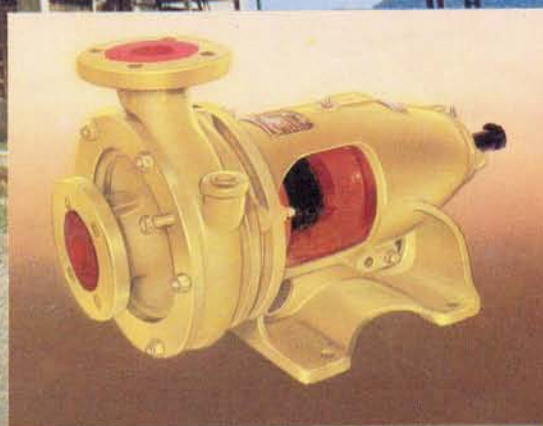


*Kirloskar*

**KIRLOSKAR  
PROCESS  
PUMPS  
TYPE PCE / PCH**



**KIRLOSKAR BROTHERS LIMITED**

# KIRLOSKAR PROCESS PUMPS – TYPE PCE/PCH

## Description

### Range :

Delivery size upto 80 mm.  
Capacity upto 120 m<sup>3</sup>/hr.  
Heads upto 70 metres.

### Application :

Suitable for handling corrosive and non-corrosive liquids containing small percentage of solids. In Oil, Sugar, Textile & Process Industries, in Air-conditioning, Water Treatment Plants, Distilleries. For condensate extraction, hot clean liquids upto 140° Centigrade in industries. Booster service, pumping brine, alkaline solutions, oils, benzene, etc.

### Constructional features :

These are single stage, single suction, volute type pumps with horizontal shaft.  
Variety of models are available to operate at 50 Hz and at 60 Hz.

### Casing :

End suction, volute type with top centreline or vertical tangential discharge depending upon the model.  
Smooth hydraulic passages to ensure high efficiency.  
The flanged suction cover is bolted to the casing.

### Impeller :

Enclosed type for PCE pumps and semi-open type for PCH pumps. Accurately balanced statically and dynamically. Back vanes as well as balancing holes are provided for balancing axial thrust.

### Shaft :

Two shaft units cover complete range. The high tensile steel shaft accurately machined and ground all over is

supported by two antifriction bearings provided in bearing pedestal.

### Stuffing box :

The stuffing box can be sealed by gland packing or by mechanical seal. Conversion from gland packing to mechanical seal is achieved by changing some standardised parts. Water cooled stuffing box is provided for hot liquids from 90° to 140° Centigrade.

### Bearings :

Deep groove ball bearings are provided.  
Standard lubrication is grease.  
Oil lubrication against requirement.

### Direction of rotation :

Clockwise or anticlockwise viewed from driving end depending upon model.

### Drive :

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

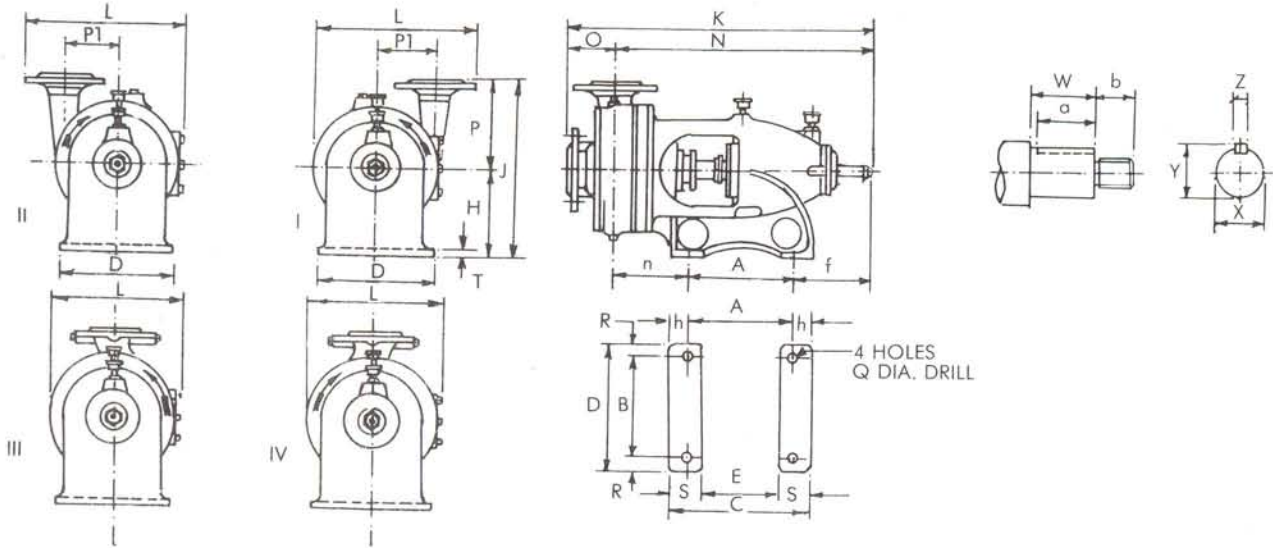
### Flanges :

