Enriching Lives

END SUCTION PUMP

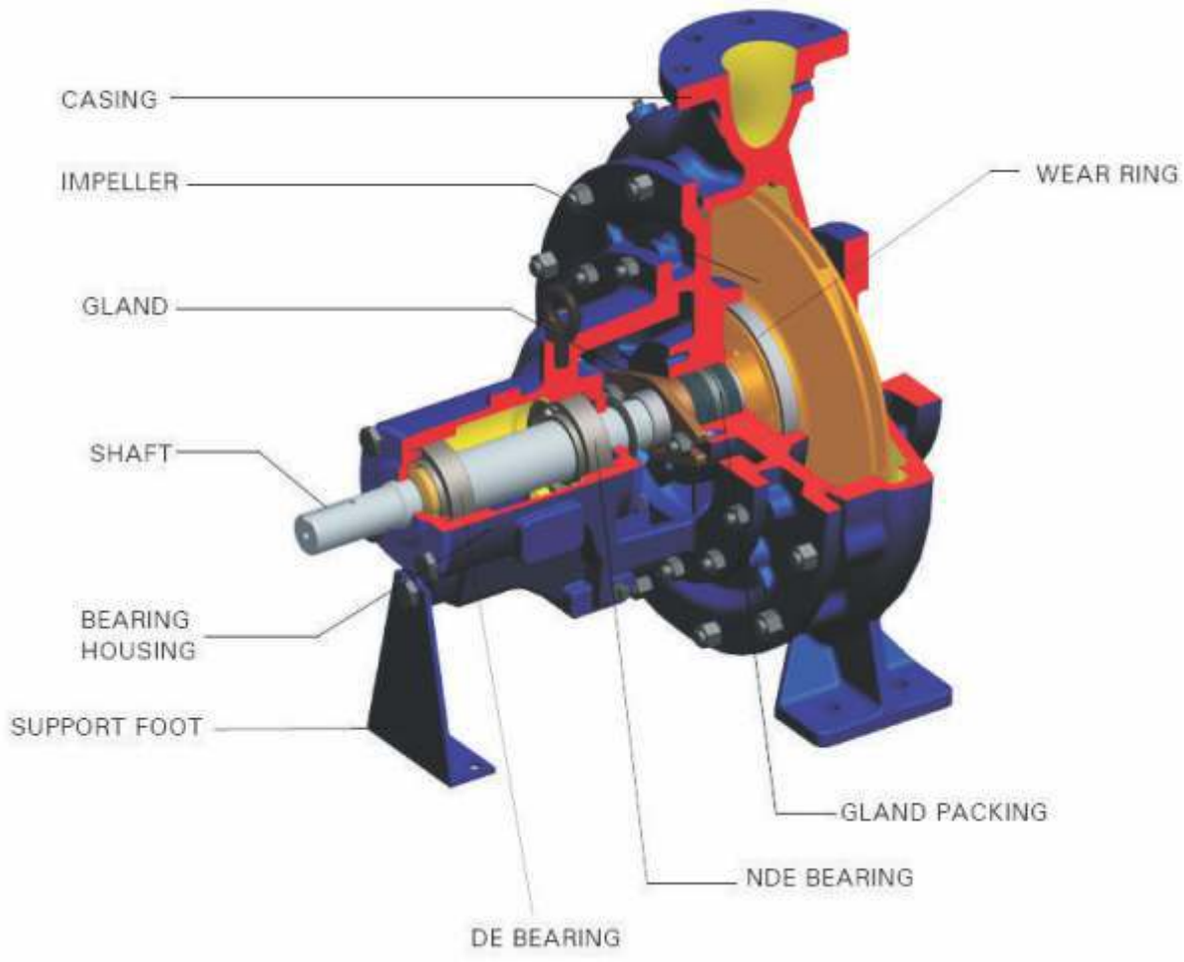
TYPE - GK

KIRLOSKAR BROTHERS LIMITED

Established 1888

A Kirloskar Group Company

CUT SECTION



RANGE

Delivery size	:	32 to 125 mm
Capacity	:	5 to 450 m^3/hr
Head	:	up to 95 meters
RPM	:	1450 & 2900
Working Press	:	16 kg/cm^2 (MAWP)
Temperature	:	Up to 90^0C (standard)

NOMENCLATURE

Applications :

GK pumps are mainly used for clean and clear liquids which are free from suspended solids\particles. Few of the applications are as below:

1. Water supply
2. Sprinkling
3. Air conditioning
4. Industrial water
5. Swimming pool water
6. Hot water (up to 90^0C)
7. Fire fighting.
8. Drinking water/Potable water
9. Cooling water
10. Condensate
11. Clear juice

CONSTRUCTIONAL FEATURES

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 either by back vanes or by balance holes depending upon magnitude of axial thrust. The impellers are statically and dynamically balanced.

