



Always *producing*

International ESP Systems and Solutions

CATALOG
2019

Table of Contents

SECTION	PAGE
Pumps	5
Intakes & Discharge Heads	45
Motors	51
Protectors	65
Gauges	69
Cable	73
Power Delivery Systems	79
Accessories	85

Pump Section Contents

PUMPS	PAGE
SPECTRUM 338 Series	
WA-550	7
WA-900	8
WA-1200	9
WA-1500	10
SPECTRUM 400 Series	
WD-150	11
WD-450	12
WD-650	13
WD-850	14
WD-1000	15
WD-1750	16
WD-3000	17
WD-4300	18
WD-6000	19
SPECTRUM 513 Series	
WG-1600	20
WG-2500	21
WG-4000	22
WG-5600	23
WG-10000	24
SPECTRUM 538 Series	
WE-1500	25
WE-2600	26

PUMPS	PAGE
SPECTRUM 538 Series	
WE-3600	27
WE-5500	28
WE-7000	29
WE-8500	30
WE-11000	31
SPECTRUM 562 Series	
WH-15000	32
WH-20000	33
WH-30000	34
SPECTRUM 675 Series	
WJ-9000	35
WJ-12000	36
WJ-16000	37
SPECTRUM 862 Series	
WM-520	38
WM-675	39
SPECTRUM 950 Series	
WN-1050	40
SPECTRUM 1000 Series	
WP-1000	41
WP-1200	42
SPECTRUM 1100 Series	
WQ-1800	43

Always focused



Within artificial lift Alkhorayef is the international specialist for ESP systems and solutions. With a dedication to reducing deferment and downtime, **we're here to keep every well productive.**

ALWAYS PERFORMING

SPECTRUM

High-performance ESP systems

The depth of our portfolio meets any – and every – ESP requirement. We offer the full set of casing sizes, and accommodate the broadest range of flow rates and equipment dimensions.

Fit-for-purpose SPECTRUM systems maximize and maintain production from a variety of well and reservoir conditions, efficiently and reliably.

ALWAYS ENDURING

SPECTRUM *Advance*

ESP solutions engineered for demanding requirements

Every day these tailor-made ESP solutions are at work in the toughest production environments on the planet, including sour gas, deep, ultra-slim wells and high viscosity hydrocarbons.

Expertly configured for harsh conditions, SPECTRUM ADVANCE solutions overcome these challenges to extract the greatest value throughout each well's life.



Always *available*

Wherever you operate, getting the most from your ESP relies on having consistent access to knowledgeable personnel and regional specialists. Our network of ESP service centers are located close to producing fields, and staffed by technicians recruited from the surrounding area.

WE RESPOND TO REQUESTS FASTER

Whether online, over the phone or in person we make getting back to customers our number one priority.

WE SOLVE TECHNICAL CHALLENGES SOONER

Our specialists have the skills and resources at hand to solve even the toughest lifting problems on your timescale.

WE BRING WELLS BACK ONLINE EARLIER

Alkhorayef teams work with you to reach production faster and get wells generating revenues.

WE OVERCOME PHYSICAL WELL CONSTRAINTS

Install and operate where space is limited and along extended reach wells.

ALWAYS ADVANCING

Our SPECTRUM High Performance ESP systems can be configured to answer the majority of production requirements. Yet there will always be projects with additional technical demands.

Through our SPECTRUM ADVANCE tailored engineering services, Alkhorayef responds to clients' unique application requirements, developing innovative engineered solutions that address more advanced challenges.

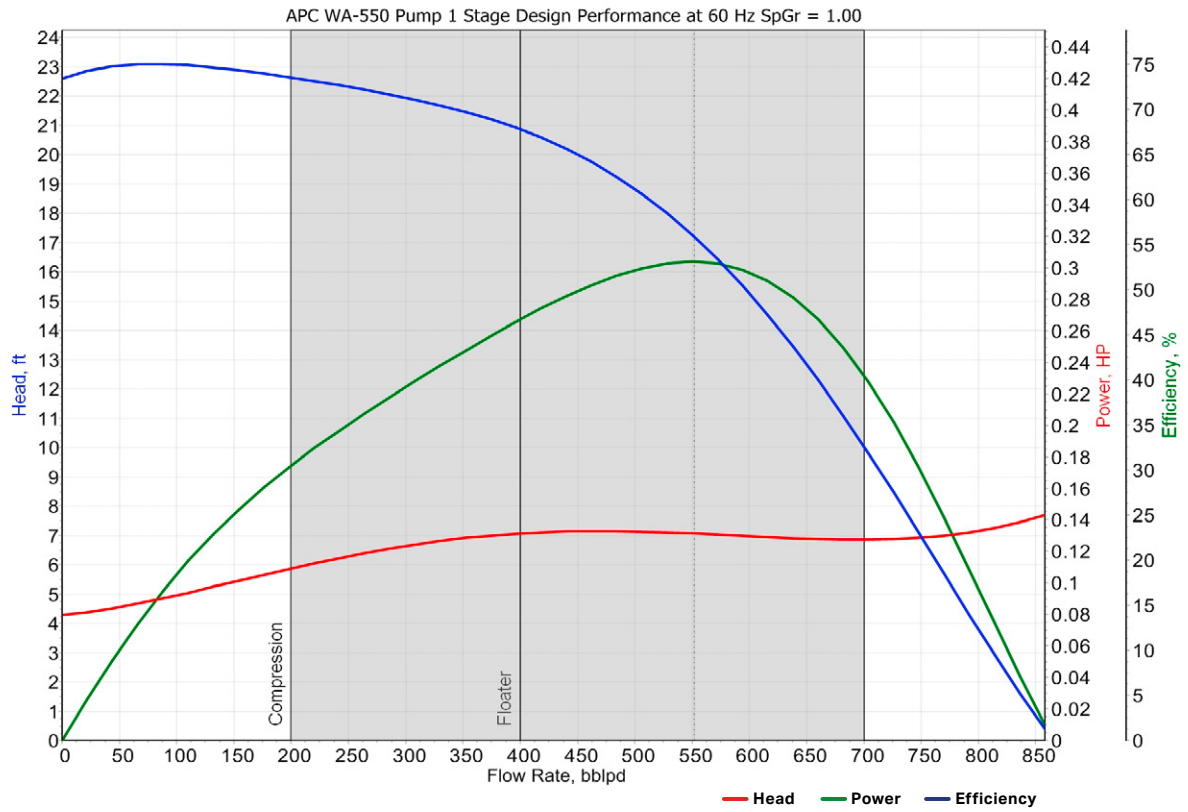


 **SPECTRUM**
Pumps



WA-550

338 series



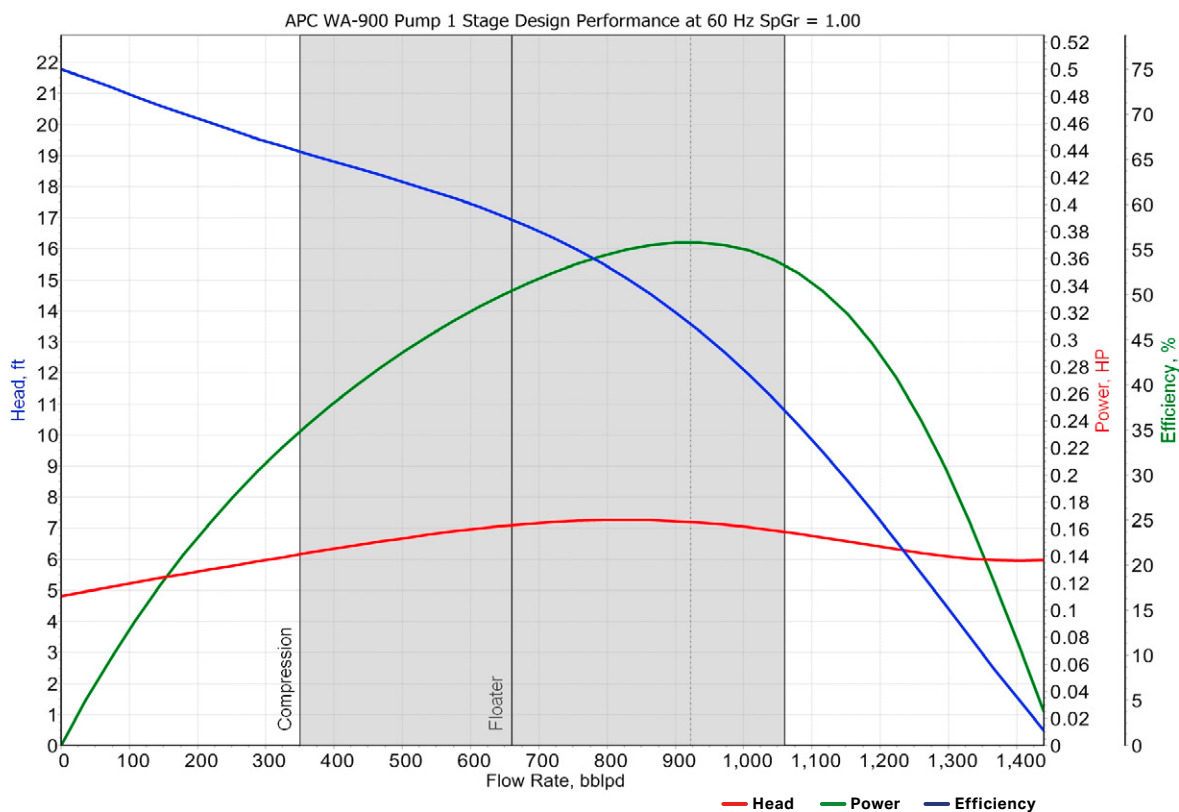
Optimum operating range	200 to 700 BPD
BEP flow rate	552 BPD
Housing diameter	3.38 In.
Minimum casing size	4.5 In.
Shaft diameter	0.625 In.
Standard shaft limit @ 60Hz	94 HP
High strength shaft limit @ 60Hz	150 HP
Ultra high strength shaft limit @ 60Hz	188 HP

Floater operating range	400 to 700 BPD
Fluid specific gravity	1
Rotational direction	CCW
Housing pressure limit	5,000 PSI
High pressure housing limit	6,000 PSI
Stage type	Radial

Housing	Standard Stages	Length		Weight	
	Floater	ft	m	lbs	kg
10	16	2.1	0.6	38	17
20	35	3.5	1.1	63	29
30	54	4.9	1.5	88	40
40	74	6.3	1.9	107	49
50	93	7.8	2.4	141	64
60	112	9.1	2.8	167	76
70	132	10.5	3.2	193	88
80	151	11.9	3.6	219	99
90	170	13.3	4.1	245	111
100	190	14.8	4.5	271	123

WA-900

338 series



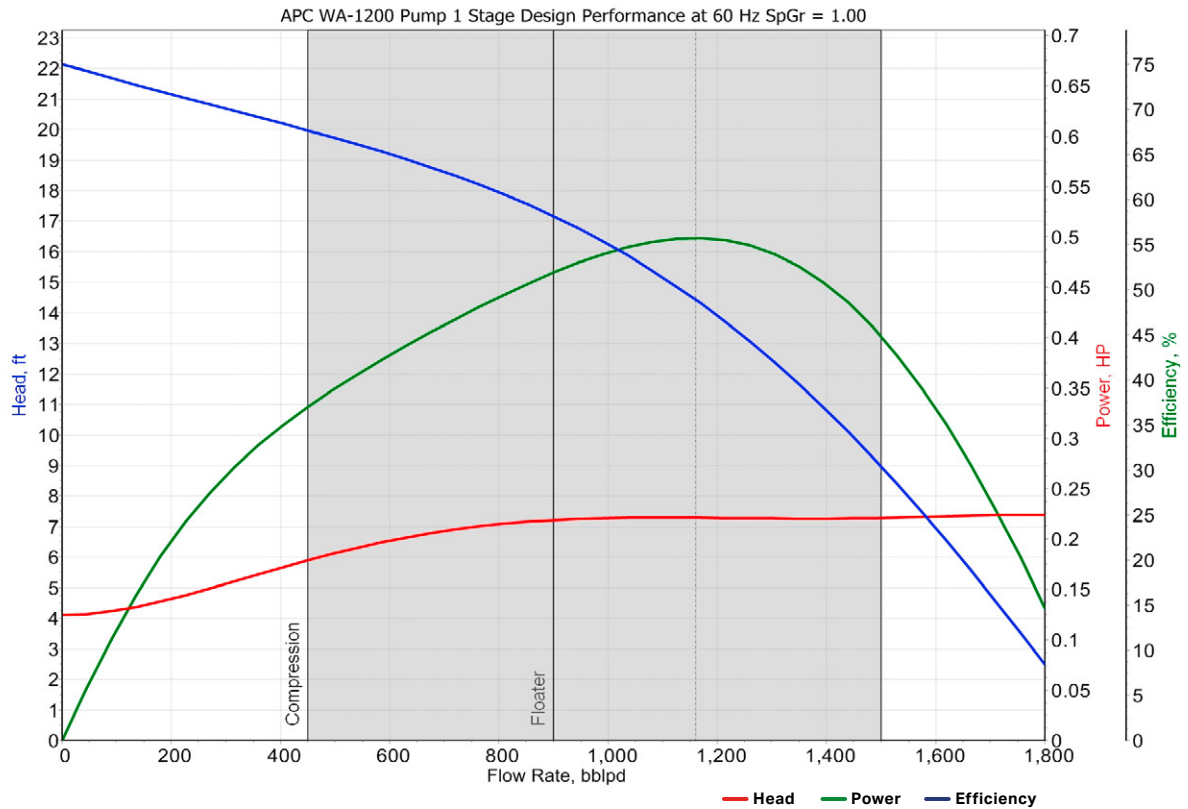
Optimum operating range	350 to 1,060 BPD
BEP flow rate	922 BPD
Housing diameter	3.38 In.
Minimum casing size	4.5 In.
Shaft diameter	0.625 In.
Standard shaft limit @ 60Hz	94 HP
High strength shaft limit @ 60Hz	150 HP
Ultra high strength shaft limit @ 60Hz	188 HP

Floater operating range	660 to 1,060 BPD
Fluid specific gravity	1
Rotational direction	CCW
Housing pressure limit	5,000 PSI
High pressure housing limit	6,000 PSI
Stage type	Radial

Housing	Standard Stages	Length		Weight	
		ft	m	lbs	kg
10	16	2.1	0.6	38	17
20	35	3.5	1.1	63	29
30	54	4.9	1.5	88	40
40	74	6.3	1.9	107	49
50	93	7.8	2.4	141	64
60	112	9.1	2.8	167	76
70	132	10.5	3.2	193	88
80	151	11.9	3.6	219	99
90	170	13.3	4.1	245	111
100	190	14.8	4.5	271	123

WA-1200

338 series



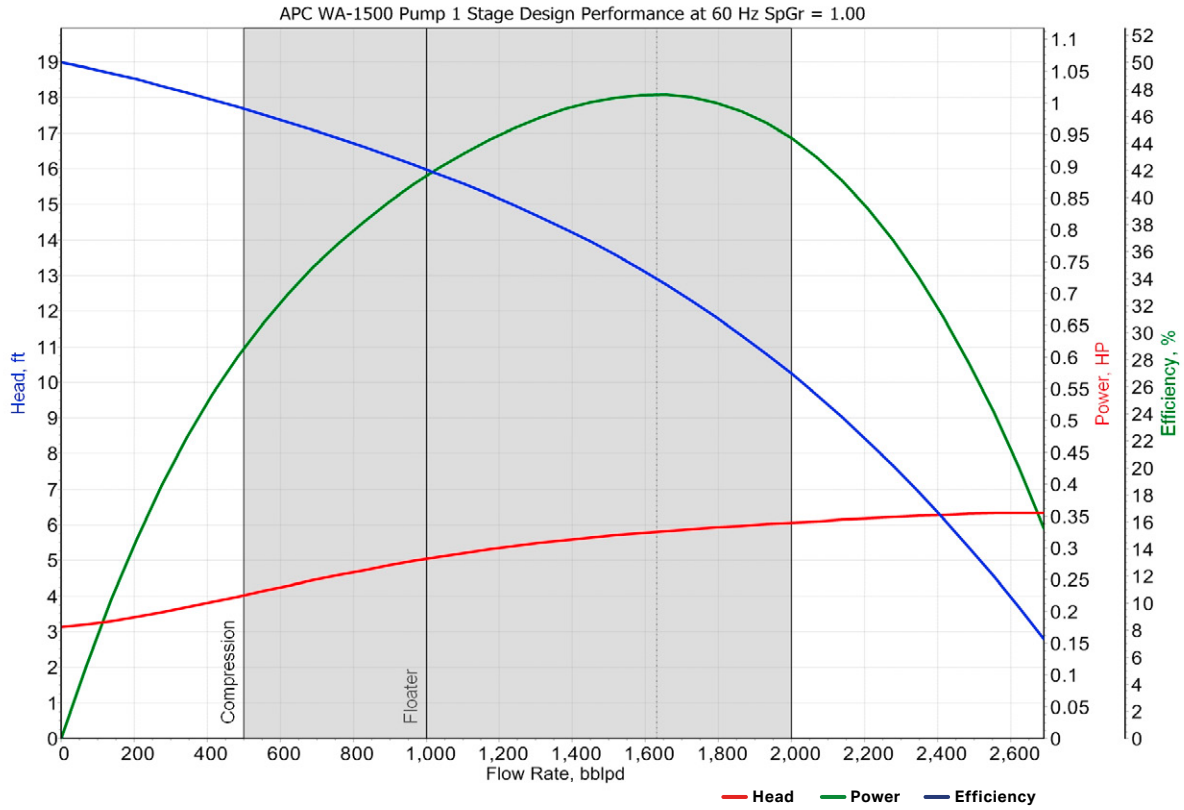
Optimum operating range	450 to 1,500 BPD
BEP flow rate	1,160 BPD
Housing diameter	3.38 In.
Minimum casing size	4.5 In.
Shaft diameter	0.625 In.
Standard shaft limit @ 60Hz	94 HP
High strength shaft limit @ 60Hz	150 HP
Ultra high strength shaft limit @ 60Hz	188 HP

Floater operating range	900 to 1,500 BPD
Fluid specific gravity	1
Rotational direction	CCW
Housing pressure limit	5,000 PSI
High pressure housing limit	6,000 PSI
Stage type	Radial

Housing	Standard Stages	Length		Weight	
	Floater	ft	m	lbs	kg
10	13	2.1	0.6	35	16
20	27	3.5	1.1	57	26
30	45	4.9	1.5	81	37
40	61	6.3	1.9	104	47
50	77	7.8	2.4	128	58
60	93	9.1	2.8	152	69
70	108	10.5	3.2	174	79
80	124	11.9	3.6	193	88
90	140	13.3	4.1	221	100
100	156	14.8	4.5	244	111

WA-1500

338 series



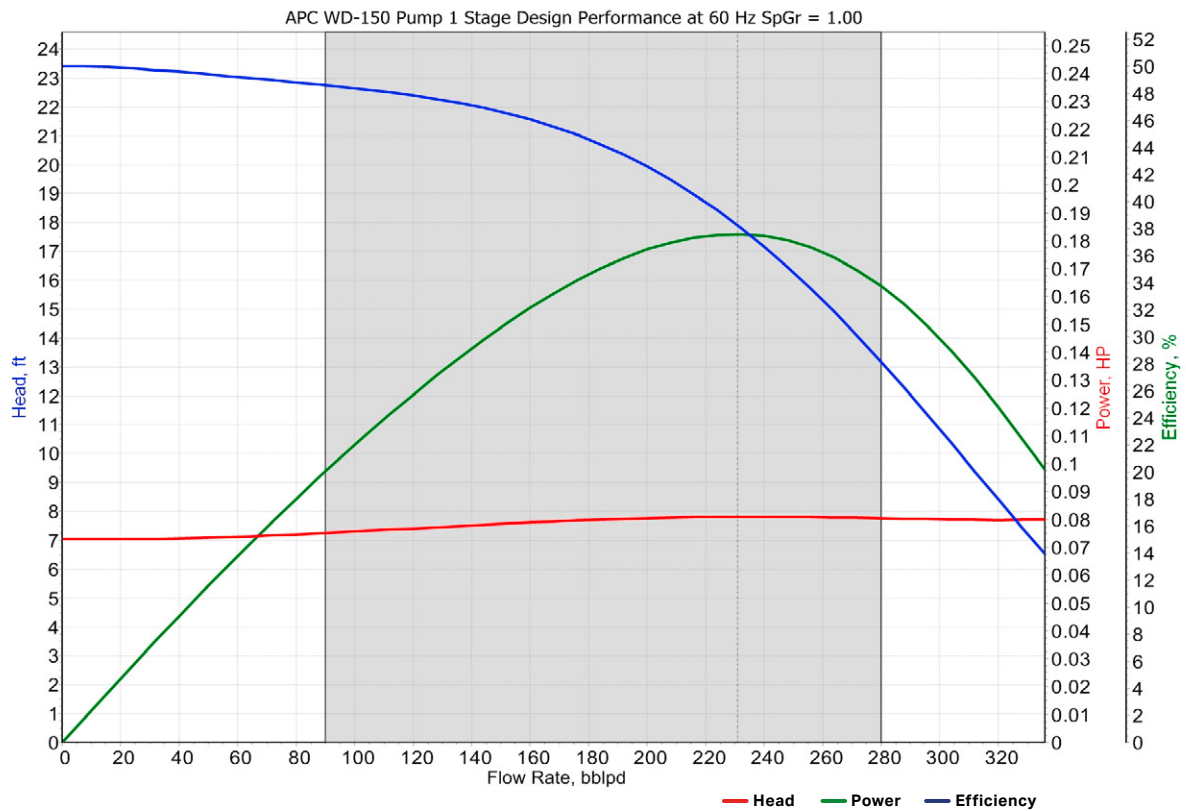
Optimum operating range	500 to 2,000 BPD
BEP flow rate	1,630 BPD
Housing diameter	3.38 In.
Minimum casing size	4.5 In.
Shaft diameter	0.688 In.
Standard shaft limit @ 60Hz	125 HP
High strength shaft limit @ 60Hz	200 HP
Ultra high strength shaft limit @ 60Hz	250 HP

Floater operating range	1,000 to 2,000 BPD
Fluid specific gravity	1
Rotational direction	CCW
Housing pressure limit	5,000 PSI
High pressure housing limit	6,000 PSI
Stage type	Radial

Housing	Standard Stages	Length		Weight	
	Floater	ft	m	lbs	kg
10	10	2.1	0.6	38	17
20	23	3.5	1.1	65	29
30	35	4.9	1.5	91	41
40	48	6.3	1.9	118	54
50	60	7.8	2.4	145	66
60	73	9.1	2.8	172	78
70	85	10.5	3.2	198	90
80	96	11.9	3.6	226	103
90	110	13.3	4.1	252	114
100	123	14.8	4.5	279	127

WD-150

400 series



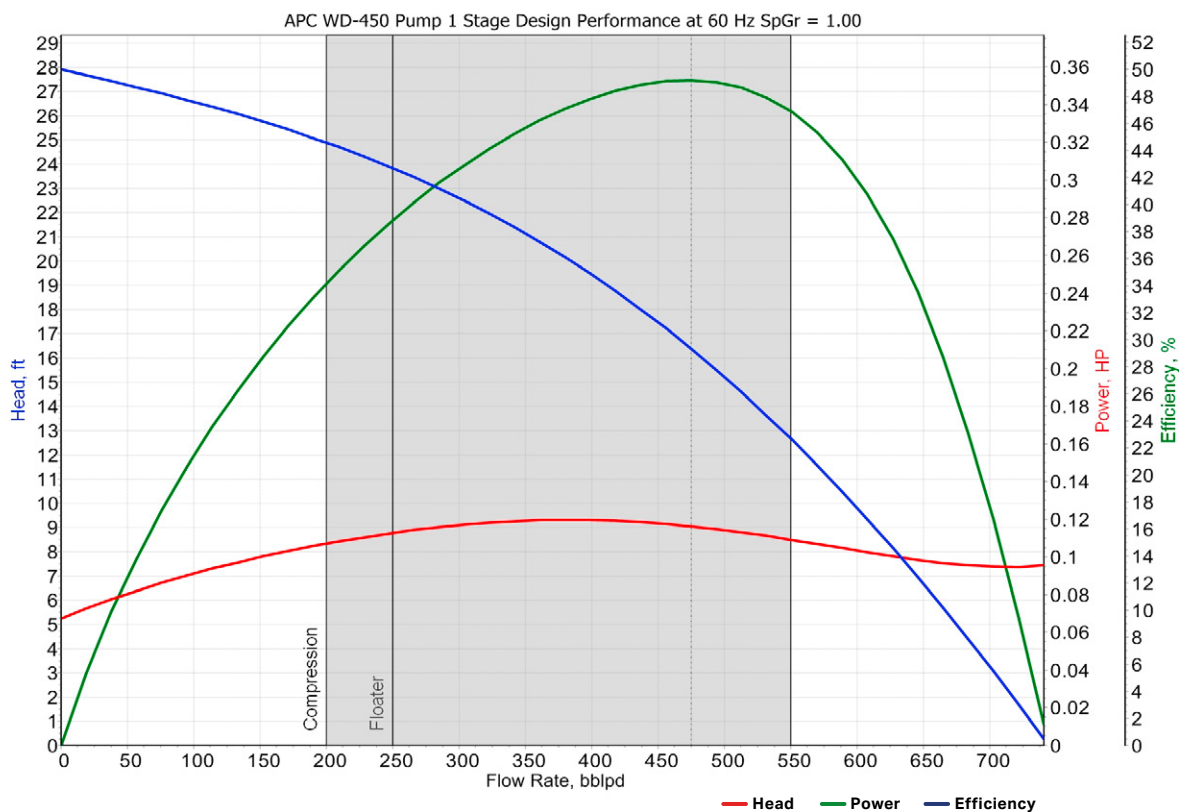
Optimum operating range	90 to 280 BPD
BEP flow rate	231 BPD
Housing diameter	4.00 In.
Minimum casing size	5.5 In.
Shaft diameter	0.625 In.
Standard shaft limit @ 60Hz	94 HP
High strength shaft limit @ 60Hz	150 HP
Ultra high strength shaft limit @ 60Hz	188 HP

Floater operating range	90 to 280 BPD
Fluid specific gravity	1
Rotational direction	CCW
Housing pressure limit	5,000 PSI
High pressure housing limit	6,000 PSI
Stage type	Radial

Housing	Standard Stages	Length		Weight	
	Floater	ft	m	lbs	kg
10	2.1	0.6	44	20	19
20	3.5	1.1	74	34	40
30	4.9	1.5	105	48	60
40	6.3	1.9	135	61	81
50	7.8	2.4	166	75	102
60	9.2	2.8	196	89	122
70	10.6	3.2	226	103	143
80	12	3.7	257	117	164
90	13.4	4.1	287	130	184
100	14.8	4.5	318	144	205
110	16.2	4.9	348	158	226
120	17.6	5.4	378	171	247

