

Standardised Chemical Magnetic Pump GEKONORM Type NM

**PTFE-lined for highly aggressive media
DIN EN 22858**



Introduction

The GEKO magnetic corrosion proof pump is a PTFE-lined chemical centrifugal pump designed according to DIN EN 22858 for dimensions and nominal output.

The GEKO magnetic pump is used whenever highly aggressive and dangerous liquids without abrasive and crystalline components are to be conveyed in an absolutely leak proof manner.

Description

Design:

Without packing, single stage, spiral casing pump, in process design with magnetic drive. The closed impeller made of PTFE has two bearings. Slide bearing made of silicon carbide. The thrust is absorbed by a thrust bearing. Broad clearance guarantees a trouble free circulation of the liquid, thus avoiding dry circulation.

The power transmission is effected by permanent magnets. The pump is hermetically sealed and is absolutely leak proof.

Casing:

Pump casing made of cast iron, GGG 40.3, lined with pure PFA. PFA-wall thickness 4 mm.

Position of nozzle:

Suction nozzle axial, pressure nozzle radial up, flange connection according to DIN 2501/1.

Technical Data

Size according to DIN EN 22858 (DIN 24256/ISO 2858).

Casing pressure:

16 bar overcharge at 150° C

Operating temperature:

max. 150° C

Impeller:

Closed type made of PTFE with shovels

Isolation shell:

- Carbon fiber (CFK), PTFE-lined
- Zirconoxid

Cylinder bearing:

Silicium carbide

Magnetic power transmission:

The permanent magnetic transmission system consists of PTFE covered internal magnets and a flywheel mass with external magnets. The magnets consist of cobalt and samarium. The pump is hermetically sealed by PTFE lined isolation shell and therefore absolutely leak proof.

Standard-Drive:

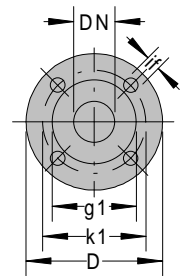
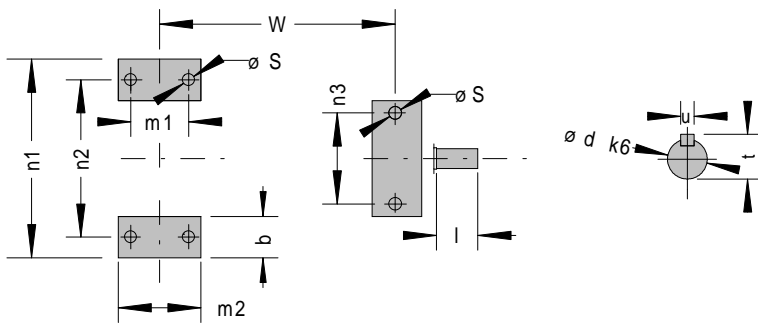
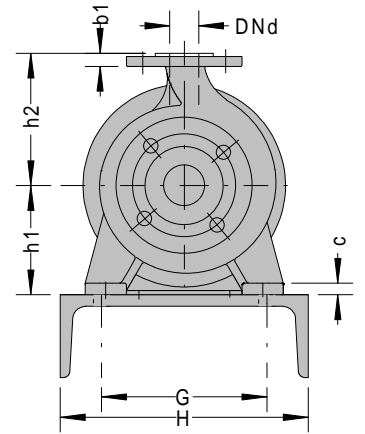
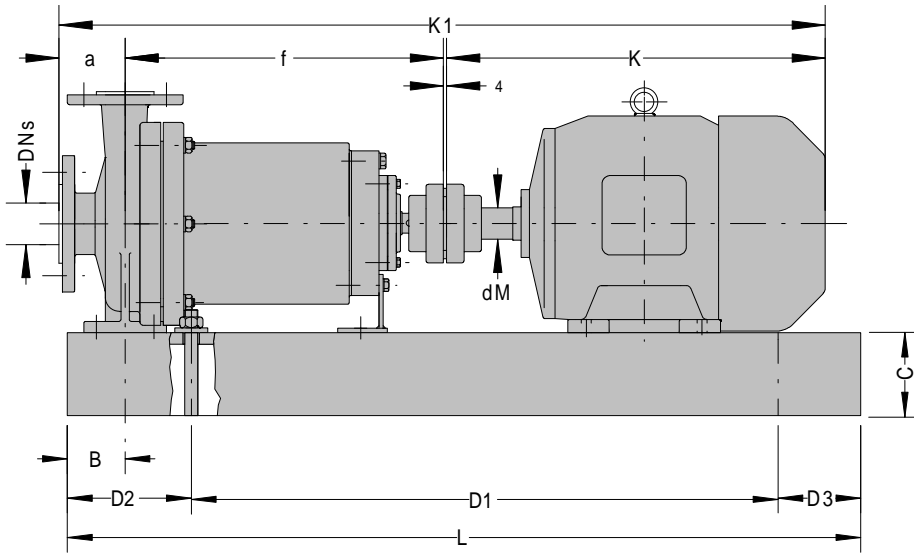
Three phase current motor explosion proof EExellT3. Specials, such as motors within other ignition groups, are also available.