Shaft:

The shaft is supported between antifriction ball bearings. The critical speed of shaft is sufficiently above the operating speed. The shaft is critically machined and ground to maintain concentricity. It is fully protected from the liquid being handled by means of 'O' ring and gasket.

Stuffing Box:

Stuffing box dimensions will be as per ISO 3069. The stuffing box is sealed by either gland packing or by cartridge type mechanical seal. Gland packed supply is standard for liquids up to 90^0C.

Bearings:

The bearings are lubricated with grease as a standard supply. All pumps are provided with deep groove ball bearings arrangement.

Direction of Rotation:

Clockwise when viewed from driving end.

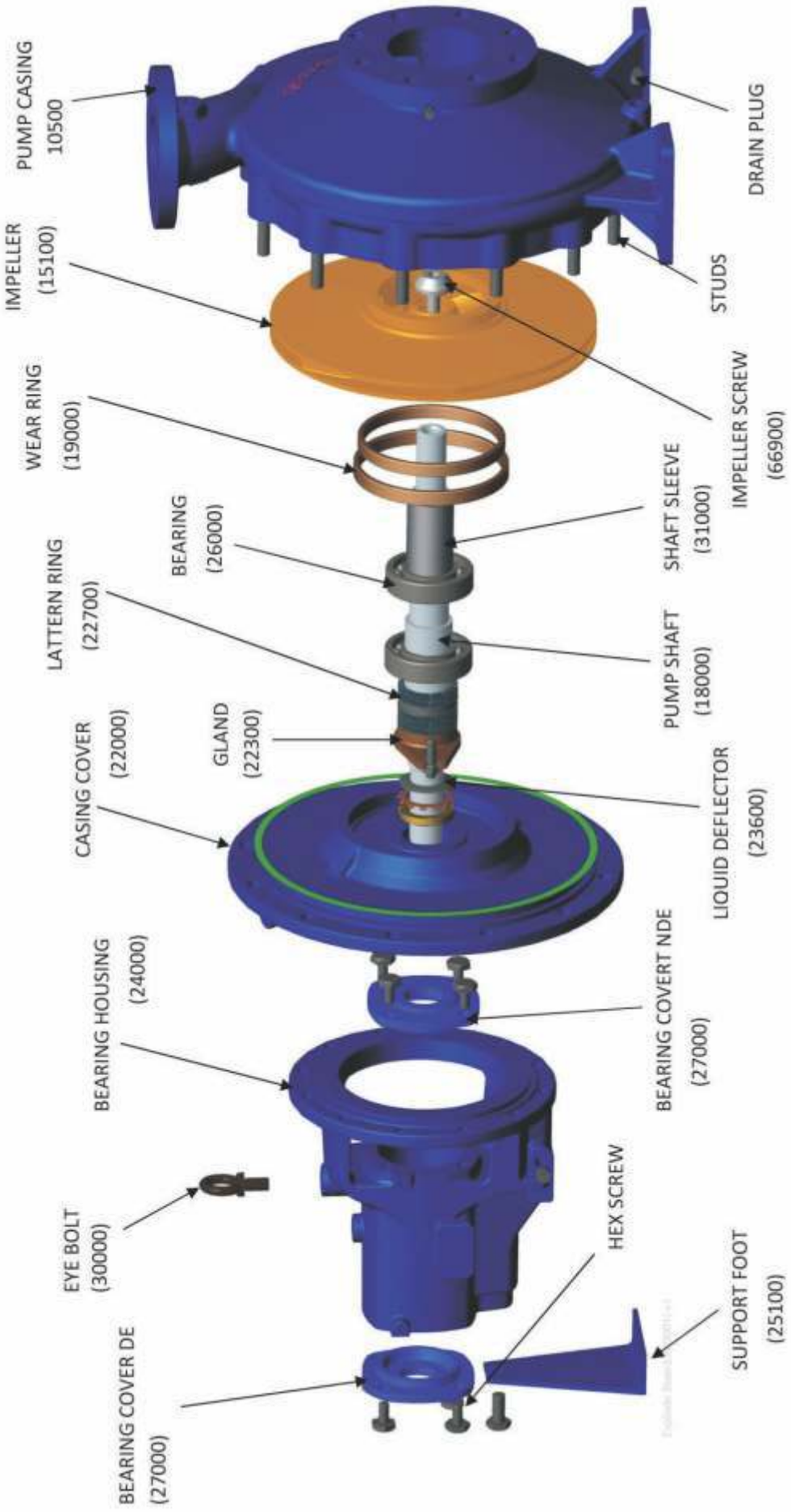
Drive:

Pumps can be driven by electric motor or engine.

