

PRESELECTION GEAR PUMPS

Prenome / Surname

Company

Phone number

E-mail address

1 Pump selection

By using the following selection tables you can configure the desired pump design by ticking options. For many applications the standard versions and options (already preselected) in bold print are sufficient. For further information on the italicised special versions, please contact us.

Of course the gear pumps can also be designed with our support. In that case, please do not hesitate to contact us; please use the table in chapter 2 "Pump design".

1.1 Size (type)/geometric displacement volume V_g [cm³]

R25	<input type="checkbox"/> 2.5	<input type="checkbox"/> 3.15	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6.3
	<input type="checkbox"/> 8	<input type="checkbox"/> 10	<input type="checkbox"/> 12.5	<input type="checkbox"/> 16	<input type="checkbox"/> 20
R35	<input type="checkbox"/> 25	<input type="checkbox"/> 31.5	<input type="checkbox"/> 40		
	<input type="checkbox"/> 50	<input type="checkbox"/> 63	<input type="checkbox"/> 80		
R45	<input type="checkbox"/> 80	<input type="checkbox"/> 100	<input type="checkbox"/> 112	<input type="checkbox"/> 125	
	<input type="checkbox"/> 160	<input type="checkbox"/> 180	<input type="checkbox"/> 200		
R65	<input type="checkbox"/> 200	<input type="checkbox"/> 250	<input type="checkbox"/> 315		
	<input type="checkbox"/> 400	<input type="checkbox"/> 500	<input type="checkbox"/> 630		
R95	<input type="checkbox"/> 710	<input type="checkbox"/> 800	<input type="checkbox"/> 900	<input type="checkbox"/> 1000	
	<input type="checkbox"/> 1120	<input type="checkbox"/> 1250	<input type="checkbox"/> 1400	<input type="checkbox"/> 1600	
R105	<input type="checkbox"/> 1800	<input type="checkbox"/> 2000	<input type="checkbox"/> 2200	<input type="checkbox"/> 2400	

1.2 Design (For designs other than "FL", please contact us)

<input type="checkbox"/> FL	Square mounting flange
<input type="checkbox"/> FU	<i>With bolted-on foot</i>
<input type="checkbox"/> OTHER	<i>E.g., round, oval</i>

1.3 Shaft end (If the shaft end differs from "Z", please contact us)

<input type="checkbox"/> Z	Cylindrical shaft end with fitted key
<input type="checkbox"/> K	<i>Tapered shaft end</i>
<input type="checkbox"/> M	<i>Tappet</i>
<input type="checkbox"/> V	<i>Gearing</i>
<input type="checkbox"/> OTHER	<i>E.g., cylindrical shaft end with fitted key</i>

1.4 Pressure relief valve

<input type="checkbox"/>	Without DB	Without pressure relief valve (<u>then you can skip 1.5</u>)
<input type="checkbox"/>	With DB	With pressure relief valve
		<input type="checkbox"/> <i>Optional: damped design</i>
		<input type="checkbox"/> <i>Optional: heat-resistant design (for media temperatures > 80°C)</i>
		<input type="checkbox"/> <i>Optional: pilot-operated version (possible with size R65/R95/R105)</i>

1.5 Pressure relief valve - pressure range/presetting (if selected "with DB")

R25	<input type="checkbox"/> DB4 (1...4 bar)	<input type="checkbox"/> DB16 (4...16 bar)	<input type="checkbox"/> DB25 (16...25 bar)
R35	<input type="checkbox"/> DB6 (1...6 bar)	<input type="checkbox"/> DB16 (6...16 bar)	<input type="checkbox"/> DB25 (16...25 bar)
R45	<input type="checkbox"/> DB4 (1...4 bar)	<input type="checkbox"/> DB16 (4...16 bar)	<input type="checkbox"/> DB25 (16...25 bar)
R65	<input type="checkbox"/> DB4 (1...4 bar)	<input type="checkbox"/> DB16 (4...16 bar)	<input type="checkbox"/> DB25 (16...25 bar)
R95	<input type="checkbox"/> DB7 (1...7 bar)	<input type="checkbox"/> DB12 (7...12 bar)	
R105	<input type="checkbox"/> DB7 (1...7 bar)	<input type="checkbox"/> DB12 (7...12 bar)	
Presetting Opening pressure:		bar	

