

KIRLOSKAR BROTHERS LIMITED

KIRLOSKAR CENTRIFUGAL PUMPS-TYPE CPHM

Description

Range:

Delivery size up to 150 mm Capacity up to 470 m³/hr Heads up to 150 metres

Application:

For continuous service in pumping or turbid water upto 3000 ppm. Ideally suitable in circulating systems in industry, irrigation, sprinkler system, booster service, fire fighting, air-conditioning etc. (- 30°C to 100°C).

Constructional features:

Pumps are as per DIN 24256 and ISO 2858. The design is of back pull out type. Large variety of models are available to operate at 1450 rpm and 2900 rpm.

The casing has axial suction and top centre line delivery. Smooth hydraulic passages ensure high efficiency.

Impeller:

The impellers are of enclosed type. Hydraulic balancing of impellers is achieved either by back vanes or by balancing holes. The impellers are statically and dynamically balanced. Reliable fixing of the impeller on shaft is achieved by using helicoil insert under impeller

Shaft:

The shaft is supported by two antifriction bearings to take residual axial thrust and prevent axial float or radial run out. It is fully protected from the liquid handled by means of a shaft sleeve and gaskets between impeller nut, impeller hub and shaft sleeve.

Stuffing box :

The stuffing box is sealed by gland packing or by mechanical seal. Conversion from gland packing to mechanical seal is achieved by changing some standardised parts. Re-machining of stuffing box is not necessary.

Bearings:

The bearings are grease lubricated.

Direction of rotation:

Clockwise viewed from driving end.

Drive:

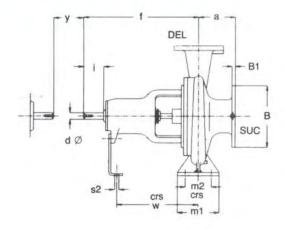
Pumps can be driven by electric motor or engine.

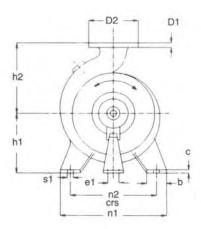
Flanges:

Standard Drilling as per ND 16 DIN 2533 (Cast Iron-Raised face)

Optional **DIN ND 10, ND 25** ASA 150 BS 10 Table F DIN 2543 (Steel-Plain face) BS 4504-16 bar or 25 bar