WD-450

400 series



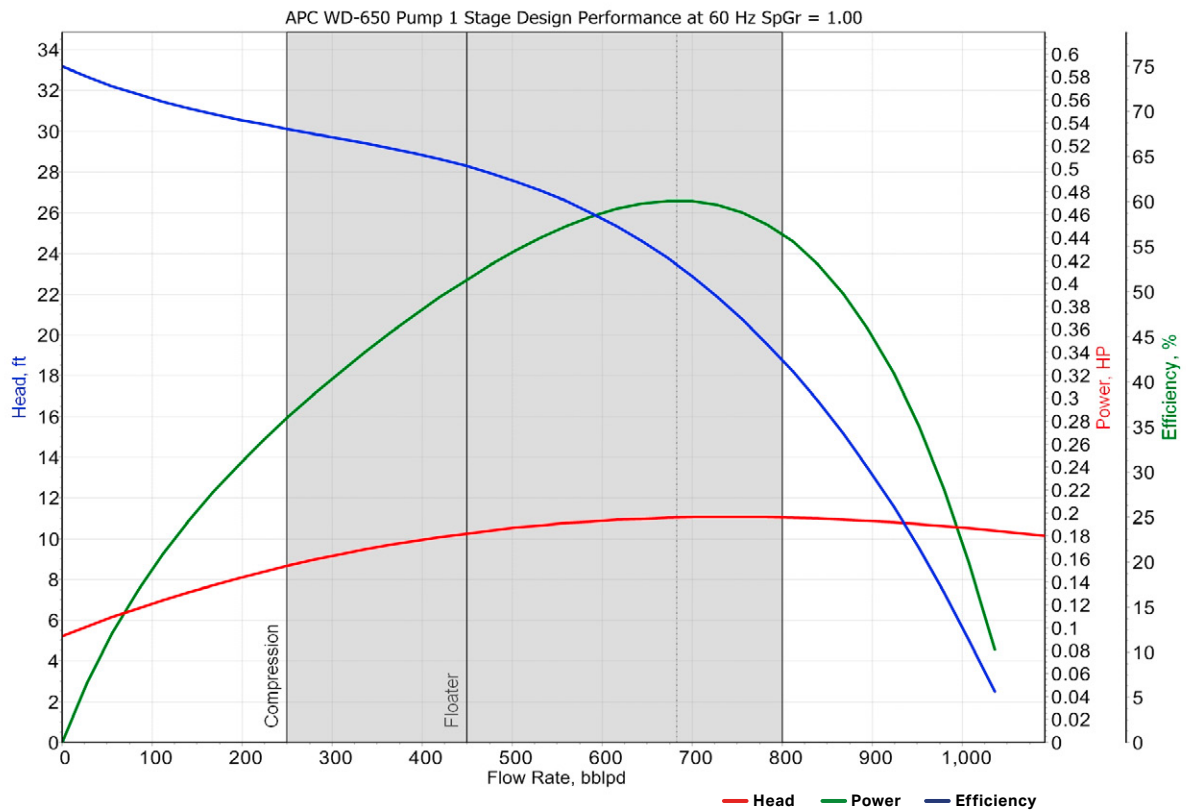
Optimum operating range	200 to 550 BPD
BEP flow rate	475 BPD
Housing diameter	4.00 In.
Minimum casing size	5.5 In.
Shaft diameter	0.625 In.
Standard shaft limit @ 60Hz	94 HP
High strength shaft limit @ 60Hz	150 HP
Ultra high strength shaft limit @ 60Hz	188 HP

Floater operating range	250 to 550 BPD
Fluid specific gravity	1
Rotational direction	CCW
Housing pressure limit	5,000 PSI
High pressure housing limit	6,000 PSI
Stage type	Radial

Housing	Standard Stages		Abrasion Resistant		Length		Weight	
	Floater	Compression	Floater	Compression	ft	m	lbs	kg
10	18	16	17	15	2.1	0.6	44	20
20	37	35	35	33	3.5	1.1	74	34
30	56	55	52	51	4.9	1.5	105	48
40	75	74	70	69	6.3	1.9	135	61
50	95	93	88	86	7.8	2.4	166	75
60	114	112	106	104	9.2	2.8	196	89
70	133	-	123	122	10.6	3.2	226	103
80	152	-	141	140	12	3.7	257	117
90	172	-	159	157	13.4	4.1	287	130
100	191	-	177	175	14.8	4.5	318	144
110	210	-	194	192	16.2	4.9	348	158
120	229	-	212	211	17.6	5.4	378	171

WD-650

400 series



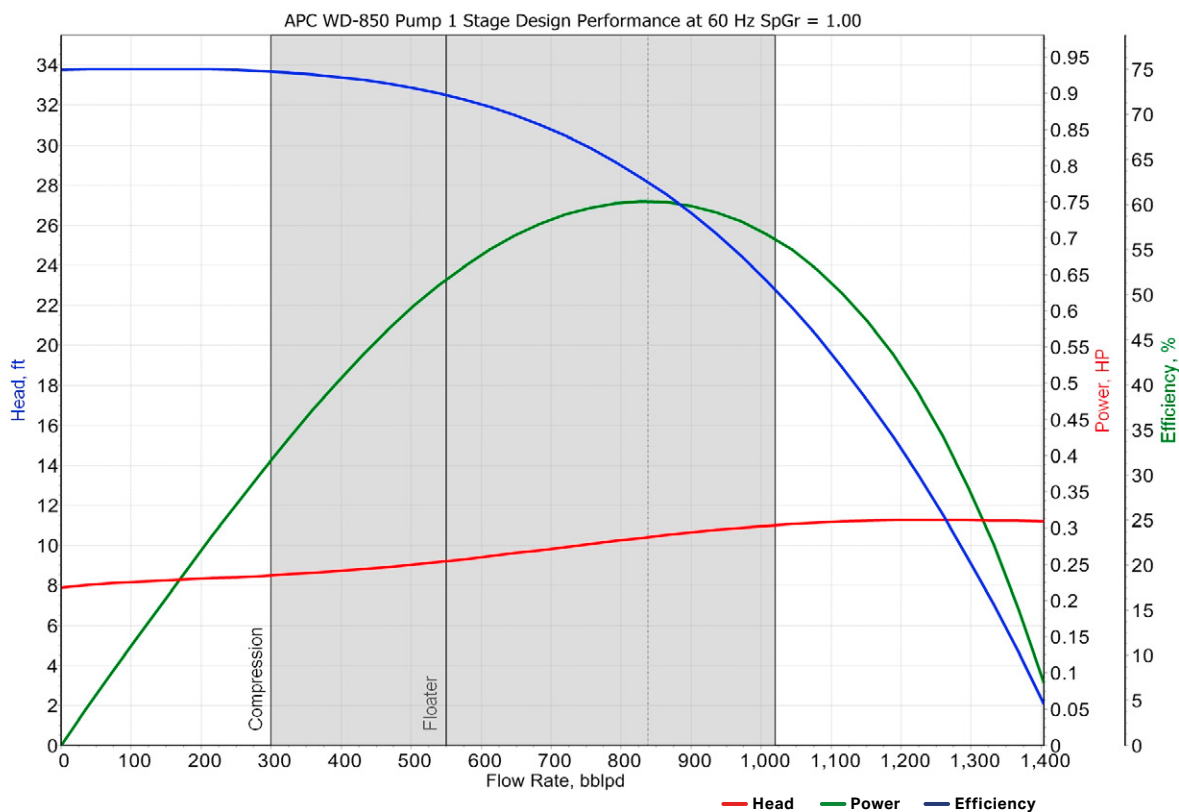
Optimum operating range	250 to 800 BPD
BEP flow rate	683 BPD
Housing diameter	4.00 In.
Minimum casing size	5.5 In.
Shaft diameter	0.625 In.
Standard shaft limit @ 60Hz	94 HP
High strength shaft limit @ 60Hz	150 HP
Ultra high strength shaft limit @ 60Hz	188 HP

Floater operating range	250 to 550 BPD
Fluid specific gravity	1
Rotational direction	CCW
Housing pressure limit	5,000 PSI
High pressure housing limit	6,000 PSI
Stage type	Radial

Housing	Standard Stages		Abrasion Resistant		Length		Weight	
	Floater	Compression	Floater	Compression	ft	m	lbs	kg
10	18	16	17	15	2.1	0.6	44	20
20	37	36	35	33	3.5	1.1	74	34
30	56	55	52	51	4.9	1.5	105	48
40	76	74	70	69	6.3	1.9	135	61
50	95	93	88	86	7.8	2.4	166	75
60	114	-	106	104	9.2	2.8	196	89
70	133	-	123	122	10.6	3.2	226	103
80	153	-	141	140	12	3.7	257	117
90	172	-	159	157	13.4	4.1	287	130
100	191	-	177	175	14.8	4.5	318	144
110	210	-	194	193	16.2	4.9	348	158
120	230	-	212	211	17.6	5.4	378	171

WD-850

400 series



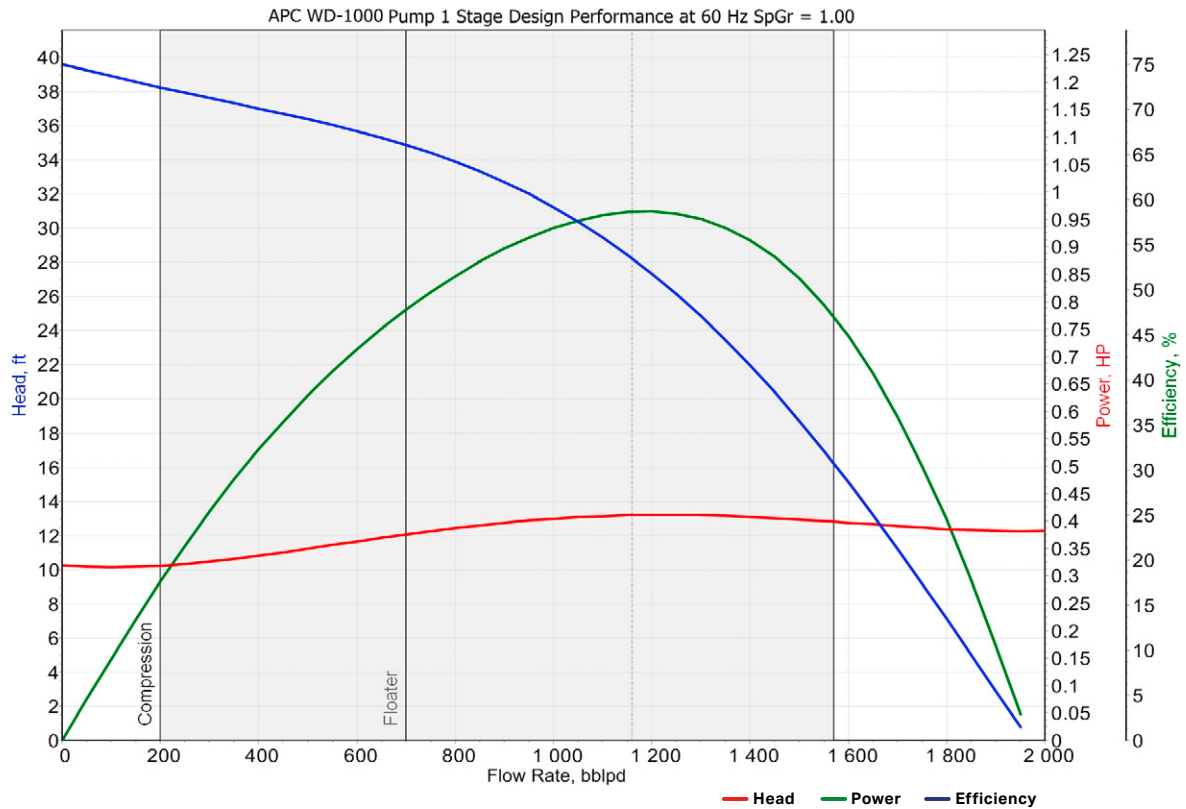
Optimum operating range	300 to 1,020 BPD
BEP flow rate	838 BPD
Housing diameter	4.00 In.
Minimum casing size	5.5 In.
Shaft diameter	0.625 In.
Standard shaft limit @ 60Hz	94 HP
High strength shaft limit @ 60Hz	150 HP
Ultra high strength shaft limit @ 60Hz	188 HP

Floater operating range	550 to 1,020 BPD
Fluid specific gravity	1
Rotational direction	CCW
Housing pressure limit	5,000 PSI
High pressure housing limit	6,000 PSI
Stage type	Radial

Housing	Standard Stages		Abrasion Resistant		Length		Weight	
	Floater	Compression	Floater	Compression	ft	m	lbs	kg
10	16	15	15	14	2.1	0.6	44	20
20	34	33	32	31	3.5	1.1	74	34
30	52	50	48	46	4.9	1.5	105	48
40	69	68	65	63	6.3	1.9	135	61
50	87	86	80	79	7.8	2.4	166	75
60	105	103	97	96	9.2	2.8	196	89
70	122	121	113	112	10.6	3.2	226	103
80	140	139	130	128	12	3.7	257	117
90	158	157	145	144	13.4	4.1	287	130
100	176	174	162	161	14.8	4.5	318	144
110	193	192	178	177	16.2	4.9	348	158
120	211	210	195	193	17.6	5.4	378	171

WD-1000

400 series



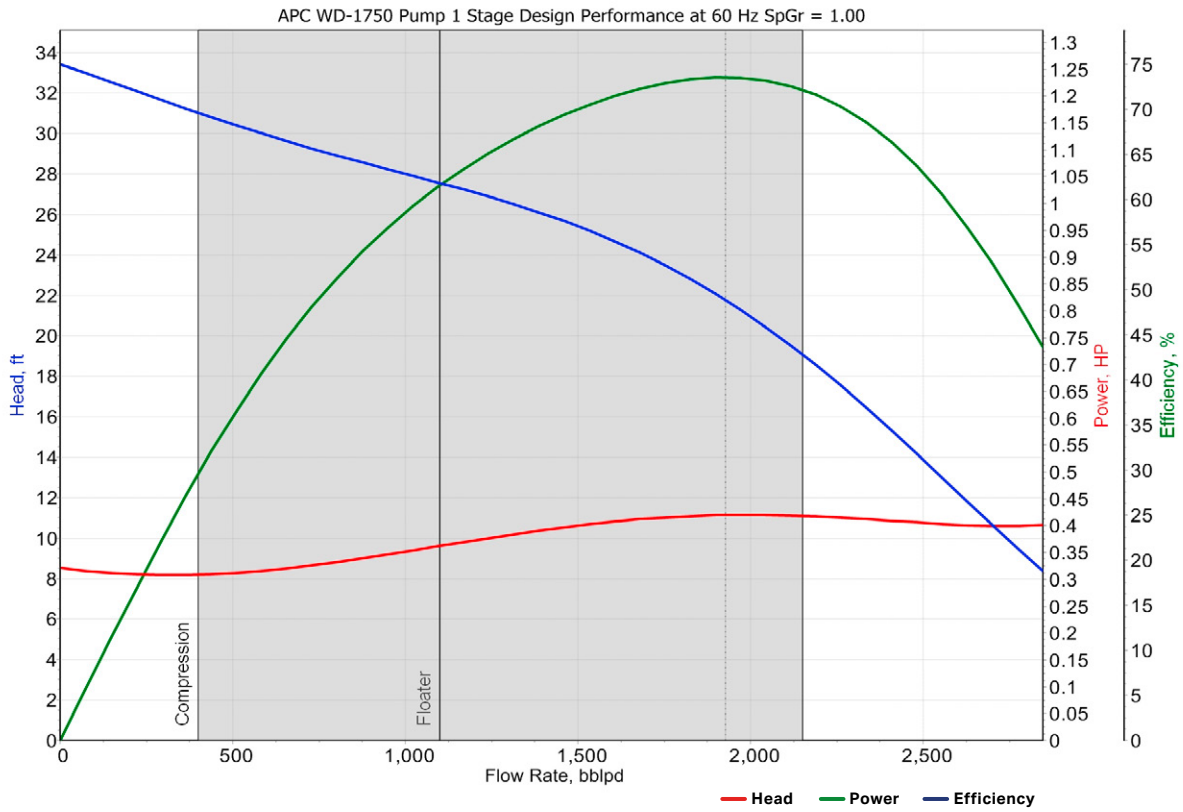
Optimum operating range	200 to 1,570 BPD
BEP flow rate	1,160 BPD
Housing diameter	4.00 In.
Minimum casing size	5.5 In.
Shaft diameter	0.688 In.
Standard shaft limit @ 60Hz	125 HP
High strength shaft limit @ 60Hz	200 HP
Ultra high strength shaft limit @ 60Hz	250 HP

Floater operating range	700 to 1,570 BPD
Fluid specific gravity	1
Rotational direction	CCW
Housing pressure limit	5,000 PSI
High pressure housing limit	6,000 PSI
Stage type	Mixed Flow

Housing	Standard Stages		Abrasion Resistant		Length		Weight	
	Floater	Compression	Floater	Compression	ft	m	lbs	kg
10	8	7	8	7	2.1	0.6	44	20
20	17	16	17	16	3.5	1.1	74	34
30	26	25	26	25	4.9	1.5	105	48
40	35	34	35	34	6.3	1.9	135	61
50	43	43	43	43	7.8	2.4	166	75
60	52	52	52	52	9.2	2.8	196	89
70	61	61	61	61	10.6	3.2	226	103
80	70	70	70	70	12	3.7	257	117
90	79	79	79	79	13.4	4.1	287	130
100	88	88	88	88	14.8	4.5	318	144
110	97	96	97	96	16.2	4.9	348	158
120	106	105	106	105	17.6	5.4	378	171
130	115	114	115	114	19	5.8	408	185
140	124	123	124	123	20.4	6.2	438	199
150	133	132	133	132	21.8	6.6	468	212

WD-1750

400 series



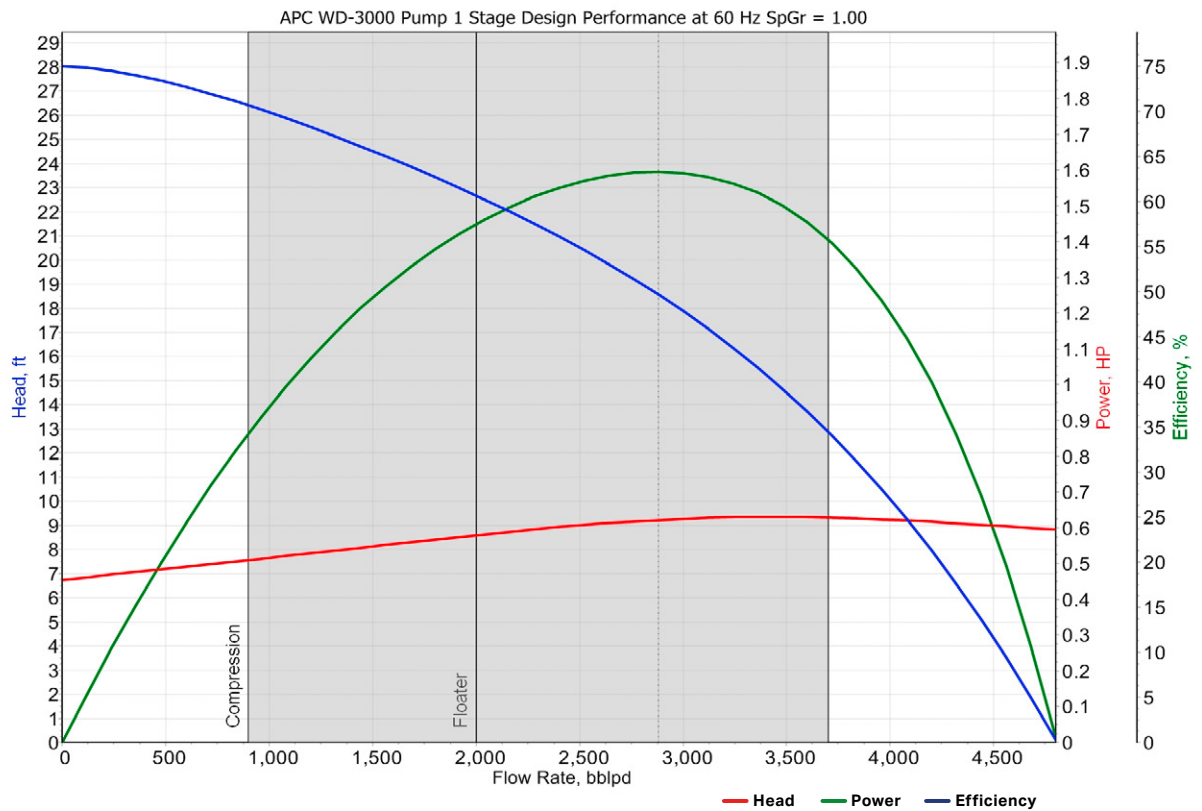
Optimum operating range	400 to 2,150 BPD
BEP flow rate	1,928 BPD
Housing diameter	4.00 In.
Minimum casing size	5.5 In.
Shaft diameter	0.688 In.
Standard shaft limit @ 60Hz	125 HP
High strength shaft limit @ 60Hz	200 HP
Ultra high strength shaft limit @ 60Hz	250 HP

Floater operating range	1,100 to 2,150 BPD
Fluid specific gravity	1
Rotational direction	CCW
Housing pressure limit	5,000 PSI
High pressure housing limit	6,000 PSI
Stage type	Mixed Flow

Housing	Standard Stages		Abrasion Resistant		Length		Weight	
	Floater	Compression	Floater	Compression	ft	m	lbs	kg
10	7	7	7	7	2.1	0.6	44	20
20	16	15	16	15	3.5	1.1	74	34
30	24	24	24	24	4.9	1.5	105	48
40	33	32	33	32	6.3	1.9	135	61
50	41	41	41	41	7.8	2.4	166	75
60	50	49	50	49	9.2	2.8	196	89
70	58	57	58	57	10.6	3.2	226	103
80	66	66	66	66	12	3.7	257	117
90	75	74	75	74	13.4	4.1	287	130
100	83	83	83	83	14.8	4.5	318	144
110	92	91	92	91	16.2	4.9	348	158
120	100	100	100	100	17.6	5.4	378	171
130	109	-	109	-	19	5.8	501	227
140	117	-	117	-	20.4	6.2	538	244
150	125	-	125	-	21.8	6.6	577	262

WD-3000

400 series



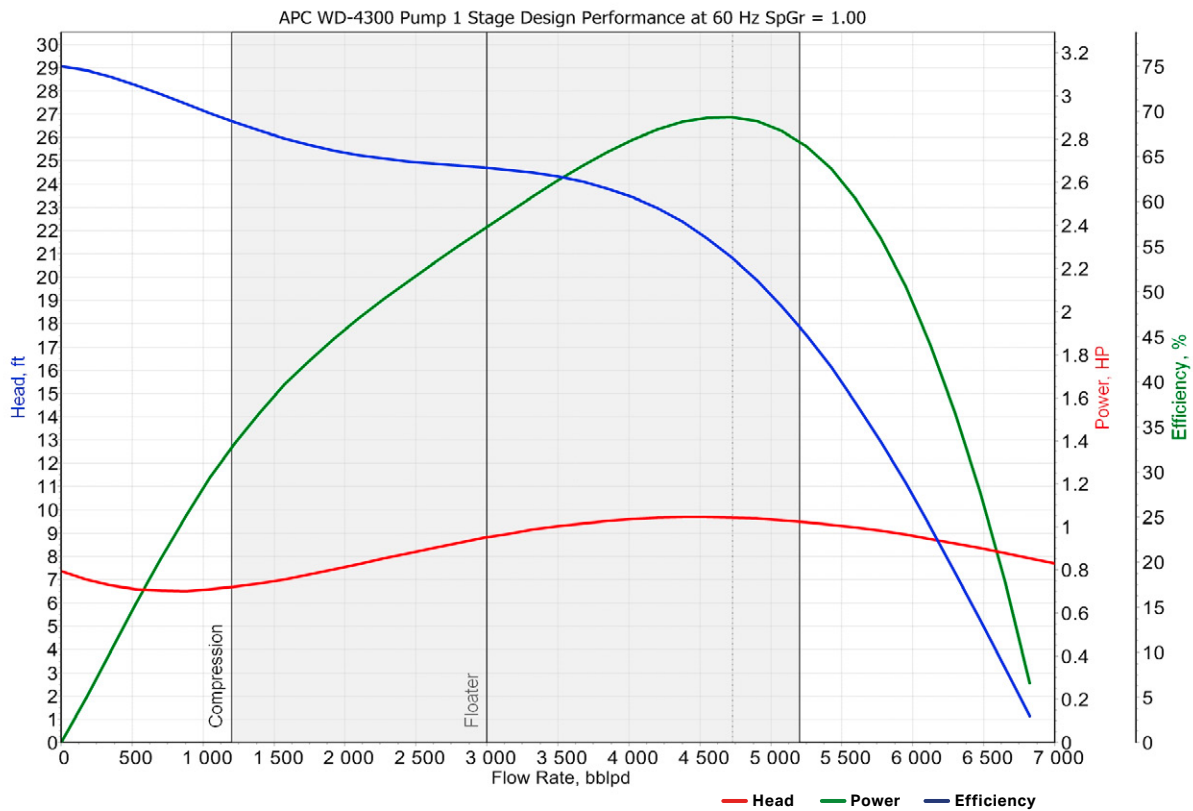
Optimum operating range	900 to 3,700 BPD
BEP flow rate	2,280 BPD
Housing diameter	4.00 In.
Minimum casing size	5.5 In.
Shaft diameter	0.875 In.
Standard shaft limit @ 60Hz	250 HP
High strength shaft limit @ 60Hz	400 HP
Ultra high strength shaft limit @ 60Hz	500 HP

Floater operating range	2,000 to 3,700 BPD
Fluid specific gravity	1
Rotational direction	CCW
Housing pressure limit	5,000 PSI
High pressure housing limit	6,000 PSI
Stage type	Mixed Flow

Housing	Standard Stages		Abrasion Resistant		Length		Weight	
	Floater	Compression	Floater	Compression	ft	m	lbs	kg
10	7	6	7	6	2.1	0.6	44	20
20	14	14	14	14	3.5	1.1	74	34
30	22	21	22	21	4.9	1.5	105	48
40	29	28	29	28	6.3	1.9	135	61
50	37	36	37	36	7.8	2.4	166	75
60	44	43	44	43	9.2	2.8	196	89
70	52	51	52	51	10.6	3.2	226	103
80	59	58	59	58	12	3.7	257	117
90	67	66	67	66	13.4	4.1	287	130
100	74	73	74	73	14.8	4.5	318	144
110	82	81	82	81	16.2	4.9	348	158
120	89	88	89	88	17.6	5.4	378	171
130	97	96	97	96	19	5.8	408	185
140	104	-	104	-	20.4	6.2	438	199
150	112	-	112	-	21.8	6.6	468	212

WD-4300

400 series



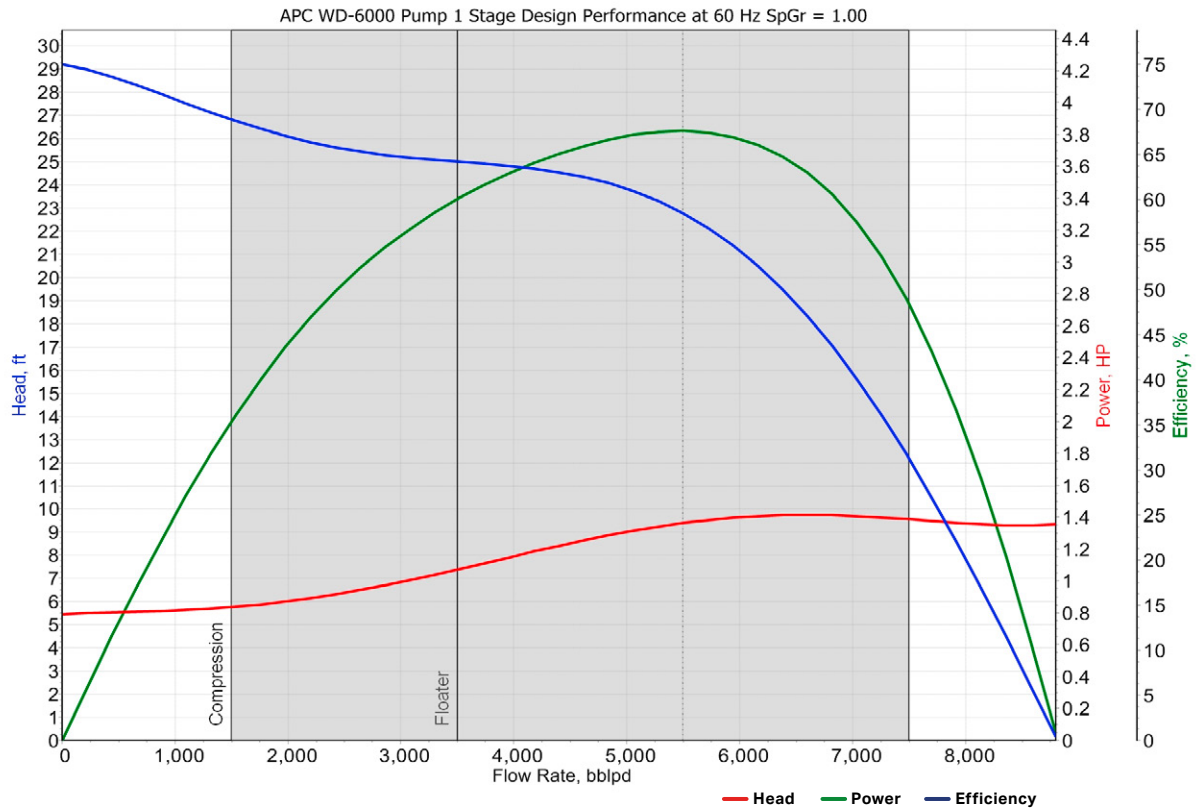
Optimum operating range	1,200 to 5,200 BPD
BEP flow rate	4,730 BPD
Housing diameter	4.00 In.
Minimum casing size	5.5 In.
Shaft diameter	0.875 In.
Standard shaft limit @ 60Hz	250 HP
High strength shaft limit @ 60Hz	400 HP
Ultra high strength shaft limit @ 60Hz	500 HP

