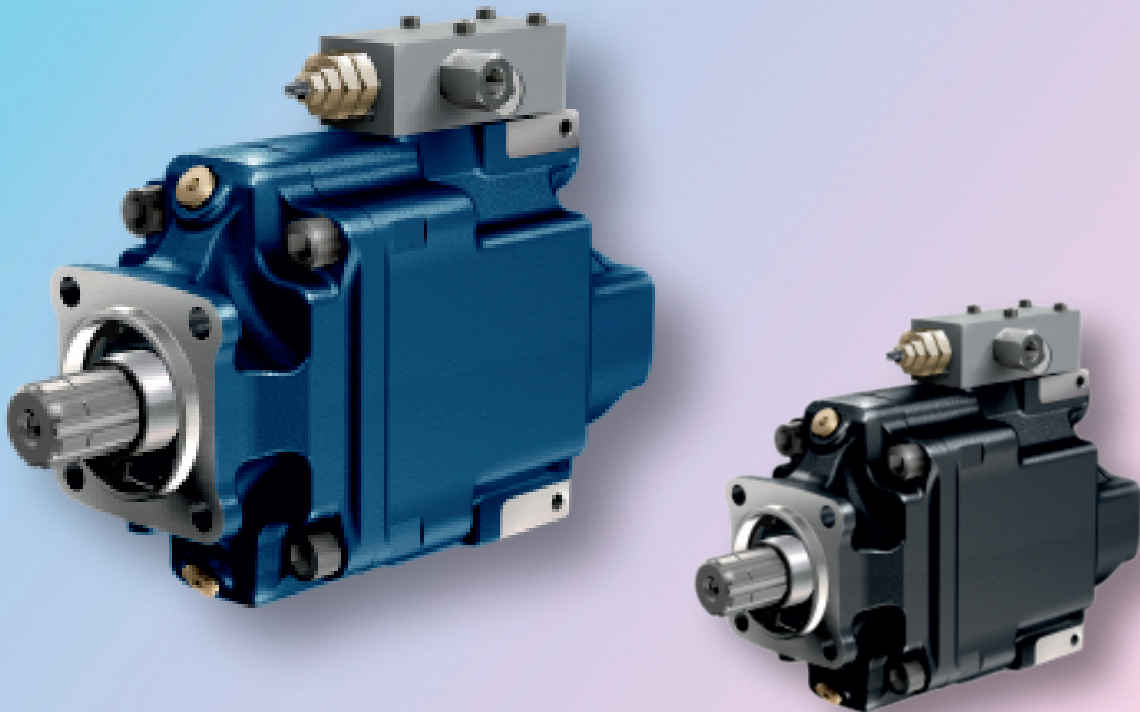


AXVI (Bi-Directional) Variable Piston Pumps -2022-

New Development Variable Displacement Piston Pumps, High Pressure Pumps,
380/420 BAR Working Pressure. High Rotational Speed, High Efficiency,
Slim Design, Cast Iron Pump Body, Re-Designed in 2022.

Designation;

40cc, 60cc, 75cc, 92cc, 120cc, 130cc, 150cc

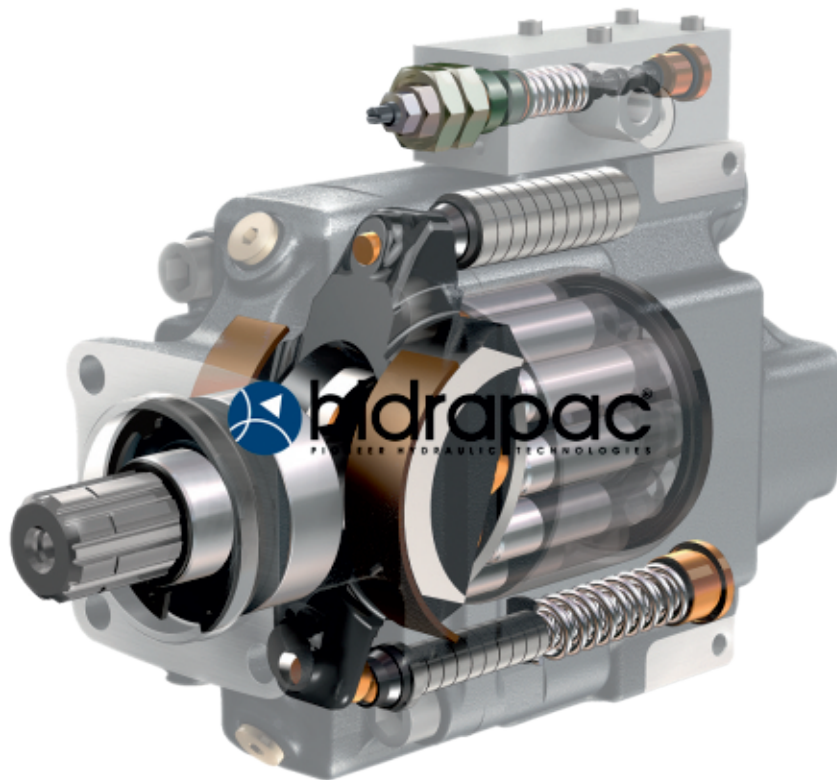


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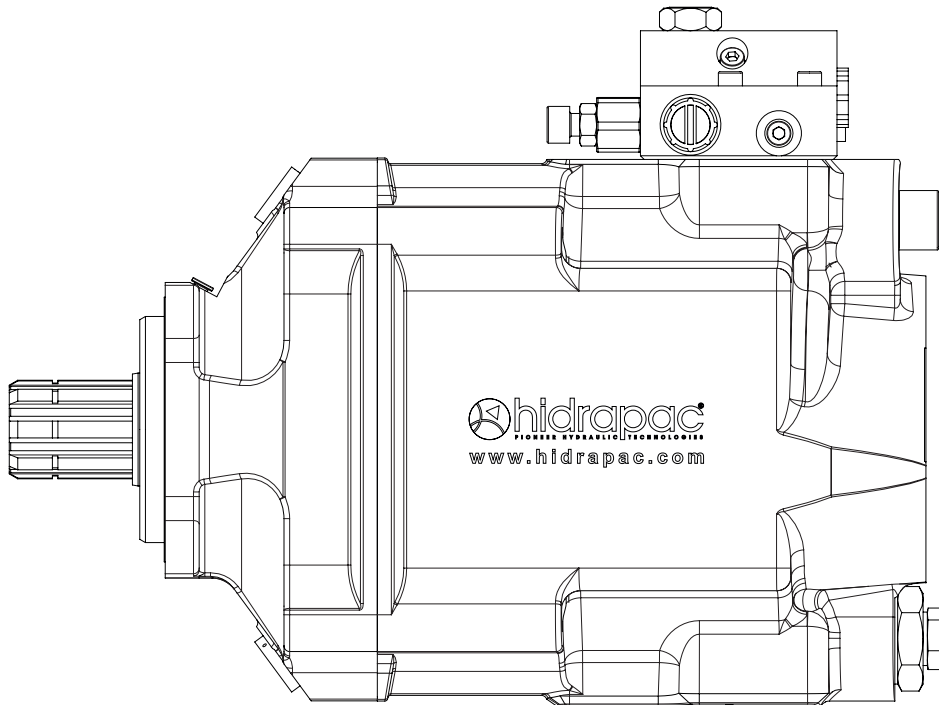
Characteristics of the AXVI Variable Dsplcmnt Piston Pumps