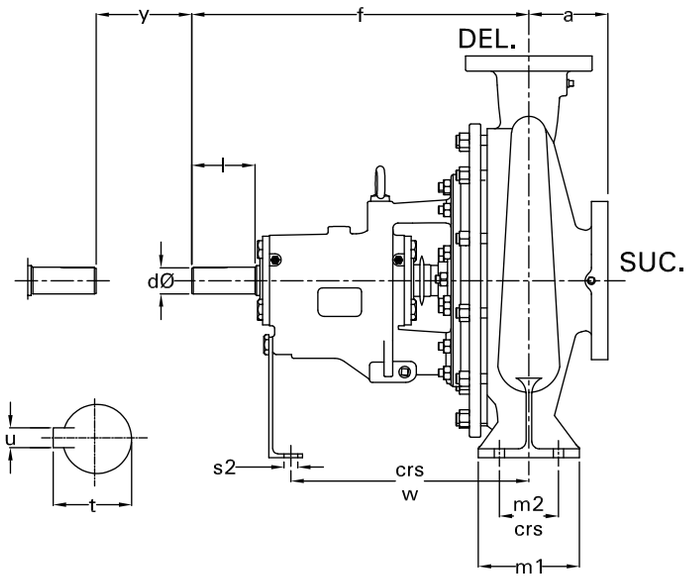
Constructional Features:

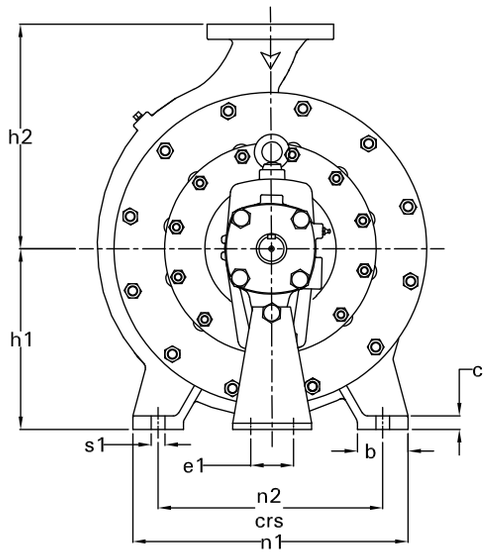
1. Conforming to ISO 5199
2. Dimensions are fully conforming to ISO 2858 / EN 22858
3. Centerline delivery self venting
4. Back pullout type design
5. Pump is having dry shaft design (Shaft is completely protected).
6. Max. allowable working pressure is 16 kg/cm^2
7. Max. Allowable suction pressure is 12 kg/cm^2 subject to max. working pressure is 16 kg/cm^2
8. Hydrostatic test pressure:
   Cast iron : 24kg/cm^2
9. Flange drilling : BSEN1092 (DIN 2533 ND16) standard
   Optional : ANSI class125FF, 150FF
10. Auxiliary tapping : BSP
11. Mechanical seal : cartridge type single seal (Optional)
12. Coupling : Flexible jaw type spacer coupling
13. Performance testing standard: ISO9906 Gr.2B
14. Interchangeability of components
15. Pump can be offered with CE marking

