



PT Torishima Pump Mfg Indonesia

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# CEN

*Centrifugal Pumps*



### GENERAL

CEN series are industrial pumps of back pull out design according to JIS B8313

### APPLICATIONS

- General water supply, irrigation and drainage
- Pumping of sea water, brine, alkali and condensate
- Circulating hot and cold water supply
- Sprinkling & fire fighting system
- Swimming Pool

- Oil and Gas Services
- Hydrocarbon Services
- API 610 Inspection Performance & Feature is available as option
- Refinery applications
- Crude oil transfer & solar transfer

### DESIGN

- End suction volute pumps with vertical centerline discharge
- Back Pull Out (BPO) design allows the removal all rotating elements without disturbing the casing, piping or motor

### MATERIAL EXPLANATION

Bronze of BC2 or BC6 quality is recommended for sea water application or other corrosive media

### IMPELLER

- Closed, radial flow impeller fitted with protective wear ring
- Balanced hydraulically
- Trimming of impeller is possible

### BEARINGS

- Permanent lubricated grease ball bearings
- Oil lubricated bearing (*see option*)

### SHAFT SEALS

- Strong stuffing boxes
- Single acting mechanical seal are available

### FLANGES

- JIS, ANSI, PN
- Optional with other flanges connection standard

### DRIVE

Electric motors and engines are also available on request

### DIRECTION OF ROTATION

Clockwise viewed from the drive end



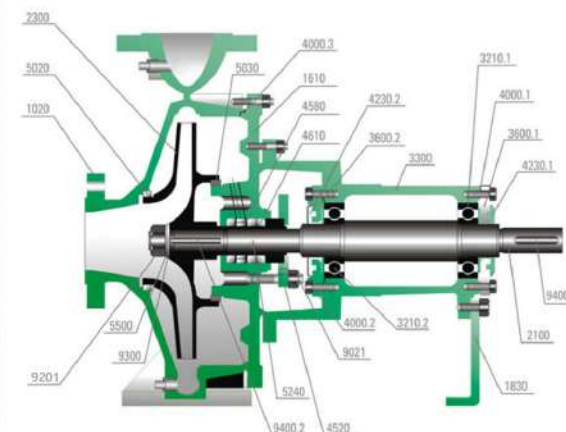
### PUMP SPECIFICATION

SPECIFICATION	STANDARD	OPTION *
CAPACITY	Up to 620 m <sup>3</sup> /h (170 l/s)	
TOTAL HEAD	Up to 100 m	
Product Temperature	-10°C to 100°C	-30°C - 120°C
Pump Discharge Pressure	Up to 10 bar	
Pump Size	32 mm to 150 mm	
MATERIAL	Volute Casing	Cast Iron FC250
	Casing Cover	Cast Iron FC250
	Bearing Housing	Cast Iron FC250
	Impeller	Cast Iron FC200
	Shaft	Martensitic Steel SUS420J2
	Casing Wear Ring	Cast Iron FC200
	Impeller Wear Ring	Cast Iron FC200
Shaft Protection Sleeve	Martensitic Steel SUS420J2	
Seal	Gland Packing	Mechanical Seal
Ball Bearing	Deep Groove	Open type
Lubrication	Grease	Oil

\* all material combination within above mentioned material specification is possible

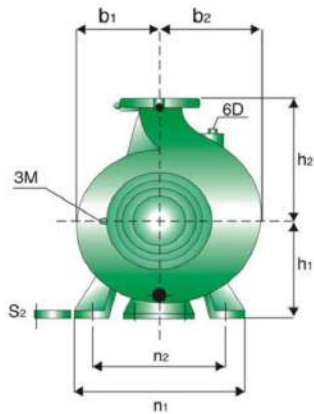
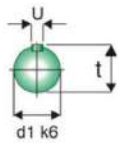
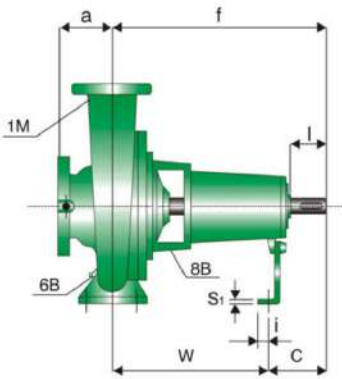
### SECTIONAL DRAWING & LIST COMPONENT

PART NO.	PART DESIGNATION	MATERIAL	QTY
1020	Volute Casing	FC 250	1
1610	Casing Cover	FC 250	1
1830	Support Foot	SS 400	1
2100	Shaft	SUS 420J2	1
2300	Impeller	FC 200	1
3210.1	Ball Bearing	No. 63 - C3	1
3210.2	Ball Bearing	No. 63 - C3	1
3300	Bearing Housing	FC 250	1
3600.1	Bearing Cover	ADC 12	1
3600.2	Bearing Cover	ADC 12	1
4000.1	Flat Gasket	Valqua 6500	1
4000.2	Flat Gasket	Valqua 6500	1
4000.3	Flat Gasket	Valqua 6500	1
4230.1	Labyrinth Ring	Plastic	1
4230.2	Labyrinth Ring	Plastic	1
4520	Gland	FC 200	1
4580	Lantern Ring	FC 200	1
4610	Gland Packing	Non Asbestos	3
5020	Casing Wearing	FC 200	1
5030	Impeller Wearing	FC 200	1
5240	Shaft Protecting Sleeve	SUS 420J2	1
5500	Washer Impeller *	SUS 304	1
9021	Gland Bolt	SUS 304	2
9201	Fine Hexagonal Nut	SS 400	1
9300	Spring Washer	SUS 304	1
9400.1	Key	S45C	1
9400.2	Key **	S45C	1



\* Only use on Pump size with code ( \* )

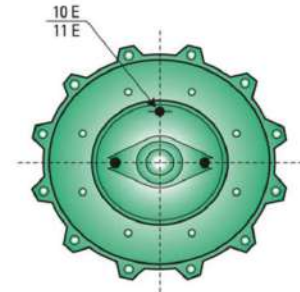
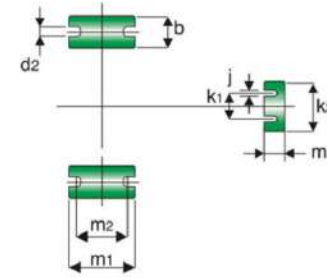
\*\* There are 2 size (each size 1 pc/unit pump) for Pump size with code ( \*\* )



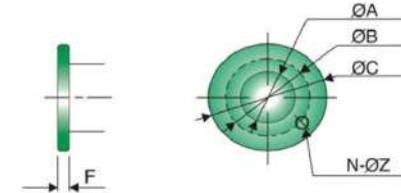
AUXILIARY CONNECTION

SYMBOL	DESIGNATION
1 M	Pressure Measurement Instrument
3 M	Pressure Measurement Instrument
6 B	Casing Drain
6 D	Printing and Venting
8 B	Leakage Drain
10 E	Sealing Liquid Inlet
11 E	Flushing Liquid Inlet

