

**KIRLOSKAR
END SUCTION PUMPS
TYPE DB/DBHS**

Kirloskar



KIRLOSKAR BROTHERS LIMITED

KIRLOSKAR END SUCTION PUMPS-TYPE DB/DBHS

Description

Range :

Delivery size up to 150 mm
Capacity up to 550 m³/hr
Head up to 100 metres

Applications :

Suitable for Circulation of Water in Industries, Air-Conditioning Plant, Power Station, Mine Drainage, Lift Irrigation, Sprinkler systems, Fire Fighting, Booster service, pumping brine, alkaline solutions, oils, benzene etc. for liquids having temperature in the range of -10° C to 100°C.

Constructional Features :

These are single stage, single suction, horizontal shaft type. They are made in accordance with DIN 24255. DBHS are similar to DB pumps but with heavy duty bearings. Models are available to operate at 1450 rpm and 2900 rpm at 50 Hz and 1750 rpm and 3500 rpm at 60 Hz.

Casing :

End suction, volute type with top centreline discharge. Suction and discharge nozzles as well as the supporting feet are cast integral with the casing.

Impeller :

Enclosed type and accurately balanced dynamically. Hydraulically balanced by back vanes and for large impellers by balancing holes and back wear rings.

Shaft :

Three driving units cover complete range. The high tensile steel shaft accurately machined and ground is supported by antifriction bearings. The shaft is protected by shaft sleeve from wear in stuffing box area.

Stuffing Box :

The stuffing box can be sealed by gland packing or by mechanical seal.

Bearings :

Deep groove ball bearings are provided. Standard lubrication is grease. Oil lubrication against requirement, only for DB pumps.

Direction of Rotation :

Clockwise viewed from driving end.

Drive :

Suitable for coupling with electric motors, engines directly or through belt drives.

Flanges :

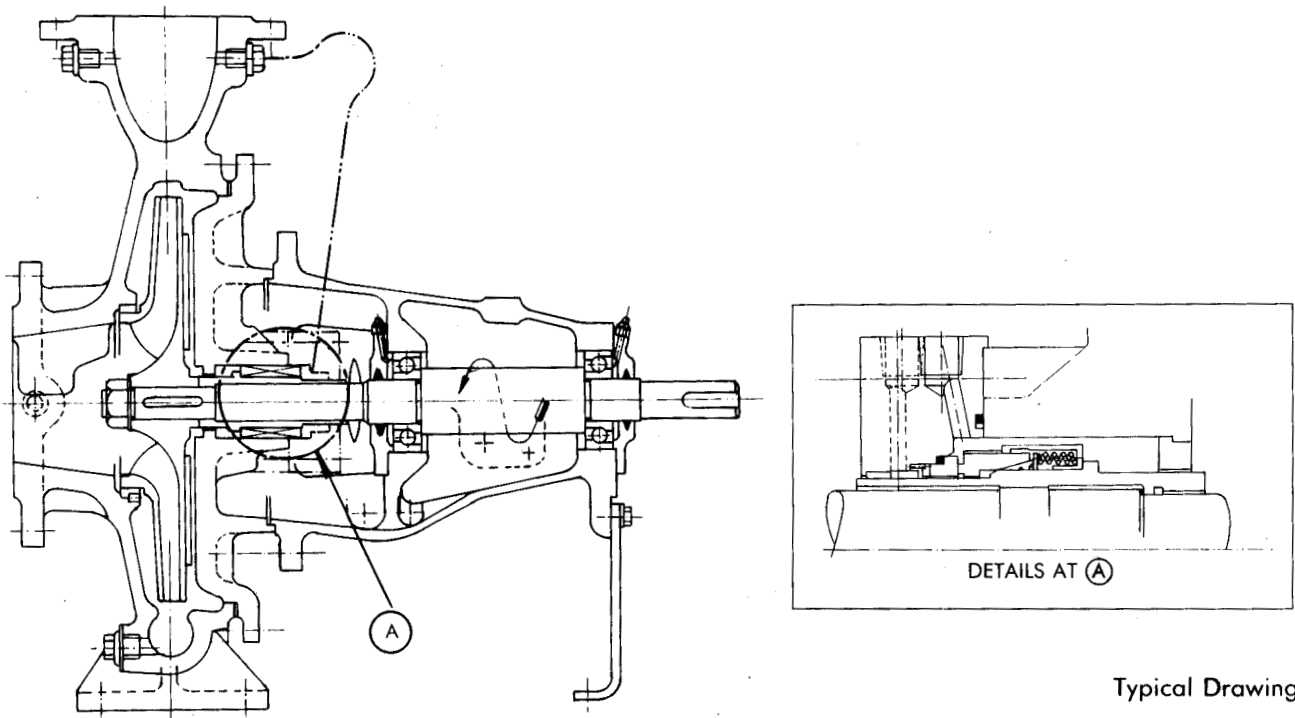
Standard : Drilling as per DIN 2533 ND 16 for DB
Drilling as per ASA 125 for
DBHS pumps.
Optional : Drilling as per IS/BS/ASA/DIN available
with suitable pressure rating.

