Variable displacement motor Series MVSI



Main applications

- Suitable for use in either open or closed loop circuits
- Wheel drives
- Track drives
- Winches

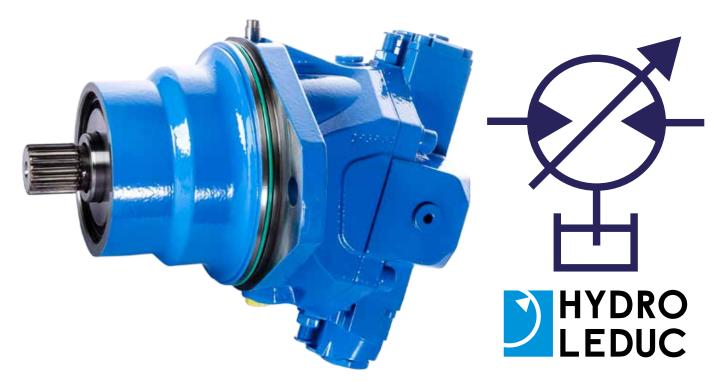
Advantages of the LEDUC variable displacement motors

- 9 pistons designed for high starting torque and reduced pulsations at low speed
- Continuous variation in displacement from Vmax to Vmin (=0)
- High operating ratio (5:1)
- Compact size, high weight-power ratio
- High speed and high operating pressure
- 3 choices of displacement control: see page 9 (HPA, H2N, E2N)

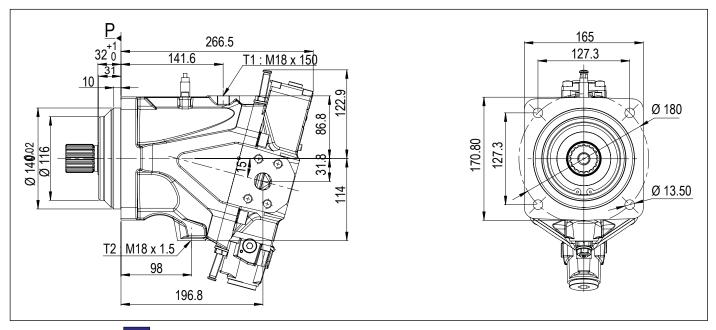
Technical characteristics of LEDUC variable displacement motors

		85	115
Max. displacement	V_{max}	28.1⇔85.2	
Min. displacement	V_{min}		
Displacement ratio 5	$V_{\text{max}/5}$	17 cc	23.1 cc
Max. continuous operating pressure	P _{max}	400 bar	400 bar
Max. peak pressure	Pp	450 bar	450 bar
Max. speed at max. displacement	N_{max} at V_{max}	3900 rpm	3550 rpm
Max. speed at min. displacement	N_{max} at V_{min}	6800 rpm	5600 rpm
Max. flow absorbed	Q_{max}	331 l/min	408 l/min
Max. output power	P _{max}	220 kW	271 kW
Max. output torque at P _{max} and V _{max}	C_{max}	54 daN.m	73 daN.m

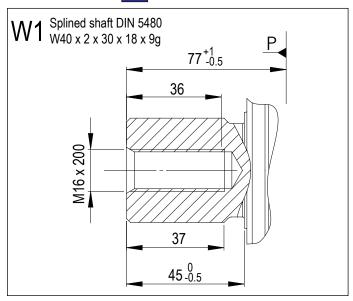
Currently two models of motor are offered: 85cc/rev and 115 cc/rev. Models to extend the range are currently being developpe.