EXPLODED VIEW



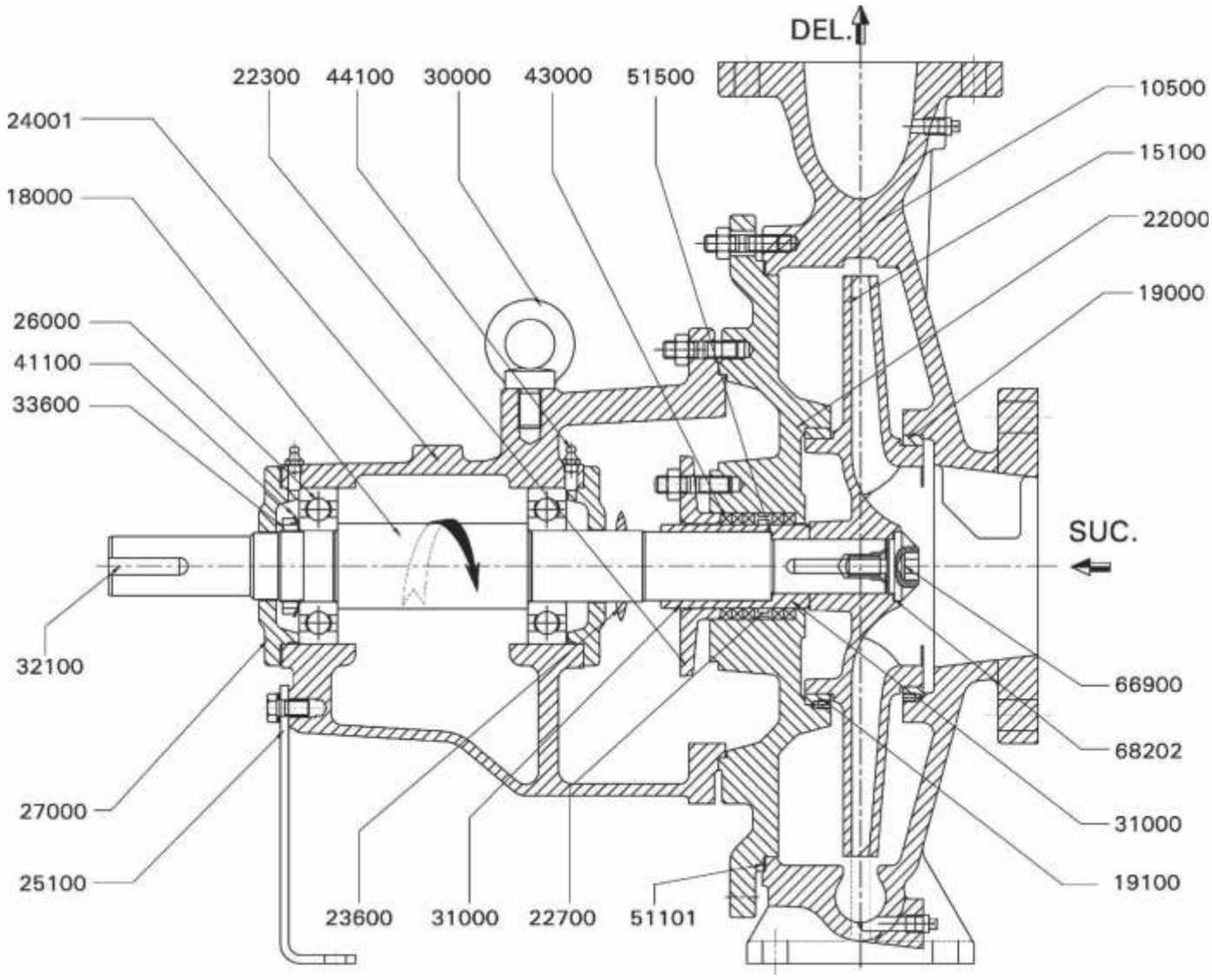
GENERAL DIMENSIONS / MOUNTING DETAILS





PUMP SIZE	DRIVING UNIT	PUMP DIMENSIONS						FOOT DIMENSIONS									SHAFT END					APPROX.
		DEL	SUC	a	f	h1	h2	b	c	m1	m2	n1	n2	w	s1	s2	e1	Ød	l	t	u	v	WT (Kg)
65/32B 65/32BF	50	65	100	125	530	225	280	80	16	160	120	400	315	370	18	15							130
80/32B 80/32BF	50	80	125	125	530	250	315	80	16	160	120	400	315	370	18	15							135
100/32B	50	100	125	140	530	250	315	80	16	160	120	400	315	370	18	15							145
125/32A	50	125	150	140	530	280	355	100	18	200	150	500	400	370	18	15							160
125/32B	50	125	150	140	530	280	355	100	18	200	150	500	400	370	23	15							161
80/40B 80/40BF	50	80	125	125	530	280	355	80	16	160	120	435	355	370	18	15	110	42	100	45	12	140	160
100/40A 100/40AF	50	100	125	140	530	280	355	100	16	200	150	500	400	370	23	15							175
100/40B 100/40BF	50	100	125	140	530	280	355	100	16	200	150	500	400	370	23	15							173
100/26B	50	100	125	140	530	225	280	80	16	160	120	400	315	370	18	15							125
125/26A	50	125	150	140	530	250	355	80	16	160	120	400	315	370	18	15							140
32/13A	30	32	50	80	385	112	140	50	14	100	70	190	140	285	14	15							32
32/13B	30	32	50	80	385	112	140	50	14	100	70	190	140	285	14	15							32
32/16	30	32	50	80	385	132	160	50	14	100	70	240	190	285	14	15							39
32/20A	30	32	50	80	385	160	180	50	14	100	70	240	190	285	14	15							45
32/20B	30	32	50	80	385	160	180	50	14	100	70	240	190	285	14	15							45
40/13	30	40	65	80	385	112	140	50	14	100	70	210	160	285	14	15							33
40/16	30	40	65	80	385	132	160	50	14	100	70	240	190	285	14	15							41
40/20A	30	40	65	100	385	160	180	50	14	100	70	265	212	285	14	15	110	24	50	27	8	100	47
40/20B	30	40	65	100	385	160	180	50	14	100	70	265	212	285	14	15							47