Cut-sectional View



Alternatives Available

DB Pump-Mechanical Seal Arrangement



Typical Drawing

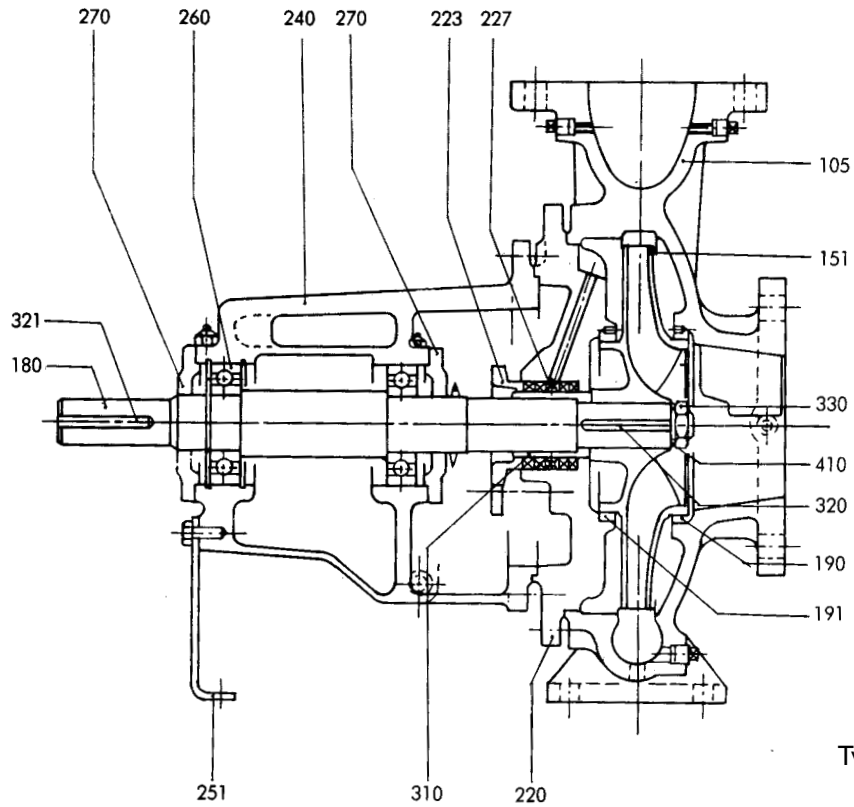
Material of Construction

Pump Casing	C.I.	C.I.	C.I.	C.I.	C.I.	Bronze/Ph.Br.
Casing Cover	C.I.	C.I.	C.I.	C.I.	C.I.	Bronze/Ph.Br.
Impeller	C.I.	Bronze	Ph. Br.	Bronze	Ph. Br.	Bronze/Ph.Br.
Wear Ring	C.I.	C.I.	Bronze	Bronze	Br.	Bronze
Shaft	C.S./St.St.	C.S./St.St.	C.S./St.St.	C.S./St.St.	St.St.	St.St.
Shaft Sleeve	St.St.	Br./St.St.	St.St.	Bronze/St.St.	Bronze	Bronze
Lantern Ring	C.I.	C.I.	C.I.	C.I./Bronze	C.I.	Bronze
Gland	C.I.	C.I.	C.I.	C.I./Bronze	C.I.	Bronze

