VERTICAL MULTISTAGE PUMPS

JVM, JVML SERIES

Stainless Steel Construction
Closed multi-stage impeller
Flow: 4 to 380 GPM
Head: to 825 ft.
Range of HP: to 50 HP

Applications:
Commercial booster system,
Boiler feed,
Jockey,
Water Purification,
Hot Water Applications

NSF 61/Annex G Certified
Certified California AB 1953 Compliant
Certified Vermont Act 193 Compliant

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JVM, JVM L

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JVMG*

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NSF 61/Annex G Certification and Compliance with State Codes does not apply to JVMG Models

- **Standard NEMA motors**
- **Integral thrust bearing on 5 HP and larger pumps to handle axial thrust loads**
- **Air vent** in casing cover allows proper venting preventing air entrapment and dry run
- **Liner ring** is a self-aligning, floating design constructed to prevent swelling at high temperatures
- **Tungsten carbide lower pump bearings** and sleeves are standard construction for all services, providing maximum operating life
- **Direct drive** pump and motor shafts are keyed for positive, reliable power transmission with **no adjustments necessary**
- **"Flexible" floating outer casing** allows for thermal expansion in hot water applications, preventing deformation due to pressure fluctuations
- **Anti-erosion measures –** a dish-shaped insert is fitted to the intermediate casing designed to promote smooth flow and prevent high velocity areas that accelerate erosion
- **Square-edge six spline shaft** (JVM 3-18) or twelve spline shaft (JVM 32-64) provides positive location and drive of impellers eliminating wear
- **Dimensions & flanges –** installation is to market accepted dimensions for easy upgrade of existing installations
- **Mechanical seal –** Silicon/Carbon/Viton mechanical shaft seal
- **Positive Sealing –** O-rings between intermediate casings provide positive sealing and increased efficiencies

Typical Applications

- **Water Supply**
- **Reverse Osmosis**
- **Water Boosting**
- **Washing Systems**
- **Fire Fighting**
- **Water Treatment Plants**
- **Boiler Feed**
- **Hot & Cold Water**
- **Circulation**
- **Irrigation**
- **Sprinkler Systems**
- **Filtration**
- **Heat Exchangers**

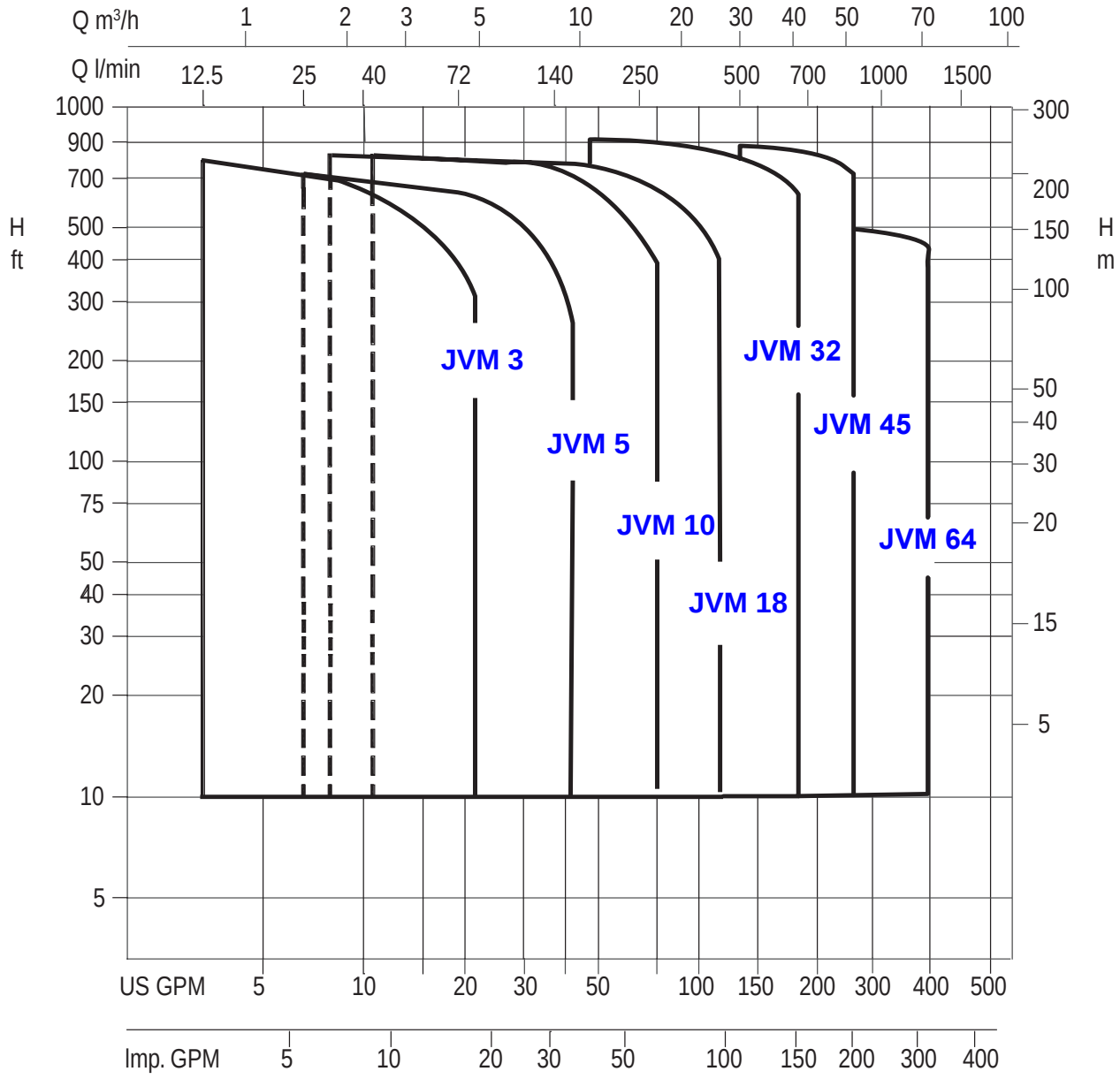
Models JVM 3, 5, 10, 18
JVML 3, 5, 10, 18

	JVM	JVML
Size	ANSI raised face	
Suction	1¼" for JVM 3 and 5 2" for JVM 10 and 18	
Discharge	ANSI raised face 1¼" for JVM 3 and 5 2" for JVM 10 and 18	
Range of HP	½ to 25HP	
Range of Performance	at 3450 RPM	
Capacity	4 to 118 GPM	
Head	27 to 830 feet	
Liquid handled		
Type of liquid	Clean water (*for other clean liquids, consult factory)*	
Temperature	5° to +248°F (-15° to 120°C)	
Working pressure	360 PSI (25 Bar) max. (*see page R1-13 for specifics*)	
Materials		
Impeller	AISI 304	AISI 316
Intermediate casing	AISI 304	AISI 316
Bottom casing	AISI 304	AISI 316
Casing cover	AISI 304	AISI 316
Outer casing	AISI 304	AISI 316
Shaft	AISI 316	AISI 316
Liner ring	PTFE/AISI 316	
Motor bracket	Cast iron/304	Cast iron/316
Base	Cast iron/304	Cast iron/316
Pump Bearing	Sealed ball bearing/tungsten carbide	
Shaft Seal		
Mechanical seal	Silicon/Carbide/Carbon/FPM (*see page R1-14 for construction details*)	
Motor		*Consult factory for optional motor types*
Type	NEMA C/TC/TSC frame	
Speed	60 Hz, 3450 RPM (2 poles)	
Three Phase	208-230/460V	
Direction of Rotation	Clockwise when viewed from motor end	
Test standard	ISO 9906 annex A	