50/13	30	50	80	100	385	132	160	50	14	100	70	240	190	285	14	15							37
50/16A	30	50	80	100	385	160	180	50	14	100	70	265	212	285	14	15							44
50/20A	30	50	80	100	385	160	200	50	14	100	70	265	212	285	14	15							52
65/13A	30	65	100	100	385	160	180	65	14	125	95	280	212	285	14	15							41
40/26B	40	40	65	100	500	180	225	65	14	125	95	320	250	370	14	15							77
50/26B	40	50	80	125	500	180	225	65	14	125	95	320	250	370	14	15							81
50/32A	40	50	80	125	500	225	280	65	14	125	95	345	280	370	14	15							105
65/16B	40	65	100	100	500	160	200	65	14	125	95	280	212	370	14	15							61
65/20B	40	65	100	100	500	180	225	65	14	125	95	320	250	370	14	15							67
65/26A	40	65	100	125	500	200	250	80	16	160	120	360	280	370	18	15	110	32	80	35	10	140	90
65/26B	40	65	100	125	500	200	250	80	16	160	120	360	280	370	18	15							87
80/16A	40	80	125	125	500	180	225	65	14	125	95	320	250	370	14	15							70
80/20A	40	80	125	125	500	180	250	65	14	125	95	345	280	370	14	15							78
80/26A	40	80	125	125	500	225	280	80	16	160	120	400	315	370	18	15							95
100/20A	40	100	125	125	500	200	280	80	16	160	120	360	280	370	18	15							86

CROSS SECTIONAL ASSEMBLY



PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
10500	PUMP CASING	31000	SHAFT SLEEVE
15100	IMPELLER	32000	KEY FOR IMPELLER
18000	SHAFT	32100	KEY FOR COUPLING
19000	CASING RING SUC SIDE	33600	BEARING LOCK NUT
19100	CASING RING DEL SIDE	41100	LOCK WASHER
22000	CASING COVER	43000	GLAND PACKING
22700	LANTERN RING	44100	GREASE NIPPLE
22300	GLAND	48500	CIRCLIP
23600	LIQUID DEFLECTOR	51100	GASKET FOR CASING COVER
24000	BEARING HOUSING	51500	GASKET FOR SHAFT SLEEVE
25100	SUPPORT FOOT	52500	'O' RING FOR SHAFT SLEEVE
26000	BEARING SKF OR EQ	66900	IMPELLER SCREW
27000	BEARING COVER DE, NDE	68202	GASKET FOR IMPELLER SCREW
30000	EYE BOLT		