Floater operating range	3,000 to 5,200 BPD
Fluid specific gravity	1
Rotational direction	CCW
Housing pressure limit	5,000 PSI
High pressure housing limit	6,000 PSI
Stage type	Mixed Flow

Housing	Standard Stages		Abrasion Resistant		Length		Weight	
	Floater	Compression	Floater	Compression	ft	m	lbs	kg
10	4	3	4	3	2.1	0.6	44	20
20	8	8	8	8	3.5	1.1	74	34
30	13	13	13	13	4.9	1.5	105	48
40	18	17	18	17	6.3	1.9	135	61
50	22	22	22	22	7.8	2.4	166	75
60	27	26	27	26	9.2	2.8	196	89
70	31	31	31	31	10.6	3.2	226	103
80	36	35	36	35	12	3.7	257	117
90	40	40	40	40	13.4	4.1	287	130
100	45	45	45	45	14.8	4.5	318	144
110	50	49	50	49	16.2	4.9	348	158
120	54	54	54	54	17.6	5.4	378	171
130	59	58	59	58	19	5.8	408	185
140	63	63	63	63	20.4	6.2	438	199
150	68	67	68	67	21.8	6.6	468	212

WD-6000

400 series



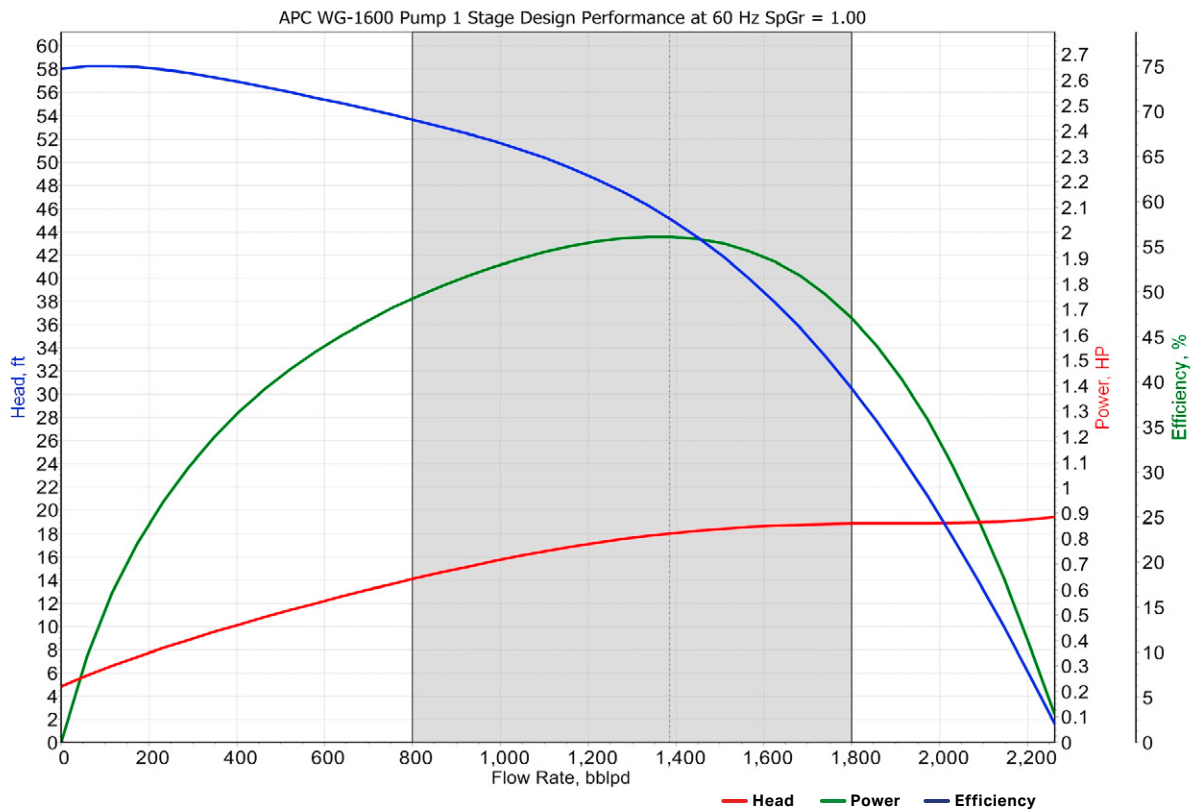
Optimum operating range	1,500 to 7,500 BPD
BEP flow rate	5,500 BPD
Housing diameter	4.00 In.
Minimum casing size	5.5 In.
Shaft diameter	0.875 In.
Standard shaft limit @ 60Hz	250 HP
High strength shaft limit @ 60Hz	400 HP
Ultra high strength shaft limit @ 60Hz	500 HP

Floater operating range	3,500 to 7,500 BPD
Fluid specific gravity	1
Rotational direction	CCW
Housing pressure limit	5,000 PSI
High pressure housing limit	6,000 PSI
Stage type	Mixed Flow

Housing	Standard Stages		Abrasion Resistant		Length		Weight	
	Floater	Compression	Floater	Compression	ft	m	lbs	kg
10	4	3	4	3	2.1	0.6	44	20
20	8	8	8	8	3.5	1.1	74	34
30	13	13	13	13	4.9	1.5	105	48
40	18	17	18	17	6.3	1.9	135	61
50	22	22	22	22	7.8	2.4	166	75
60	27	26	27	26	9.2	2.8	196	89
70	31	31	31	31	10.6	3.2	226	103
80	36	35	36	35	12	3.7	257	117
90	40	40	40	40	13.4	4.1	287	130
100	45	45	45	45	14.8	4.5	318	144
110	50	49	50	49	16.2	4.9	348	158
120	54	54	54	54	17.6	5.4	378	171
130	59	58	59	58	19	5.8	408	185
140	63	63	63	63	20.4	6.2	438	199
150	68	67	68	67	21.8	6.6	468	212

WG-1600

513 series



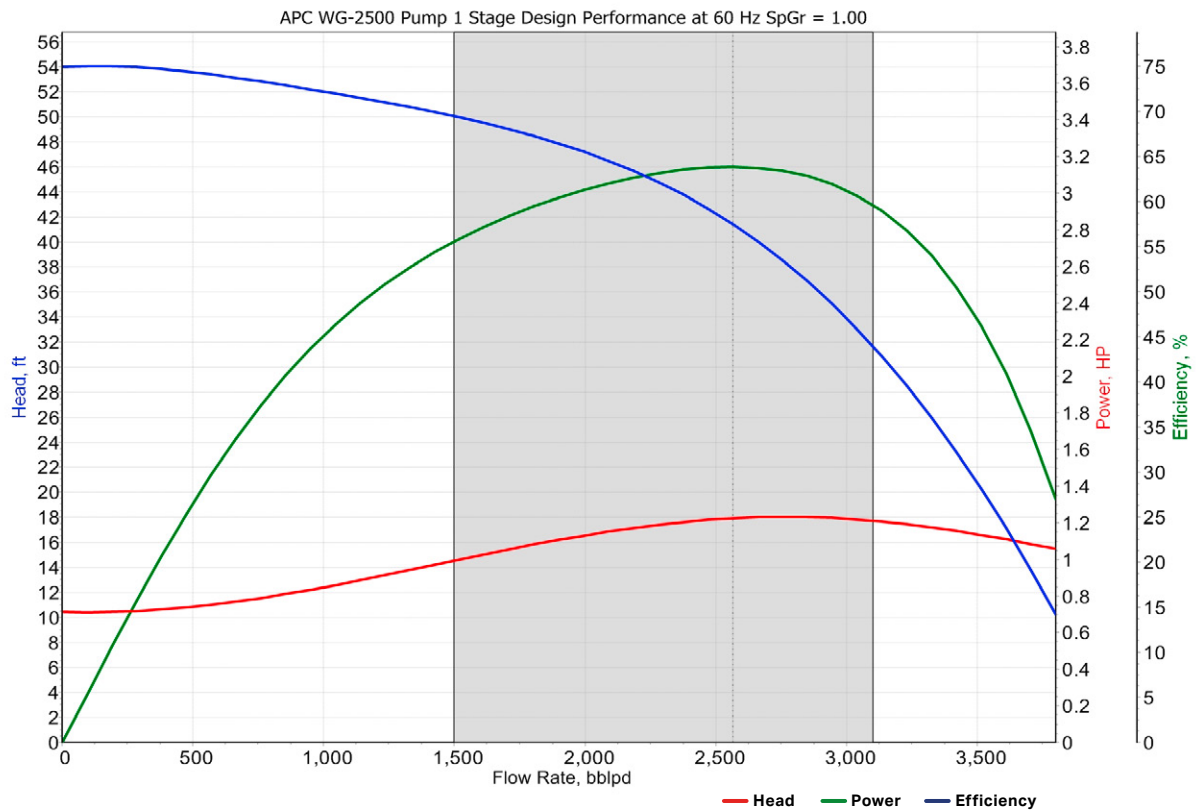
Optimum operating range	800 to 1,800 BPD
BEP flow rate	1,385 BPD
Housing diameter	5.13 In.
Minimum casing size	6.625 In.
Shaft diameter	0.875 In.
Standard shaft limit @ 60Hz	250 HP
High strength shaft limit @ 60Hz	400 HP
Ultra high strength shaft limit @ 60Hz	500 HP

Floater operating range	800 to 1,800 BPD
Fluid specific gravity	1
Rotational direction	CCW
Housing pressure limit	5,000 PSI
High pressure housing limit	6,000 PSI
Stage type	Radial Flow

Housing	Standard Stages		Abrasion Resistant		Length		Weight	
	Floater	Compression	Floater	Compression	ft	m	lbs	kg
10	13	12	12	11	2.1	0.6	77	35
20	28	27	27	25	3.5	1.1	145	66
30	44	43	40	39	4.9	1.5	213	97
40	60	58	55	54	6.3	1.9	272	123
50	75	74	69	68	7.7	2.4	340	154
60	91	90	83	82	9.1	2.8	407	185
70	106	-	98	-	10.5	3.2	467	212
80	122	-	112	-	11.9	3.6	535	243
90	138	-	126	-	13.3	4.1	602	273
100	153	-	140	-	14.7	4.5	662	300
110	169	-	155	-	16.1	4.9	730	331
120	184	-	169	-	17.5	5.3	789	358

WG-2500

513 series



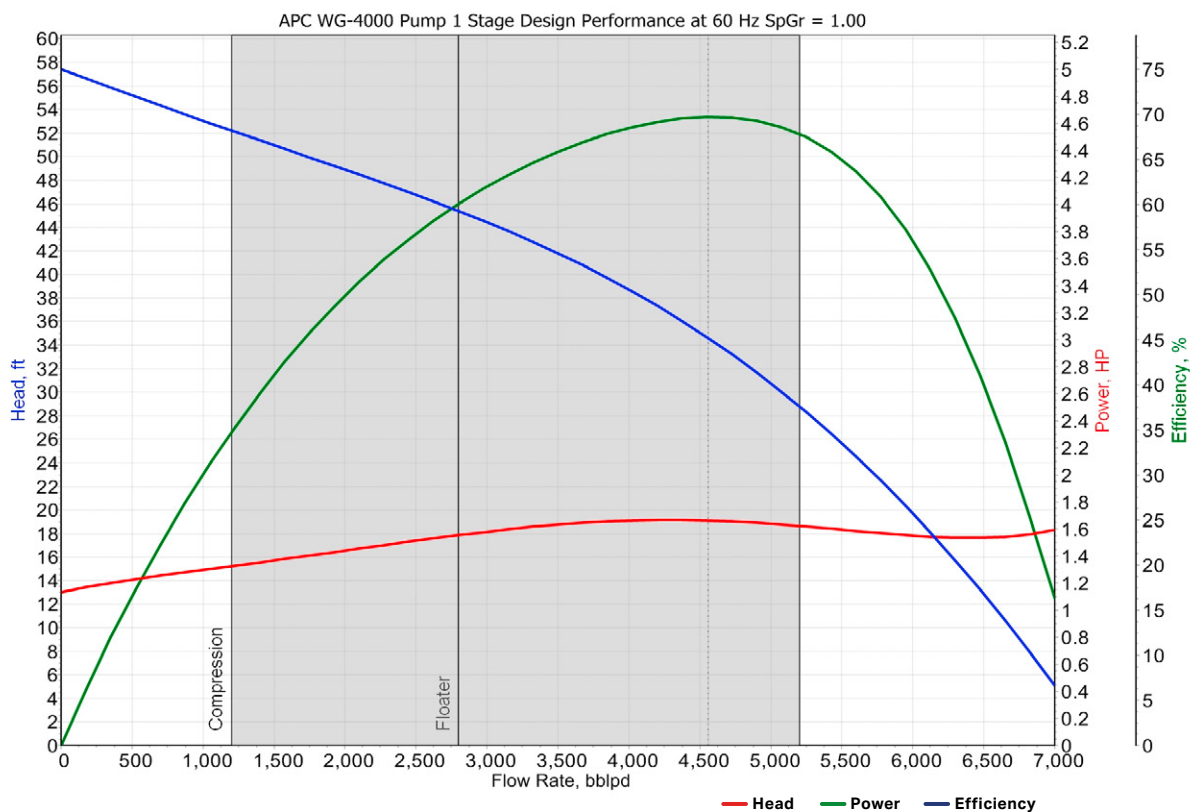
Optimum operating range	1,800 to 3,100 BPD
BEP flow rate	2,565 BPD
Housing diameter	5.13 In.
Minimum casing size	6.625 In.
Shaft diameter	0.875 In.
Standard shaft limit @ 60Hz	250 HP
High strength shaft limit @ 60Hz	400 HP
Ultra high strength shaft limit @ 60Hz	500 HP

Floater operating range	1,800 to 3,100 BPD
Fluid specific gravity	1
Rotational direction	CCW
Housing pressure limit	5,000 PSI
High pressure housing limit	6,000 PSI
Stage type	Radial Flow

Housing	Standard Stages		Abrasion Resistant		Length		Weight	
	Floater	Compression	Floater	Compression	ft	m	lbs	kg
10	10	9	9	8	2.1	0.6	77	35
20	22	21	20	19	3.5	1.1	145	66
30	34	33	32	31	4.9	1.5	213	97
40	47	46	42	41	6.3	1.9	272	123
50	59	58	54	53	7.7	2.4	340	154
60	71	70	64	64	9.1	2.8	407	185
70	83	82	75	75	10.5	3.2	467	212
80	96	95	87	86	11.9	3.6	535	243
90	108	-	97	-	13.3	4.1	602	273
100	120	-	109	-	14.7	4.5	662	300
110	132	-	120	-	16.1	4.9	730	331
120	145	-	131	-	17.5	5.3	789	358

WG-4000

513 series



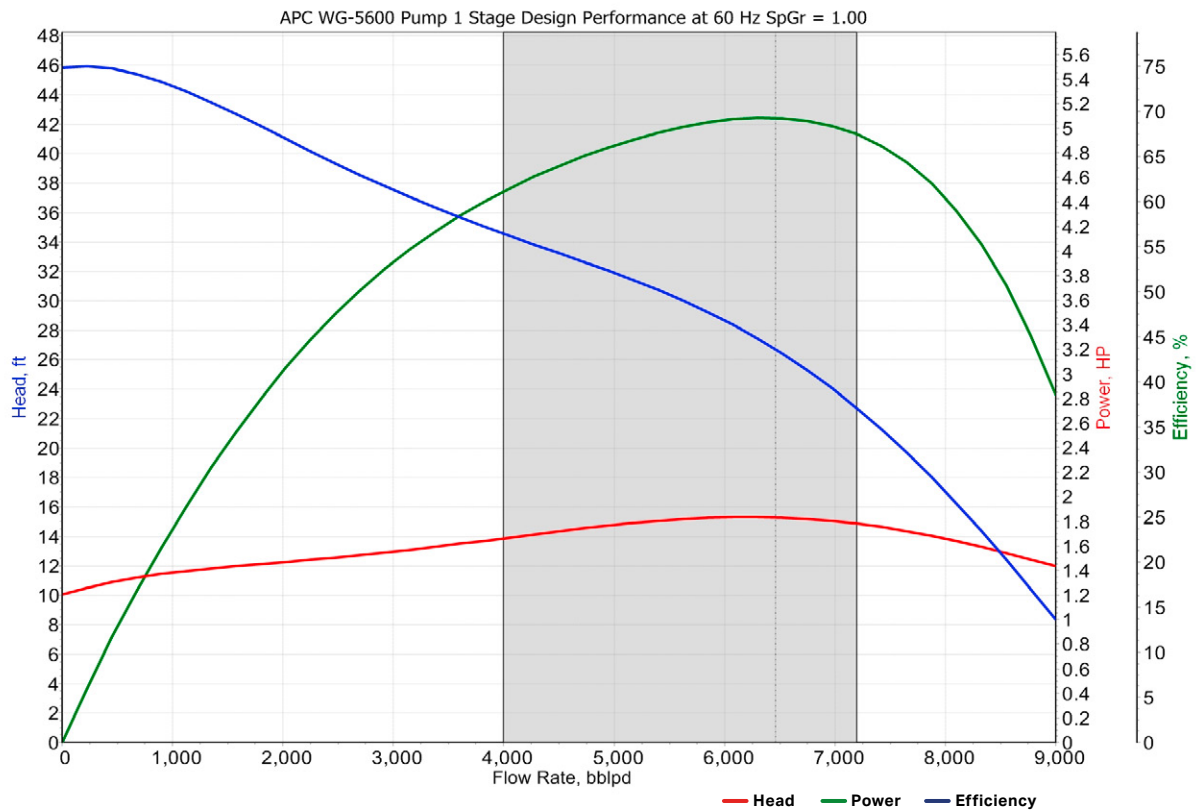
Optimum operating range	1,200 to 5,200 BPD
BEP flow rate	4,560 BPD
Housing diameter	5.13 In.
Minimum casing size	6.625 In.
Shaft diameter	1 In.
Standard shaft limit @ 60Hz	375 HP
High strength shaft limit @ 60Hz	600 HP
Ultra high strength shaft limit @ 60Hz	750 HP

Floater operating range	2,800 to 5,200 BPD
Fluid specific gravity	1
Rotational direction	CCW
Housing pressure limit	5,000 PSI
High pressure housing limit	6,000 PSI
Stage type	Mixed

Housing	Standard Stages		Abrasion Resistant		Length		Weight	
	Floater	Compression	Floater	Compression	ft	m	lbs	kg
10	5	5	5	5	2.1	0.6	77	35
20	12	11	12	11	3.5	1.1	145	66
30	19	18	19	18	4.9	1.5	213	97
40	25	25	25	25	6.3	1.9	272	123
50	32	32	32	32	7.7	2.4	340	154
60	39	38	39	38	9.1	2.8	407	185
70	46	45	46	45	10.5	3.2	467	212
80	52	52	52	52	11.9	3.6	535	243
90	59	59	59	59	13.3	4.1	602	273
100	66	65	66	65	14.7	4.5	662	300
110	73	72	73	72	16.1	4.9	730	331
120	79	79	79	79	17.5	5.3	789	358
130	86	86	86	86	18.9	5.8	857	389
140	93	92	93	92	20.4	6.2	924	419
150	100	99	100	99	21.8	6.6	984	446

WG-5600

513 series



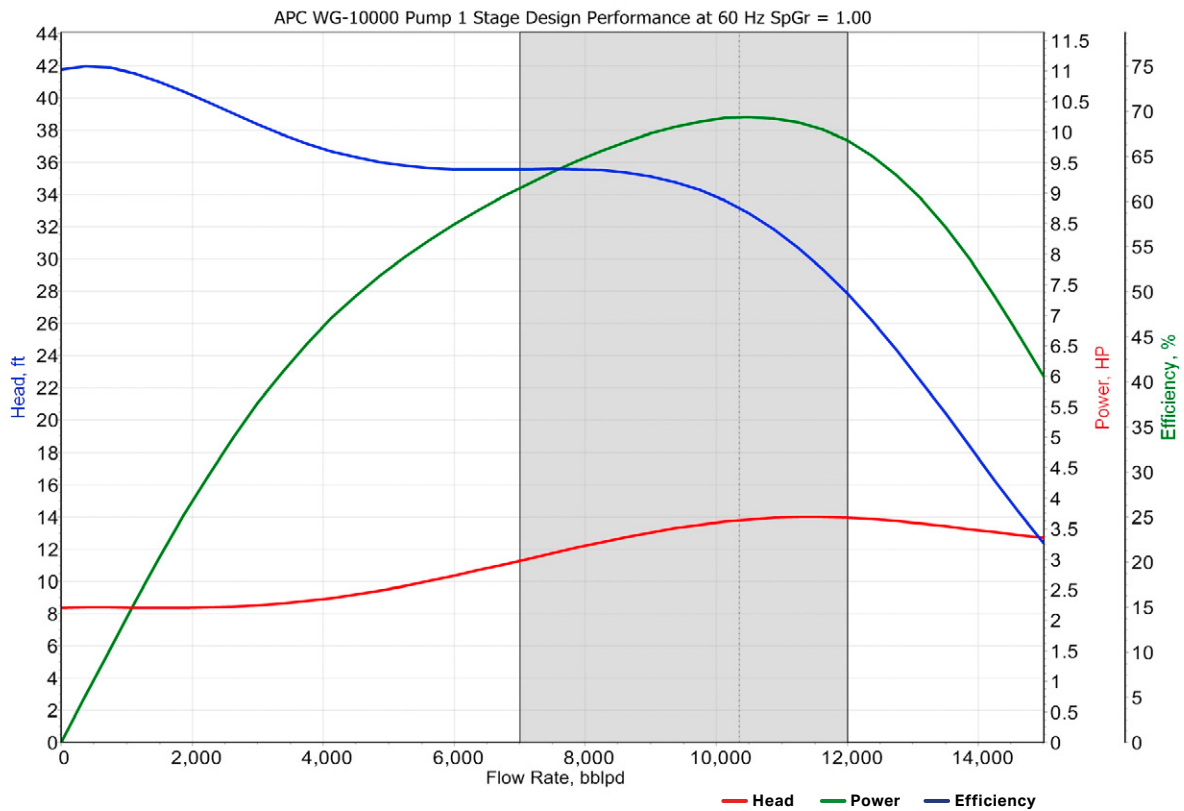
Optimum operating range	4,000 to 7,200 BPD
BEP flow rate	6,460 BPD
Housing diameter	5.13 In.
Minimum casing size	6.625 In.
Shaft diameter	1 In.
Standard shaft limit @ 60Hz	375 HP
High strength shaft limit @ 60Hz	600 HP
Ultra high strength shaft limit @ 60Hz	750 HP

Floater operating range	4,000 to 7,200 BPD
Fluid specific gravity	1
Rotational direction	CCW
Housing pressure limit	5,000 PSI
High pressure housing limit	6,000 PSI
Stage type	Mixed Flow

Housing	Standard Stages		Abrasion Resistant		Length		Weight	
	Floater	Compression	Floater	Compression	ft	m	lbs	kg
10	3	3	3	3	2.1	0.6	77	35
20	8	8	8	8	3.5	1.1	145	66
30	13	12	13	12	4.9	1.5	213	97
40	17	17	17	17	6.3	1.9	272	123
50	22	22	22	22	7.7	2.4	340	154
60	27	26	27	26	9.1	2.8	407	185
70	31	31	31	31	10.5	3.2	467	212
80	36	36	36	36	11.9	3.6	535	243
90	41	40	41	40	13.3	4.1	602	273
100	45	45	45	45	14.7	4.5	662	300
110	50	50	50	50	16.1	4.9	730	331
120	55	54	55	54	17.5	5.3	789	358
130	59	59	59	59	18.9	5.8	857	389
140	64	64	64	64	20.4	6.2	924	419
150	69	68	69	68	21.8	6.6	984	446

WG-10000

513 series



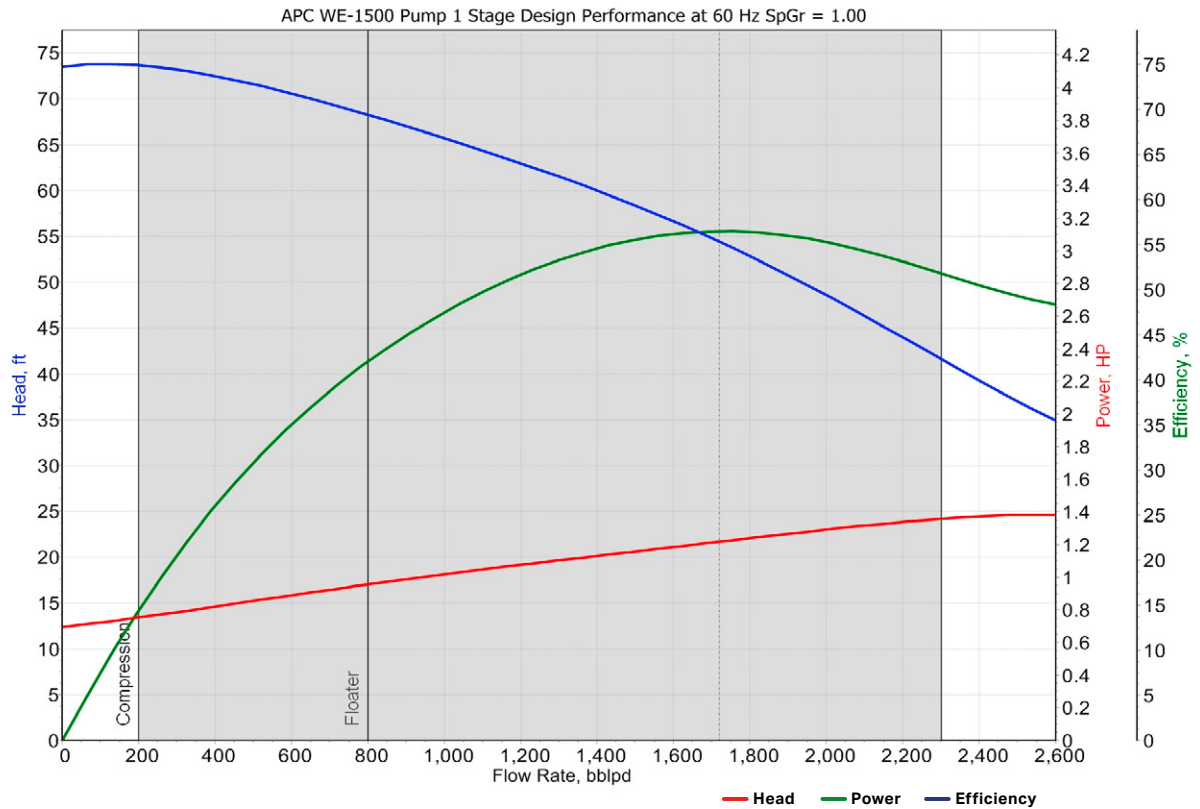
Optimum operating range	7,000 to 12,000 BPD
BEP flow rate	10,350 BPD
Housing diameter	5.13 In.
Minimum casing size	6.625 In.
Shaft diameter	1.188 In.
Standard shaft limit @ 60Hz	625 HP
High strength shaft limit @ 60Hz	1,000 HP
Ultra high strength shaft limit @ 60Hz	1,250 HP

Floater operating range	7,000 to 12,000 BPD
Fluid specific gravity	1
Rotational direction	CCW
Housing pressure limit	5,000 PSI
High pressure housing limit	6,000 PSI
Stage type	Mixed Flow

Housing	Standard Stages		Abrasion Resistant		Length		Weight	
	Floater	Compression	Floater	Compression	ft	m	lbs	kg
10	2	2	2	2	2.1	0.6	77	35
20	6	6	6	6	3.5	1.1	145	66
30	10	10	10	10	4.9	1.5	213	97
40	14	14	14	14	6.3	1.9	272	123
50	18	18	18	18	7.7	2.4	340	154
60	22	22	22	22	9.1	2.8	407	185
70	26	26	26	26	10.5	3.2	467	212
80	30	30	30	30	11.9	3.6	535	243
90	34	34	34	34	13.3	4.1	602	273
100	38	38	38	38	14.7	4.5	662	300
110	42	42	42	42	16.1	4.9	730	331
120	46	46	46	46	17.5	5.3	789	358
130	50	50	50	50	18.9	5.8	857	389
140	54	54	54	54	20.4	6.2	924	419
150	58	58	58	58	21.8	6.6	984	446

