

End Suction Centrifugal Process Pump
Design to DIN 24256 / ISO 2858 / EN 22858



Field of Application

Water Supply	Hot water
Fire-fighting	Cooling water
Sprinkling	Swimming pool water
Irrigation	Sea water
Drainage	Brackish water
Heating	Condensate
Air-conditioning	Brine
Drinking water	Oils
Service water	Cleaning agents

Fluid

Pure liquids not chemically or mechanically aggressive to the pump materials.

Operating Data

	50 Hz	60 Hz
Q up to	540 m ³ /h	650 m ³ /h
H up to	160 m.	230 m.
Pump size	DN from 32-150 mm	
Operating pressure	16 Bar	
Operating temp.	Max. 140 C° *	

Design

Horizontal, radially split volute casing pump of back pull out design in accordance with DIN 24256/ISO 2858/ EN 22858 and ANSI B 73.1. Single and radial flow impeller, Single stage.

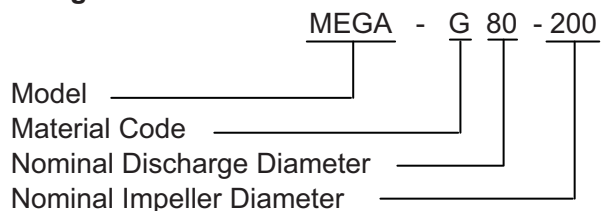
Bearings and Lubrication

Deep Groove Ball Bearings
Lubrication : Grease / Oil for option

Shaft Seal

Standard shaft seal is packing, mechanical seal is an optional.

Designation



Accessories

Drive

Electric motor, Turbine, Engine or etc..

Coupling

Flexible coupling with / without spacer sleeve.

Coupling Guard

Coupling guard as per KSB standard.

Baseplate

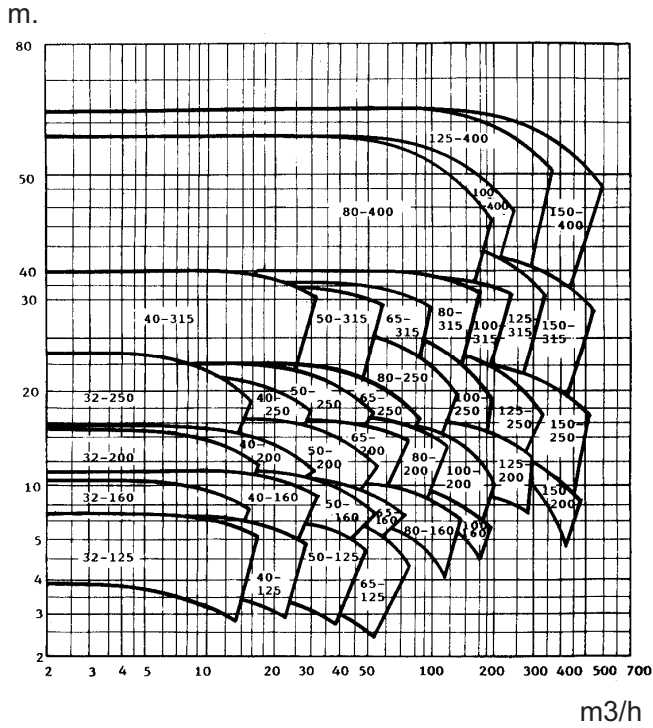
Common fabricated baseplate made of steel for the complete unit (pump and drive).

* In case temperature higher than 90 C°, Please consult KSB.