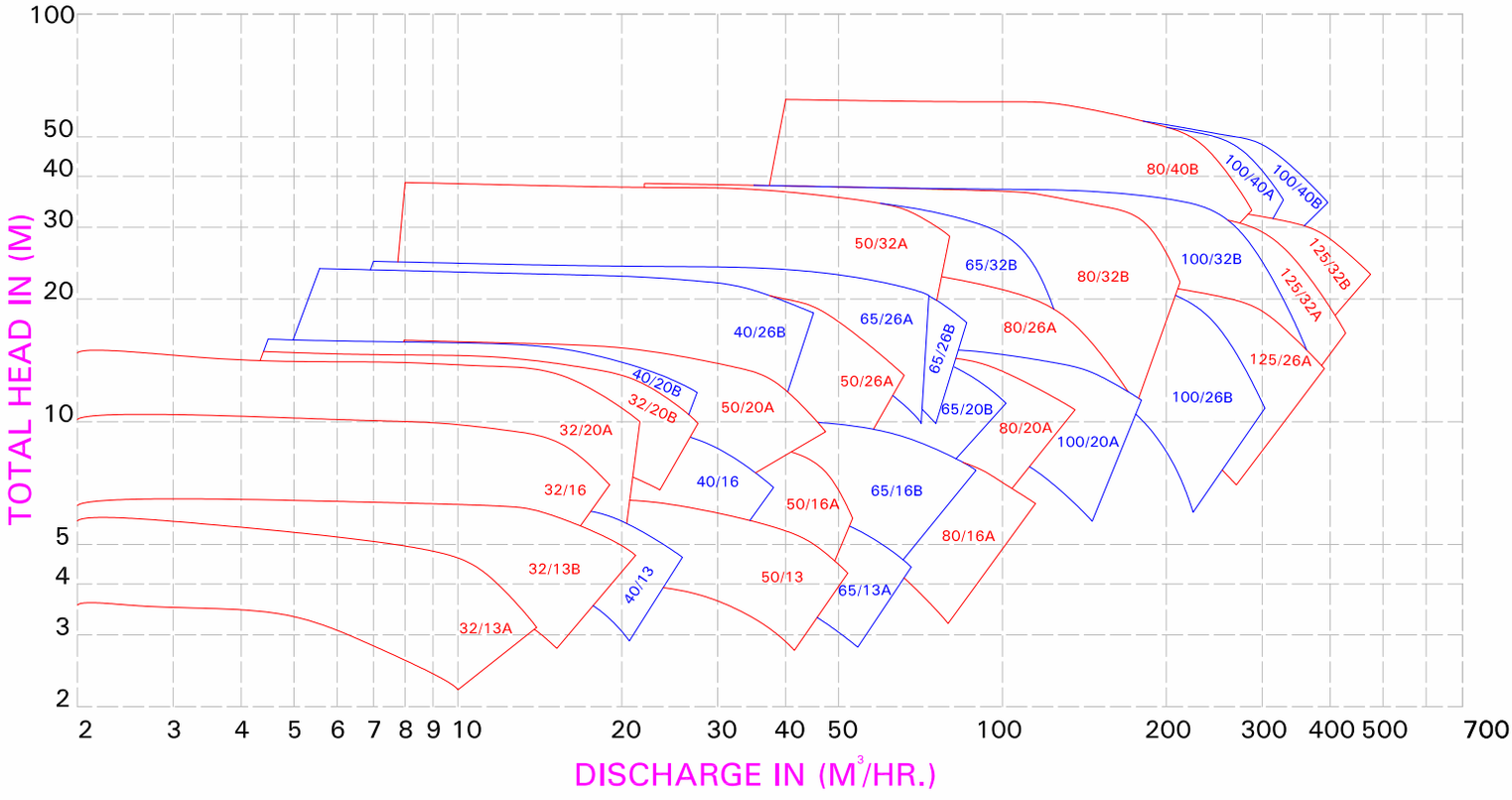
MATERIAL OF CONSTRUCTION

Pump Casing / Casing Cover	: Cast Iron
Impeller	: Cast Iron / Bronze / CF8M/ CF8
Wear Rings	: Cast Iron / Bronze/ CF8
Pump Shaft	: C S IS1570 (II) 40C8 / Stainless Steel ASTM Gr. A 107 Gr. 1040
Shaft Sleeve	: Stainless Steel ASTM Gr. A 276 Type 316/ 410