PUMP SIZE	1 M	6 B	8 B	10 E
	3 M	6 D		11 E
DIMENSION				
50 x 32 - 160	PT 3/8	PT 1/2	PT 3/8	
50 x 32 - 200				
50 x 40 - 200				
50 x 40 - 250				
50 x 40 - 315.1				
65 x 50 - 160				
65 x 50 - 200				
65 x 50 - 250				
65 x 50 - 315.1				
80 x 65 - 160				
80 x 65 - 200				
80 x 65 - 250				
80 x 65 - 315.1				
100 x 80 - 125				
100 x 80 - 160				
100 x 80 - 200				
100 x 80 - 250				
100 x 80 - 315.1				
100 x 80 - 400.1				
125 x 100 - 160				PT 1/2
125 x 100 - 200				
125 x 100 - 200.1				
125 x 100 - 250				
125 x 100 - 250.1				
125 x 100 - 315				
125 x 100 - 400				
150 x 125 - 200				
150 x 125 - 250				
150 x 125 - 315				
150 x 125 - 400				
200 x 150 - 200	PT 1/2	PT 3/8	PT 3/8	
200 x 150 - 250				
200 x 150 - 315				
200 x 150 - 400				
200 x 150 - 400.1**				
200 x 150 - 400**				
125 x 100 - 160	PT 1/2	PT 3/8	PT 3/8	
125 x 100 - 200				
125 x 100 - 200.1				
125 x 100 - 250				
125 x 100 - 250.1				
125 x 100 - 315				
125 x 100 - 400				
125 x 100 - 400.1**				
125 x 100 - 400**				
150 x 125 - 200				
150 x 125 - 250				
150 x 125 - 315**				
150 x 125 - 400**				
200 x 150 - 200				
200 x 150 - 250**				
200 x 150 - 315**				
200 x 150 - 400**				



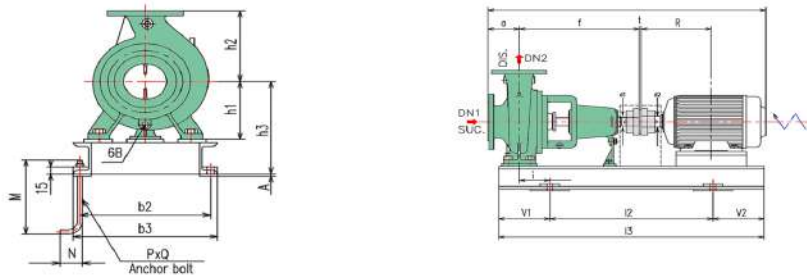
PUMP FLANGE DIMENSION (acc. to JIS 10 kgf / cm<sup>2</sup> F.F)



dimension in mm

ND	ØA	ØB	ØC	F	N - ØZ
32	32	100	135	20	4 - 19
40	40	105	140	20	4 - 19
50	50	120	155	20	4 - 19
65	65	140	175	22	4 - 19
80	80	150	185	22	8 - 19
100	100	175	210	24	8 - 19
125	125	210	250	24	8 - 23
150	150	240	280	26	8 - 23
200	200	290	330	26	12 - 23

PUMP SIZE	PUMP DIMENSION													FOOT DIMENSION								SHAFT END DESIGN					
	DN 1	DN 2	a	b1	b2	f	h1	h2	b	C	d2	i	m1	m2	m3	j	k1	k2	n1	n2	S1	S2	W	d1k6	l	t	u
50 x 32 - 160*	50	32	80	116	125	360	132	160	50	103	16	25	100	70	50	15	110	160	240	190	4	15	257	24	50	27	8
50 x 32 - 200*	50	32	80	128	137	360	160	180	50	103	16	25	100	70	50	15	110	160	240	190	4	18	257	24	50	27	8
50 x 40 - 200*	50	40	80	132	141	360	180	180	50	103	16	25	100	70	50	15	110	150	240	190	4	18	257	24	50	27	8
50 x 40 - 250*	50	40	100	170	176	350	180	225	65	109	16	25	125	95	50	15	110	160	320	250	4	18	251	32	50	35	8
50 x 40 - 315.1*	50	40	125	194	203	470	225	250	65	132	16	25	125	95	50	15	110	160	345	280	6	18	338	32	80	35	10
65 x 50 - 160*	65	50	80	115	131	360	132	160	50	103	16	25	100	70	50	15	110	160	240	190	4	15	257	24	50	27	8
65 x 50 - 200*	65	50	100	133	147	360	160	180	50	103	16	25	100	70	50	15	110	160	265	212	4	15	257	24	50	27	8
65 x 50 - 250*	65	50	100	165	178	360	180	225	65	109	16	25	125	95	50	15	110	160	320	250	4	18	251	32	50	35	8
65 x 50 - 315.1*	65	50	125	200	216	470	225	280	65	132	16	25	125	95	50	15	110	160	345	280	6	18	338	32	80	35	10
80 x 65 - 160*	80	65	100	125	147	360	160	180	50	103	16	25	100	70	50	15	110	160	265	212	4	15	257	24	50	27	8
80 x 65 - 200*	80	65	100	145	165	360	180	200	50	103	16	25	100	70	50	15	110	150	265	212	4	15	257	32	50	35	8
80 x 65 - 250*	80	65	100	168	184	360	180	225	65	109	16	25	125	95	50	15	110	160	320	250	4	18	251	32	50	35	8
80 x 65 - 315.1*	80	65	125	208	228	470	225	280	80	132	21	25	160	120	50	15	110	160	400	315	6	20	338	32	80	35	10
100 x 80 - 125*	100	80	100	120	148	360	160	180	65	103	16	25	125	95	50	15	110	160	280	212	4	18	257	32	50	35	8
100 x 80 - 160*	100	80	100	130	158	360	160	200	85	103	16	25	125	95	50	15	110	150	280	212	4	18	257	32	50	35	8
100 x 80 - 200*	100	80	100	164	177	360	180	225	65	109	16	25	125	95	50	15	110	160	320	250	4	18	251	32	50	35	8
100 x 80 - 250	100	80	100	180	200	470	200	250	80	132	21	25	160	120	50	15	110	160	360	280	6	20	338	32	80	35	10
100 x 80 - 315.1	100	80	125	220	244	470	250	315	80	132	21	25	160	120	50	15	110	160	400	315	6	20	338	32	80	35	10
100 x 80 - 400.1**	100	80	125	253	276	530	280	355	80	192	21	25	200	150	50	15	110	160	435	355	6	20	338	42	115	45	12
125 x 100 - 160	125	100	125	176	225	470	200	250	80	132	21	25	160	120	50	15	110	160	360	280	6	18	338	32	80	35	10
125 x 100 - 200	125	100	125	173	213	470	200	280	80	132	21	25	160	120	50	15	110	160	360	280	6	18	338	32	80	35	10
125 x 100 - 200.1	125	100	125	161	189	470	180	250	65	132	16	25	125	95	50	15	110	150	345	280	4	18	338	32	80	35	10
125 x 100 - 250	125	100	140	190	220	470	225	280	80	132	21	25	160	120	50	15	110	160	400	315	6	20	338	32	80	35	10
125 x 100 - 250.1	125	100	125	184	210	470	225	280	80	132	21	25	160	120	50	15	110	160	400	315	6	18	338	32	80	35	10
125 x 100 - 315	125	100	140	225	255	470	250	315	80	132	21	25	160	120	50	15	110	160	400	315	6	20	338	32	80	35	10
125 x 100 - 400**	125	100	140	253	280	530	280	355	100	161	26	25	200	150	50	15	110	160	500	400	6	20	338	42	115	45	12
150 x 125 - 200	150	125	140	195	244	470	250	315	80	132	21	25	160	120	50	15	110	160	400	315	6	20	338	32	80	35	10
150 x 125 - 250	150	125	140	229	275	470	250	355	80	132	21	25	160	120	50	15	110	160	400	315	6	20	338	32	80	35	10
150 x 125 - 315**	150	125	140	238	278	530	280	355	100	192	26	25	200	150	50	15	110	160	500	400	6	20	338	42	115	45	12
150 x 125 - 400**	150	125	140	275	305	530	315	400	100	161	26	25	200	150	50	15	140	200	500	400	6	20	369	42	115	45	12
200 x 150 - 200	200	150	160	238	315	470	280	400	100	132	26	25	200	150	50	15	110	160	550	450	6	20	338	32	80	35	10
200 x 150 - 250**	200	150	180	228	298	530	280	375	100	192	26	25	200	150	50	15	110	160	500	400	6	20	338	42	115	45	12
200 x 150 - 315**	200	150	180	255	303	530	315	400	100	161	26	25	200	150	50	15	140	200	550	450	6	20	369	42	115	45	12
200 x 150 - 400**	200	150	180	285	325	530	315	450	100	161	26	25	200	150	50	15	140	200	550	450	6	20	359	42	115	45	12



