

TAKI-PUMP

Model SPM
End suction centrifugal pump



TAKI® **ISO 9001**



<http://www.takipump.com>

TAKI CENTRIFUGAL VOLUTE PUMP

TAKI end suction centrifugal pumps are designed with the latest techniques, advancement in hydraulics and mechanical. All pumps are manufactured under a perfect quality control system and high precision machines. The good design and manufacture result in high efficiency, strength, rigidity, accessibility and pleasing appearance.

FEATURES :

1. HIGH EFFICIENCY

Impellers and casings are designed with superb techniques and cast to give high efficiency. The impellers are closed type three dimension blades. The suction diameter is made to be one grade larger than the discharge size, resulting in high suction efficiency. The highest efficiency of TAKI PUMP ensures that minimum and economical horse-power is used.

2. SPECIFICATIONS

Capacities : Up to 34 m³/min. (9000 US.GPM.)
 Heads : Up to 100 metres (330 feet)
 Bore sizes : 50 to 300 mm.

3. APPLICATIONS

INDUSTRIAL : Water treatment, waste disposal, refrigeration plant, chemical process, boiler & derator feeding, circulation of heat transfer medium, condensate extraction, paper processing, spray booths, breweries and distilleries.

MUNICIPAL : Water supply and drainage, swimming pools, flood control, water reticulation, hot water supply, building water services, fire fighting.

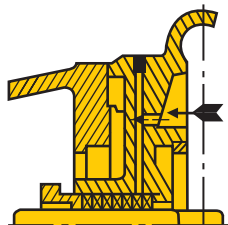
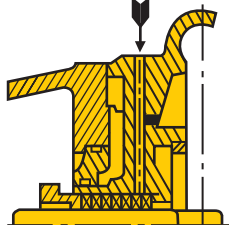
AGRICULTURE : Water supply, pumping up, drainage, sprinkling, stock dipping.

4. INTERCHANGEABILITY AVAILABLE

The logical design, only 5 sizes of bearing housings for 35 sizes of pumps, gives higher interchangeability, easier maintenance and fewer parts to be stocked.

Bearing Housing	Pump model	Parts									
		Shaft	Bearing pedestal	Impeller nut	Gland	Ball bearing	Gland packing	Mechanical seal	Lip seal	Wearing ring (106)	Wearing ring (107)
L-60	40-20										
	40-26										
	40-33/2										
	50-20										
	50-26										
	50-33/2										
	65-20										
	65-26										
	65-33/2										
80-20											
L-80	80-26										
	80-33										
	80-40/2										
	100-20										
	100-26										
	100-33										
	125-20										
	125-26										
150-20											
L-100	100-40										
	100-50/2										
	125-33										
	150-26										
L-120	125-40										
	125-50/2										
	150-33										
	200-23										
L-150	150-40										
	150-50										
	150-60/2										
	200-33										
	200-40										
	200-50										
	250-29										
	250-33										
	250-40										
250-50											
300-35											
















STUFFING BOXES

	Standard (N/a) Type	Hot Water (HW) Type
Structure		
Application	In case of clean pumping liquid and negative to +0.5 kg/cm ² G suction pressure	In case of clean & hot pumping liquid and positive suction pressure
Applicable Temperature	up to 105°C	105 C-140°C
Method of Sealing	Pumping liquid is injected	No liquid is applied
Cooling	None	Cooling water is fed

STANDARD FEATURES

5. DIRECTIONS OF DISCHARGE BRANCH

The standard arrangement for discharge is facing upward. However the other directions can be rearrange according to discharge requirement.

Pump Model				Bearing Housing	1	2	3	4	5	6	7
40-20 40-26 40-33/2	50-20 50-26 50-33/2	65-20 65-26 65-33/2	80-20	L-60							
80-26 80-33 80-40/2	100-20 100-26 100-33	125-20 125-26	150-20	L-80							
100-40 100-50/2	125-33 125-40 125-50/2	150-26 150-33 150-40 150-50 150-60/2	200-33 200-40 200-50	L-100 L-120 L-150							
200-23	250-29 250-50	300-35		L-120 L-150							

STANDARD FEATURES

CASING

Pump casings are highly efficient volute type which are designed and developed with the latest hydraulic technique. The casing is connected to the bearing housing by spigot and bolts and, in most cases can be turned to suit various positions.

SUCTION COVER

Suction cover gives liquid a direct axial approach to impeller and minimize friction losses. Suction cover and casing are registered with metal to metal faces this ensuring accurate alignment.

IMPELLER

Impellers are made in one piece with front and rear shrouds for most efficient operation, accurately machined and dynamically balanced, the impeller is keyed to the shaft and secured by a self locking dome-headed nut.

WEARING RING

Wearing rings are firmly positioned in the casing and suction cover.

SHAFT

Shafts are accurately designed for minimum deflection and manufactured with high quality high tensile steel to provide rigidity and reliable service.

BEARING HOUSING

Bearing housing are made of heavy duty cast iron with extra long bearing center to provide sturdy and rigid support.

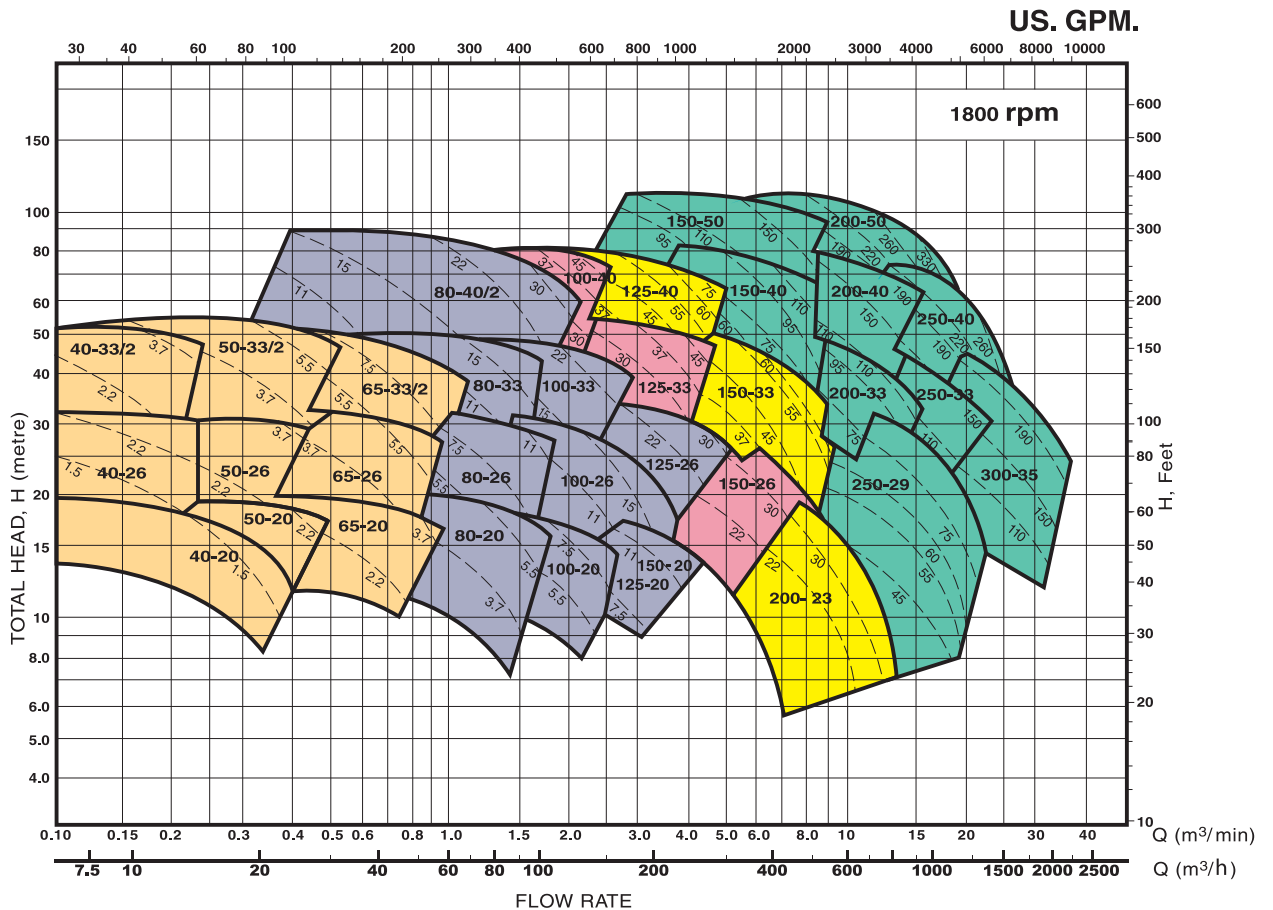
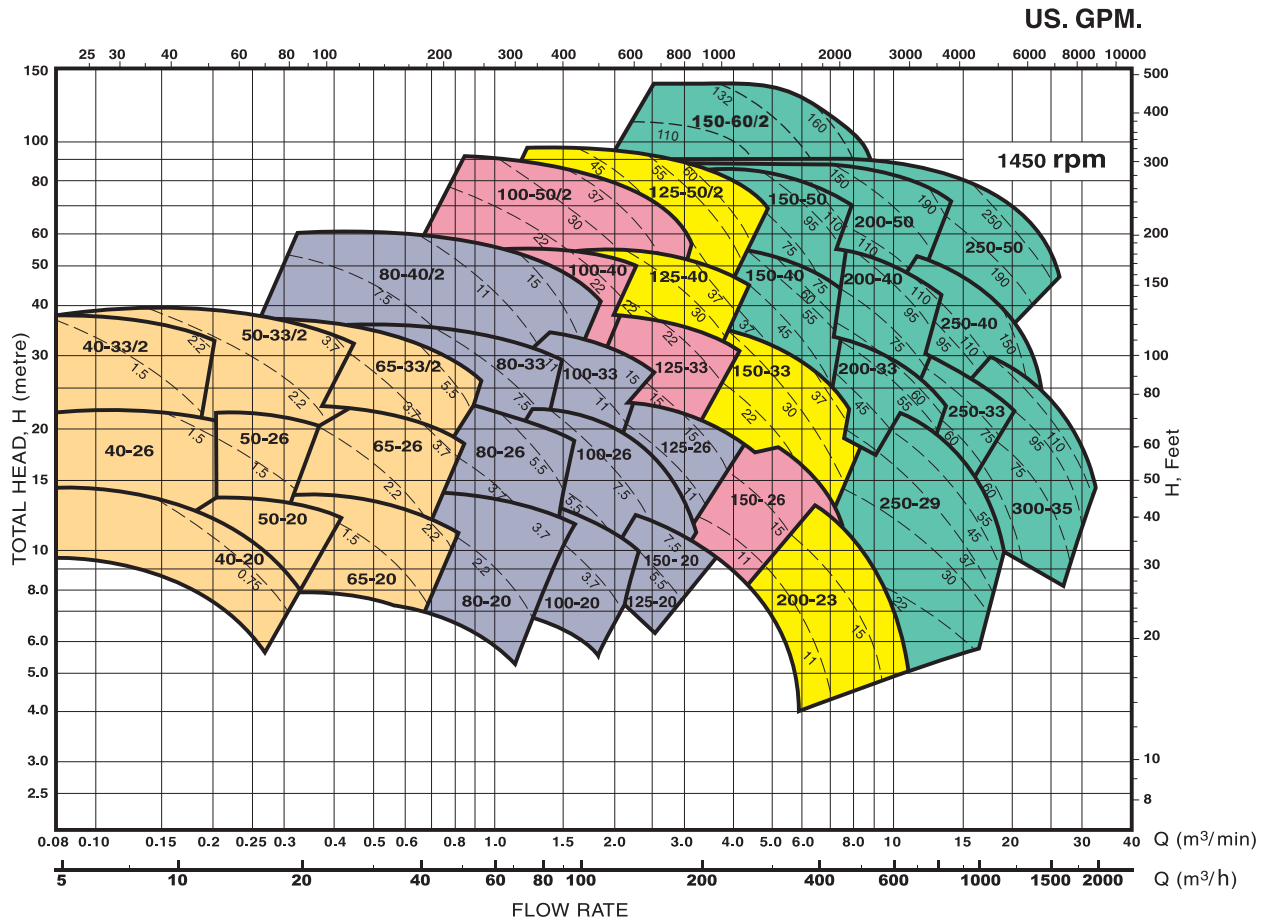
BEARING

