



## Catálogo de Productos



Hal Automation Ltda	<b>HDF1 – Axial Piston Pump</b>			
	Size 25 - 63	Up to 38.0 MPa	Up to 63 L/min	

### Features:

- Low noise level.
- High pressure limit
- Cast iron shrinkage
- Materials with high mechanical resistance
- Reinforced seal
- 25 to 63 cm<sup>3</sup> / rev (0.73 to 7.92 in<sup>3</sup> / rev)
- Rated working pressure up to 38 MPa (5511 PSI)
- Intermittent pressure up to 42 MPa (6092 PSI)
- Maximum 2750 RPM
- Long service life.




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### Functional, section, symbol

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The compact size of HDF1 pumps, coupled with their technology, means that can be installed in environments with little available space and be used at relative speeds of rotation. Pump automatically adjusts the required direction of rotation and easy installation. Mount the suction line in the required position, depending on the direction of rotation of the PTO, and the pump will adjust accordingly.

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### Deflector for Protection of the Shaft Seal

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This deflector ensures the protection of the shaft retainers pump drive. In particular, it protects the road dust projection pump when mounted on cardan shafts.

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### By-Pass Valve

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The by-pass valve is a 12- or 24-volt solenoid valve.

When deactivated, the pump connects the pressure discharge to the suction line. When activated, the pump directs the discharge to the pressure line. If the control valve limits the return of fluid to the tank, to less than 5 Lpm or the setting of the distributor is “closed center”, a drain line must be installed between the bypass valve and the tank to ensure sufficient fluid circulation to prevent the pump from overheating.

For applications where the pump is continuously driven by the PTO (PTO without disengagement) use a bypass valve, mounted on the rear of the pump. This solution allows the pump to be continuously activated:

- Without the risk of fluid overheating.
- Without affecting pump life.
- No necessary modifications to the circuit hydraulic equipment



### ATTENTION!

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In case that difference of temperature of the hydraulic oil is more than 20°C during a start the pump, it is recommended to start the pump by short pulses (switch on approx. 1 sec. and switch off approx. 5 sec.) to prevent of seizure. In the case that hydraulic oil is heated by meaning of heater it is necessary to switch on the pump in the same time.

<b>HD</b>	<b>F1</b>					<b>*</b>
01	02	03	04	05	06	07

01	<b>HD</b> - Technology of Beijing Huade Hydraulic
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02	<b>F1</b> - One-flow pump without variable geometrical displacement
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<b>Nominal Size</b>	
03	<b>25</b> - Nominal size 25 – 25 cm <sup>3</sup> /rev
	<b>32</b> - Nominal size 32 – 32 cm <sup>3</sup> /rev
	<b>45</b> - Nominal size 45 – 45 cm <sup>3</sup> /rev
	<b>56</b> - Nominal size 56 – 56 cm <sup>3</sup> /rev
	<b>63</b> - Nominal size 63 – 63 cm <sup>3</sup> /rev

