

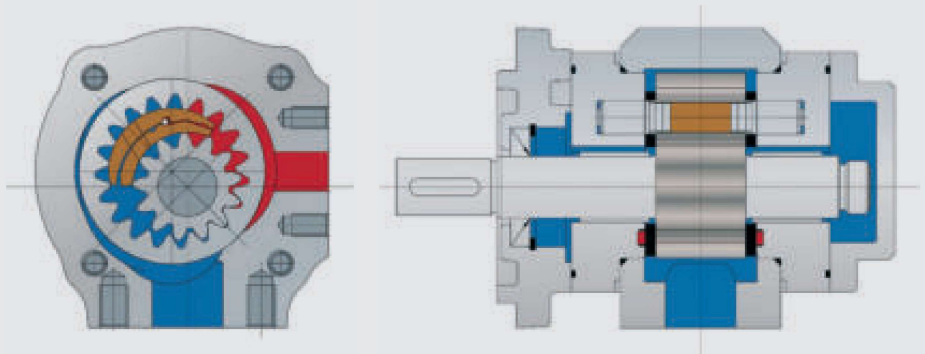
# Internal gear pump

## Type EIPH2 high pressure pump with constant displacement volume

EIPH2

### Characteristics

- Internal gear pump with axial and radial gap compensation
- Radial compensation with segments
- Suction and pressure port radial
- Field of application: Industrial hydraulic
- Low noise
- Long time life
- Low pulsation (pressure pulsation ~2 %)
- Multi flow combinations



### Technical Data:

Rated Size	004	005	006	008	011	013	016	019	022	025
Spec. volume $V_{th}$ [cm <sup>3</sup> /rev] <sup>***</sup>	4,2	5,4	6,4	7,8	10,8	13,3	15,6	18,9	21,8	24,8
Continuous operating pressure [bar] <sup>**</sup>	330							300	250	250
Peak operating pressure [bar] max. 10 sec. 15% duty cycle <sup>**</sup>	350							300	280	
Cut-in pressure peak [bar] <sup>**</sup>	400							325	300	
Nominal speed [min <sup>-1</sup> ]	400 – 3.600		400 – 3.400	400 – 3.200		400 – 3.000	400 – 2.500		400 – 2.300	
Max. speed [min <sup>-1</sup> ]	4.200		4.000				3.000			
Nominal speed [min <sup>-1</sup> ] <sup>****</sup>	For rated size 019 available							400 – 3.000	400 – 2.800	
Max. speed [min <sup>-1</sup> ] <sup>****</sup>	For rated size 019 available							3.600		
Operating viscosity [mm <sup>2</sup> /s]	10 – 300									
Starting viscosity [mm <sup>2</sup> /s]	2.000									
Operating medium	HL – HLP DIN 51 524 part 1/2									
Max. medium temperature [°C]	80									
Min. medium temperature [°C]	-20									
Max. ambient temperature [°C]	80									
Min. ambient temperature [°C]	-20									
Max. admission pressure (intake side) [bar]	2 bar absolute									
Min. admission pressure (intake side) [bar]	0,8 bar absolute (Start 0,6)									
Weight appr. [kg]	4,9	5,0	5,2	5,4	5,5	5,7	7,4	7,8	8	
Degree of filtration	Class 20/18/15 due to ISO 4406									
Life expectancy	not less than 1x 10 <sup>7</sup> load cycles against peak operating pressure									
Efficiency $\eta_{vol}$ :	88	91	92	93		94	95			
Efficiency $\eta_{hm}$ :	85	90		91	92		93			
Pump noise* (measured in sound chamber) dB[A]	53	54	55	57	58	59	60	61	62	63

$n = 1.450 \text{ min}^{-1}$      $\Delta p = 250 \text{ bar}$      $T = 50 \text{ }^\circ\text{C}$     Medium: HLP 46    Bruggen value min. 30N/mm<sup>2</sup> recommended 50N/mm<sup>2</sup> for servo applications

\* Measured in anechoic room of Eckerle Hydraulic Division; Axial microphone distance 1.0 m

\*\* For acceptable pressure at 400-1.800 rpm. Further rpm on request.

\*\*\* Due to manufacturing tolerances the displacement volume could vary.

\*\*\*\* 1 1/2" suction port

The pumps have no corrosion protection.

The max. permissible values must not be applied cumulatively. Please contact us.