Material Standards

Material	IS	Equivalent International Standards	
		BS	ASTM
Cast Iron (C.I.)	IS 210 Gr. FG 260	BS 1452 Gr. 250	ASTM-A 48 CL 35
Carbon Steel (C.S.)	IS 1570 Gr. 45 C 8	BS 970 080 M 46	ASTM-A107 Gr. 1045
Stainless Steel (St. St.)	–	BS 970 410 S 21	ASTM-A 276A Type 410
Bronze	IS 318 Gr. LTB 2	BS 1400 LG 2C	ASTM-B62, B145 Alloy 4A
Phosphor Bronzer (Ph. Br.)	IS 28 Gr.1	Bs 1400 PB 4	

DBHS Pump

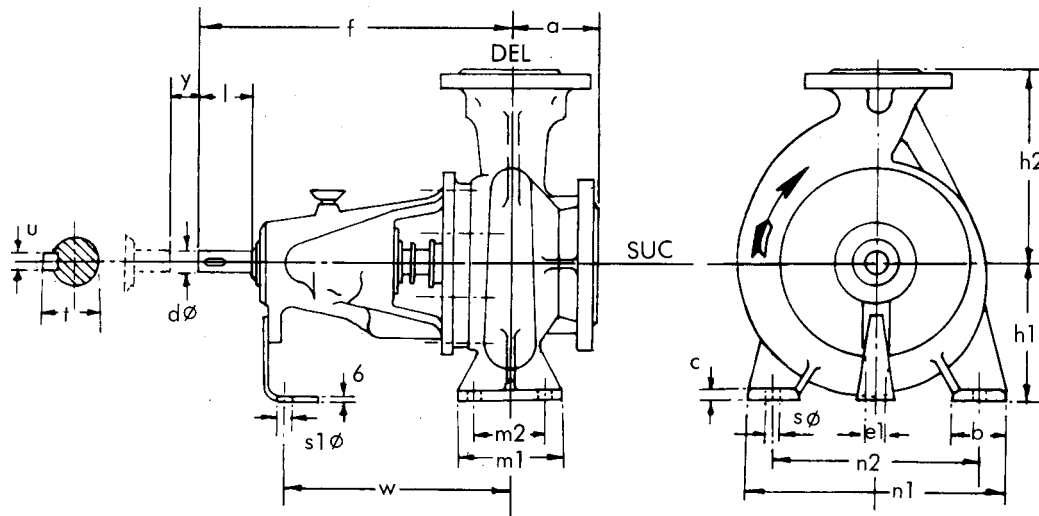


Typical Drawing

Interchangeability of Components

PART NO.	NAME OF PART	TOTAL NO. OF PARTS	PUMP MODEL																														
			32/13	40/13	50/13	65/13	32/16	40/16	50/16	32/20	40/20	65/16	80/16	50/20	65/20	32/26	40/26	50/26	80/20	100/20	65/26	80/26	100/26	125/26	65/32	80/32	100/32	125/32	150/32	100/40	125/40	150/40	
			UNIT 30										UNIT 40										UNIT 50										
105	PUMP CASING	30	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	
151	IMPELLER	30	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	
180	SHAFT	3	1										2										3										
190	CASING RING	9	1	2	3	4	1	2	3	2	2	4	5	3	4	2	3	4	5	6	4	5	6	7	5	8	6	7	9	6	7	9	
191	BACK WEAR RING	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2	3	2	2	4	2	5	
220	CASING COVER	12	1	1	1	1	2	2	2	3	3	4	4	5	5	6	6	6	7	7	8	8	9	9	10	10	10	11	11	12	12	12	
223	GLAND	3	1										2										3										
227	LANTERN RING	3	1										2										3										
240	BEARING HOUSING	4	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	3	3	3	3	4	4	4	4	4	4	4	4	4	4	
251	SUPPORT FOOT	10	1	1	2	3	2	2	3	3	3	4	5	4	5	5	5	5	5	6	6	6	7	8	7	8	8	8	9	9	9	10	10
260	BEARING	3	1										2										3										
270	BEARING COVER	3	1										2										3										
310	SHAFT SLEEVE	3	1										2										3										
320	IMPELLER KEY	3	1										2										3										
321	COUPLING KEY	3	1										2										3										
330	IMPELLER NUT	3	1										2										3										
410	LOCK WASHER	3	1										2										3										