Pumps have two open-sided single row deep groove ball bearings of the 63,64 series. Bearings are oil-bath lubricated.

STUFFING BOX

Fitted standard with high quality packing. Various kind of stuffing box other than the standard one are available to suit the condition of use. Mechanical seals are also available.

PERFORMANCE CHART



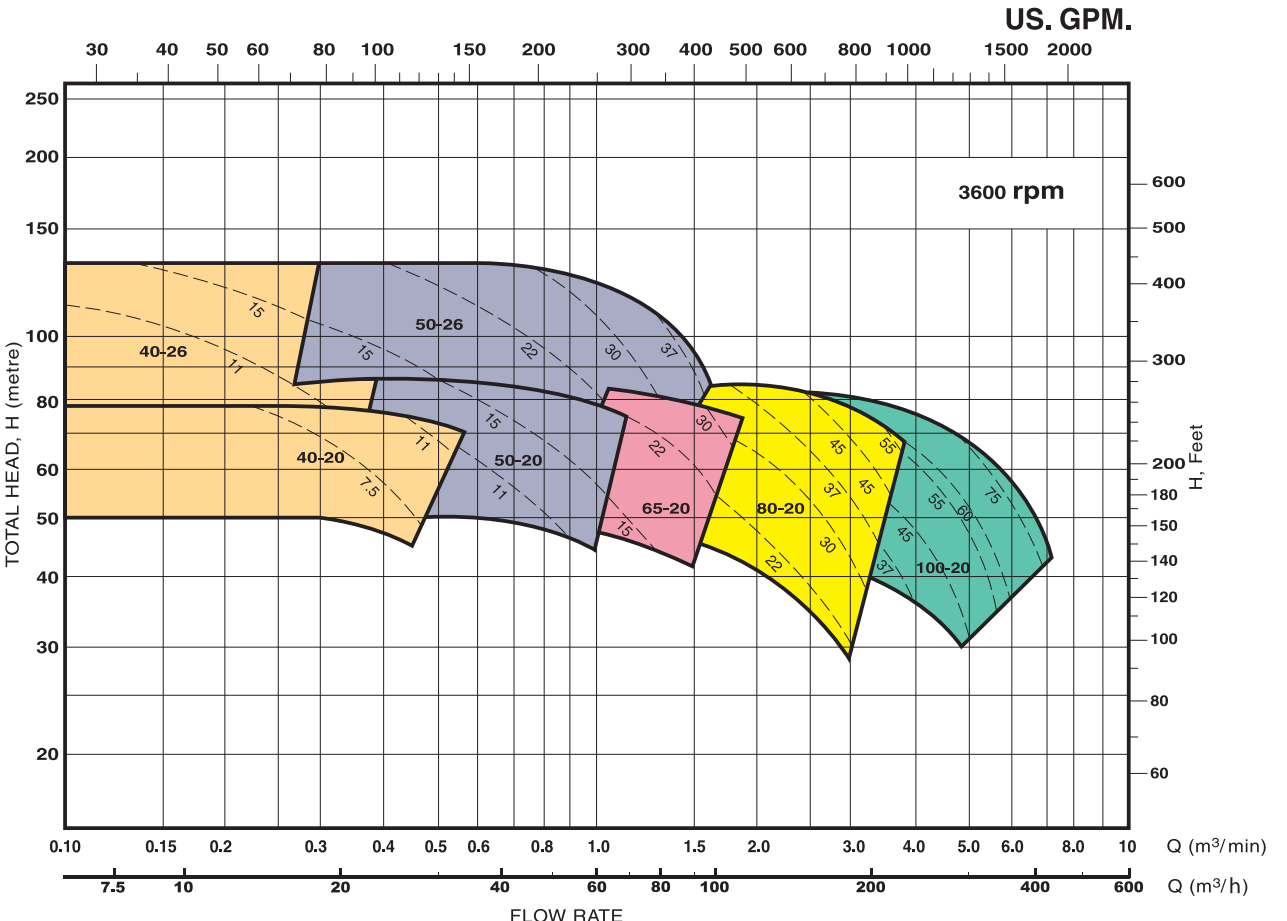
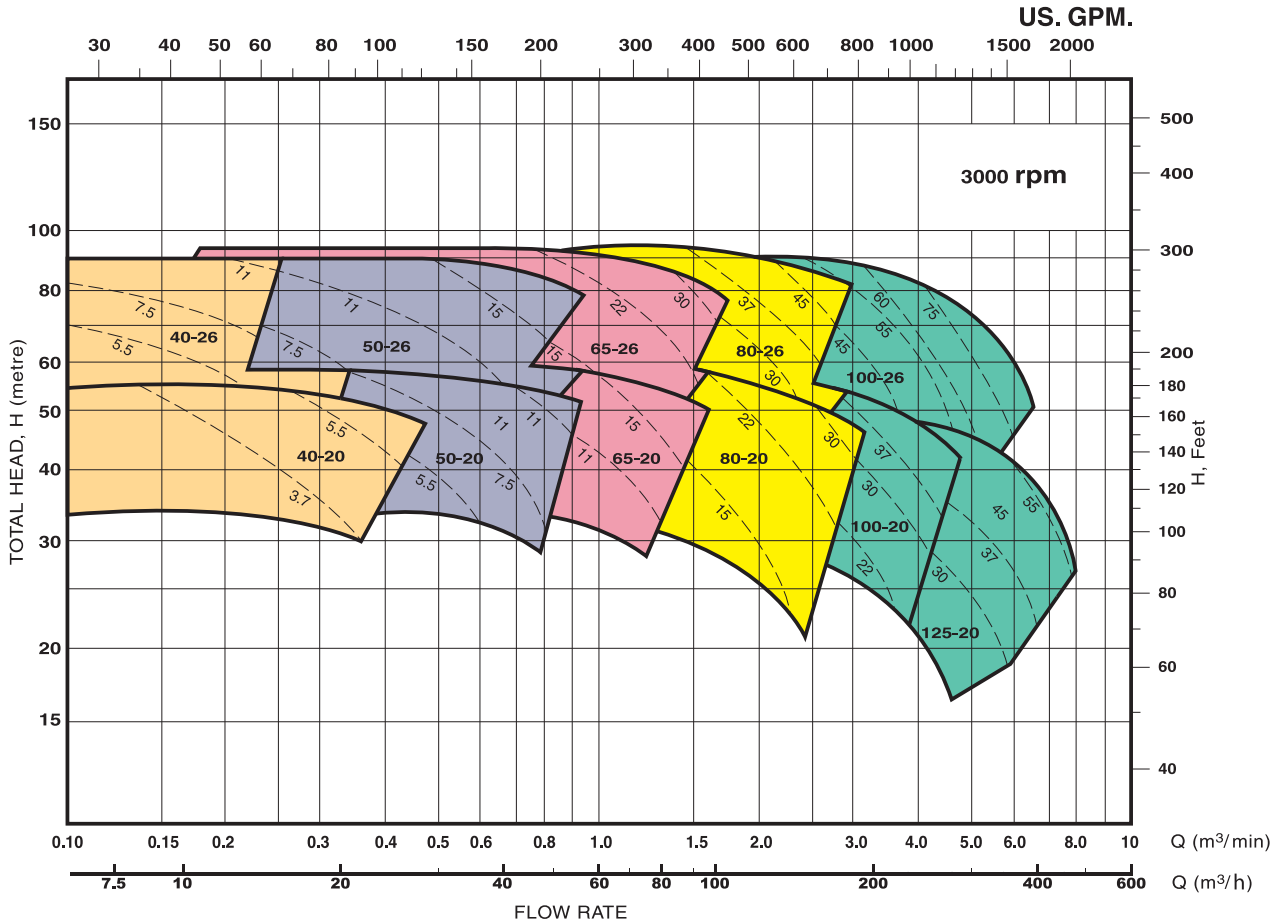
----- Dotted line indicates pump shaft power in Kw

