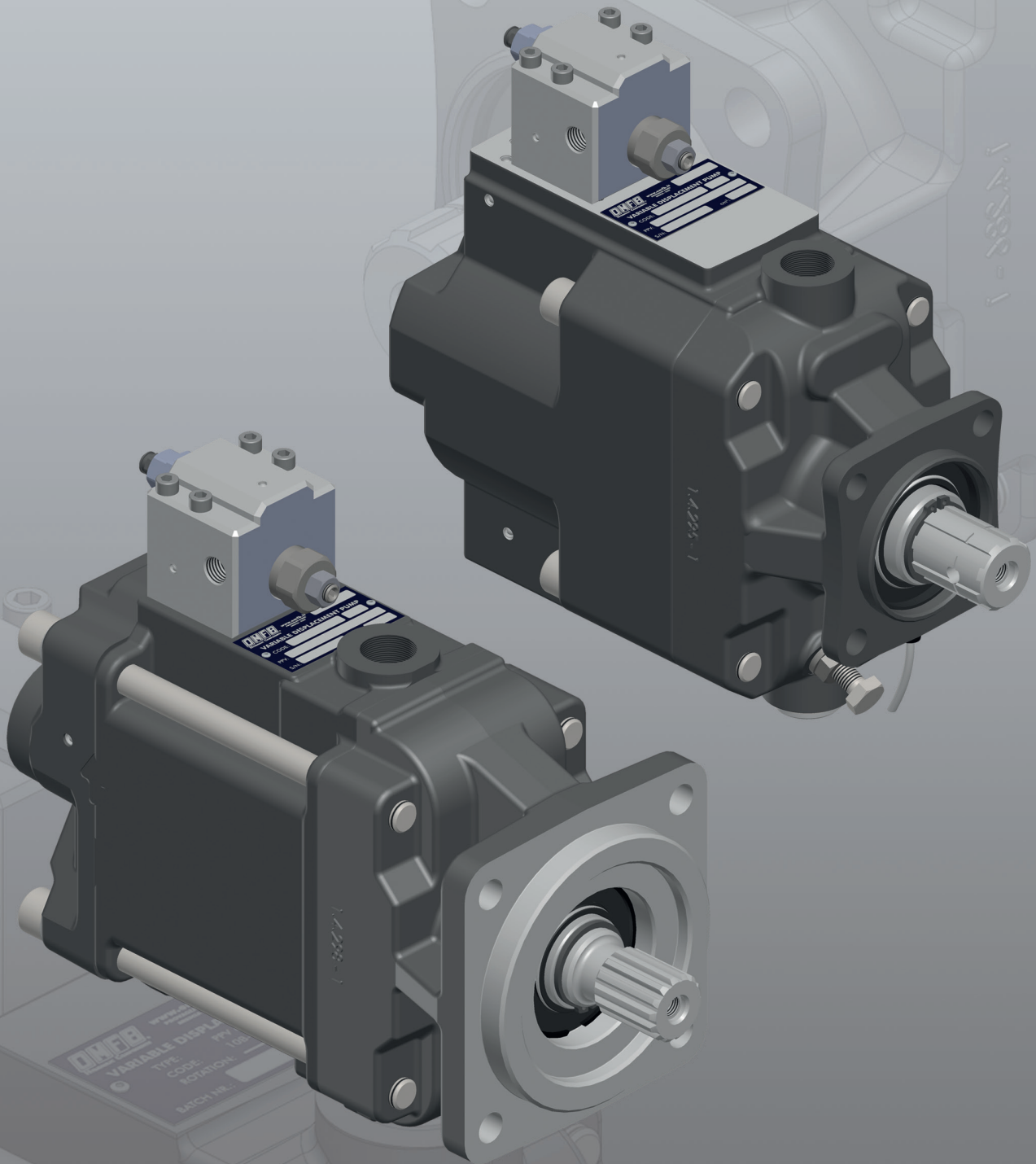


“PPV” VARIABLE DISPLACEMENT PUMPS

Axial piston pumps with variable displacement for open circuit. Thanks to their reduced width, they can be mounted directly on the PTOs for commercial vehicles.



OMFB[®]

