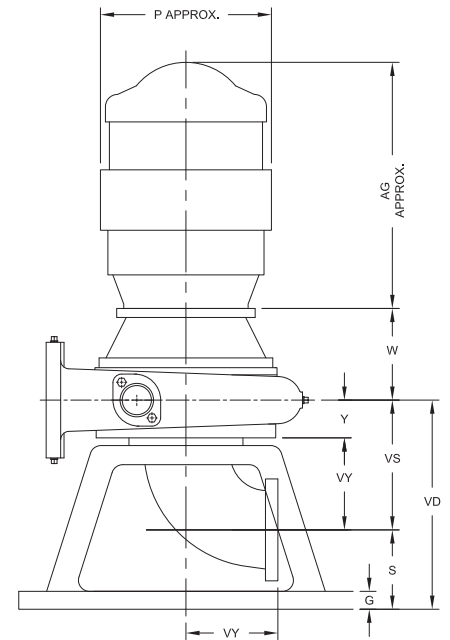
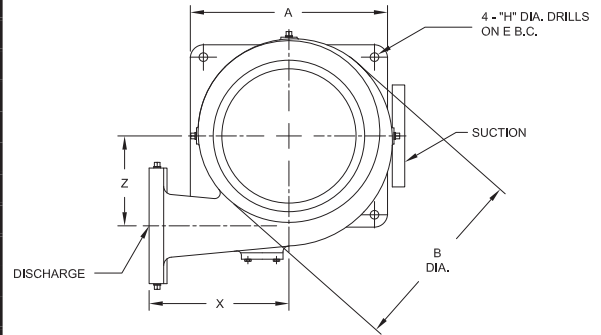
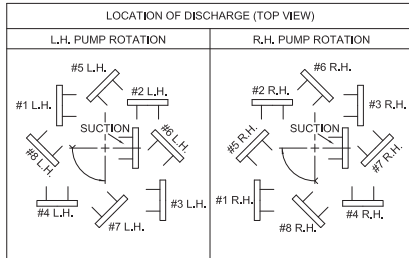


Dry Pit Solids Handling Centrifugal Pumps

FIGURE	SUCTION	DISCH.	MAX. IMP. DIA.	SOLIDS	DIMENSIONS IN INCHES																	MOTOR FRAME							
					A	B	E	G	H	S	VD	VS	VY	X	XZ	Y	Z	W	W	143JM TO 184JM	213JM TO 326JM								
7181 - 7182	2	2	7 1/4	1 1/2	10 3/4	12	13	1 1/2	3/8	4	11 1/2	7 1/2	4 1/2	5 1/2	45°	3	4 5/8	4 3/8	3 3/8	5 1/8	4 3/8	5 3/8	4 3/8	5 3/8					
	3	3		2 1/2	15 1/2	18	19 1/2		1/2	6 1/2	15 5/8	10 3/8	6	3 3/8		5 1/8	4 3/8	5 3/8											
	4	4		3	16 1/2	10 3/8	6 3/4		4 3/8	5 3/8	4 3/8	5 3/8	6 3/8																
	7182	2	2	9 1/2	1 1/2	10 3/4	12	13	1 1/2	3/8	4	11 1/4	7 3/4	4 1/2	6 1/2	45°	3 3/4	5 1/4	4 1/2	3 3/4	5 1/4	4 1/2	5 1/4	4 1/2	5 1/4				
		3	3		2	15 1/2	18	19 1/2		1/2	6 1/2	15 5/8	10 3/8	6 3/4	3 3/8		5 1/8	4 3/8	5 3/8										
		4	4		3	16 1/2	10 3/8	6 3/4		4 3/8	5 3/8	4 3/8	5 3/8	6 3/8															
		7182	3	3	12	2 1/2	15 1/2	18	19 1/2	1 1/2	5 1/2	16 1/8	10 3/8	6 1/2	8	45°	4 1/8	6 3/8	5	4 1/8	6 3/8	5	6	4 1/8	6 3/8	5			
			4	4		3	19 1/4	24	25 1/2		1/2	7 1/2	19 1/2	12	7 1/2		4 1/2	7 3/8	5 1/4								6 1/4		
			5	5		3	19 1/4	24	25 1/2		1/2	7 1/2	19 1/2	12	7 1/2		4 1/2	7 3/8	5 1/4								6 1/4		
			7182	3	3	4	2	15 1/2	18	19 1/2	1 1/2	6 1/2	16 1/8	10 3/8	6 1/2	8	45°	4 1/8	7 3/8	5 1/4	4 1/8	7 3/8	5 1/4	6 1/4	4 1/8	7 3/8	5 1/4		
				4	4		2 1/2	19 1/4	24	25 1/2		2	7	19 1/2	12 3/4	8		12	4 1/2	7 3/8								5 1/4	6 1/4
				4	4		3	19 1/4	24	25 1/2		2	7	19 1/2	12 3/4	8		12	4 1/2	7 3/8								5 1/4	6 1/4
7182				3	3	4	2 1/2	15 1/2	18	19 1/2	1 1/2	6 1/2	16 1/8	10 3/8	6 1/2	8	45°	4 1/8	8 1/8	6	4 1/8	8 1/8	6	4 1/8	8 1/8	6	4 1/8		
				4	4		3	19 1/4	24	25 1/2		2	7	19 1/2	12 3/4	8		12	4 1/2	7 3/8								5 1/4	6 1/4
				4	4		3	19 1/4	24	25 1/2		2	7	19 1/2	12 3/4	8		12	4 1/2	7 3/8								5 1/4	6 1/4
	7182			3	3	4	3	19 1/4	24	25 1/2	1 1/2	7 1/2	19 1/2	12	7 1/2	9 1/2	45°	4 1/2	9 1/2	6 1/4	4 1/2	9 1/2	6 1/4	4 1/2	9 1/2	6 1/4	4 1/2		
				4	4		2	24 3/8	30	32		2	7 3/8	22 1/2	13 3/8	9		9 1/2	4 3/4	9 1/2								6 3/4	
				4	4		3	24 3/8	30	32		2	7 3/8	22 1/2	13 3/8	9		9 1/2	4 3/4	9 1/2								6 3/4	



