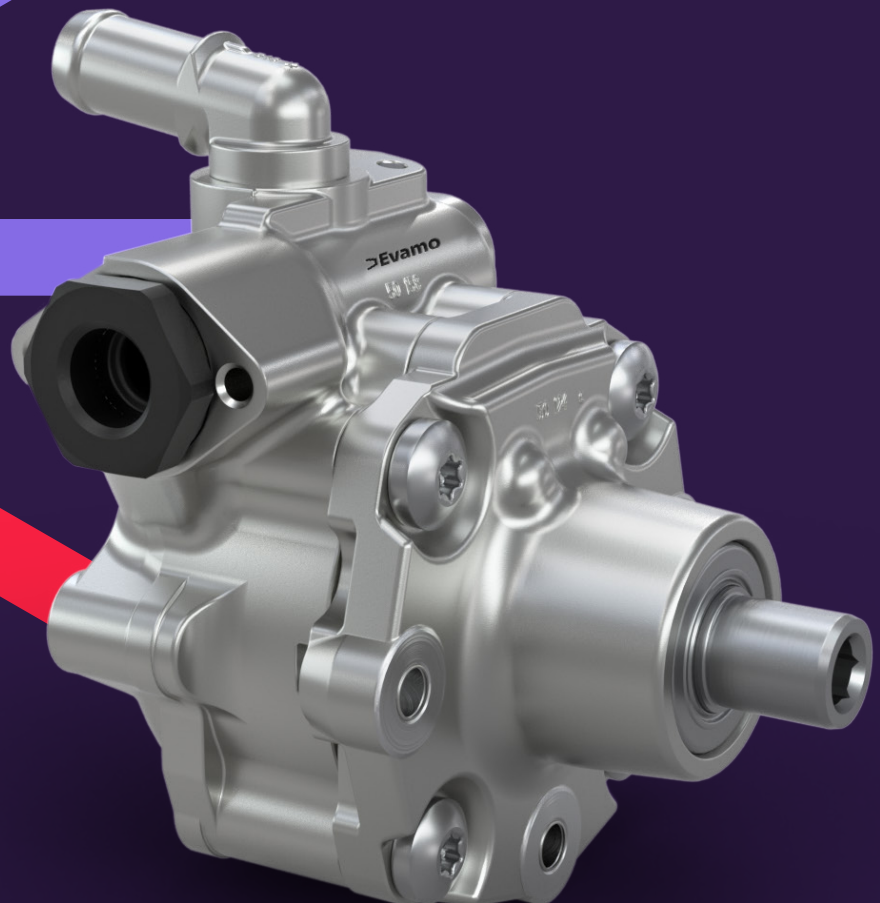


Passenger Car Power Steering Pump Varioserv[®]





Up to 35° C

lower temperature, requires fewer cooling measures in the steering system and enables improved system efficiency.

Task

The energy- and fuel-saving Varioserv® power steering pump supplies exactly the right amount of oil that is needed for operating hydraulic steering systems in passenger cars and light commercial vehicles.

Function

The Varioserv® is powered via a motor belt drive. The hub or belt pulley is pressed onto the shaft. Mounting the pump to the engine bracket is done either directly or via a pump bracket. The Varioserv® power steering pump consists of a housing with a pressed-in intake port as well as an integrated volume flow control, valve screw with a pressure connection thread, cover, front plate, shaft and rotor set. The rotor set is comprised of the outer ring, rotor, eleven radially-guided blades and the cam ring. The pump shaft is installed in the housing and in the cover with plain bearings.

Contrary to the double-stroke rotor set of standard vane pumps, the cam ring in the single-stroke Varioserv® is adjustable and generates an adjustable geometric delivery

Up to 50%

power consumption reduction leads to significantly lower energy consumption.

volume via the varying eccentricity. The cam ring adjustment is speed-dependent. This only results in the decreasing pump space generating a reduced geometric delivery volume. At higher speeds, the reduced power consumption leads to significantly lower energy consumption, whereby fewer cooling measures are required in the steering system. The volume flow control limits the supplied volume flow to a fixed value and a pressure control valve in the valve pistons controls the system pressure.