Models JVMG 32, 45, 64
JVMGL 32, 45, 64

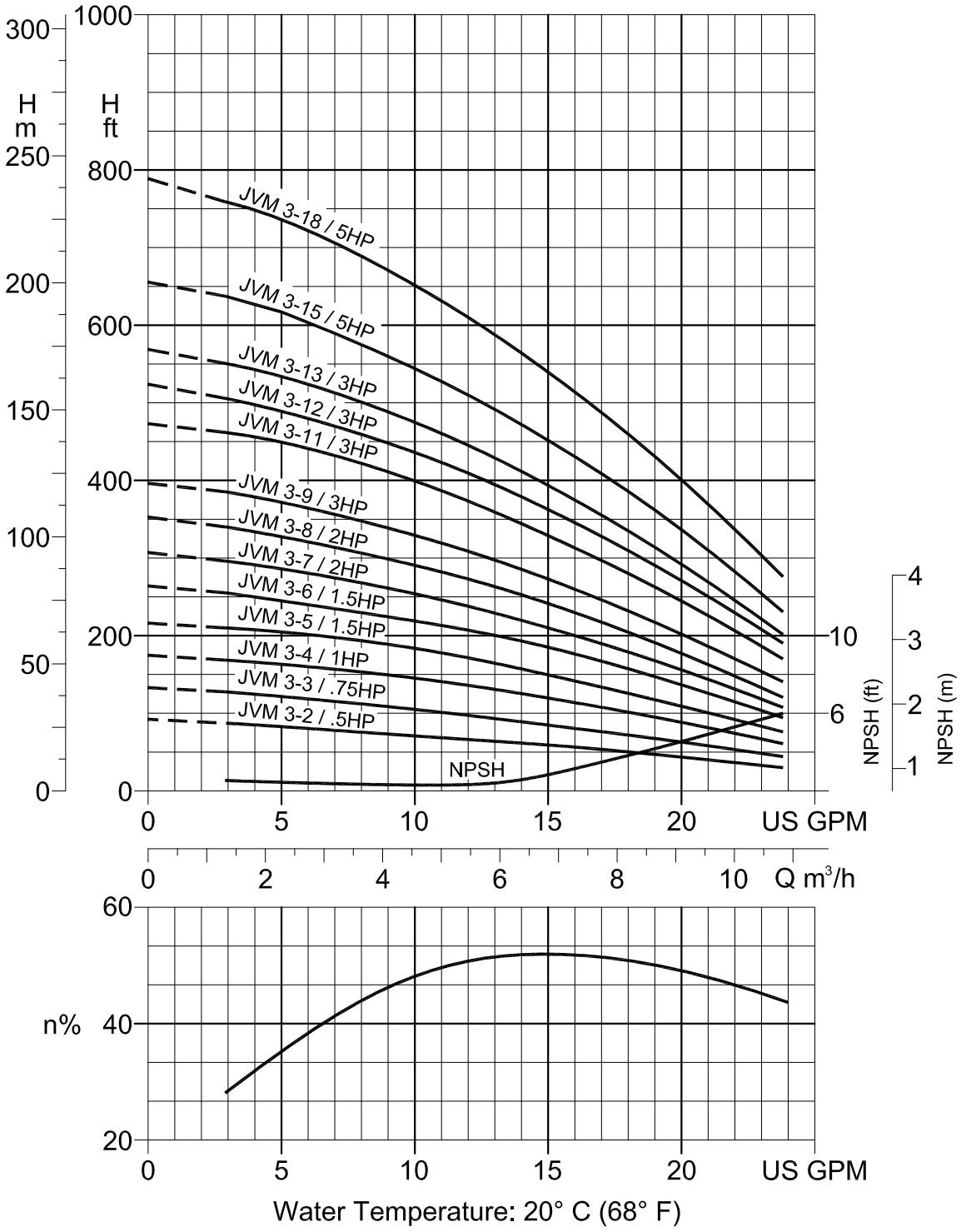
	JVMG	JVMGL
Size	ANSI raised face	
Suction	2½" for JVM 32 3" for JVM 45 4" for JVM 64	
Discharge	ANSI raised face 2½" for JVM 32 3" for JVM 45 4" for JVM 64	
Range of HP	5 to 50HP	
Range of Performance	at 3450 RPM	
Capacity	66 to 390 GPM	
Head	44 to 930 feet	
Liquid handled		
Type of liquid	Clean water (*for other clean liquids, consult factory*)	
Temperature	5° to +248°F (-15° to 120°C)	
Working pressure	to 430PSI (30 Bar) max. (*see page R1-13 for specifics*)	
Materials		
Impeller	AISI 304	AISI 316
Intermediate casing	AISI 304	AISI 316
Bottom casing	Cast iron	AISI 316
Casing cover	Cast iron	AISI 316
Outer casing	AISI 304	AISI 316
Shaft	AISI 316	AISI 316
Liner ring	PTFE/AISI 316	
Motor bracket	Cast iron	Cast iron/316
Base	Cast iron	Cast iron/316
Pump Bearing	Sealed ball bearing/tungsten carbide	
Shaft Seal		
Mechanical seal	Silicon/Carbide/Carbon/FPM (*see page R1-15 for construction details*)	
Motor		*Consult factory for optional motor types*
Type	NEMA TC/TSC frame	
Speed	60 Hz, 3450 RPM (2 poles)	
Three Phase	208-230/460V	
Direction of Rotation	Clockwise when viewed from motor end	
Test standard	ISO 9906 annex A	