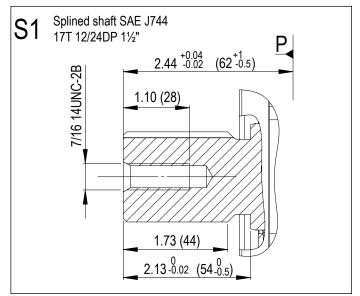




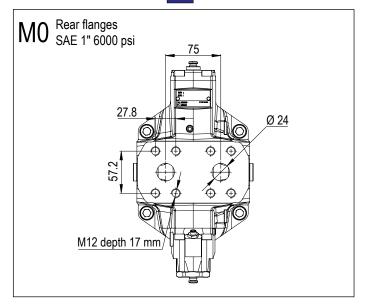


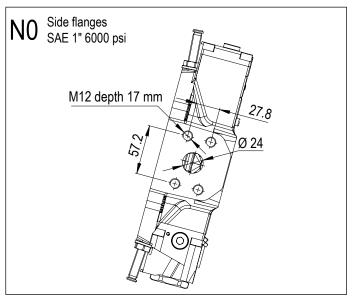
► Shaft - code 04





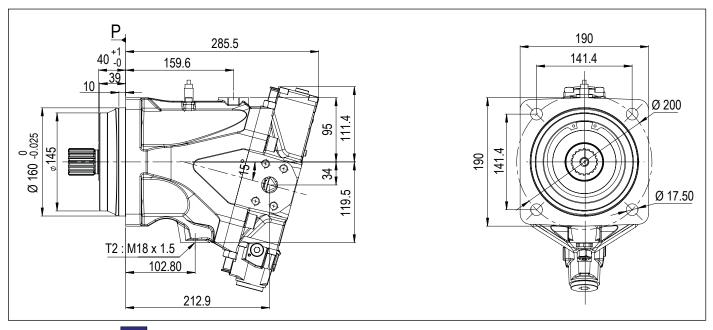
► Inlet ports - code 05



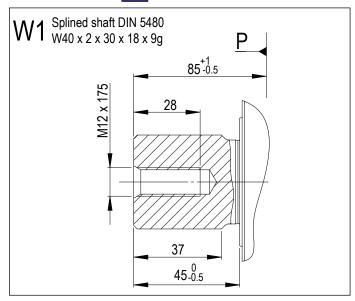


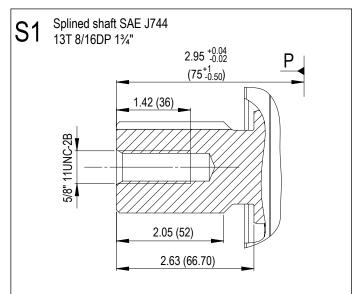
MV 115



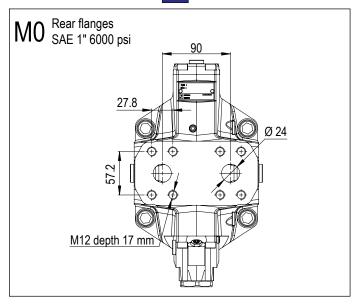


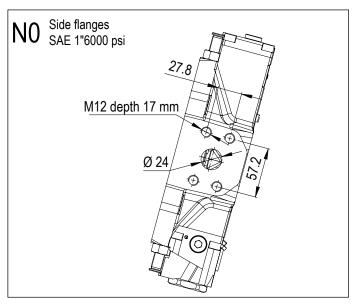
► Shaft - code 04





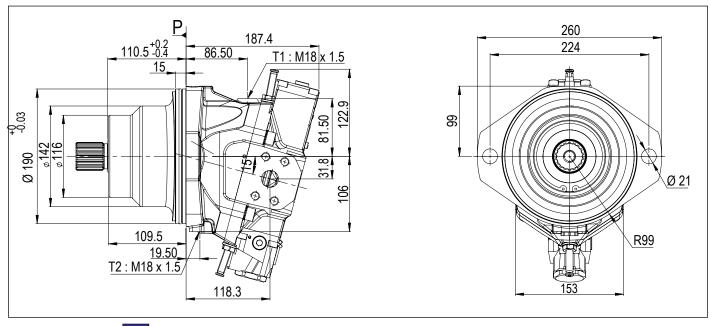
►Inlet ports - code 05



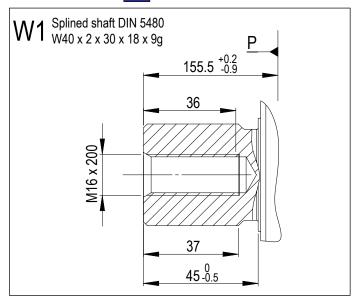


MVSI 85

