



APEC-SUN

Single Stage Double Suction Pump



APPLICATIONS:

- Waterworks.
- Irrigation and drainage pumping stations.
- Power stations.
- Industrial water supply systems.
- Fire fighting systems.
- Marine applications.
- General applications in refineries.

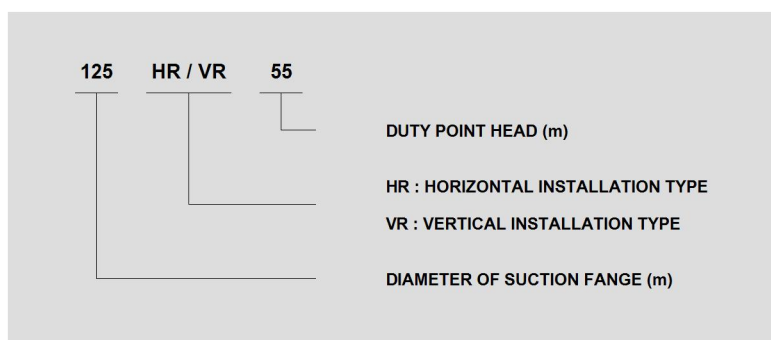
WORKING CONDITION:

- Outlet: up to 400 mm.
- Capacity: up to 3000 m³/h.
- Head: up to 170 m.
- Temperature: max. to 105 °C.
- Working Pressure: up to 25 bar.

DESIGN:

- Single stage, axially split volute casing pump with double entry radial impeller, for both horizontal and vertical installation application.
- Installation of the horizontal drive either on the left or right side of the pump (Optional).
- The design pressure of pump casing is 16 bar & 25 bar flanges drilled to ISO, DIN, JIS.
- Bearing:
 - Horizontal type: 2 grease-lubricated, maintenance-free, deep groove ball bearings in the driven end and one in non-driven end.
 - Vertical type: 2 grease-lubricated, angular contact bearings in the driven end (top), 1 poly-material guide bearing in the non-endive end (bottom) with pumping liquid lubricated.
- Easy for maintenance axially split casing allow-easy removal without disturbing & discharge piping and pump alignment.

TYPE DESCRIPTION:



CONSTRUCTION:

PUMP COVER

Thicker flange of pump cover is fastened with pump casing by long bolts with advantages of no leakage.

IMPELLER

High-efficiency double suction impeller, stable operation, low energy cost, low noise, less vibration, and long service life.

SHAFT SLEEVE

Different materials are available for the shaft sleeves to avoid corrosion or worn out, Replaceable design.

SEALING UNIT

The sealing unit design of SS series pump provides feasibility of packing seal installation is replaceable without dismantle of pump cover.

PACKING SEAL

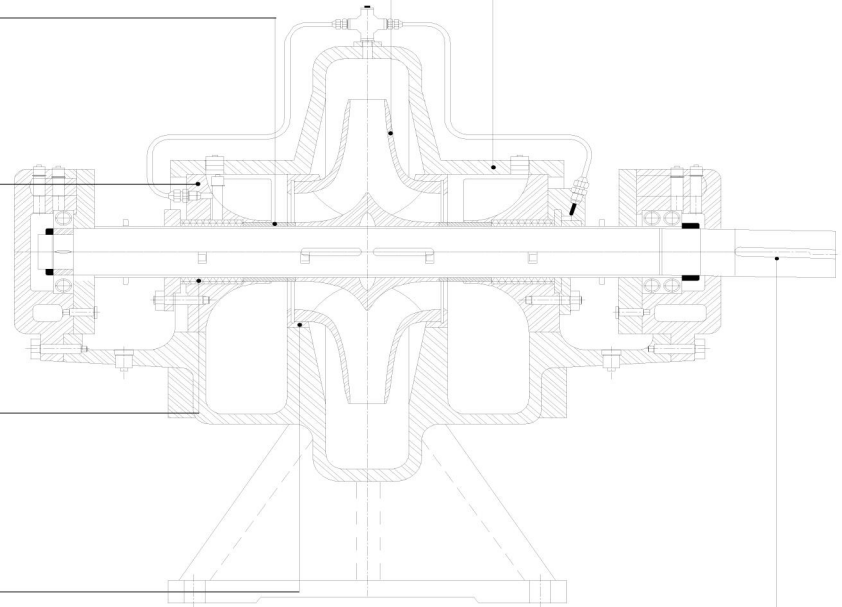
Specially-designed open type packing cover ring, space enough for easy maintenance.

WEAR RING

Replaceable wear ring between the pump casing and impeller to avoid wore out, ensuring operating efficiency and low operation cost.

SHAFT

The pump shaft is totally sealed, no contact with the pumping liquid. It features long service life and no corrosion.



