



Enriching Lives

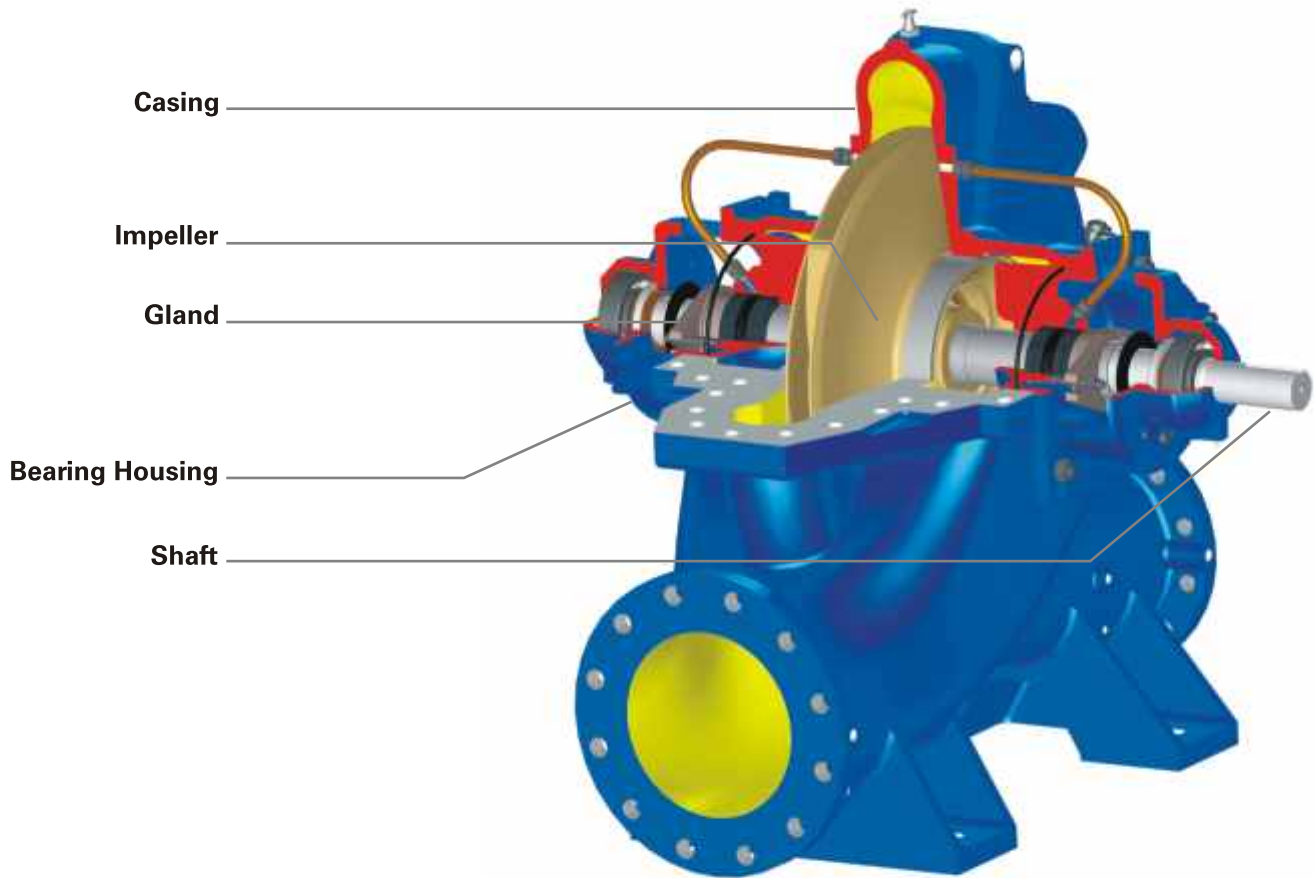
HORIZONTAL AXIALLY SPLIT-CASING PUMPS

TYPE- SCT (Extended)



CE

KIRLOSKAR BROTHERS LIMITED



RANGE

Delivery size up to 350 mm

Capacity up to 4000 m³/hr

Head up to 240 metres

Temperature range (-) 10°C to 100°C

APPLICATIONS

For handling water / liquids with slight impurities against medium and high heads in general industries, petroleum refineries, air conditioning and refrigeration systems, water works, irrigation, waste water treatment, process plants, fire protection systems and mining. Suitable for liquids having temperature in the range of (-) 10°C to 100°C

CONSTRUCTIONAL FEATURES

These are horizontal axially split casing, single stage, double suction or single suction pumps with horizontal shaft and detachable stuffing box called Insert. Variety of models are available to operate to 50Hz.