Pump MODEL	DISPL. (cc)	MAX. OPERATING PRESSURE (bar)	MAX. PEAK PRESSURE INTERMITTNT (bar)	TORQUE AT 300 BAR (N.m)	MAX.SPEED AT FULL DISPLACMNT (rpm)	MAX. SPEED IN STAND BY (rpm)	WEIGHT (kg)	OVERHANG TORQUE (N.m)
AXVI 40 (CW/CCW)	40	400	420	225	3000	3000	26	34
AXVI 60 (CW/CCW)	60	400	420	335	2600	3000	26	34
AXVI 75 (CW/CCW)	75	400	420	420	2000	3000	26	34
AXVI 92 (CW/CCW)	92	400	420	515	1900	3000	26	34
AXVI 120 (CW/CCW)	120	380	400	675	2100	3000	26	34
AXVI 130 (CW/CCW)	130	380	400	730	2100	3000	28	38
AXVI 150 (CW/CCW)	150	380	400	840	2000	3000	28	38

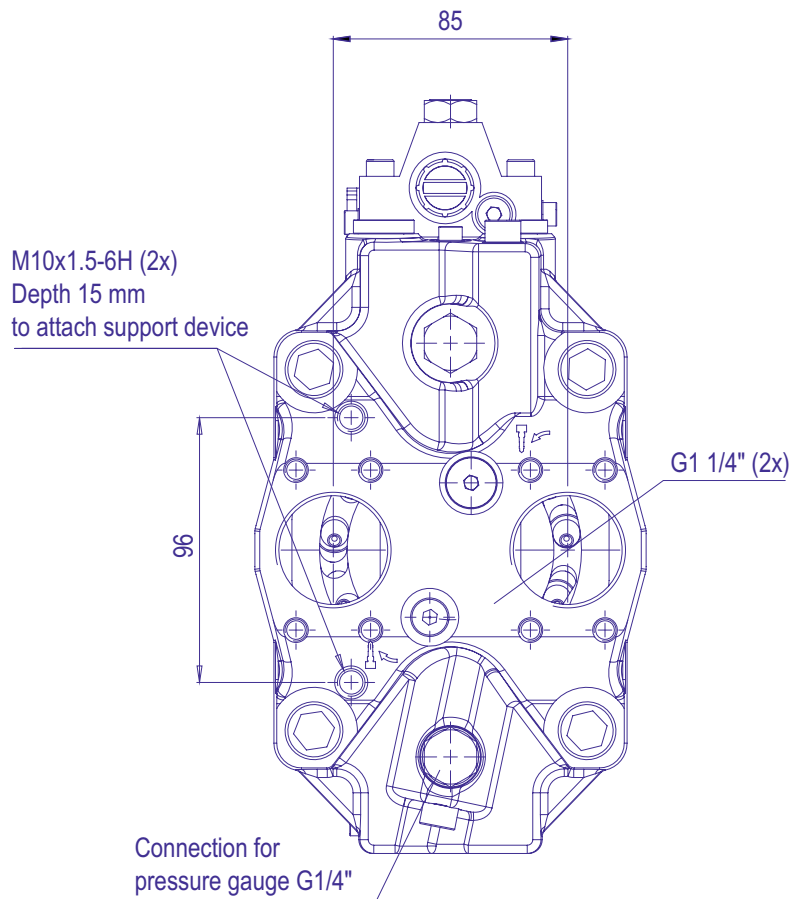
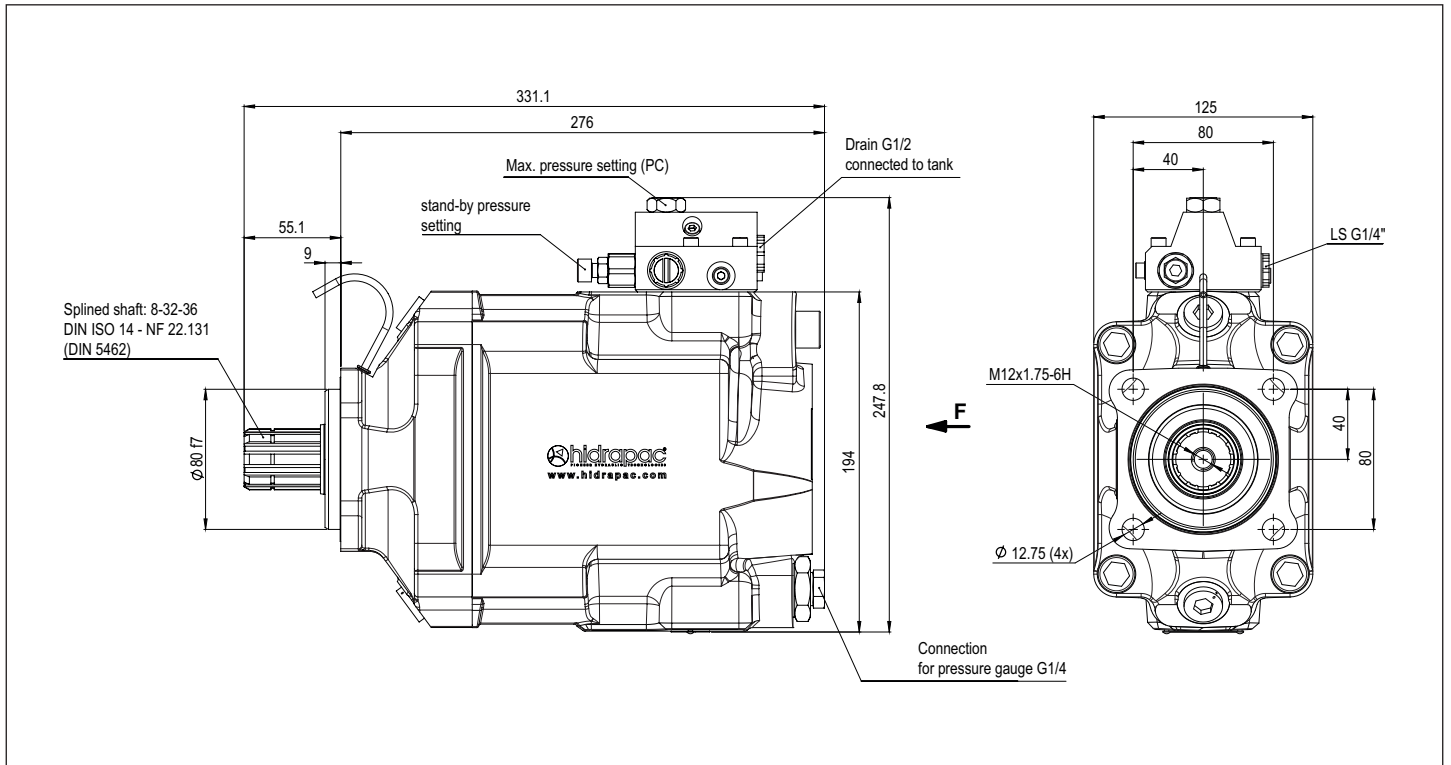