Standard : Drilling as per BS-10 Table D.  
Optional : Drilling as per IS/ASA/DIN with suitable pressure rating.

## Cut-sectional View



# General Dimensions/Mounting Details PCE/PCH Pumps



## Dimensions

PUMP MODEL	DIRECTION OF ROTATION	DRIVING UNIT	FIG NO.	SUC	DEL	A	a	B	b	C	D	E	f	H	h	J	K	L	N	n	O	P	P1	Q	R	S	T	W	X	Y	Z	WT. KG		
1 PCE 63/1 PCE 63A	CW	5	II	32	25	162	32	171	17	219	197	111	125	140	28.5	267	475	248	404	117	71	127	89	11.5	13	54	13	37				26.6	1/4"	43.5
1 PCH 63	CW																																42	
15 PCE 55	ACW	5	I	40	40	162	32	171	17	219	197	111	125	140	28.5	280	480	254	404	117	76	140	86	11.5	13	54	13	37	23.812				44	
15 PCH 55	ACW																																43	
15 PCE 75	CW	6	IV	40	40	178	51	190	19	257	222	123	174	159	39.5	330	566	265	482	130	84	171	-	14	16	67	16	55				31.3	1/4"	60.5
15 PCH 75	CW																																59	
15 PCE 9	CW	6	II	50	40	178	51	190	19	257	222	123	174	159	39.5	311	566	330	482	130	84	152	124	14	16	67	16	55				31.3	1/4"	68
15 PCH 9	CW																																66	
2 PCE 59	ACW	6	I	50	50	178	51	190	19	257	222	123	174	159	39.5	311	574	282	482	130	92	152	92	14	16	67	16	55				31.3	1/4"	59
2 PCH 59	ACW																																	57.5
50 PCE 250	ACW	6	III	65	50	178	51	190	19	257	222	123	174	159	39.5	379	619	330	488	136	131	220	-	14	16	67	16	55	28.575				81.5	
50 PCH 250	ACW																																	80
50 PCE 280	ACW	6	III	65	50	178	51	190	19	257	222	123	174	159	39.5	388	617	359	488	136	129	229	-	14	16	67	16	55				31.3	1/4"	86
50 PCH 280	ACW																																	84
65 PCE 180	CW	6	IV	80	65	178	51	190	19	257	222	123	174	159	39.5	349	604	255	494	142	110	190	-	14	16	67	16	55				31.3	1/4"	62
65 PCH 180	CW																																	60
80 PCE 180	CW	6	IV	100	80	178	51	190	19	257	222	123	174	159	39.5	369	616	277	496	144	120	210	-	14	16	67	16	55				31.3	1/4"	74
80 PCH 180	CW																																	72

Notes :

