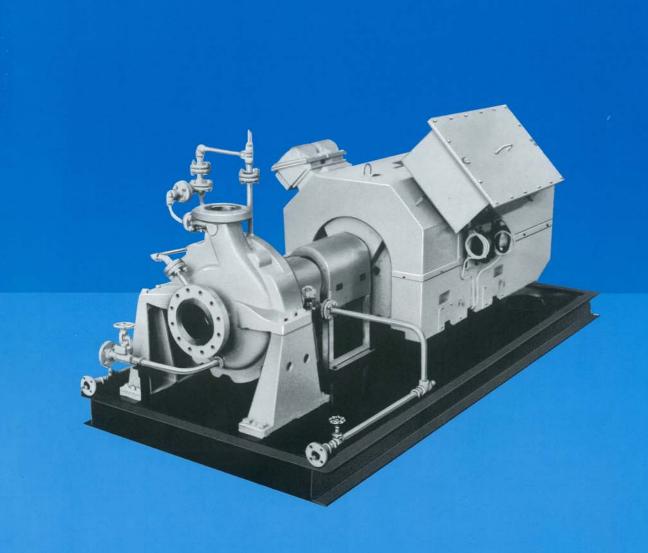


PROCESS PUMP Single Stage, Single Suction, Centerline Supported

CS1310EJ

Model UCW



Single Stage, Single Suction, Centerline Supported



API 610



FBARA MODEL UCW PROCESS PUMPS of single stage, single suction, centerline supported, horizontal design have been widely used in petroleum refineries, the petrochemical industry and other chemical industries for the past few

years. Many improvements have been recently made on this pump Our to enhance its performance. modern tape controlled machines in conjunction with advanced quality control procedures insure that these pumps meet our high

manufacturing standards. Unique design of this high performance pump provides for superior and extended low-cost operation.

Applications

- Petroleum Refineries
- The Petrochemical Industry
- Other Chemical Industries

Ratings

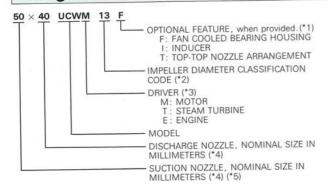
To 1920m³/h(8450 USGPM)*
To 380 m (1250 ft)*
Consistant with the pressure ratings of ANSI Class 300 flanges as a standard. Higher pressure ratings are available.
Clockwise viewed from coupling end
Enclosed
-100°C to 450°C (-150°F to 850°F)*
ANSI Class 300 as standard
End-Top/Top-Top
Suitable for conventional packing & mechanical seal

*These values in parenthesis () are reference only.

Features

- Centerline supported heavy duty design.
- Back pull-out casing.
- Full compliance with API 610 specifications.
- All components have been designed for maximum parts interchangeability.
- Flexibility of design handles wide range of liquids.
- All sizes stocked for fast shipment.
- · Low NPSH performance.

Designations

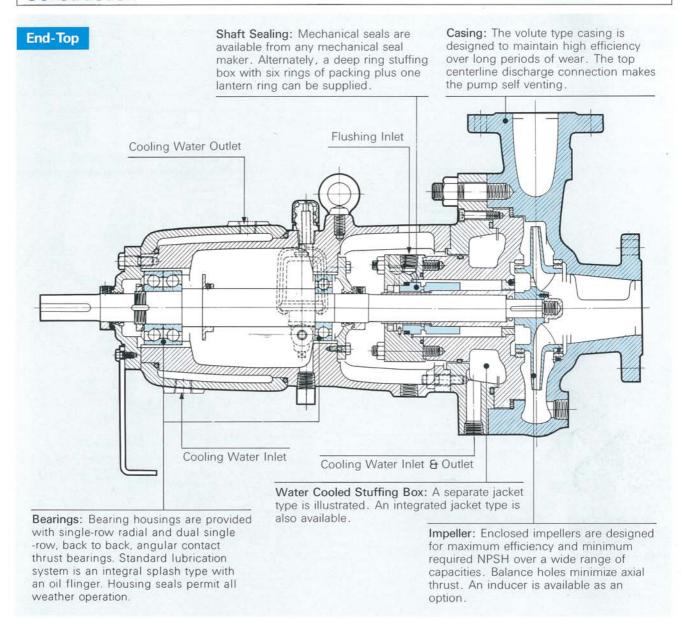


Notes:

- (*1) When two features are involved, the codes are in alphabetical order
- (*2) The letters "Y" and "Z" following the impeller diameter classification code indicate different casing and impeller designs. To give an example, 150×100 UCWM 40, 150×100 UCWM 40Y and 150×100 UCWM 40Z have different casing and
- impeller designs from one another.

 (*3) When a step up or step down gear is provided, the code letter "G" is added between model and driver. For example, $150 \times$ 100 UCWGM means that the pump is driven by an electric motor through a separate gear.
- (*4) When suction and discharge nozzles are identical, they shall not be duplicated, i.e. 200 UCWM 20 is the correct designation in lieu of 200×200 UCWM 20.
- (*5) When an inducer is provided a larger size nozzle is employed.

Construction



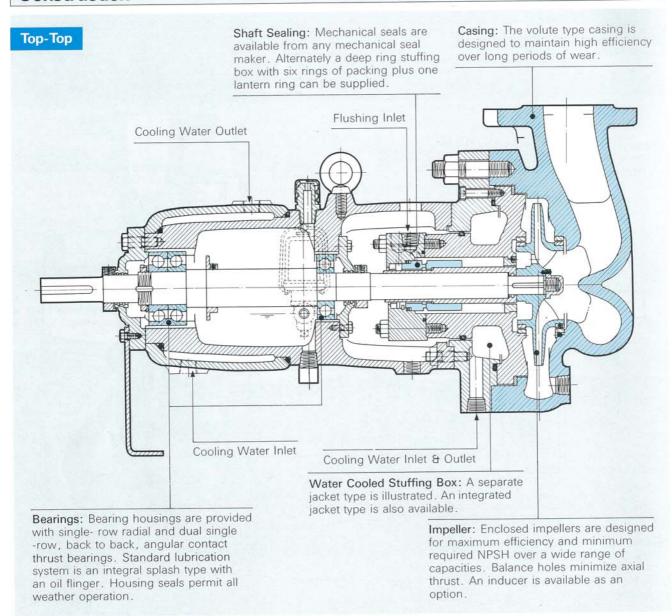
Metallurgy

Part Name	Materials JIS/ASTM-AISI														
Fait Name	C. Steel	C. Steel	12% Cr. Steel	304 S. Steel	316 S. Steel										
Casing	SCPH2/A216WCB	SCPL1/A352LCB	SCS1/A487CA6NM	SCS13A/A743CF8	SCS14A/A743CF8M										
Impeller	FC200/A48,CL.30	SCS13A/A743CF8	SCS1/A487CA6NM	SCS13A/A743CF8	SCS14A/A743CF8M										
Impeller Wear Ring	SUS420J2/AISI420	SUS304/AISI304	SUS420J2/AISI420	SUS304/AISI304	SUS316/AISI316										
Shaft	S35C/AISI1035	SUS304/ANSI304	SUS420J1/AISI420	SUS304/AISI304	SUS316/AISI316										
Case Wear Ring	FCD400/A536	SUS304/AISI304	SUS420J1/AISI420	SUS304/AISI304	SUS316/AISI316										
Packing Sleeve-	SUS420J2/AISI420	SUS304/AISI304	SUS420J2/AISI420	SUS304/AISI304	SUS316/AISI316										
Mechanical Seal Sleeve	SUS420J2/AISI420	SUS304/AISI304	SUS420J2/AISI420	SUS304/AISI304	SUS316/AISI316										

Notes: Following materials supplied on request: 304L S. Steel, 329J1 S. Steel, Hastelloy, 20 Alloy, Monel.

