

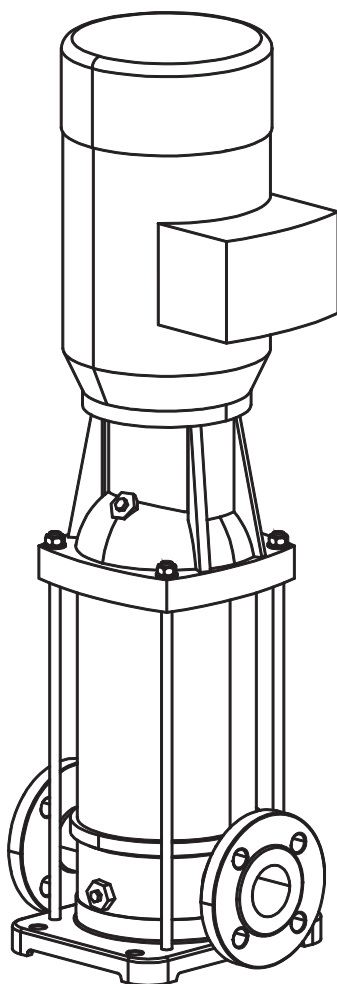


4710 SERIES

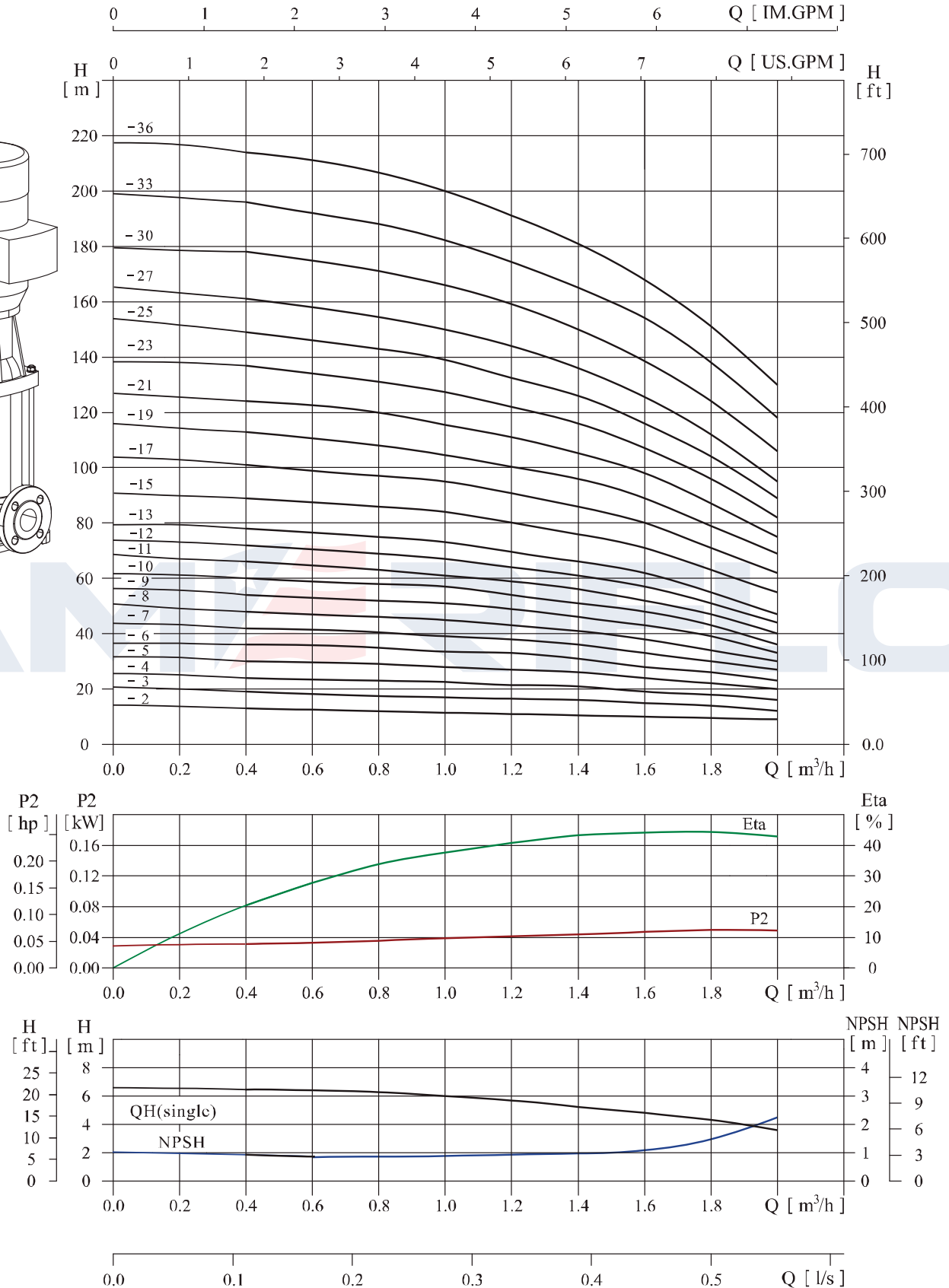
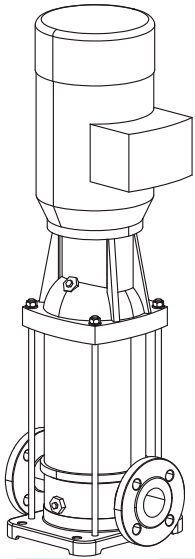
VERTICAL MULTISTAGE PUMPS