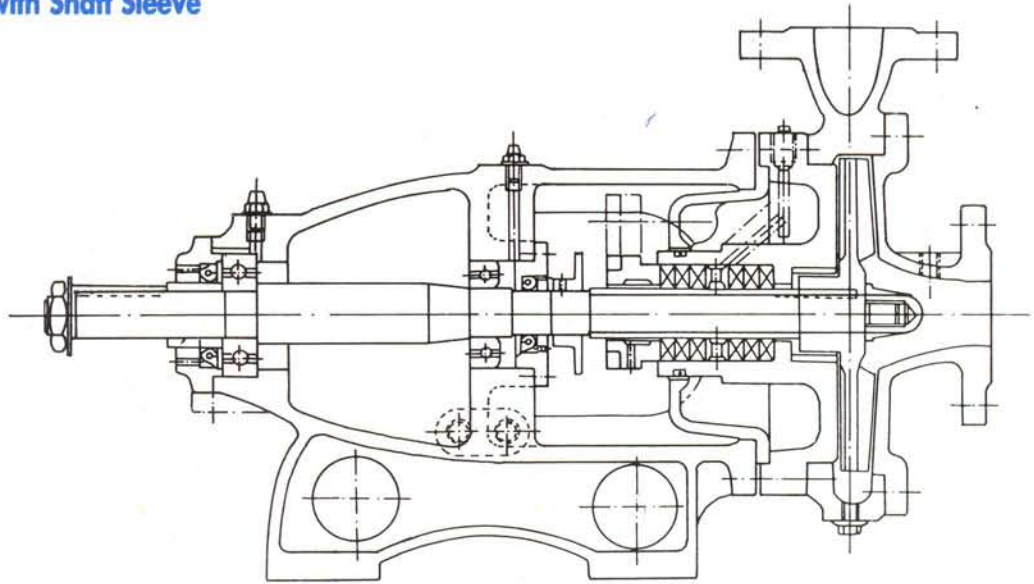
All dimensions are in mm unless specified otherwise.

CW - Clockwise, ACW - Anticlockwise, when viewed from driving end.



## Alternative Available

### PCE-N/PCH-N Pump with Shaft Sleeve



## Material of Construction

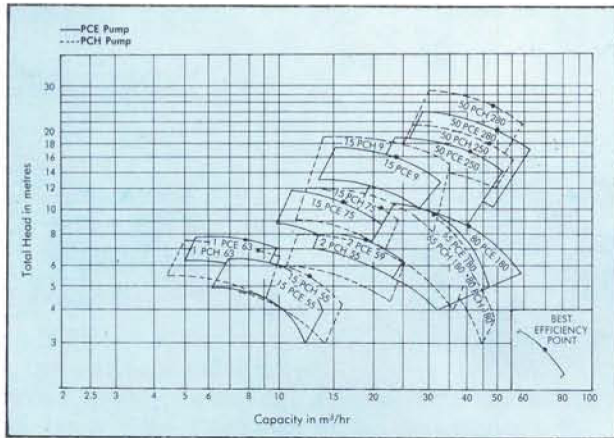
Casing	CI/SGI	CI/SGI/Br	CI/SGI	CI/SGI	CI/SGI	Cast Steel	CI/SGI	CF8M
Suction Cover	CI	CI/Br	CI/SGI	CI/SGI	CI/SGI	Cast Steel	CI/SGI	CF8M
Stuffing Box Cover	CI/SGI	CI/SGI/Br	CI/SGI	CI/SGI	CI/SGI	Cast Steel	CI/SGI	CF8M
Impeller	CI/ACI	Br/ZFB	Ph.Br.	CI	Cast Steel	Cast Steel	CF8M	CF8M
Wear Ring	CI/ACI	Br	Ph.Br.	CI/CS	AISI 410	AISI 410	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.
Lantern Ring	CI/St.St.	Br	Ph.Br.	CI	CS	CS	AISI 316	AISI 316
Gland	CI	CI	CI	CI	CI	Cast Steel	CI	St.St.

Other materials are also available.