60 Hz, Synchronous Speed 3450 RPM



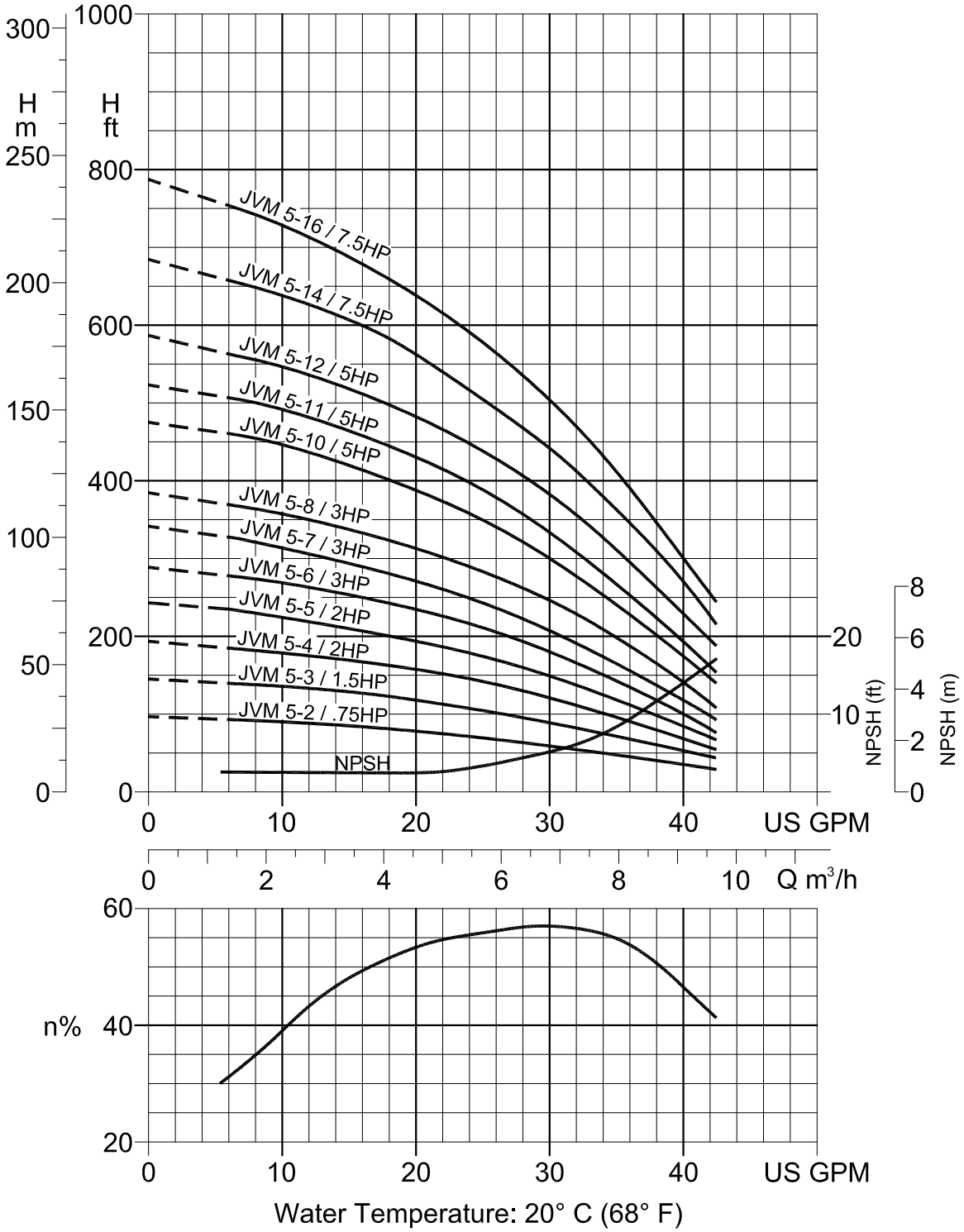
JVM 3 .5HP - 5HP

JVM 3 2 - JVM 3 18	Synchronous Speed: 3450 RPM	250# ANSI 1¼" 4-Bolt



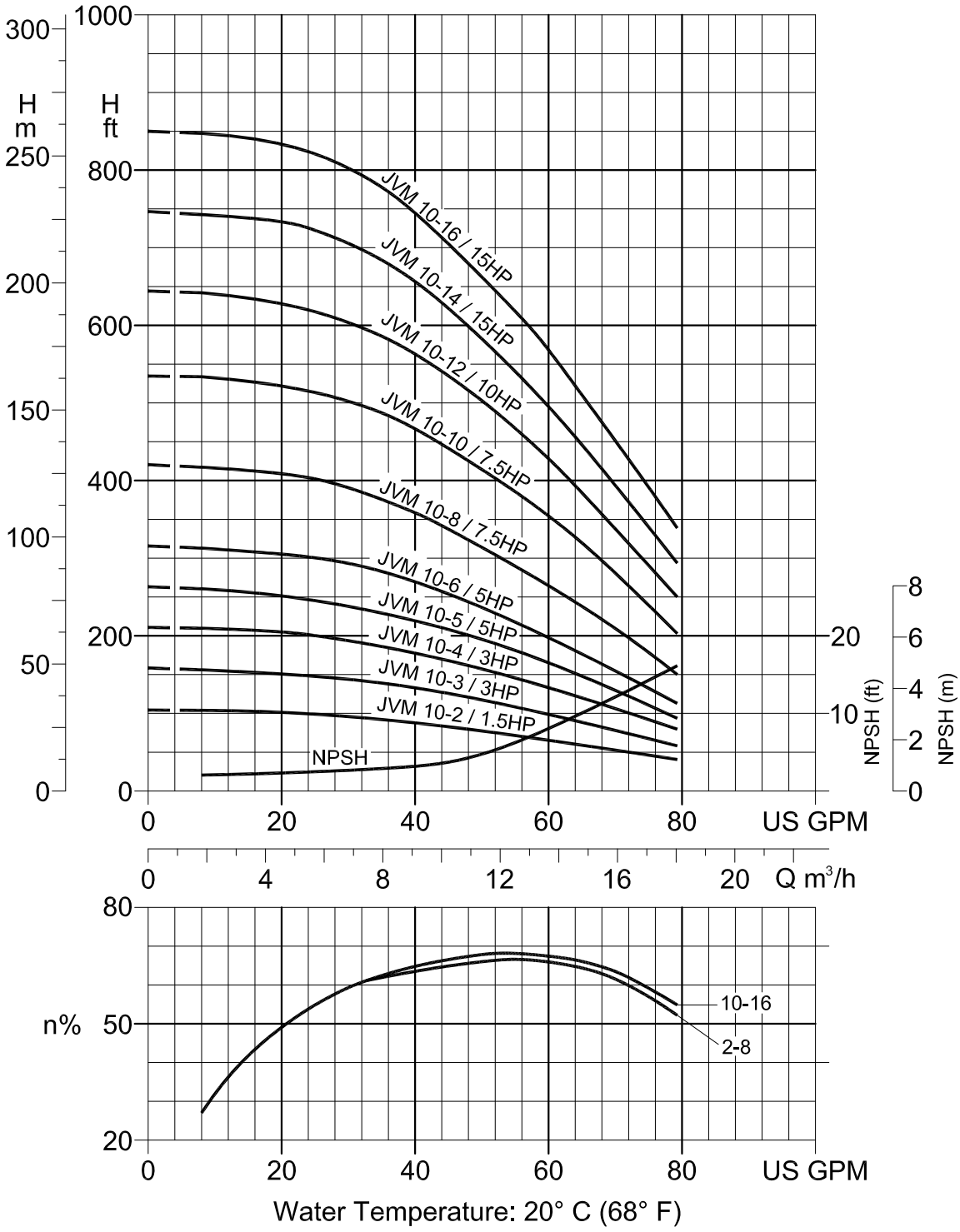
JVM 5 .75HP - 7.5HP

JVM 5-2 - JVM 5-16	Synchronous Speed: 3450 RPM	250# ANSI 1¼" 4-Bolt



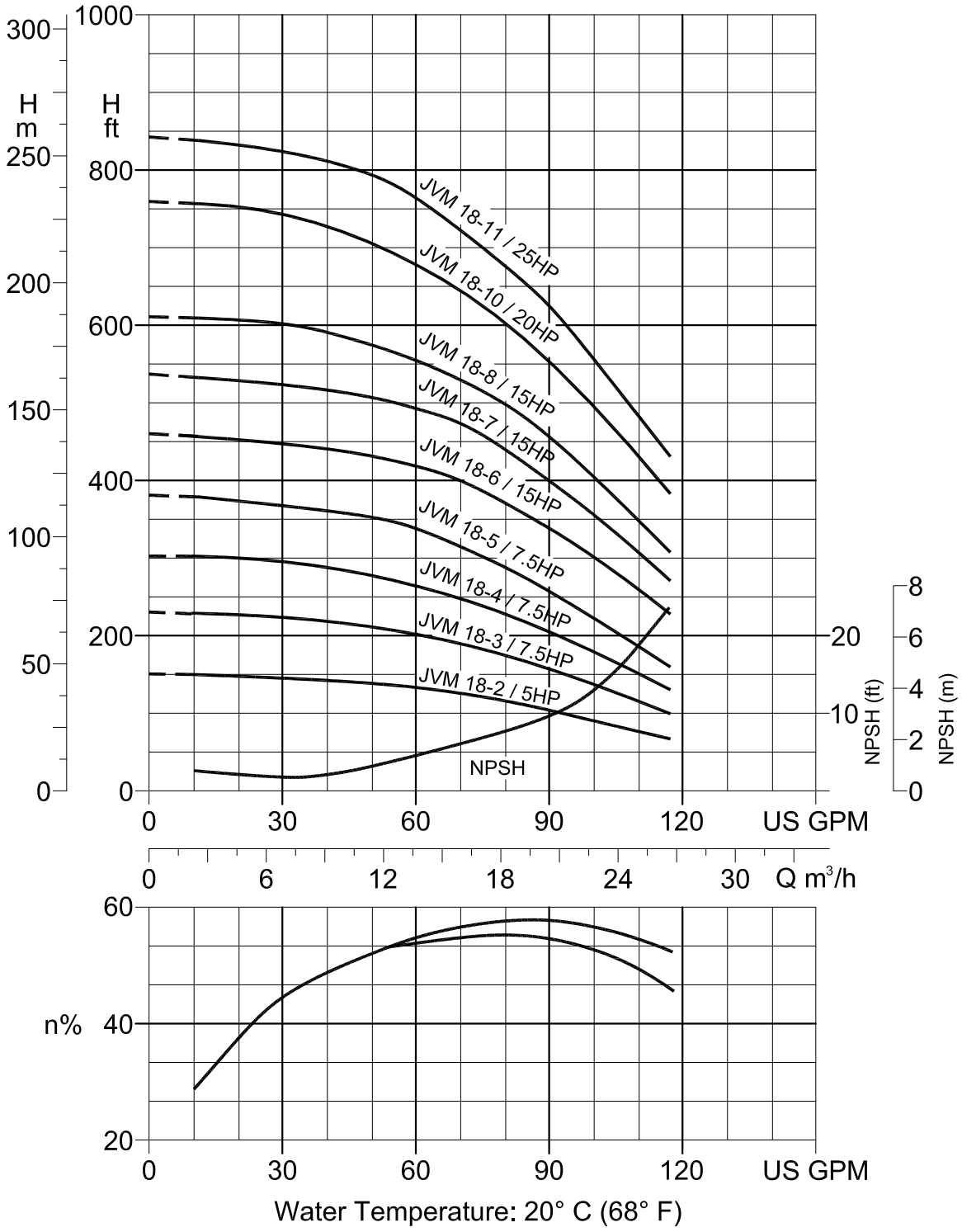
JVM 10 1.5 HP -15 HP

JVM 10 2 - JVM 10 16	Synchronous Speed: 3450 RPM	250# ANSI 2" 8-Bolt



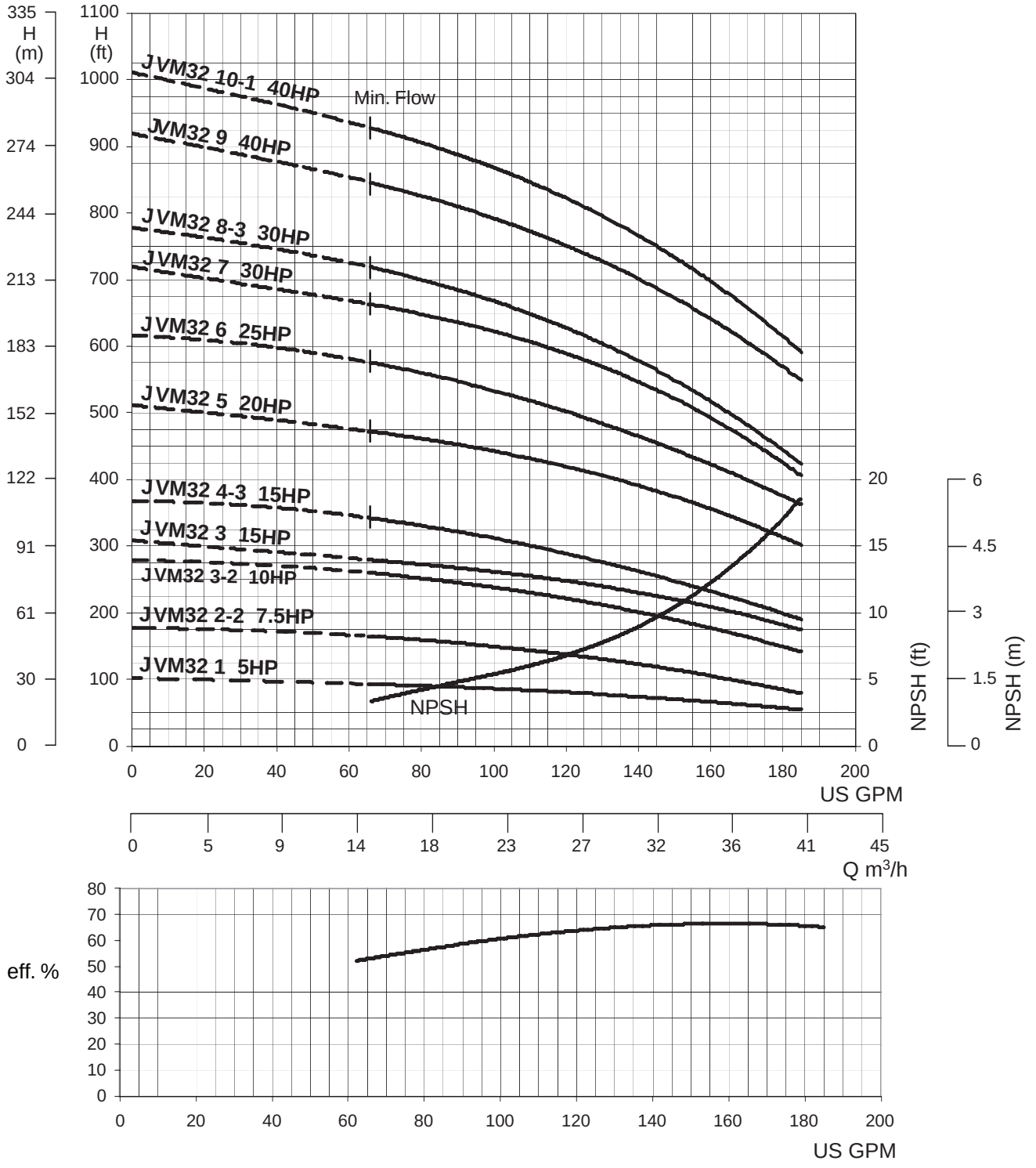