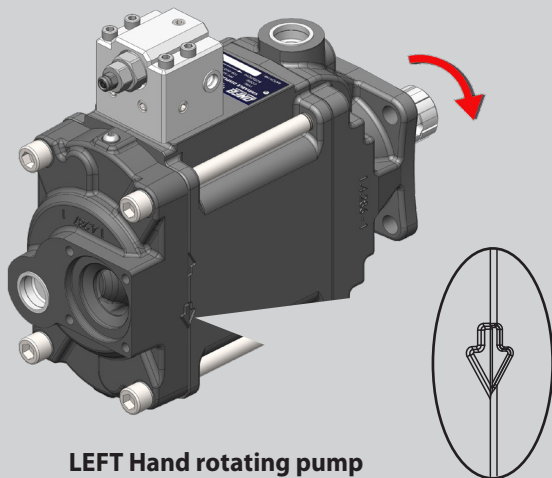


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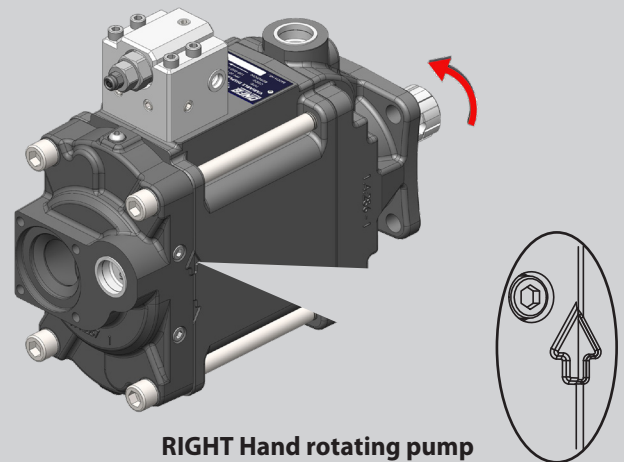
Variable displacement pumps

The OMF variable displacement axial piston pump has got a swash plate.

The displacement of the pump depends on the stroke of the pistons, which is determined by the inclination of the swash plate. At the start, the pump is at its maximum displacement position because of the springs pushing against the swash plate. The displacement of the pump is reduced by means of two pistons hydraulically operated that win the force of the springs. The cylinders block rotates together with the shaft forcing the pistons to rotate at the same speed of the shaft and make a circular path on the swash plate that causes the reciprocating movement. In this way, the pump is able to deliver from the maximum to zero flow rate. The variation of the displacement is controlled by a regulator, which is fitted on the pump itself. These pumps are designed to operate in open circuit. They allow very quick reaction time and thanks to its compact size they can be coupled directly onto PTO's of commercial vehicles. When ordering please specify the required direction of rotation.