These selection curves have been drawn in case of fresh water, specific gravity = 1

Safety factor for motor rating.

Up to 1.5 Kw.....	20%
Up to 15 Kw.....	15%
Above 15 Kw.....	10%

PERFORMANCE CHART

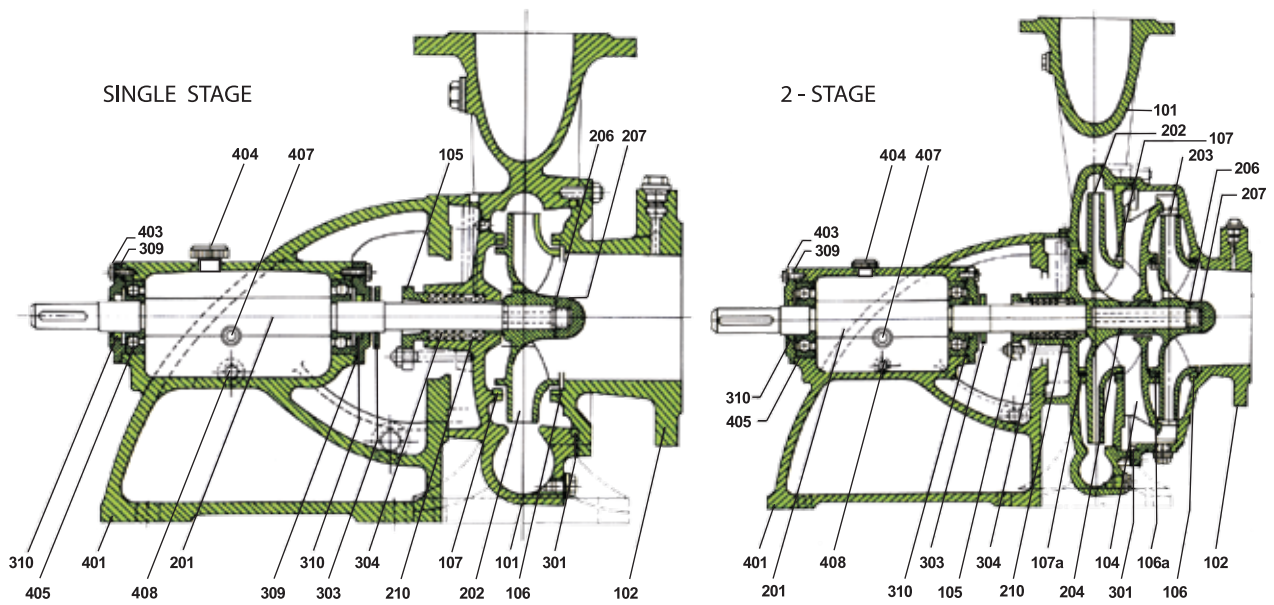


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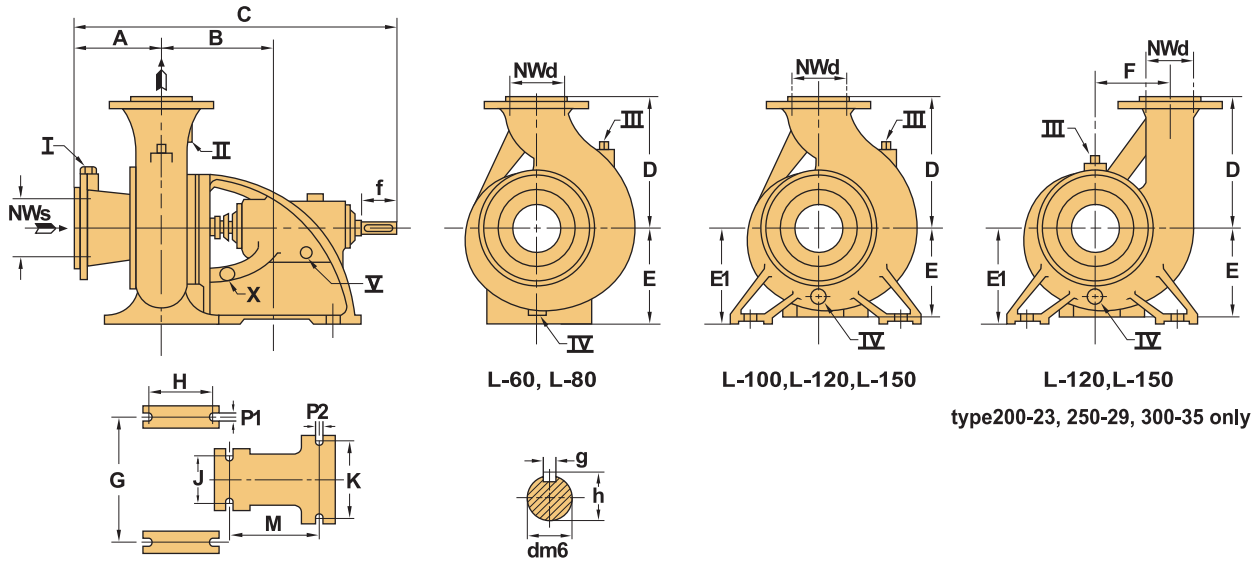
CONSTRUCTIONAL FEATURES WITH PART LIST & MATERIAL



NO.	NAME	Standard Materiel	Bronze Fitted	All Bronze	All Stainless Steel
101	Casing	Cast iron	Cast iron	Bronze	Stainless steel
102	Suction cover	Cast iron	Cast iron	Bronze	Stainless steel
104	Diffuser	Cast iron	Cast iron	Bronze	Stainless steel
105	Gland	Cast iron	Cast iron	Stainless steel	Stainless steel
106	Wearing ring	Cast iron	Cast iron	Bronze	Stainless steel
106a	Wearing ring	Cast iron	Cast iron	Bronze	Stainless steel
107	Wearing ring	Cast iron	Cast iron	Bronze	Stainless steel
107a	Wearing ring	Cast iron	Cast iron	Bronze	Stainless steel
201	Shaft	Alloy Steel	Stainless steel	Stainless steel	Stainless steel
202	Impeller	Cast iron	Bronze	Bronze	Stainless steel
203	Impeller	Cast iron	Bronze	Bronze	Stainless steel
204	Interstage sleeve	Cast iron	Cast iron	Stainless steel	Stainless steel
205	Shaft sleeve **	Mild steel	Stainless steel	Stainless steel	Stainless steel
206	Washer	Stainless steel	Stainless steel	Stainless steel	Stainless steel
207	Impeller nut	Mild steel	Stainless steel	Stainless steel	Stainless steel
210	Lantern ring	Cast iron	Cast iron	Stainless steel	Stainless steel
301	" o" ring	Synthetic rubber	Synthetic rubber	Synthetic rubber	Synthetic rubber
303	Deflector	Rubber	Rubber	Rubber	Rubber
304	Shaft Seal	Graphite / Mechanical	Graphite / Mechanical	Graphite / Mechanical	Graphite / Mechanical
309	Gasket				
310	Lip seal	Rubber	Rubber	Rubber	Rubber
401	Bearing housing	Cast iron	Cast iron	Cast iron	Cast iron
403	Bearing cover	Cast iron	Cast iron	Cast iron	Cast iron
404	Oil Cap	Plastic	Plastic	Plastic	Plastic
405	Ball bearing				
406	Leakage drain	Mild steel	Mild steel	Mild steel	Mild steel
407	Sight glass	Acrylic	Acrylic	Acrylic	Acrylic
408	Oil drain	Mild steel	Mild steel	Mild steel	Mild steel