VM1

ENGINEERING INFORMATION



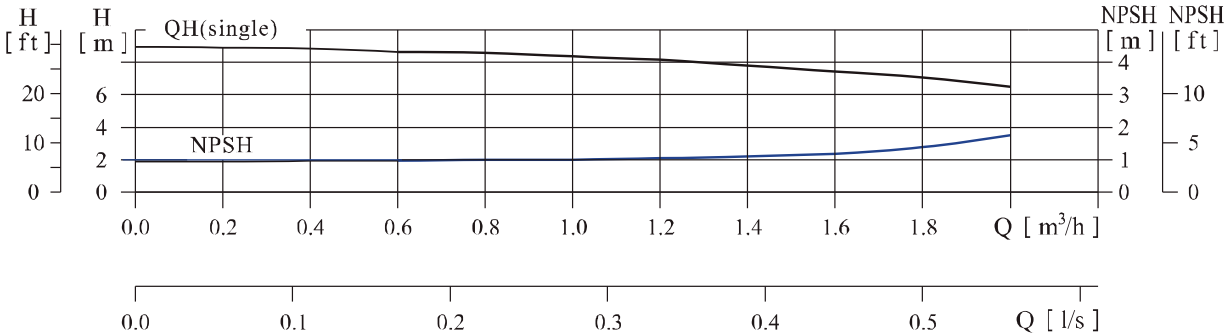
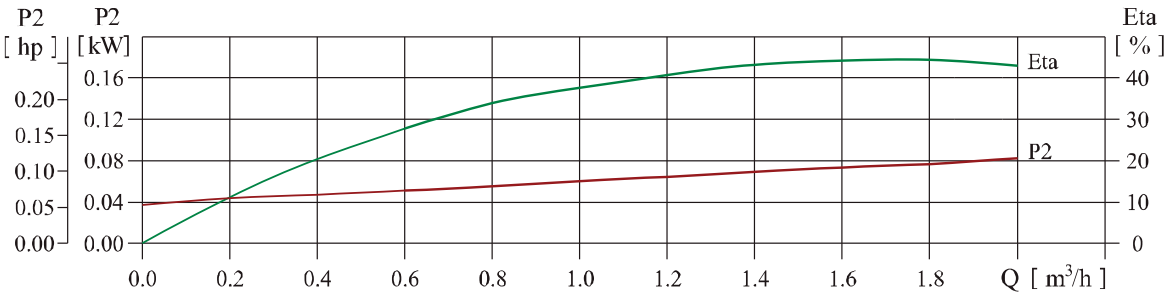