Standard Materials
Optional Materials

Construction



Metallurgy

Part Name	Materials JIS/ASTM-AISI													
	C. Steel	C. Steel	12% Cr. Steel	304 S. Steel	316 S. Steel									
Casing	SCPH2/A216WCB	SCPL1/A352LCB	SCS1/A487CA6NM	SCS13A/A743CF8	SCS14A/A743CF8M									
Impeller	FC200/A48,CL.30	SCS13A/A743CF8	SCS1/A487CA6NM	SCS13A/A743CF8	SCS14A/A743CF8M									
Impeller Wear Ring	SUS420J2/AISI420	SUS304/AISI304	SUS420J2/AISI420	SUS304/AISI304	SUS316/AISI316									
Shaft	S35C/AISI1035	SUS304/AISI304	SUS420J1/AISI420	SUS304/AISI304	SUS316/AISI316									
Case Wear Ring	FCD400/A536	SUS304/AISI304	SUS420J1/AISI420	SUS304/AISI304	SUS316/AISI316									
Packing Sleeve	SUS420J2/AISI420	SUS304/AISI304	SUS420J2/AISI420	SUS304/AISI304	SUS316/AISI316									
Mechanical Seal Sleeve	SUS420J2/AISI420	SUS304/AISI304	SUS420J2/AISI420	SUS304/AISI304	SUS316/AISI316									

Notes: Following materials supplied on request: 304L S. Steel, 329J1S. Steel, Hastelloy, 20 Alloy, Monel.

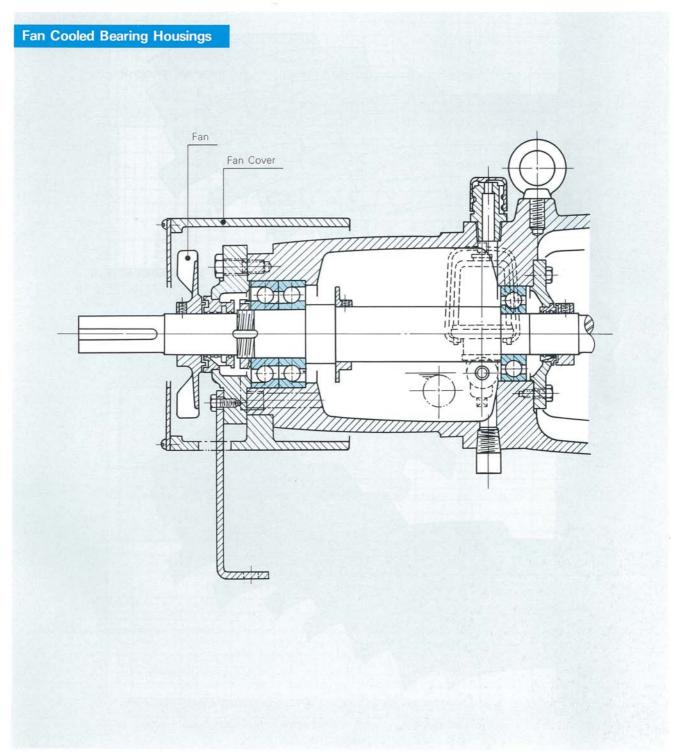
Standard Materials Optional Materials

Optional Features

In order to accomodate your requests, the following features are available.

Inducer Arrangement
Oil Ring Lubricated Bearings
Oil Mist Lubricated Bearings
Water Cooled Bearing Housing/Separate Jacket Type

Water Cooled Bearing Housing/Integrated Jacket Type Fan Cooled Bearing Housing Water Cooled Stuffing Box/Separate Jacket Type Water Cooled Stuffing Box/Integrated Jacket Type

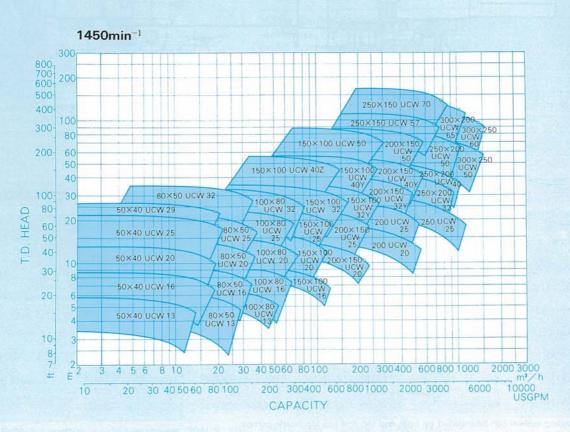


- The fan cooling system can be installed on both end-top and top-top nozzle pumps.
- The fan cooling system improves the operating temperature of the pump under severe conditions, without use of water.

Performance Ranges





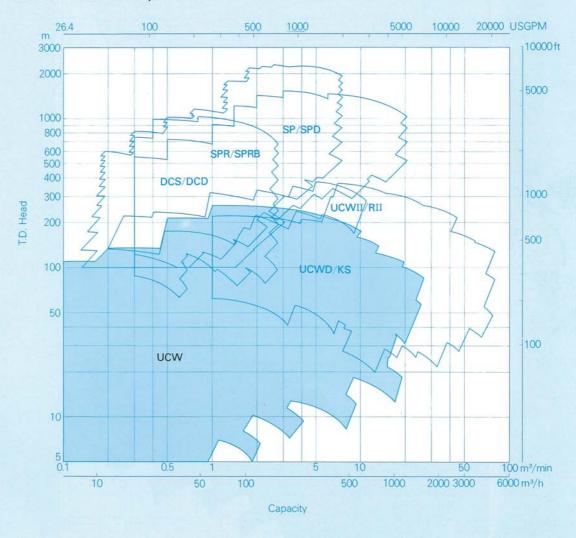


This selection chart is prepared for preliminary selection. Refer to individual performance curves for final selection. O denotes B.E.P. of the performance with an impeller of maximum diameter.

Performance Ranges

50_{Hz}

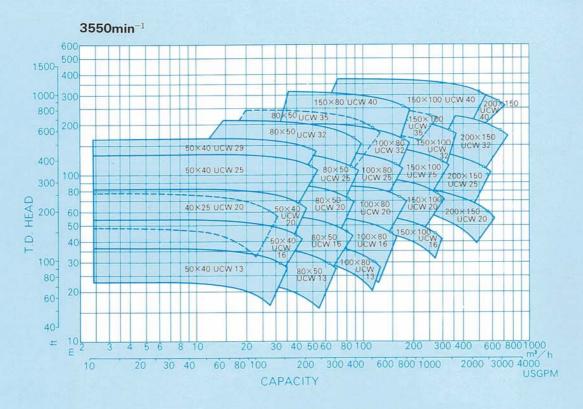
General Process Pumps

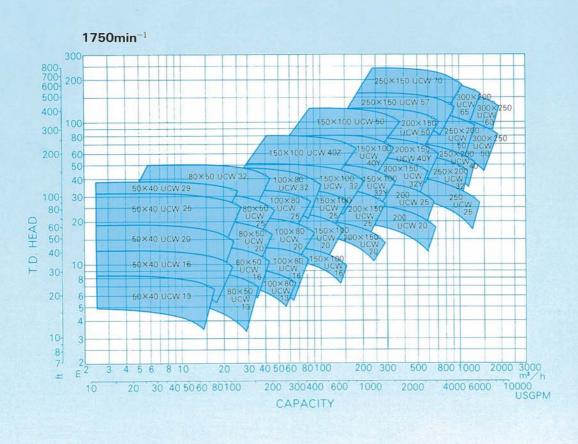


Performance ranges shown on these charts are for preliminary selection only.

Performance Ranges



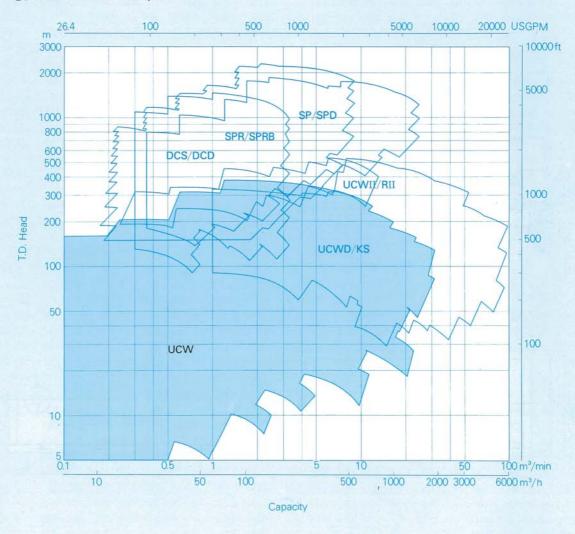




This selection chart is prepared for preliminary selection. Refer to Individual performance curves for final selection. O denotes B.E.P. of the performance with an impeller of maximum diameter.

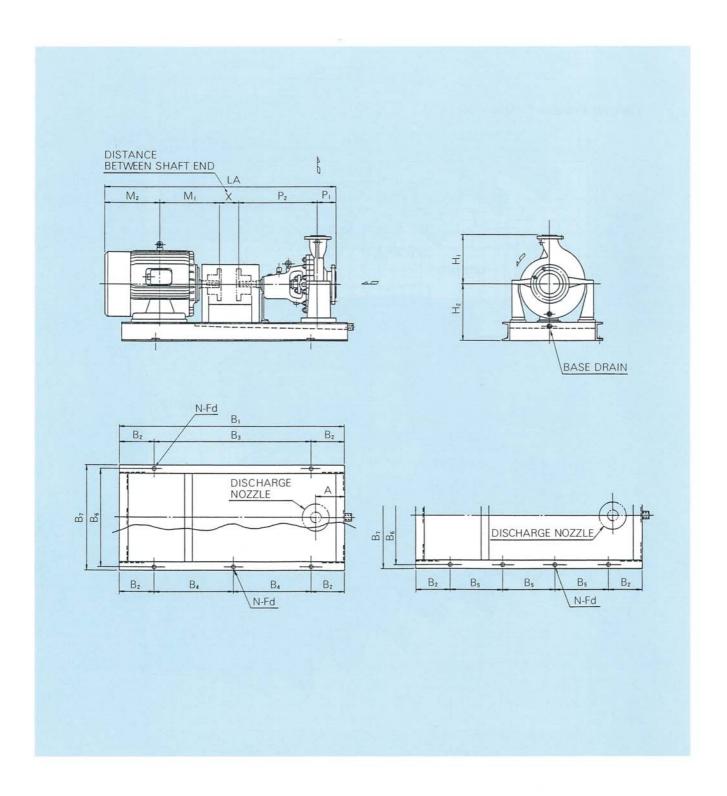


General Process Pumps



Performance ranges shown on these charts are for preliminary selection only.