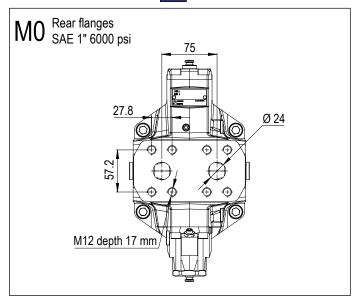


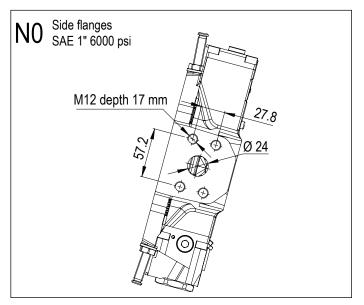


► Shaft - code 04



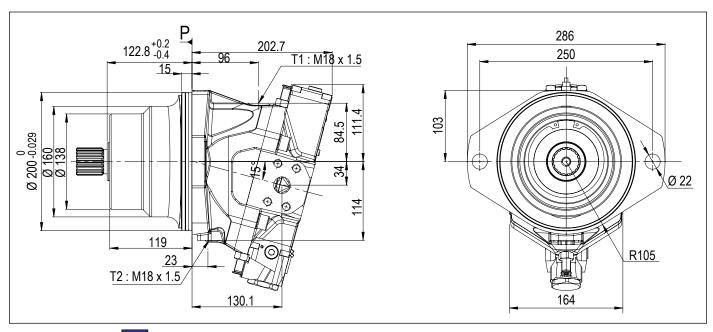
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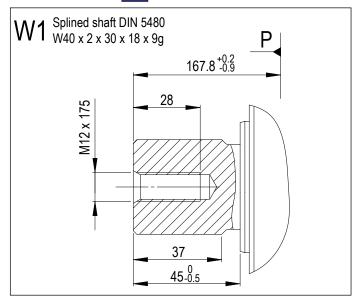


MVSI 115

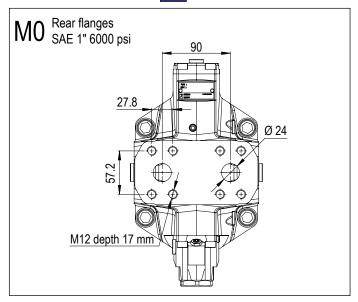


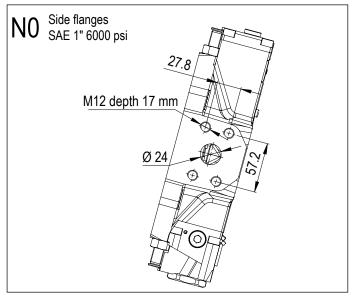


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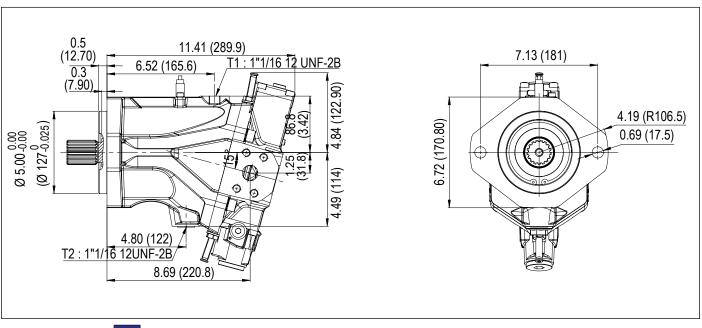
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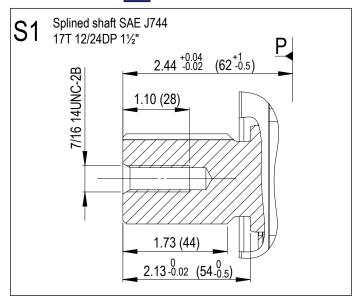


MVA 85 (SAE version)