NAME	MATERIAL
Pump Body	CAST IRON / GG25, GGG40 ; CAST STEEL / GS45
Casing Cover	CAST IRON / GG25, GGG40 ; CAST STEEL / GS45
Bearing Unit	CAST IRON / GG25, GGG40 ; CAST STEEL / GS45
Impeller	CAST IRON / GG25 ; BRONZE ; STAINLESS STEEL
Shaft	STAINLESS STEEL / X30Cr13
Shaft Sleeve	STAINLESS ;
Seal Ring	CAST IRON ; BRONZE
Seal	PACK SEAL ; MECHANICAL SEAL /Sic-Sic.
Packing Seal	

PERFORMANCE PARAMETERS:

PUMP MODEL	CAPACITY (m ³ /h)	HEAD (m)	SPEED (r/min)	POWER		EFF (%)	NPSHr (m)	
				SHAFT	MOTOR			
125HR55 125VR55	98.4	64	2950	26.4	37	65	5.5	
	164	55		33.2		74		
	192	49		35.8		71.5		
	90.6	55.5	2950	20.4	30	67	5.5	
	151	47.5		26.4		74		
	181.2	41		28.6		70.6		
	125VR55	86.4	47	2950	17	30	65	5.3
		144	39		21.2		72	
172.8		34	23.2		69			
82.2		40	2940	13.8	22	65	5	
137		31		16.3		71		
156		28		18.3		65		
125HR51 125VH51	80.4	59.5	2950	19.7	30	66	5	
	134	51		25.5		73		
	160.8	45		27.4		72		
	79.8	52	2950	16.9	30	67	5	
	133	43.5		21.8		72.2		
	159.6	37		23.2		69.2		
	125VH51	74.4	43.5	2930	13.3	18.5	66	5
		124	36		16.9		72	
		148	30		17.3		70	
		67.8	37	2930	10.5	15	65	4.5
113		31	13.2		72			
135.6		27	14.2		70			
125HR90 125VR90	124.2	103.5	2970	54.7	75	64	7.3	
	207	90		66.3		76.5		
	248.4	79		70.8		75.5		
	116.4	90	2970	41.3	75	69	7.2	
	194	77		52.5		77.5		
	232.8	69		60.7		72		
	125VR90	110.4	75	2970	32.7	55	69	7
		184	63.5		41.9		76	
		220.8	55		45.6		72.5	
		103.8	62	2950	26.1	37	67	6.9
173		50	31.4		75			
207.6		43.5	34.1		72			
125HR82 125VR82	102.6	97.5	2970	40.6	75	67	7.2	
	171	87		51.9		78		
	205.2	81		59.5		76		
	91.8	84.5	2970	32.7	45	64.6	7	
	153	71.5		39.7		75		
	183.6	63.5		41.6		76.3		
	125VR82	100	66.5	2950	27.9	37	65	6.9
		144	60		32.4		72.5	
		175	56		35.6		75	
		100	54	2950	22.3	30	66	6.7
137		49	25.4		72			
164.4		44.5	27.7		72			
150HR75 150VR75	174	93	2970	58	90	76	8	
	290	76		72.7		82.5		
	348	65		75.6		81.5		
	168	76	2970	47	75	74	7.8	
	280	68		64		81		
	336	54.8		63.4		79		
	150VR75	151.2	67.5	2970	38.6	55	72	7.5
		252	54		46.9		79	
		302	46		49.1		77	
		145.2	57	2970	32.2	45	70	7
242		44	37.4		77.5			
290.4		37.6	39.4		75.5			
150HR68 150VR68	137	78	2970	38.3	75	76	7.3	
	248	68		56.3		81.5		
	297.6	60		64.8		75		
	136.8	67	2970	33.7	55	74	7.2	
	228	58		45.3		79.5		
	273.6	50		48.4		77		
	150VR68	129.6	57	2970	27.5	45	73	7.1
		216	50		37.7		78	
		259.2	42.8		40.3		75	
		114	49.8	2950	21.8	37	71	7
190		44	29.9		76			
228		38	31.9		74			

PERFORMANCE PARAMETERS:

PUMP MODEL	CAPACITY (m ³ /h)	HEAD (m)	SPEED (r/min)	POWER		EFF (%)	NPSHr (m)
				SHAFT	MOTOR		
150HR123 150VR123	220.2	131	2980	106.1	200	74	6.5
	360	123		150.7		80	
	440.4	105		163.5		77	
	201	124	2980	91.7	160	74	6.3
	335	106		121.4		79.6	
	402	92		130.8		77	
	181.2	107	2980	71.3	110	74	6.1
302	90	93.3		79.3			
360	78	99.3		77			
166.2	88	2970	53.8	90	74	6	
277	74		70.6		79		
332.4	64		76.2		76		
150HR119 150VR119	169.8	138	2980	88	132	72.5	6.3
	283	119		117.5		78	
	330	104		122.9		76	
	155.4	118	2980	69.3	110	72	6.2
	259	103		93.6		77.6	
	305	91		99.4		76	
	150	99	2980	56.1	90	72	6.1
250	84	74		77.3			
300	74	80.6		75			
140.4	82	2970	44.1	75	71	6	
234	69		57.1		77		
280.8	58		59.9		74		
200HR59 200VR59	319.8	77	2980	88.2	132	76	6.9
	533	60		101.8		85.5	
	639.6	48		100.7		83	
	294	67	2980	71.5	110	75	6.8
	490	52		82.6		84	
	588	43		83.9		82	
	272.4	60	2970	60.1	75	74	6.7
450	43	65		81			
538	34	68.2		73			
255	55.5	2970	52.1	75	74	6.6	
425	40		60.1		77		
510	33		62.8		73		
200HR61 200VR61	296	78	2980	83.8	110	75	6.9
	472	60.5		92		84.5	
	556	51		94.1		82	
	295	67.5	2980	73.3	90	74	6.7
	436	52		73.5		84	
	523.2	44		77.4		81	
	300	58	2970	64.9	75	73	6.5
410	46	63.4		81			
490	38	66.7		76			
256	55.6	2970	53.8	75	72	6.5	
382	43		58.1		77		
520	32		61.2		74		
200HR108 200VR108	290	131	2980	134.3	220	77	9.2
	540	108		189		84	
	620	105		217.4		81.5	
	300	111	2980	120.9	160	75	9.1
	490	88		143.1		82	
	588	75		152		79	
	270	95	2980	95.7	132	73	9.1
450	75	114.8		80			
540	63	118.7		78			
270	74	2980	76.6	110	71	9	
400	61		85.2		78		
480	53		91.1		76		
200HR100 200VR100	330	120	2980	143.7	185	75	9.5
	480	100		166.5		78.5	
	576	86		177.4		76	
	315	100	2980	111.4	160	77	9.5
	440	88		133.1		79.2	
	540	73		143.1		75	
	300	83	2980	88.6	110	76.5	9.2
420	70	101.3		79			
485	59	102.5		76			
240	72	2970	65.3	90	72	9	
350	62		75.7		78		
420	53		79.7		76		