End-Top



End-Top

	МОТО	OR			PI	JMP A	AND MOT	OR (mm)						BAS	E PLATE	E (mm)					WEIG	HT(kg)
PUMP	SIZE	kW	P,	Pz	Hi	H ₂	M	M ₂	LA	X	Α	В	B ₂	B ₃	B ₄	B _s	B ₆	В,	N	Fd	PUMP	BASE
40× 2	25 20	22	120	580	240	341	370.5	531.5	1742	140	160	1460	185	1090		-	440	490	4	19	135	140
50× 4	40 13	22	135	580	240	341	370.5	531.5	1757	140	160	1460	185	1090		-	440	490	4	19	139	140
50× 4	10 16	22	135	580	240	341	370.5	531.5	1757	140	160	1460	185	1090		-01	440	490	4	19	141	140
50× 4	10 20	30	135	580	240	341	395.5	600.5	1851	140	165	1510	210	1090	-		440	490	4	19	141	165
50× 4	10 25	55	140	650	275	425	452.5	600.5	1983	140	175	1680	210	1260	-	-3	530	590	4	24	210	195
50× 4	10 29	55	145	650	290	425	452.5	600.5	1988	140	175	1680	210	1260	-	-	530	590	4	24	222	195
80× 5	50 13	22	140	580	240	341	370.5	574.5	1805	140	160	1460	185	1090	-	-3	440	490	4	19	139	140
80× 5		22	140	580	240	341	370.5	574.5	1805	140	160	1460	185	1090	-	-8	440	490	4	19	139	140
80× 5		30	150		240		395.5	600.5	1866	140	165	1510	210	1090		-	440	490	4	19	147	140
80× 5		55			270		452.5	600.5	1988	140	175	1680		1260	-	-	530	590	4	24	214	195
80× 5			170		310		509.5	545.5		140	210	1890	245	1400	120	270	680	740	4	24	345	210
100× 8			170		260		402	600.5	1962.5	140	145	1550	115	= 1	660		480	530			176	110
100× 8			170	650		345	402		1962.5	140	145	1550	115	-	660	5	480	530			177	110
100× 8			165	650	260		414.5	814.5		140	145	1580	230	1120	- 7	854	490	550			182	135
100× 8		90		730	300		509.5	545.5		140	185			1400	-		530	640			281	175
100× 8		132	170	730	410		554.5	930.5	2525	140	245		105		900	100	670			24	417	255
150× 8		132	185	850	470	574	554.5		2700	180	265	2190	195	-	900		880	950		26	623	370
150×10		55	190	650	295	425	452.5		2363	140	205	1710		1260	=	i=	540			24	224	200
150×10		132	185		340		554.5	930.5		140	185	1950	275	1400	-	V. 	660			24	319	250
150×10		132	185		340		554.5	930.5		140		1950		1400	1.00	1-	660	720		24	363	250
150×10		132	195		450		554.5	930.5				2050	125	-	900	1-	880			26	562	355
150×10		55	200		370		452.5	930.5		180	260	1880	230	-	710	2-	850	920		26	600	330
150×10		132	200	850	575	624	554.5	930.5		200	295	2240	220	-	900		1020			26	774	420
150×10		90	205		420	529	539.5	575	2229.5	180	255	2000	150	- 22	850	9-	890	960		26	696	365
150×10		55	200	730	370		452.5	930.5	2493	180	260	1880	230	-	710		850			26	700	330
150×10		132	215	850	460	574	614.5	620.5	2480	180	270	2260	230		900		930			26	1090	400
200	20	55	250	765	430	529	482.5	495	2192.5	200	245	1950	275	1400	-		850	920		26	700	315
200×15		75 132	220	765	480	529	514	515	2194	180	260	2000	300	1400	-	100	900			26	765	380
200×15		132	220	745	380	529 529	554.5 554.5	930.5	2650	200	260	2100	150		900		710	780		26	404	315
200×15		132			450		554.5	930.5	2665			2120	160	10=0	900		770	840		26	512	315
200×15		132			480		614.5	620.5					180	=	900		770 910	980		26	559 876	335 345
200×15		132	230	850	525	624	554.5	930.5		200		2230			900	-	930	1000		26	834	410
200×15		132	230		480		614.5	620.5				2160		NATT	900	10.7	910			26	881	345
200×15		132			580		614.5	620.5				2380			1000			1250				450
250	25	132			580		614.5	620.5				2230			900			1260			860	
250×20		132			580		614.5	620.5				2300		-	1000			1210				450 450
250×20		132			580		614.5	620.5				2300			1000			1210				450
250×20		110			650		589	575	2554			2390			1000			1300				485
250×15				1110			741	1078	3459			3040			-			1280				600
250×15				1200			874	1271	3915			3400						1440				850
300×25				1135			874	1271	3860			3330						1440				900
300×25				1200			1095	1593	4480			3650			Total a			1440				1100
300×20				1190			914	1330	4014			3440			020			1500				950
							S74 177 / 4			-	10	200				000		1000	9		2200	000