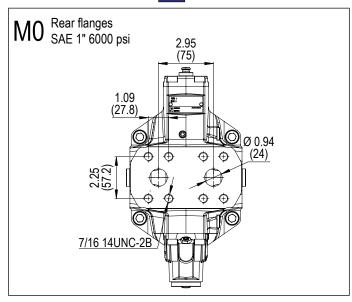


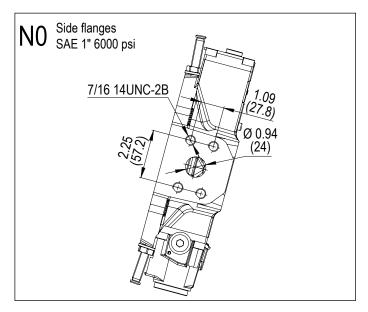


► Shaft - code 04



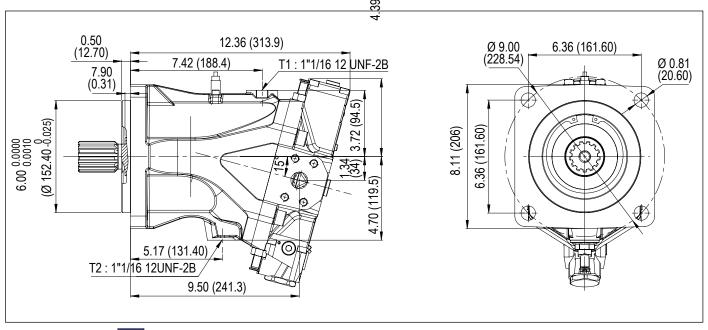
►Inlet ports - code 05



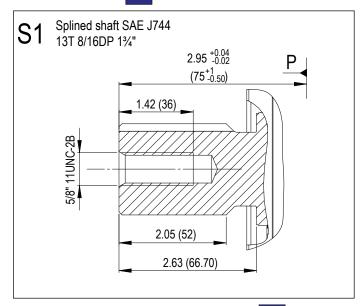


MVA 115 (SAE version)



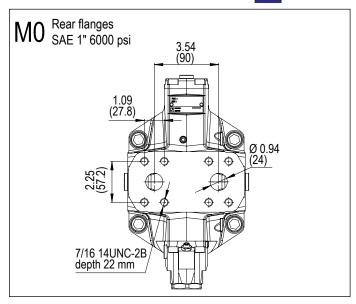


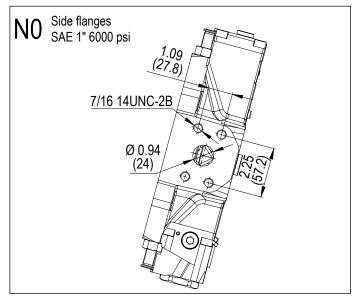
► Shaft - code 04



►Inlet ports - code

05





Displacement control



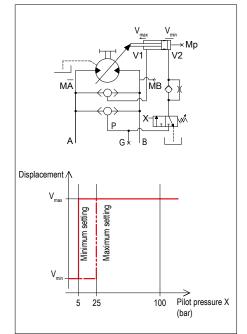
► Displacement settings - code

07

Automatic displacement control, high pressure **HPA**

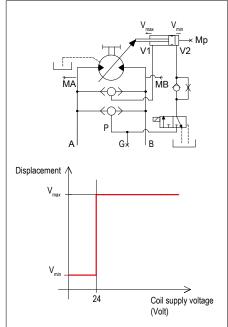
ΜA Displacement A 80.90 350 360 Regulating pressure Pr Two speed hydraulic adjustment of displacement:

H₂N



Two speed electric adjustment of displacement:

E₂N



The automatic displacement control, high pressure, automatically adjusts displacement as a function of the set pressure level. This can be set between 80 and 350 bar. Once set pressure has been reached, the motor starts changing displacement from Vmin to Vmax. Pressure remains stable, torque increases and speed decreases until Vmax is reached. Once Vmax has been reached, motor pressure can exceed set pressure if required.

Setting Vmin or Vmax displacement is done by applying an external pilot pressure, or not. Pilot pressure can be set by a screw from 5 to 25 bar. Once pilot pressure has been reached, the motor starts changing displacement from Vmin to Vmax (standard configuration). From Vmax to Vmin on request. Important note: the pilot pressure line X must be drained when it is not under pressure (to ensure evacuation of leakage flow).

Setting Vmin or Vmax displacement is done by applying an external electrical current via a solenoid, or not. Standard voltage of the coil is 24V (12V on request). When the coil is activated, the motor starts changing displacement from Vmin to Vmax (standard configuration). From Vmax to Vmin on request.

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