Selection Charts

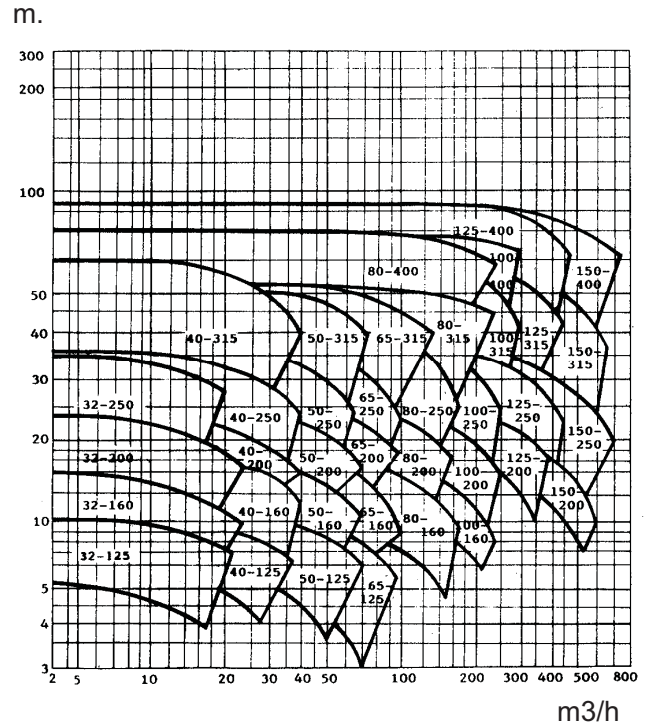
50 Hz

1450 1/min

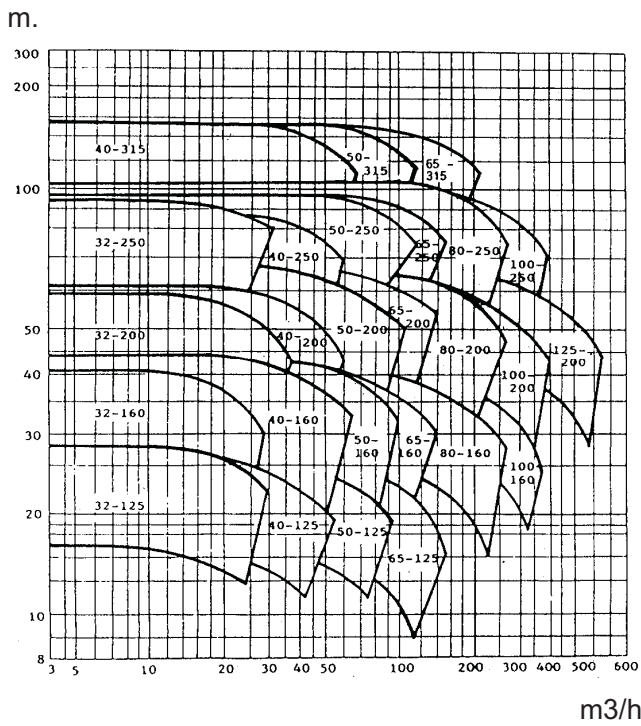


60 Hz

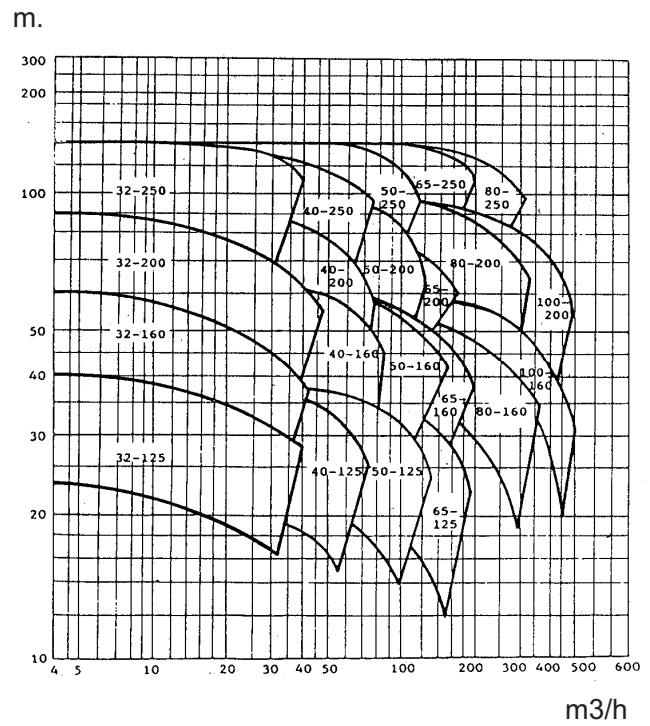
1750 1/min



2900 1/min



3500 1/min



Materials

Part No.	Part Name	Material Code	
		G	GB
102	Volute Casing	Cast Iron	Cast Iron
163	Discharge Cover	Cast Iron	Cast Iron
210 *	Shaft	Carbon Steel	Carbon Steel
230	Impeller	Cast Iron	Bronze
330	Bearing Bracket	Cast Iron	Cast Iron
502.1/.2	Wear Ring	Cast Iron	Bronze
461 **	Seal (Packing)	PTFE	PTFE
524 ***	Shaft Protection Sleeve	Cast Iron	Cast Iron

* Stainless Steel Shaft is an option.