General Dimensions/Mounting Details DB Pump

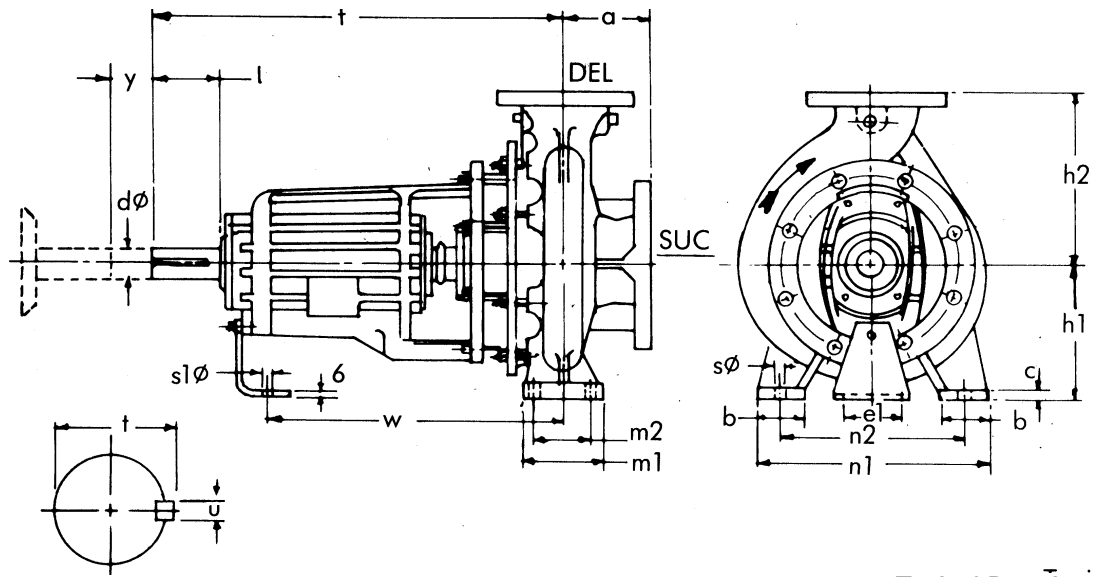


Typical Drawing

Dimension

PUMP MODEL	UNIT NO.	SUC.	DEL.	PUMP MOUNTING DIMENSIONS														SHAFT END				WT. KG	
				a	f	h1	h2	b	c	m1	m2	n1	n2	sØ	e1	sØ	w	dØ	l	t	u		y
32/13	25	50	32	80	360	112	140	50	14	100	70	190	140	14	100	14	267	24	50	27	8	100	28
32/16	25	50	32	80	360	132	160	50	14	100	70	240	190	14	100	14	267	24	50	27	8	100	34
32/20	25	50	32	80	360	160	180	50	14	100	70	240	190	14	110	14	267	24	50	27	8	100	41
32/26	25	50	32	100	360	180	225	65	14	125	95	320	250	14	110	14	267	24	50	27	8	100	59
40/13	25	65	40	80	360	112	140	50	14	100	70	210	160	14	100	14	267	24	50	27	8	100	29
40/16	25	65	40	80	360	132	160	50	14	100	70	240	190	14	100	14	267	24	50	27	8	100	36
40/20	25	65	40	100	360	160	180	50	14	100	70	265	212	14	110	14	267	24	50	27	8	100	44
40/26	25	65	40	100	360	180	225	65	14	125	95	320	250	14	110	14	267	24	50	27	8	100	61
50/13	25	65	50	100	360	132	160	50	14	100	70	240	190	14	100	14	267	24	50	27	8	100	32
50/16	25	65	50	100	360	160	180	50	14	100	70	265	212	14	110	14	267	24	50	27	8	100	38
50/20	25	65	50	100	360	160	200	50	14	100	70	265	212	14	110	14	267	24	50	27	8	100	46
50/26	25	65	50	100	360	180	225	65	14	125	95	320	250	14	110	14	267	24	50	27	8	100	63
65/13	25	80	65	100	360	160	180	65	14	125	95	280	212	14	110	14	267	24	50	27	8	100	39
65/16	25	80	65	100	360	160	200	65	14	125	95	280	212	14	110	14	267	24	50	27	8	100	43
65/20	25	80	65	100	360	180	225	65	14	125	95	320	250	14	110	14	267	24	50	27	8	100	52
65/26	35	80	65	100	470	200	250	80	16	160	120	360	280	18	110	14	342	32	80	35	10	140	81
65/32	35	80	65	125	470	225	280	80	16	160	120	400	315	18	110	14	342	32	80	35	10	140	100
80/16	25	100	80	125	360	180	225	65	14	125	95	320	250	14	110	14	267	24	50	27	8	100	53
80/20	35	100	80	125	470	180	250	65	14	125	95	345	280	14	110	14	342	32	80	35	10	140	70
80/26	35	100	80	125	470	200	280	80	16	160	120	400	315	18	110	14	342	32	80	35	10	140	91
80/32	35	100	80	125	470	250	315	80	16	160	120	400	315	18	110	14	342	32	80	35	10	140	107
100/20	35	125	100	125	470	200	280	80	16	160	120	360	280	18	110	14	342	32	80	35	10	140	85
100/26	35	125	100	140	470	225	280	80	16	160	120	400	315	18	110	14	342	32	80	35	10	140	103
100/32	35	125	100	140	470	250	315	80	16	160	120	400	315	18	110	14	342	32	80	35	10	140	116
100/40	45	125	10	140	530	280	355	100	18	200	150	500	400	23	110	14	370	42	110	45	12	140	177
125/26	35	150	125	140	470	250	355	80	16	160	120	400	315	18	110	14	342	32	80	35	10	140	110
125/32	45	150	125	140	530	280	355	100	18	200	150	500	400	23	110	14	370	42	110	45	12	140	151
125/40	45	150	125	140	530	315	400	100	18	200	150	500	400	23	110	14	370	42	110	45	12	140	188
150/32	45	200	150	160	530	280	400	100	18	200	150	550	450	23	110	14	370	42	110	45	12	140	170
150/40	45	200	150	160	530	315	450	100	18	200	150	550	450	23	110	14	370	42	110	45	12	140	205