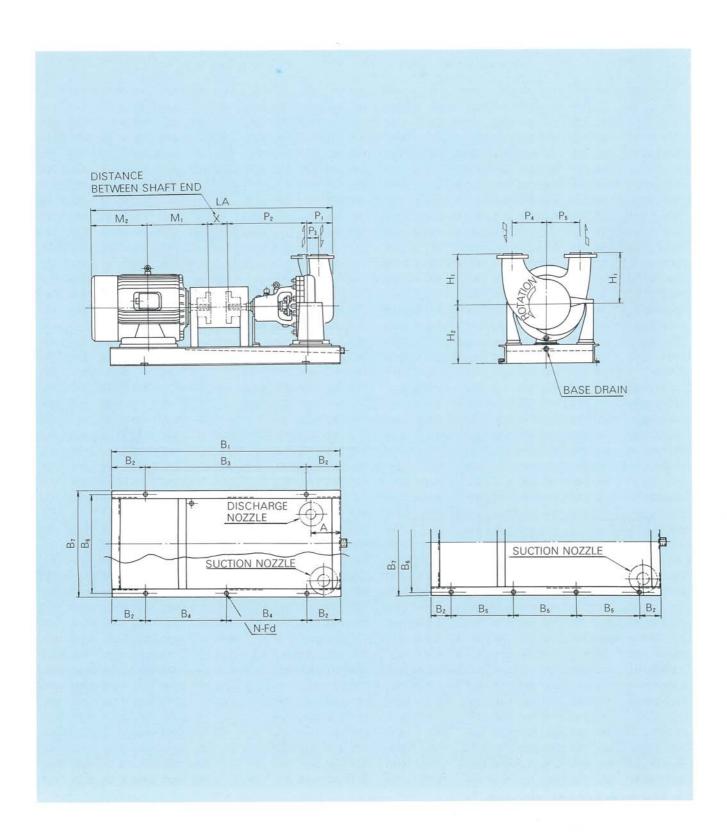
Note: Dimensions are in mm and for guidance only.

Certified drawings will be provided in all cases of actual construction. Motor dimensions are for a given IEC frame.

Base-plates are sized per our standard, not per the standard base plates in Appendix H of API 610.

On providing on inducer and / or a fan Cooled bearing housing, the certain dimensions differ from those in dicated in the avove list.