Ordering Code; AXVI Variable Dsplcmnt Piston Pumps

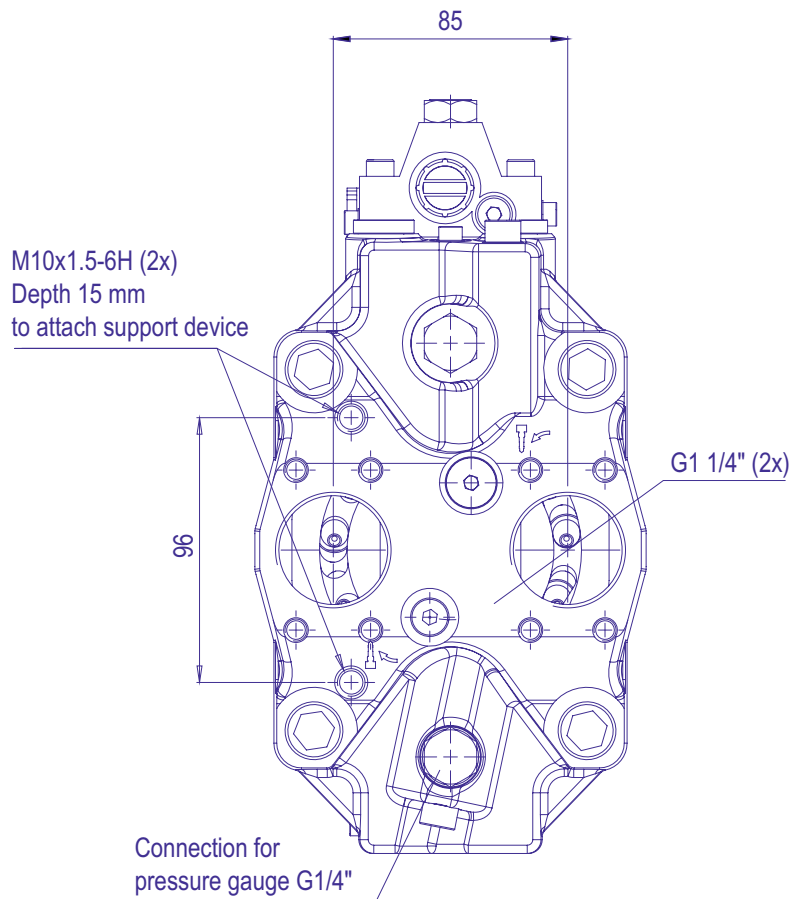
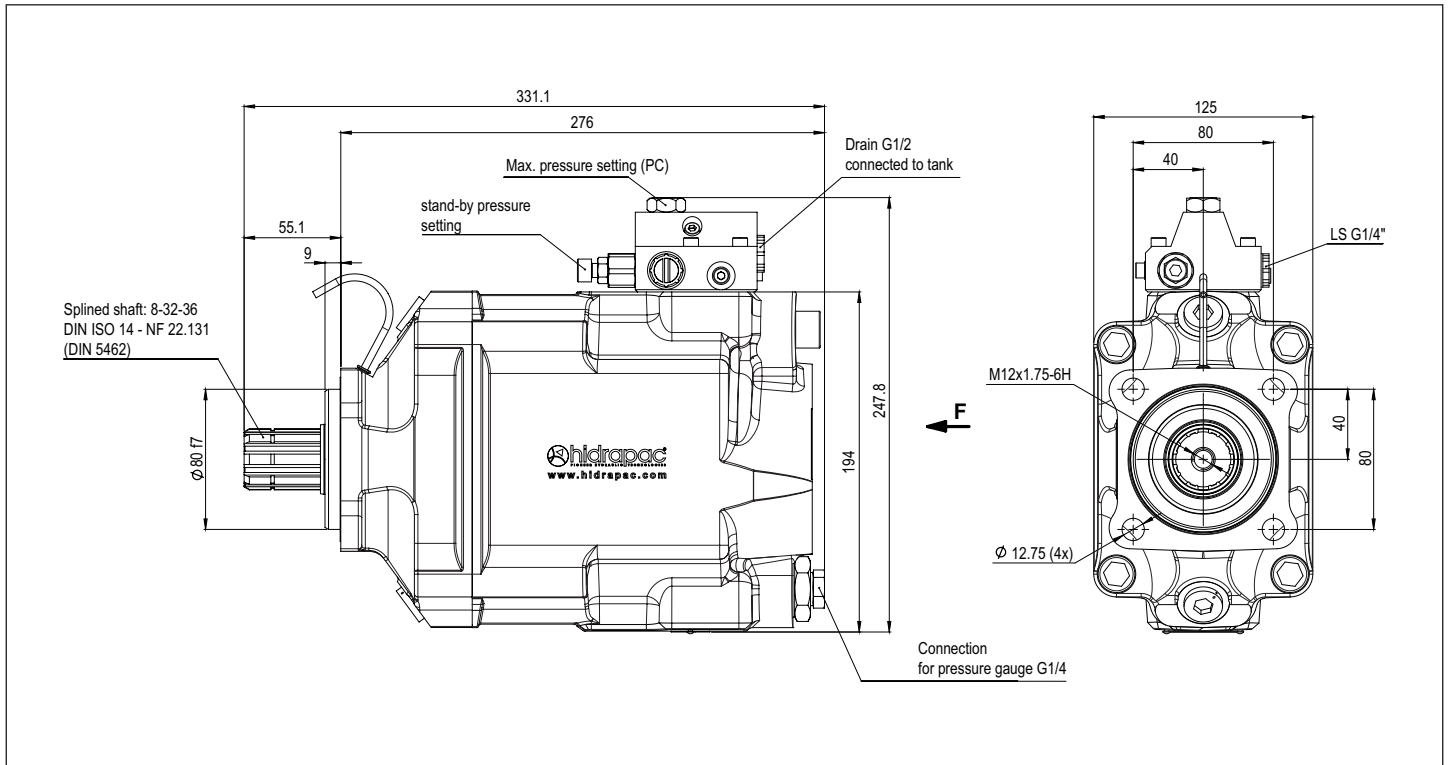
Model Code	Displacement	Shaft Type	Flange Type	Rotation	Sealing
AXVI	92	S	H4	CW	V
AXVI Variable Displcmnt Hydraulic Piston Pump DIN Flge	40	S Splined Shaft (default) 8x32x36 DIN ISO 14NF	H4 ISO 7653 Ø80 4 Bolt Flange	CW RIGHT Direction of Rotation	V Viton High Pressure Seal
	60				
	75				
	92				
	120				
	130				
150	K	K Parallel Keyed Shaft (special) DIN 6885	CCW LEFT Direction of Rotation	N Nitrile Seal 5/10 Bar	