DBHS Pump



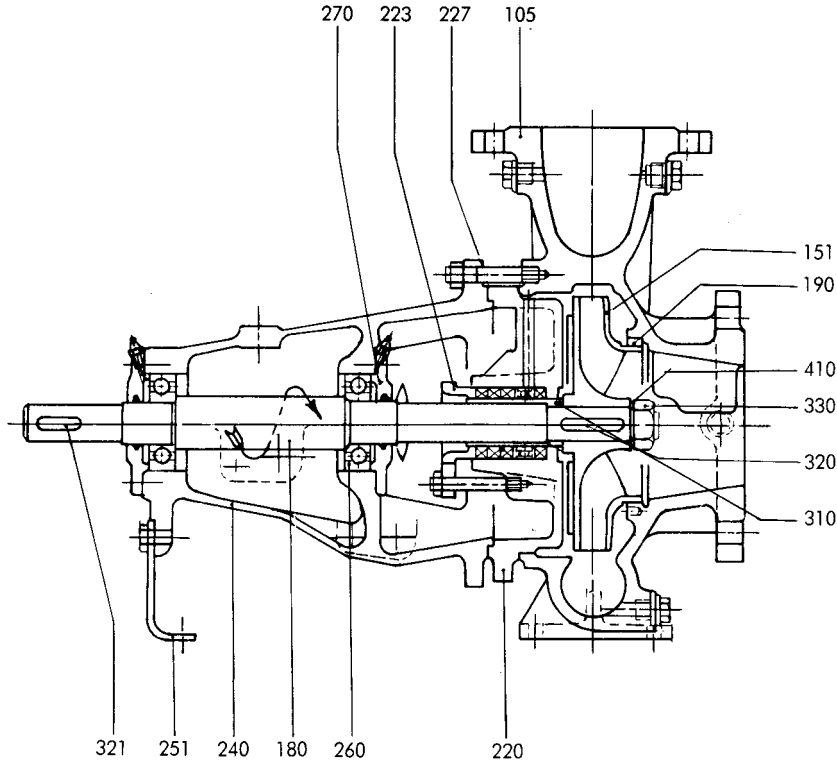
Typical Drawing

Dimensions

PUMP MODEL	UNIT NO.	SUC.	DEL.	PUMP MOUNTING DIMENSIONS													SHAFT END					WT. KG	
				a	f	h1	h2	b	c	m1	m2	n1	n2	sØ	e1	s1Ø	w	dØ in	l	t in	u in		y
32/13	30	50	32	75	385	112	136	50	14	100	70	190	40	14	100	14	290	1"	50	1.11"	1/4"	30	
32/16		50	32	75	385	132	156	50	14	100	70	240	190	14	100	14	290	1"	50	1.11"	1/4"	36	
32/20		50	32	75	385	160	176	50	14	100	70	240	190	14	100	14	290	1"	50	1.11"	1/4"	48	
40/13		65	40	75	385	112	135	50	14	100	70	210	160	14	100	14	290	1"	50	1.11"	1/4"	33	
40/16		65	40	75	385	132	155	50	14	100	70	240	190	14	100	14	290	1"	50	1.11"	1/4"	38	
40/20		65	40	95	385	160	175	50	14	100	70	265	212	14	110	14	290	1"	50	1.11"	1/4"	100	49
50/13	40	65	50	95	385	132	155	50	14	100	70	240	190	14	100	14	290	1"	50	1.11"	1/4"	36	
50/16		65	50	95	385	160	175	50	14	100	70	265	212	14	110	14	290	1"	50	1.11"	1/4"	42	
65/13		80	65	95	385	160	175	65	14	125	95	280	212	14	110	14	290	1"	50	1.11"	1/4"	41	
32/26		50	32	95	498	180	221	65	14	125	95	320	250	14	110	14	378	1.3/8"	75	1.513"	5/16"	73	
40/26		65	40	95	498	180	220	65	14	125	95	320	250	14	110	14	378	1.3/8"	75	1.513"	5/16"	75	
50/20		65	50	95	498	160	195	50	14	100	70	265	212	14	110	14	378	1.3/8"	75	1.513"	5/16"	61	
50/26	65	50	95	498	180	220	65	14	125	95	320	250	14	110	14	378	1.3/8"	75	1.513"	5/16"	77		
65/16	50	50	65	95	498	160	195	65	14	125	95	280	212	14	110	14	378	1.3/8"	75	1.513"	5/16"	61	