** Mechanical seal is an option.

*** In case of : Packing seal, Shaft Protection Sleeve in cast iron.
: Mechanical seal, Shaft Sleeve in Stainless Steel.

Benefits at a Glance

Pressure jacket designed for 16 bar to guarantee high operating reliability

Connecting dimensions and power ratings to ASME B 16.1 class 125

Mechanical seal on shaft sleeve or **Gland Packing** on shaft protection sleeve, uncooled

Wear rings service-friendly

Deep-groove ball bearings, protected against contamination by thrower ring

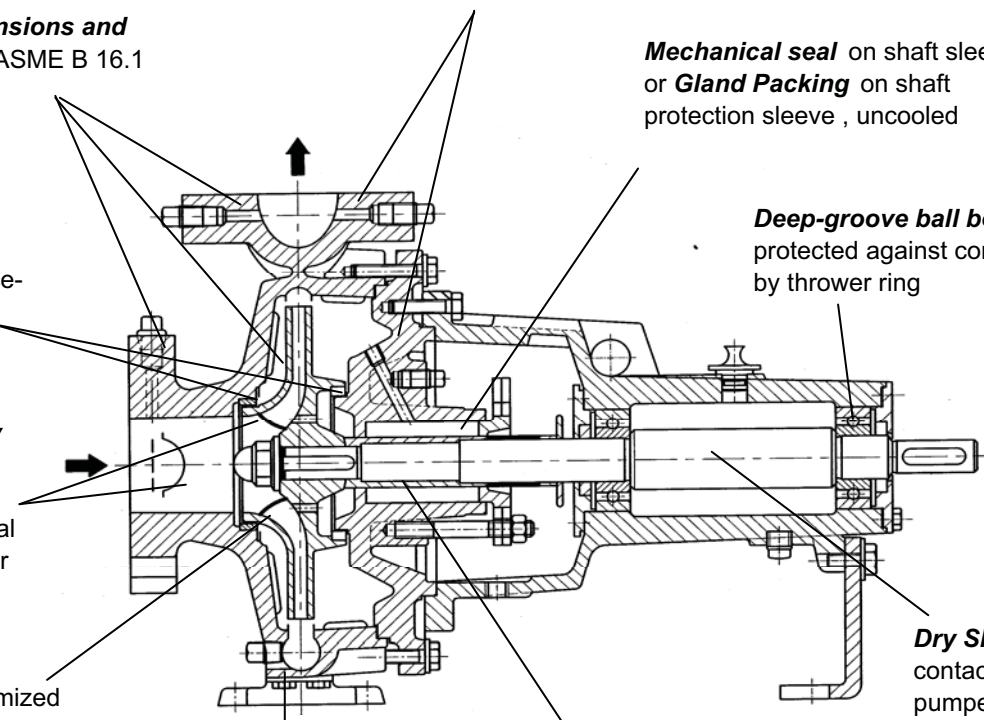
Suction Geometry designed for max. suction capacity (NPSH) and optional cavitation behaviour

Impeller with optimized hydraulics, excellent efficiencies and fine graduation of the QH performance chart.