Special Features :

- Direct or gear drive
- Suitable for higher working pressures
- Rotating assembly available for inspection or maintenance by removing only upper half casing without disturbing suction and delivery piping and motor
- Pump axis horizontal or vertical
- Vertical pump, direct drive or with universal shaft arrangement
- Better hydraulic and overall efficiency due to latest design and manufacturing techniques
- High efficiency in the operating range
- Good suction performance and low NPSH
- Stable characteristics
- Minimum maintenance required
- Vibration free performance
- Highest reliability

Pump Casing :

Horizontal axially split volute type. Suction and discharge nozzles and supporting feet are cast integral with lower half casing.

Impeller :

Double or single suction type accurately balanced. Hydraulic thrust is balanced automatically because of pressure equalization on both sides of the impeller.

Shafts :

The high tensile steel shaft accurately machined and ground is supported by antifriction bearings. The shaft is protected by shaft sleeves from wear in stuffing box area.

Stuffing Box :

Can be sealed by gland packing or by mechanical seal and is suitable for liquids having temperature upto 100°C.

Bearings :

Deep groove ball bearings are provided. Standard lubrication is grease.

Direction Of Rotation :

Standard : Clockwise viewed from driving end.

Optional : Anticlockwise viewed from driving end.

Drive :

Suitable for electric motor or diesel engine

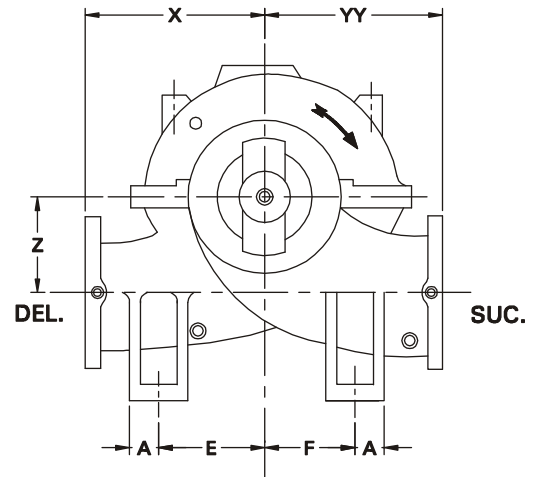
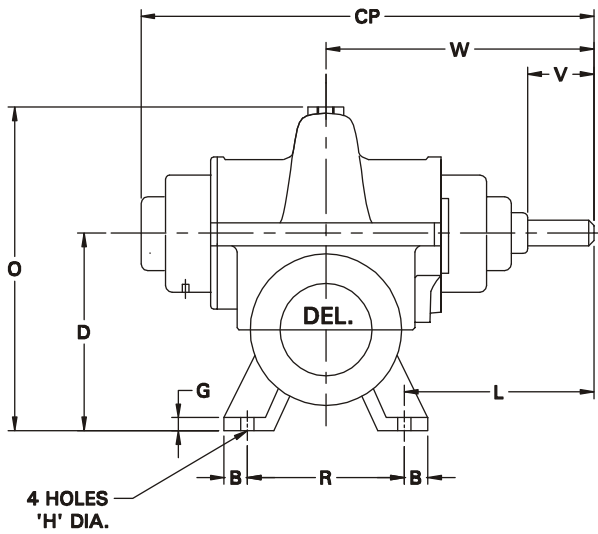
Flanges :