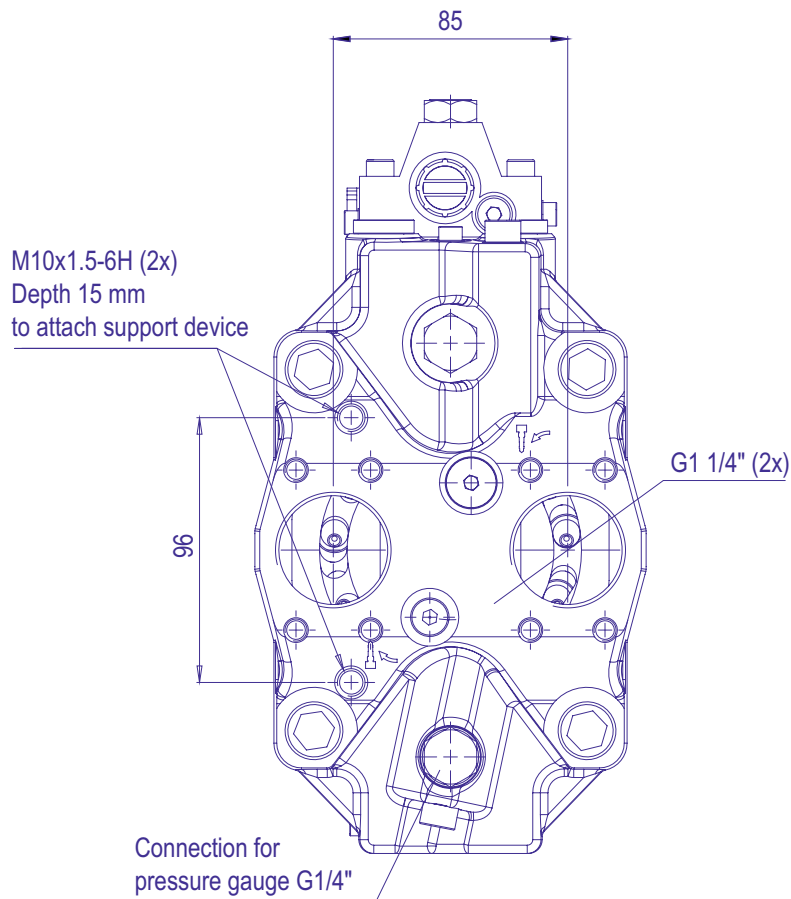
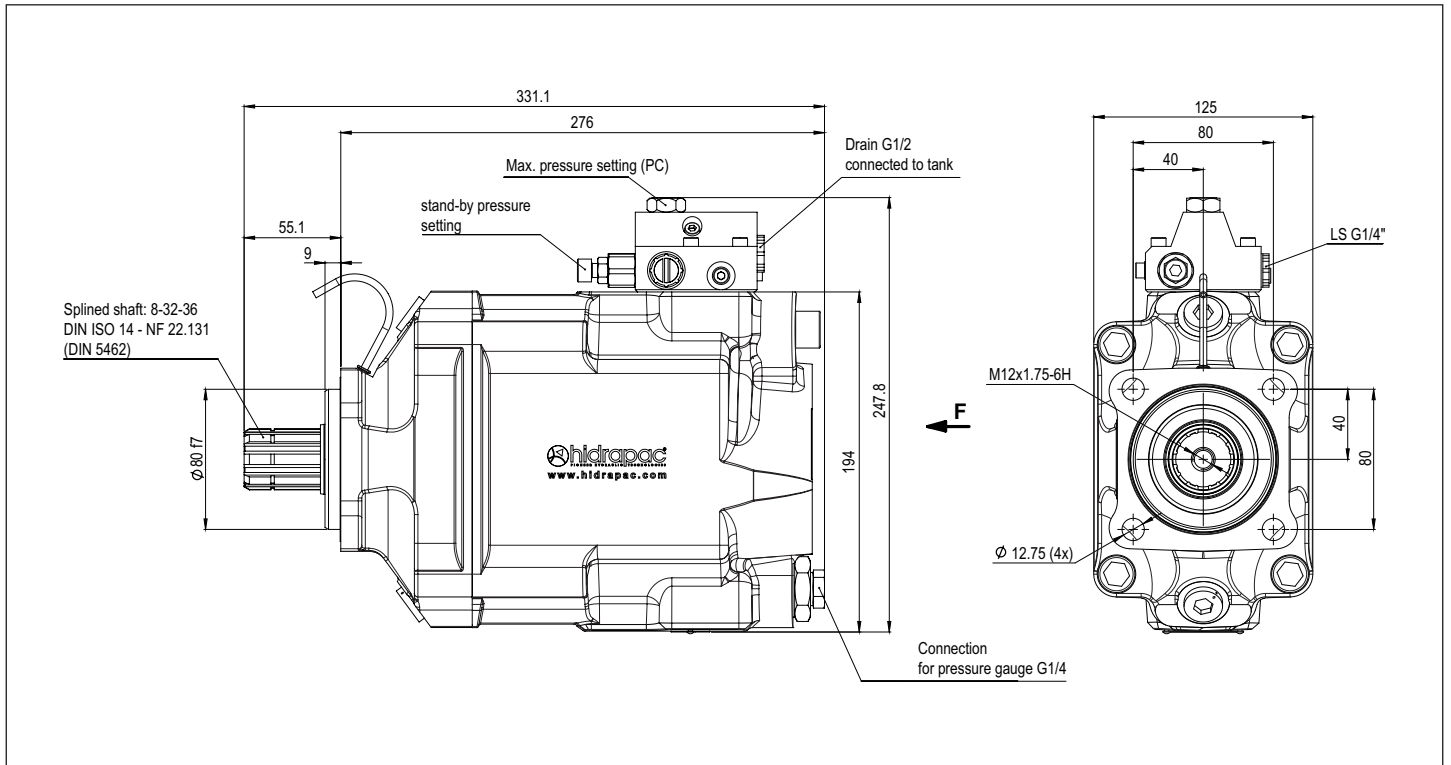
AXVI - 40 cc Variable Piston Pump



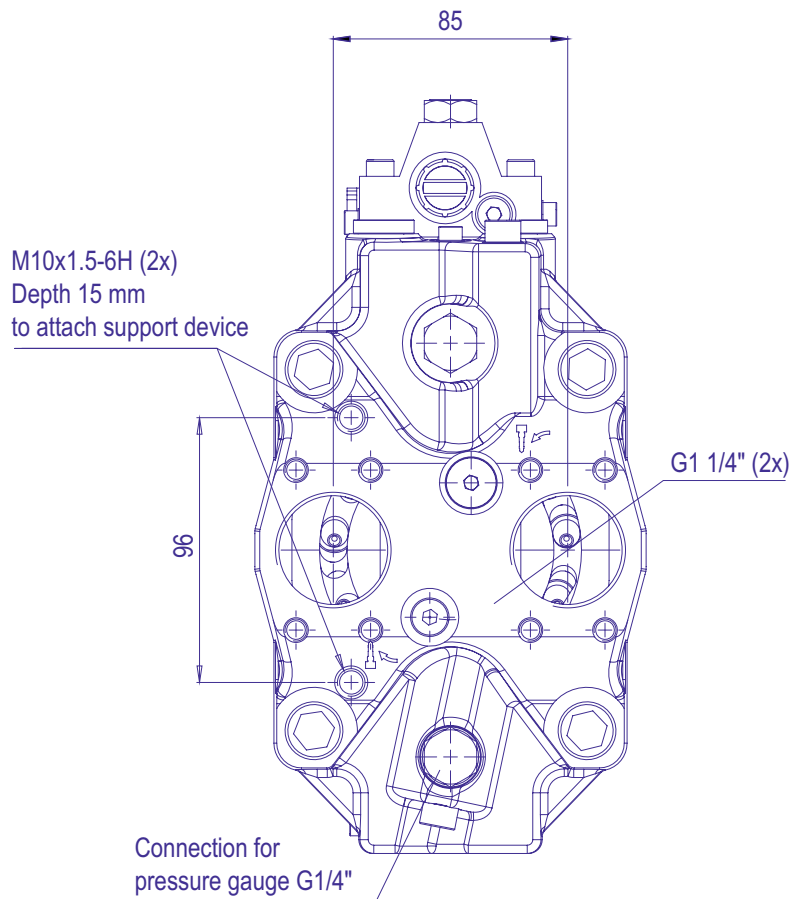
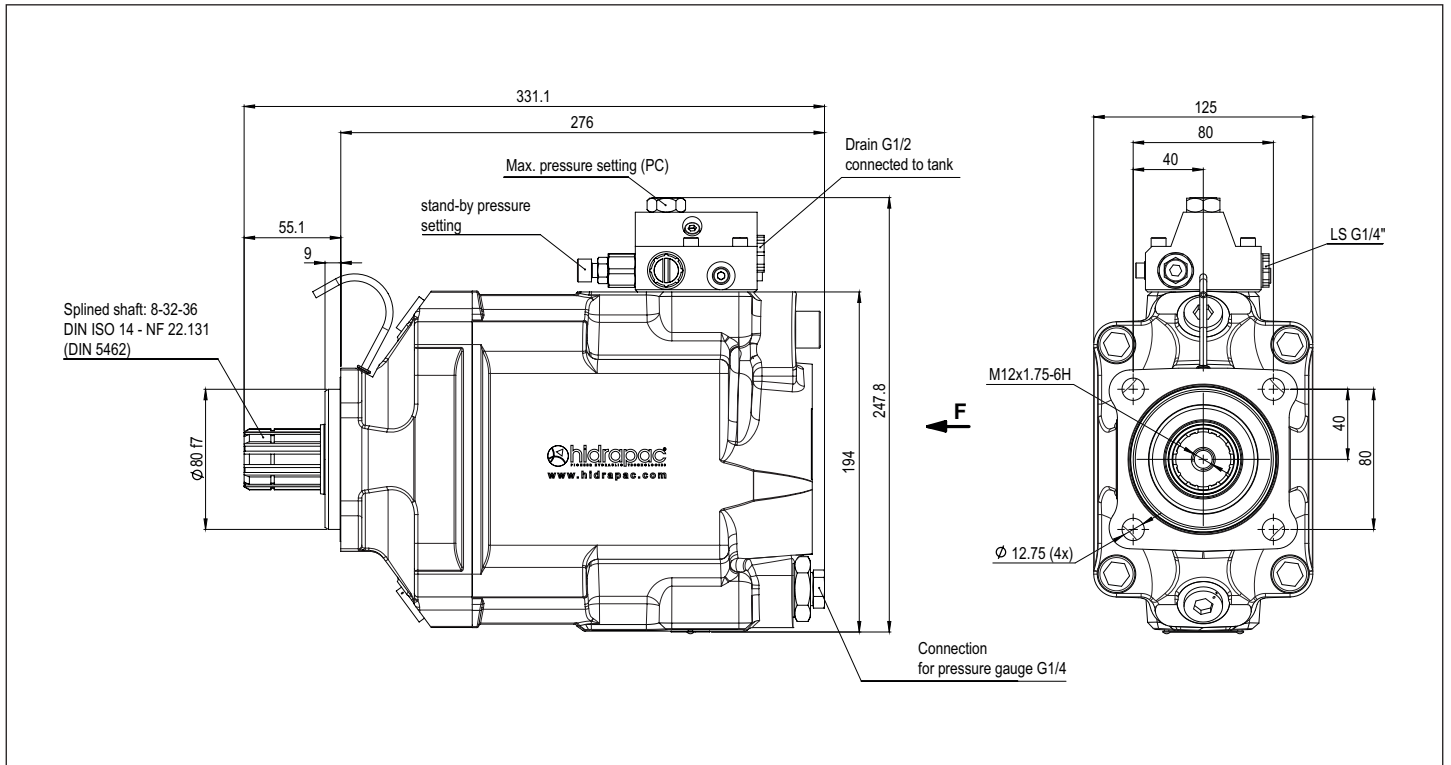
AXVI - 60 cc Variable Piston Pump