Dry Shaft, without contact with the pumped liquid

Back pull-out design: easy dismantling, the casing may remain in the pipeline when the pump is dismantled

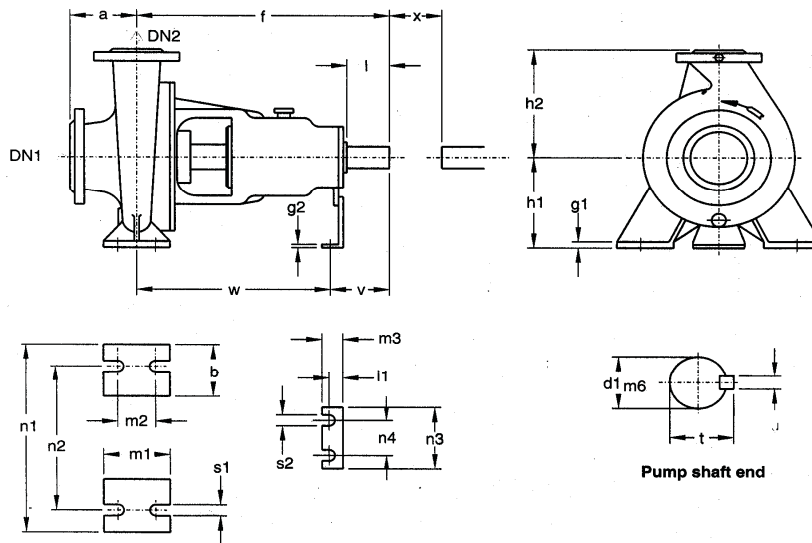
Shaft sleeve/ Shaft protection sleeve prevents wear on the shaft



Technical Data

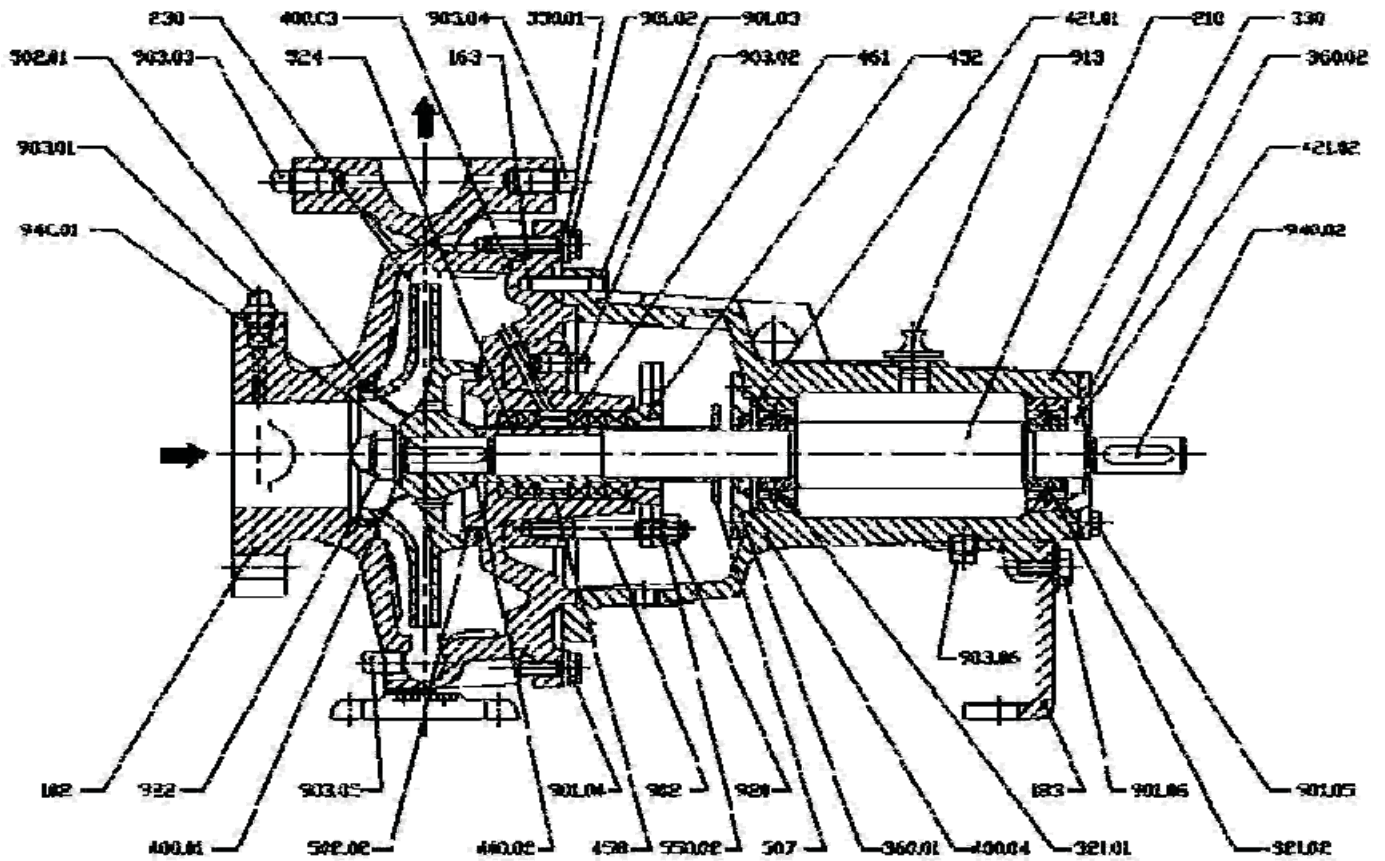
Technical data	Pump size	UNITS																																					
		32-125	32-160	32-200	40-125	40-160	40-200	50-125	50-160	50-200	65-125	32-250	40-250	50-250	65-160	65-200	80-160	40-315	50-315	65-250	80-200	80-250	100-160	100-200	65-315	80-315	80-400	100-250	100-315	100-400	125-200	125-250	125-315	125-400	150-200	150-250	150-315	150-400	
Bearing Bracket		A-30						A-40R						A-50						A-60																			
Volute casing																																							
Max. working pressure	bar	16																																					
Test pressure	bar	24																																					
Max. working temperature	°C	140																																					
Impeller																																							
Impeller outlet width	mm	9.6	5.6	6	14	12	9	20.2	16	11.5	25.6	8	8	12	21	17	31.6	9	9	13.9	23.4	19	36	32.5	13	13	18.7	13	27	23	17	41.7	36.9	30.8	24.9	59.5	48.6	39.7	32.8
Impeller inlet (eye) diameter	mm	56	56	56	70	70	68	76.5	75	75.4	96	58	70	79.8	91.5	93	123.7	72	87	97.6	115	115	142	142	142	101	115	122.8	145	142	140	159.2	162.4	162	162	180	190.4	191.5	191.5
Min. impeller dia. at 1450 rpm	mm	114/108	148	178	115/108	138	173	114	135	178	112	213	208	220	143/131	180	154/122	278	270	220	180	220	178/154	179	270	281	330	216	280	329	208/162	218	280	330	218/158	220	264	329	
Max. impeller diameter	mm	139	176	209	139	176	209	142	174	219	141	260	260	260	172	219	172	333	320	260	219	266	185	219	320	333	404	265	332	404	218	265	332	417	218	265	328	413	
Stuffing box housing																																							
Bore	mm	55						65						85						95																			
Depth	mm	71						71						90.5						91																			
Packing size	mm	10						10						12.5						12.5																			
No. of packing rings		5																																					
Shaft diameter																																							
At impeller	mm	22.21						31.73						40						47																			
Under sleeve at stuffing box	mm	25.4						34.92						48						52																			
At bearing	mm	30						40						50						60																			
At coupling	mm	24						32						42						48																			
Bearing (D.E. & N.D.E.)		6306 C3						6308 C3						6310 C3						6312 C3																			
Shaft protection sleeve dia.	mm	35						45						60						70																			
Drive																																							
p/N value	kW/rpm	0.0129						0.0336						0.0735						0.016																			
Flange																																							
Code	G	Flange drilling confirms to ASME B 16.1 class 125 only. Out side diameter & thickness are as per KSB standard & are on higher side of ASME standard.																																					
	GB																																						
Net weight	kg	36	34	44	38	38	49	40	42	47	49	68	73	72	70	61	89	104	108	89	92	106	105	108	126	132	162	132	142	178	136	157	156	193	183	192	254	280	