JVM 18 5HP - 25HP

JVM 18 2 - JVM 18 11	Synchronous Speed: 3450 RPM	250# ANSI 2" 8-Bolt



JVM 32 5HP - 40HP

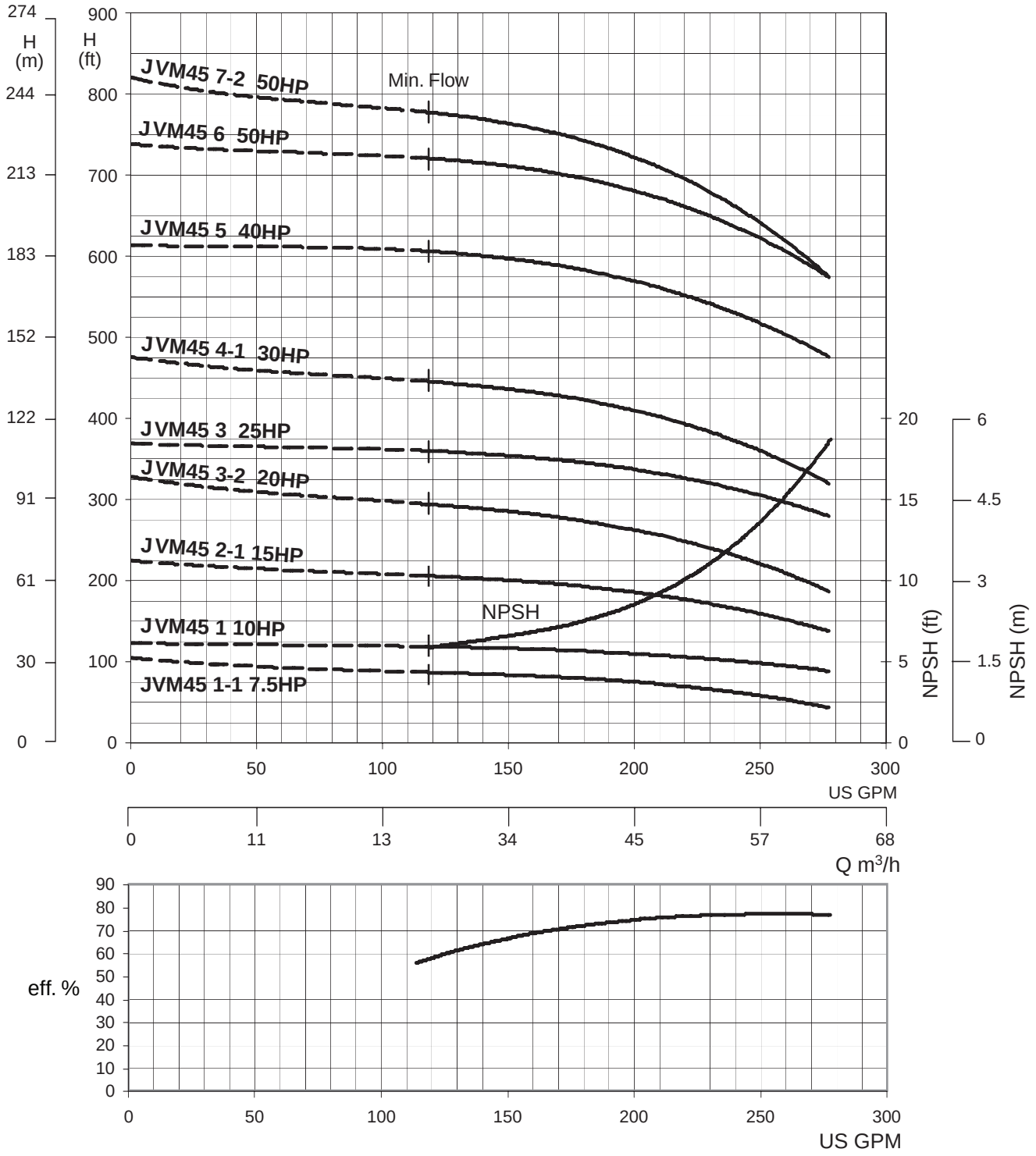
JVM 32 1 – JVM 32 4-3	**3500RPM**	**150# ANSI 2½" 4-Bolt**
JVM 32 5 – JVM 32 10-1	**3500RPM**	**300# ANSI 2½" 8-Bolt**



Water Temperature: 20° C (68° F)

JVM 45 7.5HP - 50HP

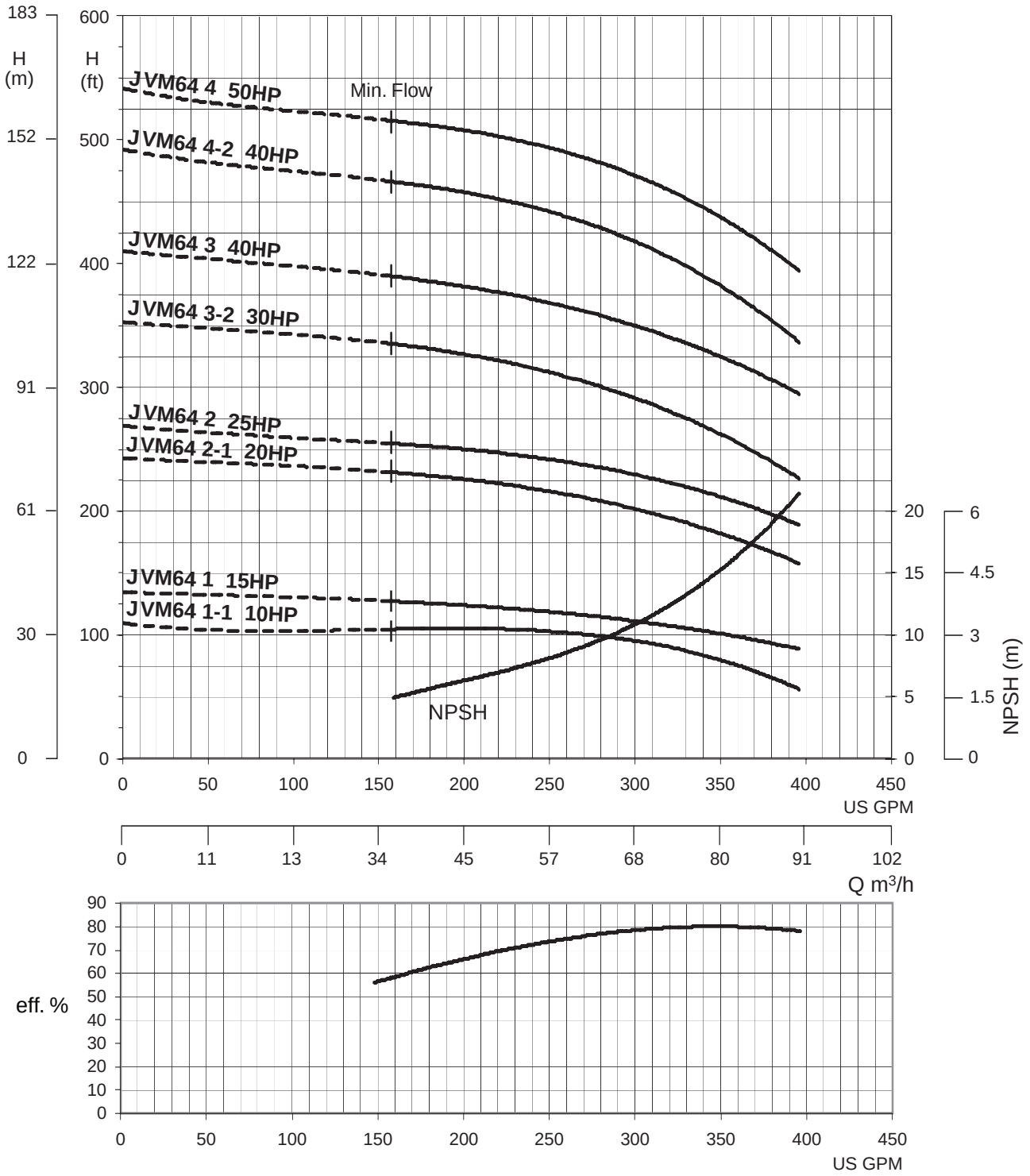
JVM 45 1-1 – JVM 45	**3500RPM**	**150# ANSI 3" 4-Bolt**
JVM 45 4-1 – JVM 45 7-2	**3500RPM**	**300# ANSI 3" 8-Bolt**