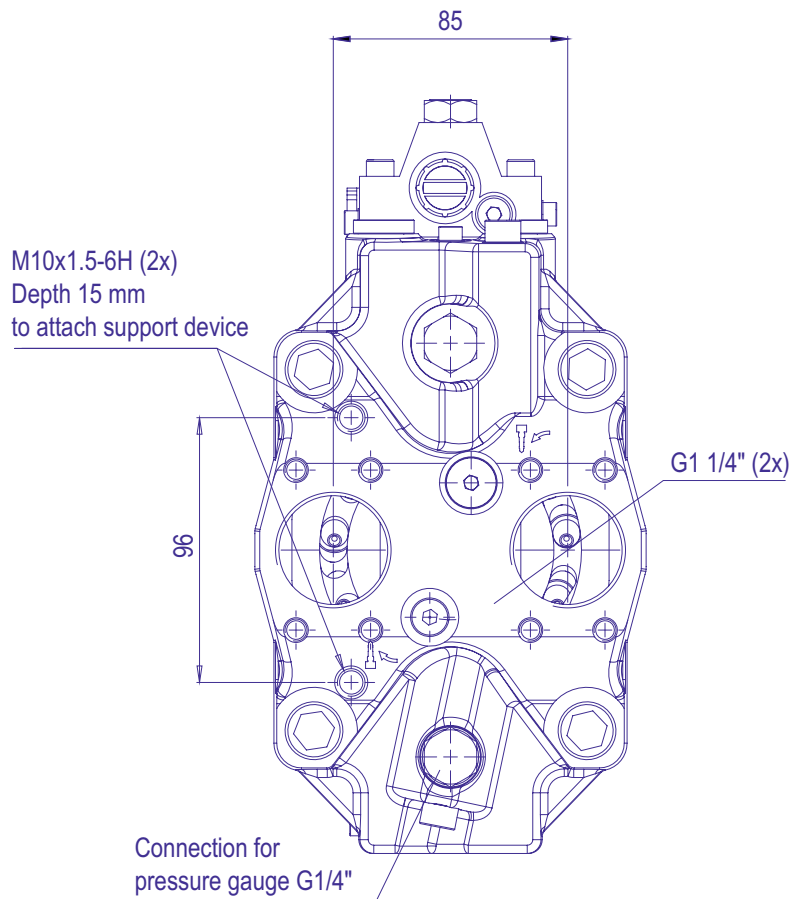
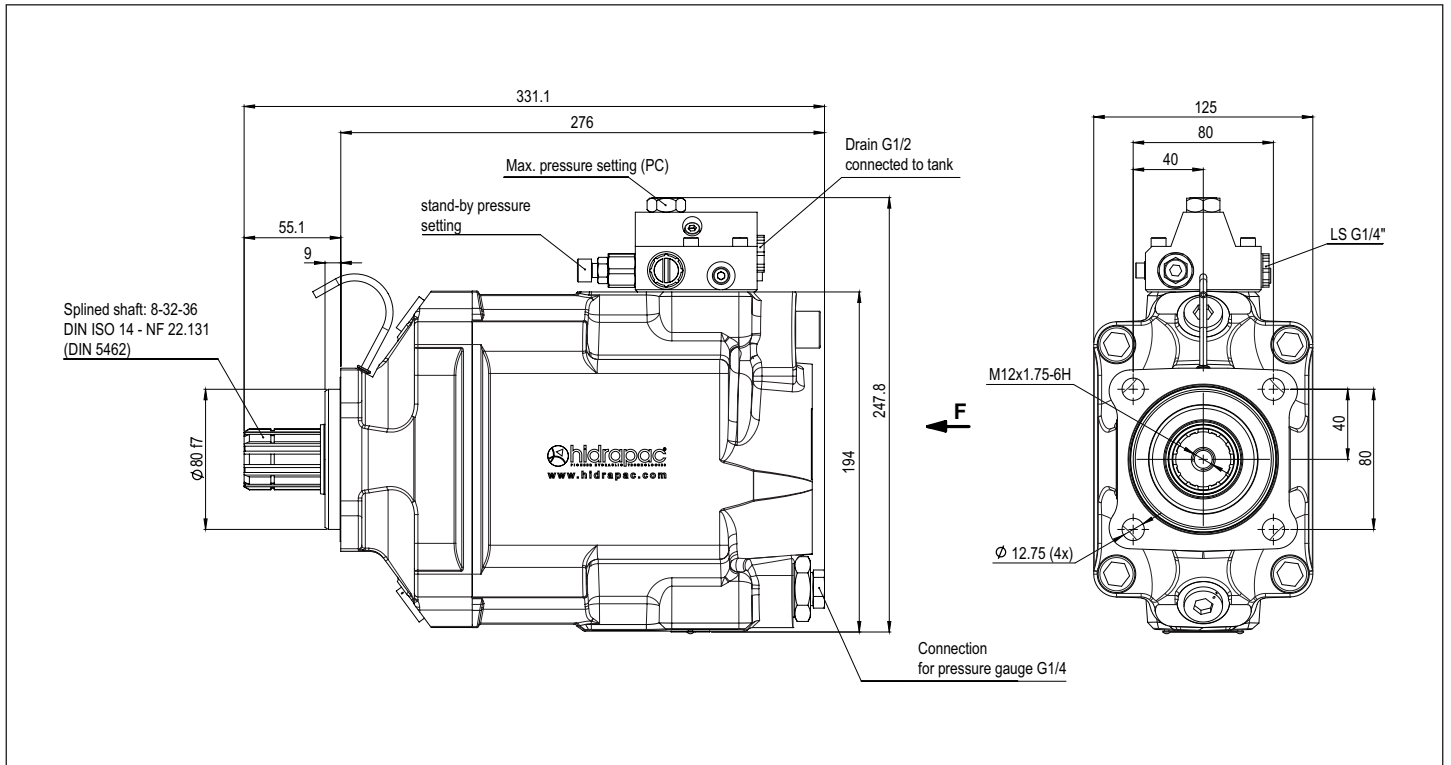
AXVI - 75 cc Variable Piston Pump