* back trim 45°

Pump Dimensions


Pump Size	Pump dimensions				Foot Dimensions																	Shaft end dimensions					
	DN1	DN2	a	f	h1	h2	b	g1	g2	l1	m1	m2	m3	n1	n2	n3	n4	s1	s2	v	w	d1	l	t	u	x	
32-125	50	32	80	385	112	140	50	15	8	42	100	70	65	190	140	155	110	14	14	100	285	24	50	27	8	100	
32-160	50	32	80	385	132	160	50	15	8	42	100	70	65	240	190	155	110	14	14	100	285	24	50	27	8	100	
32-200	50	32	80	385	160	180	50	15	8	43	100	70	65	240	190	155	110	14	14	100	285	24	50	27	8	100	
32-250	50	32	100	500	180	225	65	18	8	39	125	95	65	320	250	155	110	14	14	130	370	32	80	35	10	100	
40-125	65	40	80	385	112	140	50	15	8	42	100	70	65	210	160	155	110	14	14	100	285	24	50	27	8	100	
40-160	65	40	80	385	132	160	50	15	8	42	100	70	65	240	190	155	110	14	14	100	285	24	50	27	8	100	
40-200	65	40	100	385	160	180	50	15	8	43	100	70	65	265	212	155	110	14	14	100	285	24	50	27	8	100	
40-250	65	40	100	500	180	225	65	18	8	39	125	95	65	320	250	155	110	14	14	130	370	32	80	35	10	100	
40-315	65	40	125	500	200	250	65	18	12	39	125	95	65	345	280	155	110	14	14	130	370	32	80	35	10	100	
50-125	80	50	100	385	132	160	50	15	8	42	100	70	65	240	190	155	110	14	14	100	285	24	50	27	8	100	
50-160	80	50	100	385	160	180	50	15	8	43	100	70	65	265	212	155	110	14	14	100	285	24	50	27	8	100	
50-200	80	50	100	385	160	200	50	15	8	43	100	70	65	265	212	155	110	14	14	100	285	24	50	27	8	100	
50-250	80	50	125	500	180	225	65	18	8	39	125	95	65	320	250	155	110	14	14	130	370	32	80	35	10	100	
50-315	80	50	125	500	225	280	65	18	12	42	125	95	65	345	280	155	110	14	14	130	370	32	80	35	10	100	
65-125	100	65	100	385	160	180	65	18	8	43	125	95	65	280	212	155	110	14	14	100	285	24	50	27	8	100	
65-160	100	65	100	500	160	200	65	18	8	39	125	95	65	280	212	155	110	14	14	130	370	32	80	35	10	100	
65-200	100	65	100	500	180	225	65	18	8	43	125	95	65	320	250	155	110	14	14	130	370	32	80	35	10	140	
65-250	100	65	125	500	200	250	80	19	12	40	160	120	65	360	280	155	110	18	14	130	370	32	80	35	10	140	
65-315	100	65	125	530	225	280	80	19	12	39	160	120	65	400	315	155	110	18	14	160	370	42	110	45	12	140	
80-160	125	80	125	500	180	225	65	18	8	39	125	95	65	320	250	155	110	14	14	130	370	32	80	35	10	140	
80-200	125	80	125	500	180	250	65	18	8	39	125	95	65	345	280	155	110	14	14	130	370	32	80	35	10	140	
80-250	125	80	125	500	225	280	80	19	12	42	160	120	65	400	315	155	110	18	14	130	370	32	80	35	10	140	
80-315	125	80	125	530	250	315	80	19	12	39	160	120	65	400	315	155	110	18	14	160	370	42	110	45	12	140	
80-400	125	80	125	530	280	355	80	20	12	39	160	120	65	435	355	155	110	18	14	160	370	42	110	45	12	140	
100-160	125	100	125	500	200	280	80	19	12	40	160	120	65	360	280	155	110	18	14	130	370	32	80	35	10	140	
100-200	125	100	125	500	200	280	80	18	12	40	160	120	65	360	280	155	110	18	14	130	370	32	80	35	10	140	
100-250	125	100	140	530	225	280	80	20	12	39	160	120	65	400	315	155	110	18	14	160	370	42	110	45	12	140	
100-315	125	100	140	530	250	315	80	18	12	39	160	120	65	400	315	155	110	18	14	160	370	42	110	45	12	140	
100-400	125	100	140	530	280	355	100	20	12	39	200	150	65	500	400	155	110	22	14	160	370	42	110	45	12	140	
125-200	150	125	140	530	250	315	80	20	12	39	160	120	65	400	315	155	110	18	14	160	370	42	110	45	12	140	
125-250	150	125	140	530	280	355	80	18	12	39	160	120	65	400	315	155	110	18	14	160	370	42	110	45	12	140	
125-315	150	125	140	530	280	355	100	20	12	39	200	150	65	500	400	155	110	22	14	160	370	42	110	45	12	140	
125-400	150	125	140	530	315	400	100	20	12	39	200	150	65	500	400	155	110	22	14	160	370	42	110	45	12	140	
150-200	200	150	160	530	280	400	100	20	12	39	200	150	65	550	450	155	110	22	14	160	370	42	110	45	12	180	
150-250	200	150	160	530	280	375	100	20	12	39	200	150	65	500	400	155	110	22	14	160	370	42	110	45	12	180	
150-315	200	150	160	670	315	400	100	20	15	38	200	150	68	550	450	210	140	22	20	170	500	48	110	52	14	180	
150-400	200	150	160	670	315	450	100	20	15	38	200	150	68	550	450	210	140	22	20	170	500	48	110	52	14	180	