65/20		80	65	95	498	180	220	65	14	125	95	320	250	14	110	14	378	1.3/8"	75	1.513"	5/16"	68	
80/16		100	80	120	498	180	220	65	14	125	95	320	250	14	110	14	378	1.3/8"	75	1.513"	5/16"	71	
65/26		80	65	95	498	200	245	80	16	160	120	360	280	18	110	14	378	1.3/8"	75	1.513"	5/16"	83	
80/20		100	80	120	498	180	245	65	14	125	95	345	280	14	110	14	378	1.3/8"	75	1.513"	5/16"	78	
80/26		100	80	120	498	200	275	80	16	160	120	400	315	18	110	14	378	1.3/8"	75	1.513"	5/16"	101	
100/20	125	100	120	498	200	275	80	16	160	120	360	280	18	110	14	378	1.3/8"	75	1.513"	5/16"	95		
65/32	50	80	65	120	530	225	275	80	16	160	120	400	315	18	110	14	379	1.5/8"	100	1.79"	3/8"	129	
80/32		100	80	120	530	250	310	80	16	160	120	400	315	18	110	14	379	1.5/8"	100	1.79"	3/8"	131	
100/26		125	100	135	530	225	275	80	16	160	120	400	315	18	110	14	379	1.5/8"	100	1.79"	3/8"	140	123
100/32		125	100	135	530	250	310	80	16	160	120	400	315	18	110	14	379	1.5/8"	100	1.79"	3/8"	142	
100/40		125	100	135	530	280	350	100	18	200	150	500	400	23	110	14	379	1.5/8"	100	1.79"	3/8"	180	
125/26		150	125	135	530	250	350	80	16	160	120	400	315	18	110	14	379	1.5/8"	100	1.79"	3/8"	140	
125/32	150	125	135	530	280	350	100	18	200	150	500	400	23	110	14	379	1.5/8"	100	1.79"	3/8"	161		
125/40	150	125	135	530	315	395	100	18	200	150	500	400	23	110	14	379	1.5/8"	100	1.79"	3/8"	195		
150/32	200	150	155	530	280	395	100	18	200	150	550	450	23	110	14	379	1.5/8"	100	1.79"	3/8"	190		
150/40	200	150	155	530	315	445	100	18	200	150	550	450	23	110	14	379	1.5/8"	100	1.79"	3/8"	212		