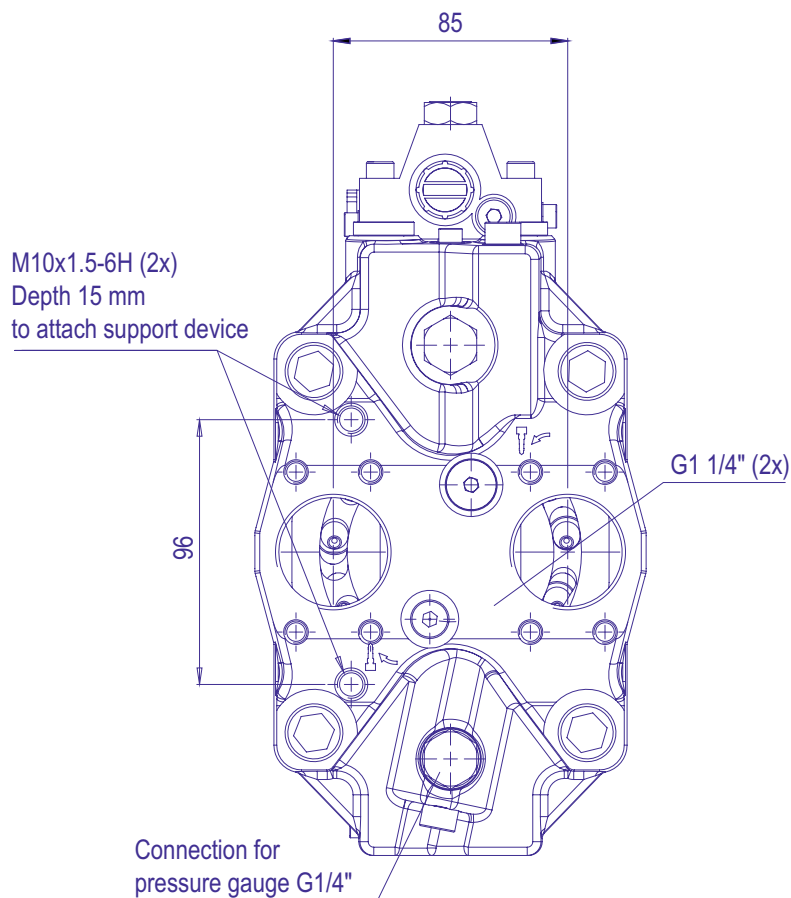
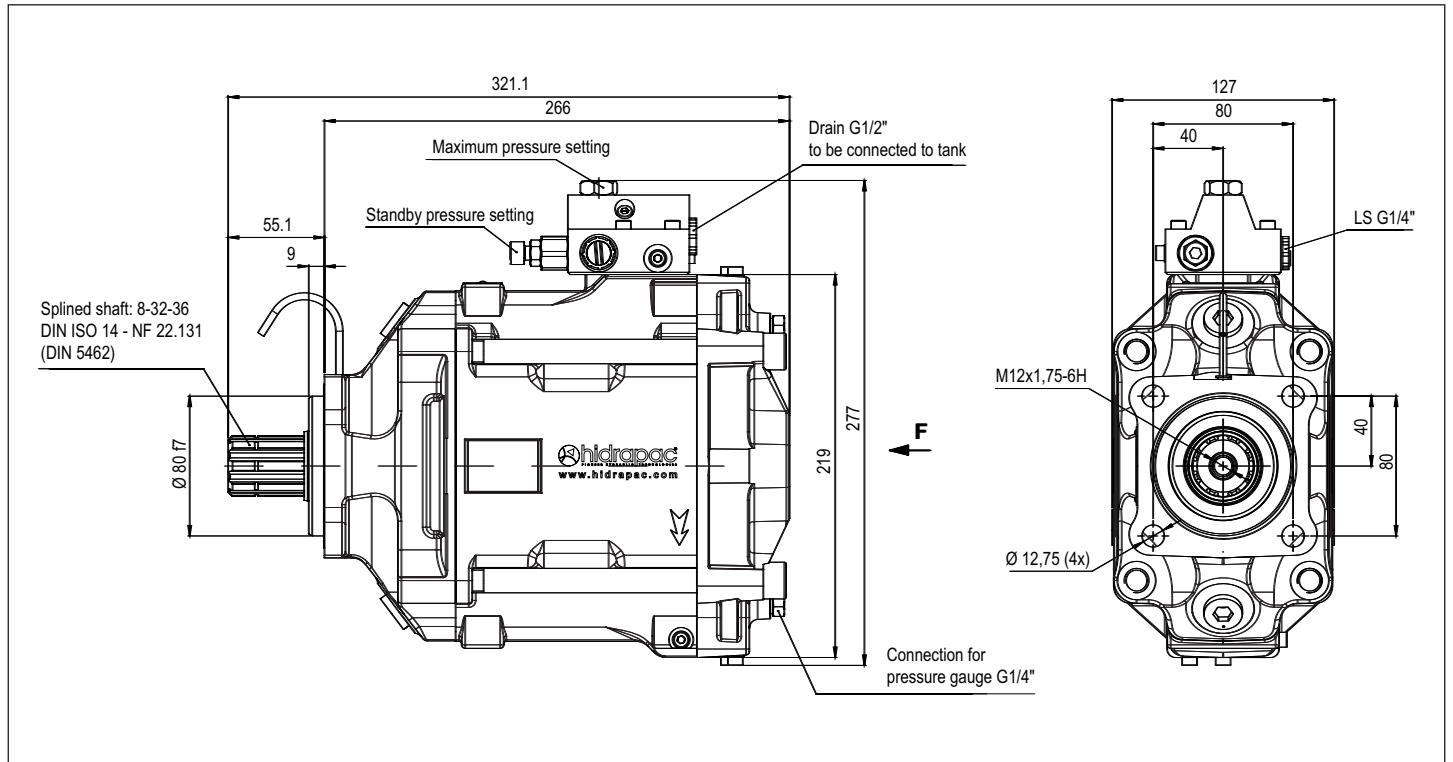
AXVI - 92 cc Variable Piston Pump