*NO HANDHOLE COVER IN CASING



FLANGE 125# F.F.			
SUCTION		B. DISCHARGE	
SIZE	DIA.	NO. BOLTS	B.C.
2	6	4 - 3/8	4 3/4
3	7 1/2	4 - 3/8	6
4	9	8 - 3/8	7 1/2
5	10	8 - 3/4	8 1/2
6	11	8 - 3/4	9 1/2
8	13 1/2	8 - 3/4	11 1/4

FIGURE	7181						7182						
	MOTOR FRAME	143 JM	145 JM	182 JM	184 JM	213 JM	215 JM	254 JM	256 JM	284 JM	286 JM	324 JM	326 JM
AG		11	11	11	12	13 3/8	15 3/8	17 1/2	19 1/4	19 1/4	20 3/4	21 1/4	22 3/4
P		6 1/2	6 1/2	10 1/2	10 1/2	12 1/2	12 1/2	16	16	16	16	18 3/8	18 3/8

NOTE: DIMENSIONS "AG" & "P" ARE NORMAL FOR CLOSE COUPLED JM STYLE PUMP MOTORS-DRIP-PROOF/CANOPY

Customer				Shop Order No.			Date:		By:	
Pump Data	Fig. No.	Size	Curve No.	GPM	Head	Sp. Gr.	Temp.	Rotation	Packing/Seal	
Motor Data	MFGR	Hp	RPM	Phase-Cycle Voltage		Frame	Enclosure	Insulation	Furnished by	Mounted

Dry Pit Solids Handling Centrifugal Pumps

The Product Numbering System used, consists of 12 digits, and the following is a description of that system:

0000 - 0000 - 00 - 0 - 0
 1 thru 4 5 thru 8 9 & 10 11 12

Digits 1 thru 4 are the Pump Figure Number.

1 thru 4	Description
7181	Dry Pit Solids Handling Pump, Vertical Motor Mounted, 143-215JM Frames
7182	Dry Pit Solids Handling Pump, Vertical Motor Mounted, 254-286JM Frames

Digits 5 thru 8 describe the Pump Size.

5 thru 8	Description	5 thru 8	Description
2036	2 x 2 x 7¼ x 1½	4056	4 x 4 x 9½ x 3
2056	2 x 2 x 9½ x 1½	4064	4 x 4 x 12 x 2
3155	4 x 3 x 9½ x 2	4066	4 x 4 x 12 x 3
3165	4 x 3 x 12 x 2	4266	6 x 4 x 12 x 3
4036	4 x 4 x 7¼ x 3	6065	6 x 6 x 12 x 3
4054	4 x 4 x 9½ x 2	6165	8 x 6 x 12 x 3

Digits 9 & 10 describe the Motor HP and Enclosure. 00 = Less motor.

Digits 9 & 10	Description	
HP	ODP	TEFC
1	05	25
1½	06	26
2	07	27
3	08	28
5	09	29
7½	10	30
10	11	31
15	12	32
20	13	33
25	14	34
30	15	35
40	16	36
50	17	37
60	18	38
75	19	39

Digit 11 describes Motor Phase and Speed.

Digit 11	Description	
	Ph	RPM
1	3	3500
2	1	3500
3	3	1750
4	1	1750
5	3	1150
6	1	1150
7	3	875
8	1	875
9	Special	

Digits 12 describes the Pump Rotation.