All dimensions in mm.

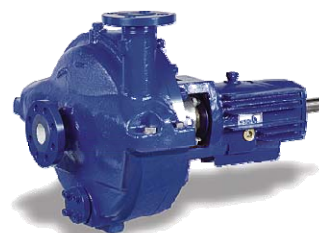
Sectional Drawing and List of Components
1. Pump Cross Sectional Drawing

2. List of Components

Part no.	Description	Part no.	Description	Part no.	Description
102	Volute casing	400.01-.04	Flat gasket	550.01/.02	Washer
163	Discharge cover	421.01/.02	Oil seal	901.02-.06	Hex.head bolt
183	Support foot	452	Gland	902	Stud
210	Shaft	458	Lantern ring	903.01-.6	Hex.head plug
230	Impeller	461	Packing	913	Vent dipstick
321.01/.02	Deep groove ball bearing	502.01/.02	Wear ring	920	Hex nut
330	Bearing bracket	507	Splash ring	922	Impeller nut
360.01/.02	Bearing cover	524	Shaft protection sleeve	940.01-.02	Key

Recommended Spare Parts for 2 years's Continuous Operation

Part No.	Description	Number of pumps (including stand-by pumps)							
		2	3	4	5	6 and 7	8 and 9	10 and more	
Pumps with mechanical seals:		Quantity of spare parts							
210	Shaft	1	1	1	2	2	2	20%	
230	Impeller (including Casing wear ring 502.2)	1	1	1	2	2	2	20%	
321	Deep-groove ball bearing	2	2	4	4	6	8	100%	
330	Bearing bracket	-	-	-	-	-	1	2 off	
433	Mechanical seal	1	1	2	2	2	3	25%	
502.1/2	Casing wear ring	2	2	2	3	3	4	50%	
524	Shaft Protection Sleeve	1	1	2	2	2	3	25%	
---	Gaskets (set)	4	6	8	8	9	12	150%	
---	Torque-transmitting coupling elements (sets)	1	1	2	2	3	4	30%	
Pump with gland packing									
461	Gland packing (set)	} instead of parts 433, 524	4	4	6	6	6	8	100%
524	Shaft protecting sleeve		2	2	2	3	3	4	50%

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KSB Pumps (Thailand) comprise of machining and assembling facility completed warehouse for pumps and valves, test bed and high qualified service team.