General Dimensions/Mounting Details



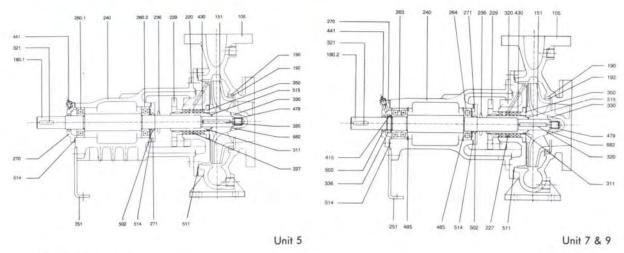


Dimensions

PUMP	DRIVING	PUMP DIMENSIONS				FOOT DIMENSIONS I SHAFT END)				NGE ND-16		NET. WEIGHT														
SIZE	UNIT	DEL	SUC	a	f	h1	h2	Ь	c	ml	m2	nl	n2	w	sī	s2	el	dØ	1	+	U	у	D2	DI	В	B1	kg.					
32/13						112	140					190	140														33					
32/16		32	50		132	160																	140	18	165	20	34					
32/20						160	180					240	190														40					
40/13				80		112	140					210	160														33					
40/16		40	65			132	160					240	190		200	, de	20.4			201	,		150	18	185	20	36					
40/20	5				385	160	180	50	14	100	70	265	212	285	14	15	110	24	50	27	8	100					41					
50/13						132	160					240	190														36					
50/16		50	80	100			180																165	20	200	22	39					
50/20						160	200					265	212													45						
65/13		65	100			160	160 180 65		125	95	280	212										185	20	220	24	59						
32/26		32	50																				140	18	165	20	76					
40/26				100		180	225					320	250							- 19							76					
40/32		40	65		500	200	250					345	280	14						10	117		150	18	185	20	87					
50/26						180	225	65	14	125	95	320	250		14												76					
50/32		50	80	125		225	280	-				345	280										165	20	200	22	102					
65/16					500	160	200																				65					
65/20	7	65	100	100							180						280	212	370		15	110	32	80	35	10	140	185	20	220	24	67
65/26						200	250 80	80 16	16	160	120	360	280		18												82					
80/16											100	225	45	14	100	20	370	250		14												73
80/20		80	125	125	125	125	125		180	250	65	14	125	95	345	280										200	22	250	26	99		
80/26						225	280	90	1/	1/0	100	400	315		18												90					
100/20		100	125			200	280	80	16	160	120	360	280										220	24	250	26	119					
65/32		65	100			225	280					400	215										185	20	220	24	124					
80/32		80	125	125		250	315	lane.				400	315										200	20	250	24	154					
80/40		80	125			280	355	80	16	160	120	435	355	370	18								200	22	250	26	114					
100/26						225	280					400	215														133					
100/32	9	100	125		520	250	315					400	315			15	110	10	110	45	10	1/0	220	24	250	26	165					
100/40	1			140	0 530	530	280 35	355	100	18	200	150	500	400		23 15	15	110	42	110	45	12	140					134				
125/26						250	355	80	16	160	120	400	315		18												152					
125/32		125	150			280	355		10					370		4							250	26	285	26	180					
125/40						315 400		100	18	200	150	500	400		23												221					
150/32		200	150	160		315	400		22														285	26	340	30	221					

All dimensions are in mm

Cross Sectional View Unit 5, 7 & 9



Typical Drawing

Interchangeability Chart for CPHM Pumps:

	9															P	UMP	SIZE	S														
DESCRIPTION	PART NO	32/13	40/13	50/13	65/13	32/16	40/16	50/16	32/20	40/20	50/20	91/59	80/16	65/20	80/20	100/20	32/26	40/26	50/26	65/26	80/26	40/32	50/32	100/26	125/26	65/32	80/32	100/32	125/32	150/32	80/40	100/40	125/40
CASING	105	ī	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
IMPELLER	151	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
CASING COVER	220		1	1			2			3					5				6			7		8				9				10	
IMPELLER RING SUC.	192	1	2	3	4	1	2	3	2	2	3	5	11	10	6	12	7	8	9	9	6	7	16	14	15	13	13	14	14	17	18	12	.14
IMPELLER RING DEL.	193																					7	16			13	13	14	14	17	14	14	14
CASING RING SUC.	190	1	2	3	4	1	2	3	2	2	3	5	11	10	6	12	7	8	9	9	6	7	17	15	16	13	13	15	15	18	19	14	15
CASING RING DEL.	191													7	17		1	13	13	15	15	18	15	15	15								
GASKET FOR CASING COVER	511	1				2 3				2 3				4.			1	5	4				5				6						
SUPPORT FOOT	251		1	2	3	2			3	3		4		3		5	3 5 6					5	6	5 6 5 6 7 8				7		8			
STUFFING BOX BUSH	350		1											1	2						3												
LANTERN RING	227		1											2						3													
DEFLECTOR	236		1					2 -											3														
IMPELLER NUT	330		1						2										3														
GASKET FOR SLEEVE	515		1										=		2						3												
GASKET FOR IMPELLER NUT	682		. 1											- 1	2						3												
STUFFING BOX PACKING	430		1							2										3													
BEARING HOUSING	240					1							2										3										
BEARING COVER D.E.	270		1											2		_								- 3	1								
BEARING COVER NDE.	271					- 1											1	2										- 2					
GASKET FOR BRG. COVERS	514					1											1	2					-	3									
PUMP SHAFT	180					- 1											- 1	2		1				3									
SHAFT SLEEVE	311					-1							2											3									
DEEP GROOVE BALL BRG.	260					1																											
DOUBLE ROW ANGULAR	263											1									2												
CONTACT BALL BRG.	1																				1												
CYLINDRICAL ROLLER BRG.	264							1										2															
SPLIT GLAND	229	1						2										3															
MECHANICAL SEAL COVER	231	1						2										3															
FELT RINGS DE & NDE.	502	1						2										3															
GREASE NIPPLE	441	1						1										1															
LOCK WASHER	415										1										1												
LOCK NUT	336											1										1											
HELICOIL LOCK INSERT	479		1											1	10						1												

