



创新 / 合作 / 共赢

Pre-lube Oil Pump

预润滑油泵



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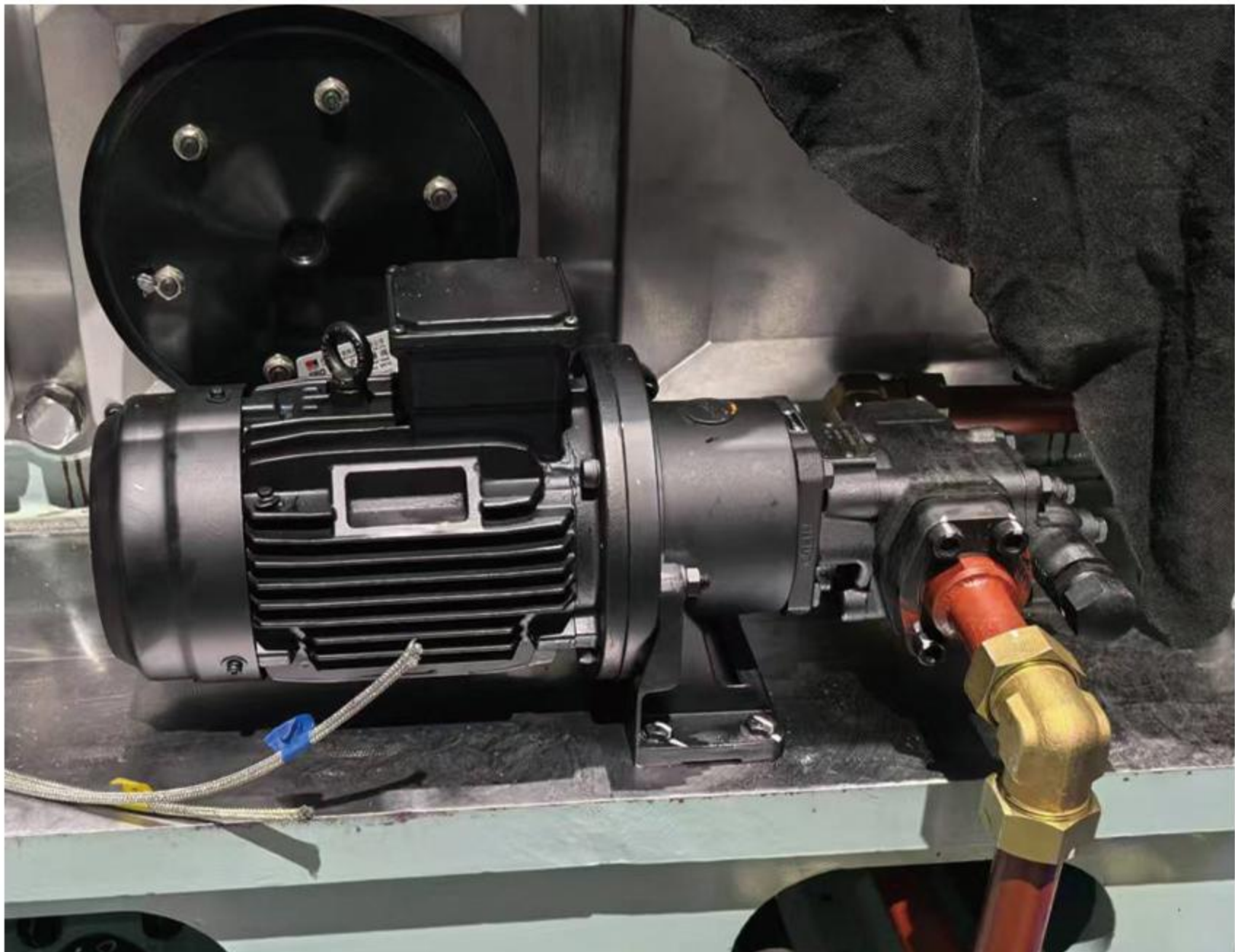
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雨凡机械科技(上海)有限公司
YuFan Machinery Technology(Shanghai) Co., LTD.

