

KIRLOSKAR ROMAK PUMP - RMK

ISO 2858 / DIN EN 22858 / ISO 5199





RANGE

Discharge consolity(O)		$l \ln t_{2} 200 m^{3}/hr$
Discharge capacity (Q)		Up to 300 m /nr
Delivery head (H)	:	Up to 150 m (at 2900 rpm)
Available nominal speed (n)	:	2900, 1450, 980 rpm at 50 Hz and
		3500, 1750, 1150 rpm at 60 Hz.
Max. operating pressure (P)	:	16 bar (25 bar) (Max. Suction pressure 5 bar)
Temperature range (t)	:	-50°C up to +180°C
Pump Sizes (DN)	:	32 mm to 100 mm
Total Number of Models	:	22

APPLICATIONS:

- RMK pumps are used for handling various types of Clear / Clean chemical liquids without any suspended particals from various process industries
- RMK pump is Magnetic Drive Pump comprising Permanent magnets.
- Pump dimensions are fully confirming to ISO 2858/DIN EN 22858 and technically meeting requirements of ISO 5199.
- Sealless pump.

Casing:

The casing has axial suction and top centre line delivery with self venting design. Smooth hydraulic passage ensures high efficiency. Delivery flanges and supporting feet are cast integral with the casing.

Impeller:

The impellers are of enclosed type. Hydraulic balancing of impellers is achieved by balancing holes or back vanes depending upon magnitude of hydraulic axial thrust. The impellers are statically and dynamically balanced.

Impeller Shaft:

Impeller shaft is supported between Plain Silicon Carbide bush bearings. The shaft is critically machined and ground to maintain geometric accuracies.

Pump Shaft (Drive Shaft):

Pump shaft is supported between antifriction ball bearings.

Wear Rings:

Replaceable wear rings are provided on Casing and Impeller.

Impeller Nut:

Impeller nut is positively locked on shaft with the help of Helicoil insert.

Plain Bearing Unit:

The Silicon Carbide Bush Bearings are used to take care of Radial and Axial thrust exerted on impeller. Bearing is lubrication with the help of same pumping liquid. These are mounted on Duplex material components as a standard scope.

Inner Magnet Ring & Outer Magnet Ring:

These are permanent magnets glued on steel metallic case.

Can:

Can made of Hastelloy material. Designed to with stand 24 bar hydro test pressure.

Impeller Rotor:

Impeller rotor houses inner magnet rings. After mounting inner magnet rings, Tube is welded to prevent magnet from getting contact of pumping liquid.

Drive rotor:

Drive rotor houses outer magnet rings.

Lantern Bracket and Bearing Housing:

Lantern bracket and Bearing housing combine supports Drive rotor assembly and Drive shaft. Antifriction Ball Bearings are Deep groove ball bearings which are available in 2 options of bearing lubrication 1. Oil lubricated 2. Pre-lubricated sealed bearings

Direction of Rotation:

Clockwise when viewed from driving end.

Drive:

Pumps can be driven by an electric motor.

- 1. Centerline delivery with self venting
- 2. Back pullout type design
- 3. Designed for suction pressure 5 kg/cm²
- 4. Flange drilling
- 5. Auxiliary tapping
- 6. Coupling
- 7. Performance testing standard
- 8. Interchangeability of components among different pump sizes

Features With Respect To Safety And Condition Monitoring

- Zero leakage
- One-piece Hastelloy C Can for Safety
- Liquid protected Magnets for longer performance.
- Lantern bracket drain connection for Leakage monitor
- Lantern bracket / Casing cover connection for Can / Liquid temperature monitor (Optional)

CROSS-SECTION WITH MAJOR COMPONENTS



NPT

ISO 9906 Gr.2B

ASME B 16.5 class 150 RF (std) and class 300 RF optional PN 16 and PN 25 as per DIN standard optional

Flexible jaw type spacer coupling



PUMP	PUMP		Р	UMF	>							FOOT DIMENSIONS						SHAFT END				
SIZE	UNIT		DIM	ENS	IONS	6																
		DEL	SUC	а	f	h1	h2	b	С	m1	m2	n1	n2	w	Øs1	Øs2	e1	Ød		t	u	У
32/13	5.1					112	140					190	140									
32/16	5.2	32	50			132	160					240	190								1	
32/20	5.3			80		160	180														1	
40/13	5.1	10	0.5			112	140					210	160								1	
40/16	5.2	40	65		385	132	160	50	14	100	70	240	190	285	14	15	110	24	50	27	8	100
40/20	5.3					160	180					265	212					- ·			-	
50/13	5.1					132	160					240	190								1	
50/16	5.2	50	80	100		160	180					265	212								1	
50/20	5.3					160	200														1	
65/13	5.1	65	100			160	180	65		125	95	280	212									
32/26	7.3	32	50	100		180	225					320	250								1	
40/26	7.3	40	65																		1	
40/32	7.4			125		200	250					345	280								1	
50/26	7.3	50	80	125		180	225	65	14	125	95	320	250		14						1	
50/32	7.4				500	225	280					345	280	0.70			1.1.0					
65/16	7.1		100	100		160	200					280	212	370		15	110	32	80	35	10	140
65/20	7.2	65	100			180	225					320	250								1	
65/26	7.3					200	250	80	16	160	120	360	280		18						1	
80/16	7.1					180	225	65	14	125	95	320	250		14						1	
80/20	7.2	80	125	125			250			•		345	280								1	
80/26	7.3					225	280	80	16	160	120	400	315		18						1	
100/20	7.2	100	125			200	280					360	280									