WE-1500

538 series



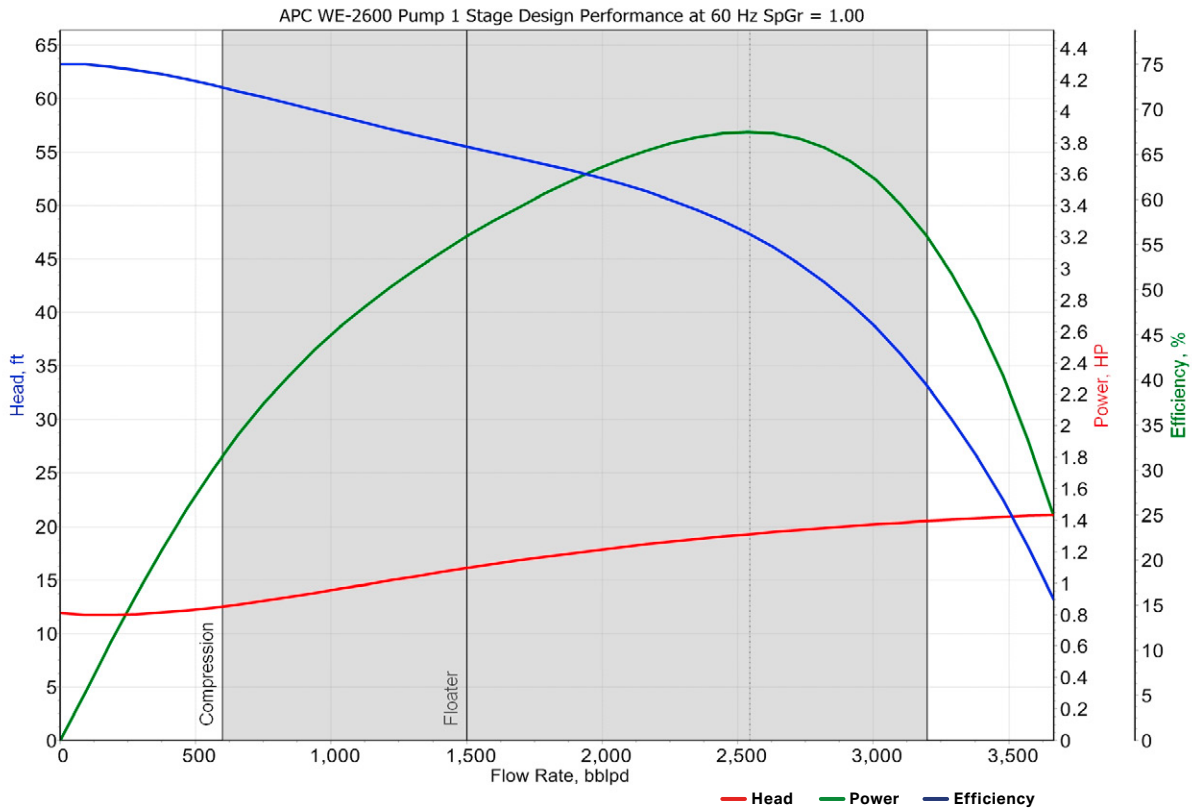
Optimum operating range	200 to 2,300 BPD
BEP flow rate	1,720 BPD
Housing diameter	5.38 In.
Minimum casing size	7 In.
Shaft diameter	0.875 In.
Standard shaft limit @ 60Hz	250 HP
High strength shaft limit @ 60Hz	400 HP
Ultra high strength shaft limit @ 60Hz	500 HP

Floater operating range	800 to 2,300 BPD
Fluid specific gravity	1
Rotational direction	CCW
Housing pressure limit	5,000 PSI
High pressure housing limit	6,000 PSI
Stage type	Mixed Flow

Housing	Standard Stages		Abrasion Resistant		Length		Weight	
	Floater	Compression	Floater	Compression	ft	m	lbs	kg
10	5	4	5	4	2.1	0.6	117	53
20	12	11	12	11	3.5	1.1	178	81
30	19	18	19	18	4.9	1.5	245	111
40	27	26	27	26	6.3	1.9	312	142
50	34	33	34	33	7.7	2.4	373	169
60	41	40	41	40	9.1	2.8	440	200
70	48	47	48	47	10.5	3.2	502	228
80	55	54	55	54	11.9	3.6	569	258
90	62	61	62	61	13.3	4.1	635	288
100	69	68	69	68	14.7	4.5	697	316
110	77	76	77	76	16.1	4.9	764	347
120	84	83	84	83	17.5	5.3	825	374
130	91	90	91	90	18.9	5.8	892	405
140	98	97	98	97	20.3	6.2	959	435
150	105	104	105	104	21.8	6.6	1021	463

WE-2600

538 series



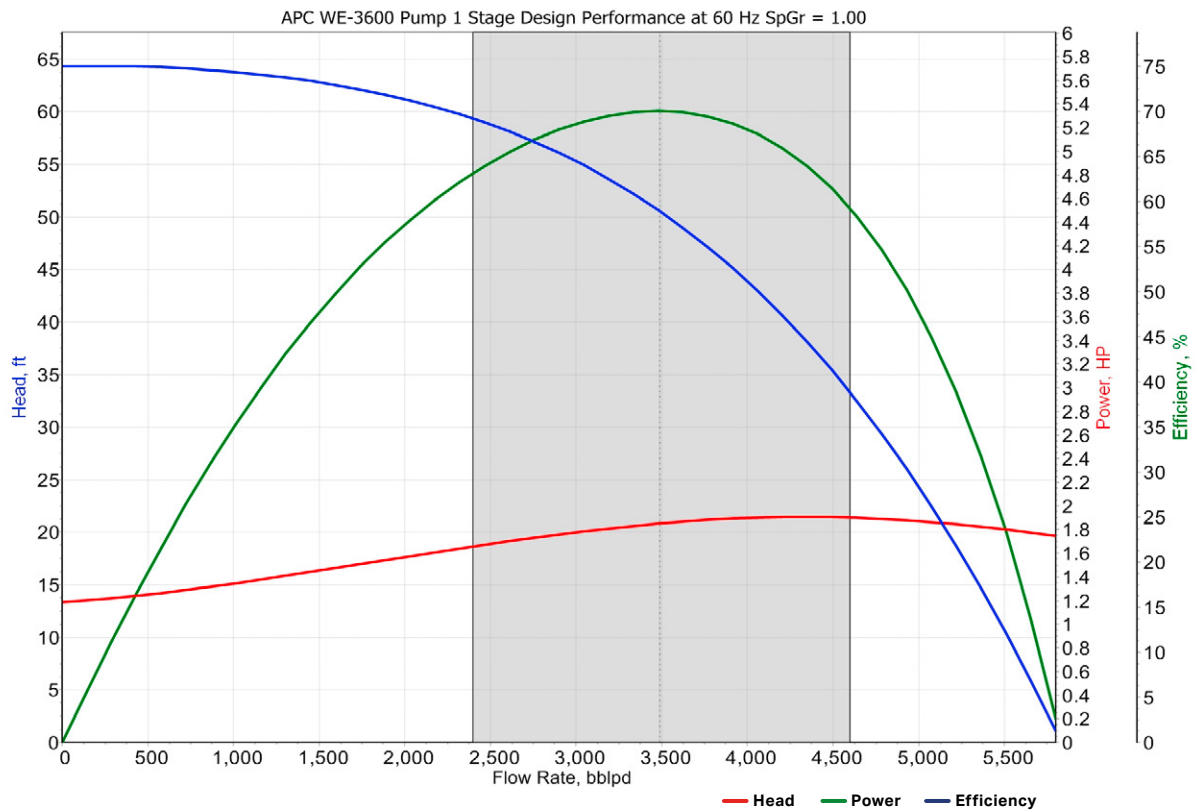
Optimum operating range	600 to 3,200 BPD
BEP flow rate	2,544 BPD
Housing diameter	5.38 In.
Minimum casing size	7 In.
Shaft diameter	0.875 In.
Standard shaft limit @ 60Hz	250 HP
High strength shaft limit @ 60Hz	400 HP
Ultra high strength shaft limit @ 60Hz	500 HP

Floater operating range	1,500 to 3,200 BPD
Fluid specific gravity	1
Rotational direction	CCW
Housing pressure limit	5,000 PSI
High pressure housing limit	6,000 PSI
Stage type	Radial Flow

Housing	Standard Stages		Abrasion Resistant		Length		Weight	
	Floater	Compression	Floater	Compression	ft	m	lbs	kg
10	9	8	8	7	2.1	0.6	77	35
20	22	21	20	19	3.5	1.1	145	66
30	35	34	32	31	4.9	1.5	213	97
40	47	46	42	42	6.3	1.9	272	123
50	60	59	54	53	7.7	2.4	340	154
60	73	72	65	65	9.1	2.8	407	185
70	86	85	77	76	10.5	3.2	467	212
80	98	98	89	88	11.9	3.6	535	243
90	111	-	99	-	13.3	4.1	602	273
100	124	-	111	-	14.7	4.5	662	300
110	137	-	122	-	16.1	4.9	730	331
120	150	-	134	-	17.5	5.3	789	358

WE-3600

538 series



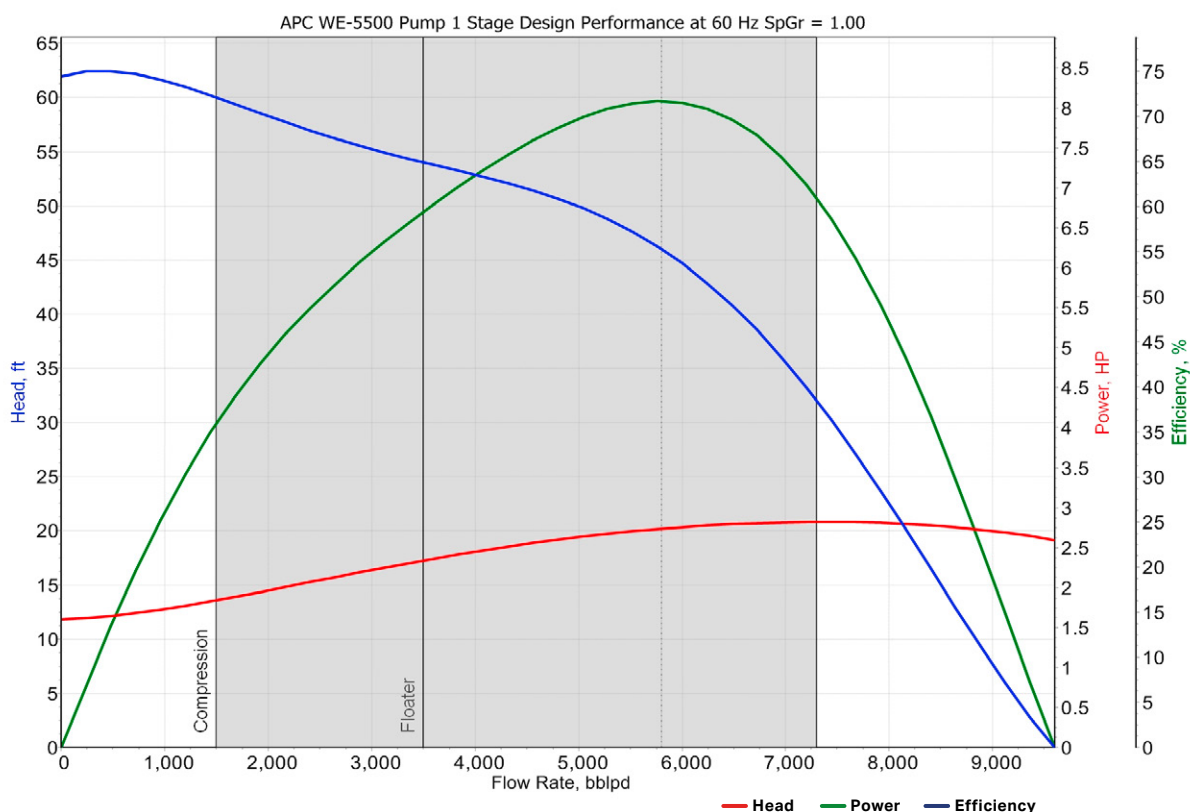
Optimum operating range	2,400 to 4,600 BPD
BEP flow rate	3,489 BPD
Housing diameter	5.38 In.
Minimum casing size	7 In.
Shaft diameter	0.875 In.
Standard shaft limit @ 60Hz	250 HP
High strength shaft limit @ 60Hz	400 HP
Ultra high strength shaft limit @ 60Hz	500 HP

Floater operating range	2,400 to 4,600 BPD
Fluid specific gravity	1
Rotational direction	CCW
Housing pressure limit	5,000 PSI
High pressure housing limit	6,000 PSI
Stage type	Radial Flow

Housing	Standard Stages		Abrasion Resistant		Length		Weight	
	Floater	Compression	Floater	Compression	ft	m	lbs	kg
10	6	5	6	4	2.1	0.6	93	42
20	15	14	13	13	3.5	1.1	157	71
30	24	23	21	20	4.9	1.5	220	100
40	33	32	29	28	6.3	1.9	284	129
50	42	41	37	36	7.7	2.4	347	157
60	51	50	45	43	9.1	2.8	412	187
70	60	59	52	52	10.5	3.2	473	215
80	69	67	60	59	11.9	3.6	537	244
90	78	76	68	67	13.3	4.1	602	273
100	86	85	76	75	14.7	4.5	665	302
110	95	94	84	83	16.1	4.9	729	331
120	104	n/a	92	n/a	17.5	5.3	793	360
130	113	n/a	99	n/a	18.9	5.8	857	389
140	122	n/a	108	n/a	20.3	6.2	921	418
150	131	n/a	115	n/a	21.8	6.6	985	447

WE-5500

538 series



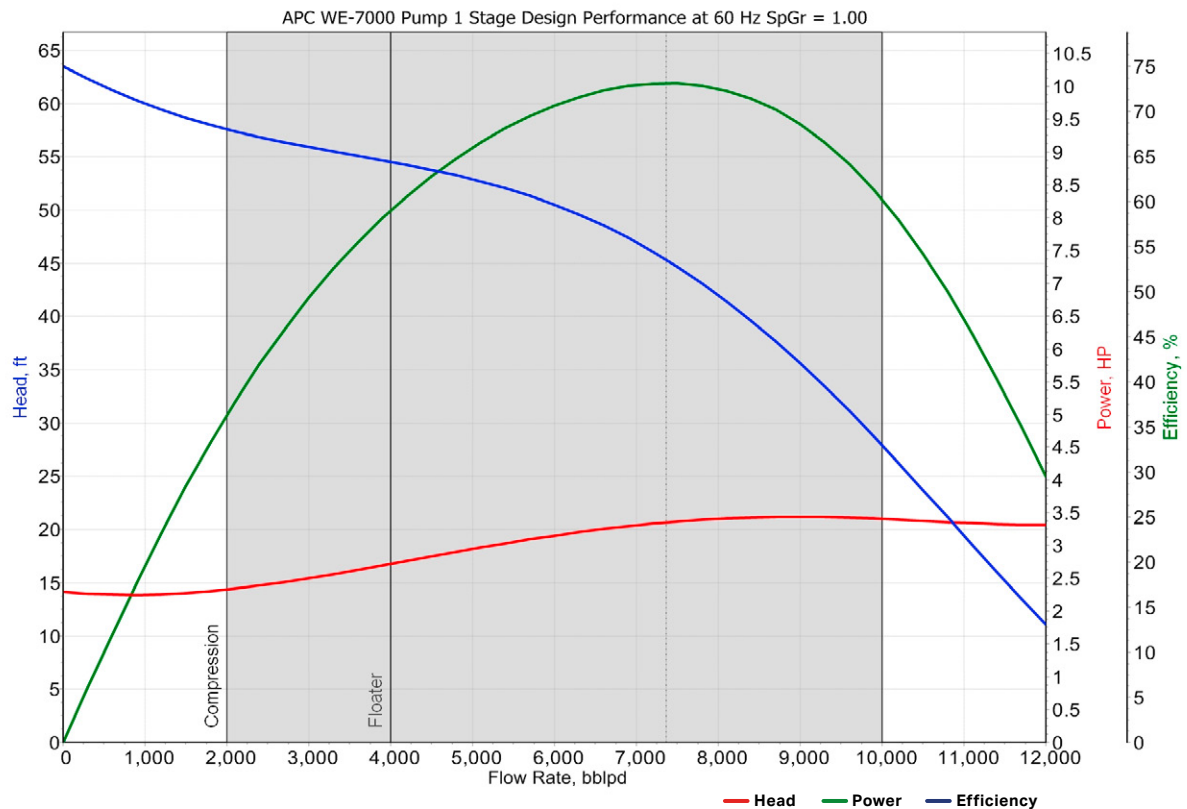
Optimum operating range	1,500 to 7,300 BPD
BEP flow rate	5,799 BPD
Housing diameter	5.38 In.
Minimum casing size	7 In.
Shaft diameter	1 In.
Standard shaft limit @ 60Hz	375 HP
High strength shaft limit @ 60Hz	600 HP
Ultra high strength shaft limit @ 60Hz	750 HP

Floater operating range	3,500 to 7,300 BPD
Fluid specific gravity	1
Rotational direction	CCW
Housing pressure limit	5,000 PSI
High pressure housing limit	6,000 PSI
Stage type	Mixed Flow

Housing	Standard Stages		Abrasion Resistant		Length		Weight	
	Floater	Compression	Floater	Compression	ft	m	lbs	kg
10	4	3	4	3	2.1	0.6	115	52
20	10	9	10	9	3.5	1.1	180	82
30	15	14	15	14	4.9	1.5	245	111
40	21	20	21	20	6.3	1.9	311	141
50	26	26	26	26	7.7	2.4	376	171
60	32	31	32	31	9.1	2.8	441	200
70	38	37	38	37	10.5	3.2	507	230
80	43	43	43	43	11.9	3.6	572	259
90	49	48	49	48	13.3	4.1	637	289
100	55	54	55	54	14.7	4.5	703	319
110	60	59	60	59	16.1	4.9	768	348
120	66	65	66	65	17.5	5.3	833	378
130	71	71	71	71	18.9	5.8	899	408
140	77	76	77	76	20.3	6.2	964	437
150	83	82	83	82	21.8	6.6	1029	467

WE-7000

538 series



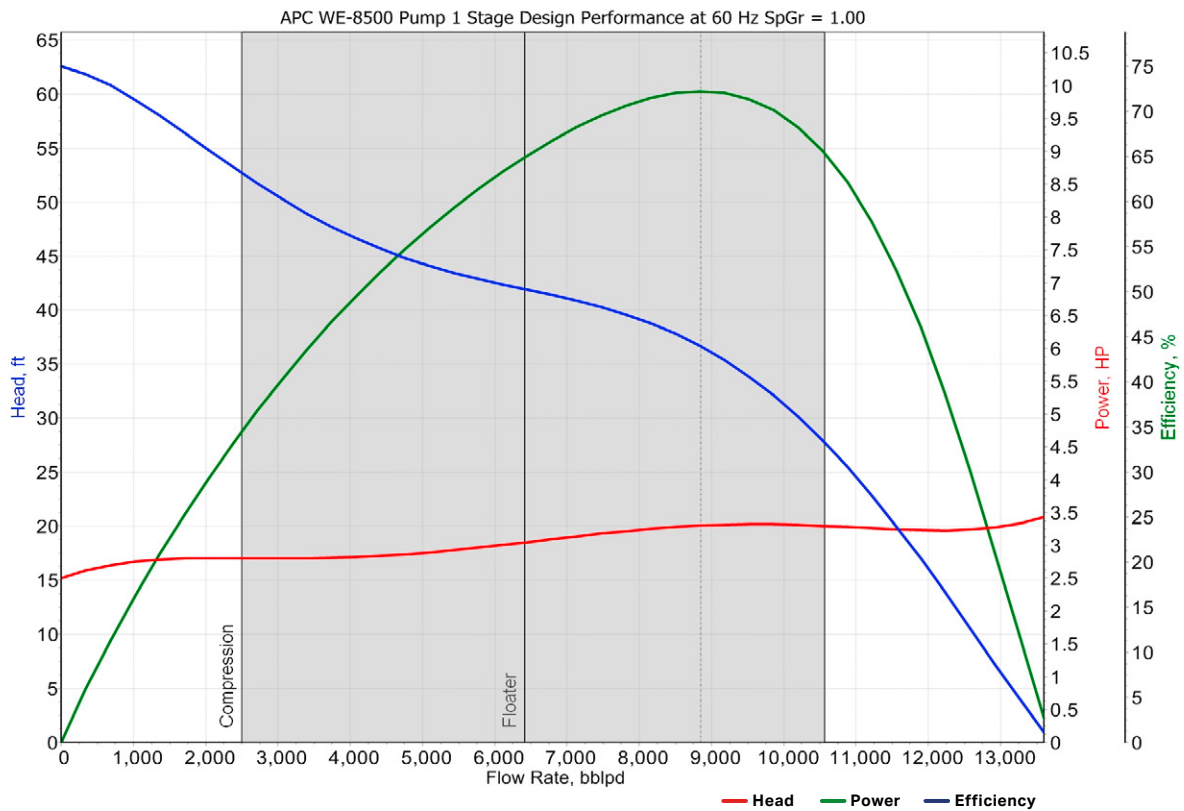
Optimum operating range	2,000 to 10,000 BPD
BEP flow rate	7,388 BPD
Housing diameter	5.38 In.
Minimum casing size	7 In.
Shaft diameter	1 In.
Standard shaft limit @ 60Hz	375 HP
High strength shaft limit @ 60Hz	600 HP
Ultra high strength shaft limit @ 60Hz	750 HP

Floater operating range	4,000 to 10,000 BPD
Fluid specific gravity	1
Rotational direction	CCW
Housing pressure limit	5,000 PSI
High pressure housing limit	6,000 PSI
Stage type	Mixed Flow

Housing	Standard Stages		Abrasion Resistant		Length		Weight	
	Floater	Compression	Floater	Compression	ft	m	lbs	kg
10	4	3	4	3	2.1	0.6	115	52
20	10	9	10	9	3.5	1.1	180	82
30	15	14	15	14	4.9	1.5	245	111
40	21	20	21	20	6.3	1.9	311	141
50	26	26	26	26	7.7	2.4	376	171
60	32	31	32	31	9.1	2.8	441	200
70	38	37	38	37	10.5	3.2	507	230
80	43	43	43	43	11.9	3.6	572	259
90	49	48	49	48	13.3	4.1	637	289
100	55	54	55	54	14.7	4.5	703	319
110	60	59	60	59	16.1	4.9	768	348
120	66	65	66	65	17.5	5.3	833	378
130	71	71	71	71	18.9	5.8	899	408
140	77	76	77	76	20.3	6.2	964	437
150	83	82	83	82	21.8	6.6	1029	467

WE-8500

538 series



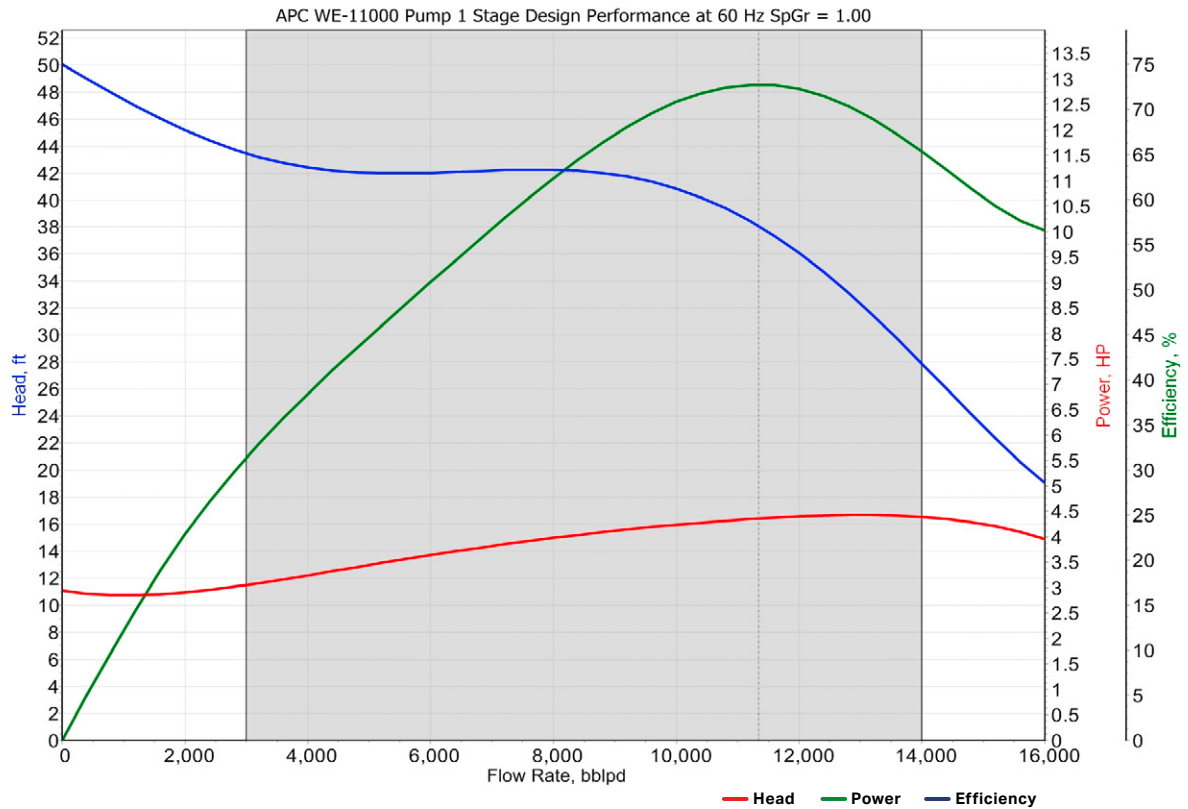
Optimum operating range	2,500 to 10,565 BPD
BEP flow rate	8,850 BPD
Housing diameter	5.38 in.
Minimum casing size	7 in.
Shaft diameter	1 in.
Standard shaft limit @ 60Hz	375 HP
High strength shaft limit @ 60Hz	600 HP
Ultra high strength shaft limit @ 60Hz	750 HP

Floater operating range	6,414 to 10,565 BPD
Fluid specific gravity	1
Rotational direction	CCW
Housing pressure limit	5,000 PSI
High pressure housing limit	6,000 PSI
Stage type	Mixed Flow

Housing	Standard Stages		Abrasion Resistant		Length		Weight	
	Floater	Compression	Floater	Compression	ft	m	lbs	kg
10	3	3	3	3	2.1	0.6	93	42
20	8	8	8	8	3.5	1.1	157	71
30	13	13	13	13	4.9	1.5	220	100
40	18	18	18	18	6.3	1.9	284	129
50	23	23	23	23	7.7	2.4	347	157
60	28	28	28	28	9.1	2.8	412	187
70	33	33	33	33	10.5	3.2	473	215
80	38	38	38	38	11.9	3.6	537	244
90	43	43	43	43	13.3	4.1	602	273
100	48	48	48	48	14.7	4.5	665	302
110	53	53	53	53	16.1	4.9	729	331
120	58	57	58	57	17.5	5.3	793	360
130	63	62	63	62	18.9	5.8	857	389
140	68	67	68	67	20.3	6.2	921	418
150	73	72	73	72	21.8	6.6	985	447