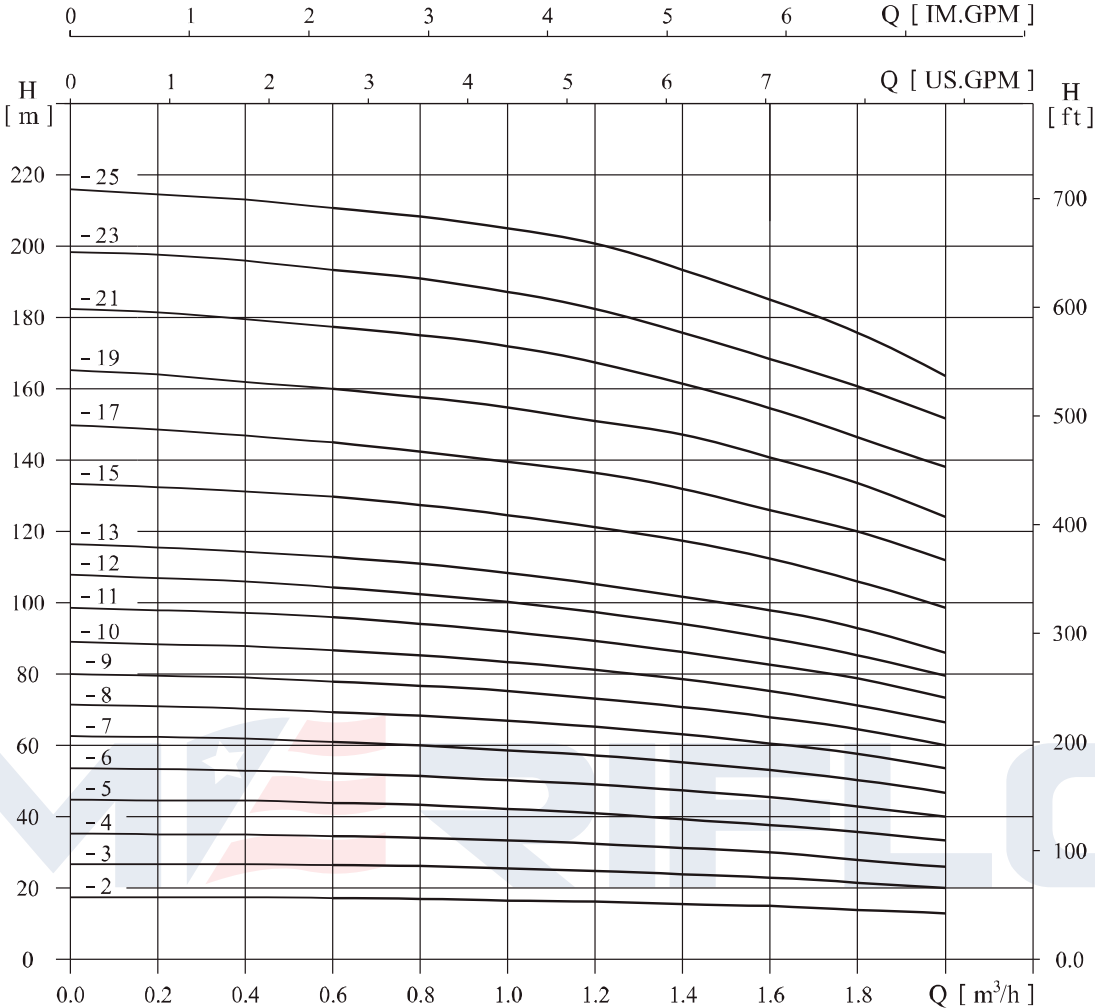
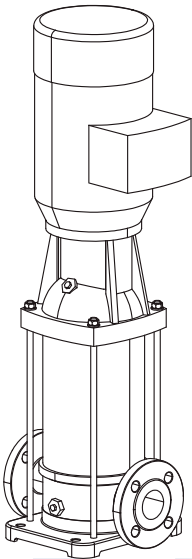
VM1 (1x1) 2900 RPM



MODEL VM1 - PERFORMANCE TABLE (2900 RPM)

MODEL	SPEED	MOTOR HP	FLOW GPM	1.5	2	2.5	5	7.5	10		
VM1-2	2900	0.5	HEAD (PSI)	18	18	18	16	13	13		
VM1-3		0.5		27	26	26	24	20	17		
VM1-4		0.5		34	33	33	32	26	23		
VM1-5		0.5		43	42	42	40	31	28		
VM1-6		0.5		51	50	50	48	37	33		
VM1-7		0.5		60	59	58	55	43	38		
VM1-8		0.75		68	67	67	64	48	43		
VM1-9		0.75		77	76	75	72	55	47		
VM1-10		0.75		85	84	84	81	61	51		
VM1-11		0.75		94	93	92	87	67	57		
VM1-12		1		102	101	101	95	72	62		
VM1-13		1		111	110	109	104	78	67		
VM1-15		1		126	125	125	119	89	78		
VM1-17		1.5		143	142	141	135	101	88		
VM1-19		1.5		160	158	156	151	112	98		
VM1-21		1.5		176	174	173	166	124	107		
VM1-23		1.5		195	188	186	182	136	116		
VM1-25		2		212	208	206	197	148	126		
VM1-27		2		229	226	223	213	159	135		
VM1-30		2		253	252	249	236	176	151		
VM1-33		3		278	275	273	260	195	168		
VM1-36		3		304	300	298	284	214	185		

VM1 (1x1) 3500 RPM

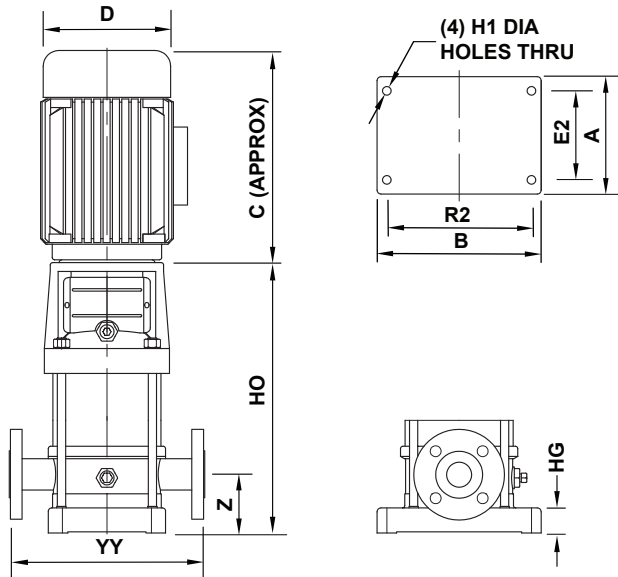


MODEL VM1 - PERFORMANCE TABLE (3500 RPM)

MODEL	SPEED	MOTOR HP	FLOW GPM	2.5	5	7.5	10				
VM1-2	3500	0.5	HEAD (PSI)	25	23	21	18				
VM1-3		0.5		38	36	31	28				
VM1-4		0.5		50	47	41	37				
VM1-5		0.75		61	58	52	47				
VM1-6		0.75		74	71	62	55				
VM1-7		1		85	82	72	65				
VM1-8		1		96	92	82	75				
VM1-9		1		108	105	92	85				
VM1-10		1.5		121	118	104	95				
VM1-11		1.5		135	128	113	104				
VM1-12		1.5		146	139	124	112				
VM1-13		1.5		159	152	134	122				
VM1-15		2		180	175	155	141				
VM1-17		2		205	197	173	159				
VM1-19		3		227	220	195	176				
VM1-21		3		251	244	202	196				
VM1-23		3		274	267	232	215				
VM1-25		5		298	291	241	232				

MODEL VM1 - VERTICAL MULTISTAGE, ELECTRIC NEMA MOTOR

GENERAL ARRANGEMENT DRAWING



FLANGE DRILLING STANDARD & DETAILS						
SUCT	250# ANSI		DISC	250# ANSI		
	SIZE	RF DIA	P.C.D	# HOLES	SIZE	
SUCT	1.00	2.000	3.500	4	0.625	
DISC	1.00	2.000	3.500	4	0.625	
FORCES (LBS) & MOMENTS (LB-Feet)						
	Fx	Fy	Fz	Mx	My	Mz
SUCT	160	130	200	340	170	260
DISC	160	130	200	340	170	260