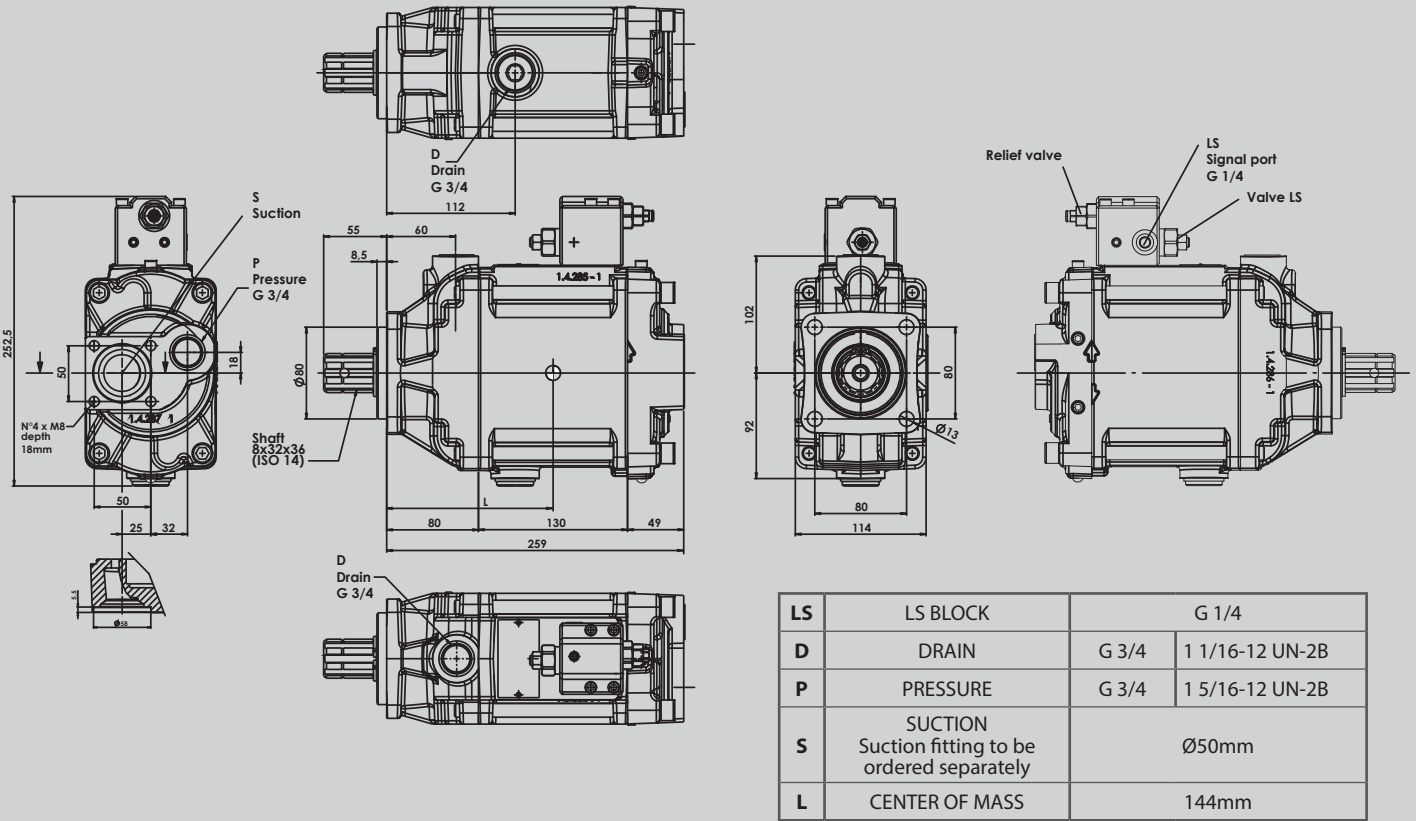
LEFT Hand rotating pump



RIGHT Hand rotating pump

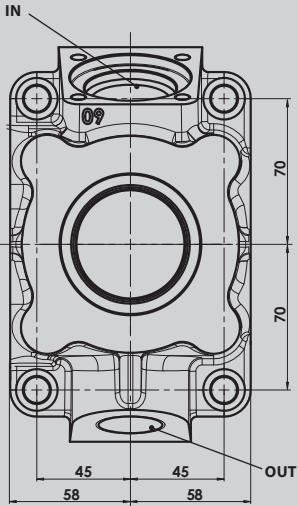
TECHNICAL FEATURES	PPV60	PPV90	PPV110	PPV130	PPV150		
Flow	60 l/min.	90 l/min.	110 l/min.	130 l/min.	150 l/min.		
Max. swash plate angle	21,5°						
Working pressure	Continuous	Intermittent	Continuous	Intermittent	Continuous	Intermittent	
	375 bar	400 bar	375 bar	400 bar	375 bar	450 bar	300 bar
Absolute inlet pressure required in open circuit	0,85 bar						
Max. permissible housing pressure (static/dynamic)	1 bar	3 bar					
Max. permissible inlet pressure (static/dynamic)	2 bar						
Max. speed during suction operation and max. swash plate angle at 1 bar abs. Inlet pressure	2500 rpm	2300 rpm	2200 rpm	2100 rpm	1800 rpm		
Max. speed with zero stroke and 1 bar abs. Inlet pressure	3000 rpm						
Min. speed in continuous operation	500 rpm						
Required drive torque at 100 bar	100 Nm	150 Nm	185 Nm	220 Nm	250 Nm		
Drive power at 250 bar and 2000 rpm	53 kW	80 kW	100 kW	145 kW	125 kW		
Weight	25 Kg	31 Kg	31 Kg	32 Kg	32 Kg		

• Axial version



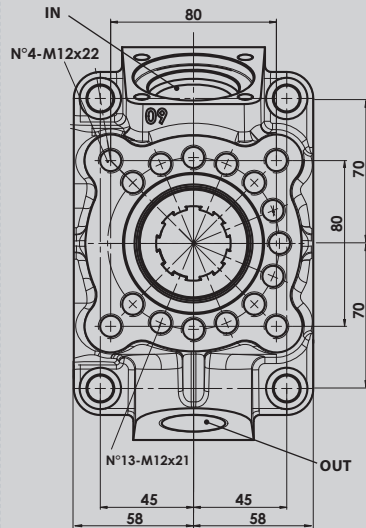
Other versions available:

• Vertical radial version without thru-shaft

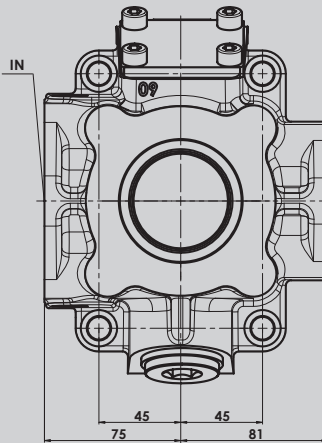


OUT	Pressure	G 1	1 5/16-12 UN-2B
IN	Suction Suction fitting to be ordered separately	$\varnothing 50$ mm	