WE-11000

538 series



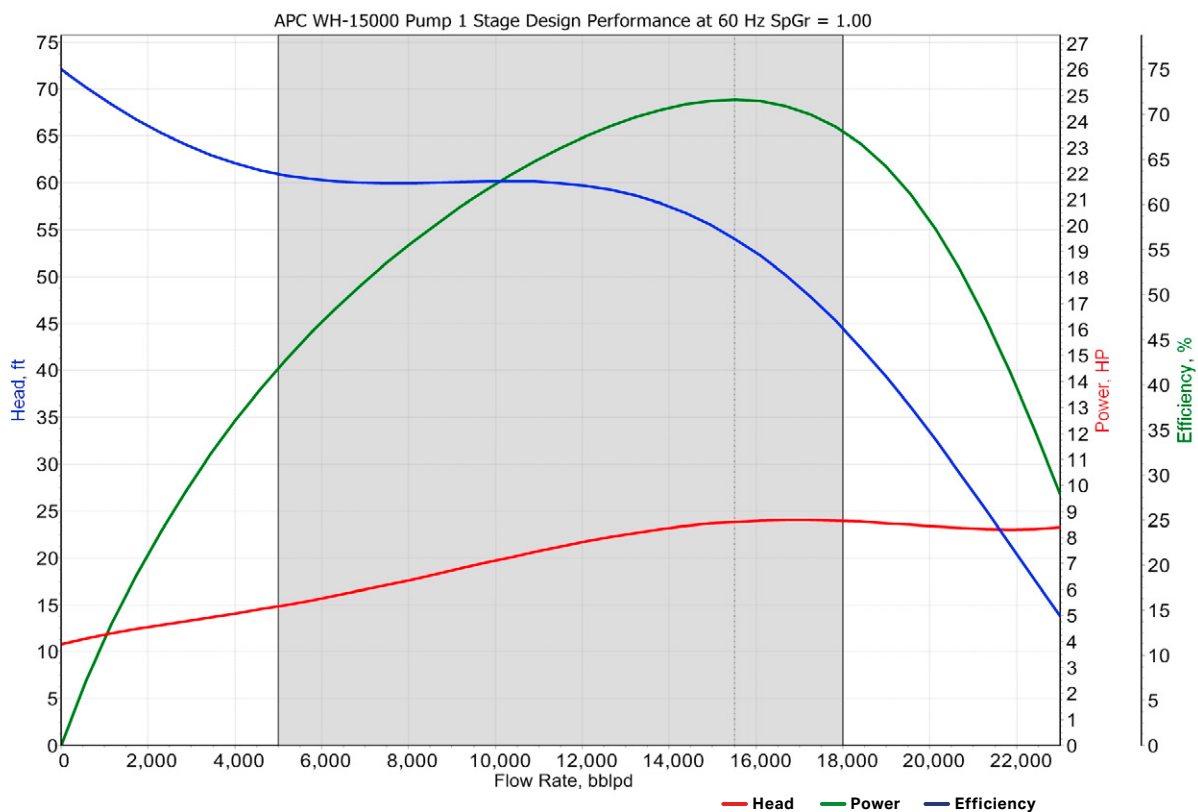
Optimum operating range	3,000 to 14,000 BPD
BEP flow rate	11,340 BPD
Housing diameter	5.38 In.
Minimum casing size	7 In.
Shaft diameter	1.188 In.
Standard shaft limit @ 60Hz	625 HP
High strength shaft limit @ 60Hz	1,000 HP
Ultra high strength shaft limit @ 60Hz	1,250 HP

Floater operating range	N/A
Fluid specific gravity	1
Rotational direction	CCW
Housing pressure limit	5,000 PSI
High pressure housing limit	6,000 PSI
Stage type	Mixed Flow

Housing	Standard Stages	Abrasion Resistant	Length		Weight	
	Compression	Compression	ft	m	lbs	kg
10	2	2	2.1	0.6	116	53
20	5	5	3.5	1.1	185	84
30	9	9	4.9	1.5	244	111
40	12	12	6.3	1.9	314	142
50	16	16	7.7	2.4	384	174
60	19	19	9.1	2.8	453	205
70	23	23	10.5	3.2	523	237
80	27	27	11.9	3.6	582	264
90	30	30	13.3	4.1	652	296
100	34	34	14.7	4.5	721	327
110	37	37	16.1	4.9	791	359
120	41	41	17.5	5.3	850	386
130	44	44	18.9	5.8	920	417
140	48	48	20.3	6.2	989	449
150	51	51	21.8	6.6	1,059	480

WH-15000

562 series



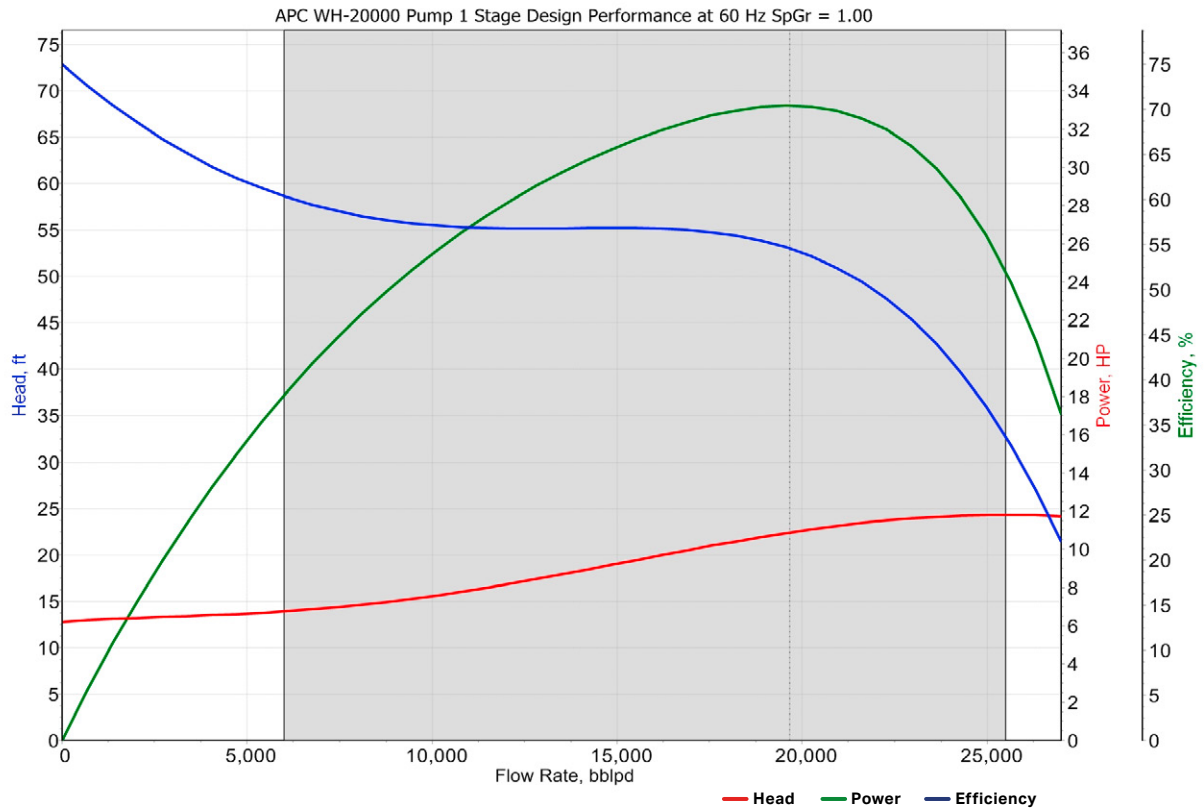
Optimum operating range	5,000 to 18,000 BPD
BEP flow rate	15,500 BPD
Housing diameter	5.62 In.
Minimum casing size	7 In.
Shaft diameter	1.188 In.
Standard shaft limit @ 60Hz	625 HP
High strength shaft limit @ 60Hz	1,000 HP
Ultra high strength shaft limit @ 60Hz	1,250 HP

Fluid specific gravity	1
Rotational direction	CCW
Housing pressure limit	3,000 PSI
High pressure housing limit	3,600 PSI
Stage type	Mixed Flow

Housing	Standard Stages	Abrasion Resistant	Length		Weight	
	Compression	Compression	ft	m	lbs	kg
10	2	2	2.1	0.6	108	49
20	5	5	3.5	1.1	174	79
30	8	8	4.9	1.5	241	109
40	11	11	6.3	1.9	307	139
50	14	14	7.7	2.4	374	170
60	17	17	9.1	2.8	440	200
70	20	20	10.5	3.2	506	230
80	23	23	11.9	3.6	573	260
90	26	26	13.3	4.1	639	290
100	29	29	14.7	4.5	706	320
110	32	32	16.1	4.9	772	350
120	36	36	17.5	5.3	839	381
130	39	39	18.9	5.8	905	411
140	42	42	20.3	6.2	994	451

WH-20000

562 series



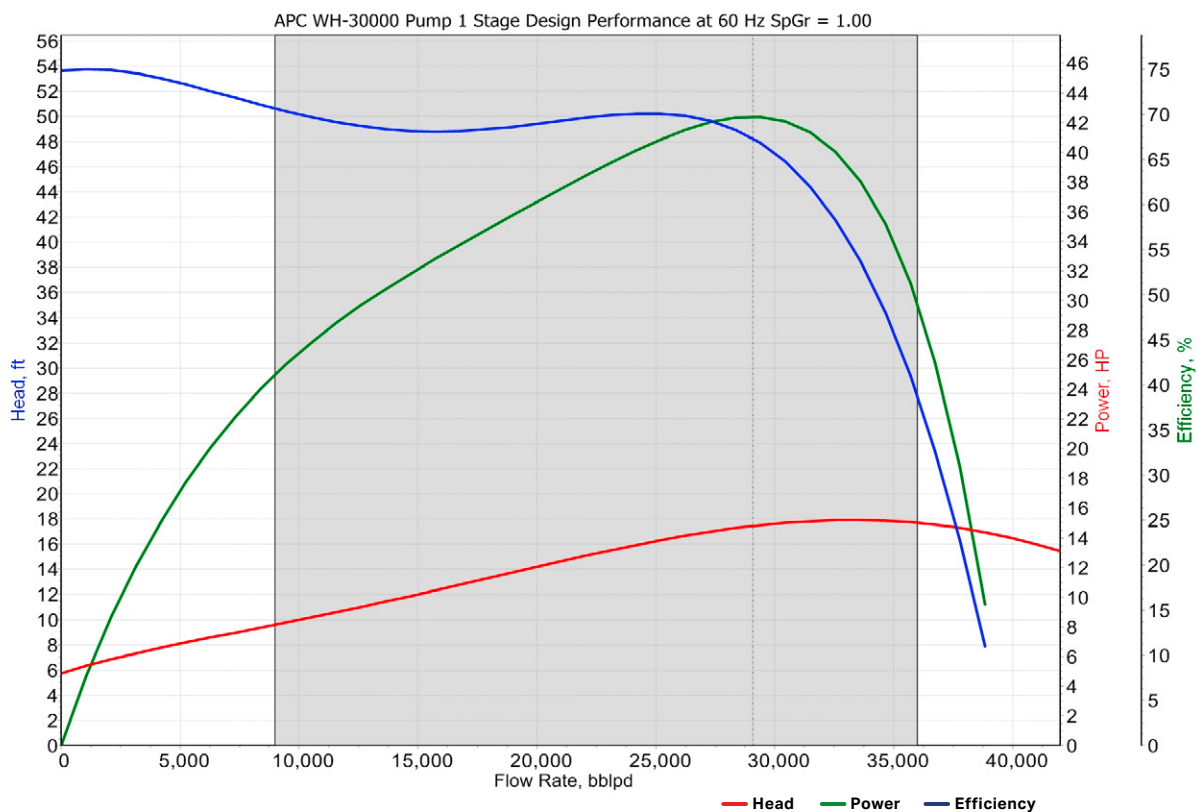
Optimum operating range	6,000 to 25,500 BPD
BEP flow rate	19,662 BPD
Housing diameter	5.62 In.
Minimum casing size	7 In.
Shaft diameter	1.188 In.
Standard shaft limit @ 60Hz	625 HP
High strength shaft limit @ 60Hz	1,000 HP
Ultra high strength shaft limit @ 60Hz	1,250 HP

Fluid specific gravity	1
Rotational direction	CCW
Housing pressure limit	3,000 PSI
High pressure housing limit	3,600 PSI
Stage type	Mixed Flow

Housing	Standard Stages	Abrasion Resistant	Length		Weight	
	Compression	Compression	ft	m	lbs	kg
10	2	2	2.1	0.6	108	49
20	5	5	3.5	1.1	174	79
30	8	8	4.9	1.5	241	109
40	11	11	6.3	1.9	307	139
50	14	14	7.7	2.4	374	170
60	17	17	9.1	2.8	440	200
70	20	20	10.5	3.2	506	230
80	23	23	11.9	3.6	573	260
90	26	26	13.3	4.1	639	290
100	29	29	14.7	4.5	706	320
110	32	32	16.1	4.9	772	350
120	36	36	17.5	5.3	839	381
130	39	39	18.9	5.8	905	411
140	42	42	20.3	6.2	994	451

WH-30000

562 series



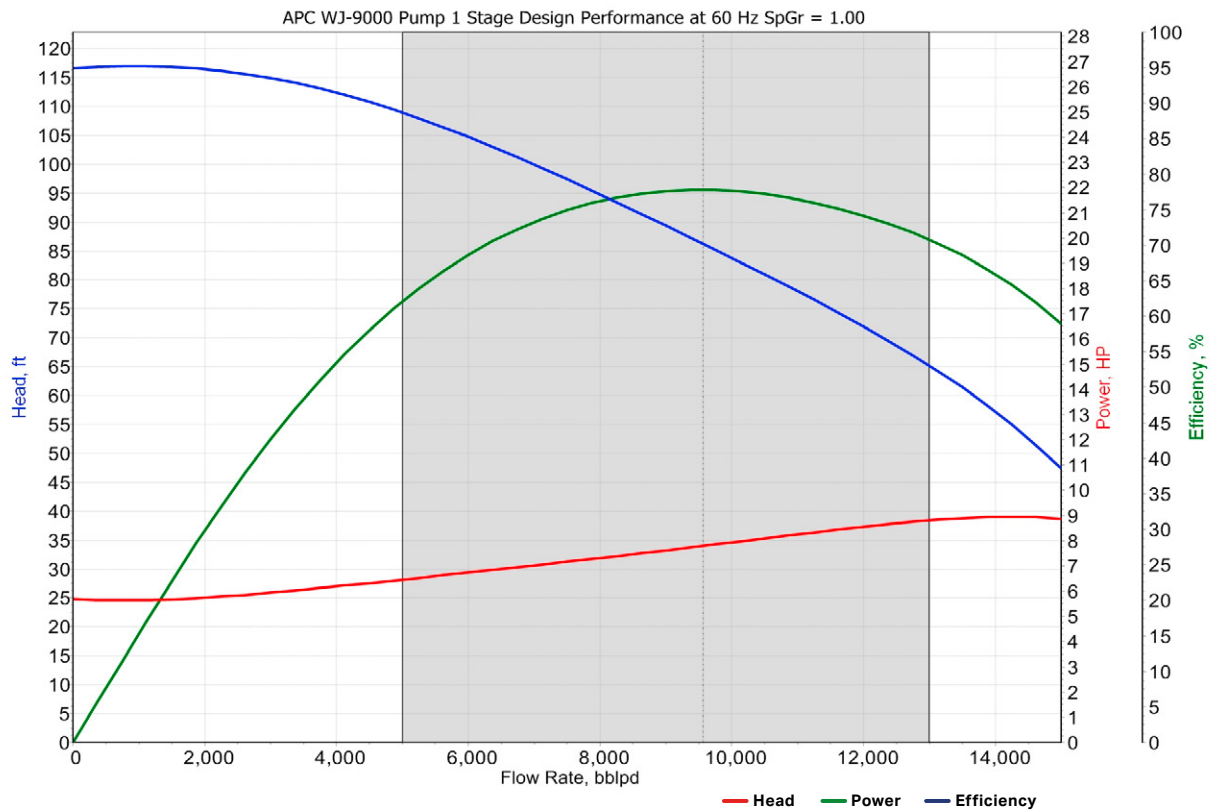
Optimum operating range	9,000 to 36,000 BPD
BEP flow rate	29,080 BPD
Housing diameter	5.62 In.
Minimum casing size	7 In.
Shaft diameter	1.188 In.
Standard shaft limit @ 60Hz	625 HP
High strength shaft limit @ 60Hz	1,000 HP
Ultra high strength shaft limit @ 60Hz	1,250 HP

Fluid specific gravity	1
Rotational direction	CCW
Housing pressure limit	3,000 PSI
High pressure housing limit	3,600 PSI
Stage type	Mixed Flow

Housing	Standard Stages	Abrasion Resistant	Length		Weight	
	Compression	Compression	ft	m	lbs	kg
10	1	1	2.1	0.6	108	49
20	4	4	3.5	1.1	174	79
30	7	7	4.9	1.5	241	109
40	10	10	6.3	1.9	307	139
50	13	13	7.7	2.4	374	170
60	15	15	9.1	2.8	440	200
70	18	18	10.5	3.2	506	230
80	21	21	11.9	3.6	573	260
90	24	24	13.3	4.1	639	290
100	27	27	14.7	4.5	706	320
110	29	29	16.1	4.9	772	350
120	32	32	17.5	5.3	839	381
130	35	35	18.9	5.8	905	411
140	38	38	20.3	6.2	994	411
150	41	41	21.8	6.6	1,061	481

WJ-9000

675 series



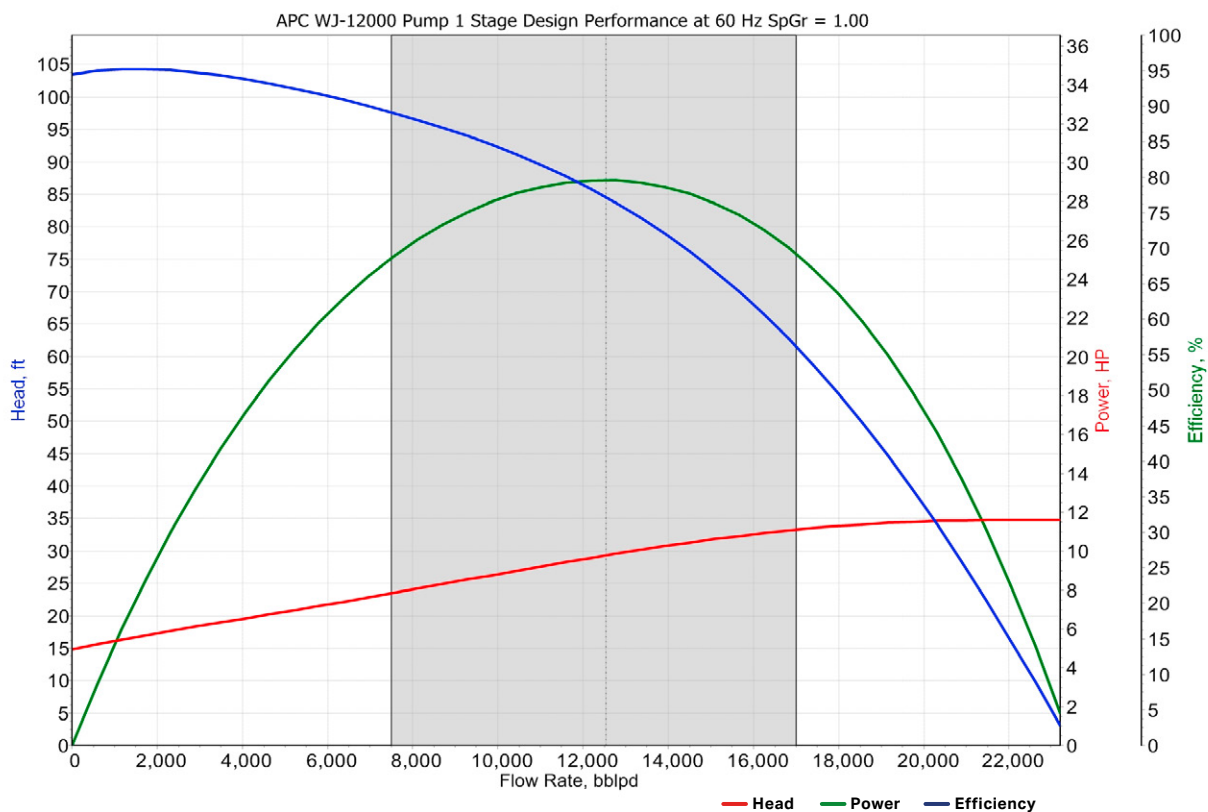
Optimum operating range	6,000 to 13,000 BPD
BEP flow rate	9560 BPD
Housing diameter	6.75 In.
Minimum casing size	8.625 In.
Shaft diameter	1.188 In.
Standard shaft limit @ 60Hz	625 HP
High strength shaft limit @ 60Hz	1,000 HP
Ultra high strength shaft limit @ 60Hz	1,250 HP

Fluid specific gravity	1
Rotational direction	CCW
Housing pressure limit	3,000 PSI
High pressure housing limit	3,600 PSI
Stage type	Mixed Flow

Housing	Standard Stages	Abrasion Resistant	Length		Weight	
	Compression	Compression	ft	m	lbs	kg
10	3	3	2.6	0.8	226	103
20	6	6	4	1.2	327	148
30	9	9	5.4	1.7	448	203
40	13	13	6.7	2	550	249
50	16	16	8.1	2.5	650	295
60	19	19	9.5	2.9	776	352
70	22	22	10.9	3.3	873	396
80	26	26	12.2	3.7	993	450
90	29	29	13.6	4.2	1,097	498
100	32	32	15	4.6	1,198	543
110	36	36	16.4	5	1,317	597
120	39	39	17.7	5.4	1,418	643
130	42	42	19.1	5.8	1,522	690
140	46	46	20.5	6.3	1,642	745
150	49	49	21.9	6.7	1,762	799

WJ-12000

675 series



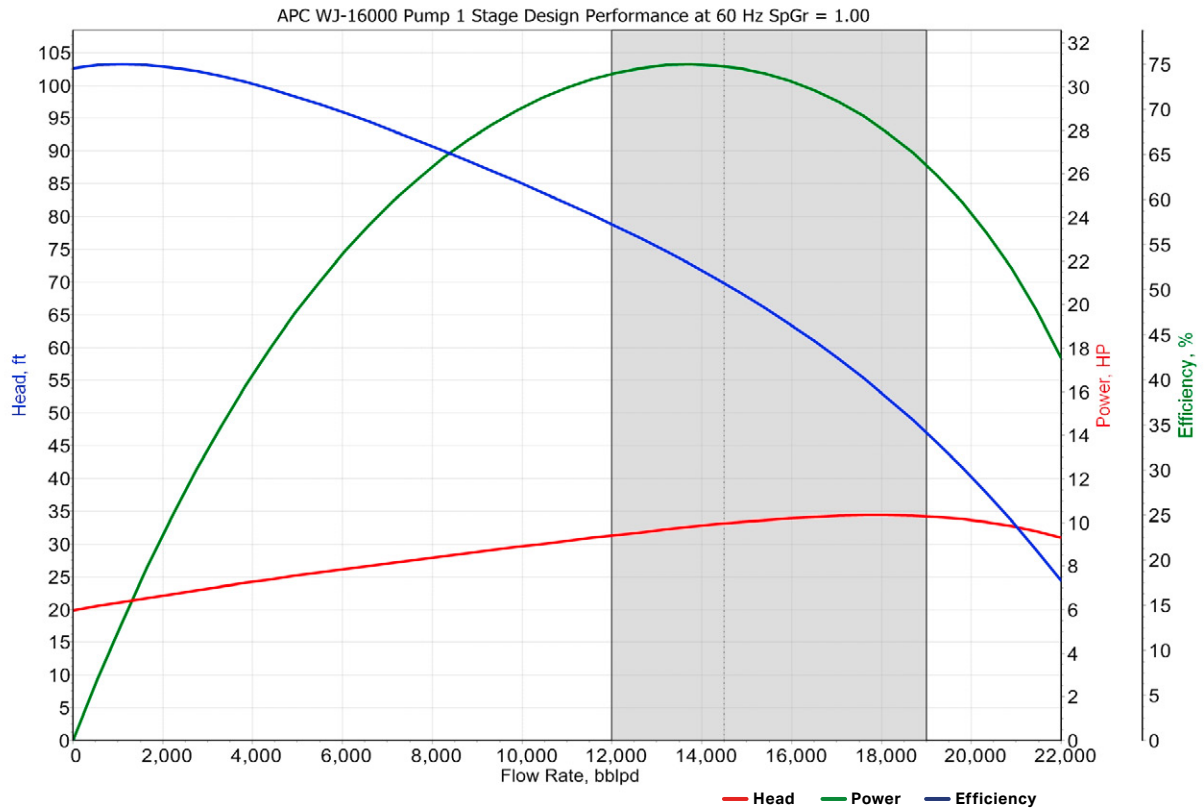
Optimum operating range	7,500 to 17,000 BPD
BEP flow rate	12,544 BPD
Housing diameter	6.75 In.
Minimum casing size	8.625 In.
Shaft diameter	1.188 In.
Standard shaft limit @ 60Hz	625 HP
High strength shaft limit @ 60Hz	1,000 HP
Ultra high strength shaft limit @ 60Hz	1,250 HP

Fluid specific gravity	1
Rotational direction	CCW
Housing pressure limit	3,000 PSI
High pressure housing limit	3,600 PSI
Stage type	Mixed Flow

Housing	Standard Stages	Abrasion Resistant	Length		Weight	
	Compression	Compression	ft	m	lbs	kg
10	2	2	2.7	0.8	210	95
20	5	5	4	1.2	327	148
30	8	8	5.4	1.7	419	190
40	11	11	6.8	2.1	511	232
50	14	14	8.2	2.5	603	274
60	17	17	9.5	2.9	714	324
70	20	20	10.9	3.3	806	366
80	23	23	12.3	3.8	898	407
90	26	26	13.7	4.2	1,009	458
100	29	29	15	4.6	1,104	501
110	32	32	16.4	5	1,193	541
120	35	35	17.8	5.4	1,304	591
130	38	38	19.2	5.9	1,396	633
140	41	41	20.5	6.3	1,488	675
150	44	44	21.9	6.7	1,580	717

WJ-16000

675 series



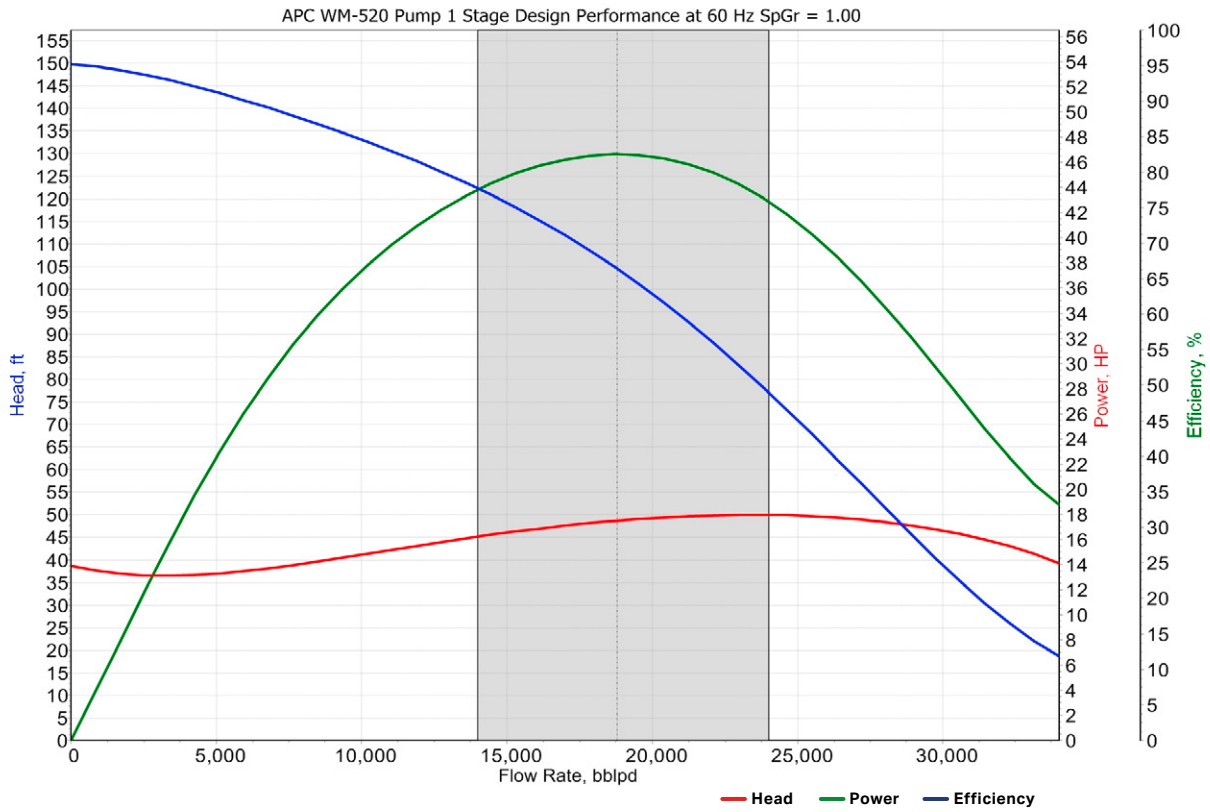
Optimum operating range	12,500 to 19,000 BPD
BEP flow rate	14,500 BPD
Housing diameter	6.75 In.
Minimum casing size	8.625 In.
Shaft diameter	1.188 In.
Standard shaft limit @ 60Hz	625 HP
High strength shaft limit @ 60Hz	1,000 HP
Ultra high strength shaft limit @ 60Hz	1,250 HP

