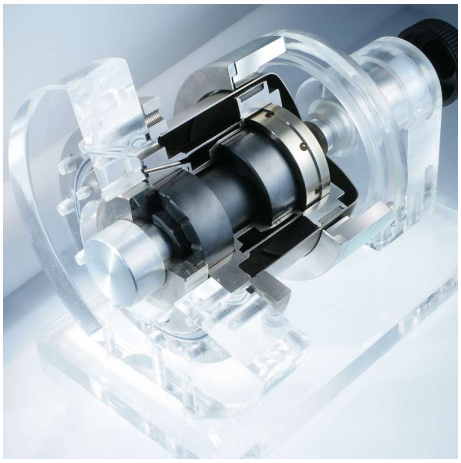
EagleBurgmann®
Rely on excellence

MAK66



Features

Magnetic couplings (MAK) are a hermetic sealing solution for pumps and agitators. Dangerous or precious media remains isolated in the closed system circuit.

Advantages

- Magnetic coupling for standard applications
- Hermetically sealed
- No contact of torque transmitting elements
- No maintenance necessary
- Hastelloy® can for high performance
- High efficient can optional
- Product lubricated sliding bearing included

Operating range

Shaft diameter: d = ... 40 mm (1,57")
Pressure: p = 25 bar (363 PSI)
Temperature: t = -40 °C ... +250 °C (-40 °F ... +482 °F) (SmCo),
+120 °C (+248 °F) (NdFeB)
Speed: n = 3,600 min^{-1}
Chemical resistance: pH 0 … 14
Viscosity: 0.3 … 5,000 mPas (SiC)
Torque: max. 462 Nm
Solids: max. 0.1 mm; max. 5 % by weight; grain hardness max. 700 HV

Materials

Sliding faces: Silicon carbide SiC (Q1), Carbon silicon impregnated SiC-C-Si (Q3), Carbon graphite resin impregnated (B)
Magnets: Samarium Cobalt (MA3), Neodymium-Iron-Boron (MA8)
Metal parts: CrNiMO steel 1.4571 (G), CrNiMo steel 1.4462 (G1), Hastelloy® C-4 2.4610 (M)

Notes

Different variants are available to meet specific requirements:

- Coolable or heatable bearing arrangements
- Vertical drive with dry running roller bearing
- High temperature variant
- Without bearing

Can variants:

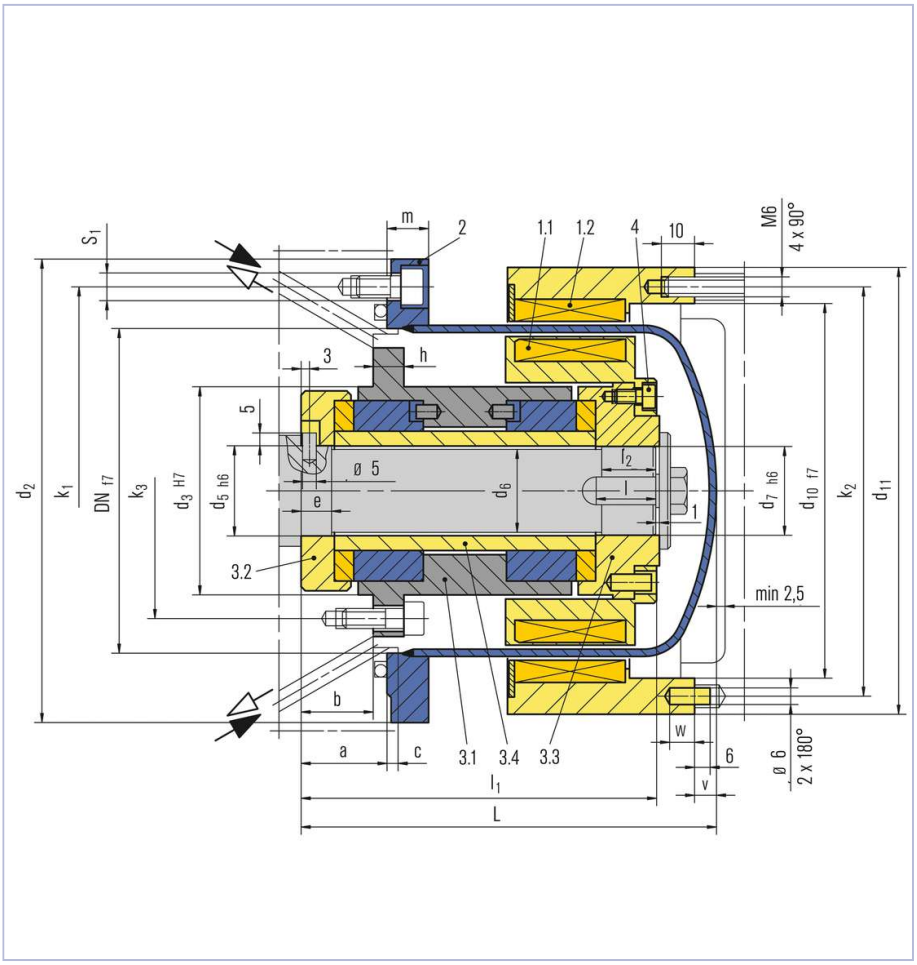
- Double wall
- High pressure can
- Ceramic, PEEK carbon fiber, Titanium cans