• Vertical radial version with thru-shaft

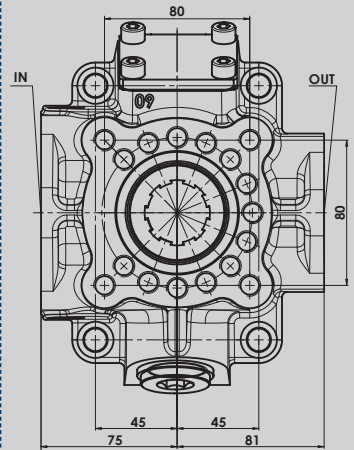


• Horizontal SAE version without thru-shaft



OUT	Pressure	1" SAE 6000	1/2" UN
IN	Suction	2 1/2" SAE 3000	1/2" UN

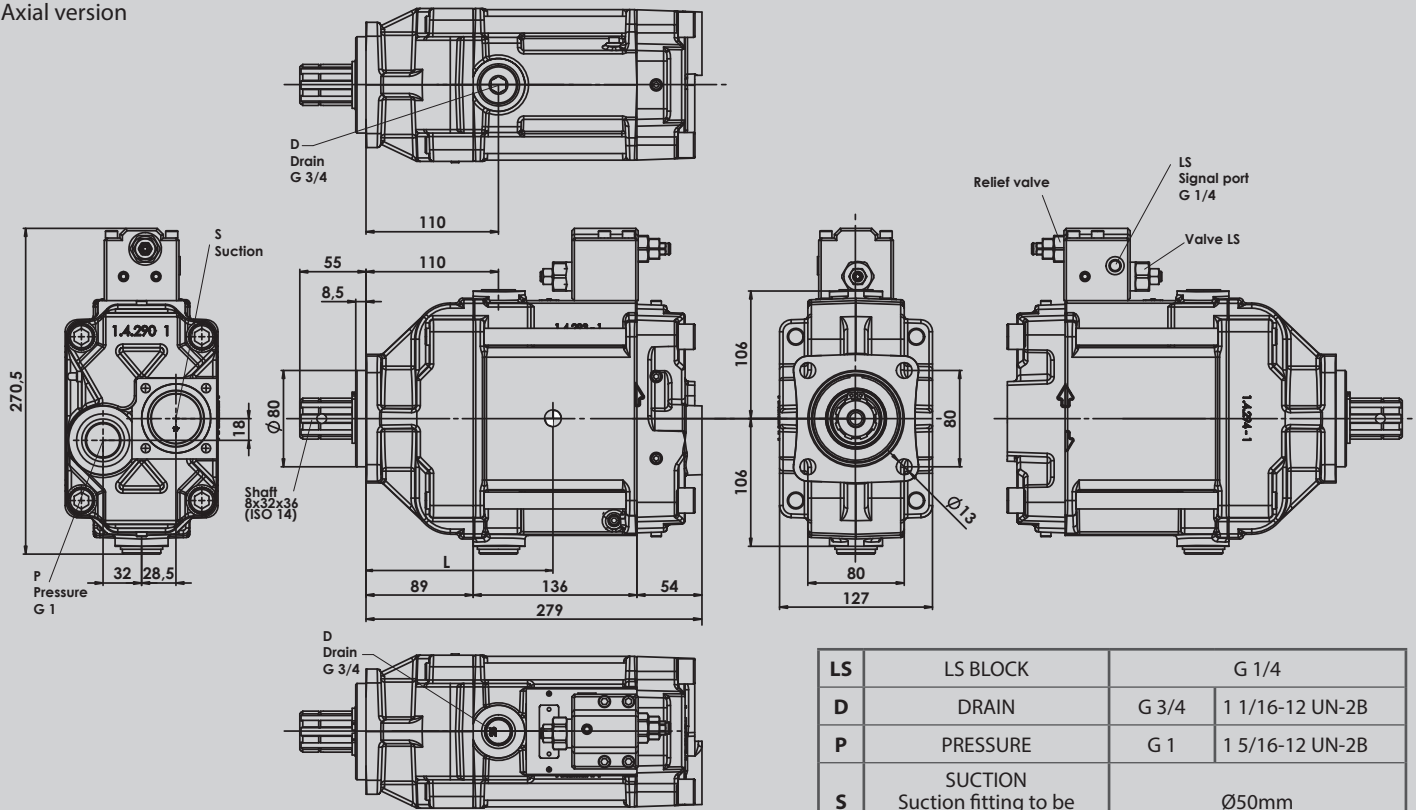
• Horizontal SAE version with thru-shaft



The **ADJUSTABLE** version has an adjusting screw that limits the pump displacement to less than the nominal rating.

PPV 60 SAE C version also available.

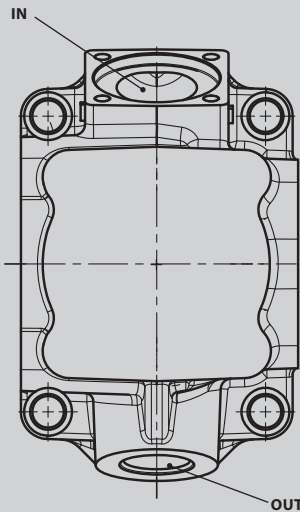
• Axial version



LS	LS BLOCK	G 1/4	
D	DRAIN	G 3/4	1 1/16-12 UN-2B
P	PRESSURE	G 1	1 5/16-12 UN-2B
S	SUCTION Suction fitting to be ordered separately	$\varnothing 50$ mm	
L	CENTER OF MASS	148mm approx	

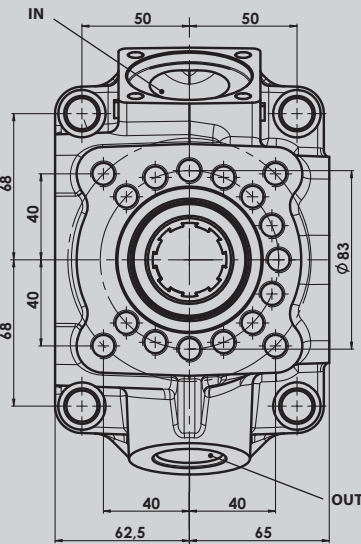
Other versions available:

• Vertical radial version without thru-shaft

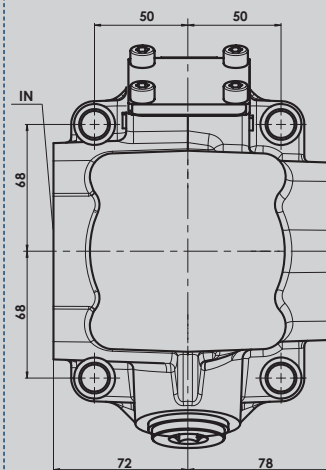


OUT	Pressure	G 1	1 5/16-12 UN-2B
IN	Suction Suction fitting to be ordered separately	$\varnothing 50$ mm	