Fluid specific gravity	1
Rotational direction	CCW
Housing pressure limit	3,000 PSI
High pressure housing limit	3,600 PSI
Stage type	Mixed Flow

Housing	Standard Stages	Abrasion Resistant	Length		Weight	
	Compression	Compression	ft	m	lbs	kg
10	2	2	2.7	0.8	222	101
20	5	5	4	1.2	304	138
30	8	8	5.4	1.7	386	175
40	11	11	6.8	2.1	468	212
50	14	14	8.2	2.5	550	249
60	17	17	9.5	2.9	632	287
70	20	20	10.9	3.3	714	324
80	23	23	12.3	3.8	796	361
90	26	26	13.7	4.2	878	398
100	29	29	15	4.6	961	436
110	32	32	16.4	5	1,042	473
120	35	35	17.8	5.4	1,125	510
130	38	38	19.2	5.9	1,207	547
140	41	41	20.5	6.3	1,289	585
150	44	44	21.9	6.7	1,371	622

WM-520

862 series



Optimum operating range	14,000 to 24,000 BPD
BEP flow rate	18,800 BPD
Housing diameter	8.62 In.
Minimum casing size	10.75 In.
Shaft diameter	1.375 In.
Standard shaft limit @ 60Hz	840 HP
High strength shaft limit @ 60Hz	1,345 HP
Ultra high strength shaft limit @ 60Hz	1,680 HP

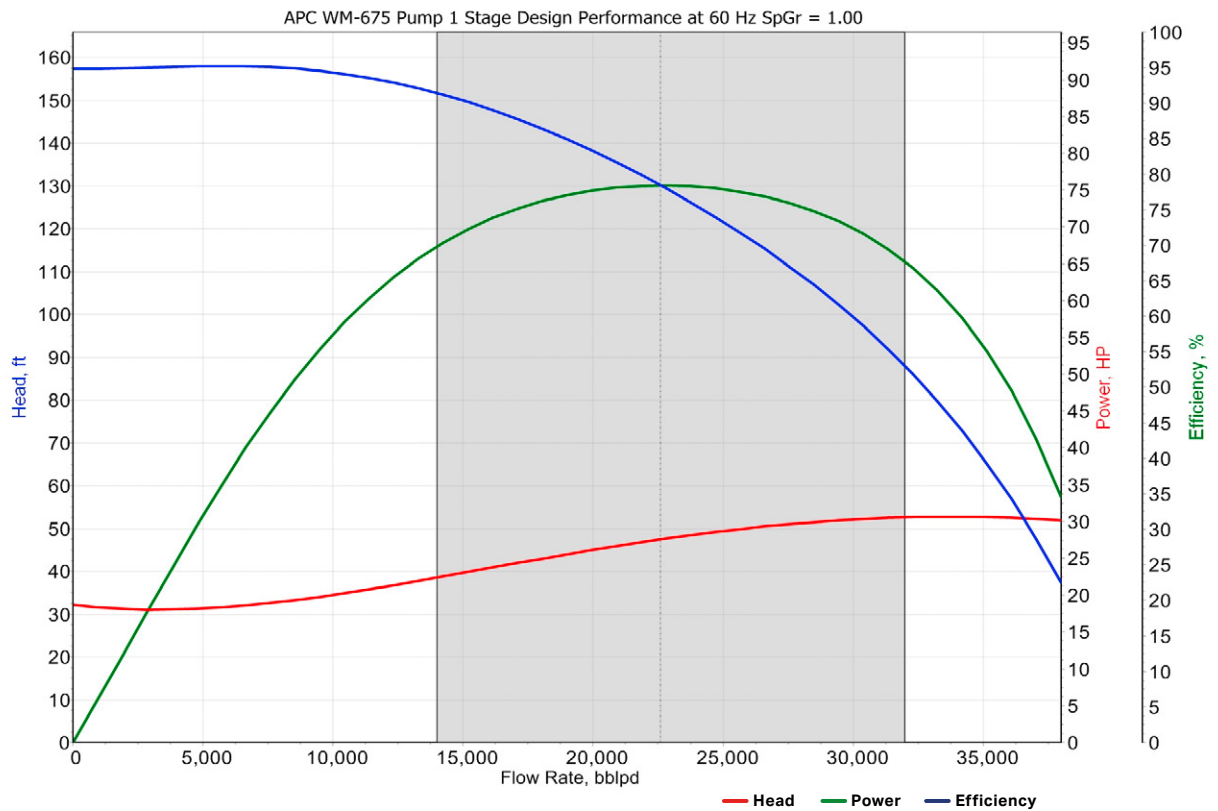
Fluid specific gravity	1
Rotational direction	CCW
Housing pressure limit	2,000 PSI
High pressure housing limit	2,400 PSI
Stage type	Mixed Flow

Housing	Standard Stages	Length		Weight	
		ft	m	lbs	kg
3	3	3.3	1	528	239
4	4	3.9	1.2	587	266
5	5	4.5	1.4	662	300
6	6	5.1	1.6	729	331
7	7	5.7	1.7	789	358
8	8	6.3	1.9	863	391
9	9	6.9	2.1	931	422
10	10	7.5	2.3	991	450
11	11	8.1	2.5	1,058	480
12	12	8.7	2.7	1,126	511
13	13	9.3	2.8	1,193	541
14	14	9.9	3	1,260	572
15	15	10.6	3.2	1,327	602
16	16	11.2	3.4	1,395	633
17	17	11.8	3.6	1,466	665

Housing	Standard Stages	Length		Weight	
		ft	m	lbs	kg
18	18	12.4	3.8	1,533	695
19	19	13	4	1,596	724
20	20	13.6	4.2	1,664	755
21	21	14.2	4.3	1,734	787
22	22	14.8	4.5	1,801	817
23	23	15.4	4.7	1,866	846
24	24	16	4.9	1,933	877
25	25	16.6	5.1	2,003	909
26	26	17.2	5.2	2,071	939
27	27	17.8	5.4	2,138	970
28	28	18.4	5.6	2,202	999
29	29	19	5.8	2,272	1,031
30	30	19.6	6	2,339	1,061
31	31	20.2	6.2	2,407	1,092
32	32	20.8	6.3	2,474	1,122

WM-675

862 series



Optimum operating range	14,000 to 32,000 BPD
BEP flow rate	22,600 BPD
Housing diameter	8.62 In.
Minimum casing size	10.75 In.
Shaft diameter	1.375 In.
Standard shaft limit @ 60Hz	840 HP
High strength shaft limit @ 60Hz	1,345 HP
Ultra high strength shaft limit @ 60Hz	1,680 HP

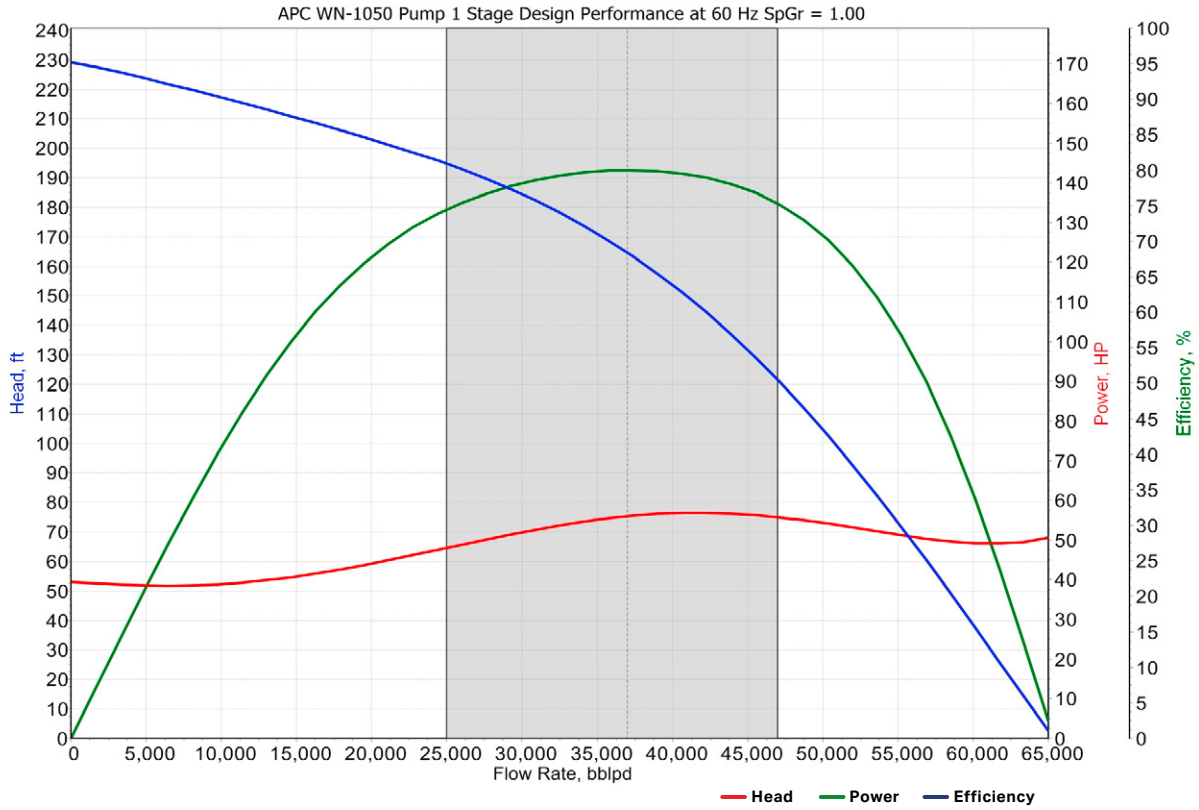
Fluid specific gravity	1
Rotational direction	CCW
Housing pressure limit	2,000 PSI
High pressure housing limit	2,400 PSI
Stage type	Mixed Flow

Housing	Standard Stages	Length		Weight	
		ft	m	lbs	kg
3	3	3.3	1	528	239
4	4	3.9	1.2	587	266
5	5	4.5	1.4	662	300
6	6	5.1	1.6	729	331
7	7	5.7	1.7	789	358
8	8	6.3	1.9	863	391
9	9	6.9	2.1	931	422
10	10	7.5	2.3	991	450
11	11	8.1	2.5	1,058	480
12	12	8.7	2.7	1,126	511
13	13	9.3	2.8	1,193	541
14	14	9.9	3	1,260	572
15	15	10.6	3.2	1,327	602
16	16	11.2	3.4	1,395	633
17	17	11.8	3.6	1,466	665

Housing	Standard Stages	Length		Weight	
		ft	m	lbs	kg
18	18	12.4	3.8	1,533	695
19	19	13	4	1,596	724
20	20	13.6	4.2	1,664	755
21	21	14.2	4.3	1,734	787
22	22	14.8	4.5	1,801	817
23	23	15.4	4.7	1,866	846
24	24	16	4.9	1,933	877
25	25	16.6	5.1	2,003	909
26	26	17.2	5.2	2,071	939
27	27	17.8	5.4	2,138	970
28	28	18.4	5.6	2,202	999
29	29	19	5.8	2,272	1,031
30	30	19.6	6	2,339	1,061
31	31	20.2	6.2	2,407	1,092
32	32	20.8	6.3	2,474	1,122

WN-1050

950 series



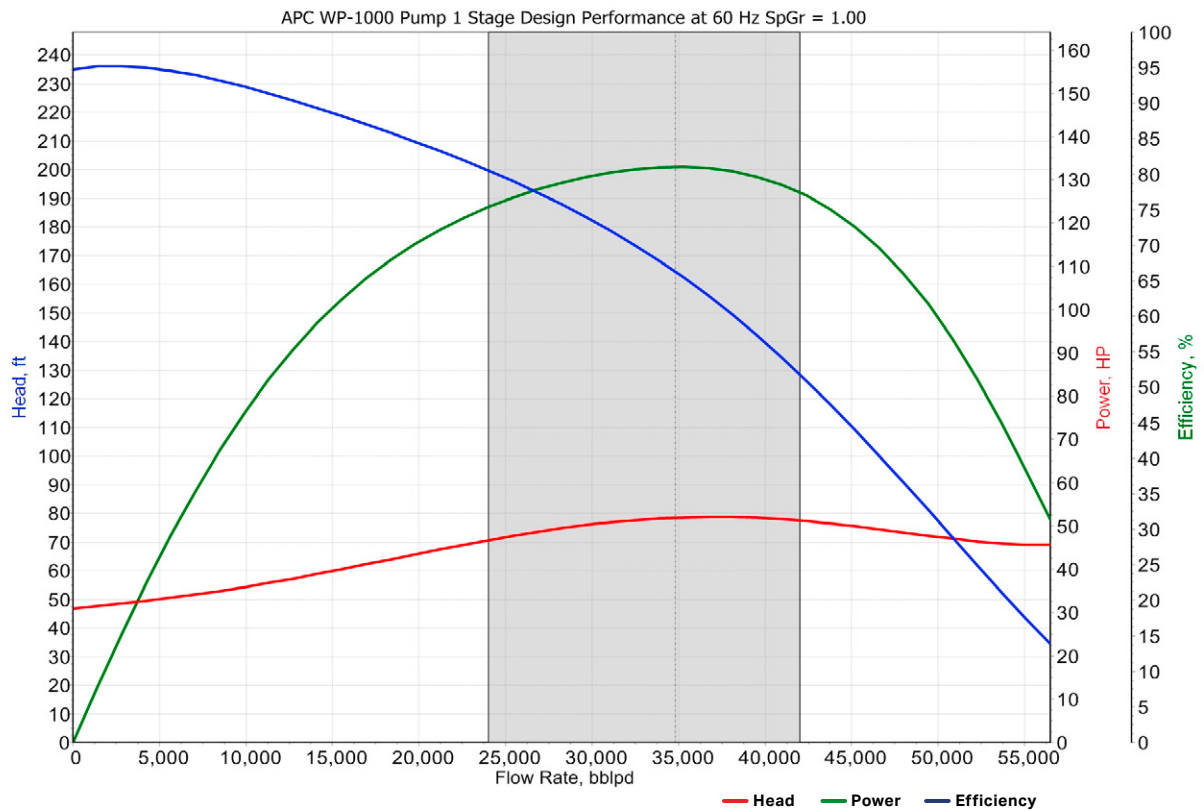
Optimum operating range	25,000 to 47,000 BPD
BEP flow rate	37,000 BPD
Housing diameter	9.5 In.
Minimum casing size	11.75 In.
Shaft diameter	1.5 In.
Standard shaft limit @ 60Hz	1,000 HP
High strength shaft limit @ 60Hz	1,600 HP
Ultra high strength shaft limit @ 60Hz	2,000 HP

Fluid specific gravity	1
Rotational direction	CCW
Housing pressure limit	2,300 PSI
High pressure housing limit	2,760 PSI
Stage type	Mixed Flow

Housing	Standard Stages	Length		Weight	
	Compression	ft	m	lbs	kg
1	1	2.4	0.7	516	234
2	2	3	0.9	592	269
3	3	3.6	1.1	668	303
4	4	4.2	1.3	744	337
5	5	4.7	1.4	817	371
6	6	5.3	1.6	892	405
7	7	5.9	1.8	968	439
8	8	6.5	2	1,044	474
9	9	7.1	2.2	1,120	508
10	10	7.6	2.3	1,193	541
11	11	8.2	2.5	1,269	576
12	12	8.8	2.7	1,345	610
13	13	9.4	2.9	1,421	645
14	14	10	3.1	1,497	679
15	15	10.6	3.2	1,573	714
16	16	11.1	3.4	1,649	748
17	17	11.7	3.6	1,725	782

WP-1000

1000 series



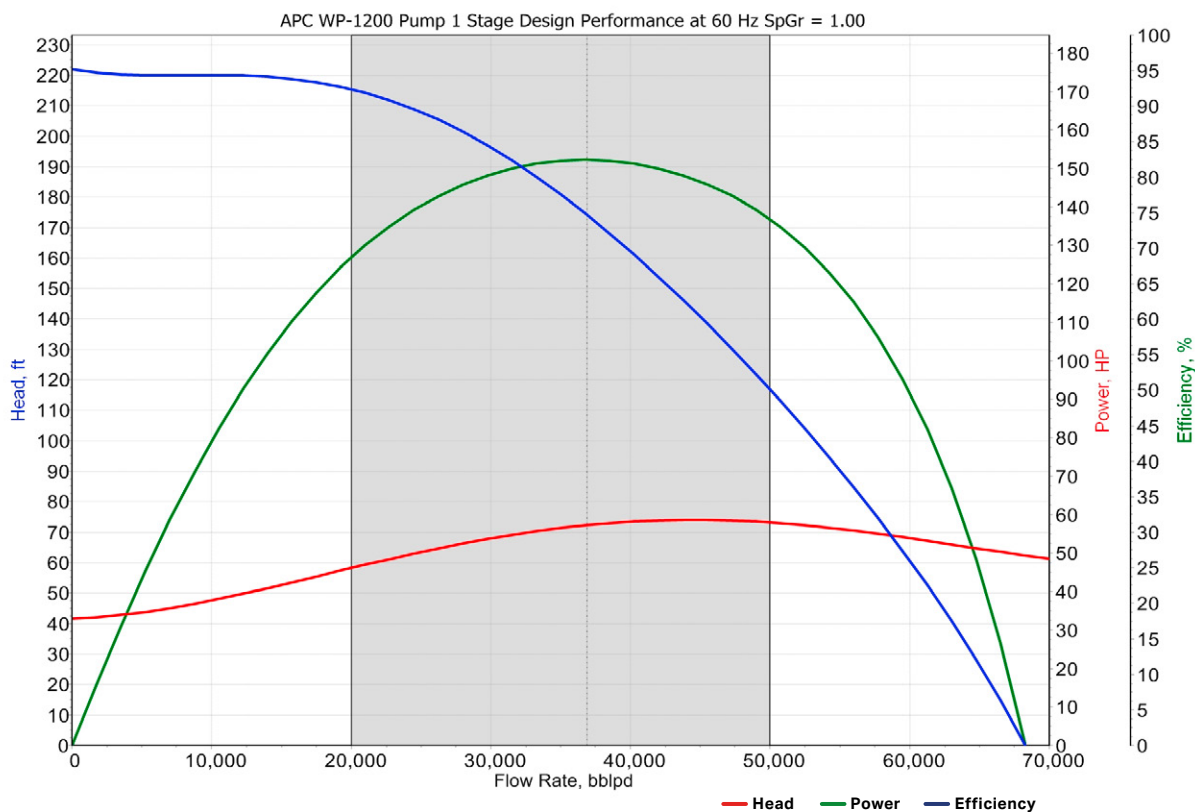
Optimum operating range	24,000 to 42,000 BPD
BEP flow rate	34,800 BPD
Housing diameter	10 In.
Minimum casing size	13.375 In.
Shaft diameter	1.5 In.
Standard shaft limit @ 60Hz	1,000 HP
High strength shaft limit @ 60Hz	1,600 HP
Ultra high strength shaft limit @ 60Hz	2,000 HP

Fluid specific gravity	1
Rotational direction	CCW
Housing pressure limit	1,200 PSI
High pressure housing limit	1,200 PSI
Stage type	Mixed Flow

Housing	Standard Stages Compression	Length		Weight	
		ft	m	lbs	kg
1	1	2.5	0.76	219	99.4
2	2	3.2	0.98	298	135.3
3	3	3.9	1.19	378	171.6
4	4	4.7	1.43	457	207.5
5	5	5.4	1.65	537	243.8
6	6	6.1	1.86	616	279.7
7	7	6.8	2.07	696	316.0
8	8	7.5	2.29	775	351.9
9	9	8.2	2.50	855	388.2
10	10	8.9	2.71	934	424.0

WP-1200

1000 series



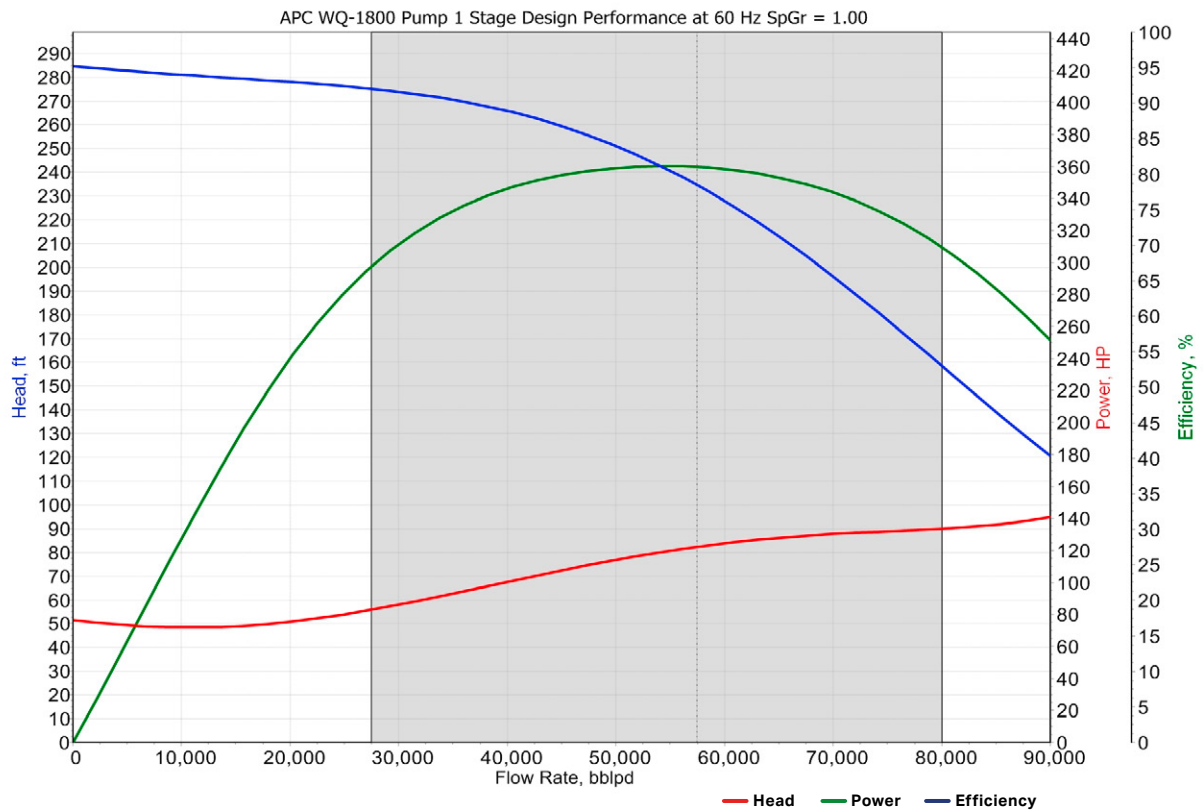
Optimum operating range	30,000 to 50,000 BPD
BEP flow rate	36,900 BPD
Housing diameter	10 In.
Minimum casing size	13.375 In.
Shaft diameter	1.5 In.
Standard shaft limit @ 60Hz	1,000 HP
High strength shaft limit @ 60Hz	1,600 HP
Ultra high strength shaft limit @ 60Hz	2,000 HP

Fluid specific gravity	1
Rotational direction	CCW
Housing pressure limit	1,200 PSI
High pressure housing limit	1,200 PSI
Stage type	Mixed Flow

Housing	Standard Stages	Length		Weight	
		ft	m	lbs	kg
1	1	2.5	0.76	219	99.4
2	2	3.2	0.98	298	135.3
3	3	3.9	1.19	378	171.6
4	4	4.7	1.43	457	207.5
5	5	5.4	1.65	537	243.8
6	6	6.1	1.86	616	279.7
7	7	6.8	2.07	696	316.0
8	8	7.5	2.29	775	351.9
9	9	8.2	2.50	855	388.2
10	10	8.9	2.71	934	424.0

WQ-1800

1100 series

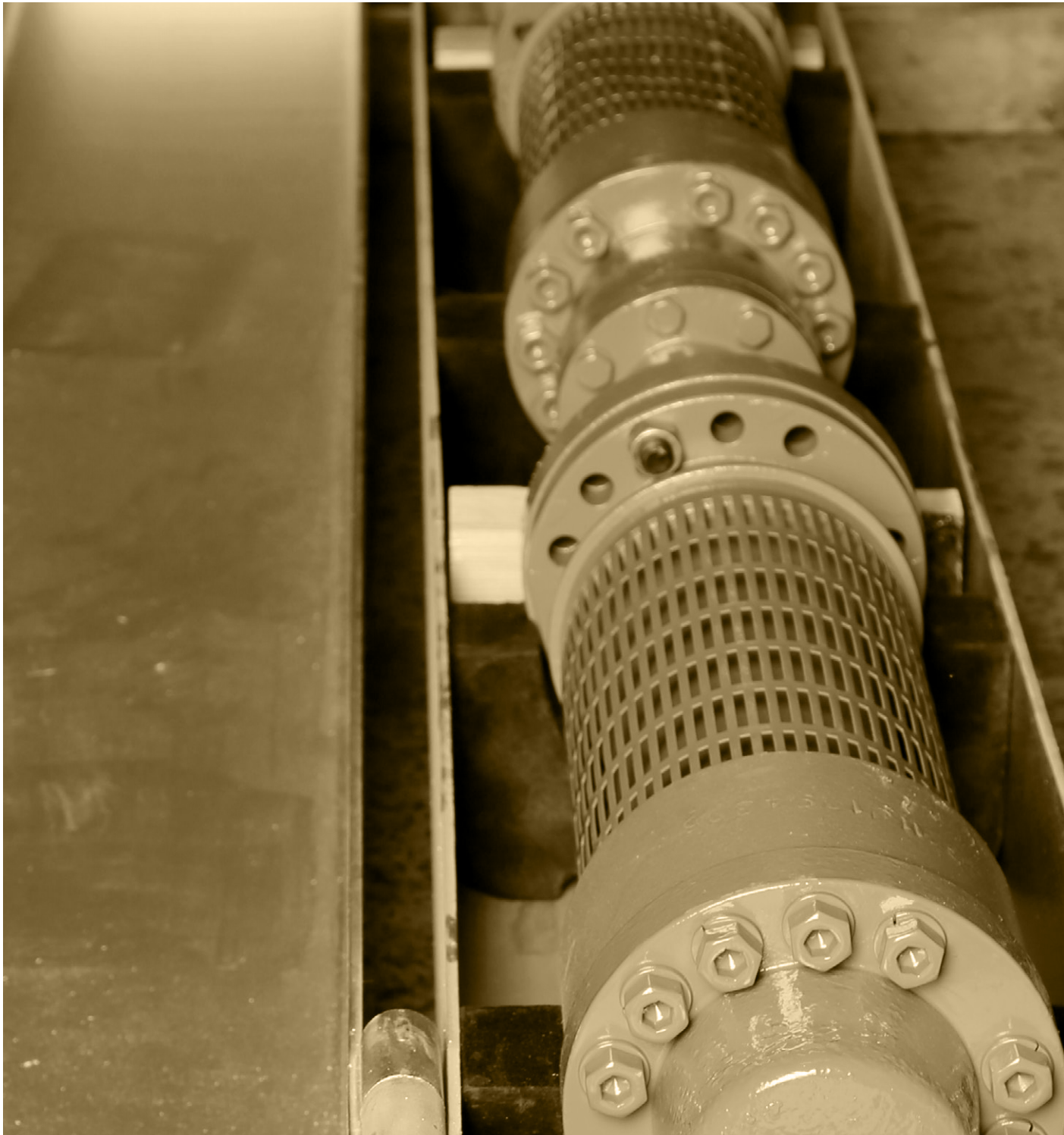


Optimum operating range	27,500 to 80,000 BPD
BEP flow rate	57,465 BPD
Housing diameter	11 In.
Minimum casing size	13.375 In.
Shaft diameter	1.5 In.
Standard shaft limit @ 60Hz	1,000 HP
High strength shaft limit @ 60Hz	1,600 HP
Ultra high strength shaft limit @ 60Hz	2,000 HP

Fluid specific gravity	1
Rotational direction	CCW
Housing pressure limit	1,200 PSI
High pressure housing limit	1,200 PSI
Stage type	Mixed Flow

Housing	Standard Stages Compression	Length		Weight	
		ft	m	lbs	kg
1	1	2.75	0.84	321	145
2	2	3.58	1.09	431	195
3	3	4.40	1.34	541	245
4	4	5.22	1.59	651	295
5	5	6.05	1.84	761	345
6	6	6.88	2.10	871	395
7	7	7.70	2.35	980	444
8	8	8.53	2.60	1,090	494
9	9	9.35	2.85	1,200	544
10	10	10.18	3.10	1,310	594

SPECTRUM Intakes & Discharge Heads



SPECTRUM Intakes

All series

Series	Description	OD	Length		Weight		Shaft OD	Shaft (BHP) Max
		in	ft	m	lb	kg	in	60 Hz
338	Standard Intake	3.38	0.8	0.24	18	8.16	0.688	125
	Standard Intake HS Shaft	3.38	0.8	0.24	18	8.16	0.688	200
400	Standard Intake	4	1	0.3	28	12.7	0.875	250
	Standard Intake SST Shaft	4	1	0.3	28	12.7	0.875	400
513 & 538	Standard Intake	5.38	1.2	0.37	50	23	1.188	625
	Standard Intake SST Shaft	5.38	1.2	0.37	50	23	1.188	1,000
562	Standard Intake	5.62	1.2	0.37	50	23	1.188	625
	Standard Intake SST Shaft	5.62	1.2	0.37	50	23	1.188	1,000
675	Standard Intake	6.75	0.9	0.27	47	21	1.188	625
	Standard Intake SST Shaft	6.75	0.9	0.27	47	21	1.188	1,000
862	Single pump comes complete with Intergral Intake. 862 Series Pumps are supplied with Ni-Resist Type-1, Super Duplex and Nickel-Aluminum-Bronze stages, housing and bowl types. Bowl type fitted with integral discharge head							
950	Single pump fitted with integral intake base 738 Series, and integral discharge head 7" OD 8RD"							
1000 & 1100	Pump assembly comes complete with Intergral flanged Intake and 7" 8 RD long box casing thread discharge head. 1000 Series Pumps are supplied with Super Duplex and Nickel-Aluminum-Bronze stages, bowl type only.							

Standard Features: Carbon steel head, base and housing. Monel K-500 shaft

Optional Features: Ferritic steel housings, corrosion resistant coating, 718 shaft (HSS)

SPECTRUM Discharge Heads

All series

Series	Description	ID	Thread	Length		Weight		
		in		ft	m	lb	kg	
338	BOH 338 2 3/8", 8RD EUE	2 3/8"	8RD EUE	0.5	0.15	10	4.54	
400	BOH 400 2 3/8", 8RD EUE	2 3/8"	8RD EUE	0.5	0.15	10	4.54	
	BOH 400 2 7/8", 8RD EUE	2 7/8"	8RD EUE	0.6	0.18	15	6.8	
	BOH 400 3 1/2", 8RD EUE	3 1/2"	8RD EUE	0.8	0.24	23	10	
513 & 538	BOH 513 3 1/2", 8RD EUE	3 1/2"	8RD EUE	0.8	0.24	23	10	
	BOH 513 4 1/2", 8RD NUE	4 1/2"	8RD NUE	0.7	0.21	25	11	
562	BOH 562 3 1/2", 8RD EUE	3 1/2"	8RD EUE	0.7	0.21	23	10	
	BOH 562 4 1/2", 8RD LTC	4 1/2"	8RD LTC	0.5	0.15	20	9	
675	BOH 675 4 1/2", 8RD NUE	4 1/2"	8RD NUE	0.7	0.21	25	11	
	BOH 675 5 1/2", 8RD LTC	5 1/2"	8RD LTC	0.8	0.24	36	16	
862	Single pump comes complete with Intergral Intake. 862 Series Pumps are supplied with Ni-Resist Type-1, Super Duplex and Nickel-Aluminum-Bronze stages, housing and bowl types. Bowl type fitted with integral discharge head							
950	Single pump fitted with integral intake base 738 Series, and integral discharge head 7" OD 8RD"							
1000 & 1100	Pump assembly comes complete with Intergral flanged Intake and 7" 8 RD long box casing thread discharge head. 1000 Series Pumps are supplied with Super Duplex and Nickel-Aluminum-Bronze stages, bowl type only.							

Standard Features: Carbon steel head, base and housing. Monel K-500 shaft. Tungsten carbide bearings & sleeves

Optional Features: Ferritic steel housings, corrosion resistant coating, 718 shaft (HSS)

SPECTRUM Gas Separators

338/400/538 series

Series	Description	OD	Length		Weight		Shaft OD
		in	ft	m	lb	kg	in
338	Vortex Gas Separator 3B	3.38	2.2	0.67	38	17.23	0.688
400	Vortex Gas Separator 3B	4	2.5	0.77	60	27.2	0.875
	Vortex Gas Separator 3B Tandem	4	4.5	1.47	102	46.3	0.875
538	Vortex Gas Separator 3B	5.38	3.4	1.04	127	57.4	1.188
	Vortex Gas Separator 3B Tandem	5.38	6.1	1.86	225	102.1	1.188

Standard Features: Carbon steel head, base and housing. Monel K-500 shaft

Optional Features: Ferritic steel housings, corrosion resistant coating, 718 shaft (HSS)

SPECTRUM Gas Processing Units

400/513/538 series

Series	Description	OD	Length		Weight		Shaft OD
		in	ft	m	lb	kg	in
400	D20 Gas Processing Unit, 500-2000 BPD	4	6.3	1.92	135	61	0.688
513	G40 Gas Processing Unit, 1500-4000 BPD	5.13	6.3	1.92	272	123	1
	G70 Gas Processing Unit, 3500-7000 BPD	5.13	6.3	1.92	272	123	0.875
538	E90 Gas Processing Unit, 4000-9000 BPD	5.38	6.3	1.92	272	123	1

Standard Features: Carbon steel head, base and housing. Monel K-500 shaft. Tungsten carbide bearings & sleeves

Optional Features: Ferritic steel housings, corrosion resistant coating, 718 shaft (HSS)

SPECTRUM Advance Gas Handling Systems

Gas Processing Units

Series	Description	OD	Length		Weight		Shaft OD
		in	ft	m	lb	kg	in
400	Advanced Gas Processing Unit GPX D20	4	6.3	1.92	135	61	0.688
513	Advanced Gas Processing Unit GPX G70, 4000-8000BPD	5.13	6.3	1.92	272	123	1

Standard Features: Carbon steel head, base and housing. Monel K-500 shaft. Tungsten carbide bearings & sleeves

Optional Features: Ferritic steel housings, corrosion resistant coating, 718 shaft (HSS)

 **SPECTRUM**
Motors



SPECTRUM Motors

380 series

60Hz		50Hz		Amps	Length		Weight	
HP	Volts	HP	Volts		ft	m	lb	kg
15	550	12.5	458	20.5	6.7	2	218	99
21	520	17.5	433	30.5	8.6	2.6	280	127
30	420	25	350	54	11.4	3.4	371	168
	533		444	42.5				
39	526	32.5	438	57	14.2	4.2	466	211
	840		700	35				
45	440	37.5	366	76	16.1	4.9	524	238
	587		489	57				
	973		810	34.5				
51	493	42.5	410	77	17.9	5.4	670	304
	667		556	57				
	840		700	45				
60	585	50	487.5	77	20.8	6.3	770	349
	780		650	57.5				
	990		825	45				

Motor Specifications: (Single Construction)
3.75 in (95.25mm) OD
Min casing size 4.5 in

Standard Features: Carbon steel head, base and housing.

Pothead: Tape-in

Temperature Rating: Max winding operating temperature of 404°F (206°C)

Optional Features: Ferritic steel housings, heads and bases; corrosion resistant coating

Contact enquiries@alkhorayef.com for more information.

SPECTRUM Motors

450 series

60Hz		50Hz		Amps	Length		Weight	
HP	Volts	HP	Volts		ft	m	lb	kg
24	440	20	366.6	35	5.6	1.7	243	110
	680		567	22.5				
36	415	30	346	55.5	7.2	2.2	316	143
	780		650	29.5				
	900		750	25.5				
48	470	40	392	65	8.8	2.7	389	76
	875		729	35				
	1,040		867	29.5				
	1,365		1,138	22.5				
60	895	50	746	43	10.6	3.2	462	210
	995		829	38.5				
	1,095		913	35				
	1,200		1,000	32				
	1,400		1,167	27.5				
72	950	60	792	48.5	12.2	3.7	536	243
	1,435		1,196	32				
	2,290		1,908	20				
84	970	70	808	55.5	13.8	4.2	609	276
	1,250		1,042	43				
	1,395		1,163	38.5				
	2,100		1,750	25.5				
96	945	80	788	65	15.4	4.7	682	309
	1,430		1,192	43				
	2,400		2,000	25.5				
108	880	90	733	78.5	17	5.2	756	343
	1,425		1,188	48.5				
	2,520		2,100	27.5				
120	1,180	100	983	65	18.6	5.7	833	378
	1,585		1,321	48.5				
	2,195		1,829	35				
	2,600		2,167	29.5				
132	1,075	110	896	78.5	20.2	6.1	907	411
	1,300		1,083	65				
	2,415		2,013	35				
	2,635		2,196	32				
144	930	120	775	99	21.8	6.6	980	445
	1,175		979	78.5				
	2,145		1,788	43				
	2,390		1,992	38.5				
	2,630		2,192	35				
156	1,270	130	1,058	78.5	23.4	7.1	1,053	478
	1,535		1,279	65				
	2,590		2,158	38.5				
168	1,085	140	904	99	25	7.6	1,126	511
	2,505		2,088	43				
180	2,680	150	2,233	43	26.6	8.1	1,200	544
192	1,890	160	1,575	65	28.2	8.6	1,273	577
	2,535		2,113	48.5				

SPECTRUM Motors

450 series

60Hz		50Hz		Amps	Length		Weight	
HP	Volts	HP	Volts		ft	m	lb	kg
204	2,010	170	1,675	65	29.8	9.1	1,346	611
	2,695		2,246	48.5				
216	1,395	180	1,163	99	31.4	9.6	1,419	644
	1,760		1,467	78.5				
	2,125		1,771	65				
	2,490		2,075	55.5				

Motor Specifications: (Single Construction)
4.56 in (115.82mm) OD
Min casing size 5.5 in

Standard Features: Carbon steel head, base and housing.

Pothead: Tape-in

Temperature Rating: Max winding operating temperature of 404°F (206°C)

Optional Features: Ferritic steel housings, heads and bases; corrosion resistant coating

Contact enquiries@alkhorayef.com for more information.

SPECTRUM Motors

550 series

60Hz		50Hz		Amps	Length		Weight	
HP	Volts	HP	Volts		ft	m	lb	kg
30	338	25	282	58	5.0	1.5	260	118
	513		428	37				
	881		734	22				
	1,190		992	15				
45	507	38	423	58	6.5	2	350	159
	828		690	36				
	1,417		1,181	21				
60	507	50	423	77	7.9	2.4	443	201
	770		642	52				
	852		710	46				
	1,027		855	39				
	1,546		1,288	26				
75	525	63	437	93	9.2	2.8	535	243
	846		705	58				
	1,056		880	45				
	1,481		1,235	32				
	1,604		1,337	28				
90	496	75	413	118	10.7	3.3	638	289
	537		447	106				
	752		627	76				
	1,015		846	58				
	1,132		943	52				
	1,266		1,055	45				
	1,540		1,283	39				
105	881	88	734	77	12	3.7	730	331
	1,184		987	58				
	1,476		1,230	45				
	2,222		1,852	30				
120	1,009	100	841	77	13.4	4.1	822	373
	1,353		1,128	58				
	2,025		1,688	37				
	2,543		2,119	30				
150	822	125	685	116	16.1	4.9	1,007	457
	974		812	98				
	1,248		1,040	77				
	1,464		1,220	65				
	1,691		1,410	58				
	2,531		2,109	37				
180	997	150	831	114	18.9	5.7	1,194	542
	1,201		1,001	94				
	1,511		1,259	76				
	2,030		1,691	58				
	2,525		2,105	43				
195	1,079	163	899	114	20.3	6.2	1,287	584
	1,312		1,094	94				
	2,735		2,280	43				

SPECTRUM Motors

550 series

60Hz		50Hz		Amps	Length		Weight	
HP	Volts	HP	Volts		ft	m	lb	kg
210	1,149	175	958	116	21.6	6.6	1,380	626
	1,411		1,176	87				
	2,350		1,959	57				
225	1,254	188	1,045	112	21.6	7	1,472	668
	1,446		1,205	98				
	2,455		2,046	57				
240	962	200	802	158	24.4	7.4	1,580	717
	1,301		1,084	115				
	1,660		1,383	92				
	2,336		1,947	65				
	2,549		2,124	59				
270	1,102	225	919	155	27.1	8.3	1,793	897
	1,487		1,239	115				
	2,269		1,891	76				
	2,636		2,197	65				
300	1,283	250	1,069	149	29.8	9.1	1,978	897
	1,511		1,259	127				
	1,651		1,375	115				
	2,496		2,080	70				

Motor Specifications: (Single Construction)
5.43 in (137.92mm) OD
Min casing size 6 5/8 in

Standard Features: Carbon steel head, base and housing.

Pothead: Tape-in

Temperature Rating: Max winding operating temperature of 404°F (206°C)

Optional Features: Ferritic steel housings, heads and bases; corrosion resistant coating

Contact enquiries@alkhorayef.com for more information.

SPECTRUM Motors

560 series

60Hz		50Hz		Amps	Length		Weight	
HP	Volts	HP	Volts		ft	m	lb	kg
68	518	57	432	79.9	7.1	2.1	340	154
	889		741	46.7				
	1,261		1,050	32.6				
102	471	85	392	130.5	9.1	2.8	510	231
	889		741	69.6				
	994		828	62				
	1,224		1,020	50.6				
	1,334		1,111	46.7				
	1,444		1,203	43.5				
	1,559		1,299	40.2				
	2,223		1,852	28.3				
136	889	113	741	93.5	11.2	3.4	680	308
	1,036		863	80.4				
	1,334		1,111	62				
	1,480		1,233	56.5				
	2,667		2,223	31.5				
	4,352		3,626	18.5				
170	926	141	771	110.9	13.3	4.1	850	386
	1,030		859	100				
	1,297		1,081	80.4				
	1,480		1,233	69.6				
	2,411		2,009	42.4				
	2,777		2,314	37				
	3,337		2,781	31.5				
	4,352		3,626	23.9				
203	1,334	170	1,111	93.5	15.4	4.7	1,020	463
	2,667		2,223	46.7				
	3,337		2,781	37				
237	1,297	198	1,081	110.9	17.5	5.4	1,190	540
	2,605		2,171	56.5				
	3,891		3,243	37				
271	1,177	226	981	139.7	19.6	5.9	1,360	617
	1,480		1,233	110.9				
	2,364		1,970	69.6				
	2,667		2,223	62				
	4,446		3,705	37				
305	1,334	254	1,111	139.7	21.7	6.6	1,570	712
	1,668		1,390	111.4				
	1,969		1,641	94				
	2,662		2,219	69.6				
339	1,857	283	1,547	111.4	23.8	7.2	1,600	726
	1,292		1,077	160.4				
	1,480		1,233	139.7				
	2,187		1,823	94				
	2,594		2,162	79.9				
	4,446		3,705	46.7				

SPECTRUM Motors

560 series

60Hz		50Hz		Amps	Length		Weight	
HP	Volts	HP	Volts		ft	m	lb	kg
373	1,423	311	1,186	160.4*	25.9	7.9	1,870	848
	1,632		1,360	139.7*				
	2,040		1,700	111.4				
	2,855		2,379	79.9				
	3,666		3,055	62				
	4,074		3,395	56				
407	1,178	339	1,482	140.2*	28	8.5	2,045	928
	2,223		1,852	111.4				
	2,667		2,223	92.9				
	3,557		2,964	69.6				
	4,446		3,705	56				
441	1,925	367	1,604	140.2*	30.1	9.1	2,210	1,002
	2,176		1,813	123.9*				
	2,406		2,005	111.4				
	2,892		2,410	92.9				
	3,855		3,212	69.6				
475	2,061	396	1,717	139.7*	32.2	9.8	2,340	1,061
	2,594		2,162	111.4				
	3,112		2,593	92.9				
	3,630		3,025	79.9				
	4,148		3,456	69.6				
509	1,946	424	1,621	159.8*	34.3	10.5	2,500	1,134
	2,223		1,852	139.2*				
	2,777		2,314	111.4				
	3,327		2,772	94.3				
	3,891		3,243	79.9				
	4,446		3,705	69.6				

Motor Specifications: (Single Construction)
 5.62 in (142.75mm) OD
 Min casing size 7 in

Standard Features: Carbon steel head, base and housing.

Pothead: Tape-in

Temperature Rating: Max winding operating temperature of 404°F (206°C)

Optional Features: Ferritic steel housings, heads and bases; corrosion resistant coating

* due to cable limitations (AWG No 4 MLE) motors with high current are recommended for well up to 100°F (38°C)

Contact enquiries@alkhorayef.com for more information.

SPECTRUM Motors

740 series

60Hz		50Hz		Amps	Length		Weight	
HP	Volts	HP	Volts		ft	m	lb	kg
150*	460	125	383	193	10.7	3.3	1,136	515
200*	450	167	375	266	12.6	3.9	1,455	660
400	2,300	333	1,917	102.5	20.4	6.2	2,734	1,240
500	2,300	416	1,917	126.5	24.3	7.4	3,542	1,606
	4,160		3,467	74.9				
700	4,160	583	3,467	102.8	31.9	9.7	4,350	1,973

Motor Specifications: (Single Construction)
7.4 in (187.96mm) OD
Min casing size 8.62 in

Standard Features: Carbon steel head, base and housing.

Pothead: Tape-in

Temperature Rating: Max winding operating temperature of 404°F (206°C)

Optional Features: Ferritic steel housings, heads and bases; corrosion resistant coating

* due to cable limitations (AWG No 2 MLE) 150HP and 200HP motors are recommended for well up to 100°F (38°C)

Contact enquiries@alkhorayef.com for more information.

SPECTRUM Permanent Magnet Motors

362 series

3600 RPM			3000 RPM			Eff	Length		Weight	
HP	Volts	Amps	HP	Volts	Amps	%	ft	m	lb	kg
26	648	28.1	22	540	23.4	88.4	8.6	2.6	223	101
39	912	29.8	32	760	24.8	88.4	11	3.3	289	131
52	1,176	30.7	43	980	25.6	88.4	13.3	4.1	355	161
65	1,560	29.4	55	1,300	24.5	88.5	16.9	5.1	450	204

Motor Specifications: (Single Construction)
3.62 in (91.95mm) OD
Min casing size 5.5 in

Standard Features: Carbon steel head, base and housing

Pothead: Tape-in

Temperature Rating: For nominal well conditions of 302°F (150°C)

Optional Features: Ferritic steel housings, heads and bases; corrosion resistant coating

Contact enquiries@alkhorayef.com for more information.

SPECTRUM Permanent Magnet Motors

462 series

3600 RPM			3000 RPM			Eff	Length		Weight	
HP	Volts	Amps	HP	Volts	Amps	%	ft	m	lb	kg
16	504	20.6	14	420	17.2	89.4	3.8	1.2	198	90
	396	26		330	21.7	90.1				
32	1,008	20.4	27	840	17	90.4	5.1	1.5	265	120
	792	25.8		660	21.5	90				
49	1,440	20.3	41	1,200	16.9	90.8	6.3	1.9	331	150
	1,200	25.7		1,000	21.4	91.3				
65	2,040	20.3	54	1,700	16.9	90.9	7.6	2.3	397	180
	1560	25.7		1,300	21.4	91.5				
81	2,520	20.2	68	2,100	16.8	91	8.8	2.7	463	210
	1,980	25.7		1,650	21.4	91.6				
97	3,000	20.2	81	2,500	16.8	91	10.1	3.1	529	240
	2,400	25.7		2,000	21.4	91.6				
113	2,760	25.7	95	2,300	21.4	91.7	11.3	3.4	595	270
	2,280	31.6		1,900	26.3	91.7				
130	2,880	28.4	108	2,400	23.7	91.3	12.5	3.8	662	300
	2,280	35.4		1,900	29.5	91.7				
146	2,568	34.6	122	2,140	28.8	91.3	13.8	4.2	728	330
	1,920	46.3		1,600	38.6	91.7				
162	2,880	35.5	135	2,400	29.6	91.7	15	4.6	794	360
	2,160	47.6		1,800	39.7	91.6				
203	2,520	49.9	169	2,100	41.6	91.6	17.5	5.3	926	420
243	2,940	52	203	2,450	43.3	91.7	20	6.1	1,058	480
	2,400	30		2,000	25	91.9				
324	3,000	65	270	2,500	54.2	92	24.9	7.6	1,378	625

Motor Specifications: (Single Construction)
4.56 in (115.82mm) OD
Min casing size 6.625 in

Standard Features: Carbon steel head, base and housing

Pothead: Tape-in

Temperature Rating: For nominal well conditions of 302°F (150°C)

Optional Features: Ferritic steel housings, heads and bases; corrosion resistant coating

Contact enquiries@alkhorayef.com for more information.

SPECTRUM Permanent Magnet Motors

728 series

3600 RPM			3000 RPM			Eff	Length		Weight	
HP	Volts	Amps	HP	Volts	Amps	%	ft	m	lb	kg
162	2,400	92	135	2,000	35	92	7.7	2.3	761	345
243	3,000	49.4	203	2,500	41.2	92.5	9.1	2.8	915	415
324	3,600	54	270	3,000	45	93	10.5	3.2	1,069	485
405	3,840	62.4	340	3,200	52	93.5	11.9	3.6	1,224	555

Motor Specifications: (Single Construction)
 7.28 in (184.9 mm) OD
 Min casing size 9.625 in

Standard Features: Carbon steel head, base and housing

Pothead: Tape-in

Temperature Rating: For nominal well conditions of 302°F (150°C)

Optional Features: Ferritic steel housings, heads and bases; corrosion resistant coating

Contact enquiries@alkhorayef.com for more information.



SPECTRUM

Protectors



SPECTRUM Protectors

325/375 series

Model	Description	Length		Weight		OD	Shaft OD
		ft	m	lb	kg	in	in
PS - L	Labyrinth Type	5.1	1.6	110	49.9	3.25	0.75
PS - B - HL	Single Bag Type - HL	3.7	1.1	80	36.3	3.25	0.75
PS - L	Labyrinth Type	5.3	1.6	115	52.2	3.75	0.875

Ratings: 325 series standard shaft @ 60Hz, 160HP, high strength shaft 256HP
 Thrust bearing max load @ 60Hz: High Load 2,805 lb
 375 series standard shaft @ 60Hz, 250HP, high strength shaft 400HP
 Thrust bearing max load @ 60Hz: 1,020 lb, High Load 2,805 lb

Standard Features: Carbon steel head, base and housing. Monel K-500 shaft, Aflas elastomers

Optional Features: Ferritic steel housings, heads and bases; corrosion resistant coating, Inconel shafts

400 series

Model	Description	Length		Weight		OD	Shaft OD
		ft	m	lb	kg	in	in
PS-B-HL AR	Single Bag Type - HL AR	4.5	1.4	165	74.8	4	0.875
PS-BsL-HL AR	Bag - Labyrinth Type - HL AR	5.9	1.8	155	70.3	4	0.875
PS-BpB-HL AR	Double Bag Type - HL AR	6.1	1.9	195	88.5	4	0.875
PS-LsBpB-HL AR	Labyrinth Double Bag Type - HL AR	8.2	2.5	200	90.8	4	0.875
PS-LsBsB-HL AR	Labyrinth Double Bag Type - HL AR	8.2	2.5	200	90.8	4	0.875
PS-BpBsL-HL AR	Double Bag Labyrinth Type - HL AR	8.2	2.5	200	90.8	4	0.875
PS-BsBsL-HL AR	Double Bag Labyrinth Type - HL AR	8.2	2.5	200	90.8	4	0.875

Ratings: Standard shaft @ 60Hz, 250HP, High strength shaft 400HP, Ultra high strength 500HP
 Thrust bearing max load @ 60Hz: 4,400 lb, High Load 8,600 lb

Standard Features: Carbon steel head, base and housing. Monel K-500 shaft, Aflas elastomers

Optional Features: Ferritic steel housings, heads and bases; corrosion resistant coating, Inconel shafts

SPECTRUM Protectors

540 series

Model	Description	Length		Weight		OD	Shaft OD
		ft	m	lb	kg	in	in
PS-B-HL AR	Single Bag Type - HL AR	4.05	1.24	200	90.7	5.125	1.1875
PS-BsL-HL AR	Bag - Labyrinth Type - HL AR	6.49	1.98	240	108.9	5.125	1.1875
PS-BsB-HL AR	Double Bag Type - HL AR	6.49	1.98	250	113.4	5.125	1.1875
PS-BpB-HL AR	Double Bag Type - HL AR	6.49	1.98	250	113.4	5.125	1.1875
PS-BsBsL-HL AR	Double Bag - Labyrinth Type - HL AR	8.93	2.72	382	173.3	5.125	1.1875
PS-BpBsL-HL AR	Double Bag - Labyrinth Type - HL AR	8.93	2.72	382	173.3	5.125	1.1875
PS-LsBpB-HL AR	Labyrinth - Double Bag Type - HL AR	8.93	2.72	382	173.3	5.125	1.1875
PS-LsBsB-HL AR	Labyrinth - Double Bag Type - HL AR	8.93	2.72	382	173.3	5.125	1.1875
PS-BpBsLsL-HL AR	Double Bag-Double Labyrinth Type- HL AR	11.4	3.47	420	190.5	5.125	1.1875
PS-BsLsBsL-HL AR	Double Bag-Double Labyrinth Type- HL AR	11.4	3.47	420	190.5	5.125	1.1875
PS-BsBsLsL-HL AR	Double Bag-Double Labyrinth Type- HL AR	11.4	3.47	420	190.5	5.125	1.1875

Ratings: Standard shaft @ 60Hz, 625HP, High strength shaft 1,000HP, Ultra high strength 1,250HP
Thrust bearing max load @ 60Hz: 14,500 lb, High Load 23,900 lb

Standard Features: Carbon steel head, base and housing. Monel K-500 shaft, Aflas elastomers

Optional Features: Ferritic steel housings, heads and bases; corrosion resistant coating, Inconel shafts

738 series

Model	Description	Length		Weight		OD	Shaft OD
		ft	m	lb	kg	in	in
PS - LsL - HL	Double Labyrinth Type - HL	6	1.8	334	151.5	6.5	1.5