Standard : Drilled to BS : 4504 PN 16 / PN 25

Optional : DIN / ASA with suitable pressure rating depending upon model

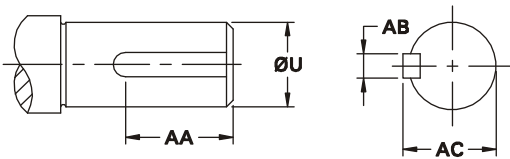
GENERAL DIMENSIONS / MOUNTING DETAILS

Single Stage Pump



VIEW FROM DRIVING END

SHAFT END DETAILS



UNIT NO.	ØU m6	AA	AB	AC
1E	65	80	20	69.9
2E	85	95	22	90.4
3E	95	130	25	100.4

DIMENSIONS

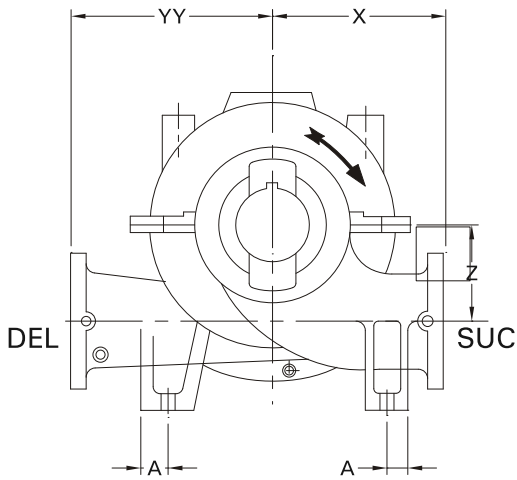
Pump Type	Unit No.	SUC	DEL	A	B	D	E	F	G	H	O	R	V	W	X	Z	CP	YY	L	WT. Kg.
200/58	1E	250	200	60	50	560	375	375	25	18.5	955	400	105	615	550	335	1110	550	415	740
300/34		350	300			650	240	380			1005				450	330		600		745
250/42	2E	300	250	70	55	580	350	350	28	23	935	480	125	740	550	310	1340	650	510	905
250/51		300	250								700				350	350		960		600
250/68		300	250			700	350	350			1180				700	400		650		1455
300/59		350	300			700	350	350			1140				500	370		650		1354
350/39		350	350			700	330	330			1100				500	370		700		1020
300/48	3E	350	300	70	55	650	400	400	28	27	1060	650	150	852	600	345	1535	680	527	1050
300/77		350	300	100		800	500	500			1345				800	450		800		2000
350/44		450	350	70		750	400	400			1205				600	400		700		1429
350/54		450	350	70		750	400	400			1206				600	400		700		1660
350/66		450	350	80		800	400	400			1300				750	420		740		1956

NOTES:

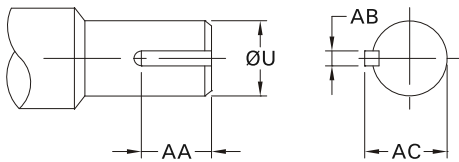
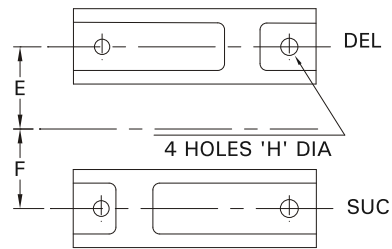
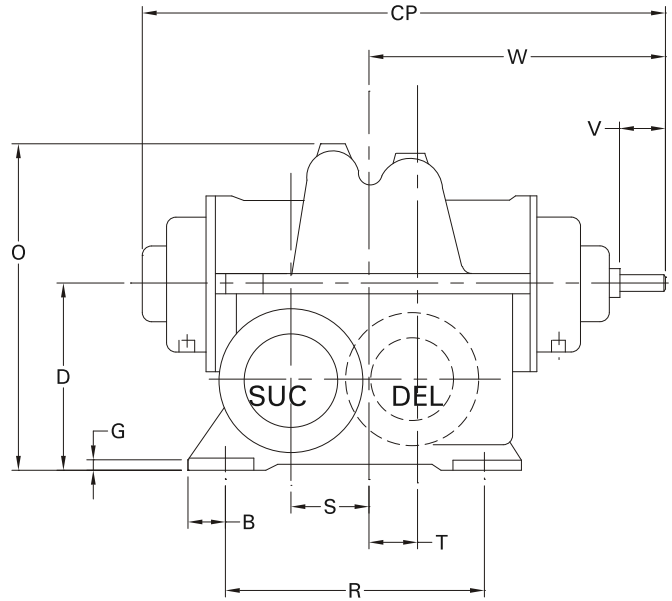
1) All dimensions are in mm

GENERAL DIMENSIONS / MOUNTING DETAILS

Two Stage Pump



VIEW FROM DRIVING END



PUMP TYPE	ØU m6	AA	AB	AC
150/48-2	50	73	14	53.9
200/58-2	85	95	22	90.4

DIMENSIONS

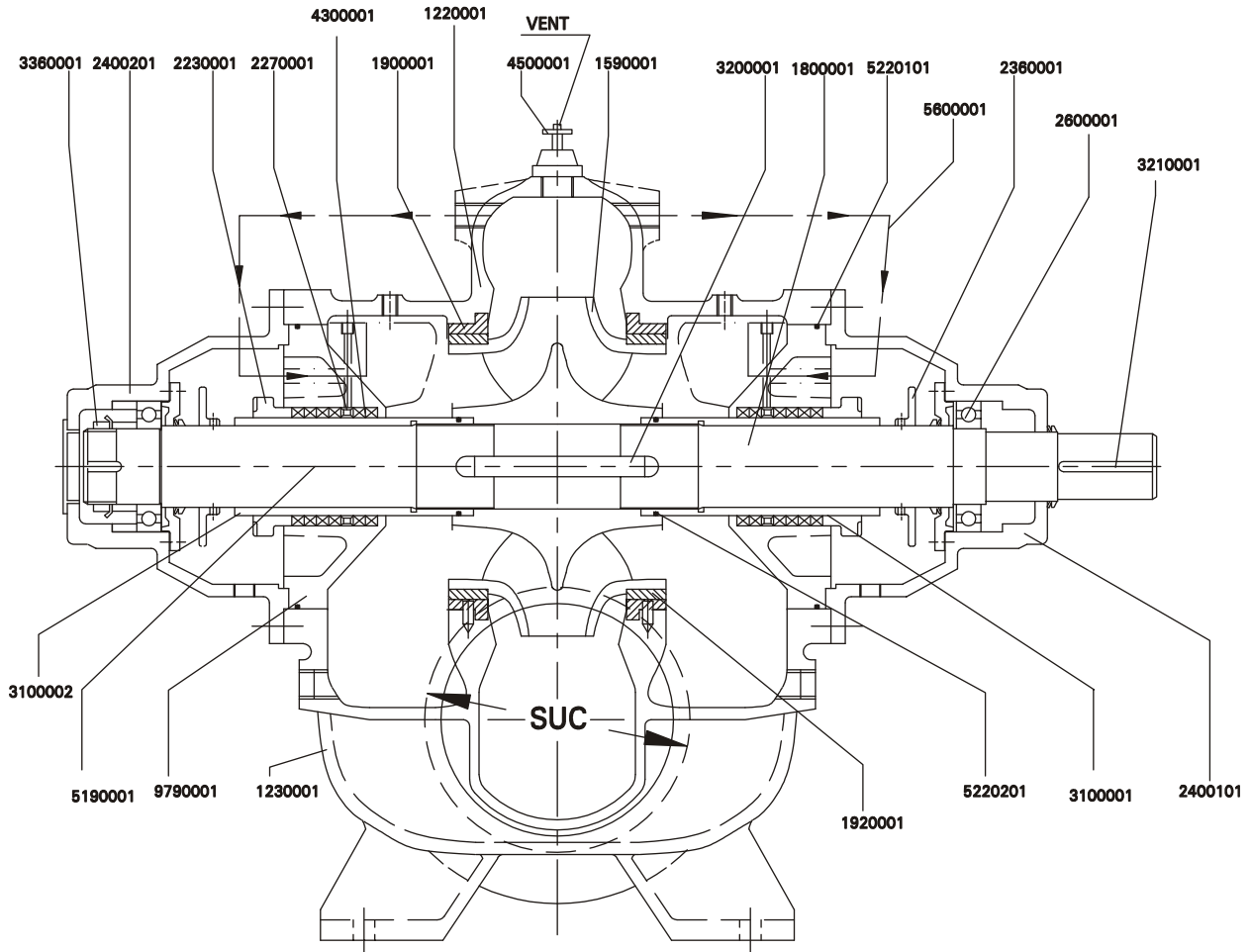
Pump Model	SUC	DEL	A	B	D	E	F	G	H	O	R	V	W	X	Z	CP	YY	L	S	T	Wt Kg
150 / 48-2	200	150	70	50	500	300	300	20	23	870	460	105	615	575	260	1110	550	415	65	65	980
200 / 58-2	250	200	80	50	600	500	500	30	27	1045	620	125	800	750	310	1455	600	490	75	75	1600

NOTES:

1) All dimensions are in mm

CROSS SECTIONAL VIEW

Single Stage Pump

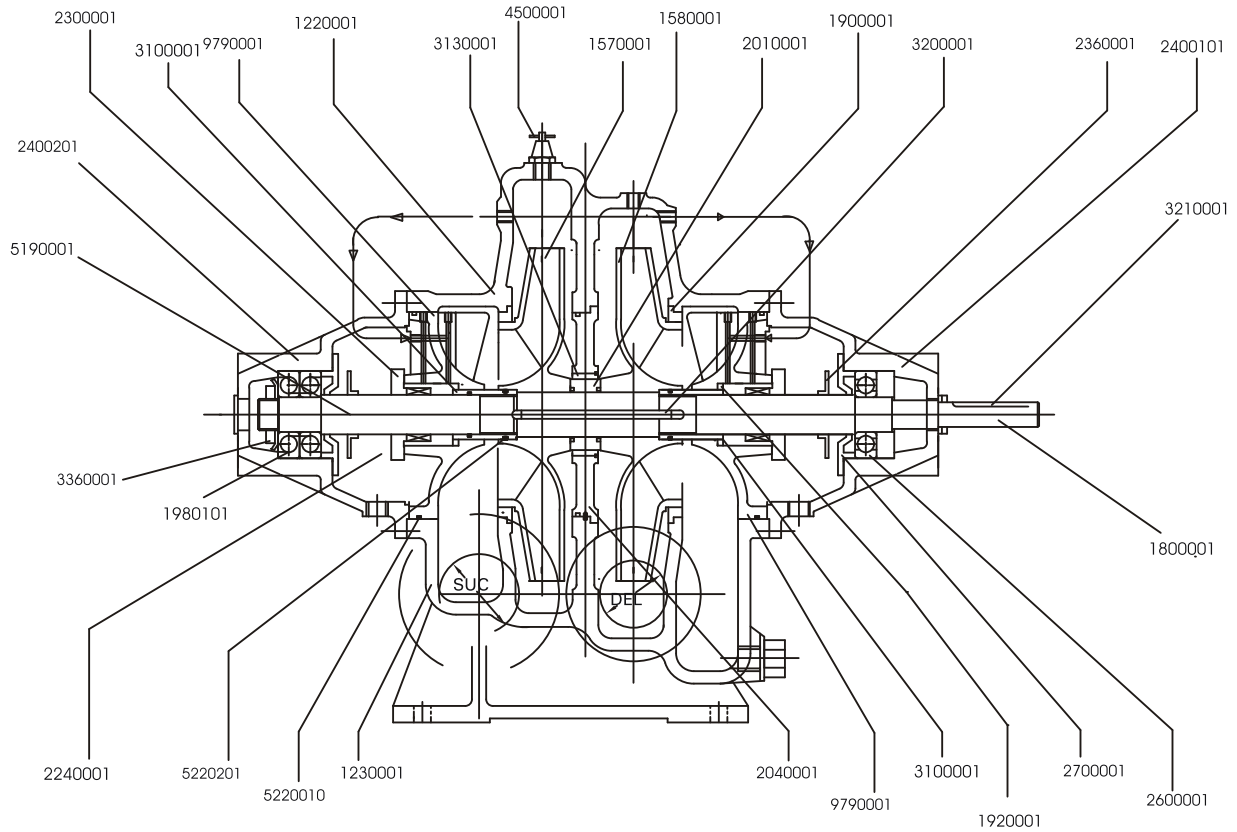


INTERCHANGEABILITY OF COMPONENTS

PART NO.	NAME OF THE PART	TOTAL NO. OF PARTS	PUMP TYPE											
			200 / 58	300 / 34	250 / 42	250 / 51	250 / 68	300 / 59	350 / 39	300 / 48	300 / 77	350 / 44	350 / 54	350 / 66
12200	Upper Half Casing	12	1	2	3	4	5	6	7	8	9	10	11	12
12300	Lower Half Casing	12	1	2	3	4	5	6	7	8	9	10	11	12
15900	Impeller	12	1	2	3	4	5	6	7	8	9	10	11	12
18000	Pump Shaft	3	1	1	2	2	2	2	2	3	3	3	3	3
19000	Wear Ring	12	1	2	3	4	5	6	7	8	9	10	11	12
22300	Gland	3	1	1	2	2	2	2	2	3	3	3	3	3
22700	Lantern Ring	3	1	1	2	2	2	2	2	3	3	3	3	3
24001	Bearing Housing D.E.	3	1	1	2	2	2	2	2	3	3	3	3	3
24002	Bearing Housing N.D.E.	3	1	1	2	2	2	2	2	3	3	3	3	3
26000	Ball Bearing	3	1	1	2	2	2	2	2	3	3	3	3	3
27000	Brg. Cover N.D.E.	3	1	1	2	2	2	2	2	3	3	3	3	3
27100	Brg. Cover D.E.	3	1	1	2	2	2	2	2	3	3	3	3	3
31000	Shaft Sleeve	3	1	1	2	2	2	2	2	3	3	3	3	3
31001	Locking Sleeve	3	1	1	2	2	2	2	2	3	3	3	3	3
32000	Impeller Key	3	1	1	2	2	2	2	2	3	3	3	3	3
32100	Key / Coupling	3	1	1	2	2	2	2	2	3	3	3	3	3