Minimum flow rate:

0,5 m³/h

Pumps are also available in **close coupled** design.

Foundation Plan



Dimension Table

Dimension for motor and base-plate [mm]													Bolts	
Type	Motor	H	D1	D2	D3	L	G	C	B	K	K1	∅ dM	DIN 529	
G1	90L	300	620	150	100	870	190	100	70	325	798	24	M16 x 220	
G1	100L	300	620	150	100	870	190	100	70	383	852	28	M16 x 220	
G1	112M	300	620	150	100	870	190	100	70	389	858	28	M16 x 220	
G2	132S	350	710	150	100	960	250	100	70	458	927 ¹⁾	38	M16 x 220	
G2	132M	350	710	150	100	960	250	100	70	496	985	38	M16 x 220	
G3	160M	400	900	185	60	1080	280	110	100	628	1097 ²⁾	42	M20 x 220	
G3	160L	400	900	185	60	1080	280	110	100	672	1161	42	M20 x 220	
G3	180M	400	900	185	60	1080	280	110	100	696	1185	48	M20 x 220	
G4	200L	400	1020	185	60	1200	280	110	100	766	1255	55	M20 x 220	

¹⁾ at 40-200 and 50-200 = 947

²⁾ at 40-200 and 50-200 = 1117

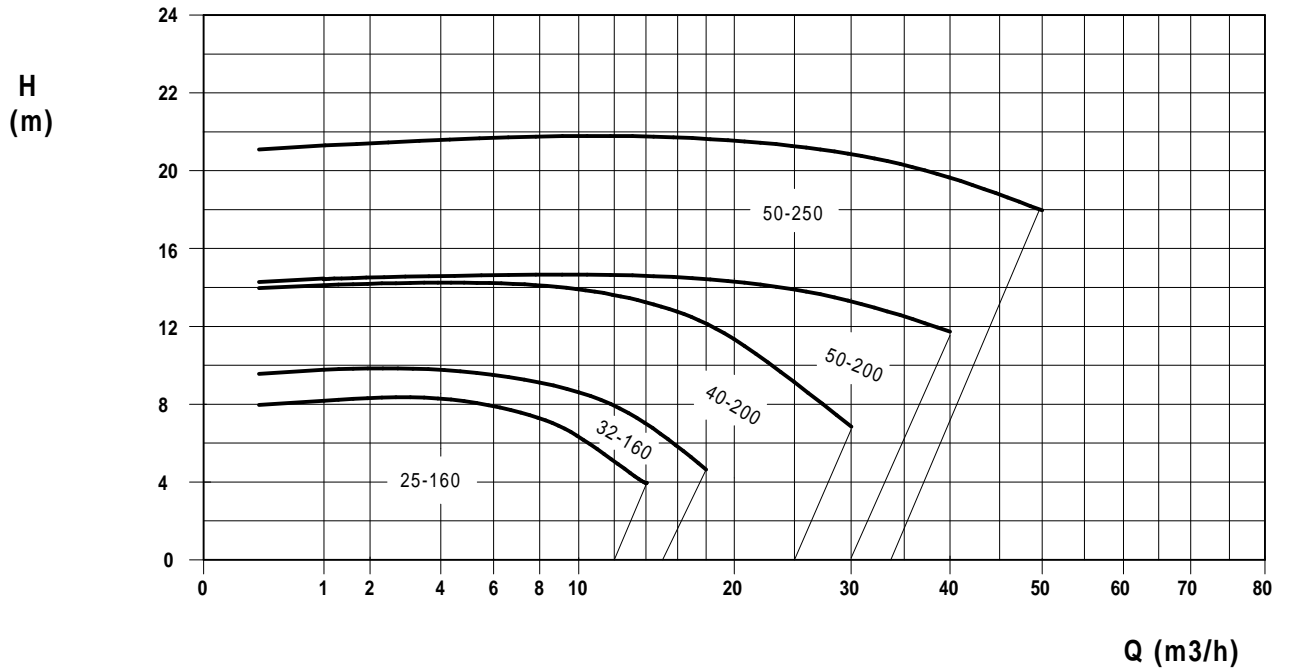
Size	Dimension of pump [mm]						Dimension of base [mm]								
	DN _s	DN _D	a	f	h1	h2	b	c	m1	m2	n1	n2	n3	∅S	W
25-160	25	25	80	385	132	160	50	14	70	100	240	190	110	15	285
32-160	50	32	80	385	132	160	50	14	70	100	240	190	110	15	285
40-200	65	40	100	385	160	180	50	14	70	100	265	212	110	15	285
50-200	80	50	100	385	160	200	50	14	70	100	265	212	110	15	285
50-250	80	50	125	500	180	225	65	14	95	125	320	250	110	15	370