Water Temperature: 20° C (68° F)

JVM 64 10HP - 50HP

JVM 64 1-1 – JVM 64 4	3500RPM	300# 4" ANSI 8-Bolt



Water Temperature: 20° C (68° F)

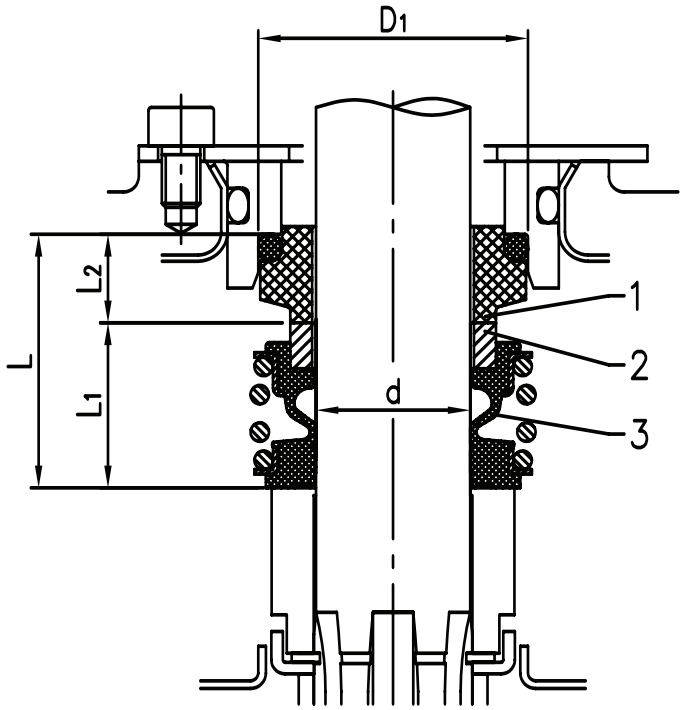
Maximum Working Pressures

Model			Maximum Working Pressure
JVM 3 2	–	JVM 3 9	230 PSI
JVM 5 2	–	JVM 5 10	
JVM 10 2	–	JVM 10 8	
JVM 18 2	–	JVM 18 6	
JVM 32 1	–	JVM 32 4-3	
JVM 45 1-1	–	JVM 45 3	
JVM 64 1-1	–	JVM 64 3	
JVM 3 11	–	JVM 3 18	360 PSI
JVM 5 11	–	JVM 5 16	
JVM 10 10	–	JVM 10 16	
JVM 18 7	–	JVM 18 11	
JVM 32 5	–	JVM 32 8-3	
JVM 45 4-1	–	JVM 45 7-2	
JVM 64 4-2	–	JVM 64 4	
JVM 32-9	–	JVM 32 10-1	430 PSI

Mechanical Seal

JVM 3, 5, 10, 18
JVML 3, 5, 10, 18

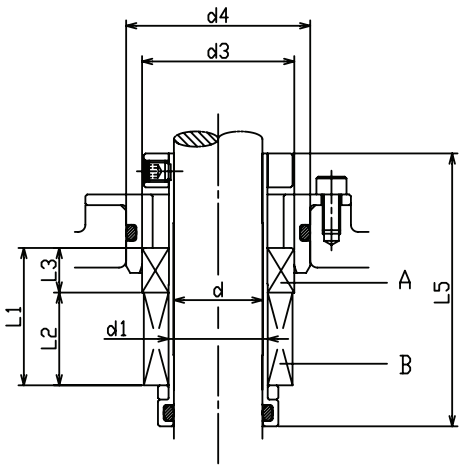
Mechanical Seal



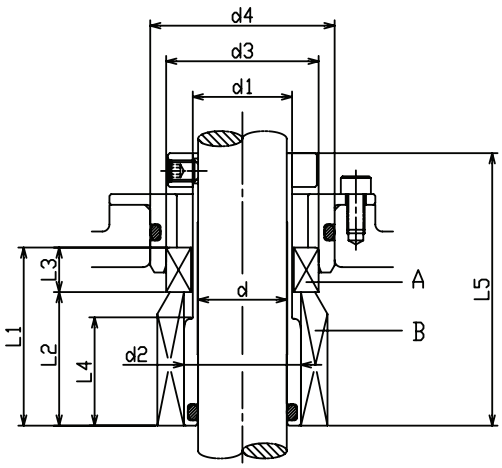
Pump Type	Size [inch]	Max.working pressure [PSI]	d [inch]	D_1 [inch]	L [inch]	L_1 [inch]	L_2 [inch]	Material		
								1 stationary seal ring	2 rotary seal ring	3 elastomer
3-5	0.5	230 360	0.5	0.91	0.93	0.63	0.3	Carbon graphite	Silicon carbide	FPM
10	0.63	230 360	0.63	1.06	1.06	0.67	0.39			
18	0.79	230 360	0.79	1.38	1.3	0.85	0.45			

Mechanical Seal

JVMG 32, 45, 64
JVML 32, 45, 64



working pressure to 360 PSI
Standard Seal



working pressure to 430 PSI
Standard Seal

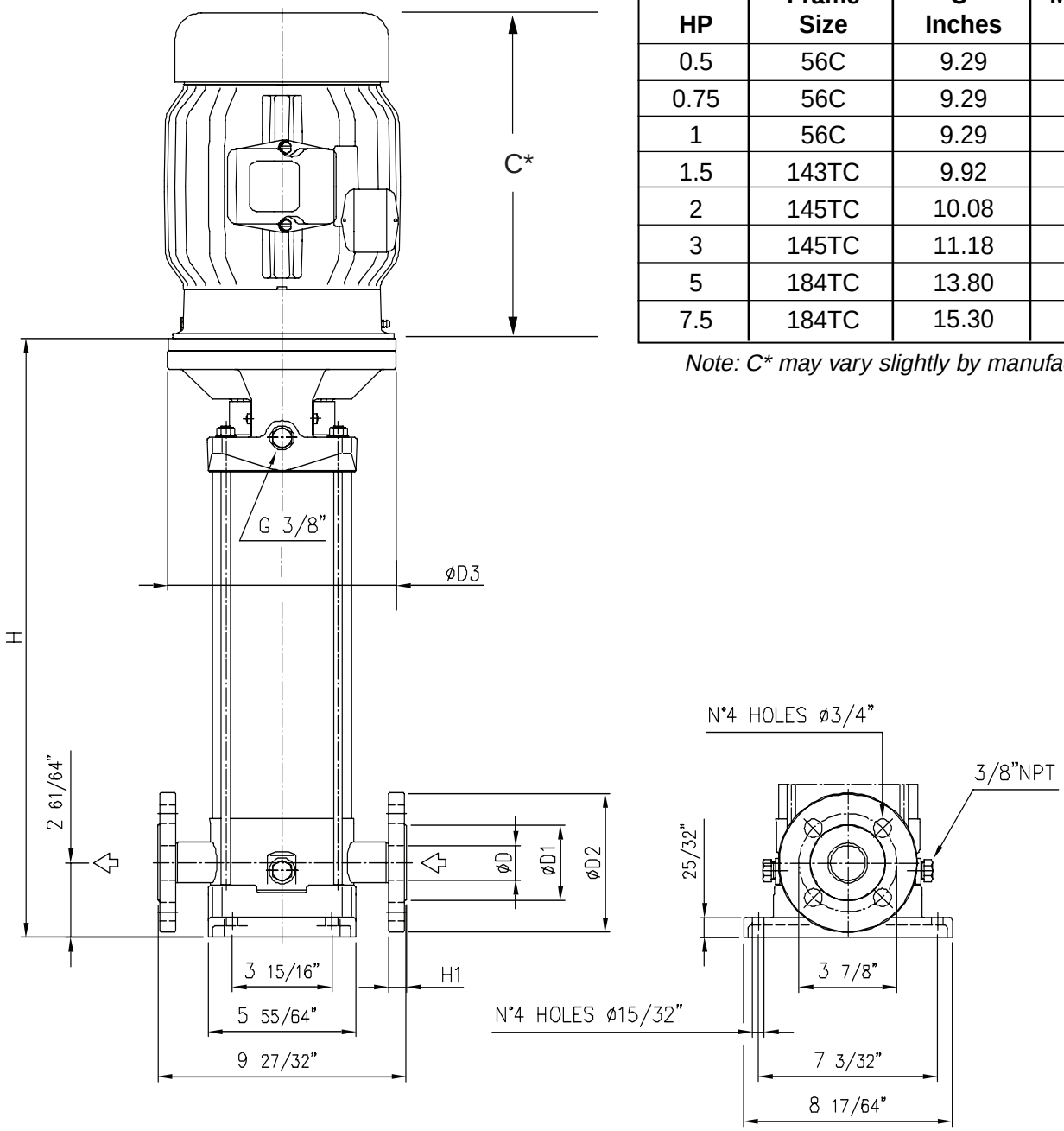
Size (inch)	Max. working pressure (psi)	d (inch)	d1 (inch)	d2 (inch)	d3 (inch)	d4 (inch)	L1 (inch)	L2 (inch)	L3 (inch)	L4 (inch)	L5 (inch)	Material		
												A stationary seal ring	B rotary seal ring	elastomer
1.102	230 360	0.984	1.102	–	1.693	2.047	1.535	1.043	0.492	–	2.894	Carbon graphite	Silicon Carbide	FPM
	430			1.299			1.969	1.516	0.453	1.181				