Digit 12	Description
1	Right-Hand
2	Left-Hand

Company:
Name:
Date: 11/03/2022



Pump:		
Size:	4x4x12x3-1	<u>Dimensions:</u>
Type:	7100-DryPit Non-Clog	Suction: 4 in
Synch Speed:	1800 rpm	Discharge: 4 in
Dia:	10 in	
Curve:	PC3856	
Impeller:	26856-26857	

Fluid:		
Name:	Water	
SG:	1	Vapor Pressure: 0.256 psi a
Density:	62.4 lb/ft³	Atm Pressure: 14.7 psi a
Viscosity:	1.1 cP	
Temperature:	60 °F	Margin Ratio: 1

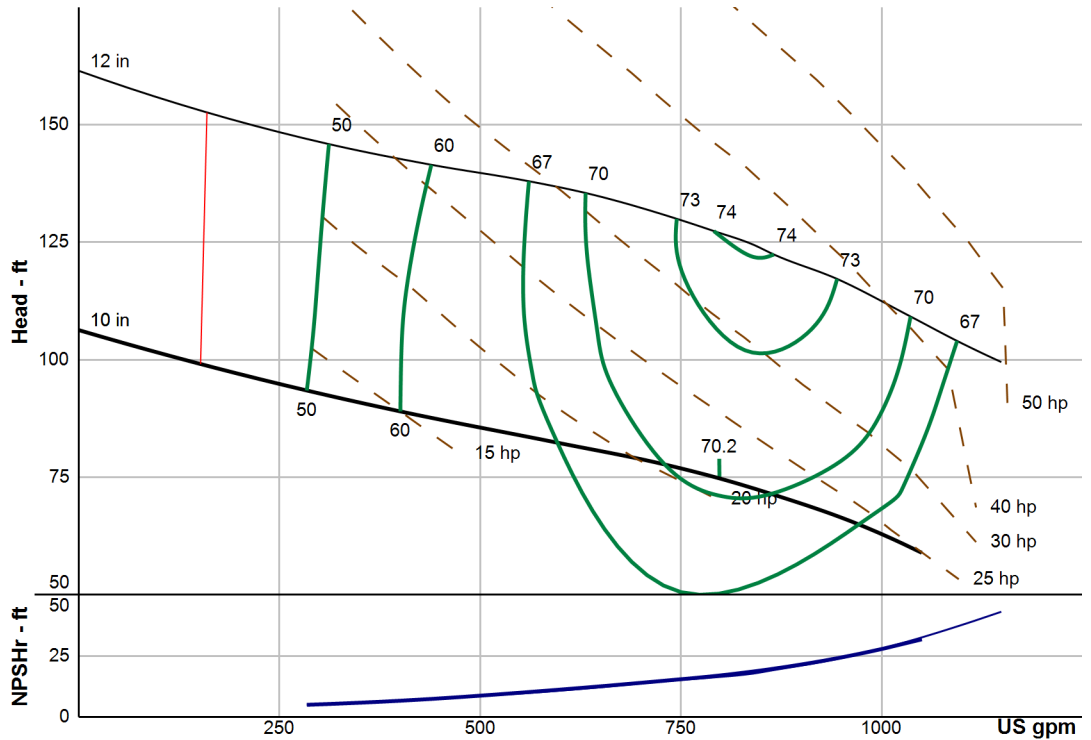
Search Criteria:			
Flow:	---	Near Miss:	---
Head:	---	Static Head:	0 ft

Pump Limits:		
Temperature:	225 °F	Sphere Size: 3 in
Wkg Pressure:	125 psi g	

Motor:			
Standard:	NEMA	Size:	25 hp
Enclosure:	TEFC	Speed:	1800 rpm
Frame:	284T		
Sizing Criteria:	Max Power on Design Curve		

Pump Selection Warnings:
None

--- Duty Point ---	
Flow:	798 US gpm
Head:	74.7 ft
Eff:	70%
Power:	21.5 hp
NPSHr:	17 ft
Speed:	1750 rpm
--- Design Curve ---	
Shutoff Head:	106 ft
Shutoff dP:	46 psi
Min Flow:	152 US gpm
BEP: 70.2% @ 798 US gpm	
NOL Power:	25 hp @ 1050 US gpm
--- Max Curve ---	
Max Power:	49.3 hp @ 1149 US gpm



Performance Evaluation:

Flow US gpm	Speed rpm	Head ft	Efficiency %	Power hp	NPSHr ft
1008	1750	62.1	65	24.3	28.5
840	1750	72.6	70	22	18.7
672	1750	79.7	69	19.6	13.2
504	1750	85.5	64	16.9	9.02
336	1750	91.5	54	14.1	5.75