<b>Rotation Direction</b>	
04	<b>D</b> – Model with double shaft

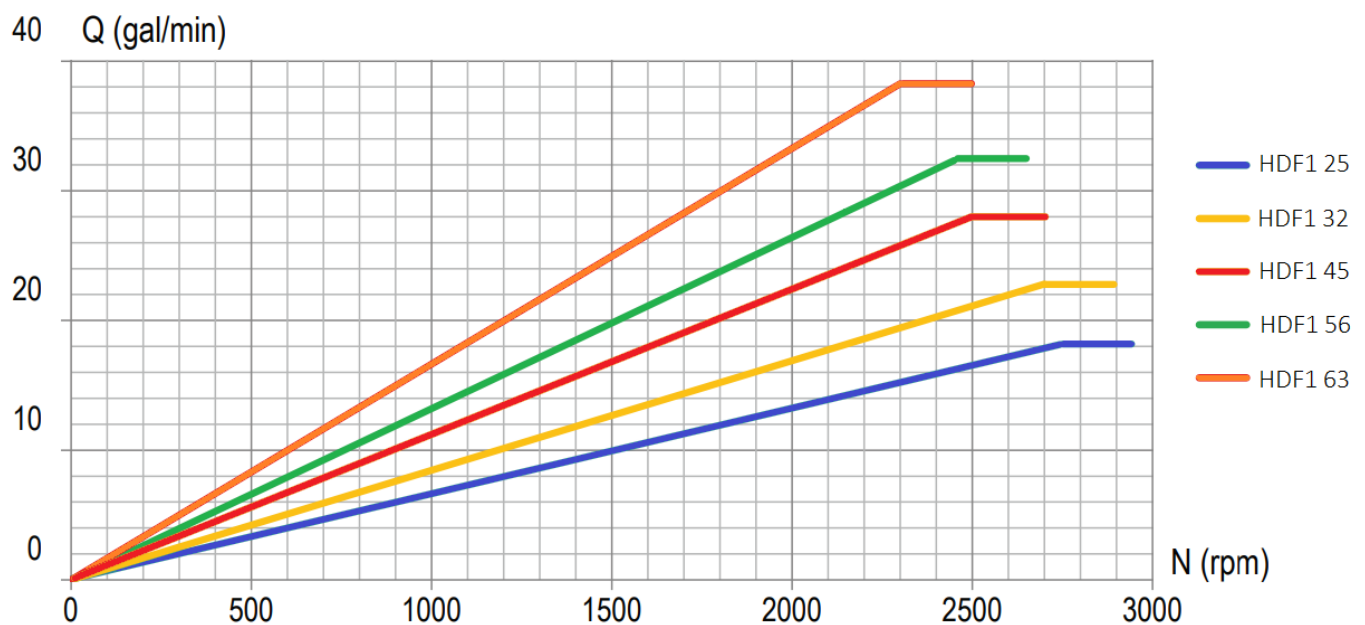
<b>Curve 45°</b>	
05	<b>W</b> – With curve 45°
	<b>Z</b> – Without curve 45°

<b>Valve By-Pass</b>	
06	<b>R</b> – With Valve
	<b>S</b> – Without Valve

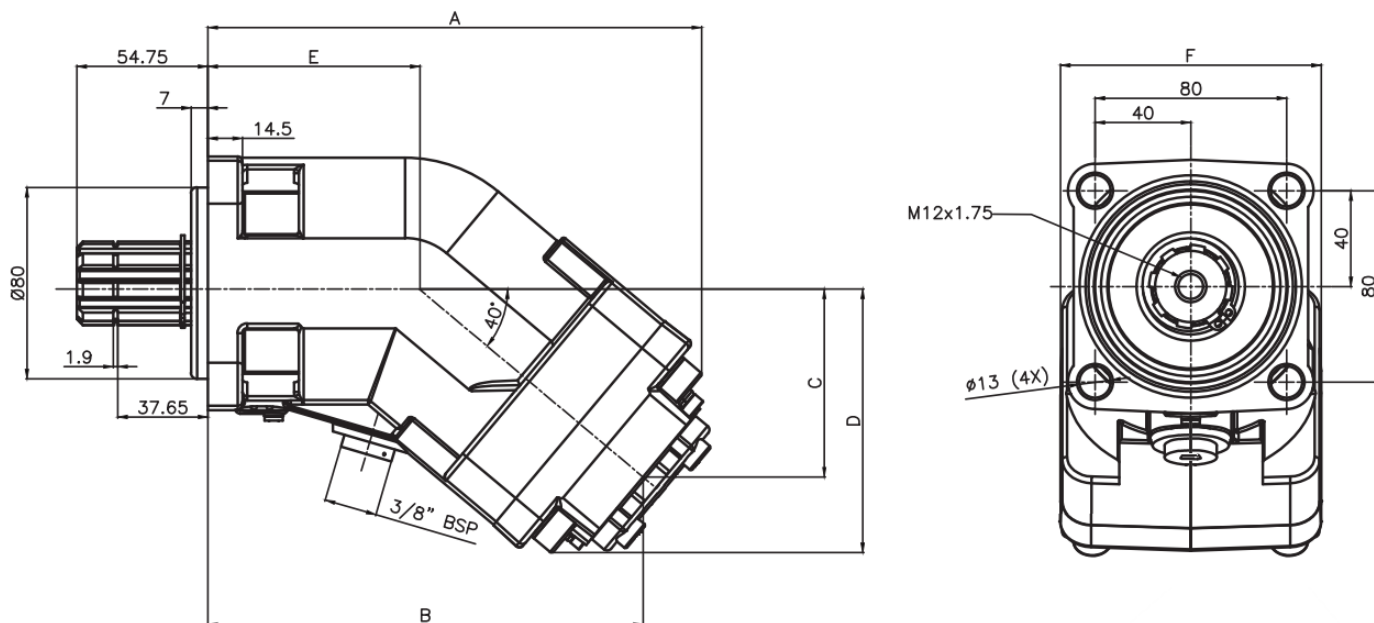
07	Additional requirements in clear text (to be agreed with the manufacturer)
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Technical Data	Symbol	Units	Nominal Sizes				
			25	32	45	56	63
Nominal displacement	Vg	cm <sup>3</sup> /rev	25	32	45	56	63
Nominal output flow at n maximum rpm	Qn	L/min	68.75	86.4	112.5	134.4	144.9
Maximum RPM	n	Min <sup>-1</sup>	2750	2700	2500	2400	2300
Pressure range	p	bar	380				
Hydraulic medium			Mineral oils HLP DIN 51 524 part				
Temperature range		°C	-10 up to +70				
Fluid filtration			25 absolute (β20 ≥ 100) We recommend 10 μm in order to achieve long working life, with heavy loading, high duty and low viscosity				
Weight	m	kg	12.9	14.70	14.70	14.80	14.85