Note: These are tentative dimensions. Certified dimensions shall be submitted against order.

MATERIAL OF CONSTRUCTION

Component Description	Standard MOC	Option 1	Option 2	Option 3	Option 4	Option 5		
Pump Casing	Stainless Steel ASTM A351 M - CF8M	ASTM-	ASTM-	Alloy 20				
Casing Cover	Stainless Steel ASTM A351 M - CF8M	A890/890M CD4MCuN-1B	CE3MN-5A	ASTM B473 UNS8020-	ASTM A494 - Hastelloy B	ASTM A494 - Hastelloy C		
Wear Ring	Stainless Steel ASTM A351 M - CF8M	Duplex	(UNS 32760)	ALLOY20				
Impeller Shaft	Stainless SteelDuplex ASTMASTM-A276Alloy 20ASTM A276 Type 316A240M -UNSUNS 32760ASTM B473MONEL BS3076-NA18and 316LS31803(UNS 32760)ALLOY20K-Monel 500)							
Plain Bearings	Silicon Carbide							
Magnets	Samarium Cobalt							
Can	Hastelloy C4							
Pump Shaft	Stainless Steel ASTM A276 Type 316 and 316L							

MATERIAL STANDARDS - GENERAL INFORMATION

Material Type	Indian Standard (IS)	American standard (ASTM)	DIN
Cast Iron Cast Iron	IS 210 Gr. FG 260	ASTM A48 Class 40	(0.6025)DIN 1691 GG25
Spheroidal Graphite Cast Iron SG Iron (Ductile Iron) SG Iron (Ductile Iron)	IS 1865 Gr 400/15 IS 1865 Gr 500/7	A536, 60-40-18 A536, 65-45-12	(0.7040)DIN1693 GGG40 (0.7050)DIN1693 GGG50
Carbon steel Carbon steel (Wrought) Carbon steel (Wrought) MS Steel	IS 1570 (part II) Gr. 40C8 IS 1570 (part II) Gr. 20C8 MS IS 2062 - Fe 410 W A	ASTM A107 Gr. 1040 ASTM A107 Gr. 1020 ASTM-A283 GR.D	(1.1186)C40E/CK40 (1.0402)C22 DIN 1700 GR ST4-2 FABRICATED STEEL44
Cast Steel Grades Cast steel		ASTMA 216 Gr. WCB	1.0619(GS-C25)
Cast Stainless Steel Stainless Steel CF8M Stainless Steel CF8M Stainless Steel CF3M Stainless Steel CF8 Stainless Steel CF3	IS 3444 Gr. 4 IS 3444 Gr. 4 IS 3444 Gr. 16 IS 3444 Gr. 16 IS 3444 Gr. 1	ASTMA 351 Gr. CF8M ASTMA 743 Gr. CF8M ASTMA 351 Gr. CF3M ASTMA 743 Gr. CF3M ASTMA 351 Gr. CF8 ASTMA 351 Gr. CF3	1.4408(GX5CrNiMo19-11-2) 1.4408(GX5CrNiMo19-11-2) 1.4409(GX2CrNiMo19-11-2) 1.4409(GX2CrNiMo19-11-2) 1.4301(X5CrNi18-10) 1.4306(X2CrNi19-11)
Cast Chromium StainlessSteel Stainless Steel CA15 Stainless Steel CA15 Stainless Steel CA6NM Stainless Steel CA6NM	IS 3444 Gr. 10 IS 3444 Gr. 10 IS 3444 Gr. 24 IS 3444 Gr. 24	ASTMA 217 Gr. CA15 ASTMA 743 Gr. CA15 ASTMA 487 Gr. CA6NM ASTMA 743 Gr. CA6NM	1.4106&1.448(DIN17445 GX12Cr14) 1.4106&1.448(DIN17445 GX12Cr14) 1.4313&1.4317(GX5CrNiMo13-4) 1.4313&1.4317(GX5CrNiMo13-4)
Chromium StainlessSteel Round Bar	Matterial		1.4513d 1.4517 (0.7501 Million 5 4)
Stainless steel 410 Stainless steel 420 Stainless steel 431 Stainless steel 316 Stainless steel 316L	IS 1570 (part V) Gr. X12Cr12 IS 1570 (part V) Gr. X20Cr13 IS 1570 (part V) Gr. X15Cr16Ni2 IS 1570 (part V) Gr. X04Cr17Ni12Mo2 IS 1570 (part V) Gr. X02Cr17Ni12Mo2	ASTMA 276 type 410 ASTMA 276 type 420 ASTMA 276 type 431 ASTMA 276 type 316 ASTMA 276 type316L	1.4006(X10Cr13) 1.4021(X20Cr13) 1.4057(X20CrNi17) 1.4401(X5CrNiMo17122) 1.4404(X2CrNiMo1810)
Cast Duplex Steel Duplex Steel 1A Duplex Steel 2A Duplex Steel 3A Super Duplex steel 4A Super Duplex steel 5A		ASTMA 890 Gr. CD4MCu ASTMA 890 Gr. CE8MN ASTMA 890 Gr. CD6MN ASTMA 890 Gr. CD3MN ASTMA 890 Gr. CE3MN	25Cr-5Ni-Mo-Cu 24Cr-10Ni-Mo-N 25Cr-5Ni-Mo-N 25Cr-7Ni-Mo-N 24Cr-10Ni-Mo-N
Phosphor Bronze Zinc Free Bornze	IS 318 Gr. LTB2 (CuSn5Zn5Pb5C) IS 28 Gr. 1 (CuSn11PC) IS 28 Gr. 1 (CuSn10C)	ASTMB 584 - C90500	DIN 1705 Rg 5