• Vertical radial version with thru-shaft

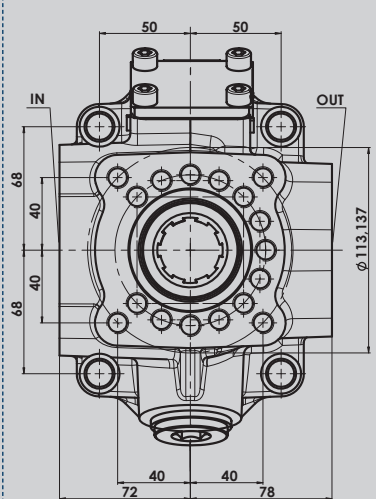


• Horizontal SAE version without thru-shaft



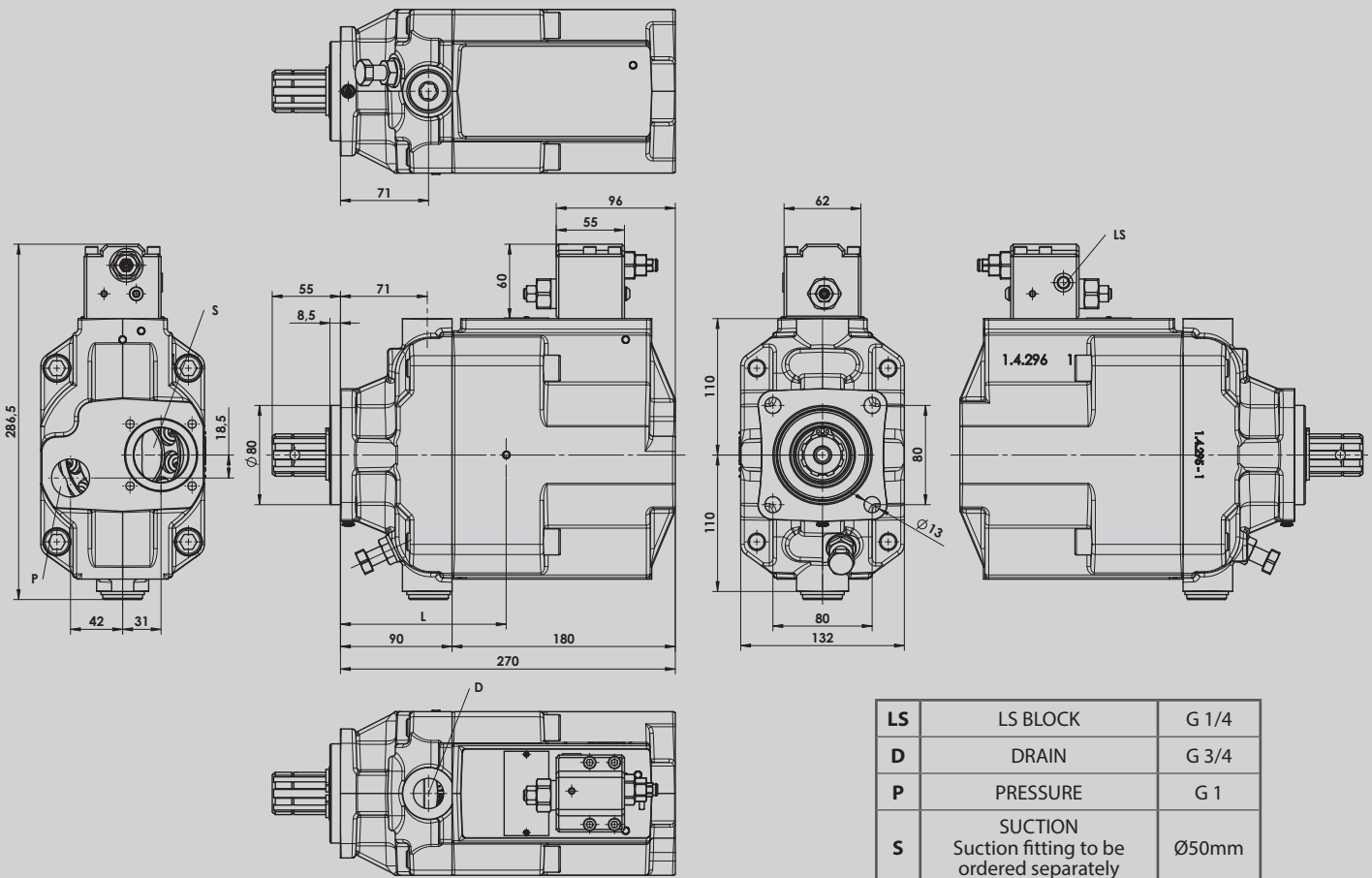
OUT	Pressure	1 1/4" SAE 6000	1/2" UN
IN	Suction	2 1/2" SAE 3000	1/2" UN

• Horizontal SAE version with thru-shaft



The **ADJUSTABLE** version has a rear adjusting screw that limits the pump displacement to less than the nominal rating.

PPV 90-110 SAE C version also available.