1.6 Shaft seal (When selecting "W" or "GLRD" please choose desired version)

<input type="checkbox"/>	Without	Without
<input type="checkbox"/>	W	<input type="checkbox"/> Radial shaft seal (RWDR), wear-optimised (standard)
		<input type="checkbox"/> <i>Variant: single radial shaft seal with increased inlet pressure at the pump inlet (up to 6 bar)</i>
		<input type="checkbox"/> <i>Variant: double radial shaft seal with connection hole for liquid reservoir</i>
		<input type="checkbox"/> <i>Variant: double radial shaft seal for vacuum operation with connection hole for liquid reservoir</i>
		<input type="checkbox"/> <i>Variant: double radial shaft seal for media separation (with leakage control hole)</i>
<input type="checkbox"/>	GLRD	<input type="checkbox"/> Mechanical seal with inlet pressure at the pump inlet up to 10 bar
		<input type="checkbox"/> <i>Variant: mechanical seal for inlet pressure at pump inlet > 10 bar</i>

1.7 Connection/connection size (only for R25)

R25	2.5...10	<input type="checkbox"/> G 3/4	<input type="checkbox"/> SAE 3/4	Nominal diameter 20
	12.5...20	<input type="checkbox"/> G 1	<input type="checkbox"/> SAE 1	Nominal diameter 25

1.8 Direction of rotation (facing the shaft end)

<input type="checkbox"/>	R	Clockwise
<input type="checkbox"/>	L	Anti-clockwise
<input type="checkbox"/>	C	<i>Clockwise/anti-clockwise rotation with changing direction of delivery</i>
<input type="checkbox"/>	UNI	<i>Clockwise/anti-clockwise rotation with consistent direction of delivery (Size R35/R45/R65)</i>

1.9 Materials

Casing	<input type="checkbox"/>	EN-GJL-250 (GG-25)	<input type="checkbox"/>	<i>Alternative: EN-GJS-400-15 (GGG-40)</i>		
Radial shaft seals	<input type="checkbox"/>	NBR	<input type="checkbox"/>	FKM	<input type="checkbox"/>	<i>Alternative: HNBR, PTFE, EPDM, additional upon request</i>
Mechanical seal	<input type="checkbox"/>	Hard carbon/SiC	<input type="checkbox"/>	<i>Alternative: various material combinations upon request</i>		
O-rings	<input type="checkbox"/>	NBR	<input type="checkbox"/>	FKM	<input type="checkbox"/>	<i>Alternative: HNBR, PTFE, EPDM, additional upon request</i>
Friction bearing	<input type="checkbox"/>	Composite bearing type P10/DU	<input type="checkbox"/>	<i>Alternative: friction bearings free of ferrous and non-ferrous metals, additional upon request</i>		
Coating	<input type="checkbox"/>	2-component paint, RAL 6011	<input type="checkbox"/>	<i>Alternative: Various coating materials and structures available upon request</i>		

1.10 Additional options

<input type="checkbox"/>	<i>Noise optimisation</i>	<i>For flow media with increased air content</i>
<input type="checkbox"/>	<i>Double pump</i>	<i>Two pump stages (size R25/R35/R45)</i>
<input type="checkbox"/>	<i>Integrated heating</i>	<i>CCV version (size R35/R45)</i>
<input type="checkbox"/>	<i>Attachment bearing/attachment bearing unit</i>	<i>For an increased radial load on the shaft journal</i>

Further Pump Requirements:

3 Pump design

If you require a technical design from us or if you are planning for operation **outside** the limits specified in our data sheet, please send us the following data:

Desired flow rate (min.):	l/min		
Speed:			
– Constant	rpm	– min./max.	rpm
Inlet pressure (manometric)			
– Constant	bar	– min./max.	bar
Outlet pressure (manometric)			
– Constant	bar	– min./max.	bar
Environmental temperature:			
– Constant	°C	– min./max.	°C
Flow media temperature:			
– Constant	°C	– min./max.	°C
Kinematic viscosity:			
– Constant	mm ² /s	– min./max.	mm ² /s
Flow medium:			

Further information on pump design: