

Kirloskar

**KIRLOSKAR
HORIZONTAL AXIALLY
SPLIT-CASING PUMPS
TYPE SCT**



KIRLOSKAR BROTHERS LIMITED

KIRLOSKAR HORIZONTAL AXIALLY SPLIT CASING PUMPS-TYPE SCT

Description

Range :

Delivery size up to 250 mm
Capacity up to 1100 m³/hr
Head up to 115 metres.

Application :

Suitable for handling water with slight impurities in Industries, Water Works, Irrigation, Sprinkler Irrigation, Fire-fighting, Air Conditioning Plants, Water Circulation, Processing Plants.

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 and at 60 Hz.

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.
- Highest hydraulic and overall efficiency due to latest design and manufacturing techniques
- Very high efficiency in the operating range
- Good suction performance and low NPSH
- Stable characteristics
- Minimum maintenance required
- Vibration free performance
- Highest reliability
- High degree of interchangeability of components.

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. In the case of double suction impellers, the hydraulic thrust is balanced automatically because of pressure equalization on both sides of the impeller.

Shaft :

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 from (-) 8°C to 90°C. In special cases packing or mechanical seal can be offered upto 120°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 :

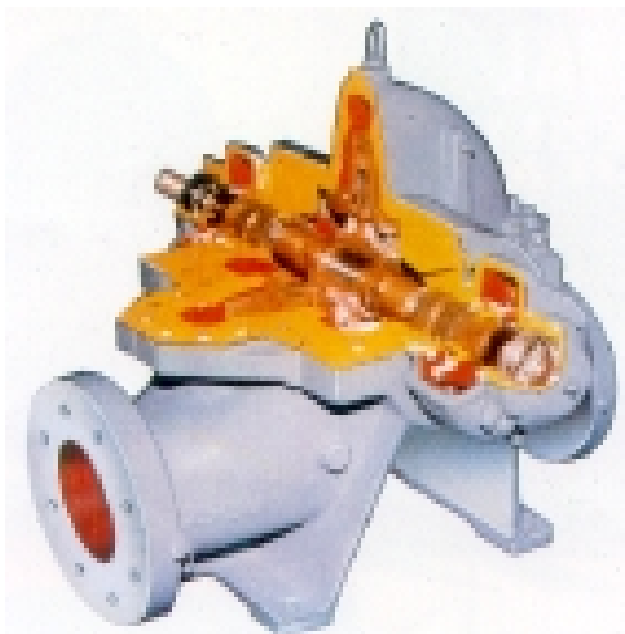
Suitable for coupling with electric motors, I.C. engines or steam turbines either directly or through belt drives.

Flanges :

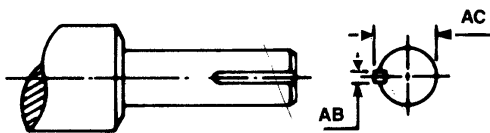
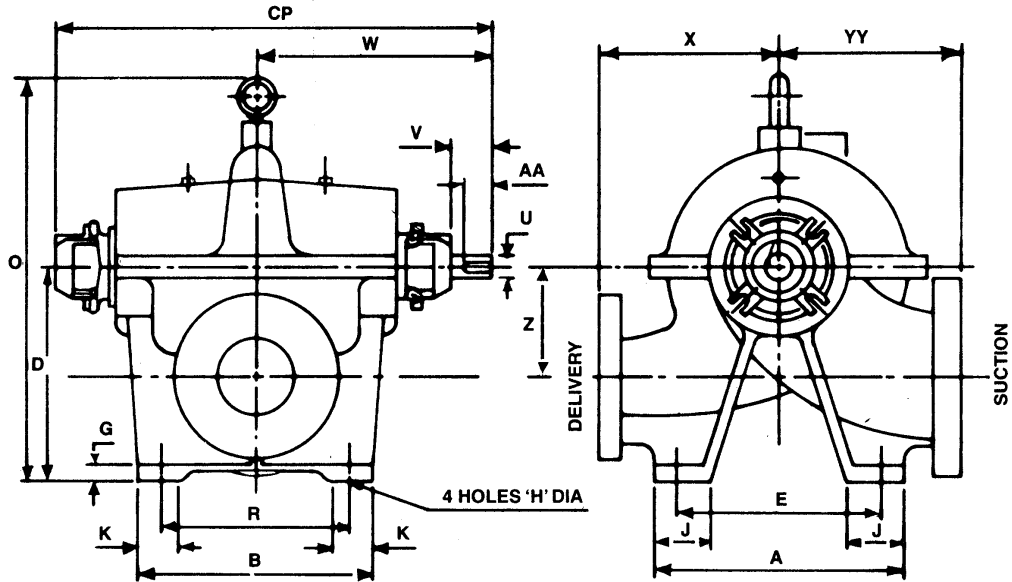
Standard : Drilled to BS : 4504 PN 16 F. F.

Optional : DIN 2533, ND16, BS 4504, PN 25
ASA 125/150

Cut-sectional View



General Dimensions / Mounting Details



U	AA	AB	AC
25 j6	63.5	8	28
42 k6	89.0	12	45
55 m6	102.0	16	59

Dimensions

PUMP TYPE	SUC	DEL	MODULE NO.	A	B	D	E	G	H	J	K	O	R	U	V	W	X	Z	CP	YY	WT KGS.
50/38*	80	50	1	400	330	300	340	25	22	65	65	642	270	25	71	398.5	280	170	730	355	196
65/24	80	65	1	350	300	250	290	25	22	65	65	495	240	25	71	398.5	225	130	730	280	130
80/24	100	80	1	350	300	280	290	25	22	65	65	528	240	25	70	398.5	230	130	730	270	142
80/30	100	80	1	350	300	280	290	25	22	65	65	554	240	25	71	398.5	275	150	730	290	159
80/38*	100	80	1	400	330	320	340	25	22	65	65	645	270	25	70	398.5	350	175	730	340	196
100/30	125	100	1	350	300	320	290	25	22	65	65	620	240	25	71	398.5	275	170	730	320	189
125/24	150	125	1	400	330	340	340	25	22	75	75	635	270	25	71	430	250	180	792	350	254
125/29	150	125	1	350	300	340	290	25	22	75	75	632	240	25	71	398.5	290	160	730	310	196
125/30	150	125	1	400	330	340	340	25	22	75	75	648	270	25	71	430	290	175	792	335	249
150/24	200	150	1	400	330	390	340	25	22	75	75	694	270	25	71	430	310	200	792	365	290
100/24	150	100	2	350	350	340	290	25	22	75	75	648	240	42	102	500	250	170	902	310	210
100/38	125	100	2	450	330	340	390	25	22	75	75	686	270	42	102	500	350	190	902	340	280
125/38	150	125	2	450	330	390	390	25	22	75	75	770	270	42	102	500	350	210	902	400	354
150/30	200	150	2	400	420	440	340	25	22	75	75	800	360	42	102	500	315	235	902	365	336
150/38	200	150	2	400	420	440	340	25	22	75	75	815	360	42	102	500	350	210	902	410	377
200/30	250	200	2	510	500	540	450	25	22	75	75	922	440	42	102	545	385	285	990	450	511
250/24	250	250	2	400	420	440	340	25	22	75	75	813	360	42	102	545	340	210	990	490	460
250/30	250	250	2	510	500	540	450	25	22	75	75	930	440	42	102	545	400	250	990	430	492
150/48	200	150	3	560	460	540	490	28	27	90	90	990	390	55	127	585	450	270	1046	510	647
200/38	250	200	3	510	420	460	440	28	27	90	90	870	350	55	127	585	420	225	1046	480	574
200/48	250	200	3	560	500	540	490	28	27	90	90	985	430	55	127	585	450	270	1046	550	618
200/48C	250	200	3	560	500	540	490	28	27	90	90	985	460	55	127	585	450	270	1046	550	618
250/38	300	250	3	560	500	540	490	28	27	90	90	1010	430	55	127	585	420	265	1046	590	747

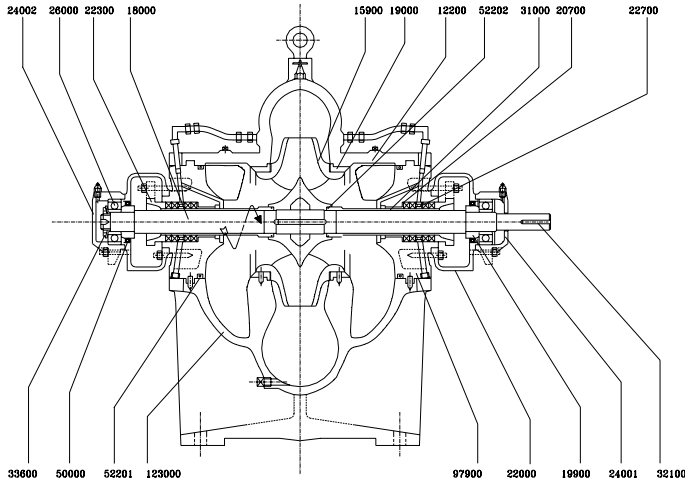
NOTES :

- 1) All dimensions are in mm except specified
- 2) Flanges drilled to BS 4504 PN 16 flat faced
* These pumps are single suction pumps
- 3) All above dimensions are for soft packed pumps.

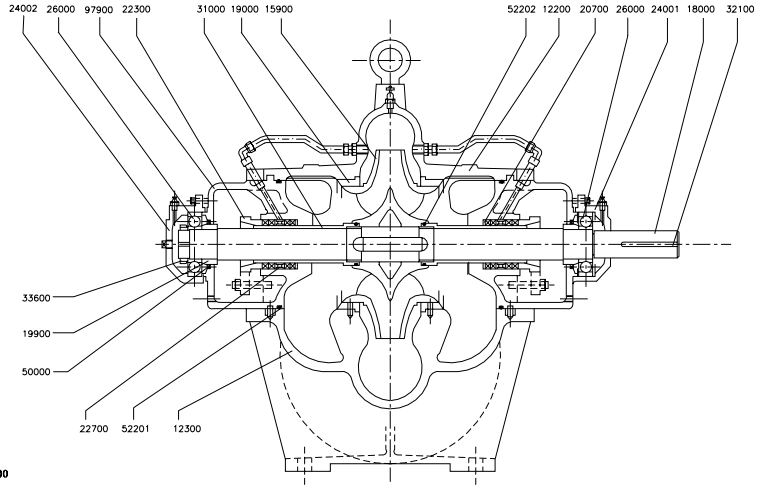
Cross Sectional View

SCT Pump (Double Suction)

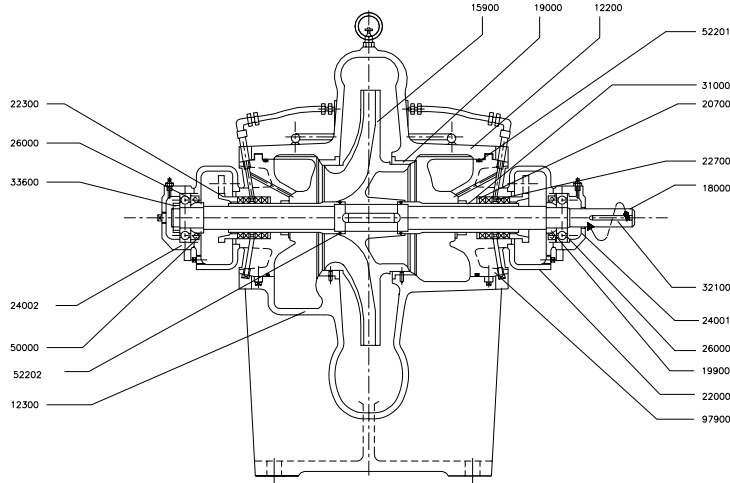
Module 1 & 2



Module 3



SCT Pump (Single Suction) SCT 50/38 & SCT 80/38

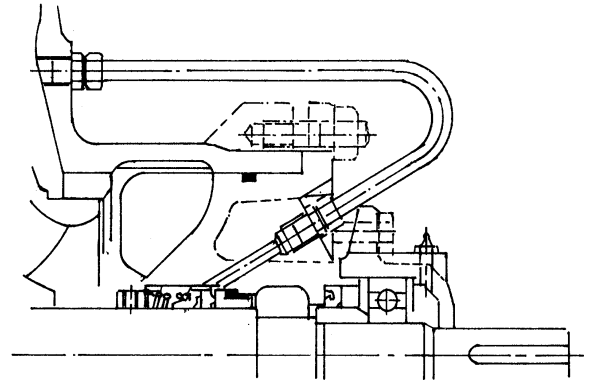
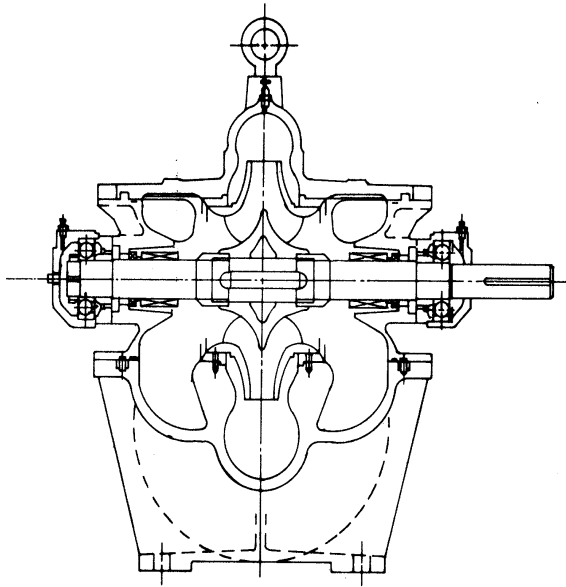


Interchangeability of Components

PART NO.	NAME OF THE PART	TOTAL NO. OF PARTS	PUMP TYPE																							
			65/24	80/24	125/24	150/24	125/29	80/30	100/30	125/30	50/38	80/38	100/24	250/24	150/30	200/30	250/30	100/38	125/38	150/38	200/38	250/38	150/48	200/48	200/48C	
			MODULE - 1											MODULE - 2						MODULE - 3						
INTERCHANGEABILITY IDENTITY NUMBER																										
12200	UPPER HALF CASING	22	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	22	
12300	LOWER HALF CASING	22	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	22	
15900	IMPELLER	22	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
18000	PUMP SHAFT	5	1	1	2	1	1	1	2	1	1	3	4	3	4	4	3	3	3	5	5	5	5	5	5	
19000	WEAR RING	9	1	1	5	5	2	1	2	5	3	3	4	7	6	7	7	4	6	6	8	8	9	8	8	
19900	SHOULDER RING	3	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	3	3	3	3	3	3	
20700	STUFFING BOX PACKING RING	3	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	3	3	3	3	3	3	
22300	GLAND	3	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	3	3	3	3	3	3	
22700	SPLIT LANTERN RING	3	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	3	3	3	3	3	3	
240.1	BEARING HOUSING DE	3	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	3	3	3	3	3	3	
240.2	BEARING HOUSING NDE	3	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	3	3	3	3	3	3	
26000	BALL BEARING	3	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	3	3	3	3	3	3	
31000	SHAFT SLEEVE	3	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	3	3	3	3	3	3	
32100	COUPLING KEY	3	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	3	3	3	3	3	3	
33600	BEARING LOCK NUT	3	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	3	3	3	3	3	3	
50000	OIL SEAL	3	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	3	3	3	3	3	3	
522.1	"O" RING INSERT	5	1	1	3	3	2	1	2	3	2	2	2	4	3	4	4	2	3	3	5	5	5	5	5	
522.2	"O" RING SHAFT SLEEVE	3	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	3	3	3	3	3	3	
97900	INSERT SOFT PACKED	7	1	1	3	3	2	1	2	3	2	2	4	6	5	6	6	4	5	5	7	7	7	7	7	
22000	STUFFING BOX COVER FOR MODULE (I & II) ONLY	2	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	—	—	—	—	—	—	

Alternatives Available

Pump With Mechanical Seal Arrangement



MECHANICAL SEAL DETAILS

Material of Construction

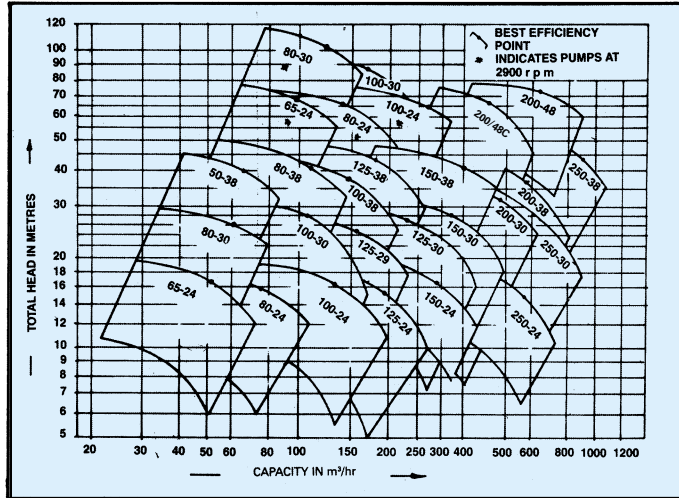
Casing half upper	CI	CI/Bronze	CI/SGL	CI/SGL	CI/SGL	Cast Steel	CI/SGL	CF 8M
Casing half lower	CI	CI/Bronze	CI/SGL	CI/SGL	CI/SGL	Cast Steel	CI/SGL	CF 8M
Impeller	CI/ACI	Bronze	Ph. Br.	CI	Cast Steel	Cast Steel	CF 8M	CF 8M
Casing Wear Ring	CI/ACI	Bronze	Ph. Br.	CI	St. St.	St. St.	CF 8M	CF 8M
Shaft	CS/St.St.	CS/St.St.	CS/St.St.	CS/St.St.	CS/St.St.	CS/St.St.	CS/St.St.	St.St.
Shaft Sleeve	Bronze	Bronze	Bronze	Bronze	St. St.	St. St.	St. St.	St. St.
Lantren Ring	CI/St. St.	Bronze	CI	CI	CS	CS	St. St.	St. St.
Gland	CI	CI/Bronze	CI	CI	CI	Cast Steel	CI	St. St.

Other materials are also available

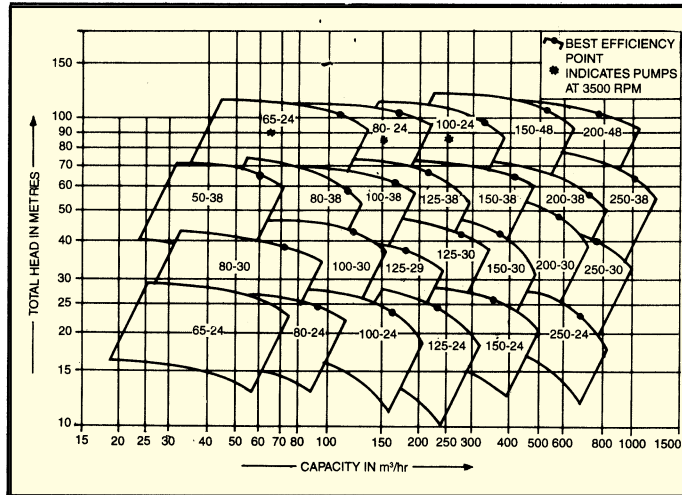
Material Standards

Material	IS	EQUIVALENT INTERNATIONAL STANDARDS	
		BS	ASTM
Cast Iron (CI) S. G. Iron (SGL)	IS 210 (1978) Gr. FG 260 IS 1865 (1974) Gr. SG 500/7	B.S.E.N. 1561-EN-GJL 250 B. S. 2789 SNG 500/7	ASTM-A 48 CL 35 ASTM-A 536 60-40-18 & 65-45-12 ASTM-A 436 Type 1
Austenitic Cast Iron (ACI)	IS 2749 Gr. AFG Ni 15 Cu 6 Cr 3	B.S. 3468 AUS 101 Gr.B	ASTM-A 107 Gr. 1040 ASTM-A 351 Gr. CF8M ASTM-A 276 Type 316
Carbon Steel (CS) CF8M AISI 316 (St. St.)	IS 1570 Gr. 40CC 8 IS 3444 Gr. 9 IS 1570 Gr. 05 Cr 18 Ni 11 Mo 3	B. S. 970 080 M 40 B.S. 1632 Gr. b B.S. 970 316 S16	ASTM-A 107 Gr. 1040 ASTM-A 351 Gr. CF8M ASTM-A 276 Type 316
AISI 304 (St. St.) AISI 410 (St. St.) Bronze Phosphor Bronze (Ph. Br.) Zinc Free Bronze (ZFB) Cast Steel	IS 318 Gr. LTB2 IS 28 Gr. 1	B.S. 970 304 S 15 B.S. 970 410 S 21 B.S.E.N. 1982 - CC 491K B.S.E.N. 1982 - CC 480K B.S. 1400 Gr. Cl 1 BS 1504-101A	ASTM-A 276 Type 304 ASTM-A 276 Type 410 ASTM-B62, B145 Alloy 4A ASTM-A 21674 d Gr. WCB

Family Curve of SCT Pump at 1450 rpm - 50 Hz



Family Curve of SCT Pump at 1750 rpm - 60 Hz



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.



KIRLOSKAR BROTHERS LIMITED

CORPORATE OFFICE :
 UDYOG BHAVAN, TILAK ROAD,
 PUNE - 411 002 (INDIA)
 PHONE : (020) 444 4444
 FAX : (020) 4444198, 4440156
 Email : kblin@kbl.co.in
 Web Site : <http://www.kirloskars.com>
WORKS : KIRLOSKARVADI 416 308.
 DIST. SANGLI
 PHONE : (02346) 22301-5 FAX : (02346) 22311



Enquiries may be directed to the nearest Regional Sales Office.

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