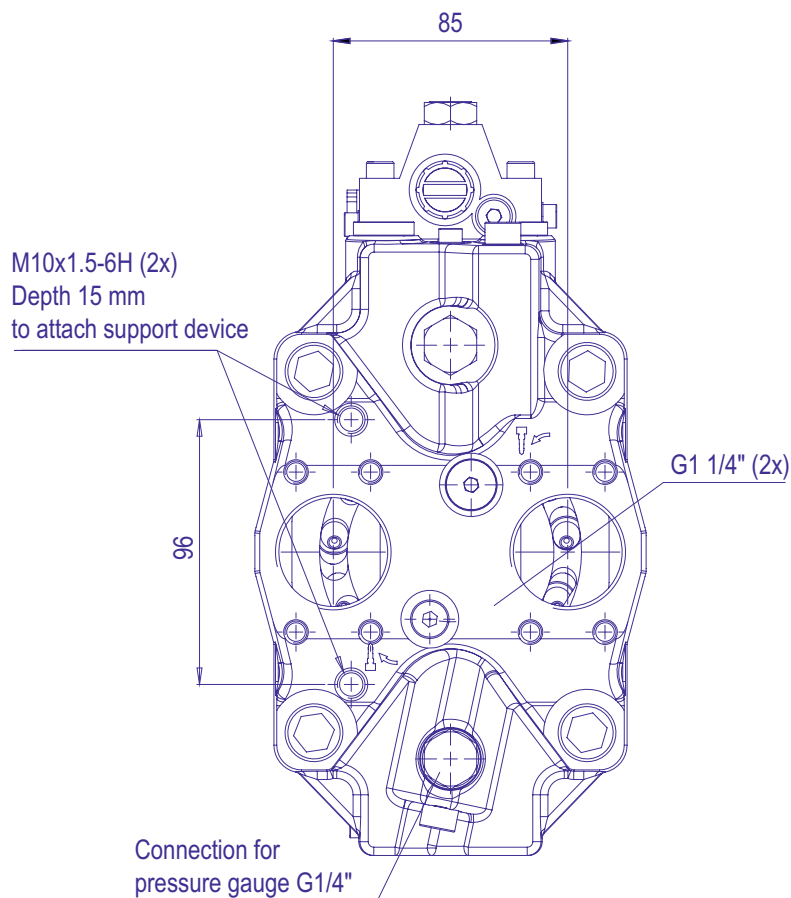
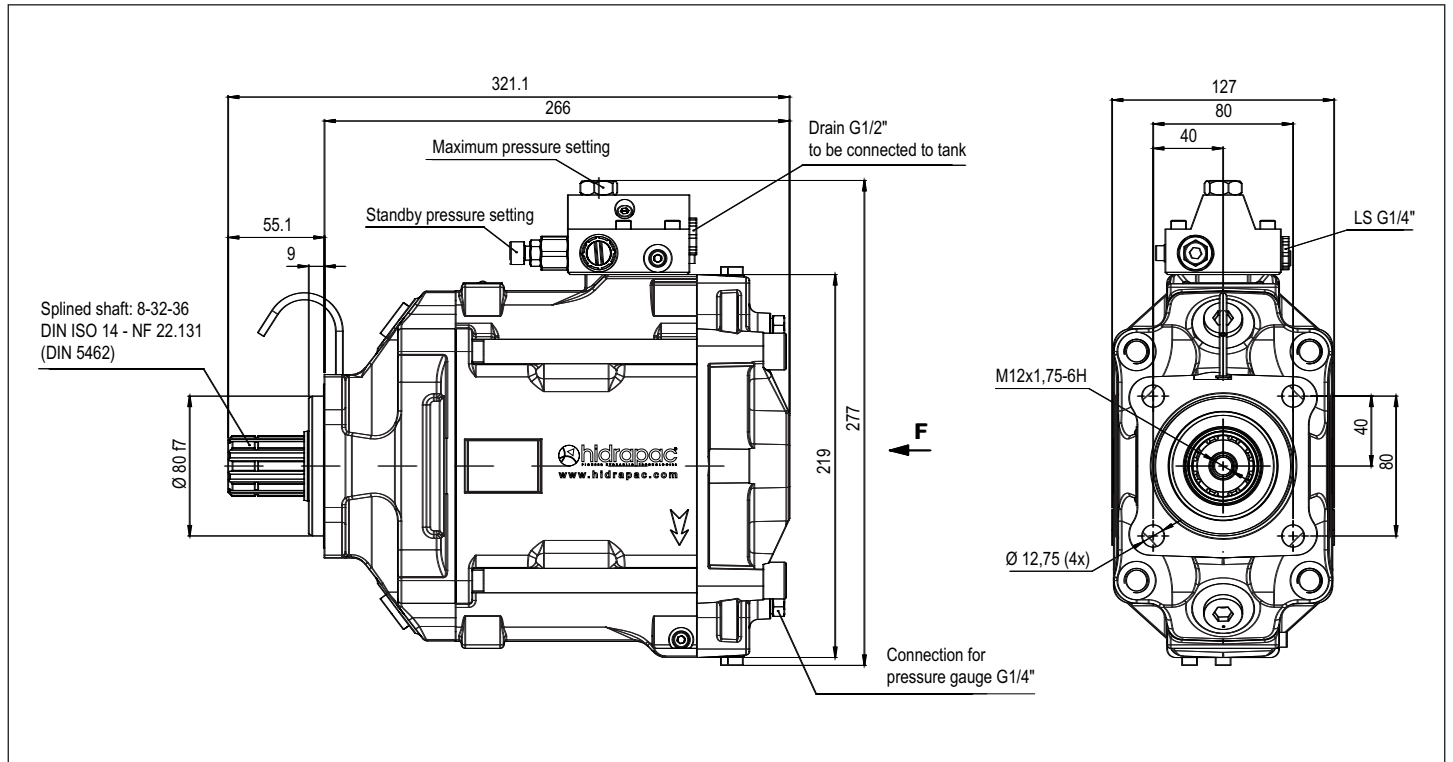
AXVI - 120 cc Variable Piston Pump