Recommended applications

- Chemical industry
- Oil and gas industry
- Refining technology
- Pharmaceutical industry
- Food processing industry
- Centrifugal pumps
- Gear pumps
- Top drive mixers/agitators
- Fans
- Blowers
- Autoclaves

Functional description

The power transmission occurs contact-free through magnets from the drive shaft to the product wetted output shaft. Between the two rotating parts is the can wich is bolted to the container.



Item	Description
1	Coupling
1.1	Inner rotor
1.2	Outer rotor
2	Can
3	Bearing assembly
3.1	Radial journal bearing
3.2	Axial journal bearing
3.3	Axial journal bearing
3.4	Shaft sleeve
4	HSH cap screw

Product variants

Ceramic and PEEK carbon fiber can variants

Charts

Static break-away torque (Nm)

DN		60		75		110		135		165	
No. of poles		8		10		16		20		24	
Material		MA3	MA8	MA3	MA8	MA3	MA8	MA3	MA8	MA3	MA8
Magnet length in cm	2	6.5	9	9	13	24	33				
	4	14.5	20	21	29	53	74	85	119	115	160
	6	22	31	34	48	85	119	128	180	185	259
	8							176	247	260	364
	10									330	462

Static break-away torque [Nm] at room temperature. Magnet material: MA3 = SmCo, MA8 = NdFeB

Dimensions

d_{10}	d_{11}	V	W	k_2
90	110	0	5	100
125	145	4	5	135
150	170	4	5	160
178	198	5	8	188

Outer rotor
Dimensions in millimeter

Dimensions

DN	DNL	d3	d5	d6	b	e	l1	l2	h	k3	d7	l	t	u
75	22	44	16.5	15.8	21	8	103	29	7	55	16	16	18	5
110	43	75	32.5	31.5	26	11	128.5	20	8	87	32	22	35	10
135	43	75	32.5	31.5	26	11	138.5	20	8	87	32	22	35	10
165	55	92	40.5	39.5	27	12	169.5	30	10	103	40	32	46	12

Bearing arrangement
Dimensions in millimeter

Dimensions

DN	LK	L	d1	d2	a	c	m	k1	s1
75	2-6	119	75	118	17	4	13	100	9
110	2-6	146	110	153	31	4	13	133	9
135	4-8	156	135	178	17	4	14	158	9
165	4-10	187	163.5	218	17	5	16	192	11

Can
Dimensions in millimeter