0.37 KW			
P3	3.0 (4.95 l/min @ 1500 rpm)	4.5 l/min	4.4 l/min	4.2 l/min	4.1 l/min	4.0 l/min	3.9 l/min	3.8 l/min	3.7 l/min	3.9 l/min
		0.25 KW	0.25 KW	0.37 KW	0.55 KW	0.75 KW	1.1 KW	1.1 KW	1.5 KW	1.5 KW
		71 Frame	71 Frame	71 Frame	80 Frame	80 Frame	90S Frame	90S Frame	90L Frame	90L Frame
P6	4.6 (6.9 l/min @ 1500 rpm)	6.7 l/min	6.6 l/min	6.4 l/min	6.1 l/min	5.9 l/min	5.7 l/min	5.5 l/min	5.2 l/min	5.0 l/min
		0.37 KW	0.37 KW	0.55 KW	1.1 KW	1.1 KW	1.5 KW	2.2 KW	2.2 KW	2.2 KW
		71 Frame	71 Frame	80 Frame	90S Frame	90S Frame	90L Frame	100L Frame	100L Frame	100L Frame
	PC160-4.6W	P6-046-M04		P6-046-M05	P6-046-M07		P6-046-M08	P6-046-M09		
	6.0 (9.0 l/min @ 1500 rpm)	8.8 l/min	8.6 l/min	8.2 l/min	7.9 l/min	7.5 l/min	7.2 l/min	6.8 l/min	6.5 l/min	6.1 l/min
		0.37 KW	0.55 KW	1.1 KW	1.1 KW	1.5 KW	2.2 KW	2.2 KW	3.0 KW	3.0 KW
P15	12.0 (18.75 l/min @ 1500 rpm)	18.4 l/min	18.2 l/min	17.6 l/min	17.1 l/min	16.5 l/min	16.0 l/min	15.5 l/min	14.9 l/min	14.4 l/min
		0.55 KW	0.75 KW	1.5 KW	2.2 KW	3.0 KW	4.0 KW	5.5 KW	5.5 KW	7.5 KW
		80 Frame	80 Frame	90L Frame	100L Frame	100L Frame	112M Frame	132S Frame	132S Frame	132M Frame
	PC160-12W	P15-012-M05	P15-012-M06	P15-012-M08	P15-012-M09	P15-012-M10	P15-012-M11	P15-012-M12		P15-012-M13
	15.0 (22.5 l/min @ 1500 rpm)	22.1 l/min	21.8 l/min	21.1 l/min	20.5 l/min	19.8 l/min	19.2 l/min	18.5 l/min	17.8 l/min	17.2 l/min
		0.55 KW	1.55 KW	2.2 KW	3.0 KW	4.0 KW	5.5 KW	5.5 KW	7.5 KW	7.5 KW
		80 Frame	90L Frame	100L Frame	100L Frame	112M Frame	132S Frame	132S Frame	132M Frame	132M Frame
	PC160-15W	P15-015-M05	P15-015-M08	P15-015-M09	P15-015-M10	P15-015-M11	P15-015-M12		P15-015-M13	
	19.0 (22.5 l/min @ 1500 rpm)	28.0 l/min	27.6 l/min	26.8 l/min	26.0 l/min	25.1 l/min	24.3 l/min	23.5 l/min	22.7 l/min	21.8 l/min

Select a combination to satisfy, pressure and flow requirement. Electric motors specifying 'M', E.g. P6-060-M09 denotes 3 Phase, 400V. To specify single phase, 240V up to 2.2 KW only use 'E' E.g. P6-060-E09. Note: All electric motors conform to IE2 requirements. P30, P60 & P180 power units are available on request, please consult TWHC for details.

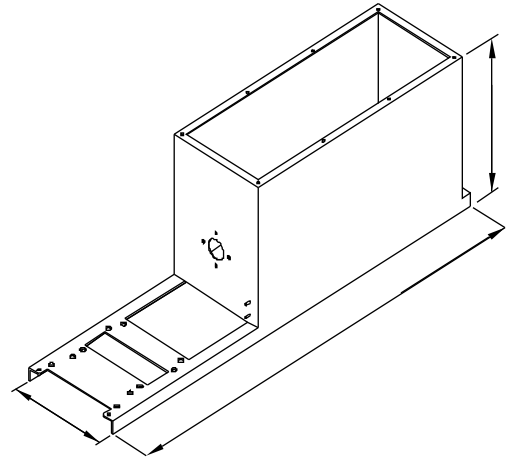
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Step 2 – Reservoir

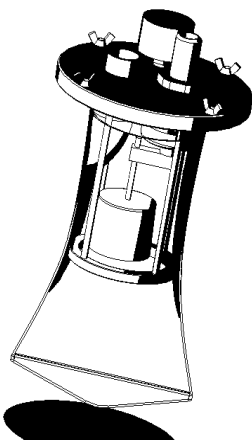
Reservoirs are available in 316 stainless steel (prefix S) or plastic (Prefix P) as a special. Once you have selected the correct capacity add the code to your motor pump code. Note the motor mounting holes are specific for electric motor frame size, the pump motor assembly code is required for selection if ordered as a kit.