FELICIA 预润滑油泵

FELICIA齿轮泵的特点是结构简单、稳固可靠，流体导向通道短而直，结合独特的齿轮箱结构和特殊齿形结构，这样既可以保证出色的吸入性能，又可保证运行过程中噪音水平极低。标准壳体由铸铁制成，传动部件材质为经硬化处理的表面渗碳钢。大尺寸、带有特殊涂层的符合材料华滑动轴承拥有较长的使用寿命，并具有极优良的干运行特性。



- 1

高强度铸铁壳体，硬化齿轮结构，耐磨损、可靠性高
- 2

优化齿形流道设计，自吸能力强，油压输出稳定
- 3

特种复合轴承配置，具备良好干运行性能，使用寿命久
- 4

精密结构降噪设计，运转低噪，工况适配范围广
- 5

内置安全阀结构，过载自动泄压，系统防护性优异
- 6

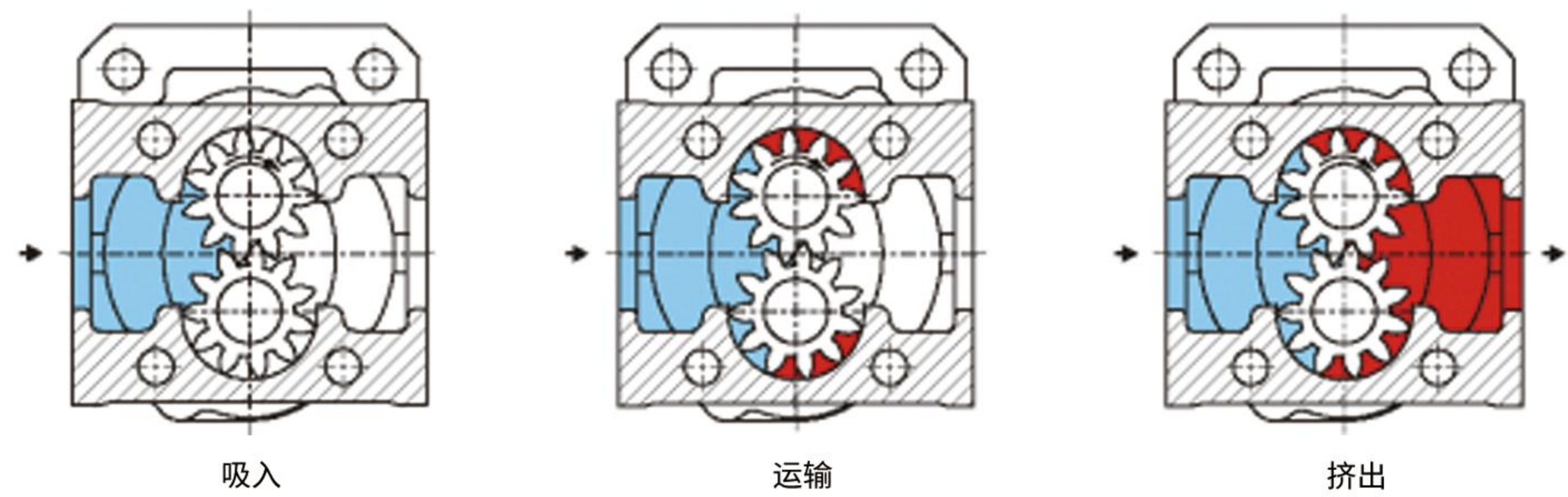
前置预润滑功能，避免发动机冷启动干摩擦损耗
- 7

模块化紧凑设计，安装便捷，后期维护简单



工作原理

齿轮泵是一种回转型容积式泵。当齿轮转动时，齿轮脱开侧的空间的体积从小变大，形成真空，将液体吸入，齿轮啮合侧的空间的体积从大变小，将液体挤入管路中去。由于齿的不断啮合，这一现象就连续发生，从而形成连续的输送过程。该过程对于气态和液体的介质执行方式都相同。因此齿轮泵可以自行给吸入侧排气，直到整个管内都填满液体输送介质为止。