Material of Construction

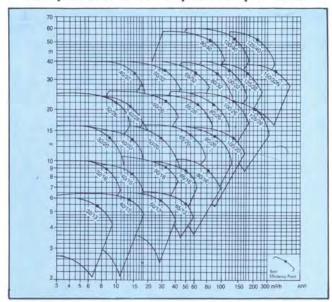
Casing	CI/SGI	CI/SGI Bronze	CI/SGI	CI/SGI	CI/SGI	Cast Steel	CI/SGI	CF8M
Casing Cove	rCl	CI/Bronze	CI/SGI	CI/SGI	Cļ/\$Gl	Cast Steel	CI/SGI	CF8M
Impeller	CI/ACI	Bronze/ZFB	Ph. Br.	CI	Cast Steel	Cast Steel	CF8M	CF8M
Wear Ring	CI/ACI	Bronze	Ph. Br.	CI	AISI 410H	AISI 410H	CF8M	CF8M
Shaft	CS/St. St.	CS/St. St.	CS/St. St.	CS/St. St.	CS/St. St.	CS/St. St.	CS/St. St.	St. St.
Shaft sleeve	AISI 410H	AISI 410H	AISI 410H/ Ph. Br.	AISI 410H	AISI 410H	AISI 410H	AISI 316	AISI 316
Lantern Ring	CI/St. St.	Bronze	Ph. Br.	CI	CS	CS	AISI 316	AISI 316
Gland	CI	CI	CI	CI	CI	Cast Steel	CI	CF8M

Other materials are also available

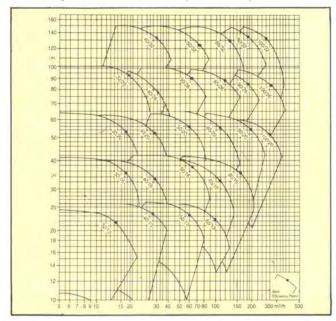
Material Standards

		Equivalent Intern	national Standards
Material	- IS	BS	ASTM
Cast Iron (CI)	IS 210 (1978) Gr. FG 260	B.S. 1452 Gr. 250	ASTM-A 48 CL 35
S.G. Iron (SGI)	IS 1865 (1974) Gr. SG 500/7	B.S. 2789 SNG 500/7	ASTM-A 536 60-40-18 & 65-45-12
Austenitic Cast Iron (ACI)	IS 2749 Gr. AFG Ni 15 Cu 6 Cr. 3	B.S. 3468 AUS 101 Gr. B	ASTM-A-436 Type 1
Carbon Steel (CS)	IS 1570 Gr. 40 C-8	B.S. 970 080 M 40	ASTM-A 107 Gr. 1040
CF8M	IS 3444 Gr. 9	B.S. 1632 Gr. B	ASTM-A 351 Gr. CF8M
AISI 316 (St. St.)	IS 1570 Gr. 05 Cr. 18 Ni 11 Mo 3	B.S. 970 316 S16	ASTM-A 276 Type 316
AISI 304 (St. St.)		B.S 970 304 S 15	ASTM-A 276 Type 304
AISI 410 (St. St.)		B.S. 3100 410 S 21	ASTM-A 276 Type 410
Bronze	IS 318 Gr. LTB2	B.S. 1400 LG2C	ASTM-B 62, B 145 Alloy 4A
Phosphor Bronze (Ph. Br.)	IS 28 Gr. 1	B.S. 1400P.B. 4	
Zinc Free Bronze (ZFB)		B.S. 1400 Gr. CT1	
Cast Steel		B.S. 1504-101A	ASTM-A:216 74 d Gr. WCB

Family curve of CPHM Pump at 1450 rpm - 50 Hz



Family curve of CPHM Pump at 2900 rpm - 50 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.



Enriching Lives

KIRLOSKAR BROTHERS

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