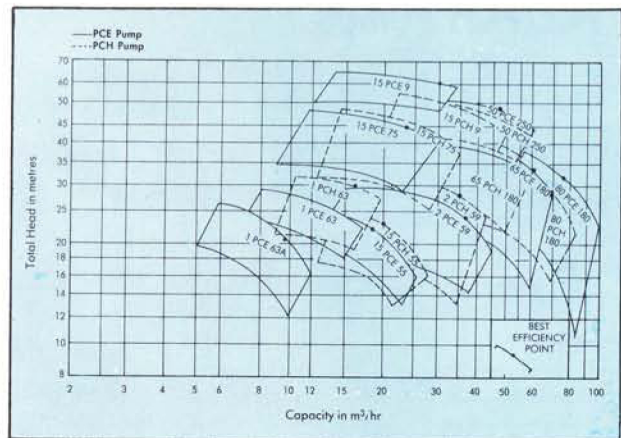
## Material Standards

Material	IS	Equivalent International Standards	
		BS	ASTM
Cast Iron (CI)	IS 210 Gr. FG 260	BS 1452 Gr. 250	ASTM-A 48 CL 35
S.G. Iron (SGI)	IS 1865 Gr. SG 500/7	BS 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	BS 3468 AUS 101 Gr. B	ASTM-A 436 Type 1
Carbon Steel (CS)	IS 1570 Gr 40 C8	BS 970 080 M 40	ASTM-A 107 Gr. 1040
AISI 316	IS 1570 Gr. 05 Cr 18 Ni 11 Mo 3	BS 970 316 S16	ASTM-A 276 Type 316
AISI 410		BS 970 410 S21	ASTM-A 276 Type 410
CF8M	IS 3444 Gr. 9	BS 1632 Gr. B	ASTM-A 351 Gr. CF8M
Bronze (Br)	IS 318 Gr. LTB 2	BS 1400 LG 2C	ASTM-B 62, B 145 Alloy 4A
Phosphor Bronze (Ph.Br.)	IS 28 Gr. 1	BS 1400 PB4	P.B. ASTM UNS Copper Alloy No. C 902
Zinc Free Bronze (ZFB)		BS 1400 Gr. CT1	
Cast Steel		BS 1504 101 A	ASTM-A 216 Gr. WCB

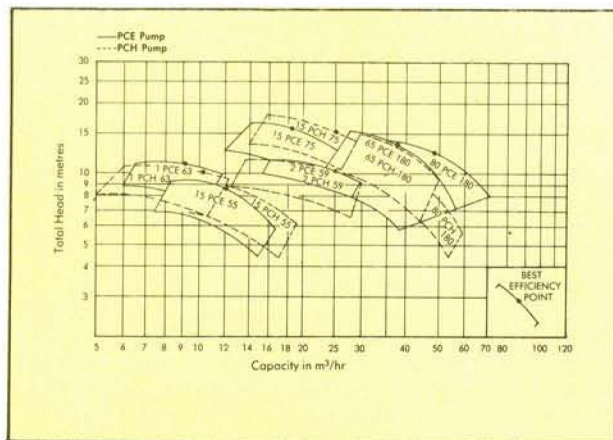
**Family Curve of PCE / PCH Pump at 1450 rpm – 50 Hz**



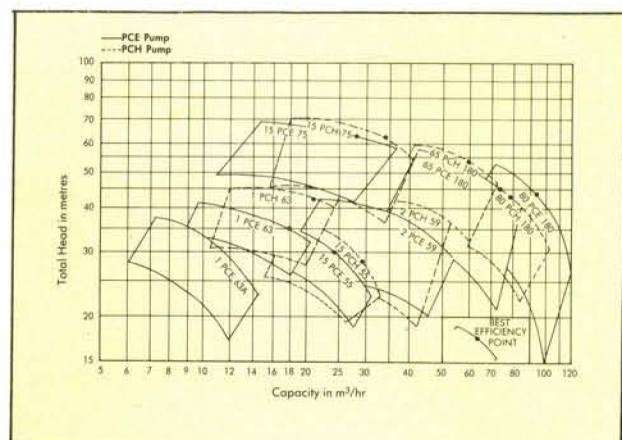
**Family Curve of PCE / PCH Pump at 2900 rpm – 50 Hz**



**Family Curve of PCE / PCH Pump at 1750 rpm – 60 Hz**



**Family Curve of PCE / PCH Pump at 3500 rpm – 60 Hz**



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