Top-Top



Top-Top

мот	MOTOR PUMP AND MOTOR (mm)											BASE	PLATE	(mm	1)			WEIGI	HT(kg)				
PUMP SIZE	LAAL	D	D	0							LA	~	A	В,	B ₂	В,	В,	Bs		В,	N Ed	PUMP	1122
40× 25 20T	kW	P,	P ₂	P ₃	P. 90		H,	H ₂	M, 370.5	M ₂ 531.5		X		1460		10000000	04	Ds	B ₆	WARE	4 19	140	140
50× 40 13T		113	580	30			210		370.5					1460			_		440		4 19	145	140
50× 40 16T		113	580	30			210		370.5					1460			_		440		4 19	150	140
50× 40 20T	30	117	580	30	80	100	230	341	395.5	600.5	1833	140	185	1510	210	1090	-	-	440	490	4 19	150	165
50× 40 25T	55	125	650	30	80	140	260	425	452.5	600.5	1969	140	175	1680	210	1260		=	530	590	4 24	220	195
50× 40 29T	55	127	650	30	80	155	270	425	452.5	600.5	1970	140	175	1680	210	1260	=11	=	530	590	4 24	235	195
80× 50 13T	22	128	580	30	115	110	230	341	370.5	574.5	1793	140	160	1460	185	1090		2	440	490	4 19	145	140
80× 50 16T	22	128	580	30	115	110	230	341	370.5	574.5	1793	140	160	1460	185	1090			440		4 19	145	140
80× 50 20T		141	580				240		395.5					1510			-	-	440		4 19	155	140
80× 50 25T		138	650	40			260		452.5					1680			= 2.1	-	530		4 24	225	195
80× 50 32T		147	730	40			350		509.5					1890			660	-	680 480		4 24 6 19	360 185	110
100× 80 13T 100× 80 16T		160	650 650				260 260		402		1952.5 1952.5			1550			660		480		6 19	185	110
100× 80 20T		164	650				250		414.5	814.5				1580			-	-	490		4 24	190	135
100× 80 25T		173	730				280		509.5					1870			-	-	580		4 24	295	175
100× 80 32T		177	730	50			350		554.5			140	275	2010	105	-:	900	-	670	730	6 24	430	255
150× 80 40T	40	195	850	40	110	240	450	574	554.5	930.5	2710	180	265	2190	195	-00	900	-	880	950	6 25	640	370
150×100 16T	55	218	650	90	200	145	320	425	452.5	930.5	2391	140	205	1710	225	1260	-8	-	540	600	4 24	240	200
150×100 20T	132	203	730	70	170	185	330	470	554.5	930.5	2558	140	185	1950	275	1400	-:	-	660	720	4 24	340	250
150×100 25T	132	203	730	70	170	185	330	470	554.5	930.5	2558	140	185	1950	275	-4		-	660	720	4 24	380	250
150×100 32T	132	207	730	60	150	210	420	572	554.5	930.5	2602	180	280	2050	125	-1	900		880	950	6 26	585	355
150×100 32YT		256	730				355		452.5	930.5				1880		=2	710		850		6 26	625	330
150×100 40T		238	850	60			500		554.5					2240		-0	900	-0	1020			805	420
150×100 40YT		251	730				400 370		539.5 452.5	575 930.5	2275.5			1880		-	710	-	890		6 26	720	365 330
150×100 4021		256					430		614.5	620.5				2260			900	_		1000		1110	400
200 201		300					380		482.5	495	2242.5						-	-	850		4 26	730	315
200 25T		282					400		514		2256			2000				-	900		4 28	800	380
200×150 20T	132	238	745	110	220	195	370	529	554.5	930.5	2668	200	260	2100	150	-2	900	5-	710	780	6 26	430	315
200×150 25T	132	245	760	90	190	240	400	529	554.5	930.5	2690	200	260	2120	160		900	-	770	840	6 26	545	315
200×150 32T	132	245	850	90	190	240	400	529	554.5	930.5	2780	200	260	2210	205	-2	900	-	770	840	6 26	585	335
200×150 32YT	132	395	760	120	140	275	450	529	614.5	620.5	2570	180	260	2160	180		900	-	910	980	6 26	910	345
200×150 40T		257					500		554.5	930.5				2230		-:	900	-		1000		870	410
200×150 40Y1							450		614.5					2160		-3	900	-	910		6 26	910	345
200×150 50T														2390			1000					1540	450
250 25T		354							614.5					2230		-0			1230				470
250×200 32T 250×200 40T		344					560 560							2300								1090	470
250×200 50T		364					610		689	575	2678			2390								1840	500
250×150 57T			1110						741	1078	3551			3040		-3	_					1950	880
250×150 70T			1200						874	1271	4005			3400		-	-					2150	930
300×250 50T	230	410	1135	160	180	410	620	800	874	1271	3970	280	380	3300	225		-	950	1400	1480	8 28	2150	1200
300×250 60T	450	376	1200	180	150	425	640	815	1095	1593	4564	300	400	3650	355	-	-	980	1400	1480	8 28	2360	980
300×200 65T	350	364	1190	150	150	430	660	860	914	1330	4098	300	440	3440	295	-	=	950	1460	1540	8 28	2250	980

Note: Dimensions are in mm and for guidance only.

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On providing a fan Cooled bearing housing, the certain dimensions differ from those indicated in the above list.



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