Flanges according to DIN 2501/1 PN16					
DN	Flange - ∅	Pitch circle - ∅	Raised Face - ∅	Bolts	
				Number	Holes - ∅
25	115	85	68	4	14
32	140	100	78	4	18
40	150	110	88	4	18
50	165	125	102	4	18
65	185	145	122	4	18
80	200	160	138	8	18

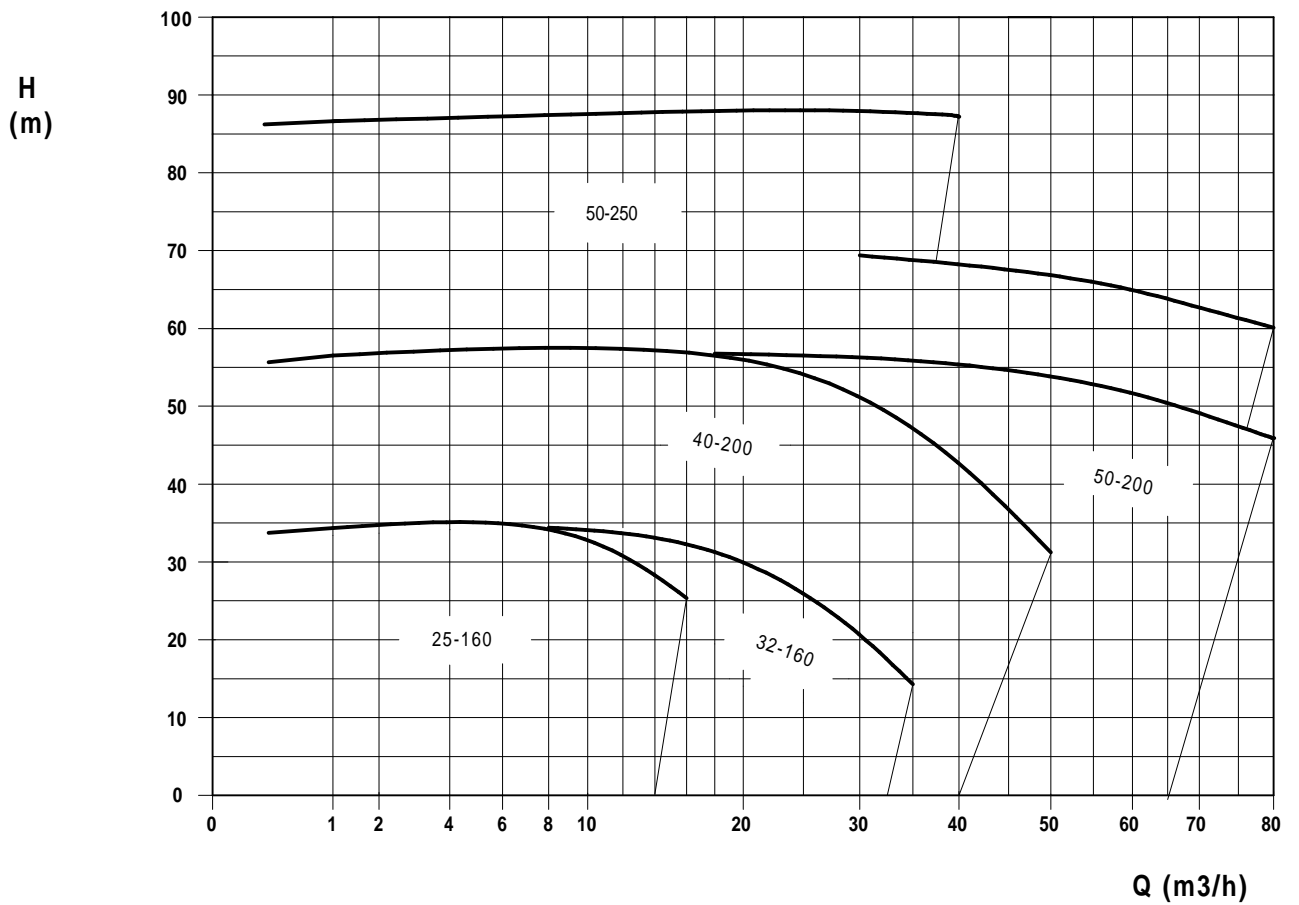
Size	Pump shaft			
	∅ d _{k6}	l	t	u
25-160	24	50	27	8
32-160	24	50	27	8
40-200	24	50	27	8
50-200	24	50	27	8
50-250	32	80	35	10