提示

以下条件下无法给吸入侧排气：

- 吸入侧不密闭，无法建立负压。
- 吸入侧管道系统或容器中的压力过低，从而不允许输送介质补入。真空条件下或者齿轮泵下方的液位距离齿轮泵过远时，就可能出现这种情况。
- 齿轮泵的压力侧安装了一个止回阀（设有排气阀）。

性能参数

型 号	R25/12.5-80M1		R35/25-90S2		R35/40-100L2	
齿轮泵	R25/12.5		R35/25		R35/40	
三相交流电机	80M1		90S2		100L2	
频率	50 Hz 60Hz		50 Hz 60Hz		50 Hz 60 Hz	
流量	35.74L/min	35.74L/min	43.5L/min	71.63/min	87.13L/min	115L/min 139L/min
吸油口连接方式	SAE-welding flange FSAE1GS			SAE-welding flange FSAE1.1/2GS		
压油口连接方式	SAE-welding flange FSAE1GS			SAE-welding flange FSAE1.1/2GS		

泵参数

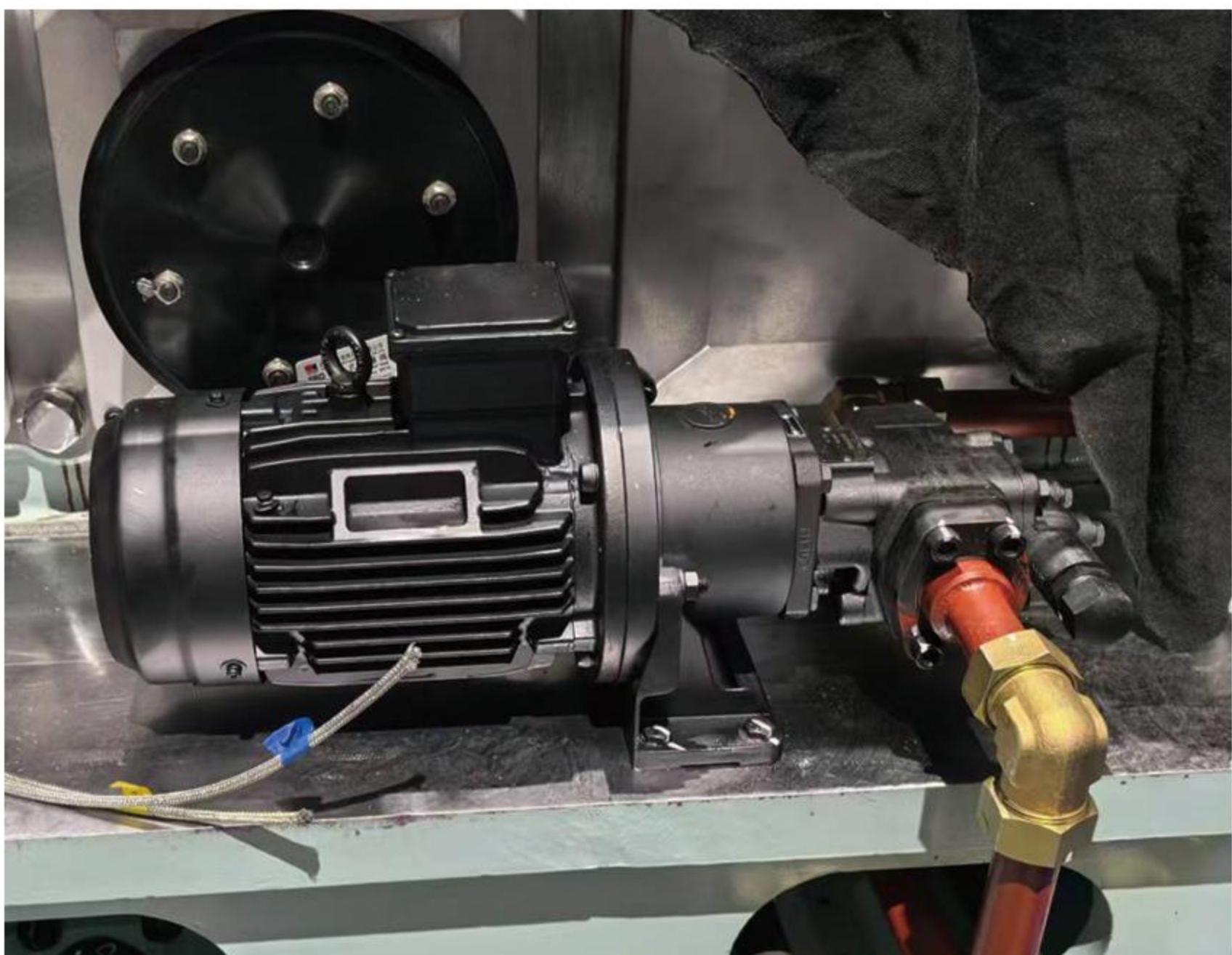
泵送介质	矿物油
流体温度	+20°C- +90°C
运动粘度	150mm2/s (19-550 mm2/s)
进口压力	±0.4 Bar
压升	1 Bar (Max. 2.5Bar)
最高转速	3600 RPM
旋向（从轴末端看）	CW /CCW
压力安全阀	有（带内泄功能）
开启压力（阀）	2.5 Bar
端压力（阀）	Approx. 4.5 Bar
压力范围（阀）	1-4 Bar

电机参数

型号	80M1			90S2		100L2	
防爆等级	Without无						
频率	50 Hz	60 Hz		50 Hz	60 Hz	50 Hz	60 Hz
防护等级	IP55						
电压	380V	400V	440V	380V/400V	440V	400V	460V
转速	2870 RPM	2870 RPM	3450 RPM	2865 RPM	3485 RPM	2880 RPM	3495 RPM
功率	0.75 kW			1.5 kW		3kW	
填料函进线规格	2x M24*1.5 (Plugs)10~14						
功能	船级社认证						
符合	ABS, CCS 形式认可， 不含产品认可						
重量	24 kg		26 kg			35 kg	

FELICIA Pre-lubricated Oil Pump

The FELICIA gear pump features a simple yet robust design with short, straight flow paths. Combined with a unique housing and special tooth profile, it offers both excellent suction performance and ultra-low operating noise. The pump body is constructed from cast iron, whilst the drive components are made of surface-hardened carburised steel; the large-sized, specially coated composite sliding bearings ensure a long service life and excellent dry-running performance.



- 1

High-strength cast iron housing, hardened gear structure, wear-resistant and highly reliable
- 2

Optimised tooth-shaped flow channel design, strong self-priming capability and stable hydraulic output
- 3

Special composite bearing configuration, offering excellent dry-running performance and a long service life
- 4

Precision noise-reduction design ensures quiet operation and a wide range of operating conditions
- 5

Built-in safety valve mechanism; automatic pressure relief in the event of overload; excellent system protection
- 6

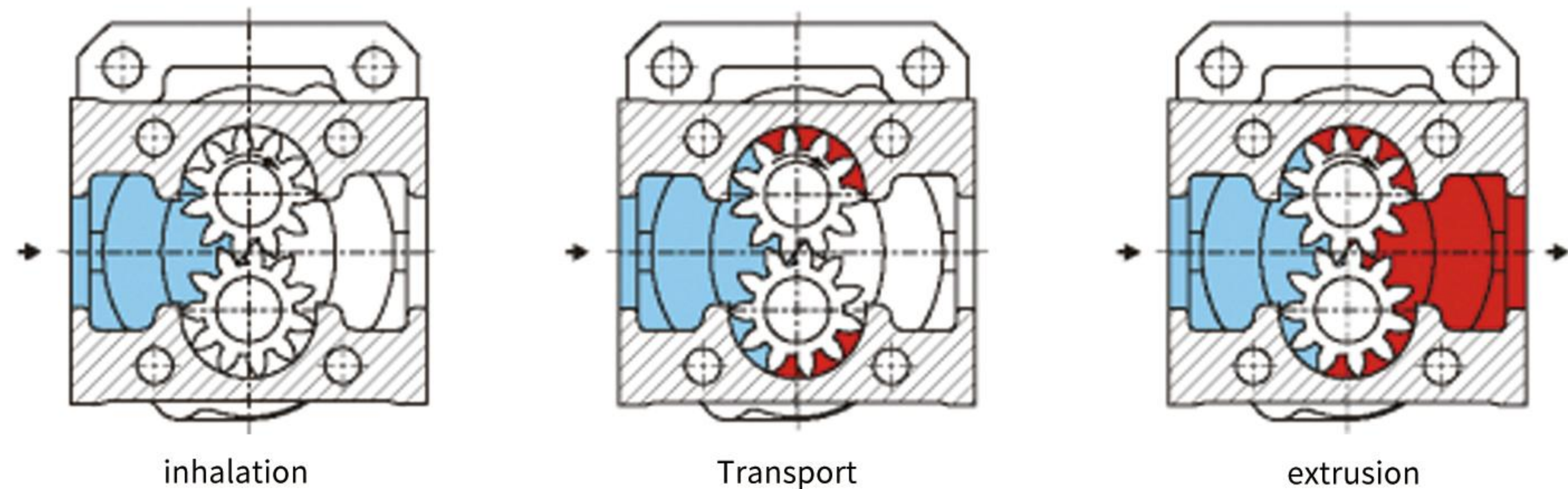
Pre-lubrication function to prevent wear caused by dry friction during cold engine starts
- 7

Modular, compact design; easy to install and simple to maintain



How it works

A gear pump is a rotary positive-displacement pump. As the gears rotate, the volume of the space on the disengaged side of the gears increases, creating a vacuum that draws in the fluid, whilst the volume of the space on the meshed side decreases, forcing the fluid into the pipeline. Due to the continuous meshing of the gears, this process occurs repeatedly, resulting in a continuous flow. This mechanism operates identically for both gaseous and liquid media. Consequently, the gear pump is capable of self-venting the suction side until the entire pipeline is filled with the fluid being conveyed.



Note

- Venting on the suction side is not possible under the following conditions:
- The suction side is not sealed, preventing the creation of a vacuum.
 - The pressure in the suction-side piping system or vessel is too low, preventing the medium from being drawn in. This may occur under vacuum conditions or when the liquid level below the gear pump is too far from the pump.
 - A check valve (fitted with a vent valve) is installed on the pressure side of the gear pump.

Technical Specifications

Model	R25/12.5-80M1			R35/25-90S2		R35/40-100L2	
Gear pump	R25/12.5			R35/25		R35/40	
Three-phase AC motor	80M1			90S2		100L2	
frequency	50 Hz 60Hz			50 Hz 60Hz		50 Hz 60 Hz	
Traffic	35.74L/min	35.74L/min	43.5L/min	71.63/min	87.13L/min	115L/min	139L/min
Oil inlet connection method	SAE-welding flange FSAE1GS			SAE-welding flange FSAE1.1/2GS			
Pressure port connection method	SAE-welding flange FSAE1GS			SAE-welding flange FSAE1.1/2GS			

Pump specifications

Pumped medium	mineral oil
Fluid temperature	+20°C- +90°C
Kinematic viscosity	150mm2/s (19-550 mm2/s)
Import pressure	±0.4 Bar
pressure rise	1 Bar (Max. 2.5Bar)
Maximum speed	3600 RPM
direction of rotation	CW /CCW
Pressure relief valve	Yes (with leak detection function)
Opening pressure (valve)	2.5 Bar
End pressure (valve)	Approx. 4.5 Bar
Pressure range (valve)	1-4 Bar

Motor specifications

Model	80M1			90S2		100L2	
Explosion-proof rating	Without						
frequency	50 Hz	60 Hz		50 Hz	60 Hz	50 Hz	60 Hz
Protection rating	IP55						
voltage	380V	400V	440V	380V/400V	440V	400V	460V
rotational speed	2870 RPM	2870 RPM	3450 RPM	2865 RPM	3485 RPM	2880 RPM	3495 RPM
Power	0.75 kW			1.5 kW		3kW	
Specifications for cable entry through the stuffing box	2x M24*1.5 (Plugs)10~14						
Features	Classification society certification						
compliant with	ABS and CCS type approval; does not include product approval						
Weight	24 kg		26 kg			35 kg	