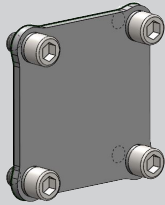


LS	LS BLOCK	G 1/4
D	DRAIN	G 3/4
P	PRESSURE	G 1
S	SUCTION Suction fitting to be ordered separately	$\varnothing 50\text{mm}$
L	CENTER OF MASS	145 mm

TANDEM PPV APPLICATIONS

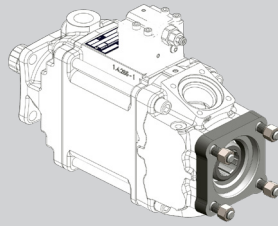
Flange and shaft version (output side)									
Code	PPV60	PPV90	PPV110	PPV130	PPV150	Description	Flange	Shaft	Max. output torque
									T _{OUT} max.
1	1140000839					Only cover	---	---	---
2	1146500066					ISO	DIN ISO 7653	8x32x36 DIN ISO 14	800 Nm
3	11465000100					ISO	DIN ISO 7653	8x32x36 DIN ISO 14	
4	11465010064					SAE A	SAE A 2-holes J744 82-2 DIN ISO 3019-1	SAE A J744 (16-4 DIN ISO 3019-1) 9T 16/32 DP	100 Nm
5	11465010108					SAE A	SAE A 2-holes J744 82-2 DIN ISO 3019-1	SAE A J744 (16-4 DIN ISO 3019-1) 9T 16/32 DP	
6	11465010162					SAE B	SAE B 2-holes J744 101-2 DIN ISO 3019-1	SAE B J744 (22-4 DIN ISO 3019-1) 13T 16/32 DP	210 Nm
							SAE B 4-holes J744 101-4 DIN ISO 3019-1		
7	11465010206					SAE B	SAE B 2-holes J744 101-2 DIN ISO 3019-1	SAE B J744 (22-4 DIN ISO 3019-1) 13T 16/32 DP	XXX
							SAE B 4-holes J744 101-4 DIN ISO 3019-1		
8	11465010224					SAE B	SAE B 2-holes J744 101-2 DIN ISO 3019-1	SAE B J744 (22-4 DIN ISO 3019-1) 13T 16/32 DP	XXX
							SAE B 4-holes J744 101-4 DIN ISO 3019-1		
9	11465010304					SAE BB	SAE B 2-holes J744 101-2 DIN ISO 3019-1	SAE BB J744 (25-4 DIN ISO 3019-1) 15T 16/32 DP	400 Nm
							SAE B 4-holes J744 101-4 DIN ISO 3019-1		
10	11465010322					SAE BB	SAE B 2-holes J744 101-2 DIN ISO 3019-1	SAE BB J744 (25-4 DIN ISO 3019-1) 15T 16/32 DP	XXX
							SAE B 4-holes J744 101-4 DIN ISO 3019-1		
11	11465010402					SAE C	SAE C 2-holes J 744 127-2 DIN ISO 3019-1	SAE C J744 (32-4 DIN ISO 3019-1) 14T 12/24 DP	640 Nm
							SAE C 4-holes J 744 127-4 DIN ISO 3019-1		
12	11465030104					European	GR.3 "EUROPEAN"	35x31 DIN 5482	240 Nm

1



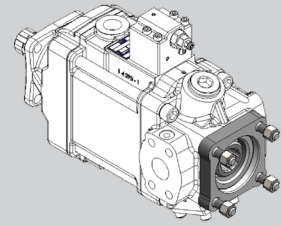
1140000839
Cover

2



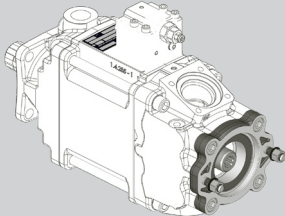
1146500066
PPV60 TANDEM
ISO 7653 PUMP ADAPTOR

3



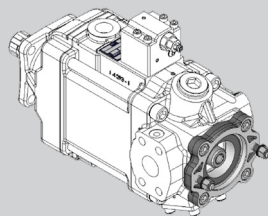
11465000100
PPV TANDEM MEDIUM SIZE
ISO 7653 PUMP ADAPTOR

4



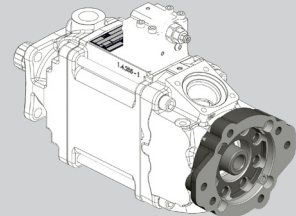
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PPV60 TANDEM
SAE A Z9 PUMP ADAPTOR

5



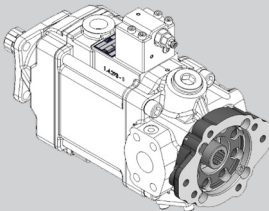
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PPV TANDEM MEDIUM SIZE
SAE A Z9 PUMP ADAPTOR

6



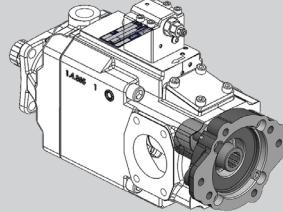
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PPV60 TANDEM
SAE B Z13 PUMP ADAPTOR

7



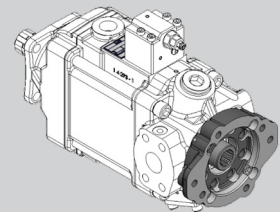
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PPV TANDEM MEDIUM / SAE B Z13 PUMP ADAPTOR