2P

No.	Pump									Motor			
	Size	DN1	DN2	a	f	h1	h2	d1	Weight	Frame	R	d2 (2P)	Weight
1	50x32-160	50	32	80	360	132	160	24	31	71M	120	14	15
										80M	140	19	20
										90S	169	24	25
										90L	169	24	28
										100L	193	28	36-39
										112M	200	28	45
										132M	258	38	84
2	50x32-200	50	32	80	360	160	180	24	39	80M	140	19	20
										90S	169	24	25
										90L	169	24	28
										100L	193	28	36-39
										112M	200	28	45
										132S	239	38	72
										132M	258	38	84
3	50x40-200	50	40	80	360	160	180	24	40	160M	323	42	130
										90S	169	24	25
										90L	169	24	28
										100L	193	28	36-39
										112M	200	28	45
										132S	239	38	72
										132M	258	38	84
4	50x40-250	50	40	100	360	180	225	32	48	160M	323	42	130
										160L	345	42	145
										90S	169	24	25
										90L	169	24	28
										100L	193	28	36-39
										112M	200	28	45
										132S	239	38	72
5	65x50-160	65	50	80	360	132	160	24	33	71M	120	0	15
										80M	140	19	20
										90S	169	24	25
										90L	169	24	28
										100L	193	28	36-39
										112M	200	28	45
										132S	239	38	72
132M	258	38	84										
										160M	323	42	130
										160L	345	42	145

No.	Pump									Motor			
	Size	DN1	DN2	a	f	h1	h2	d1	Weight	Frame	R	d2 (2P)	Weight
6	65x50-200	65	50	100	360	160	180	24	40	80M	140	19	20
										90S	169	24	25
										90L	169	24	28
										100L	193	28	36-39
										112M	200	28	45
										132S	239	38	72
										132M	258	38	84
7	65x50-250	65	50	100	360	180	225	32	49	160M	323	42	130
										160L	345	42	145
										90S	169	24	25
										90L	169	24	28
										100L	193	28	36-39
										112M	200	28	45
										132S	239	38	72
8	80x65-160	80	65	100	360	160	180	24	36	200L	395.5-425.5	55	260
										80M	140	19	20
										90S	169	24	25
										90L	169	24	28
										100L	193	28	36-39
										112M	200	28	45
										132S	239	38	72
9	80x65-200	80	65	100	360	160	200	32	43	160M	323	42	130
										160L	345	42	145
										132M	258	38	84
										180M	351.5	48	180
										180L	370.5	48	200
										200L	395.5-425.5	55	260
										90S	169	24	25
10	80x65-250	80	65	100	360	180	225	32	51	90L	169	24	28
										100L	193	28	36-39
										112M	200	28	45
										132S	239	38	72
										132M	258	38	84
										160M	323	42	130
										160L	345	42	145
										180M	351.5	48	180
										180L	370.5	48	200
										200L	395.5-425.5	55	260

No.	Pump									Motor													
	Size	DN1	DN2	a	f	h1	h2	d1	Weight	Frame	R	d2 (2P)	Weight										
11	100x80-125	100	80	100	360	160	180	32	40	80M	140	19	20										
										90S	156	24	25										
										90L	169	24	28										
										100L	193	28	36-39										
										112M	200	28	45										
										132S	239	38	72										
										132M	258	38	84										
										160M	323	42	130										
										160L	345	42	145										
										180M	351,5	48	180										
										180L	370,5	48	200										
										200L	395,5	55	260										
										12	100x80-160	100	80	100	360	160	200	32	42	80M	140	19	20
																				90S	156	24	25
90L	169	24	28																				
100L	193	28	36-39																				
112M	200	28	45																				
132S	239	38	72																				
132M	258	38	84																				
160M	323	42	130																				
160L	345	42	145																				
180M	351,5	48	180																				
180L	370,5	48	200																				
200L	395,5	55	260																				
13	100x80-200	100	80	100	360	180	225	32	48											90S	169	24	25
																				90L	169	24	28
										100L	193	28	36-39										
										112M	200	28	45										
										132S	239	38	72										
										132M	258	38	84										
										160M	323	42	130										
										160L	345	42	145										
										180M	351,5	48	180										
										180L	370,5	48	200										
										200L	395,5-425,5	55	260										
										14	100x80-250	100	80	100	470	200	250	32	73	100L	193	28	36-39
																				112M	200	28	45
																				132S	239	38	72
132M	258	38	84																				
160M	323	42	130																				
160L	345	42	145																				
180M	351,5	48	180																				
180L	370,5	48	200																				
200L	395,5	55	260																				
225S	432	60	310																				
225M 2P	414,5	55	325																				
250S	463,5	60	0																				
280S 2P	514	65	550																				