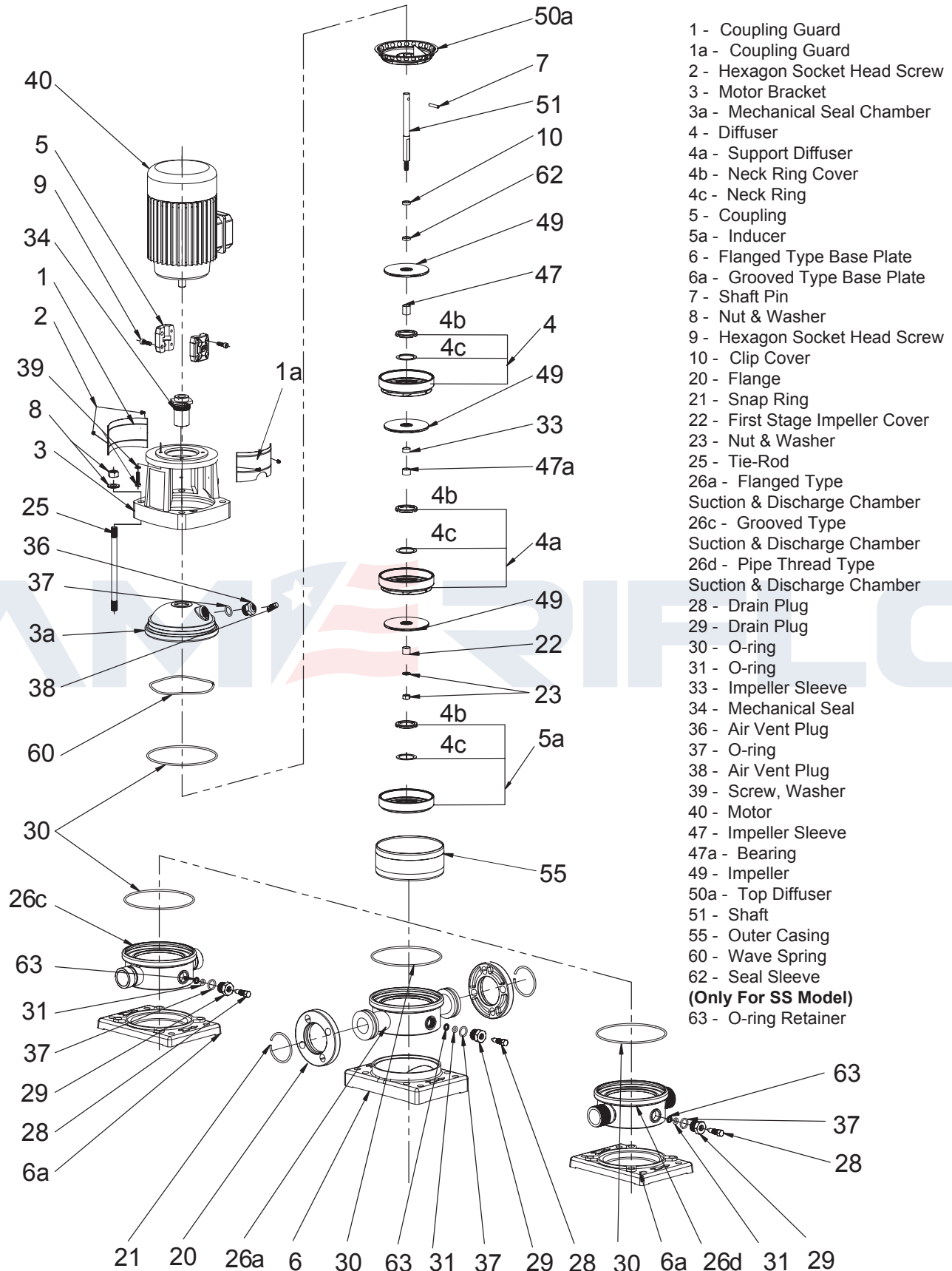
VM1

MODEL	SPEED RPM	A	B	C	D	E2	H1	HG	HO	R2	YY	Z	WEIGHT LBS
VM1-2	2900 3500	8.250	5.938	8.875	5.813	7.000	0.500	1.250	1.0188	3.938	9.875	2.938	44
VM1-3		8.250	5.938	8.875	5.813	7.000	0.500	1.250	10.875	3.938	9.875	2.938	44
VM1-4		8.250	5.938	8.875	5.813	7.000	0.500	1.250	11.625	3.938	9.875	2.938	46
VM1-5		8.250	5.938	8.875	5.813	7.000	0.500	1.250	12.250	3.938	9.875	2.938	46
VM1-6		8.250	5.938	8.875	5.813	7.000	0.500	1.250	13.000	3.938	9.875	2.938	49
VM1-7		8.250	5.938	8.875	5.813	7.000	0.500	1.250	13.750	3.938	9.875	2.938	51
VM1-8		8.250	5.938	8.875	5.813	7.000	0.500	1.250	14.438	3.938	9.875	2.938	53
VM1-9		8.250	5.938	8.875	5.813	7.000	0.500	1.250	15.125	3.938	9.875	2.938	55
VM1-10		8.250	5.938	8.875	5.813	7.000	0.500	1.250	15.813	3.938	9.875	2.938	57
VM1-11		8.250	5.938	8.875	5.813	7.000	0.500	1.250	16.500	3.938	9.875	2.938	57
VM1-12		8.250	5.938	9.625	6.625	7.000	0.500	1.250	17.625	3.938	9.875	2.938	64