8



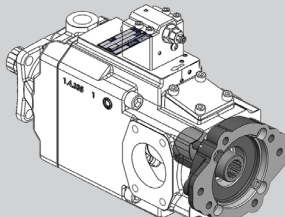
11465010224
PPV 130-150 TANDEM / SAE B Z13 PUMP ADAPTOR

9



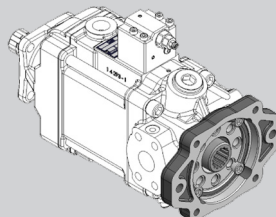
11465010304
PPV TANDEM MEDIUM / SAE BB Z15 PUMP ADAPTOR

10



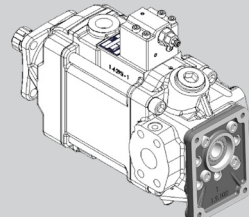
11465010322
PPV 130-150 TANDEM
SAE BB Z15 PUMP ADAPTOR

11



11465010402
PPV TANDEM MEDIUM SIZE
SAE C Z14 PUMP ADAPTOR

12

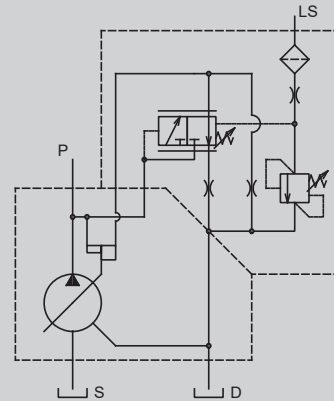
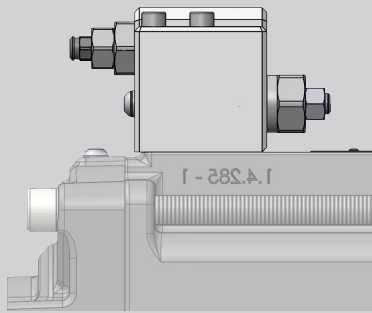
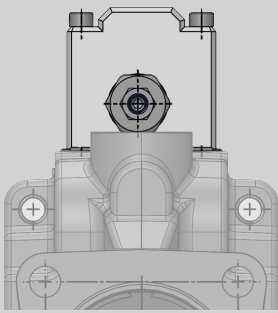


11465030104
PPV TANDEM MEDIUM SIZE
GR.3 EUROPEAN

CONTROLS

Load Sensing regulator (LS)

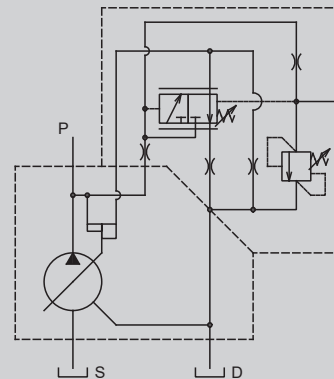
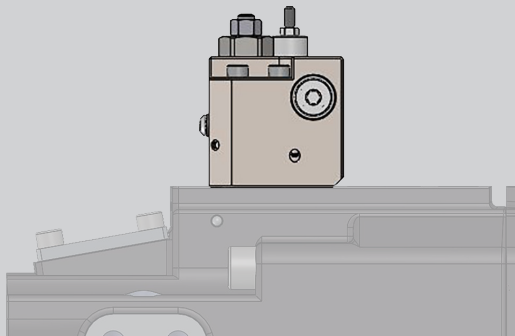
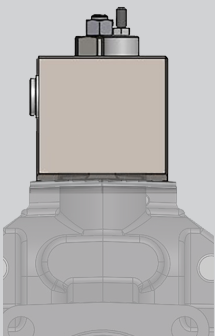
Adjust the pump displacement to maintain a constant pressure difference (independent of the load) through a constriction.



N.B. also available version with "bleed" function for systems without LS signal depressurization.

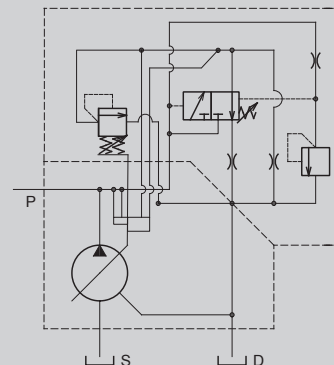
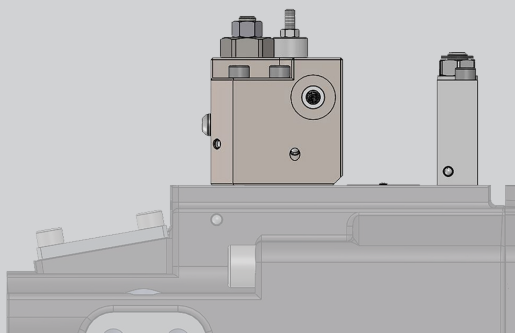
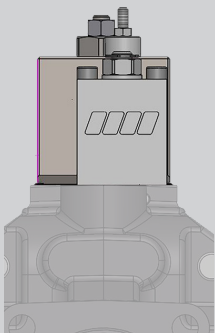
Pressure compensator (PI)

Pressure compensator with adjustable pressure directly on the pump.
The pressure compensator adjusts the pump's displacement automatically in order to keep the constant pressure within the system no matter the different flow requirements.