Models JVM(L)3
JVM(L)5

Approximate Motor Dimensions C*
for 3 phase, TEFC, NEMA Motors

HP	Frame Size	C* Inches	Motor Wt LBS.
0.5	56C	9.29	19
0.75	56C	9.29	21
1	56C	9.29	23
1.5	143TC	9.92	30
2	145TC	10.08	33
3	145TC	11.18	45
5	184TC	13.80	69
7.5	184TC	15.30	88

Note: C may vary slightly by manufacturer*



Flange Detail:

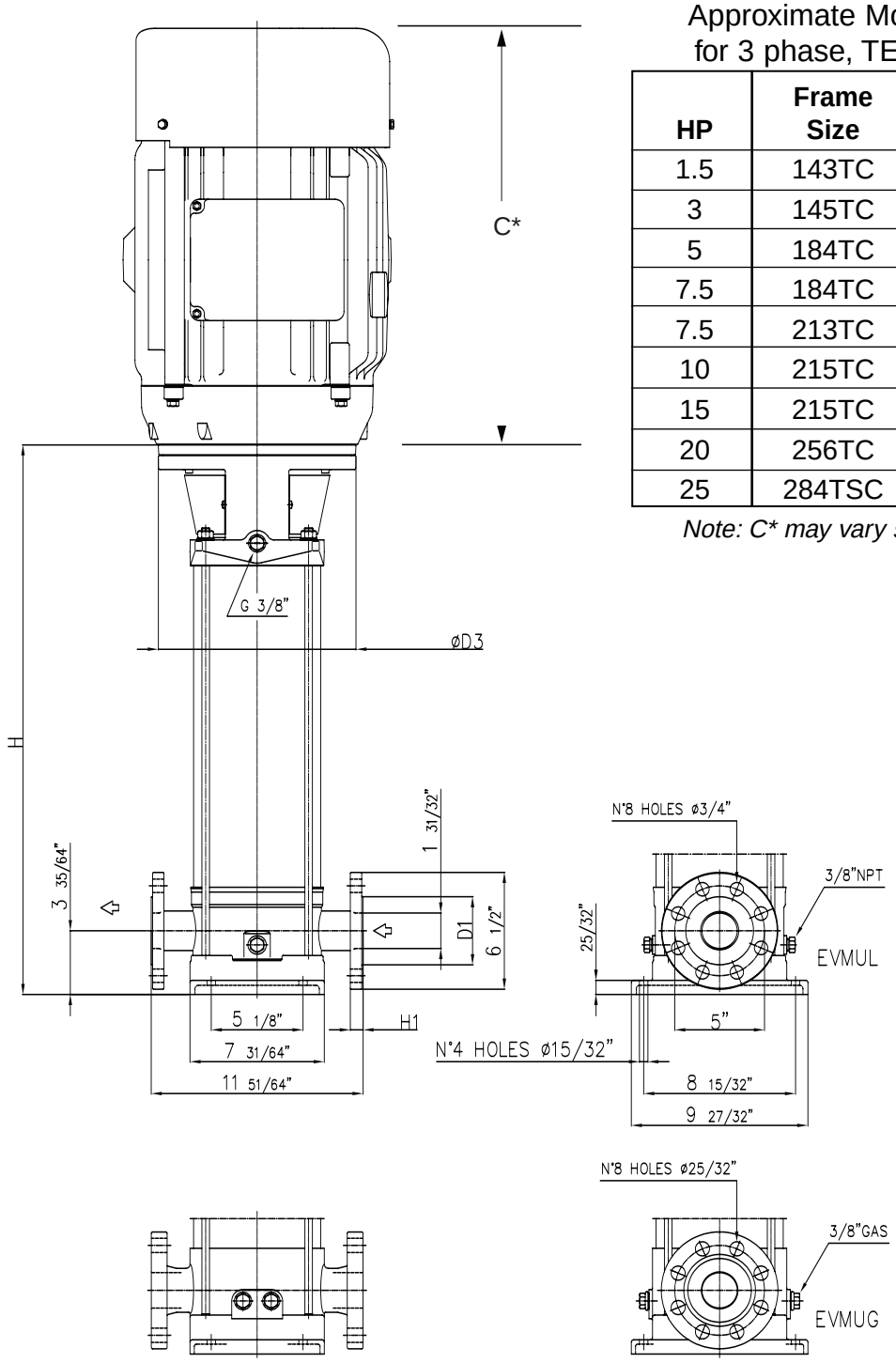
JVM(L) 3 250Lb. ANSI
JVM(L) 5 250Lb. ANSI

Refer to page R1-17 for dimension details.

Models JVM(L)3
JVM(L)5

Pump Type EVMU(L)	HP	Motor Frame	Dimensions						Weight [lbs]
			D	D1	D2	D3	H	H1	
3 2	.5	56C	1 3/8"	2 63/64"	5 33/64"	6 39/64"	11 5/16"	23/32"	38.2
3 3	.75	56C	1 3/8"	2 63/64"	5 33/64"	6 39/64"	12 9/64"	23/32"	39.2
3 4	1	56C	1 3/8"	2 63/64"	5 33/64"	6 39/64"	12 31/32"	23/32"	40.3
3 5	1.5	143TC	1 3/8"	2 63/64"	5 33/64"	6 39/64"	13 55/64"	23/32"	41.4
3 6	1.5	143TC	1 3/8"	2 63/64"	5 33/64"	6 39/64"	14 11/16"	23/32"	43.5
3 7	2	145TC	1 3/8"	2 63/64"	5 33/64"	6 39/64"	15 17/32"	23/32"	43.9
3 8	2	145TC	1 3/8"	2 63/64"	5 33/64"	6 39/64"	16 23/64"	23/32"	44.3
3 9	3	145TC	1 3/8"	2 63/64"	5 33/64"	6 39/64"	17 3/16"	23/32"	45.9
3 11	3	145TC	1 3/8"	2 63/64"	5 33/64"	6 39/64"	18 27/32"	23/32"	44.6
3 12	3	145TC	1 3/8"	2 63/64"	5 33/64"	6 39/64"	19 43/64"	23/32"	46.1
3 13	3	145TC	1 3/8"	2 63/64"	5 33/64"	6 39/64"	20 57/64"	23/32"	49.1
3 15	5	184TC	1 3/8"	2 63/64"	5 33/64"	9 1/16"	22 57/64"	23/32"	55.6
3 18	5	184TC	1 3/8"	2 63/64"	5 33/64"	9 1/16"	25 3/8"	23/32"	63.5
5 2	.75	56C	1 3/8"	2 63/64"	5 33/64"	6 39/64"	11 7/8"	23/32"	41.7
5 3	1.5	143TC	1 3/8"	2 63/64"	5 33/64"	6 39/64"	13 1/32"	23/32"	42.8
5 4	2	145TC	1 3/8"	2 63/64"	5 33/64"	6 39/64"	14 9/64"	23/32"	44.8
5 5	2	145TC	1 3/8"	2 63/64"	5 33/64"	6 39/64"	15 15/64"	23/32"	46.1
5 6	3	145TC	1 3/8"	2 63/64"	5 33/64"	6 39/64"	16 23/64"	23/32"	47.4
5 7	3	145TC	1 3/8"	2 63/64"	5 33/64"	6 39/64"	17 55/64"	23/32"	49.2
5 8	3	145TC	1 3/8"	2 63/64"	5 33/64"	6 39/64"	18 61/64"	23/32"	50.5
5 10	5	184TC	1 3/8"	2 63/64"	5 33/64"	9 1/16"	21 33/64"	23/32"	55.8
5 11	5	184TC	1 3/8"	2 63/64"	5 33/64"	9 1/16"	22 5/8"	23/32"	58.2
5 12	5	184TC	1 3/8"	2 63/64"	5 33/64"	9 1/16"	23 23/32"	23/32"	59.7
5 14	7.5	184TC	1 3/8"	2 63/64"	5 33/64"	9 1/16"	25 59/64"	23/32"	64.8
5 16	7.5	184TC	1 3/8"	2 63/64"	5 33/64"	9 1/16"	28 5/32"	23/32"	67.7

Models JVM(L)10
JVM(L)18



Approximate Motor Dimensions C*
for 3 phase, TEFC, NEMA Motors

HP	Frame Size	C* Inches	Motor Wt LBS.
1.5	143TC	9.92	30
3	145TC	11.18	45
5	184TC	13.80	69
7.5	184TC	15.30	88
7.5	213TC	15.18	99
10	215TC	15.26	122
15	215TC	16.39	143
20	256TC	16.32	221
25	284TSC	19.03	371

Note: C may vary slightly by manufacturer*

Flange Detail:

EVMU(L)10 250Lb. ANSI
EVMU(L)18 250Lb. ANSI

Refer to page R1-19 for dimension details.