No.	Pump									Motor			
	Size	DN1	DN2	a	f	h1	h2	d1	Weight	Frame	R	d2 (2P)	Weight
15	125x100-160	125	100	125	470	200	250	32	52	100L	193	28	36-39
										112M	200	28	45
										132S	239	38	72
										132M	258	38	84
										160M	323	42	130
										160L	345	42	145
										180M	351,5	48	180
										180L	370,5	48	200
										200L	395,5	55	260
										225S	432	60	310
										225M 2P	414,5	55	325
										250S	463,5	60	405
										280S 2P	514	65	550
										16	125x100-200.1	125	100
112M	200	28	45										
132S	239	38	72										
132M	258	38	84										
160M	323	42	130										
160L	345	42	145										
180M	351,5	48	180										
180L	370,5	48	200										
200L	395,5	55	260										
225S	432	60	310										
225M 2P	414,5	55	325										
250S	463,5	60	405										
250M 2P	482,5	60	405										
17	125x100-200	125	100	125	470	200	280	32	88				
										112M	200	28	45
										132S	239	38	72
										132M	258	38	84
										160M	323	42	130
										160L	345	42	145
										180M	351,5	48	180
										180L	370,5	48	200
										200L	395,5	55	260
										225S	432	60	310
										225M 2P	414,5	55	325
										250S	463,5	60	405
										250M 2P	482,5	60	405
										18	125x100-250.1	125	100
132S	239	38	72										
132M	258	38	84										
160M	323	42	130										
160L	345	42	145										
180M	351,5	48	180										
180L	370,5	48	200										
200L	395,5-425,5	55	260										
225S	432	60	310										
225M 2P	414,5	55	325										
250S	463,5	60	405										
250M 2P	482,5	60	405										

No.	Pump									Motor			
	Size	DN1	DN2	a	f	h1	h2	d1	Weight	Frame	R	d2 (2P)	Weight
19	125x100-250	125	100	140	470	225	280	32	98	112M	200	28	45
										132S	239	38	72
										132M	258	38	84
										160M	323	42	130
										160L	345	42	145
										180M	351,5	48	180
										180L	370,5	48	200
										200L	395,5-425,5	55	260
										225M 2P	414,5	55	325
										250S	463,5	60	405
										250M 2P	482,5	60	405
										132S	239	38	72
										132M	258	38	84
160M	323	42	130										
160L	345	42	145										
180M	351,5	48	180										
180L	370,5	48	200										
200L	395,5	55	260										
225S	432	60	310										
225M 2P	414,5	55	325										
250S	463,5	60	405										
250M 2P	482,5	60	405										
20	150x125-200	150	125	140	470	250	315	32	108	132S	239	38	72
										132M	258	38	84
										160M	323	42	130
										160L	345	42	145
										180M	351,5	48	180
										180L	370,5	48	200
										200L	395,5	55	260
										225S	432	60	310
										225M 2P	414,5	55	325
										250S	463,5	60	405
										250M 2P	482,5	60	405
										132S	239	38	72
										132M	258	38	84
160M	323	42	130										
160L	345	42	145										
180M	351,5	48	180										
180L	370,5	48	200										
200L	395,5	55	260										
225S	432	60	310										
225M 2P	414,5	55	325										
250S	463,5	60	405										
250M 2P	482,5	60	405										
21	150x125-250	150	125	140	470	250	355	32	122	132S	239	38	72
										132M	258	38	84
										160M	323	42	130
										160L	345	42	145
										180M	351,5	48	180
										180L	370,5	48	200
										200L	395,5	55	260
										225S	432	60	310
										225M 2P	414,5	55	325
										250S	463,5	60	405
										250M 2P	482,5	60	405
										132S	239	38	72
										132M	258	38	84
160M	323	42	130										
160L	345	42	145										
180M	351,5	48	180										
180L	370,5	48	200										
200L	395,5	55	260										
225S	432	60	310										
225M 2P	414,5	55	325										
250S	463,5	60	405										
250M 2P	482,5	60	405										
22	200x150-200	200	150	160	470	280	400	32	166	160M	323	42	130
										160L	345	42	145
										180M	351,5	48	180
										180L	370,5	48	200
										200L	395,5	55	260
										225S	432	60	310
										225M 2P	414,5	55	325
										250S	463,5	60	405
										250M 2P	482,5	60	405
										160M	323	42	130
										160L	345	42	145
										180M	351,5	48	180
										180L	370,5	48	200
200L	395,5	55	260										
225S	432	60	310										
225M 2P	414,5	55	325										
250S	463,5	60	405										
250M 2P	482,5	60	405										
23	200x150-250	200	150	160	530	280	375	42	156	160M	323	42	130
										160L	345	42	145
										180M	351,5	48	180
										180L	370,5	48	200
										200L	395,5	55	260
										225S	432	60	310
										225M 2P	414,5	55	325
										250S	463,5	60	405
										250M 2P	482,5	60	405
										160M	323	42	130
										160L	345	42	145
										180M	351,5	48	180
										180L	370,5	48	200
200L	395,5	55	260										
225S	432	60	310										
225M 2P	414,5	55	325										
250S	463,5	60	405										
250M 2P	482,5	60	405										

2P

No.	Pump Size	Base Plate															V1	V2	Weight
		b2	b3	I2	IS	A	t	h3	i	b2	I2	M	N	P	Q				
1	50x32-160	290	320	420	670	0	3	222	45	290	420	200	50	4	M12	105	145	28	
		290	320	420	670	0	3	222	45	290	420	200	50	4	M12	105	145	28	
		290	320	480	750	0	3	222	55	290	480	200	50	4	M12	115	155	30	
		290	320	480	750	0	3	222	55	290	480	200	50	4	M12	115	155	30	
		290	320	480	750	0	3	222	55	290	480	200	50	4	M12	115	155	29	
		290	320	480	750	0	3	222	55	290	480	200	50	4	M12	115	155	28	
		290	320	420	670	0	3	250	45	290	420	200	50	4	M12	105	145	30	
		290	320	480	750	0	3	250	55	290	480	200	50	4	M12	115	155	33	
		290	320	480	750	0	3	250	55	290	480	200	50	4	M12	115	155	33	
		290	320	480	750	0	3	250	55	290	480	200	50	4	M12	115	155	33	
		320	350	600	870	0	3	250	90	320	600	200	50	4	M12	150	120	34	
		320	350	600	870	0	3	250	90	320	600	200	50	4	M12	150	120	34	
		400	430	660	1000	0	3	250	110	400	660	200	50	4	M12	170	170	39	
2	50x32-200	290	320	420	670	0	3	250	45	290	420	200	50	4	M12	105	145	30	
		290	320	480	750	0	3	250	55	290	480	200	50	4	M12	115	155	33	
		290	320	480	750	0	3	250	55	290	480	200	50	4	M12	115	155	33	
		290	320	480	750	0	3	250	55	290	480	200	50	4	M12	115	155	33	
		290	320	480	750	0	3	250	55	290	480	200	50	4	M12	115	155	33	
		290	320	420	670	0	3	250	45	290	420	200	50	4	M12	105	145	30	
		290	320	480	750	0	3	250	55	290	480	200	50	4	M12	115	155	33	
		290	320	480	750	0	3	250	55	290	480	200	50	4	M12	115	155	33	
		290	320	480	750	0	3	250	55	290	480	200	50	4	M12	115	155	33	
		320	350	600	870	0	3	250	90	320	600	200	50	4	M12	150	120	34	
		320	350	600	870	0	3	250	90	320	600	200	50	4	M12	150	120	34	
		400	430	660	1000	0	3	250	110	400	660	200	50	4	M12	170	170	39	
		3	50x40-200	290	320	420	670	0	3	250	45	290	420	200	50	4	M12	105	145
290	320			480	750	0	3	250	55	290	480	200	50	4	M12	115	155	33	
290	320			480	750	0	3	250	55	290	480	200	50	4	M12	115	155	33	
290	320			480	750	0	3	250	55	290	480	200	50	4	M12	115	155	33	
290	320			480	750	0	3	250	55	290	480	200	50	4	M12	115	155	33	
290	320			420	670	0	3	250	45	290	420	200	50	4	M12	105	145	30	
290	320			480	750	0	3	250	55	290	480	200	50	4	M12	115	155	33	
290	320			480	750	0	3	250	55	290	480	200	50	4	M12	115	155	33	
290	320			480	750	0	3	250	55	290	480	200	50	4	M12	115	155	33	
320	350			600	870	0	3	250	90	320	600	200	50	4	M12	150	120	34	
320	350			600	870	0	3	250	90	320	600	200	50	4	M12	150	120	34	
400	430			660	1000	0	3	250	110	400	660	200	50	4	M12	170	170	39	
4	50x40-250			290	320	420	670	0	3	270	40	320	480	200	50	4	M12	115	155
		290	320	480	750	0	3	270	40	320	480	200	50	4	M12	115	155	35	
		290	320	480	750	0	3	270	40	320	480	200	50	4	M12	115	155	35	
		290	320	480	750	0	3	270	40	320	480	200	50	4	M12	115	155	35	
		290	320	480	750	0	3	270	40	320	480	200	50	4	M12	115	155	35	
		290	320	420	670	0	3	270	40	320	480	200	50	4	M12	115	155	35	



No.	Pump		Base Plate															
	Size	b2	b3	l2	l3	A	t	h3	i	b2	l2	M	N	P	Q	V1	V2	Weight
21	150x125-250	400	430	660	1000	0	3	342	80	400	660	200	50	4	M12	170	170	51
		400	430	660	1000	0	3	342	80	400	660	200	50	4	M12	170	170	51
		440	470	740	1120	0	3	342	100	440	740	200	50	4	M12	190	190	56
		440	470	740	1120	0	3	342	100	440	740	200	50	4	M12	190	190	56
		440	470	740	1120	0	3	342	100	440	740	200	50	4	M12	190	190	56
		440	470	740	1120	0	3	342	100	440	740	200	50	4	M12	190	190	56
22	200x150-200	490	530	840	1250	10	3	367	115	490	840	250	63	4	M16	205	205	75
		490	530	840	1250	10	3	367	115	490	840	250	63	4	M16	205	205	75
		550	580	740	1120	0	3	372	80	550	740	200	50	4	M12	190	190	66
		550	580	740	1120	0	3	372	80	550	740	200	50	4	M12	190	190	66
		550	590	840	1250	10	3	400	95	550	840	250	63	4	M16	205	205	86
		550	590	840	1250	10	3	400	95	550	840	250	63	4	M16	205	205	86
23	200x150-250	490	530	840	1250	10	3	400	95	490	840	250	63	4	M16	205	205	81
		490	530	840	1250	10	3	400	95	490	840	250	63	4	M16	205	205	81
		490	530	840	1250	10	3	400	95	490	840	250	63	4	M16	205	205	80
		490	530	840	1250	10	3	400	95	490	840	250	63	4	M16	205	205	80
		550	590	940	1400	10	3	400	120	550	940	250	63	4	M12	230	230	91
		550	590	940	1400	10	3	400	120	550	940	250	63	4	M12	230	230	87

4P

No.	Pump										Motor			
	Size	DN1	DN2	a	f	h1	h2	d1	Weight	Frame	R	d2	Weight	
1	50x32-160	50	32	80	360	132	160	24	31	71M	120	14	15	
										80M	140	19	20	
										90S	169	24	25	
										90L	169	24	28	
2	50x32-200	50	32	80	360	160	180	24	39	80M	140	19	20	
										90S	169	24	25	
										90L	169	24	28	
										80M	140	19	20	
3	50x40-200	50	40	80	360	160	180	24	40	90S	169	24	25	
										90L	169	24	28	
										80M	140	19	20	
										90S	169	24	25	
4	50x40-250	50	40	100	360	180	225	32	48	90L	169	24	28	
										100L	193	28	36-39	
										112M	200	28	45	
										132S	239	38	72	
5	50x40-315.1	50	40	125	470	225	250	32	81	132M	258	38	84	
										71M	120	14	15	
										80M	140	19	20	
										90S	169	24	25	
6	65x50-160	65	50	80	360	132	160	24	33	90L	169	24	28	
										80M	140	19	20	
										90S	169	24	25	
										90L	169	24	28	
7	65x50-200	65	50	100	360	160	180	24	40	80M	140	19	20	
										90S	169	24	25	
										90L	169	24	28	
										100L	193	28	36-39	
8	65x50-250	65	50	100	360	180	225	32	49	90S	169	24	25	
										90L	169	24	28	
										100L	193	28	36-39	
										112M	200	28	45	
9	65x50-315.1	65	50	125	470	225	280	32	84	112M	200	28	45	
										132S	239	38	72	
										132M	258	38	84	
										160M	323	42	130	

No.	Pump										Motor			
	Size	DN1	DN2	a	f	h1	h2	d1	Weight	Frame	R	d2	Weight	
10	80x65-160	80	65	100	360	160	180	24	36	80M	140	19	20	
										90S	169	24	25	
										90L	169	24	28	
										100L	193	28	36-39	
11	80x65-200	80	65	100	360	160	200	32	43	80M	140	19	20	
										90S	169	24	25	
										90L	169	24	28	
										100L	193	28	36-39	
12	80x65-250	80	65	100	360	180	225	32	51	112M	200	28	45	
										90S	169	24	25	
										90L	169	24	28	
										100L	193	28	36-39	
13	80x65-315.1	80	65	125	470	225	280	32	89	112M	200	28	45	
										132S	239	38	72	
										132M	258	38	84	
										160M	323	42	130	
14	100x80-125	100	80	100	360	160	180	32	40	80M	140	19	20	
										90S	156	24	25	
										90L	169	24	28	
										80M	140	19	20	
15	100x80-160	100	80	100	360	160	200	32	42	90S	156	24	25	
										90L	169	24	28	
										100L	193	28	36-39	
										90S	169	24	25	
16	100x80-200	100	80	100	360	180	225	32	48	90L	169	24	28	
										90L	169	24	28	
										100L	193	28	36-39	
										112M	200	28	45	
17	100x80-250	100	80	100	470	200	250	32	73	100L	193	28	36-39	
										112M	200	28	45	
										132S	239	38	72	
										132M	258	38	84	
18	100x80-315.1	100	80	125	470	250	315	32	99	132S	239	38	72	
										132M	258	38	84	
										160M	323	42	130	
										160L	345	42	145	
19	100x80-400.1	100	80	125	530	280	355	42	156	180M	351,5	48	180	
										180L	370,5	48	200	
										160M	323	42	130	
										160L	345	42	145	
										180M	351,5	48	180	
										180L	370,5	48	200	
										200L	395,5	55	260	
										225S	432	60	310	
										225M	444,5	60	340	



No.	Pump									Motor			
	Size	DN1	DN2	a	f	h1	h2	d1	Weight	Frame	R	d2	Weight
20	125x100-160	125	100	125	470	200	250	32	52	100L	193	28	36-39
										112M	200	28	45
										132S	239	38	72
21	125x100-200.1	125	100	125	470	180	250	32	73	100L	193	28	36-39
										112M	200	28	45
										132S	239	38	72
										132M	258	38	84
22	125x100-200	125	100	125	470	200	280	32	88	100L	193	28	36-39
										112M	200	28	45
										132S	239	38	72
										132M	258	38	84
23	125x100-250.1	125	100	125	470	225	280	32	84	160M	323	42	130
										112M	200	28	45
										132S	239	38	72
										132M	258	38	84
24	125x100-250	125	100	140	470	225	280	32	98	160M	323	42	130
										112M	200	28	45
										132S	239	38	72
										132M	258	38	84
										160L	345	42	145
25	125x100-315	125	100	140	470	250	315	32	109	180M	351,5	48	180
										132S	239	38	72
										132M	258	38	84
										160M	323	42	130
										160L	345	42	145
										180M	351,5	48	180
										180L	370,5	48	200
										200L	395,5	55	260
225S	432	60	310										
26	125x100-400	125	100	140	530	280	355	42	172	225M	444,5	60	340
										160M	323	42	130
										160L	345	42	145
										180M	351,5	48	180
										180L	370,5	48	200
										200L	395,5	55	260
										225S	432	60	310
										250S	463,5	65	405
										132S	239	38	72
										132M	258	38	84
27	150x125-200	150	125	140	470	250	315	32	108	160M	323	42	130
										160L	345	42	145
										132S	239	38	72
28	150x125-250	150	125	140	470	250	355	32	122	132M	258	38	84
										160M	323	42	130
										160L	345	42	145
										180M	351,5	48	180
										180L	370,5	48	200
										160M	323	42	130

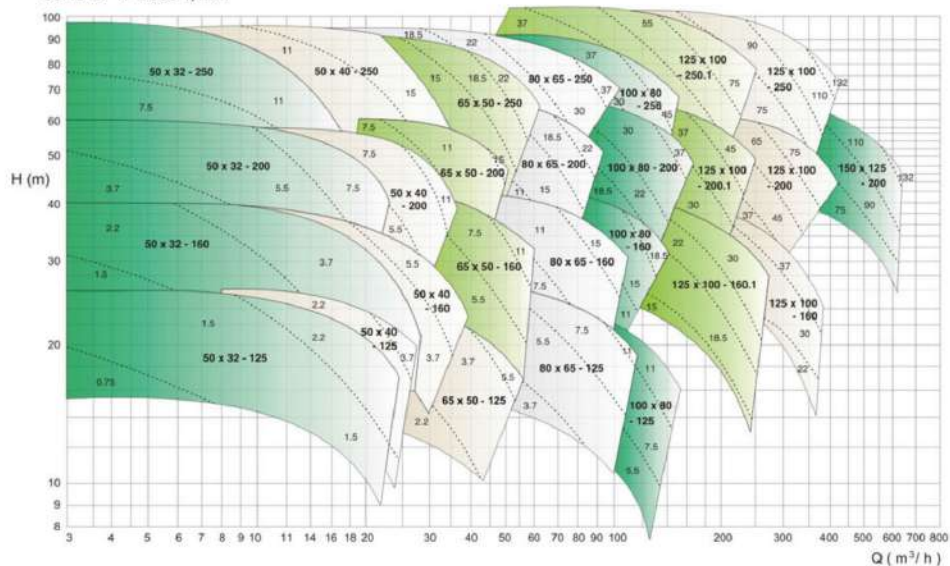
No.	Pump									Motor			
	Size	DN1	DN2	a	f	h1	h2	d1	Weight	Frame	R	d2	Weight
29	150x125-315	150	125	140	530	280	355	42	157	160M	323	42	130
										160L	345	42	145
										180M	351,5	48	180
										180L	370,5	48	200
										200L	395,5	55	260
										225S	432	60	310
										225M	444,5	60	340
30	150x125-400	150	125	140	530	315	400	42	190	250S	463,5	65	405
										180M	351,5	48	180
										180L	370,5	48	200
										200L	395,5	55	260
										225S	432	60	310
										225M	444,5	60	340
										250S	463,5	65	405
31	200x150-200	200	150	160	470	280	400	32	166	280S	514	75	565
										160M	323	42	130
										160L	345	42	145
										180M	351,5	48	180
										160M	323	42	130
										160L	345	42	145
32	200x150-250	200	150	160	530	280	375	42	156	280M	539,5	75	665
										180M	351,5	48	180
										180L	370,5	48	200
										200L	395,5	55	260
										225S	432	60	310
33	200x150-315	200	150	160	530	315	400	42	182	225M 4P	444,5	60	340
										180M	351,5	48	180
										180L	370,5	48	200
										200L	395,5	55	260
										225S	432	60	310
34	200x150-400	200	150	160	530	315	450	42	216	250S	463,5	65	405
										180M	351,5	48	180
										180L	370,5	48	200
										200L	395,5	55	260
										225S	432	60	310
										225M	444,5	60	340
										250S	463,5	65	405
										280S	514	75	565
										280M	539,5	75	665



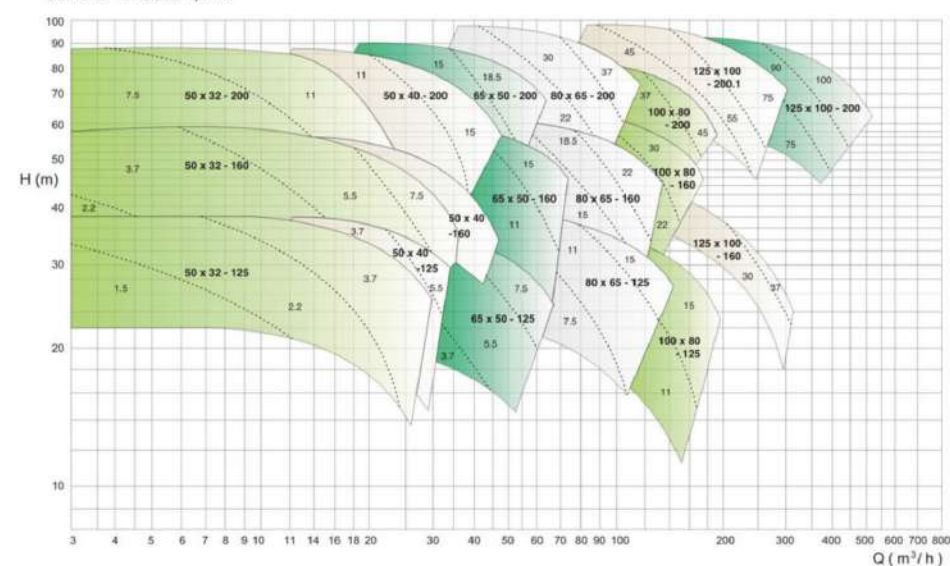
No.	Pump Size	Base Plate																
		b2	b3	l2	l3	A	t	h3	i	b2	l2	M	N	P	Q	V1	V2	Weigh
25	125x100-315	400	430	660	1000	0	3	342	80	400	660	200	50	4	M12	170	170	51
		400	430	660	1000	0	3	342	80	400	660	200	50	4	M12	170	170	51
		440	470	740	1120	0	3	342	100	440	740	200	50	4	M12	190	190	56
		440	470	740	1120	0	3	342	100	440	740	200	50	4	M12	190	190	56
		440	470	740	1120	0	3	342	100	440	740	200	50	4	M12	190	190	56
		440	470	740	1120	0	3	342	100	440	740	200	50	4	M12	190	190	56
		490	530	840	1250	10	3	367	115	490	840	250	63	4	M16	205	205	75
		490	530	840	1250	10	3	367	115	490	840	250	63	4	M16	205	205	75
26	125x100-400	490	530	840	1250	10	3	400	95	490	840	250	63	4	M16	205	205	81
		490	530	840	1250	10	3	400	95	490	840	250	63	4	M16	205	205	81
		490	530	840	1250	10	3	400	95	490	840	250	63	4	M16	205	205	80
		490	530	840	1250	10	3	400	95	490	840	250	63	4	M16	205	205	80
		550	590	940	1400	10	3	400	120	550	940	250	63	4	M12	230	230	91
		550	590	940	1400	10	3	400	120	550	940	250	63	4	M16	230	230	87
		550	590	940	1400	10	3	400	120	550	940	250	63	4	M16	230	230	87
		550	590	940	1400	10	3	400	120	550	940	250	63	4	M16	230	230	87
27	150x125-200	400	430	660	1000	0	3	342	80	400	660	200	50	4	M12	170	170	51
		400	430	660	1000	0	3	342	80	400	660	200	50	4	M12	170	170	51
		440	470	740	1120	0	3	342	100	440	740	200	50	4	M12	190	190	56
		440	470	740	1120	0	3	342	100	440	740	200	50	4	M12	190	190	56
28	150x125-250	400	430	660	1000	0	3	342	80	400	660	200	50	4	M12	170	170	51
		400	430	660	1000	0	3	342	80	400	660	200	50	4	M12	170	170	51
		440	470	740	1120	0	3	342	100	440	740	200	50	4	M12	190	190	56
		440	470	740	1120	0	3	342	100	440	740	200	50	4	M12	190	190	56
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		440	470	740	1120	0	3	342	100	440	740	200	50	4	M12	190	190	56
		490	530	840	1250	10	3	400	95	490	840	250	63	4	M16	205	205	81
		490	530	840	1250	10	3	400	95	490	840	250	63	4	M16	205	205	81
29	150x125-315	490	530	840	1250	10	3	400	95	490	840	250	63	4	M16	205	205	80
		490	530	840	1250	10	3	400	95	490	840	250	63	4	M16	205	205	80
		550	590	940	1400	10	3	400	120	550	940	250	63	4	M12	230	230	91
		550	590	940	1400	10	3	400	120	550	940	250	63	4	M16	230	230	87
		550	590	940	1400	10	3	400	120	550	940	250	63	4	M16	230	230	87
		550	590	940	1400	10	3	400	120	550	940	250	63	4	M16	230	230	87
		550	590	840	1250	10	3	435	95	550	840	250	63	4	M16	205	205	90
		550	590	840	1250	10	3	435	95	550	840	250	63	4	M16	205	205	90
30	150x125-400	550	590	940	1400	10	3	435	120	550	940	250	63	4	M16	230	230	99
		550	590	940	1400	10	3	435	120	550	940	250	63	4	M16	230	230	95
		550	590	940	1400	10	3	435	120	550	940	250	63	4	M16	230	230	95
		600	640	940	1400	10	3	435	120	600	940	250	63	4	M16	230	230	99
		670	710	1060	1600	10	3	435	160	670	1060	250	63	4	M16	270	270	109
		670	710	1060	1600	10	3	435	160	670	1060	250	63	4	M16	270	270	109
		550	580	740	1120	0	3	372	80	550	740	200	50	4	M12	190	190	66
		550	580	740	1120	0	3	372	80	550	740	200	50	4	M12	190	190	66
31	200x150-200	550	590	840	1250	10	3	400	95	550	840	250	63	4	M16	205	205	86
		490	530	840	1250	10	3	400	95	490	840	250	63	4	M16	205	205	81
		490	530	840	1250	10	3	400	95	490	840	250	63	4	M16	205	205	81
		490	530	840	1250	10	3	400	95	490	840	250	63	4	M16	205	205	80
		490	530	840	1250	10	3	400	95	490	840	250	63	4	M16	205	205	80
		550	590	940	1400	10	3	400	120	550	940	250	63	4	M12	230	230	91
		550	590	940	1400	10	3	400	120	550	940	250	63	4	M16	230	230	87
		550	590	940	1400	10	3	400	120	550	940	250	63	4	M16	230	230	87
32	200x150-250	490	530	840	1250	10	3	400	95	490	840	250	63	4	M16	205	205	81
		490	530	840	1250	10	3	400	95	490	840	250	63	4	M16	205	205	81
		490	530	840	1250	10	3	400	95	490	840	250	63	4	M16	205	205	80
		490	530	840	1250	10	3	400	95	490	840	250	63	4	M16	205	205	80
		550	590	940	1400	10	3	400	120	550	940	250	63	4	M12	230	230	91
		550	590	940	1400	10	3	400	120	550	940	250	63	4	M16	230	230	87