Example:- 55L stainless reservoir to the motor pump assembly selected **P6-060-M09-S55**

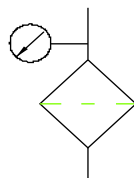
Pump	Code	Useable Volume L	A mm	B mm	C mm
P1	S05	5	120	220	300
P3	S25	25	220	300	870
P6	S25	25	220	300	870
	S55	55	350	550	1050
P15	S55	55	350	550	1050
	S90	90	350	550	1350



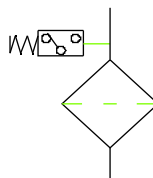
Step 3 – Filter Condition & Protection



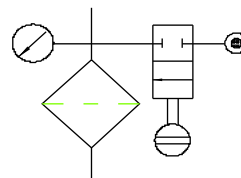
The use of filtration is always advised. However there are a number of optional filtration, tank filling and safety switches that can be selected. The next digit in the code system specify the filter variants.



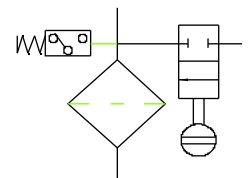
1 Filter and Gauge



2 Filter and Switch



3 Filter, Gauge and Fill Valve



4 Filter, Switch and Fill Valve

The following digit specifies the protection switch, “T” temperature switch 50°C, “L” low water level cut out and “B” for both. If safety switches are not required add “X”. If secondary tank return lines are require a Tee can be added to the return between manifold and filter assembly to ensure all return water is filtered.

Example:- taking the previous example and adding a filter, with filter condition switch and fill valve. Also selecting both temperature and level switches the code would be **P6-060-M09-S55-4B**

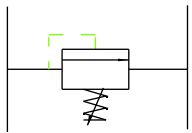
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Step 4 – Control Valves

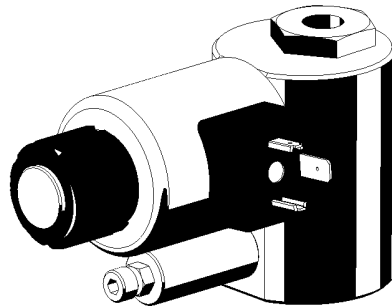
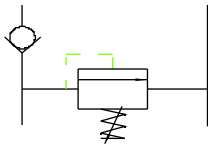
To complete the circuit requirements the valve assembly has been configured to offer maximum flexibility for the system designer without the need for expensive and time consuming pipe work. The bolt on manifold arrangement can offer up to 4 station operation from a single block. The range offers Unload, 3/2, 4/2 and 4/3 valves with actuation by solenoid, hand, air, water or oil pilot including electronic proportional control options as standard. See Janus Directional Valve data sheet for further information.

The DN3 range of control can be applied up to 10 l/min and 160 bar. C01, 2 and 3 circuits are produced with a single manifold arrangement. C04,5, 6 & 7 are all produced with the DN6 range of valves up to a maximum flow rate of 20 l/min. For higher flow requirements please contact TWHC.

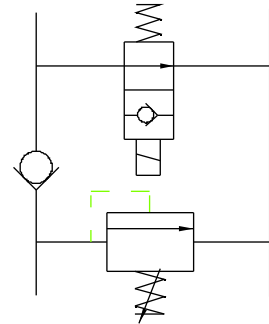
C01 Relief Valve



C02 Relief & Check

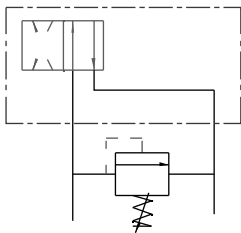


C03 Relief, Check & Unload

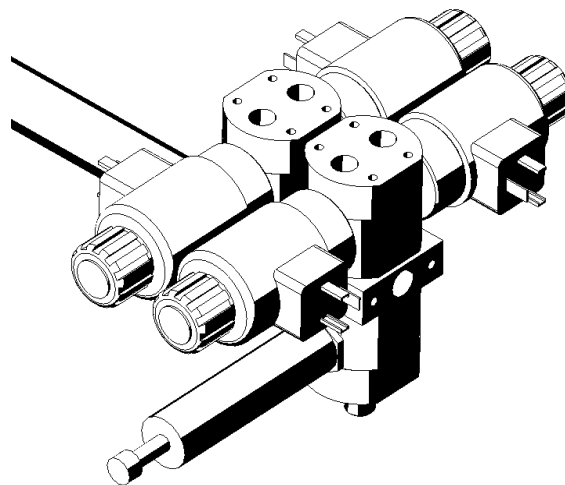
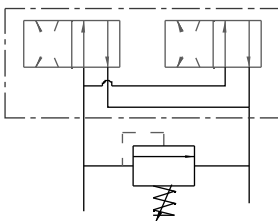


Select the "M" version of directional and relief valve when using manifolds. Order directional valves separately