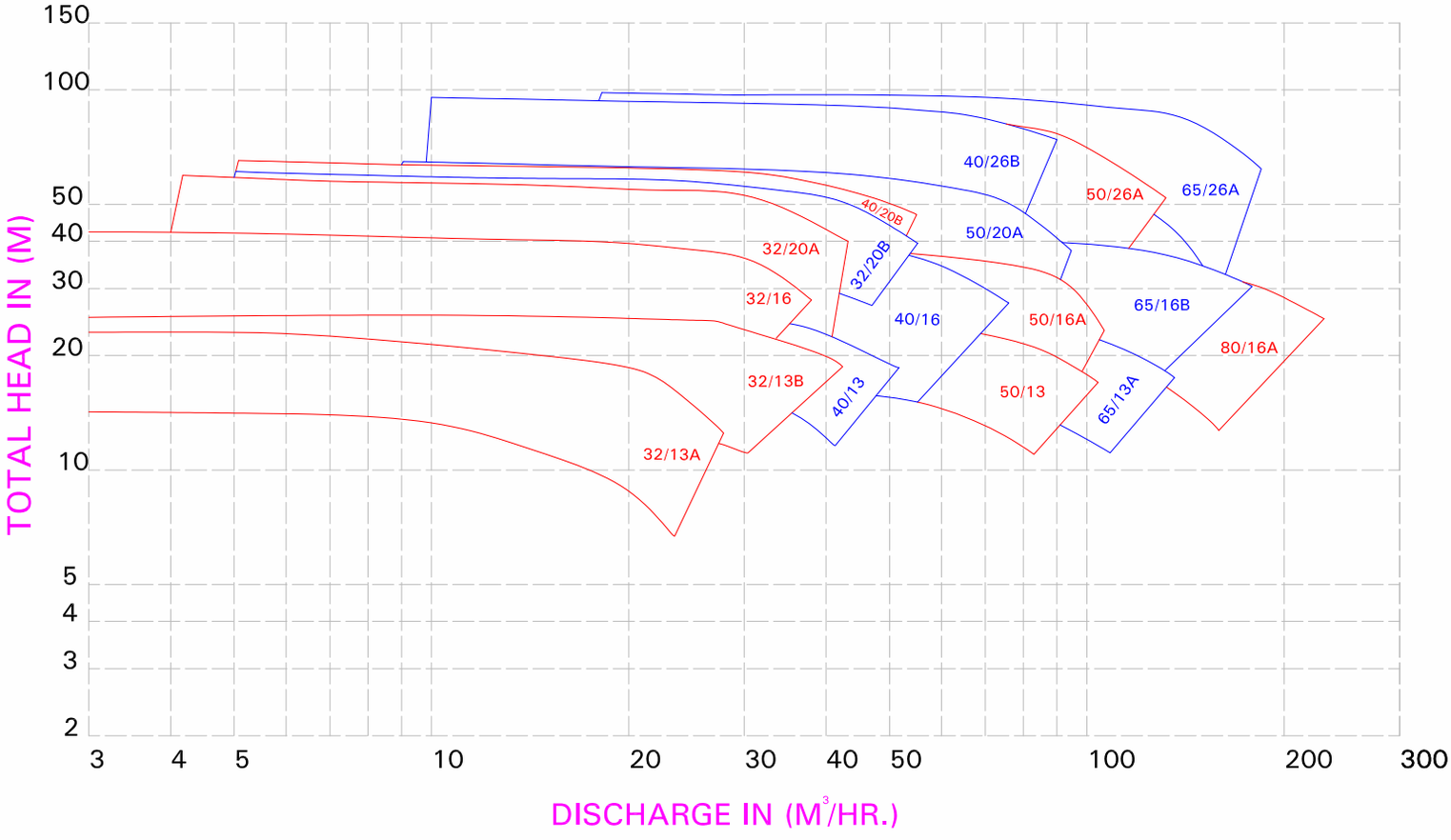
MATERIAL STANDARDS - GENERAL INFORMATION