All dimensions are in mm unless specified otherwise.

Cross Sectional View DB Pump

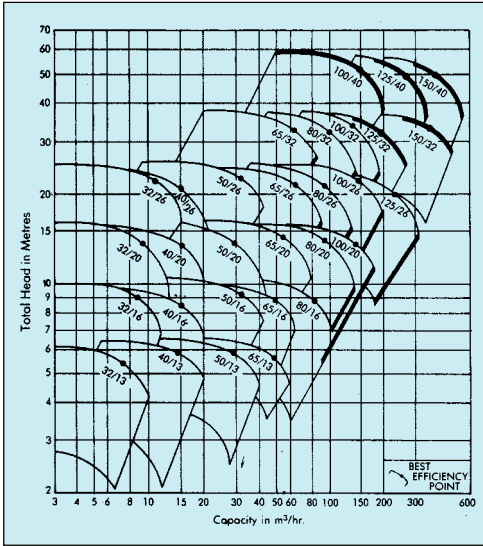


Typical Drawing

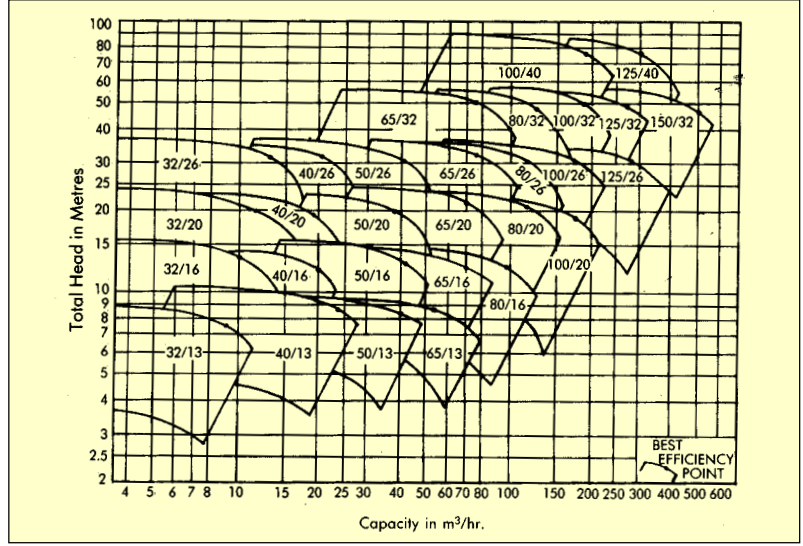
Interchangeability of Components

PART NO.	NAME OF PART	TOTAL NO. OF PARTS	PUMP MODEL																													
			32/13	40/13	50/13	65/13	32/16	40/16	50/16	65/16	80/16	32/20	40/20	50/20	65/20	32/26	40/26	50/26	80/20	100/20	65/26	80/26	100/26	125/26	65/32	80/32	100/32	125/32	150/32	100/40	125/40	150/40
			UNIT 25															UNIT 35										UNIT 45				
105	PUMP CASING	30	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
151	IMPELLER	30	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
180	SHAFT	3	1															2										3				
190	CASING RING	9	1	2	3	4	1	2	3	4	5	2	2	3	4	2	3	4	5	6	4	5	6	7	5	8	6	7	9	6	7	9
220	CASING COVER	10	1	1	1	1	2	2	2	2	2	3	3	3	3	4	4	4	5	5	6	6	7	7	8	8	8	9	9	10	10	10
223	GLAND	3	1															2										3				
227	LANTERN RING	3	1															2										3				
240	BEARING HOUSING	4	1	1	1	1	2	2	2	2	2	1	1	1	1	2	2	2	3	3	3	3	3	3	3	3	3	4	4	4	4	4