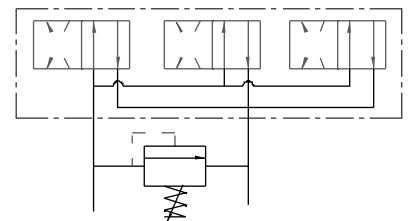
C04 Relief 1 Station Manifold



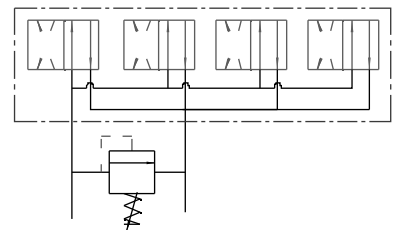
C05 Relief 2 Station Manifold



C06 Relief 3 Station Manifold



C07 Relief 4 Station Manifold

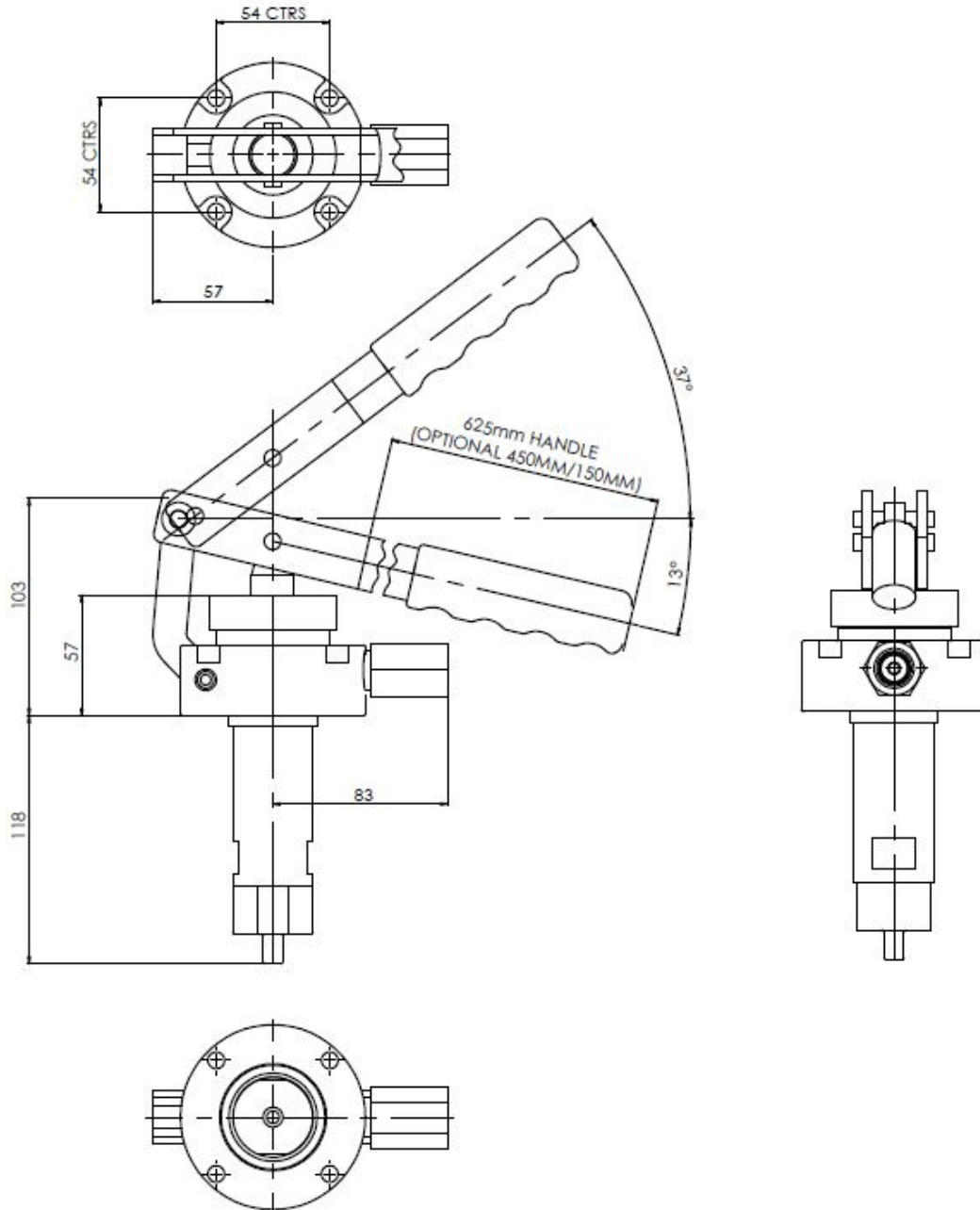


Final Code, add a relief valve with a 2 station manifold for mounting 2 off 4 port 3 position 24V Dc solenoid operated spring return directional control valves with closed P, A,B&T joined at centre

Part number **P6-060-M09-S55-4B-C05**.

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Optional Extra — Back Up Hand Pump



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