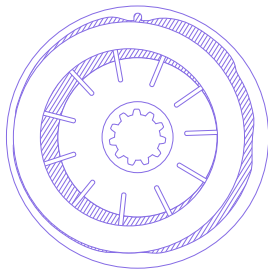
Variants

The wide-ranging manufacturing program of Evamo® includes various pump designs and model series.

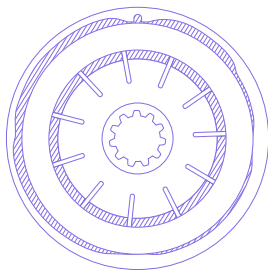
Due to our flexible construction method, we can implement customer-specific requirements in the production of the Varioserv® power steering pump. This gives us the option of installing customer-specific drive components or brackets in order to adapt the pump to the assembly space.

Product benefits

- Power consumption reduction of up to 50%
- Temperature reduction of up to 35°C
- Fuel consumption savings of up to 0.3 l/100 km
- CO₂ savings 3-4 g/km
- Integrated volume flow control
- Integrated pressure limiting

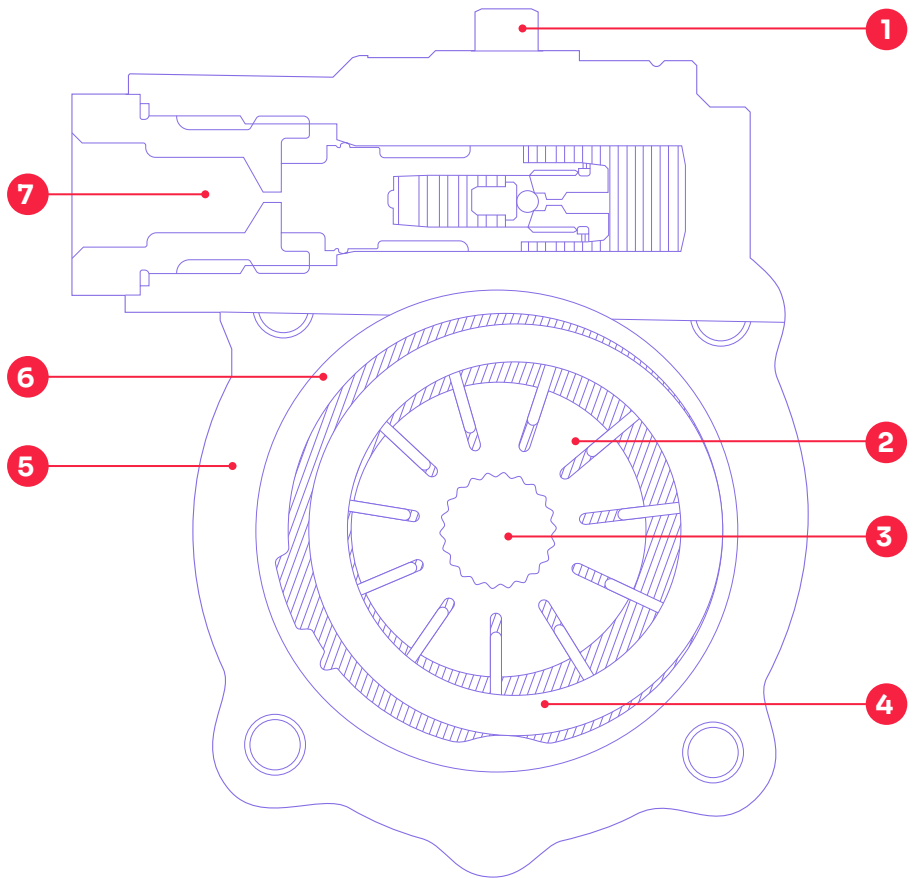


Concentrical bearing of cam ring for minimum delivery capacity



Eccentric bearing of cam ring for maximum delivery capacity

- 1 Suction port
- 2 Rotor with vanes
- 3 Driveshaft
- 4 Cam ring
- 5 Housing
- 6 Outer ring
- 7 Pressure port



Technical data

Max. theoretical displacement (cm ³ /rev)	9.6 or 13
Max. controlled flow (dm ³ /min)	7-14
Max. rotational speed (rpm)	9,000
Max. pressure (bar)	135
Max. oil temperature (°C)	135
Weight (kg)	1.0
Drive	belt drive (optionally customized)
Drive direction of rotation	optionally clockwise or counterclockwise