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 1 691 GG25
Spheroidal Graphite Cast Iron			
SG Iron (Ductile Iron)	IS 1865 Gr 400/15	A536, 60-40-18	(0.7040)DIN1 693 GGG40
SG Iron (Ductile Iron)	IS 1865 Gr 500/7	A536, 65-45-12	(0.7050)DIN1 693 GGG50
Carbon steel			
Carbon steel (Wrought)	IS 1570 (part II)Gr. 40C8	ASTM A107 Gr. 1040	(1.1186)C40E/CK40
Carbon steel (Wrought)	IS 1570 (part II) Gr. 20C8	ASTM A107 Gr. 1020	(1.0402)C22
MS Steel	MS IS 2062 - F e 410 W A	ASTM-A283 GR.D	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	IS 3444 Gr. 4	ASTMA 351 Gr. CF8M	1.4408(GX5CrNiMo19-11-2)
Stainless Steel CF8M	IS 3444 Gr. 4	ASTMA 743 Gr. CF8M	1.4408(GX5CrNiMo19-11-2)
Stainless Steel CF3M	IS 3444 Gr. 16	ASTMA 351 Gr. CF3M	1.4409(GX2CrNiMo19-11-2)
Stainless Steel CF3M	IS 3444 Gr. 16	ASTMA 743 Gr. CF3M	1.4409(GX2CrNiMo19-11-2)
Stainless Steel CF8	IS 3444 Gr. 1	ASTMA 351 Gr. CF8	1.4301(X5CrNi18-10)
Stainless Steel CF3	IS 3444 Gr. 15	ASTMA 351 Gr. CF3	1.4306(X2CrNi1 9-11)
Cast Chromium StainlessSteel			
Stainless Steel CA15	IS 3444 Gr. 10	ASTMA 217 Gr. CA15	1.4106&1.448(DIN17445 GX12Cr14)
Stainless Steel CA15	IS 3444 Gr. 10	ASTMA 743 Gr. CA15	1.4106&1.448(DIN17445 GX12Cr14)
Stainless Steel CA6NM	IS 3444 Gr. 24	ASTMA 487 Gr. CA6NM	1.4313&1.4317(GX5CrNiMo13-4)
Stainless Steel CA6NM	IS 3444 Gr. 24	ASTMA 743 Gr. CA6NM	1.4313&1.4317(GX5CrNiMo13-4)
Chromium StainlessSteel Round Bar Matterial			
Stainless steel 410	IS 1570 (part V) Gr. X12Cr12	ASTMA 276 type 410	1.4006(X10Cr13)
Stainless steel 420	IS 1570 (part V) Gr. X20Cr13	ASTMA 276 type 420	1.4021(X20Cr1 3)
Stainless steel 431	IS 1570 (part V) Gr. X15Cr16Ni2	ASTMA 276 type 431	1.4057(X20CrNi1 7)
Stainless steel 316	IS 1570 (part V) Gr. X04Cr17Ni12Mo2	ASTMA 276 type 316	1.4401(X5CrNiMo17122)
Stainless steel 316L	IS 1570 (part V) Gr. X02Cr17Ni12Mo2	ASTMA 276 type316L	1.4404(X2CrNiMo1810)
Cast Duplex Steel			
Duplex Steel 1A		ASTMA 890 Gr. CD4MCu	25Cr-5Ni-Mo-Cu
Duplex Steel 2A		ASTMA 890 Gr. CE8MN	24Cr-10Ni-Mo-N
Duplex Steel 3A		ASTMA 890 Gr. CD6MN	25Cr-5Ni-Mo-N
Super Duplex steel 4A		ASTMA 890 Gr. CD3MN	25Cr-7Ni-Mo-N
Super Duplex steel 5A		ASTMA 890 Gr. CE3MN	24Cr-10Ni-Mo-N
Non Ferious Materials			
Bronze	IS 318 Gr. LTB2 (CuSn5Zn5Pb5C)	ASTMB 584 - C9050 0	DIN 1705 Rg 5
Phosphor Bronze	IS 28 Gr. 1 (CuSn11PC)		
Zinc Free Bornze	IS 28 Gr. 1 (CuSn10C)		

GK PUMPS FAMILY CURVE AT 1450 RPM



GK PUMPS FAMILY CURVE AT 2900 RPM



NOTES

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. KBL, a market leader, 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 to expand 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 B.V. (Kirloskar Pompen B.V. since June 2014), a joint venture between Kirloskar International B.V. 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. In 2014, KBL acquired SyncroFlo Inc., the largest independent fabricator of commercial and municipal domestic water booster pumps.

To further strengthen its global position, in 2015, Kirloskar Pompen B.V. acquired Rodelta Pumps International, The Netherlands.

KBL has joint venture cooperation with Ebara, Japan since 1988 for the manufacture of API 610 standard pumps. Kirloskar Corrocoat Private Limited is a joint venture cooperation with Corrocoat, UK since 2006. KBL acquired The Kolhapur Steel Limited in 2007 and Hematic Motors in 2010.

KBL has eight manufacturing facilities in India at Kirloskarvadi, Dewas, Kondhapuri, Shirwal, Sanand, Kaniyur, Kolhapur and Karad. In addition, KBL has global 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 the manufacturing facilities at KBL are certified for ISO 9001, ISO 14001, ISO 50001, BS OHSAS 18001 and SA8000. In addition, the Kirloskarvadi plant is also certified for N & NPT Stamp. KBL's corporate office in Pune is certified for ISO 9001 & Sa8000.

The factories deploy Total Quality Management tools using European Foundation for Quality Management (EFQM) model.
The Kirloskarvadi plant of KBL is a state-of-the-art integrated manufacturing facility having Asia's largest hydraulic research centre with testing facility upto 5000 kW and 50,000 m^3/hr.

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

Pumps | Valves | Hydro Turbines | Turnkey Projects

Water Resource Management | Irrigation | Power | Industry | Oil & Gas | Marine & Defence | Building & Construction| | Distribution (Small Pumps) | Valves | Customer Service & Spares

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KIRLOSKAR BROTHERS LIMITED

Established 1888

A Kirloskar Group Company

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Website: www.kirloskarpumps.com I CIN No.: L29113PN1920PLC000670

OUR COMPANIES

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