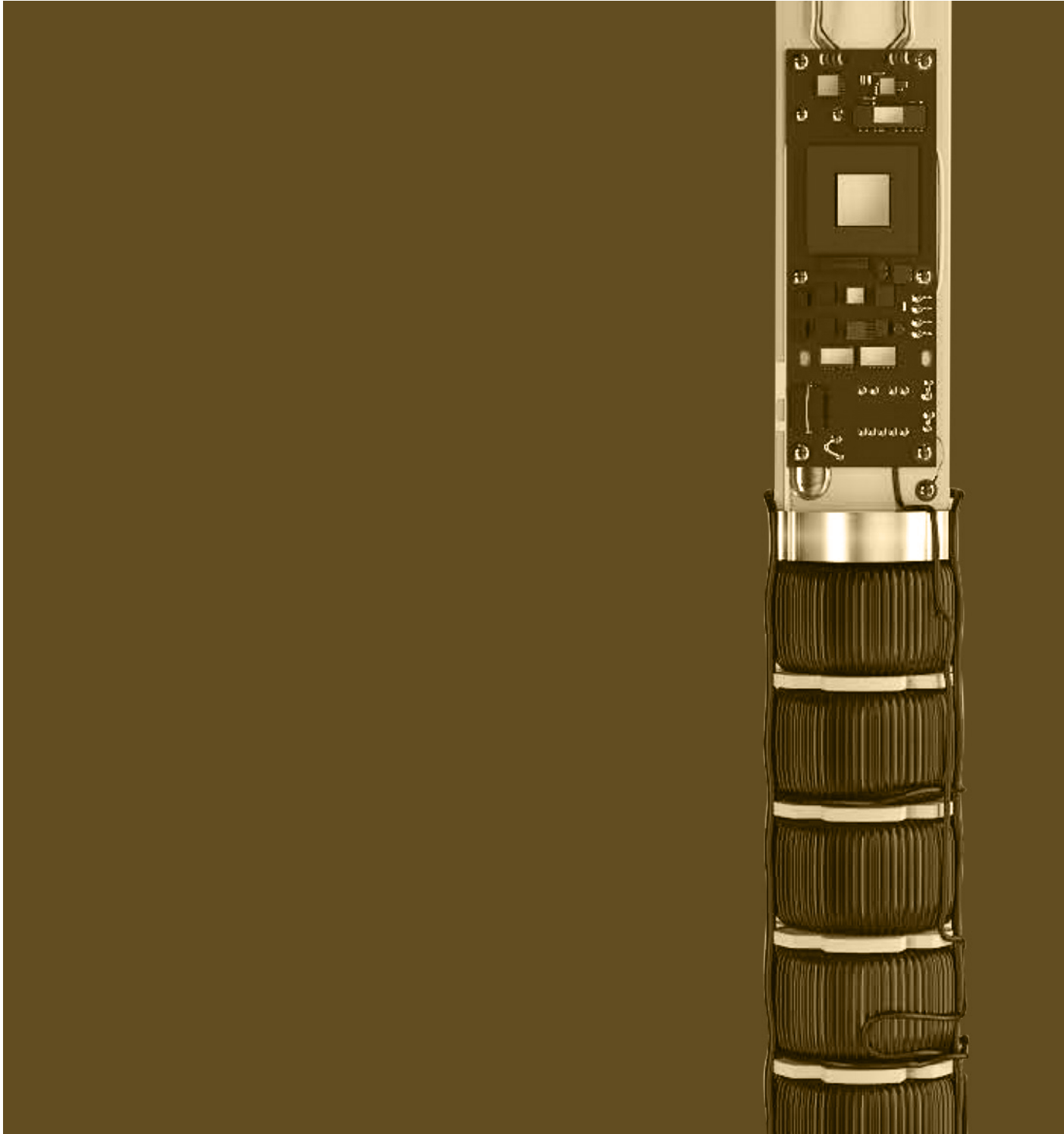
Ratings: Standard shaft @ 60Hz, 1,000HP, High strength shaft 1,600HP, Ultra high strength 2,000HP
Thrust bearing max load @ 60Hz: 17,500 lb, High Load 34,500 lb

Standard Features: Carbon steel head, base and housing. Monel K-500 shaft, Aflas elastomers

Optional Features: Ferritic steel housings, heads and bases; corrosion resistant coating, Inconel shafts



 **SPECTRUM**
Gauges



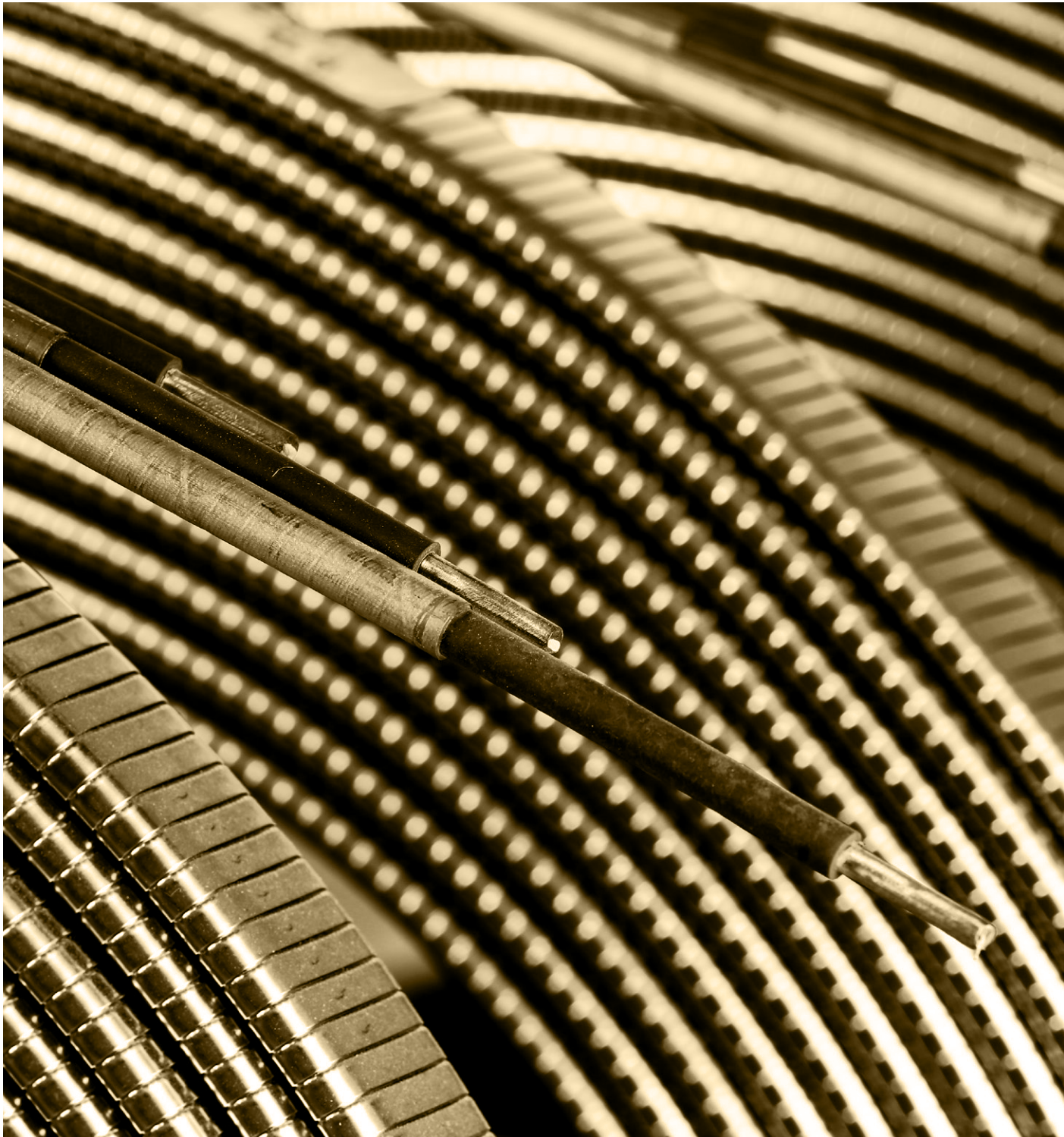
SPECTRUM Downhole Monitoring System

ESP Gauge

Specification	Spectrum Model
Intake Pressure Range	0 - 5800 PSI, 0 - 400 Bar
Intake Pressure Accuracy	0.1%
Intake Pressure Resolution	0.1
Transducer Type	Strain Gauge
Discharge Pressure Range	0 - 5800 PSI, 0 - 400 Bar
Discharge Pressure Accuracy	0.1%
Discharge Pressure Resolution	0.1
Intake Temperature Range	32 - 302°F, 0 - 150°C
Intake Temperature Accuracy	1%
Intake Temperature Resolution	0.1
Motor Temperature Range	32 - 482°F, 0 - 250°C
Motor Temperature Accuracy	1%
Motor Temperature Resolution	0.1
Vibration Range	0 - 25 G
Vibration Accuracy	0.1%
Vibration Resolution	0.01
Maximum Motor Voltage	4000 VAC
Diameter	3.78 in, 9.6 cm
Weight	75.84 lb, 34.4 kg
Material	13Cr Stainless Steel / AFLAS



 **SPECTRUM**
Cable



SPECTRUM Power Cable

Nomenclature

Example:

APC - 4R400 - 2/05 - E/EL - 5 - GS - XX

Alkhorayef Petroleum Cable

Cable Application Reference

- Well Code = 4
- Flat Cable = F
- Round Cable = R
- MLE = M
- Max cable temp (°F) = 400

Conductor

- Size AWG/ = 2/
- Solid plain = 01
- Stranded bare = 02
- Solid tinned = 03
- Stranded tinned = 04
- Solid lead alloy = 05
- Stranded lead alloy = 06
- Stranded (3% compacted) bare = 07
- Stranded (5% compacted) bare = 08
- Stranded (3% compacted) tinned = 09
- Stranded (5% compacted) tinned = 10
- Stranded (3% compacted) lead alloy = 11
- Stranded (5% compacted) lead alloy = 12
- Stranded (8% compacted) bare = 13
- Stranded (8% compacted) tinned = 14
- Stranded (8% compacted) lead alloy = 15

Customer Specific Options

- CT = Capillary tube
- 2CT = 2xCapillary tubes
- OSC = Oversized conductor
- OSA = Oversized armor
- DA = Double armor

Metallic Armor

- Mn = Monel
- GS = Galvanized Steel
- SS = Stainless Steel

Voltage Rating

- 5 = 5 kV

Insulation / Jacket

- PP = Polypropylene
- PPL = PP+Lead
- E = EPDM
- EF = EPDM+Fluoropolymer phase jacket
- EL = EPDM+Lead
- EFL = EPDM+Fluoropolymer jacket+Lead
- KE = Kapton+EPDM
- KEF = Kapton+EPDM+Fluoropolymer jkt.
- KEL = Kapton+EPDM+Lead
- N = Nitrile rubber

SPECTRUM Power Cable

ESP Cable

Model	Rated Temp.		kV	Conductor Size AWG	Insulation Material	Jacket Material	Tape	Standard Armor
	°F	°C						
1F180	180	82	5	1,2,4,6	Polypropelene	Polyethelene	N/A	Galvanized
1R180								
2F205	205	96	5	1,2,4,6	Polypropelene	Nitrile	N/A	Galvanized
2R205								
3F290	290	143	5	1,2,4,6	EPDM	Nitrile	Thermal Barrier	Galvanized
3R290								
4F400	400	205	5	1,2,4,6	EPDM	EPDM	Fluoropolymer + thermal barrier tape	Galvanized
4R400								
5F450	450	232	5	1,2,4,6	EPDM	EPDM/Lead	Fluoropolymer + thermal barrier tape	Galvanized
5R450								
6M400	400	205	5	2,4,6	Kapton/EPDM	Lead	Rubber impregnated fabric tape	Monel

ESP Cable Dimensions

Model	Conductor Size AWG	Overall Dimension		Weight Per	
		in	mm	lb/ft	kg/m
1F180	1	0.67 x 1.78	17.0 x 45.2	1.45	2.16
	2	0.64 x 1.68	16.3 x 42.7	1.03	1.53
	4	0.59 x 1.52	15.0 x 38.6	0.96	1.43
	6	0.55 x 1.40	14.0 x 35.6	0.76	1.14
1R180	1	1.34	33.94	1.70	2.60
	2	1.27	32.13	1.50	2.20
	4	1.15	29.21	1.10	1.70
	6	1.06	26.92	0.90	1.40
2F205	1	0.74x 1.99	18.8 x 50.5	1.63	2.43
	2	0.71 x 1.90	18.0 x 48.3	1.20	1.78
	4	0.66 x 1.74	16.8 x 44.2	1.12	1.67
	6	0.62 x 1.61	15.7 x 40.9	0.91	1.36
2R205	1	1.34	33.94	1.57	2.33
	2	1.26	32.13	1.36	2.02
	4	1.14	29.08	1.06	1.57
	6	1.05	26.66	0.85	1.27
3F290	1	0.75 x 2.02	19.1 x 51.3	1.71	2.54
	2	0.72 x 1.92	18.3 x 48.8	1.27	1.89
	4	0.67 x 1.76	17.0 x 44.7	1.18	1.76
	6	0.63 x 1.64	16.0 x 41.7	0.97	1.45

Model	Conductor Size AWG	Overall Dimension		Weight Per	
		in	mm	lb/ft	kg/m
3R290	1	1.45	36.83	1.90	2.80
	2	1.38	35.05	1.70	2.50
	4	1.25	31.75	1.40	2.00
4F400	6	1.16	29.46	1.10	1.60
	1	0.75 x 2.02	19.1 x 51.3	1.71	2.54
	2	0.72 x 1.92	18.3 x 48.8	1.50	2.23
4R400	4	0.67 x 1.76	17.0 x 44.7	1.19	1.77
	6	0.63 x 1.64	16.0 x 41.7	0.97	1.45
	1	1.68	42.74	2.05	3.05
5F450	2	1.61	40.93	1.82	2.71
	4	1.49	37.88	1.49	2.21
	6	1.40	35.47	1.26	1.87
5R450	1	0.64 x 1.69	16.3 x 42.9	2.02	3.01
	2	0.61 x 1.59	15.5 x 40.4	1.79	2.67
	4	0.56 x 1.43	14.2 x 36.3	1.42	2.12
6M400	6	0.52 x 1.30	13.2 x 33.0	1.25	1.87
	1	1.53	38.86	3.10	4.60
	2	1.36	35.54	2.80	4.00
6R400	4	1.25	31.75	2.30	3.40
	6	1.16	29.46	2.00	2.90

SPECTRUM Advance Power Delivery System

I Lead

Model	Rated Temp.		kV	Conductor Size AWG	Insulation Material	Barrier	Length
	°F	°C					
560	450	232	5	4	Polyether Ether Ketone (PEEK)	Monel	100f t, 30.48 m
560	450	232	5	4	Polyether Ether Ketone (PEEK)	Monel	120 ft, 36.58m
560	450	232	5	4	Polyether Ether Ketone (PEEK)	Monel	200 ft, 60.96 m

Standard Features: Carbon steel Universal Motor Head (UMH), Monel tubes

Pothead: Plug In style

Temperature Rating: For nominal well conditions of 302°F (150°C)

Optional Features: Ferritic steel and super duplex UMH, stainless steel and Inconel 625 tubes

SPECTRUM Power Delivery Systems



SPECTRUM Surface Electrical Equipment

Fixed Speed Drives

Voltage Rating	Input Current	Frequency	Ambient Temperature		Height		Width		Depth	
	Amps		Hz	°F	°C	in	cm	in	cm	in
3600	200	50, 60	131	55	82.7	210	49.2	125	44.5	113
5000	200	50, 60	131	55	82.7	210	49.2	125	44.5	113

Variable Speed Drives

kVa at 480 V	kVa at 400 V	Input Current	Ambient Temperature		Height		Width		Depth	
		Amps	°F	°C	in	cm	in	cm	in	cm
275	225	315	131	55	87.3	221.7	69.5	176.6	49.9	126.9
370	310	630	131	55	95.4	242.2	72.1	183.2	49.9	129.9
425	350	945	131	55	95.4	242.2	89.8	228.2	49.9	129.9
470	400	1,260	131	55	113.5	288.0	113.5	288.2	49.9	129.9
570	475	1,575	131	55	113.0	288.0	143.0	363.2	49.9	129.9

Power System Specifications

Power System	Sinusoidal multilevel PWM control, fully isolated
Control System	Integrated ESP motor controller
Base Control Method	Open Loop Vector Control, V/F Control, Flux Vector Control with speed feedback
Efficiency	>97% at rated load and speed
Input Power Factor	0.99
Over Current Protection	200% (Programmable)
Overload Capacity	Standard Overload 120% for 10 mins or 150% for 60 secs
Input Voltage Supply	400 - 480V, 50/60Hz
Input Tolerance	Voltage: ±10%; Frequency: ±5%
Output	PWM Inverter
Integrated Protective Functions	Overcurrent, overload, current limits, overvoltage, undervoltage, output ground fault, motor overheating, output open phase, cooling fan error

Construction Specifications

Panel Construction	Free-standing, front maintenance type, bottom access for motor and input power cables
Cooling	Forced air cooling with proprietary TEC system

Environmental Ratings

Ambient Operating Temperature	14°F to 131°F (-10°C to 55°C)
Altitude	<1,000 m without de-rating, can be customized for high altitude
Enclosure Type	NEMA 3, NEMA 4, NEMA 4X

SPECTRUM Advance Surface Electrical Equipment

24 Pulse Low Voltage VSD (Variable Speed Drives)

SPECTRUM Advance Low Voltage Power Delivery Systems

Alkhorayef offer Low Voltage (LV) Variable Speed Drives (VSD) that are NEMA 3 and NEMA 4 rated drive designed to fulfil client requirements for efficient, energy saving speed control that will extend the run life of ESP motors in hot, harsh desert environments.

Gaining Efficiencies with New VSD Technologies

Pulse Width Modulation (PWM) rectification significantly reduces the input harmonic distortion reflected back onto the supply, avoiding penalties from energy providers. Multi Level Inverter technology on the output provides a near sinusoidal waveform, eliminating Reflective Wave Phenomenon across a long ESP cable and the need for the Sine Wave Filter (SWF).

Alkhorayef's Thermo Electric Cooler System, utilises the principle of the Peltier Effect, maintains a stable operating temperature and has no moving parts (nor chlorofluorocarbons). The TEC system is inherently reliable and economical in comparison to traditional A/C units. The compact size of the the TEC modules and the ability to operate them in any orientation permits further reductions in skid footprint.

kVa at 480 V	kVa at 400 V	Input Current	Ambient Temperature		Height		Width		Depth	
			Amps	°F	°C	in	cm	in	cm	in
275	225	315	131	55	87.3	221.7	69.5	176.6	49.9	126.9
370	310	630	131	55	95.4	242.2	72.1	183.2	49.9	129.9
425	350	945	131	55	95.4	242.2	89.8	228.2	49.9	129.9
470	400	1,260	131	55	113.5	288.0	113.5	288.2	49.9	129.9
570	475	1,575	131	55	113.0	288.0	143.0	363.2	49.9	129.9

Power System Specifications

Power System	Sinusoidal multilevel PWM control, fully isolated
Control System	Integrated ESP motor controller
Base Control Method	Open Loop Vector Control, V/F Control, Flux Vector Control with speed feedback
Efficiency	>97% at rated load and speed
Input Power Factor	0.99
Over Current Protection	200% (Programmable)
Overload Capacity	Standard Overload 120% for 10 mins or 150% for 60 secs
Input Voltage Supply	400 - 480V, 50/60Hz
Input Tolerance	Voltage: ±10%; Frequency:±5%
Output	PWM Inverter
Integrated Protective Functions	Overcurrent, overload, current limits, overvoltage, undervoltage, output ground fault, motor overheating, output open phase, cooling fan error

Construction Specifications

Panel Construction	Free-standing, front maintenance type, bottom access for motor and input power cables
Cooling	Forced air cooling with proprietary TEC system

Environmental Ratings

Ambient Operating Temperature	14°F to 131°F (-10°C to 55°C)
Altitude	<1,000 m without de-rating, can be customized for high altitude
Enclosure Type	NEMA 3, NEMA 4, NEMA 4X

SPECTRUM Advance Variable Speed Drives

Medium Voltage VSD [Variable Speed Drives]

3.3 to 6.6kV input

kVa at 4160 V	Input Current	Ambient Temperature		Height		Width		Depth	
	Amps	°F	°C	in	cm	in	cm	in	cm
700	97	131	55	116	294	171	434	78.7	200
1,000	140	131	55	102	260	201	511	61.5	156.3

Power System Specifications

Power System	Sinusoidal multilevel PWM control, fully isolated
Control System	Integrated ESP motor controller
Base Control Method	Open Loop Vector Control, V/F Control, Flux Vector Control with speed feedback
Efficiency	>97% at rated load and speed
Input Power Factor	0.99
Over Current Protection	200% (Programmable)
Overload Capacity	Standard Overload 120% for 10 mins or 150% for 60 secs
Input Voltage Supply	3.3kV to 6.6kV, 50/60Hz
Input Tolerance	Voltage: ±10%; Frequency:±5%
Output	PWM Inverter
Integrated Protective Functions	Overcurrent, overload, current limits, overvoltage, undervoltage, output ground fault, motor overheating, output open phase, cooling fan error

Construction Specifications

Panel Construction	Free-standing, front maintenance type, bottom access for motor and input power cables
Cooling	Forced air cooling with proprietary TEC system

Environmental Ratings

Ambient Operating Temperature	14°F to 131°F (-10°C to 55°C)
Altitude	<1,000 m without de-rating, can be customized for high altitude
Enclosure Type	NEMA 3, NEMA 4, NEMA 4X

SPECTRUM Accessories



Accessories

Installation Equipment

Motor Installation Clamps	LENGTH		WEIGHT	
Description	Feet	Meters	Lbs	Kgs
380 XT Series Motor Clamp	1.3	0.4	33	15
450 XT Series Motor Clamp	1.3	0.4	36	16
550/560 XT Series Motor Clamp (S/UT)	1.3	0.4	37	17
550 XT Series Motor Clamp (CT only)	1.3	0.4	37	17
560 XT Series Motor Clamp (CT only)	1.3	0.4	37	17
740 Series Motor Clamp	1.6	0.5	57	26

Pump Installation Clamps	LENGTH		WEIGHT	
Description	Feet	Meters	Lbs	Kgs
338 Series Pump - Friction	1.3	0.4	34	15
400 Series Pump - CT Head	1.3	0.4	34	15
400 Series Pump - Friction	1.4	0.4	36	16
513 Series Pump - Friction	1.3	0.4	39	18
538 Series Pump - Friction	1.3	0.4	39	18
562 Series Pump - CT Shoulder	1.3	0.4	39	18
675 Series Pump - Shoulder	1.5	0.5	53	24
675 Series Pump -Friction	1.7	0.5	56	25
Unit Clamp Chain Assembly			10	5
Unit Clamp Adaptor			27	12

Installation Jacks	LENGTH		WEIGHT	
Description	Feet	Meters	Lbs	Kgs
380 thru 550/560 Series Tandem Motor Jacks	1.5	0.5	48	22

Accessories

Shrouds & Shroud Hangers

Shroud	WEIGHT	
	Lbs	Kgs
Description		
4.5 " OD Shroud Tube	6	3
5.5 " OD Shroud Tube	10	5
6.6 " OD Shroud Tube	19	9
8.6 " OD Shroud Tube	25	11
10.8 " OD Shroud Tube	31	14
10.8 " OD Shroud Tube	31	14
12.75 " OD Shroud Tube	54	24

Shroud Hanger	LENGTH		WEIGHT	
	Feet	Meters	Lbs	Kgs
Description				
338 Series, 4.5" OD x 4.26" ID Shroud, 5.5" Casing	0.2	0.1	6	2
400 Series, 5.5" OD x 5.14" ID Shroud, 7" Casing	0.3	0.1	7	3
513/538 Series, 6.6" OD x 6.06" ID Shroud, 8.6" Casing	0.3	0.1	7	3
562 Series SST, 8.6" OD x 8.07" ID Shroud, 10.8" Casing	0.3	0.1	8	4
675 Series, 8.6" OD x 8.07" ID Shroud, 10.8" Casing	0.3	0.1	8	4
862 Series, 10.8" OD x 10.19" ID Shroud, 13.4" Casing	0.3	0.1	10	5
950 Series, 12.75" OD x 12" ID Shroud, 13.4" Casing	0.3	0.1	13	6

Accessories

Guides & Adaptors

Motor Guides	LENGTH		WEIGHT	
Description	Feet	Meters	Lbs	Kgs
For 380 XT Series Motor in 4 1/2 " Casing or Larger Csg.	2	0.6	23	10
For 450 XT Series Motors in 5 1/2 " Csg.	2	0.6	23	10
For 450 and 550 XT Series Motors in 6 5/8 " Csg.	2	0.6	24	11
For 450, 550 and 560 XT Series Motors in 7 " Csg.	2	0.6	24	11
For 450, 550, 560 and 740 XT Series Motors in 8 5/8 " Csg.	2	0.6	24	11
For 450, 550, 560 and 740 XT Series Motors in 9 5/8 " Csg.	2	0.6	25	11
For 450, 550, 560 and 740 XT Series Motors in 11 3/4 " Csg.	2	0.6	25	11
For 450, 550, 560 and 740 XT Series Motors in 13 3/8 " Csg.	2	0.6	27	12

Adaptors	LENGTH		WEIGHT	
Description	Feet	Meters	Lbs	Kgs
738 Series Protector to 550/560 XT Series Motor	5.5	140	24	11
400 Series Intake or GS to 540 Series protector	3	76	6	3
538 Series Intake or GS to 400 Series protector	3.9	99	6	3
538 Series Intake or GS to 738 Series protector	5.5	140	21	9
400 to 538 Series GS or BOI	4.4	112	9	4
400 Series protector to 400 Series protector	4.5	114	7	3

Accessories

Valves & Nipples

Check Valves Description	LENGTH		WEIGHT	
	Feet	Meters	Lbs	Kgs
2 3/8 " OD 8 rd. EUE Tubing	0.7	0.2	8	4
2 7/8 " OD 8 rd. EUE Tubing	0.7	0.2	11	5
3 1/2 " OD 8 rd. EUE Tubing	0.8	0.2	18	8
4 1/2 " OD 8 rd. EUE Tubing	0.8	0.2	23	10
5 1/2 " OD 8 rd. Long Thread Csg.	1.1	0.3	30	14
7 " OD 8 rd. Long Thread Csg.	1.7	0.5	80	36

Break Off Plugs for Bleeder Valves Description	LENGTH		WEIGHT	
	Feet	Meters	Lbs	Kgs
BRASS- 2 3/8", 2 7/8" and 3 1/2"	2.2	0.7	0.3	0.14
MONEL- 2 3/8", 2 7/8" and 3 1/2"	2.2	0.7	0.3	0.14
BRASS- 4 1/2"	3	0.9	0.3	0.14
MONEL- 4 1/2"	3	0.9	0.3	0.14
Gasket lead 7/8"				

Bleeder Valves Description	LENGTH		WEIGHT	
	Feet	Meters	Lbs	Kgs
2 3/8 " OD 8 rd. EUE Tubing	0.6	0.2	6	3
2 7/8 " OD 8 rd. EUE Tubing	0.7	0.2	10	5
3 1/2 " OD 8 rd. EUE Tubing	0.8	0.2	17	8
4 1/2 " OD 8 rd. EUE Tubing	0.8	0.2	23	10
5 1/2 " OD 8 rd. Long Thread Csg.	1	0.3	30	14
7 " OD 8 rd. Long Thread Csg.	1.4	0.4	70	32

Accessories

Valves & Nipples

Reducing Nipples Description	LENGTH		WEIGHT	
	Feet	Meters	Lbs	Kgs
Type 338 to 400 Series (6.5"X6.5")	6	1.8	110	49.9
	7.5	2.3	140	63.6
	12.5	3.8	240	109.0
	15.5	4.7	300	136.2
	18.5	5.6	360	163.4
	23	7.0	450	204.3
	26	7.9	510	231.5
	28.5	8.7	560	254.2
	32	9.8	630	286.0
	36	11.0	710	322.3
Type 500 to 675 Series (8"X8")	6	1.8	200	90.8
	7.5	2.3	245	111.2
	12.5	3.8	395	179.3
	15.5	4.7	485	220.2
	18.5	5.6	575	261.1
	23	7.0	710	322.3
	26	7.9	800	363.2
	28.5	8.7	875	397.3
	32	9.8	980	444.9
	36	11.0	1,100	499.4
Type 738 to 950 Series (12"X12")	7.5	2.3	310	140.6
	12	3.7	495	224.5
	15	4.6	619	280.8
	23	7.0	949	430.5
	26	7.9	1,073	486.7
	34	10.4	1,403	636.4

Reducing Nipples Description	LENGTH		WEIGHT	
	Feet	Meters	Lbs	Kgs
2 3/8 " OD 8 rd. EUE Pin x 2 7/8 " OD 8 rd. EUE Box	0.7	0.2	5	2
2 3/8 " OD 8 rd. EUE Pin x 3 1/2 " OD 8 rd. EUE Box	0.7	0.2	8	3
2 7/8 " OD 8 rd. EUE Pin x 3 1/2 " OD 8 rd. EUE Box	0.7	0.2	8	3
3 1/2 " OD 8 rd. EUE Pin x 4 1/2 " OD 8 rd. EUE Box	0.8	0.2	8	4

Always *producing*

Within artificial lift Alkhorayef is the international specialist for ESP systems and solutions. With a dedication to reducing deferment and downtime, we're here to keep every well productive.

Alkhorayef Petroleum
2nd Industrial City, Street No.87
Near Modon Lake, Dammam,
Kingdom of Saudi Arabia

W. alkhorayefpetroleum.com