33600	Brg. Lock Nut	3	1	1	2	2	2	2	2	3	3	3	3	3
43000	Gland Packing	3	1	1	2	2	2	2	2	3	3	3	3	3
97901	Insert D.E.	3	1	1	2	2	2	2	2	3	3	3	3	3
97902	Insert N.D.E.	3	1	1	2	2	2	2	2	3	3	3	3	3

CROSS SECTIONAL VIEW

Two Stage Pump



INTERCHANGEABILITY OF COMPONENTS

PART NO.	NAME OF THE PART	TOTAL NO. OF PARTS	PUMP TYPE			
			100/36-2	125/42-2	150/48-2	200/58-2
12200	Upper Half Casing	4	16	17	18	19
12300	Lower Half Casing	4	16	17	18	19
15700	Impeller 1st Stage	4	19	20	21	22
15800	Impeller 2nd Stage	4	19	20	21	22
18000	Pump Shaft	3	5	5	6	2
19000	Wear Ring	3	5	5	6	2
20100	Spacer	3	5	5	6	2
20400	Inter Stage Ring	3	5	5	6	2
22300	Split Gland	3	5	5	6	2
22400	Gland Plate	3	5	5	6	2
22700	Lantern Ring	3	5	5	6	2
24001	Brg. Housing D.E.	3	5	5	6	2
24002	Brg. Housing N.D.E.	3	5	5	6	2
26000	Ball Bearing	3	5	5	6	2
27000	Brg. Cover D.E.	3	5	5	6	2
27100	Brg. Cover N.D.E.	3	5	5	6	2
31000	Shaft Sleeve	3	5	5	6	2
31001	Locking Sleeve	3	5	5	6	2
31300	Inter Stage Bush	3	5	5	6	2
32000	Impeller Key	3	5	5	6	2
32100	Coupling Key	3	5	5	6	2
33600	Brg. Lock Nut	3	5	5	6	2
43000	Gland Packing	3	5	5	6	2
97900	Insert N.D.E.	3	5	5	6	2

MATERIALS

MATERIAL OF CONSTRUCTION

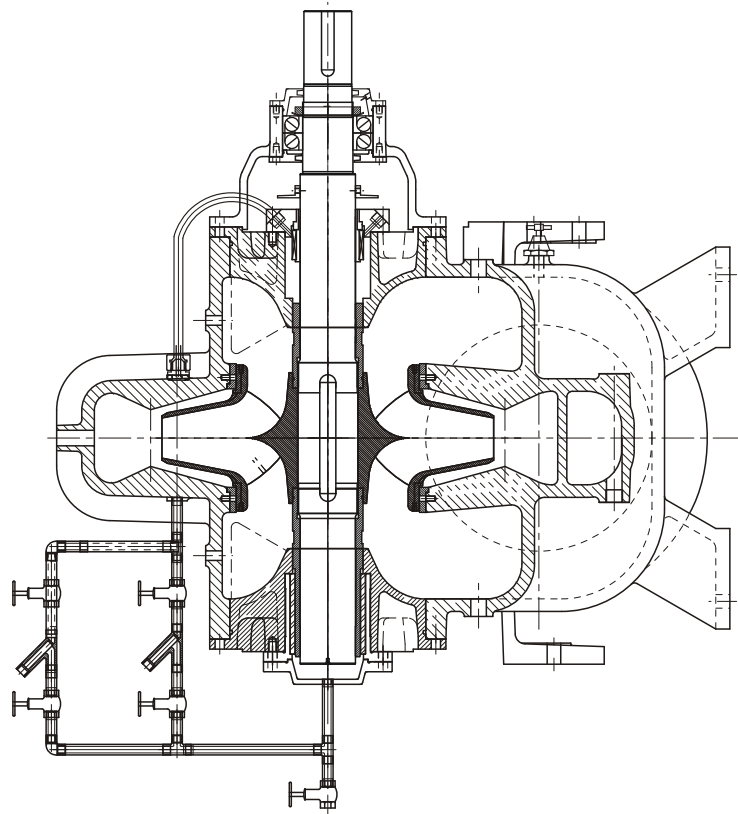
Casing Half Upper / Lower	Cast Iron / Cast Steel / Stainless Steel / Duplex Steel
Impeller	Cast Iron / Bronze / Phosphor Bronze / Cast Steel / Stainless Steel / Chrome Steel / Duplex Steel
Wear Ring	Cast Iron / Bronze / Steel
Shaft	Carbon Steel / Stainless Steel / Duplex Steel
Shaft Sleeve	Stainless Steel / Bronze

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)	IS 1865 Gr 400/15	A536, 60-40-18	(0.7040)DIN1693 GGG40
SG Iron (Ductile Iron)	IS 1865 Gr 500/7	A536, 65-45-12	(0.7050)DIN1693 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 - Fe 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(X2CrNi19 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(X20Cr13)
Stainless steel 431	IS 1570 (part V) Gr. X15Cr16Ni2	ASTMA 276 type 431	1.4057(X20CrNi17)
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 - C90500	DIN 1705 Rg 5
Phosphor Bronze	IS 28 Gr. 1 (CuSn11PC)		
Zinc Free Bornze	IS 28 Gr. 1 (CuSn10C)		