251	SUPPORT FOOT	8	1	1	2	3	2	2	3	3	4	3	3	3	4	4	4	4	3	4	4	4	5	6	5	6	6	7	7	7	8	8
260	BEARING	3	1															2										3				
270	BEARING COVER	3	1															2										3				
310	SHAFT SLEEVE	3	1															2										3				
320	IMPELLER KEY	3	1															2										3				
321	COUPLING KEY	3	1															2										3				
330	IMPELLER NUT	3	1															2										3				
410	LOCK WASHER	3	1															2										3				

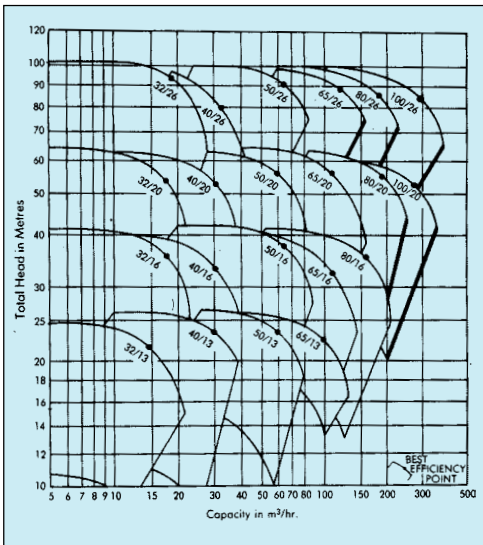
Family Curve of DB/DBHS Pump at 1450 rpm – 50Hz



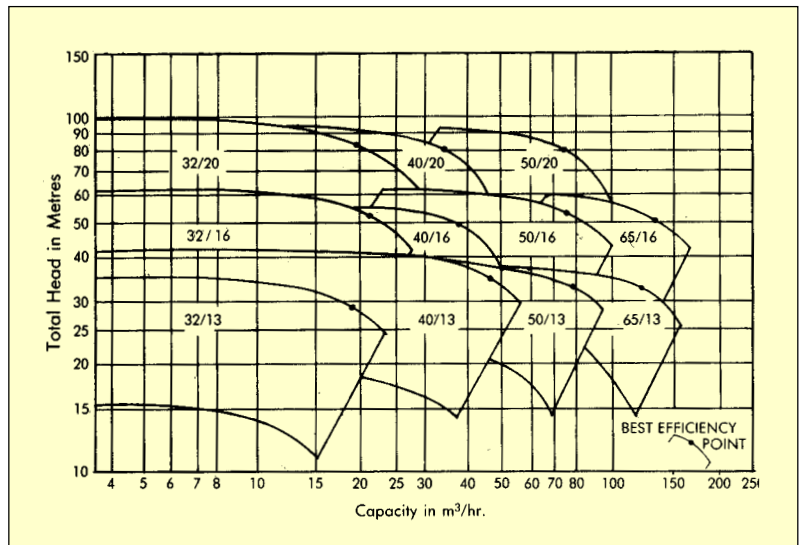
Family Curve of DB/DBHS Pump at 1750 rpm – 60Hz



Family Curve of DB/DBHS Pump at 2900 rpm – 50Hz



Family Curve of DB/DBHS Pump at 3500 rpm – 60Hz



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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Enquiries may be directed to the nearest Regional Sales Office.

Regional Sales Offices : Ahmedabad, Bangalore, Baroda, Bhubaneswar, Calcutta, Chennai, Jaipur, Kochi, Lucknow, Mumbai, Nagpur, New Delhi, Pune, Ranchi, Secunderabad.