PERFORMANCE PARAMETERS:

PUMP MODEL	CAPACITY (m ³ /h)	HEAD (m)	SPEED (r/min)	POWER		EFF (%)	NPSHr (m)
				SHAFT	MOTOR		
125HR14 125VR14	49.8	16	1440	2.9	5.5	76	3.2
	83	13.8		3.8		82	
	99.6	12.2		4.1		80.5	
	45.6	13.8	1440	2.3	4	74	3.2
	76	11.8		3		81	
	91.2	10.4		3.3		79	
	43.2	11.7	1430	1.9	3	72	3
	72	9.8		2.4		80.5	
	86.4	8.6		2.6		78	
41.4	9.9	1430	1.5	3	72	3	
69	8.2		2		78		
82.8	6.8		2.1		74		
125HR13 125VR13	40	13.5	1440	2	4	72	3
	65	12.8		2.8		81	
	78	11.5		3.1		80	
	40	13	1430	2	3	72	3
	64	10.8		2.4		80	
	76.8	9.7		2.6		79	
	36.3	10.8	1430	1.5	3	70	3
	61	9		1.9		78	
	73.2	7.7		2		76	
34.8	9.2	1430	1.2	2.2	70	3	
58	7.6		1.6		74		
69.6	6.4		1.7		72		
125HR22 125VR22	62.4	26	1460	6	11	74	3
	104	22.5		8.1		78.5	
	124.8	20		8.9		76	
	59.4	22	1460	4.9	11	72	2.7
	99	19		6.6		78	
	118.8	17		7.3		75	
	54	18.5	1440	3.9	7.5	70	2.4
	90	16		5.2		76	
	108	14		5.6		74	
50.4	15.5	1440	3	5.5	70	2.3	
84	13		4		75		
100.8	11		4.1		73		
125HR21 125VR21	51	24.5	1460	4.7	11	72	3.1
	85	20.7		6.2		77	
	102	18		6.7		75	
	46.2	21	1440	3.8	7.5	70	2.9
	77	18.1		5		76	
	92.4	15.5		5.2		74.5	
	43.2	18	1440	3.1	5.5	68	2.8
	72	15		3.9		75	
	86.4	13		4.2		73	
40.2	14.5	1440	2.4	4	66	2.5	
67	12.5		3.1		74		
80.4	10.5		3.2		72		
125HR39 125VR39	67.8	42.5	1470	12.5	22	63	3.8
	116	38.8		18		68	
	135.6	33.5		19.9		62	
	59.4	36.5	1460	9.2	15	64	3.6
	99	33		13.2		67.5	
	118.8	29		14.4		65	
	52.8	30.5	1460	7.4	15	59	3.5
	88	27.5		10.6		62.3	
	105.6	24.5		11.9		59	
60	25	1460	6.8	11	60	3.1	
81	22.5		8.1		61		
104	17		8.3		58		
125HR35 125VR35	59.4	41	1470	9.9	18.5	67	3
	99	35.5		13.1		73	
	118.8	31		14.1		71	
	54	35.5	1460	8	15	65	3
	90	30.8		10.8		70	
	108	26.5		11.5		68	
	45.6	29	1460	5.8	11	62	2.5
	76	25.5		8		66	
	91.2	22.5		8.6		65	
40.2	23	1440	4.2	7.5	60	2.5	
67	20		5.7		64		
80.4	17.5		6.2		62		

PERFORMANCE PARAMETERS:

PUMP MODEL	CAPACITY (m ³ /h)	HEAD (m)	SPEED (r/min)	POWER		EFF (%)	NPSHr (m)
				SHAFT	MOTOR		
150HR19 150VR19	87	21	1460	6.5	15	76	5
	145	19		9.1		82.5	
	174	14		8.1		81.5	
	84	18.3	1460	5.7	11	74	5
	140	16		7.5		81	
	168	13.7		7.9		79	
	75.6	16	1440	4.6	7.5	72	4.5
	126	13.5		5.9		79	
	151	12		6.4		77	
72.6	13.5	1440	3.8	7.5	70	4.5	
121	11		4.7		77.5		
145.2	9.4		5		74		
150HR17 150VR17	74.4	20.3	1460	5.4	11	76	3
	124	17		7		81.5	
	148.8	16.4		8.4		79	
	68.4	17.5	1440	4.4	7.5	74	3
	114	14.5		5.7		79.5	
	136.8	12.5		6		77	
	64.8	15	1440	3.6	7.5	73	3
	108	12.5		4.7		78	
	129.6	10.7		5		75	
57	13	1440	2.8	5.5	71	3	
95	11		3.7		76		
114	9.3		3.9		74		
150HR31 150VR31	105	35	1470	13.5	22	74.2	2.9
	185	31		19.3		81	
	210	29		21.1		78.5	
	99.6	31.5	1470	11.5	18.5	74	2.8
	166	27		15.3		79.6	
	190	25.6		17.2		77	
	91.2	26.3	1460	8.9	15	73.5	2.6
	152	22.5		11.7		79.3	
	186.8	20.7		13.5		77.7	
84.6	21	1460	6.6	11	73.5	2.5	
141	18.5		9.2		77.5		
169.2	16		9.7		76		
150HR29 150VR29	103	30.8	1470	11.8	18.5	73	2.5
	141	29		13.9		80	
	185	26		16.6		79	
	80.4	29.5	1460	8.9	15	72.5	2.3
	134	25.5		12		77.6	
	160.8	24.5		13.9		77	
	78	23	1460	6.8	11	72	2.2
	125	21		9.2		77.3	
	140	20.5		10.3		76.2	
77	18.5	1460	5.4	11	72	2.2	
118	17		7.1		77		
145	15		8		74		
150HR52 150VR52	111	55	1480	25.2	45	66	4.1
	185	52		35.9		73	
	222	45		38.3		71	
	100.2	47	1480	20	37	64	3.8
	167	44		27.8		72	
	200.4	37.5		29.2		70	
	93	41	1470	16.5	30	63	3.6
	155	38		22.6		71	
	186	32		23.5		69	
81	34	1470	12.1	22	62	3.4	
135	30.3		16.1		69		
162	26		16.7		68.5		
150HR51 150VR51	97.2	55	1480	22.7	45	64	4.6
	162	52		31.9		72	
	194.4	46.3		36		68	
	85.2	46	1470	17.5	30	61	4.5
	142	44		24.6		69	
	170.4	39		27		67	
	78.6	39	1470	13.9	30	60	4.3
	131	37.5		20.1		66.5	
	157.2	33		22.1		64	
69	32.5	1470	10.2	18.5	60	4	
115	28.7		14.3		63		
138	25		15.3		61.5		

PERFORMANCE PARAMETERS:

PUMP MODEL	CAPACITY (m ³ /h)	HEAD (m)	SPEED (r/min)	POWER		EFF (%)	NPSHr (m)
				SHAFT	MOTOR		
200HR14 200VR14	164.4	18.7	1470	10.9	18.5	77	2.3
	274	14.8		12.9		85.5	
	328.8	12		13.1		82	
	144.6	16.4	1460	8.8	15	73	2.2
	241	13.2		10.2		84.5	
	289.2	10.8		10.4		82	
	138	14	1460	7.3	11	72	2.2
	230	10.6		8		82.5	
276	8.4	8.1		78			
125.4	11.6	1460	5.7	11	70	2	
209	8.7		6.4		77.5		
250.8	6.8		6.4		73		
200HR15 200VR15	142.8	19	1460	9.8	15	75	2.3
	238	15.1		11.6		84.5	
	285.6	12.6		11.9		82	
	127.2	16.8	1460	8.1	11	72	2.2
	212	13.5		9.3		84	
	254.4	11.6		9.8		82	
	123	14.2	1460	6.6	11	72	2.2
	205	11.5		7.8		82	
246	9.3	8		78			
117	11.8	1460	5.3	11	71	2	
195	9.1		6.2		78		
234	7.2		6.4		72		
200HR27 200VR27	161.4	31.5	1470	18.3	30	75.5	3.7
	269	27		23.5		84	
	322.8	23.5		25.2		82	
	145.8	25	1470	13.4	22	74	3.7
	243	22		17.7		82	
	291.6	19		18.9		80	
	133.8	22	1470	11.1	18.5	72	3.5
	223	18		13.7		80	
267.6	15.5	14.4		78.5			
121.2	18	1460	8.5	15	70	3.3	
202	14.2		10		78		
242.4	12		10.6		75		
200HR25 200VR25	144.6	28	1470	14.5	30	76	8
	241	25		19.8		83	
	289.2	21.5		21.2		80	
	130.8	25.2	1470	12.1	18.5	74	8
	218	21		15.2		82	
	261.6	17.5		15.8		79	
	117.6	20	1460	8.9	15	72	7.5
	196	17.5		11.8		79	
235.2	14.5	11.9		78			
103.8	17	1460	6.9	11	70	7.5	
173	13.7		8.5		76		
207.6	11.5		8.8		74		
200HR47 200VR47	186	54	1480	38	75	72	2.9
	310	50		52.7		80	
	372	46		59.7		78	
	168.6	45	1480	28.7	55	72	2.7
	281	42		40.7		79	
	337.2	36		42.9		77	
	153.6	35	1480	20.9	37	70	2.6
	256	31.5		28.1		78	
307.2	28	30.8		76			
138	29	1470	16	30	68	2.4	
230	26		21.4		76		
276	24		25		72		
200HR43 200VR43	166.2	48	1480	30	55	72.5	2.6
	277	43		41		79	
	332.4	38.5		45		77.5	
	151.2	42	1480	24.3	45	71	2.5
	252	37		32.5		78	
	302.4	33		35.3		77	
	136.2	34.5	1470	18.3	30	70	2.5
	227	30.5		24.5		77	
272.4	27	26.7		75			
118.8	27.5	1470	13.1	22	68	2.4	
198	24.5		17.4		76		
237.6	22		19.2		74		

PERFORMANCE PARAMETERS:

PUMP MODEL	CAPACITY (m ³ /h)	HEAD (m)	SPEED (r/min)	POWER		EFF (%)	NPSHr (m)
				SHAFT	MOTOR		
200HR76 200VR76	196.8	87	1480	63	110	74	2.3
	328	76		84.8		80	
	393.6	60		82.4		78	
	175.2	73		48.4		72	
	292	66.5	1480	67.3	90	78.5	3.3
	350.4	56		69.8		76.5	
	153.6	62		37		70	
	256	56		50.7		77	
307.2	46	1480	50.6	55	76	2.8	
138	52.5		29		68		
230	47		38.7		76		
276	37		37.6		74		
200HR69 200VR69	175.8	81	1480	53.1	110	73	4.6
	293	69.5		70.2		79	
	351.6	64		79.6		77	
	163.2	73		44.7		72.5	
	272	60.5	1480	57.4	75	78	4.3
	326.4	54.5		63.7		76	
	136.2	59		30.8		71	
	227	53		42.5		77	
272.4	43	1480	42.5	55	75	4.1	
121.2	52		25.2		68		
202	45		32.6		76		
242.4	40		36.2		73		
200HR21 200VR21	265.8	27	1480	25	37	78	3.7
	443	21		29.1		87	
	531.6	15.3		26.4		84	
	241.8	23		20.5		74	
	403	18	1470	23	30	86	3.6
	483.6	14		22.5		82	
	226.8	19		16.3		72	
	378	15		18.4		84	
453.6	12.5	1470	19.3	22	80	3.4	
209.4	16		13		70		
349	11.5		14.2		77		
418.8	8.5		13.1		74		
200HR20 200VR20	237.6	25.5	1480	21.7	30	76	3.8
	396	20.4		25.6		86	
	475.2	17		26.5		83	
	226.8	22.5		18.8		74	
	378	17	1470	20.6	30	85	3.6
	453.6	12		18.1		82	
	211.8	19.5		15.6		72	
	353	14.5		16.6		84	
423.6	9	1470	12.8	22	81	3.4	
198.6	16		12.4		70		
331	11.5		13		80		
397.2	9		13		75		
200HR38 200VR38	267.6	44	1480	42.2	75	76	4.3
	446	38		54.3		85	
	535.2	33.5		59.2		82.5	
	241.8	37		32.9		74	
	403	31	1480	41	55	83	4
	483.6	27		43.9		81	
	222.6	30		25.2		72	
	371	25		31.2		81	
445.2	21.5	1480	32.6	37	80	3.6	
198.6	26		20.1		70		
331	20		23.1		78		
397.2	17		23.9		77		
200HR35 200VR35	244.2	42.5	1480	37.2	55	76	4.9
	407	35		46.2		84	
	488.4	30		49.2		81	
	220.2	36		29.2		74	
	367	29.5	1480	35.9	45	82	4.7
	440.4	25		37.5		80	
	201	30		22.8		72	
	335	25		28.5		80	
402	21	1480	29.5	37	78	4.5	
175.2	25		17		70		
292	20.5		20.9		78		
350.4	17.5		22		76		

PERFORMANCE PARAMETERS:

PUMP MODEL	CAPACITY (m ³ /h)	HEAD (m)	SPEED (r/min)	POWER		EFF (%)	NPSHr (m)
				SHAFT	MOTOR		
200HR66 200VR66	309	76	1480	86.4	132	74	4.8
	515	66		112.8		82	
	618	59		124.1		80	
	283.2	62	1480	65.5	110	73	4.6
	472	54.5		86.5		81	
	566.4	48		94.9		78	
	259.2	50.5	1480	49.5	75	72	4.6
	432	43.5		63.9		80	
	518.4	37		68.7		76	
237.6	41	1480	37.9	55	70	4.5	
396	35		48.1		78.5		
475.2	28		50.3		72		
200HR60 200VR60	263.4	68	1480	65.9	110	74	3.4
	439	60		88.5		81	
	526.8	54		98		79	
	241.8	57	1480	52.1	90	72	3.3
	403	50		68.1		80.5	
	483.6	44		74.3		78	
	225	46	1480	40.3	75	70	3.1
	375	40		51		80	
	450	34.5		57.1		74	
194.4	37.5	1480	28.4	45	70	3.1	
324	33		37.3		78		
388.8	28		40		74		
200HR105 200VR105	349.8	123	1480	162.7	280	72	4.3
	583	105		208.3		80	
	699.6	93		227.1		78	
	330	107	1480	133.5	220	72	4.2
	550	88.5		167.7		79	
	660	78		184.4		76	
	309	87	1480	103.1	200	71	4.1
	515	75		134.8		78	
	618	67		150.3		75	
283.2	73	1480	80.4	132	70	4	
472	61.5		102.6		77		
566.4	53		111.9		73		
200HR90 200VR90	321.6	105	1480	125.9	220	73	4
	536	90		166.2		79	
	643.2	78		182.1		75	
	294	92	1480	102.3	200	72	3.8
	490	78		133.4		78	
	588	69		149.3		74	
	267.6	79	1480	81.1	160	71	3.7
	446	68.5		108		77	
	535.2	61		120.1		74	
241.8	67	1480	63	110	70	3.6	
403	57.5		83		76		
483.6	51		93.2		72		
250HR30 250VR30	417	37.5	1480	55.3	75	77	4
	695	30		65.2		87	
	834	25		67.2		84.5	
	388.8	32	1480	44.6	75	76	3.9
	648	25.5		52.3		86	
	777.6	20		52.3		81	
	360	26	1480	35.4	55	72	3.8
	600	22		42.8		84	
	720	17		42.2		79	
330	23	1480	29.5	37	70	3.8	
550	17		32.2		79		
660	13.5		31.9		76		
250HR28 250VR28	384	35	1480	46.9	75	78	4
	640	28		56.7		86	
	768	23		57.2		84	
	357	31	1480	39.6	55	76	3.9
	595	24.5		46.7		85	
	714	20		47.4		82	
	336	27	1480	33.4	45	74	3.8
	560	21		38.1		84	
	672	16.5		37.7		80	
309	22	1480	25.7	37	72	3.7	
515	17		29.1		82		
618	13.5		29.1		78		

PERFORMANCE PARAMETERS:

PUMP MODEL	CAPACITY (m ³ /h)	HEAD (m)	SPEED (r/min)	POWER		EFF (%)	NPSHr (m)
				SHAFT	MOTOR		
250HR52 250VR52	426	60	1480	89.2	160	78	4.9
	710	52		116.9		86	
	852	45		125.7		83	
	378	50.5	1480	68.4	110	76	4.7
	630	42.5		86.8		84	
	756	37.5		95.3		81	
	342	43	1480	54.1	90	74	4.6
	570	35.5		66.4		83	
	684	30		69.8		80	
306	36	1480	41.7	75	72	4.4	
510	28.5		48.8		81		
612	24		50.6		79		
250HR48 250VR48	390	57	1480	77.6	132	78	4
	650	48		99.9		85	
	780	41		104.9		83	
	351	48	1480	60.3	90	76	3.9
	585	40.5		76.8		84	
	702	34		80.2		81	
	318	41	1480	48	75	74	3.8
	530	34.5		60.7		82	
	636	28		61.4		79	
282	34	1480	36.3	55	72	3.7	
470	28		45.9		78		
564	24		47.9		77		
250HR91 250VR91	490	101	1480	180.6	315	74.6	7.8
	817	91		243.8		83	
	980	83		283.9		78	
	454	86	1480	143.1	250	74.3	7.5
	756	76.5		192		82	
	907	67		217.4		76.1	
	423	72	1480	111.9	185	74.1	7.4
	706	62.5		150.1		80	
	847	55		168		75.5	
389	56	1480	83.1	132	71.4	7.2	
648	47.5		106.7		78.5		
778	42		121		73.5		
250HR82 250VR82	441	94	1480	153.1	250	73.7	4.4
	734	81.7		199.1		82	
	881	73		229.8		76.2	
	417	80	1480	126	200	72.1	4.2
	695	68		158.8		81	
	834	62		185.2		76	
	393	64.5	1480	98.6	160	70	4
	655	55		122.6		80	
	786	47		134.6		74.7	
359	52	1480	73.4	110	69.2	3.8	
598	43.5		90.8		78		
717	37		99.9		72.3		
250HR150 250VR150	475	161.5	1480	290	560	72	8.2
	792	150		404.3		80	
	950	137		471.1		75.2	
	570	138	1480	299.5	450	71.5	8.1
	800	125		346.8		78.5	
	894	115		373.7		74.9	
	522	115.5	1480	230.8	315	71.1	8
	731	104.5		270.1		77	
	820	98		302.2		72.4	
391	100	1480	148.2	280	71.8	7.7	
653	88		205.8		76		
792	78		233.6		72		
250HR132 250VR132	478	145	1480	259.9	450	72.6	8.2
	731	132		332.5		79	
	880	121.5		383.5		75.9	
	447	126	1480	212.7	355	72.1	8
	718	112		278.9		78.5	
	795	102		299.1		73.8	
	435	104.5	1480	174.3	315	71	7.9
	591	99		204.2		78	
	850	82.5		264.8		72.1	
341	93	1480	124.4	250	69.4	7.7	
569	83		167		77		
683	72		189.6		70.6		

PERFORMANCE PARAMETERS:

PUMP MODEL	CAPACITY (m ³ /h)	HEAD (m)	SPEED (r/min)	POWER		EFF (%)	NPSHr (m)
				SHAFT	MOTOR		
300HR39 300VR39	631	47.5	1480	105.6	160	77.3	4.9
	1051	39		126.8		88	
	1261	33		138.8		81.6	
	596	41		87.5		76	
	994	33		103.8		86	
	1192	27.5		110.2		8	
	566	35		78.8		68.4	
	943	27		83.5		83	
	1132	22		85.9		78.9	
	523	27.5		64		61.2	
871	20	61.2	77.5				
1045	13.8	56	70.1				
300HR37 300VR37	618	46	1480	102	132	75.9	4.7
	1030	37		119.2		87	
	1236	31		129.7		80.4	
	581	41		86.5		75	
	968	32		98.1		86	
	1162	26		102.8		80	
	549	35		74.6		70.1	
	914	27		80		84	
	1097	22		83		79.2	
	510	30		63		66.1	
850	22	62.1	82				
1020	16	62	71.6				
300HR66 300VR66	704	77	1480	184.9	280	79.8	5.6
	1174	66		242.4		87	
	1408	57		260.1		84	
	648	65		152.9		75	
	1080	55		190.2		85	
	1296	47		204		81.3	
	601	54		122.7		72	
	1001	45.5		149.4		83	
	1201	37		160		75.6	
	557	46		102.9		67.8	
929	37.5	118.5	80				
1115	32	129.5	75				
300HR54 300VR54	648	68	1480	152	250	78.9	4.6
	1080	64.5		190.8		84	
	1296	45		199.9		79.4	
	584	57		124.6		72.7	
	976	47		151.4		82.5	
	1171	39		158		78.7	
	531	50		99.8		72.4	
	886	40.5		121.3		80.5	
	1063	34		126.1		78	
	482	43		80		70.5	
803	34.5	96.1	78.5				
963	28	99.9	73.5				
300HR116 300VR116	745	132	1480	339.7	560	78.8	7.5
	1242	116		466.9		84	
	1490	103		505.2		82.7	
	700	118		287.2		78.3	
	1166	100		380.1		83.5	
	1400	87		419.7		79	
	650	100		232.8		76	
	1084	83		295.1		83	
	1300	71		320.1		78.5	
	601	80.5		175.1		75.2	
1001	66	218	82.5				
1201	57	238.9	78				
300HR104 300VR104	626	120	1480	272.7	450	75	7
	1044	104		356.1		83	
	1253	91		389.9		79.6	
	579	104		221.5		74	
	965	90		286.6		82.5	
	1158	80		319.2		79	
	525	87		169.2		73.5	
	875	74.5		217.7		81.5	
	1050	65		237.3		78.3	
	480	72		128.9		73	
799	62	167.5	80.5				
959	56	193.9	75.4				

PERFORMANCE PARAMETERS:

PUMP MODEL	CAPACITY (m ³ /h)	HEAD (m)	SPEED (r/min)	POWER		EFF (%)	NPSHr (m)
				SHAFT	MOTOR		
350HR24 350VR24	659	33	1480	79	110	74.9	5.8
	1098	24.5		85.2		86	
	1318	20		88		81.5	
	626	27	1480	62.9	75	73.1	5.8
	1044	19.8		66.6		84.5	
	1253	15		63		81.2	
	605	22.5	1480	54	75	68.6	5.7
	1008	15.5		51.9		82	
	1210	11		47.7		76	
579	17.5	1480	42.4	55	65	5.6	
965	11.5		37.8		80		
1158	8		34.1		74		
350HR23 350VR23	562	29	1480	61	90	72.7	5.5
	936	23		68.9		85	
	1054	19		74.7		73	
	518	26	1480	51.9	75	70.6	5.5
	864	20		56		84	
	1037	14		49		80.6	
	480	22.5	1480	45	55	65.3	5.2
	799	16.7		44.8		81	
	959	13		44		77.2	
420	19	1480	38.1	45	57	5	
700	13.7		33.9		77		
840	12.5		40.8		70		
400HR53 400VR53	1007	64	1480	234.9	315	74.7	6.6
	1678	53		275.1		88	
	2013	46		299		84.3	
	946	56	1480	200	250	72.1	6.5
	1577	45		223.3		86.5	
	1892	37		231		82.5	
	886	47	1480	161	200	70.4	6.3
	1476	36.5		174.6		84	
	1771	28		174.9		77.2	
817	37	1480	134	160	61.4	6.2	
1361	27.5		129		79		
1633	21		125		74.7		
400HR51 400VR51	972	64	1480	216.8	315	78.1	6.5
	1620	51.5		259.6		87.5	
	1944	43		269.9		84.3	
	912	56	1480	180.1	250	77.2	6.2
	1519	45		215.1		86.5	
	1823	36		220.8		80.9	
	853	47	1480	152	200	71.8	6
	1422	37.5		172.8		84	
	1706	30		178.8		77.9	
799	39	1480	125.9	160	67.4	6	
1332	30.5		135.7		81.5		
1598	24		139.9		74.6		
400HR94 400VR94	1050	107	1480	382.3	630	80	7
	1750	94		520.7		86	
	2100	84		568.3		84.5	
	990	89	1480	307.5	500	78	7
	1650	76		399.3		85.5	
	1980	67		435.1		83	
	942	74	1480	249.7	400	76	6.8
	1570	62		311.7		85	
	1884	55		346.1		81.5	
906	62	1480	206.6	315	74	6.5	
1510	50		246.1		83.5		
1812	43		265.1		80		
400HR80 400VR80	930	95	1480	304.4	500	79	6.8
	1550	80		399.5		84.5	
	1860	75		460.3		82.5	
	870	81	1480	249.1	400	77	6.5
	1450	67		316.7		83.5	
	1740	57		333.3		81	
	816	70	1480	207.3	315	75	6.5
	1360	57		254.2		83	
	1632	50		277.7		80	
768	59	1480	171.3	250	72	6.2	
1280	47.5		201.8		82		
1536	41		217		79		