No.	Pump Size	Base Plate																
		b2	b3	l2	l3	A	t	h3	i	b2	l2	M	N	P	Q	V1	V2	Weigh
33	200x150-315	490	530	840	1250	10	3	400	95	490	840	250	63	4	M16	205	205	81
		490	530	840	1250	10	3	400	95	490	840	250	63	4	M16	205	205	81
		550	590	940	1400	10	3	435	120	550	940	250	63	4	M16	230	230	99
		550	590	940	1400	10	3	435	120	550	940	250	63	4	M16	230	230	95
		550	590	940	1400	10	3	435	120	550	940	250	63	4	M16	230	230	95
		600	640	940	1400	10	3	435	120	600	940	250	63	4	M16	230	230	99
		490	530	840	1250	10	3	400	95	490	840	250	63	4	M16	205	205	81
		490	530	840	1250	10	3	400	95	490	840	250	63	4	M16	205	205	81
34	200x150-400	550	590	940	1400	10	3	435	120	550	940	250	63	4	M16	230	230	99
		550	590	940	1400	10	3	435	120	550	940	250	63	4	M16	230	230	95
		550	590	940	1400	10	3	435	120	550	940	250	63	4	M16	230	230	95
		600	640	940	1400	10	3	435	120	600	940	250	63	4	M16	230	230	99
		670	710	1060	1600	10	3	435	160	670	1060	250	63	4	M16	270	270	109
		670	710	1060	1600	10	3	435	160	670	1060	250	63	4	M16	270	270	109

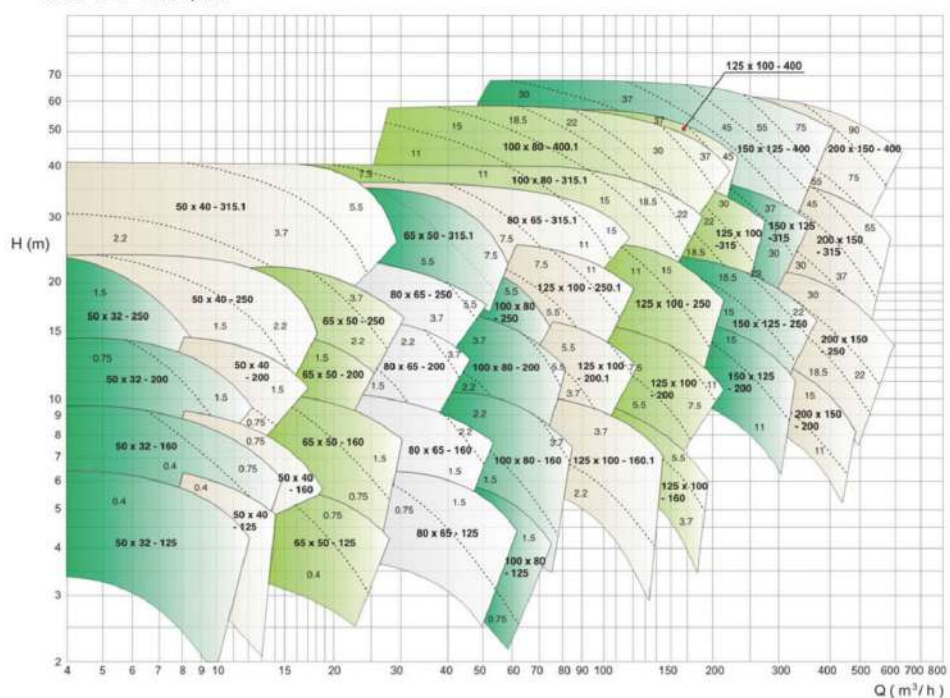
50Hz-2P n=2900 1/min



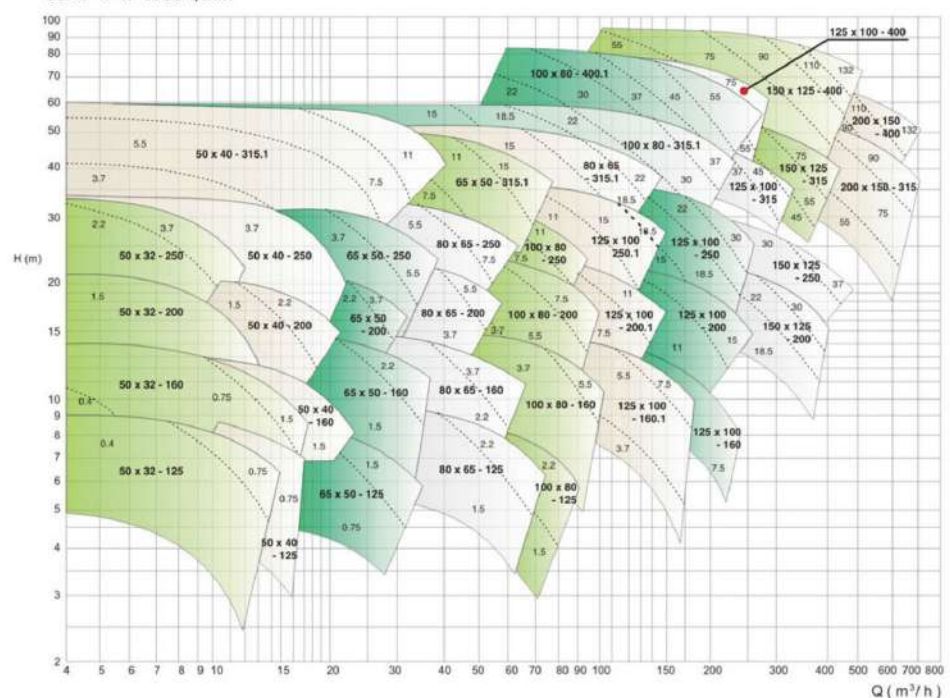
60Hz-2P n=3500 1/min



50Hz-4P n=1450 1/min



60Hz-4P n=1750 1/min



Notes  
For types : 50x32-125, 50x32-250, 50x40-125, 50x40-160, 65x50-125, 80x65-125, 125x100-160.1 Torishima Indonesia does not produce.

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