Constant power (PW)

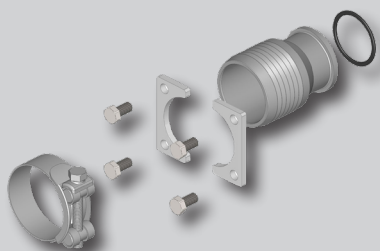
The regulator keeps the power/torque absorption constant as the pressure changes, controlling the displacement of the pump.



N.B. also available for load sensing systems.

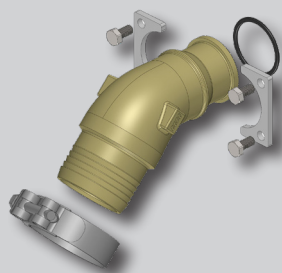
ACCESSORIES - Suction fittings

Straight fittings



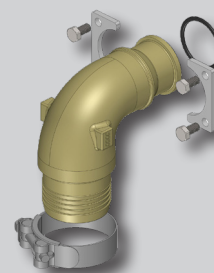
Code	D	DE
	mm	mm
15511200507	50	60-63
15511200516		64-67
15511200605	60	68-73
15511200632	63	74-79
15511200767	76	86-91

Fittings 45°



Code	D	DE
	mm	mm
15511245504	50	60-63
15511245513		64-67
15511245602	60	68-73
15511245639	63	74-79
15511245764	76	86-91

Fittings 90°

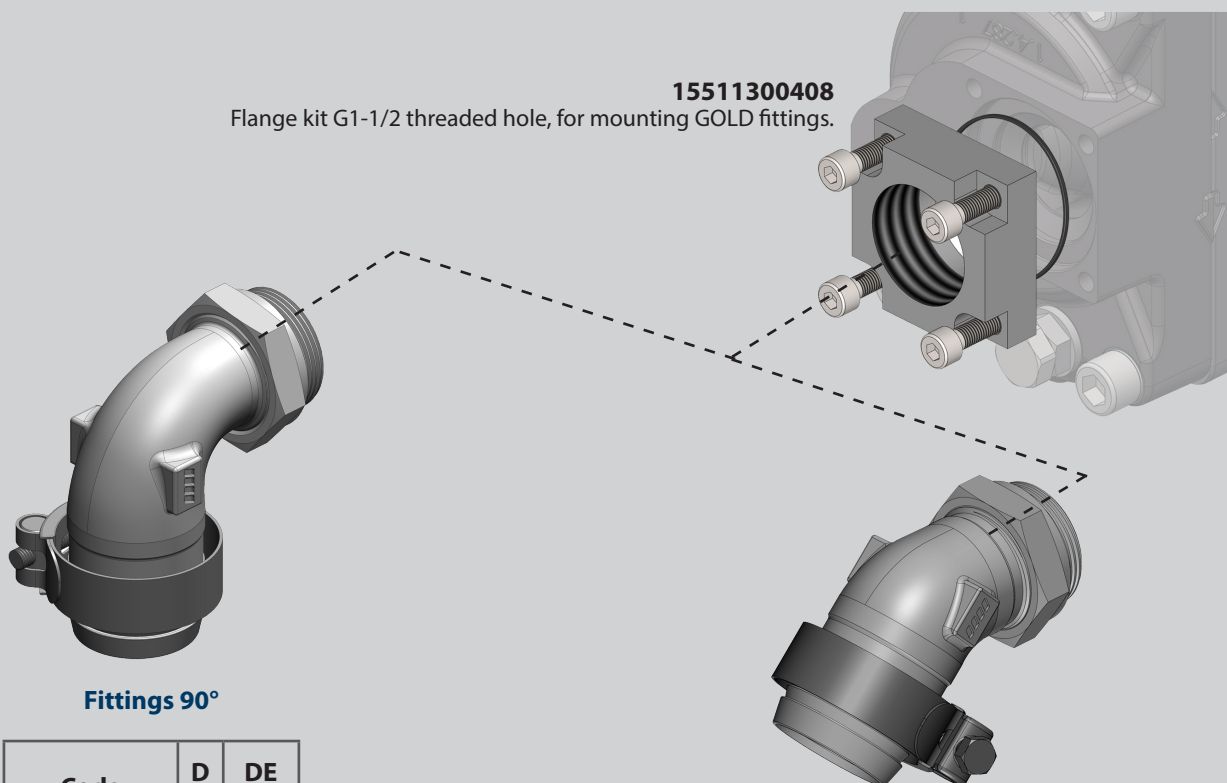


Code	D	DE
	mm	mm
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15511290518		64-67
15511290607	60	68-73
15511290634	63	74-79
15511290769	76	86-91

Flange kit for mounting GOLD fittings

15511300408

Flange kit G1-1/2 threaded hole, for mounting GOLD fittings.



Fittings 90°

Code	D	DE
	mm	mm
15510000592	50	60-63
15510000609		64-67
15510000654	60	68-73

Fittings 45°

Code	D	DE
	mm	mm
15509000540	50	60-63
15509000559		64-67
15509000611	60	68-73