Models JVM(L)10
JVM(L)18

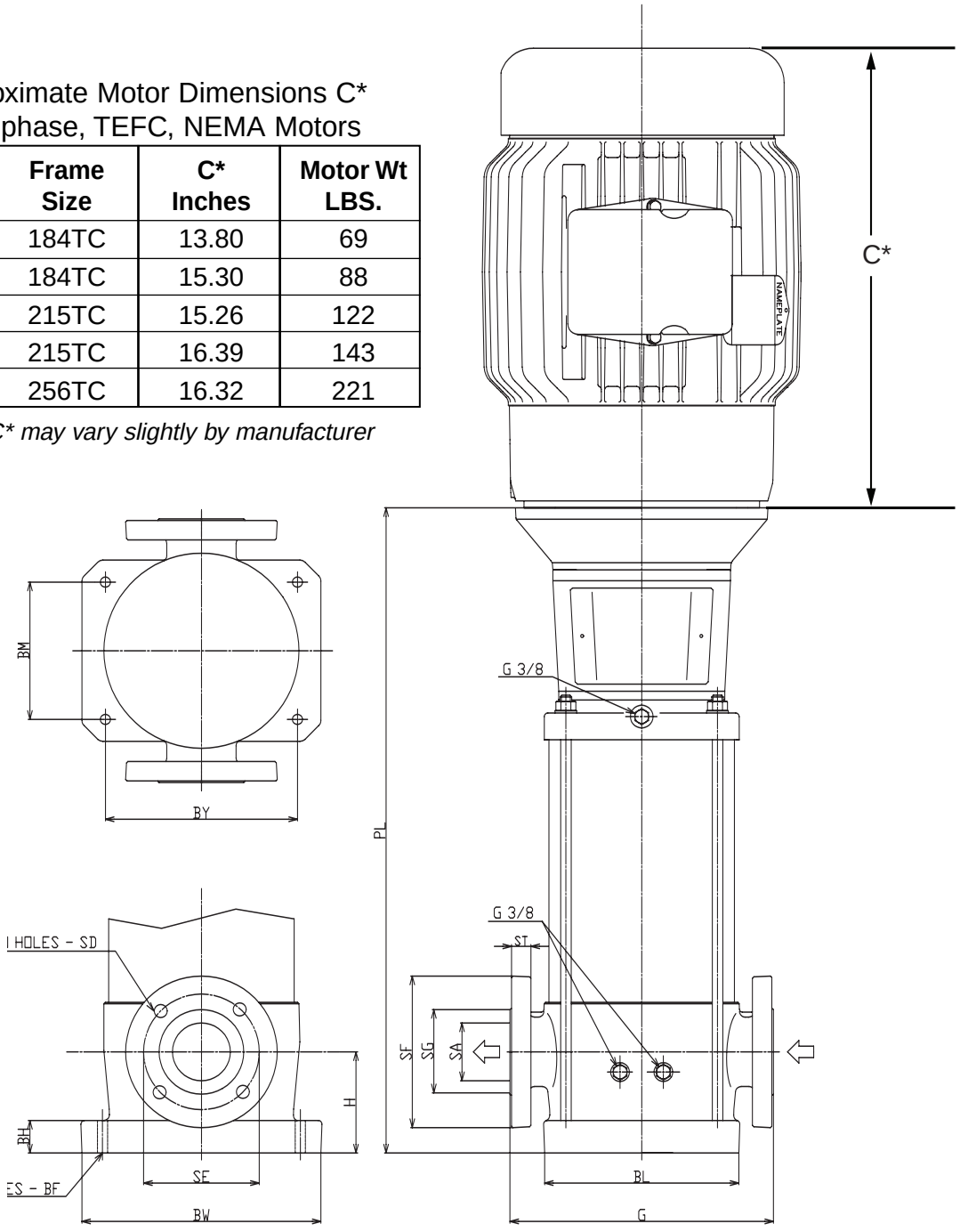
Pump Type EVMU(L)	HP	Motor Frame	Dimensions D1	D3	H	H1	Weight [lbs]
10 2	1.5	143TC	4 1/64"	6 39/64"	14 1/64"	23/32"	130.9
10 3	3	145TC	4 1/64"	6 39/64"	15 13/64"	23/32"	138.2
10 4	3	145TC	4 1/64"	6 39/64"	16 49/64"	23/32"	149.8
10 5	5	184TC	4 1/64"	9 1/16"	18 13/16"	23/32"	152.8
10 6	5	184TC	4 1/64"	9 1/16"	20"	23/32"	160.1
10 8	7.5	184TC	4 1/64"	9 1/16"	22 3/8"	23/32"	192.1
10 10	7.5	213TC	4 1/64"	9 1/16"	24 3/4"	23/32"	196.6
10 12	10	215TC	4 1/64"	9 1/16"	27 7/64"	23/32"	242.2
10 14	15	215TC	4 1/64"	9 1/16"	29 41/64"	23/32"	254.3
10 16	15	215TC	4 1/64"	9 1/16"	32"	23/32"	279.1
18 2	5	184TC	4 1/64"	9 1/16"	15 9/16"	23/32"	182.9
18 3	7.5	184TC	4 1/64"	9 1/16"	17 41/64"	23/32"	190.2
18 4	7.5	184TC	4 1/64"	9 1/16"	19 7/32"	23/32"	190.2
18 5	10	215TC	4 1/64"	9 1/16"	20 25/32"	23/32"	236.4
18 6	15	215TC	4 1/64"	9 1/16"	22 9/16"	23/32"	258.8
18 7	15	215TC	4 1/64"	9 1/16"	24 9/64"	23/32"	271.0
18 8	15	215TC	4 1/64"	9 1/16"	25 45/64"	23/32"	278.3
18 10	20	256TC	4 1/64"	9 1/16"	28 55/64"	23/32"	329.3
18 11	25	284TSC	4 1/64"	11 1/32"	30 37/64"	23/32"	336.6

Models JVML 32 1 – JVML 32 4-3
JVML 45 1-1 – JVML 45 3
JVM 32 1 – JVM 32 4-3
JVM 45 1-1 – JVM 45 3

Approximate Motor Dimensions C*
for 3 phase, TEFC, NEMA Motors

HP	Frame Size	C* Inches	Motor Wt LBS.
5	184TC	13.80	69
7.5	184TC	15.30	88
10	215TC	15.26	122
15	215TC	16.39	143
20	256TC	16.32	221

Note: C may vary slightly by manufacturer*



Flange Detail:

EVMU32 2½" 150Lb. ANSI
EVMU45 3" 150Lb. ANSI

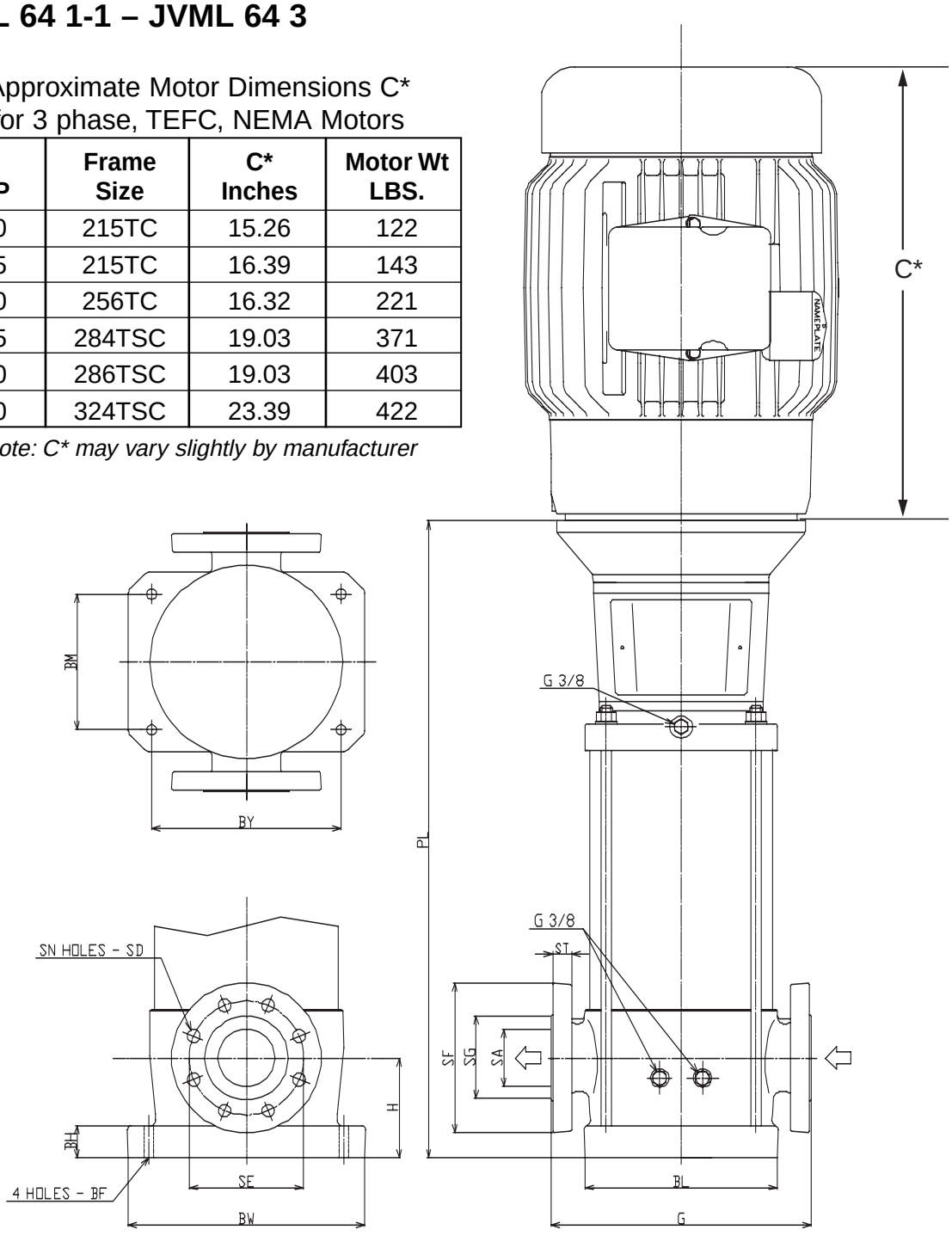
Refer to page R1-23 for dimension details.