** L100, L120 and L150 are available

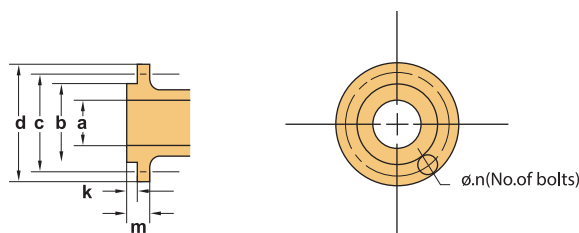
DIMENSIONS



type200-23, 250-29, 300-35 only

Dimensions in mm.

Bearing Housing	Pump Model	Bore		Pump													Shaft end					Connections						
		NWs	NWd	A	B	C	D	E	E1	F	G	H	J	K	M	P1	P2	dm6	f	g	h	I	II	III	IV	V	X	
L-60	40-20	50	40	110	223	560	200	160					140	140	220		20	24	65	8	26.9							
	40-26	50	50	110	223	560	225	160					140	140	220		20	24	65	8	26.9							
	40-33/2	50	50	175	223	625	225	160					140	140	220		20	24/28	65	8	30.9							
	50-20	65	50	110	223	560	225	160					140	140	220		20	24	65	8	26.9							
	50-26	65	50	110	223	560	250	160					140	140	220		20	24	65	8	26.9							
	50-33/2	65	50	175	223	625	250	160					140	140	220		20	24/28	65	8	30.9	PF	PF	PF	PF	PF	PF	PF
	65-20	80	65	125	228	580	225	160					140	140	220		20	24	65	8	26.9	3/8	3/8	3/8	3/8	3/8	3/4	
	65-26	80	65	125	228	580	250	160					140	140	220		20	24	65	8	26.9							
	65-33/2	80	65	175	228	630	250	160					140	140	220		20	24/28	65	8	30.9							
80-20	100	80	125	228	580	250	160					140	140	220		20	24	65	8	26.9								
L-80	80-26	100	80	125	270	660	300	200					175	175	300		25	28	65	8	30.9							
	80-33	100	80	125	270	660	350	200					175	175	300		25	28	65	8	30.9							
	80-40/2	100	80	210	270	745	350	200					175	175	300		25	28/38	65	8	40.9							
	100-20	125	100	155	275	695	275	200					175	175	300		25	28	65	8	30.9	PF	PF	PF	PF	PF	PF	PF
	100-26	125	100	120	275	660	300	200					175	175	300		25	28	65	8	30.9	3/8	3/8	3/8	3/8	3/8	3/4	
	100-33	125	100	155	275	695	375	200					175	175	300		25	28	65	8	30.9							
	125-20	150	125	150	280	695	300	200					175	175	300		25	28	65	8	30.9							
	125-26	150	125	150	280	695	350	200					175	175	300		25	28	65	8	30.9							
	150-20	150	150	195	280	730	350	200					175	175	300		25	28	65	8	30.9							
L-100	100-40	125	100	155	335	840	400	250	300			430	190	195	195	375	22	25	42	105	12	45.1						
	100-50/2	125	100	230	335	915	400	250	300			430	190	195	195	375	22	25	42	105	12	45.1	PF	PF	PF	PF	PF	PF
	125-33	150	125	150	340	840	375	250	300			430	190	195	195	375	22	25	42	105	12	45.1	3/8	3/8	1/2	1/2	3/8	3/4
	150-26	200	150	170	340	860	400	250	300			430	190	195	195	375	22	25	42	105	12	45.1						
L-120	125-40	150	125	160	365	930	475	300	300			430	190	125	215	430	22	25	42	105	12	45.1						
	125-50/2	150	125	247	365	1017	475	300	300			430	190	125	215	430	22	25	42	105	12	45.1	PF	PF	PF	PF	PF	PF
	150-33	200	150	170	370	945	425	300	300			430	190	125	215	430	22	25	42	105	12	45.1	3/8	3/8	1/2	1/2	3/8	3/4
	200-23	200	200	250	366	1021	300	300	330	244		430	190	125	215	430	22	25	42	105	12	45.1						
L-150	150-40	200	150	160	490	1155	425	400	400			560	190	150	320	540	30	30	55	135	16	58.8						
	150-50	200	150	170	490	1165	525	400	400			560	190	150	320	540	30	30	55	135	16	58.8						
	150-60/2	200	150	297	490	1299	525	400	400			560	190	150	320	540	30	30	55	135	16	58.8						
	200-33	250	200	175	495	1175	475	400	400			560	190	150	320	540	30	30	55	135	16	58.8						
	200-40	250	200	180	500	1185	525	400	400			560	190	150	320	540	30	30	55	135	16	58.8	PF	PF	PF	PF	PF	PF
	200-50	250	200	180	500	1180	575	400	450			670	210	150	320	540	30	30	55	135	16	58.8	3/8	3/8	3/4	3/4	3/8	3/4
	250-29	250	250	220	500	1225	350	400	400	292		660	190	150	320	540	30	30	55	135	16	58.8						
	250-33	300	250	245	473	1223	525	400	400			560	190	150	320	540	30	30	55	135	16	58.8						
	250-40	300	250	180	495	1180	600	400	400			650	210	150	320	540	30	30	55	135	16	58.8						
	250-50	300	250	215	495	1215	650	450	450	250		660	210	150	320	540	30	30	55	135	16	58.8						
	300-35	300	300	300	510	1315	450	400	520	352		670	275	150	320	540	30	30	55	135	16	58.8						