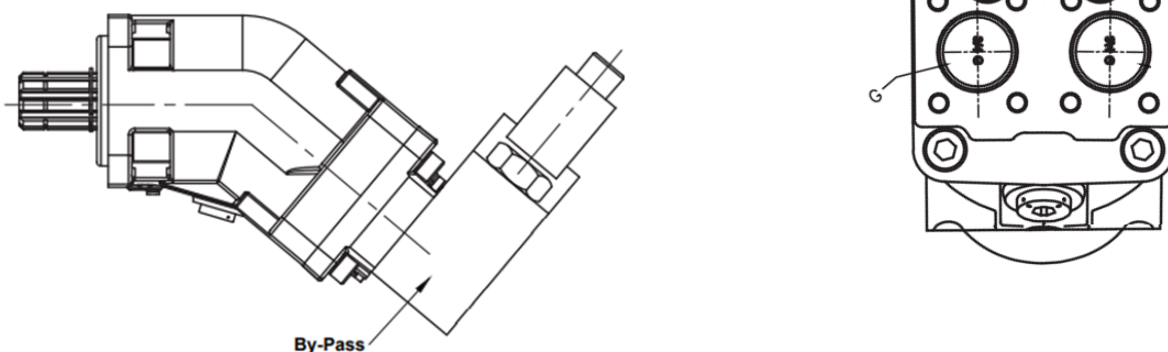
## PERFORMANCE CURVES FLOW x RPM



# INSTALLATION DIMENSIONS

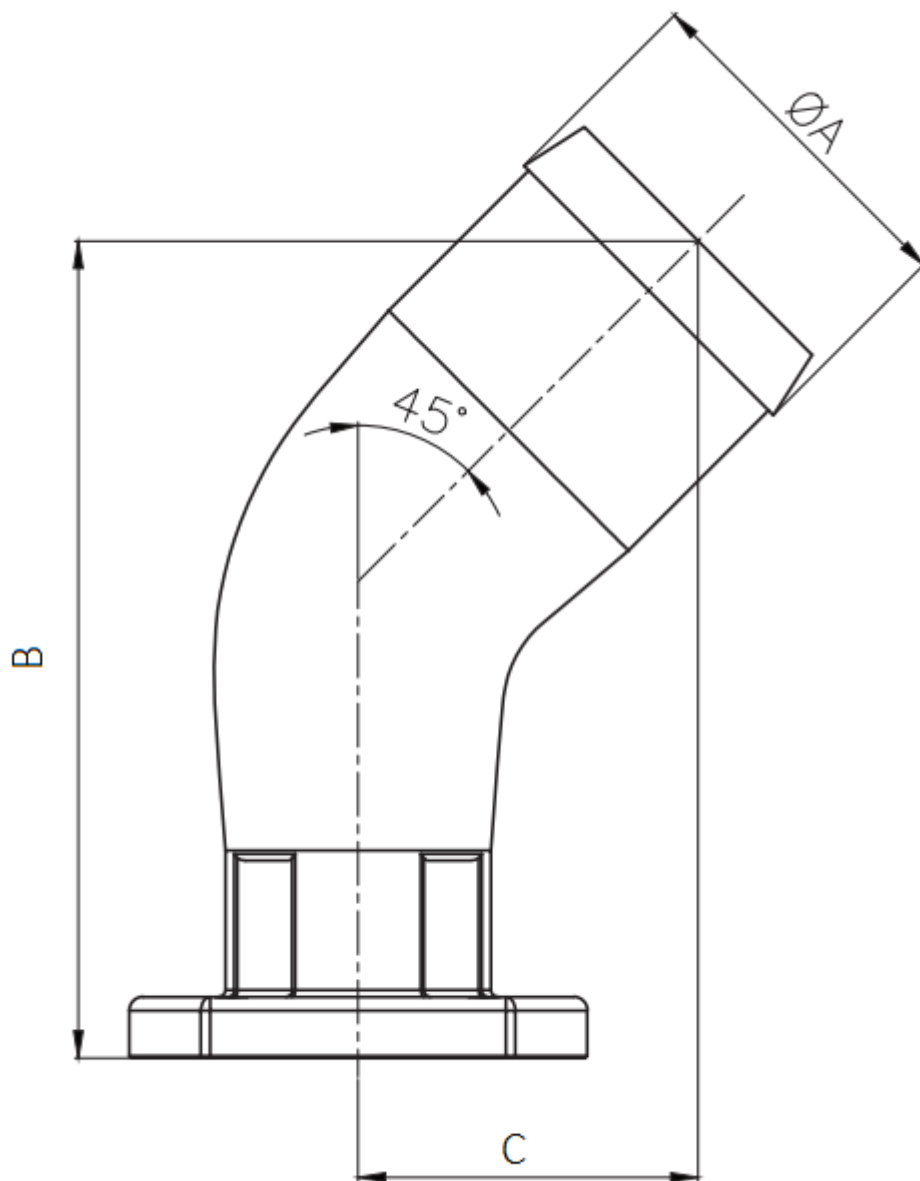


## INSTALLATION – BY PASS



	A	B	C	D	E	F	G	H
HDF1 25	205.5	182	81	112	82.5	107.5	G 3/4"	54
HDF1 32	206.5	182	81	112	82.5	107.5	G 3/4"	54
HDF1 45	211.8	188	86	117	82.5	107.5	G 3/4"	54
HDF1 56	221.5	197	93.5	125.0	82.5	107.5	G 3/4"	54
HDF1 63	211.5	197	93.5	125	82.5	107.5	G 3/4"	54

## INSTALLATION DIMENSIONS – CURVE 45°



Ø Pipe	A	B	C
2"	51.8	108.4	54.4

# ANNOTATIONS :

## **HUADE AMÉRICA**

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