Models JVM 64 1-1 – JVM 64 3
JVML 64 1-1 – JVML 64 3

Approximate Motor Dimensions C*
for 3 phase, TEFC, NEMA Motors

HP	Frame Size	C* Inches	Motor Wt LBS.
10	215TC	15.26	122
15	215TC	16.39	143
20	256TC	16.32	221
25	284TSC	19.03	371
30	286TSC	19.03	403
40	324TSC	23.39	422

Note: C may vary slightly by manufacturer*



Flange Detail:

JVM 64 4" 150 Lb. ANSI

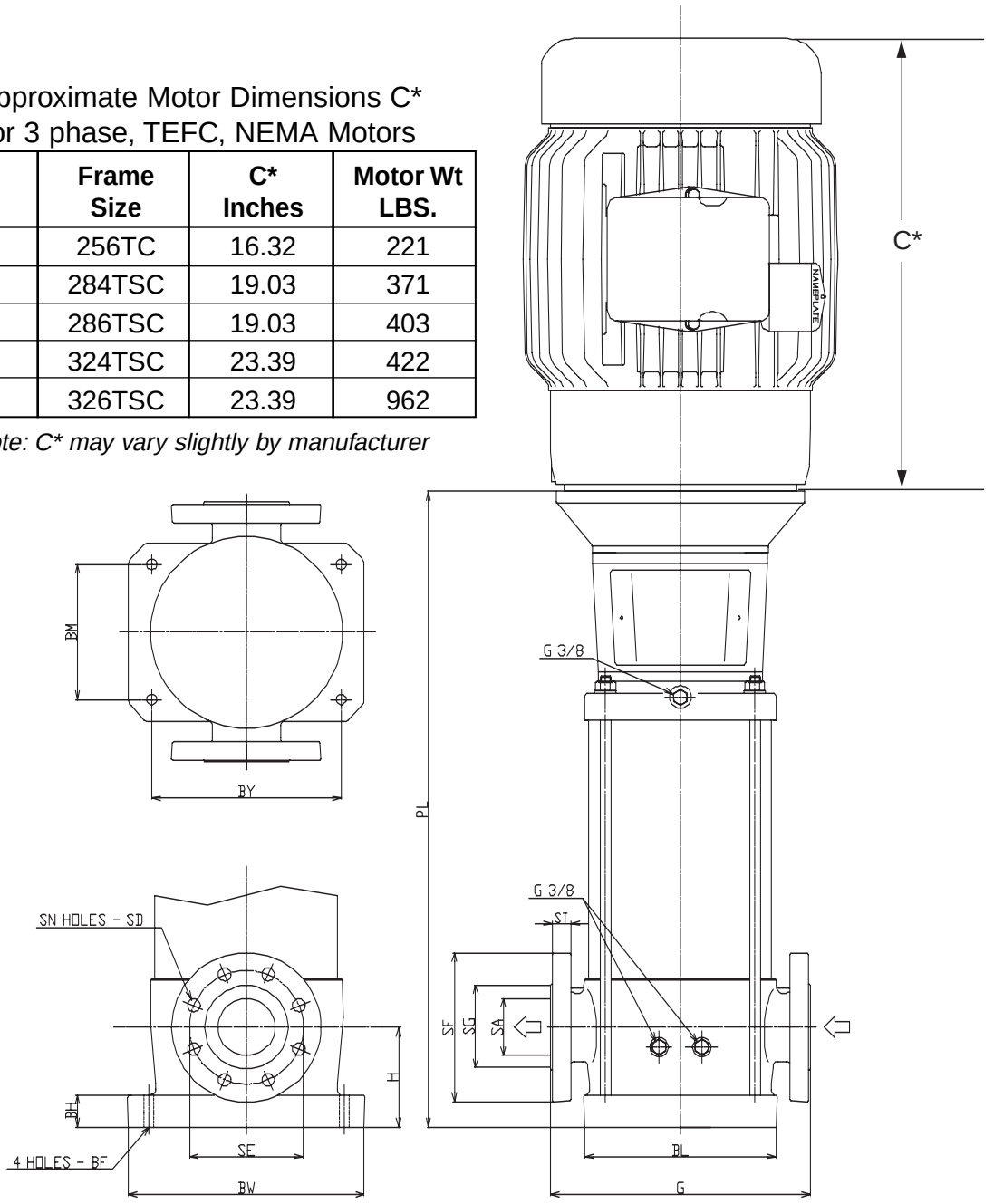
Refer to page R1-23 for dimension details.

Models JVM 32 5 – JVM 32 10-1
JVM 45 4-1 – JVM 45 7-2
JVM 64 4-2 – JVM 64 4
JVML 32 5 – JVML 32 10-1
JVML 45 4-1 – JVML 45 7-2
JVML 64 4-2 – VML 64 4

Approximate Motor Dimensions C*
for 3 phase, TEFC, NEMA Motors

HP	Frame Size	C* Inches	Motor Wt LBS.
20	256TC	16.32	221
25	284TSC	19.03	371
30	286TSC	19.03	403
40	324TSC	23.39	422
50	326TSC	23.39	962

Note: C may vary slightly by manufacturer*



Flange Detail:

JVM 3 2½" 300Lb. ANSI
JVM 45 3" 300Lb. ANSI
JVM 64 4" 300Lb. ANSI

Refer to page R1-23 for dimension details.

Pump Type					Dimensions (inches)							
Model	HP	Weight Lbs. †	Motor Frame*	PL	H	G	ST	SA	SG	SF	SD	SN
32 1	5	117	184TC	18 3/16	4 9/64	12 9/32	54/64	2 9/16	4 21/64	7	25/32	4
32 2-2	7 1/2	126	184TC	20 19/32								
32 3-2	10	170	215TC	22 31/64								
32 3	15	172	215TC	27 41.64								
32 4-3	15	176	215TC	29 17/32								
32 5	20	194	256TC	31 27/64			1 1/16			7 1/2	3/4-10UNC	8
32 6	25	200	284TSC	33 7/64								
32 7	30	207	286TSC	35								
32 8-3	30	225	286TSC	36 57/64								
32 9	40	240	324TSC	39 3/8								
32 10-1	40	247	324TSC	41 17/64								
45 1-1	7 1/2	148	184TC	21 29/64	5 33/64	14 3/8	15/16	3 5/32	4 23/32	7 1/2	25/32	4
45 1	10	152	215TC	21 29/64								
45 2-1	15	192	215TC	29 29/64								
45 3-2	20	207	256TC	32 9/32								
45 3	25	207	284TSC	32 2/32								
45 4-1	30	229	286TSC	34 59/64			1 13/64			8 1/4	29/32	8
45 5	40	260	324TSC	38 11/32								
45 6	50	276	326TSC	41 3/16								
45 7-2	50	287	326TSC	44 1/64								
64 1-1	10	179	215TC	21 29/64	5 33/64	14 3/8	1 1/32	3 15/16	5 33/64	9	25/32	8
64 1	15	201	215TC	26 5/8								
64 2-1	20	213	256TC	29 29/64								
64 2	25	214	284TSC	29 1/4								
64 3-2	30	221	286TSC	32 3/32								
64 3	40	223	324TSC	32 11/16								
64 4-2	40	245	324TSC	35 33/64			1 21/64			10	29/32	
64 4	50	251	326TSC	35 33/64								

Pump Type			Dimensions (inches)						
Model	HP	Motor Frame*	SE	BM	BY1	BL	BW	BF	BH
32 1	5	184TC	5 1/2	6 11/16	9 29/64	8 17/64	11 1/32	35/64	1 3/8
32 2-2	7 1/2	184TC							
32 3-2	10	215TC							
32 3	15	215TC							
32 4-3	15	215TC							
32 5	20	256TC	5 7/8						
32 6	25	284TSC							
32 7	30	286TSC							
32 8-3	30	286TSC							
32 9	40	324TSC							
32 10-1	40	324TSC							
45 1-1	7 1/2	184TC	6	7 31/64	10 15/32	9 57/64	13 1/32	35/64	1 49/64
45 1	10	215TC							
45 2-1	15	215TC							
45 3-2	20	256TC							
45 3	25	284TSC							
45 4-1	30	286TSC	6 5/8						
45 5	40	324TSC							
45 6	50	326TSC							
45 7-2	50	326TSC							
64 1-1	10	215TC	7 1/2	7 31/64	10 15/32	9 57/64	13 1/32	35/64	1 49/64
64 1	15	215TC							
64 2-1	20	256TC							
64 2	25	284TSC							
64 3-2	30	286TSC							
64 3	40	324TSC							
64 4-2	40	324TSC	7 7/8						
64 4	50	326TSC							

*Motor frame for Three Phase TEFC only. Consult factory for single phase and alternate enclosures.

† Bare Pump only.