Flange JIS 10 kg/cm

Bore.a	b	c	d	ø	k	m	n	Bolt
40	85	105	140	19	2	20	4	M16
50	100	120	155	19	2	20	4	M16
65	120	140	175	19	2	22	4	M16
80	130	150	185	19	2	22	8	M16
100	155	175	210	19	2	24	8	M16
125	185	210	250	23	2	24	8	M20
150	215	240	280	23	2	26	8	M20
200	265	290	330	23	2	26	12	M20
250	325	355	400	25	2	30	12	M22
300	370	400	445	25	2	32	16	M22



MACHINE SHOP



CNC BORING MACHINE



CNC MACHINING CENTER



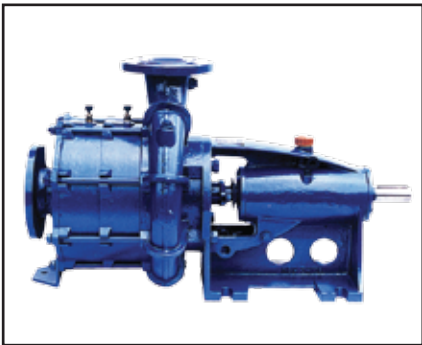
BALANCING MACHINE



VACUUM PUMP



VACUUM PUMP



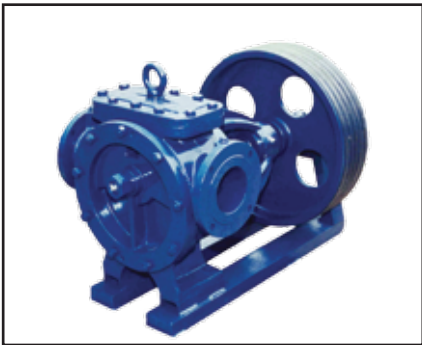
MULTI STAGES CENTRIFUGAL PUMP



BACK PULL OUT PUMP



BOILER FEED PUMP



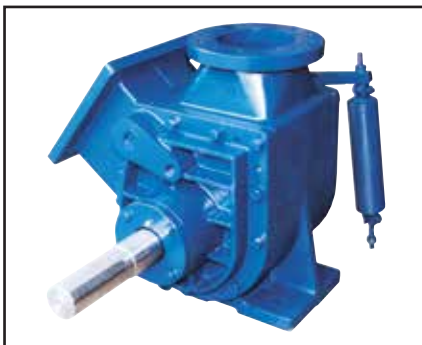
INTERNAL GEAR PUMP



DOUBLE SUCTION PUMP



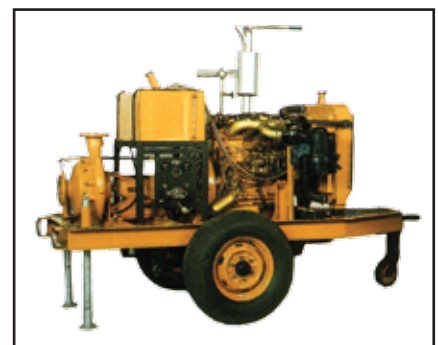
TORQUE FLOW PUMP



LOBE PUMP



NON-CLOG CENTRIFUGAL PUMP



ENGINE DRIVE PUMP