RMK PUMPS FAMILY CURVE AT 1450 RPM







DISCHARGE IN (m³/hr)

ABOUT KBL

Kirloskar Brothers Limited (KBL) is a world class pump manufacturing company with expertise in engineering and manufacture of systems for fluid management. Established in 1888 and incorporated in 1920, KBL is the flagship company of the \$ 2.1 billion Kirloskar Group. As the market leader in fluid management, KBL provides complete fluid management solutions for large infrastructure projects in the areas of water supply, power plants, irrigation, oil & gas and marine & defence. We engineer and manufacture industrial, agriculture and domestic pumps, valves and hydro turbines.

In 2003 KBL acquired SPP Pumps, United Kingdom and established SPP Inc., Atlanta, USA, as a wholly owned subsidiary of SPP, UK and expanded its international presence. In 2007, Kirloskar Brothers International B.V., The Netherlands and Kirloskar Brothers (Thailand) Ltd, a wholly owned subsidiary in Thailand were incorporated. In 2008, KBL incorporated Kirloskar Brothers Europe BV (Kirloskar Pompen BV since June 2014), a joint venture between Kirloskar Brothers International BV and Industrial Pump Group, The Netherlands. In 2010 KBL further consolidated its global position by acquiring Braybar Pumps, South Africa. SPP MENA was established in Egypt in 2012. KBL has a joint venture company with Ebara Corporation, Japan since 1988 for the manufacture of API 610 standard pumps. Kirloskar Corrocoat Private Limited is joint venture cooperation with Corrocoat Ltd., UK since 2006. KBL acquired The Kolhapur Steel Limited in 2007 and Hematic Motors (Now KPML) in 2010. In 2014, KBL acquired SyncroFlo. Inc, the largest independent fabricator of commercial and municipal domestic water.

KBL has eight manufacturing facilities in India at Kirloskarvadi, Dewas, Kondhapuri, Shirval, Sanand, Kaniyur, Kolhapur and Karad. In addition, KBL has seven manufacturing and packaging facilities in Egypt, South Africa, Thailand, The Netherlands, United Arab Emirates, United Kingdom and United States of America. KBL has 12,700 channel partners in India and 80 overseas and is supported by best in class network of Authorised Centres and Authorised Refurbishment Centres across the country.

All plants of KBL are ISO 9001, ISO 14001 and OHSAS 18001 standards certified. They apply Total Quality Management tools using European Foundation for Quality Management (EFQM) model. The Kirloskarvadi plant of KBL is a state of art integrated manufacturing facility having one of Asia's largest hydraulic research centre with testing facility up to 5000 kW and 50,000 m³/ hour.

KBL is the only pump manufacturing company in India and ninth in the world to be accredited with the N and NPT certification by American Society of Mechanical Engineers (ASME).



Scan this code with your smart phone to know more about KBL

As we are constantly endeavouring to improve the performance of our products / equipment, we reserve the right to make alterations from time to time and as such our products / equipments may differ from that detailed in this publication. For latest information you may get in touch with our Regional Sales Offices.



Pumps | Valves | Hydro Turbines | Turnkey Projects