VM1-13		8.250	5.938	9.625	6.625	7.000	0.500	1.250	18.375	3.938	9.875	2.938	66
VM1-15		8.250	5.938	9.625	6.625	7.000	0.500	1.250	19.750	3.938	9.875	2.938	68
VM1-17		8.250	5.938	9.625	6.625	7.000	0.500	1.250	21.188	3.938	9.875	2.938	73
VM1-19		8.250	5.938	9.625	6.625	7.000	0.500	1.250	22.625	3.938	9.875	2.938	75
VM1-21		8.250	5.938	9.625	6.625	7.000	0.500	1.250	24.000	3.938	9.875	2.938	77
VM1-23		8.250	5.938	9.625	6.625	7.000	0.500	1.250	25.438	3.938	9.875	2.938	79
VM1-25		8.250	5.938	11.413	7.500	7.000	0.500	1.250	27.250	3.938	9.875	2.938	93
VM1-27		8.250	5.938	11.413	7.500	7.000	0.500	1.250	28.625	3.938	9.875	2.938	95
VM1-30		8.250	5.938	11.413	7.500	7.000	0.500	1.250	30.750	3.938	9.875	2.938	99
VM1-33		8.250	5.938	11.413	7.500	7.000	0.500	1.250	32.938	3.938	9.875	2.938	108
VM1-36		8.250	5.938	11.413	7.500	7.000	0.500	1.250	35.000	3.938	9.875	2.938	112

NOTES:

ALL DIMENSIONS ARE IN INCHES AND MAY VARY ±0.375 INCHES.

THIS DRAWING IS NOT TO BE USED FOR CONSTRUCTION UNLESS CERTIFIED BY AMERIFLO.