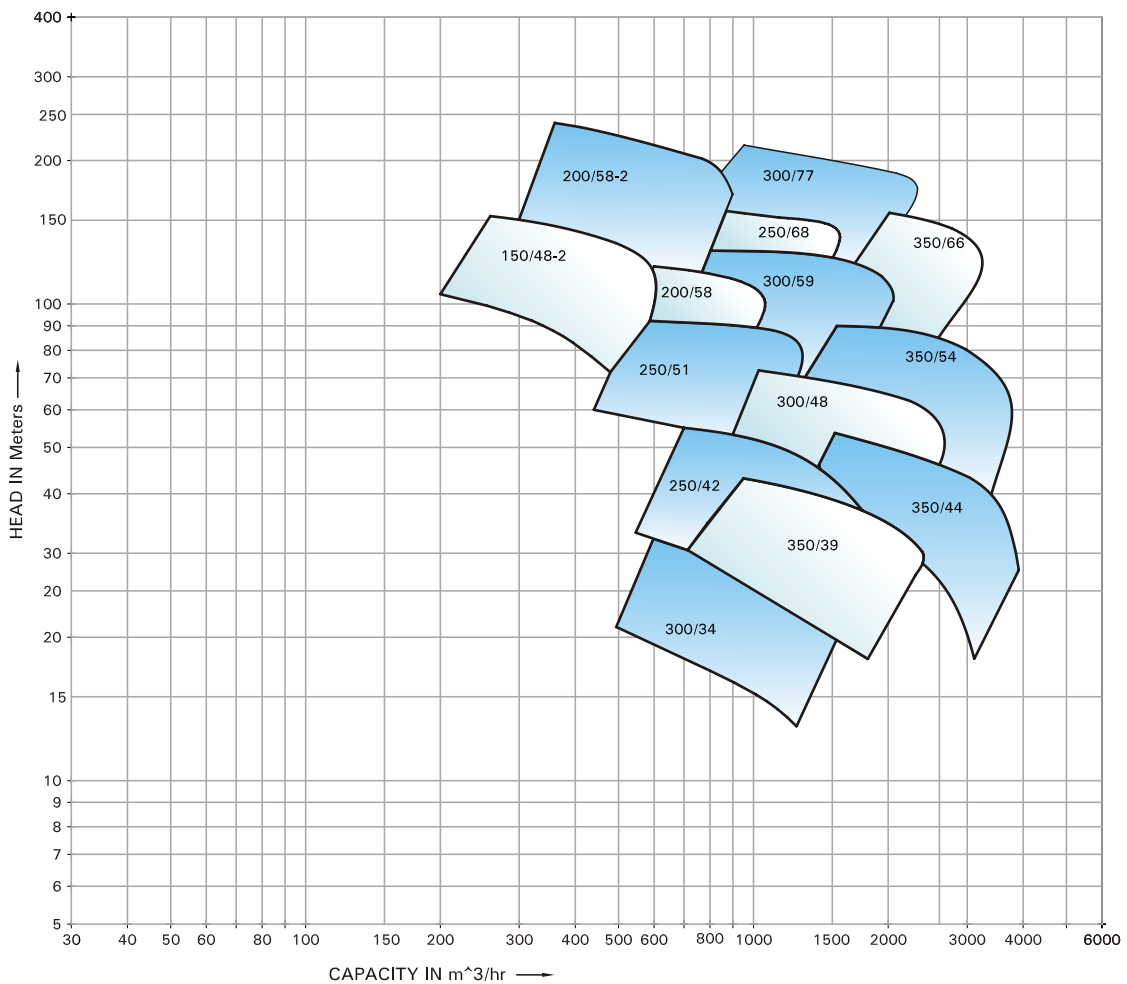
ALTERNATIVES AVAILABLE

Vertical Execution



FAMILY CURVES

SCT (Extended) Pumps at 1450 rpm - 50 Hz



OUR GLOBAL PRESENCE



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/ equipment may differ from that detailed in this publication. For latest information you may get in touch with our Regional Sales Offices.



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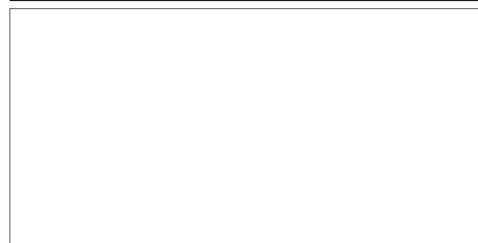
KIRLOSKAR BROTHERS LIMITED

CORPORATE OFFICE :

"YAMUNA", Survey No. 98 (3/7), Baner,
Pune - 411045, INDIA
Tel.: +91 20 27214444 Fax: +91 20 27211117
email: kbline@kbl.co.in website: www.kbl.co.in

WORKS :

Kirloskarvadi 416308 Dist. Sangli
Maharashtra, INDIA
Tel.: +91 2346 222301 to 222305
Fax: +91 2346 222311



KIRLOSKAR BROTHERS LIMITED

EUROPE OFFICE : Kirloskar Brothers Europe BV Rooswijkweg 7-9, 1951 MH Velsen-Noord, The Netherlands. Tel : +31 (0) 251 270000 Fax : +31 (0) 251 272415
email: info@kirloskar.eu, website: www.kirloskar.eu