Characteristic Curve

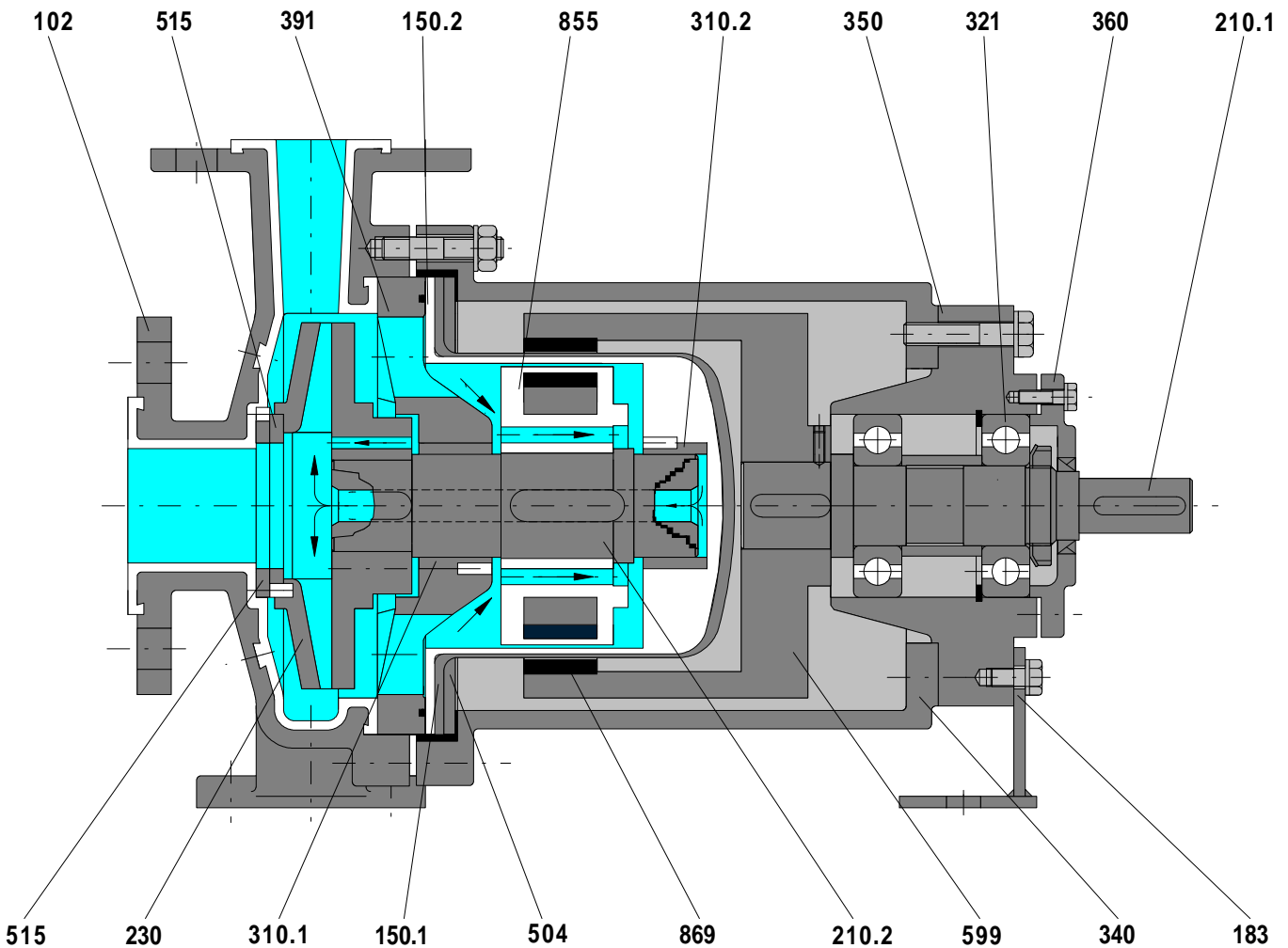
$n = 1450 \text{ min}^{-1}$



$n = 2900 \text{ min}^{-1}$



Cutaway drawing and table of components



Item-No.	Specification	Item-No.	Specification
102	spiral casing	340	body casing
150.1	isolation shell	350	ball bearing housing
150.2	isolation shell-lining	360	cover ball bearing housing
183	support	391	bearing bracket
210.1	shaft	504	support ring
210.2	pump shaft	515	pressure ring
230	impeller	599	flywheel mass
310.1	slide bearing	855	magnet rotor
310.2	slide bearing	869	permanent magnets
321	radial ball bearing		