MODEL VM1 - SECTIONAL VIEW

MODEL VM1 - SECTIONAL VIEW PART REFERENCE

ITEM NUMBER	PART NAME	MATERIAL	
		VM (304SS)	VM (316 SS)
1 & 1a	Coupling Guard	304 SS (EN 1.4301)	
2	Hexagon Socket Head Screw	A2-70 UNI 7323	
3	Motor Bracket	304 SS (EN 1.4301)	316 SS (EN 1.4401)
3a	Mechanical Seal Chamber		
4	Diffuser	304 SS (EN 1.4301)	316 SS (EN 1.4401)
4a	Support Diffuser	304 SS (EN 1.4301)	316 SS (EN 1.4401)
4b	Neck Ring Base Assembly	304 SS (EN 1.4301)	316 SS (EN 1.4401)
5	Coupling	Die Cast Aluminum EN AB-AISI11Cu ₂ (Fe)	
5a	Inducer	304 SS (EN 1.4301)	316 SS (EN 1.4401)
6	Flanged Type Base Plate	Die Cast Aluminum EN AB-AISI11Cu ₂ (Fe)	
6a	Grooved Type Base Plate	Die Cast Aluminum EN AB-AISI11Cu ₂ (Fe)	
7	Shaft Pin	304 SS (EN 1.4301)	316 SS (EN 1.4401)
8	Nut (M8) & Washer (M8)	A2-70 UNI 7323	
9	Hexagon Socket Head Screw	A2-70 UNI 7323	
10	Clip Cover	304 SS (EN 1.4301)	316 SS (EN 1.4401)
20	Flange	Cast Iron	
21	Snap Ring	304 SS (EN 1.4301)	
22	First Stage Impeller Cover	304 SS (EN 1.4301)	316 SS (EN 1.4401)
23	Nut (M8) & Washer (M8)	A2-70 UNI 7323	
25	Tie-Rod	Galvanized Steel 6.8 Strength Class ISO 898/1	
26a	Flanged Type Suction & Discharge Chamber	304 SS (EN 1.4301)	316 SS (EN 1.4401)
26c	Grooved Type Suction & Discharge Chamber	304 SS (EN 1.4301)	316 SS (EN 1.4401)
26d	Pipie Thread Type Suction & Discharge Chamber	304 SS (EN 1.4301)	316 SS (EN 1.4401)
28	Drain Plug (M10)	304 SS (EN 1.4301)	316 SS (EN 1.4401)
29	Drain Plug	304 SS (EN 1.4301)	316 SS (EN 1.4401)
30	O-Ring	FPM	
31	O-Ring	FPM	
33	Impeller Sleeve	Tungsten Carbide	
34	Mechanical Seal	Silicon Carbide / Carbon / FPM	
36	Air Vent Plug	304 SS (EN 1.4301)	316 SS (EN 1.4401)
37	O-Ring	FPM	
38	Air Vent Plug	304 SS (EN 1.4301)	316 SS (EN 1.4401)
39	Screw & Washer	Galvanized Steel	
40	Motor	Refer To Motor Manufacturer	
47	Impeller Sleeve	Tungsten Carbide	
47a	Bearing	Tungsten Carbide	
49	Impeller	304 SS (EN 1.4301)	316 SS (EN 1.4401)
50a	Top Diffuser	304 SS (EN 1.4301)	316 SS (EN 1.4401)
51	Shaft	304 SS (EN 1.4301)	316 SS (EN 1.4401)
55	Outer Casing	304 SS (EN 1.4301)	316 SS (EN 1.4401)
60	Wave Spring	A2-70 UNI 7323	
62	Seal Sleeve	Tungsten Carbide	
63	O-ring Retainer	304 SS (EN 1.4301)	316 SS (EN 1.4401)

MODEL VM1 - ENGINEERING INFORMATION

PUMP MODEL	OPERATING TEMPERATURE RANGE	MECHANICAL SEAL TYPE	MECHANICAL SEAL MATERIAL				
			ROTATING FACE	STATIONARY FACE	ELASTOMERS	SPRING	COLLAR
VM1	+5°F TO +248°F [-15°C TO +120°C]	BALANCED	SILICON CARBIDE	CARBON	FPM	316 SS	316 SS

RATED FLOW:	4.4 GPM [1 M ³ /HR]
FLOW RANGE:	2.6 - 8.8 GPM [0.6 - 2 M ³ /HR]
MAXIMUM PRESSURE:	319 PSI [22 BAR]
MAXIMUM POWER:	0.50 - 4 HP [0.37 - 3 KW]
MAXIMUM EFFICIENCY:	44%

