

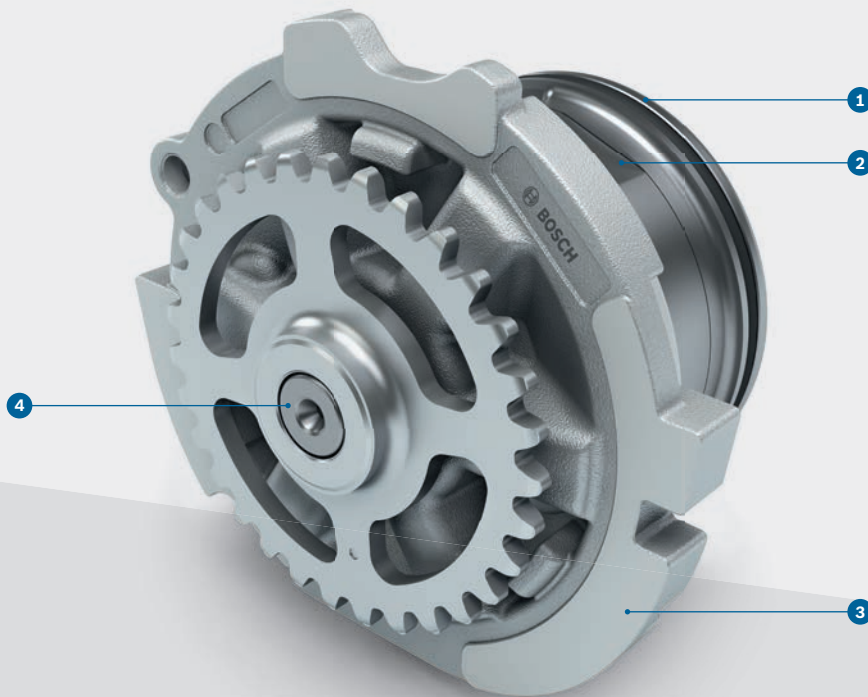
Transmission technology

Fixed displacement vane pump



BOSCH

Invented for life



PRODUCT BENEFITS

- ▶ Compact packaging
- ▶ High efficiency with low weight
- ▶ Robust, wear-free design
- ▶ Optimal hydraulic supply to the transmission
- ▶ Available with housing or as cartridge solution (without pump housing)

- 1 Pressure plate
- 2 Cam ring with integrated suction zone
- 3 Cover with flange
- 4 Pump shaft with drive gear



flexible design

available as a single or dual-circuit pump, with symmetrical or asymmetrical design of the suction/pressure zones

TASK

The non-controlled FPG transmission pump constantly provides the exact amount of fluid required at the pressure level needed for shifting and coupling of multi-speed and continuously variable transmissions in passenger vehicles. In addition, the pump supplies the transmission with oil to lubricate and cool the transmission components. The pump can be driven directly or indirectly by a drive gear installed on the pump shaft.

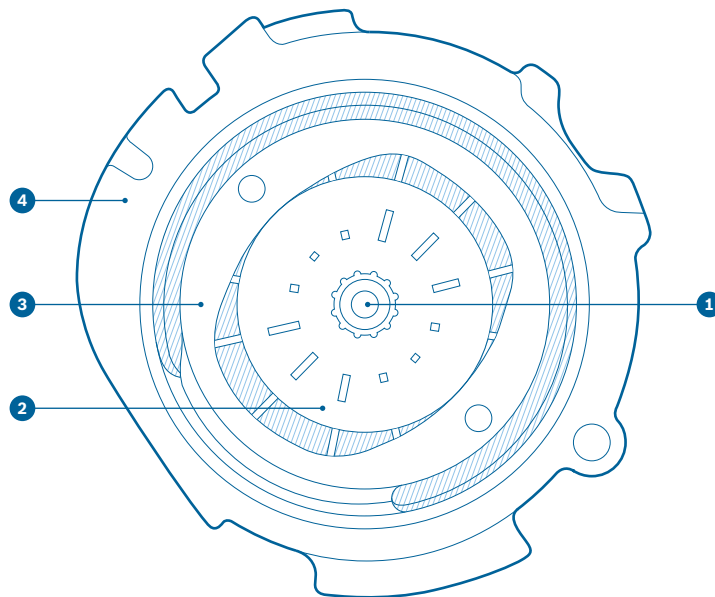
FUNCTION

The FPG transmission pump consists of the housing, cover, pressure plate, shaft, and a rotor set. The rotor set comprises the rotor, vanes directed radially in the rotor (number depends on customer requirements), and the cam ring. Since the FPG is a non-controlled pump, the flow rate is determined by the delivery volume and pump speed. The pump speed results from the transmission speed and the selected gear ratio.

VARIANTS

The engineering and design allow the pump to be used as a cartridge (without pump housing) in the existing transmission housing or mounted in its own housing in the transmission. The pump can also be designed as a single- or dual-circuit version. In the single-circuit variant, the pressure outlets can be combined into one outlet as an option. The dual-circuit pump is available with either symmetrical or asymmetrical delivery volumes and pressures.

- 1 Shaft
- 2 Rotor with vanes
- 3 Cam ring
- 4 Cover



maximum efficiency

of vane pump technology

proven engineering

ensures reliable oil supply to the transmission

TECHNICAL CHARACTERISTICS

Model	1-circuit	2-circuit, sym.	2-circuit, asym.
Max. delivery volume (cm ³ /rev)	15	15	15
Delivery ratio		1:1	2:3
Max. flow rate (l/min)	118	118	118
Max. rotational speed (rpm)	7,900	7,900	7,900
Max. pressure (bar)	22	22	22
Max. oil temperature (°C)	140	140	140
Weight (g)	600	600	600
Drive direction	CW or CCW		
Drive type	Direct, drive gear		