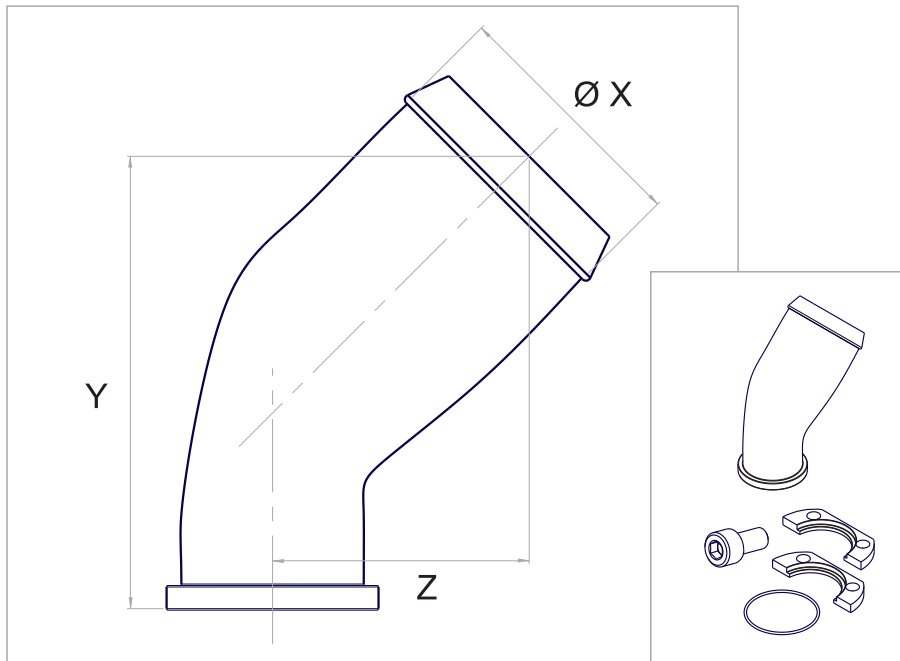
AXVI - 130 cc Variable Piston Pump



AXVI - 150 cc Variable Piston Pump

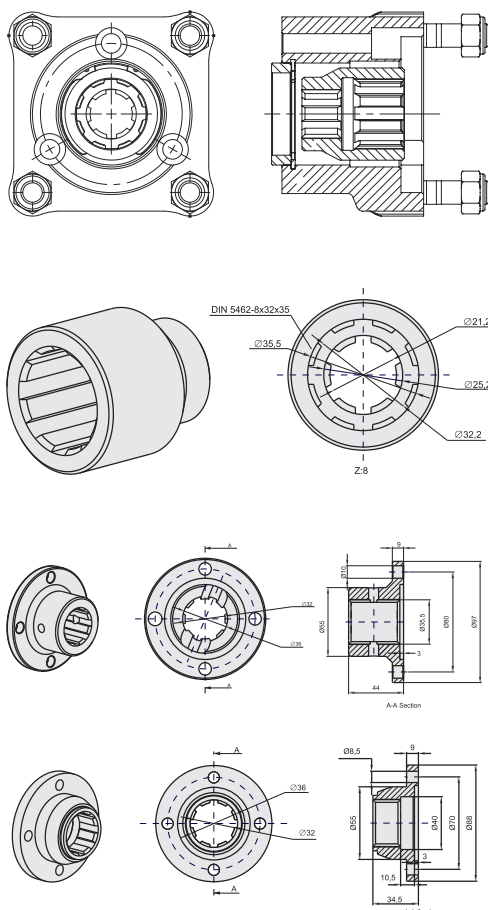


Suction Fittings for AXVI Hydraulic Piston Pumps



45° elbow fittings			
Ø hose	1 ½"	1 ¾"	2 ½"
Ø X	39	46	64
Y	91	91	125
Z	46	46	62

90° elbow fittings			
Ø hose	1 ½"	2"	2 ½"
Ø X	39	51	64
Y	58	64	71
Z	80	80	87



	<p>Inlet Fittings & Installation Parts</p> <ul style="list-style-type: none"> - Split Flange - Seal - Screw
	<p>By-Pass Valves</p> <ul style="list-style-type: none"> - 12 V - 24 V
	<p>Hydraulic Adapters</p> <ul style="list-style-type: none"> - PTO Piston Pump Adapter - PTO Gear Pump Adapter - Long / Short Adapter
	<p>Flanges</p> <ul style="list-style-type: none"> - 1120 (6 Spline) - 1120 (8 Spline) - 1300 (6 Spline) - 1300 (8 Spline)
	<p>Couplars</p> <ul style="list-style-type: none"> - 6 x 8 Couplar - 6 x 8 Couplar (Long) - 8 x 8 Couplar - 8 x 8 Couplar (Long)

40° bent axis design giving high power, small overall dimensions, optimum efficiency and economic design. Flange and shaft designed for direct mounting on truck gearbox PTO's. The fixed displacement bent axis pumps generates a hydraulic fluid flow. It is designed for use in trucks, commercial vehicles and all stationary hydraulic applications. The Pump a fixed pump with rotary group in bent-axis design open circuits. Flow is proportional to drive speed and displacement.

For axial piston units with bent-axis design, the Pistons are arranged diagonally with respect to the drive shaft. The pump covers the whole displacement range 5 to 130 cm³/rev. The pump has been developed with modern styling and design to satisfy market demand as to designed new generation plate and pistons with give high flow performance, high pressures with high efficiency and very small dimensions.

The pump is available both to DIN and SAE world standards and can be mounted either directly at the gear box or via a drive shaft. If necessary it can also be augmented with a by-pass valve. Other brand bent axis pumps compatible and interchangeable with DIN Hydraulic Piston Pumps. Refer to the data sheet and confirmation for the technical data, operating conditions and operating limits of the bent axis piston pumps.

Formulas			
Pump Output Flow	GPM	$GPM = (\text{Speed (rpm)} \times \text{disp. (cu. in.)}) / 231$	$GPM = (n \times d) / 231$
Pump Input Horsepower	HP	$HP = GPM \times \text{Pressure (psi)} / 1714 \times \text{Efficiency}$	$HP = (Q \times P) / 1714 \times E$
Pump Efficiency	E	Overall Efficiency = Output HP / Input HP	$E_{\text{Overall}} = \text{HPOut} / \text{HPIn} \times 100$
		Overall Efficiency = Volumetric Eff. × Mechanical Eff.	$E_{\text{Overall}} = \text{EffVol.} \times \text{EffMech.}$
Pump Volumetric Efficiency	E	Volumetric Efficiency = Actual Flow Rate Output (GPM) / Theoretical Flow Rate Output (GPM) × 100	$\text{EffVol.} = \text{QAct.} / \text{QTheo.} \times 100$
Pump Mechanical Efficiency	E	Mechanical Efficiency = Theoretical Torque to Drive / Actual Torque to Drive × 100	$\text{EffMech} = \text{TTheo.} / \text{TAct.} \times 100$
Pump Displacement	CIPR	$\text{Dsplcmnt (In.}^3 \text{ / rev.)} = \text{Flow Rate (GPM)} \times 231 / \text{Pump RPM}$	$\text{CIPR} = \text{GPM} \times 231 / \text{RPM}$
Pump Torque	T	Torque = Horsepower × 63025 / RPM	$T = 63025 \times \text{HP} / \text{RPM}$
		Torque = Pressure (PSIG) × Pump Displacement (CIPR) / 2π	$T = P \times \text{CIPR} / 6.28$

- Horsepower for driving a pump** : For every 1 hp of drive, the equivalent of 1 gpm @ 1500 psi can be produced.
- Horsepower for idling a pump** : To idle a pump when it is unloaded will require about 5% of it's full rated power
- Wattage for heating hydraulic oil** : Each watt will raise the temperature of 1 gallon of oil by 1° F. per hour.
- Flow velocity in hydraulic lines** : Pump suction lines 2 to 4 feet per second, pressure lines up to 500 psi - 10 to 15 ft./sec., pressure lines 500 to 3000 psi - 15 to 20 ft./sec.; all oil lines in air-over-oil systems; 4 ft./sec.

Complete Product Range

Bent Axis Piston Motors

K2FM (DIN) Bent Axis Motor
K3FH (HYBRID) Bent Axis Motor
A2MS (SAE) Bent Axis Motor
A3MS (SAE2) Bent Axis Motor
A2FM (ISO) Bent Axis Motor
A2FE (Fixed Plugin) Bent Axis Motor
A2FE (Two Speed) Bent Axis Motor
A2FT 45 (Inline) Bent Axis Motor

Bent Axis Piston Pumps

K2FA (DIN) Bent Axis Pump
K2FH (HYBRID) Bent Axis Pump
K2FL (Aluminum) Bent Axis Pump
A2FS (SAE) Bent Axis Pump
A3FS (SAE2) Bent Axis Pump
A2FO (ISO) Bent Axis Pump
A3FO (ISO2) Bent Axis Pump
A2FP (Fixed Plugin) Bent Axis Pump

Variable Displacement Motors

AXMV Variable Piston Motor
AXMA Variable Piston Motor
AXMI Variable Piston Motor

Variable Displacement Pumps

AXVP Variable Piston Motor
AXVA Variable Piston Motor
AXVI Variable Piston Motor

Dual Flow Piston Pumps

A2FD (DIN) Dual Flow Pumps
A2FD (SAE) Dual Flow Pumps
A2PD Axial Dual Output Pumps

Axial Piston & Gear Pumps

A3PP Axial Piston Pumps
A3PH High Pressure Pumps
A2GP Gear Pumps
A2GPT Tandem Gear Pumps
A2GM Gear Motors
A2GMT Tandem Gear Motors

Valve (ByPass) (Flushing) (Cavitation)

Circulation Valve
ByPass Valve
Anti-Cavitation Valve
Flushing Valve
LS Valve
AntiShock Valve
Speed Sensor

Hydraulic Spare Parts

Suction Fittings
Couplars
Adapters
Flanges
Power Take Off
Monoblock Valve
Section Valve

Hydraulic Pumps, Pumps

Bent Axis Hydraulic Piston Pumps, Bent Axis Hydraulic Piston Pumps, Hydraulic Piston Pumps, Variable Displacement Piston Pumps, Variable Displacement Piston Pumps, Axial Piston Pumps, High Pressure Piston Pumps, Gear Pumps, Gear Pumps, Hydraulic Valve.

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