PERFORMANCE PARAMETERS:

PUMP MODEL	CAPACITY (m ³ /h)	HEAD (m)	SPEED (r/min)	POWER		EFF (%)	NPSHr (m)
				SHAFT	MOTOR		
400HR160 400VR160	1102	180	1480	670	1120	80.6	7.5
	1836	160		940.8		85	
	2070	151		1025.2		83	
	1041	152	1480	538.4	1000	80	7.4
	1735	136		759.3		84.6	
	2082	124		909.2		77.3	
	974	130	1480	430.9	710	80	7.3
	1624	112		587.4		84.3	
	1948	99		681.8		77	
922	107	1480	344.3	630	78	7.2	
1537	91		453.3		84		
1845	80		521.8		77		
400HR139 400VR139	1013	165	1480	603.5	1000	75.4	6.4
	1688	139		754.9		83.5	
	2026	119		820.4		80	
	944	142	1480	493.1	800	74	6.2
	1573	119		613.9		83	
	1888	106		689.6		79	
	871	117	1480	380	630	73	6.2
	1451	99		474		82.5	
	1741	87		528.6		78	
806	97	1480	293.6	450	72.5	6.1	
1343	81		361.1		82		
1611	67		384.1		76.5		
400HR32 400VR32	1039	42	1480	168	200	70.7	7.2
	1732	32		174.4		86.5	
	2078	24		175		77.6	
	1015	36	1480	142.9	160	69.6	7.1
	1692	26.5		143.6		85	
	2030	19		140.9		74.5	
	1050	30.5	1480	123.7	132	70.5	7
	1642	21		113.1		83	
	1886	15.5		107.5		74	
961	24.5	1480	91.6	110	70	6.9	
1420	19		90.7		81		
1720	12		79.1		71		
400HR31 400VR31	853	36	1480	115.3	160	72.5	6.3
	1422	31		142.9		84	
	1526	19.5		112.8		71.8	
	801	34	1480	104.1	132	71.2	6.3
	1336	26.3		113.9		84	
	1603	21		113		81.1	
	763	29	1480	88.1	110	68.4	6.7
	1271	22.5		94.9		82	
	1525	18		92.7		80.6	
713	24.5	1480	75	90	63.4	6.7	
1188	17.8		73.8		78		
1426	13		70		72.1		
450HR43 450VR43	1646	54.6	1480	326.2	450	75	9.5
	2743	43.5		371.2		87.5	
	3292	35		427.3		73.4	
	1581	46.2	1480	258.2	355	77	9.5
	2635	35		293.6		85.5	
	3162	27.6		337.9		70.3	
	1538	37.8	1480	201.1	280	78.7	9
	2563	27.5		228.4		84	
	3076	21		262.5		67	
1490	30.7	1480	158	220	78.8	9	
2484	21.5		179.5		81		
2981	16.3		206.7		64		
450HR42 450VR42	1339	53.4	1480	263	400	74	9
	2232	42		295		86.5	
	2678	34.2		343.4		72.6	
	1253	47.3	1480	213.4	315	75.6	9
	2088	36		242.2		84.5	
	2505.5	28.3		278.5		69.3	
	1192	39	1480	174.1	250	72.7	8.8
	1987	30		197.9		82	
	2384.5	22.6		227.4		64.5	
1114.5	33.2	1480	141.9	200	71	8.8	
1858	25		161.1		78.5		
2229	20		185.3		65.5		

PERFORMANCE PARAMETERS:

PUMP MODEL	CAPACITY (m ³ /h)	HEAD (m)	SPEED (r/min)	POWER		EFF (%)	NPSHr (m)
				SHAFT	MOTOR		
400HR70 400VR70	1566	85	1480	467	630	77.6	7
	2610	70		562		88.5	
	3132	60		600.4		85.2	
	1458	74	1480	398	560	73.8	6.5
	2430	60		456.2		87	
	2916	50		470.8		84.3	
	1339	64	1480	328.1	400	71.1	6
	2232	50		353.3		86	
	2678	42		369.8		82.8	
1242	52	1480	281.8	315	62.4	5.7	
2072	39		271.6		81		
2500	32		272.2		80		
400HR67 400VR67	1469	83	1480	418	560	79.4	6
	2448	67		507.4		88	
	2938	57		522.8		87.2	
	1361	73	1480	354.9	500	76.2	5.8
	2268	59.5		422.2		87	
	2722	49		427.7		84.9	
	1253	64	1480	297.8	400	73.3	5.7
	2088	50		334.4		85	
	2506	43		346.7		84.6	
1166	53	1480	253.7	315	66.3	5.6	
1944	41.5		264.6		83		
2333	34		269.9		80		
500HR75	2330	84.5	1480	624.7	800	85.8	7.5
	3080	75		714.6		88	
	3778	60		752.5		82	
	2250	81.5	1480	616.3	710	81	7.5
	2850	72.5		646.5		87	
	3420	63.5		698		84.7	
	2100	76.5	1480	539.9	630	81	7.5
	2640	67		559.9		86	
	3170	57		607.3		81	
1960	70.5	1480	464.4	560	81	7.5	
2450	63		494.3		85		
2940	54		540.2		80		