

SUBMERSIBLE PUMPS

STS SERIES

MENU



6-INCH - 175 GPM

FEATURES

- 100% Franklin factory wet tested with test results shipped with each pump
- Premium ductile iron casting for longer life and higher pressures
- Investment cast stainless steel impellers for maximum abrasion resistance
- Longer discharge and motor bracket bearings for increased pump life
- Spiral cutlass rubber intermediate bearings designed for harsh environments
- 416 stainless steel pump shaft ground and polished for maximum durability
- Custom pumps available

SPECIFICATIONS

- 6" minimum well I.D.
- 10' minimum submergence above inlet
- 4" NPT discharge
- 350 psi standard (675 psi double bolted) maximum working pressure
- 150 PPM maximum allowable amount of sand
- Basic Model: 175STS6, PEI_{CL} Number: 0.90

MODEL NO. EXPLANATION

Example: 175STS10D6X-0464

- 175 = gpm
- STS = Sub Turbine
- 10 = 10 hp
- D = Ductile Iron
- 6 = 6" Submersible
- X = Impeller Trim Configuration
- 04 = Number of Stages
- 6 = 6" Motor Size
- 4 = 4" Discharge Size



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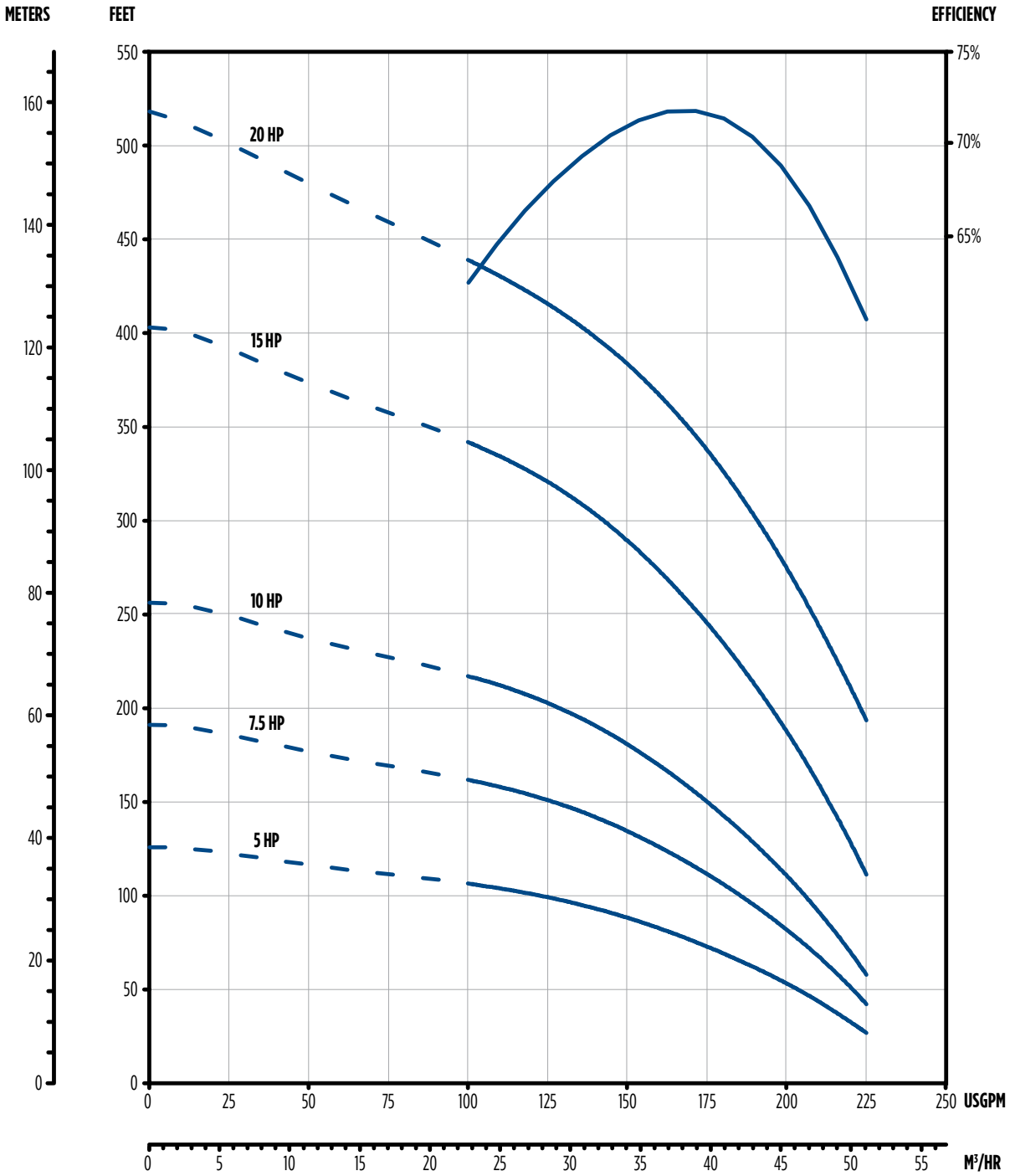
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6-INCH - 175 GPM

PERFORMANCE

Basic Model	PEI _u Number
175STS6	0.90



— RECOMMENDED OPERATING RANGE
 NOTE: Performance based on 68 °F fresh water; 6" motor at 3450 rpm

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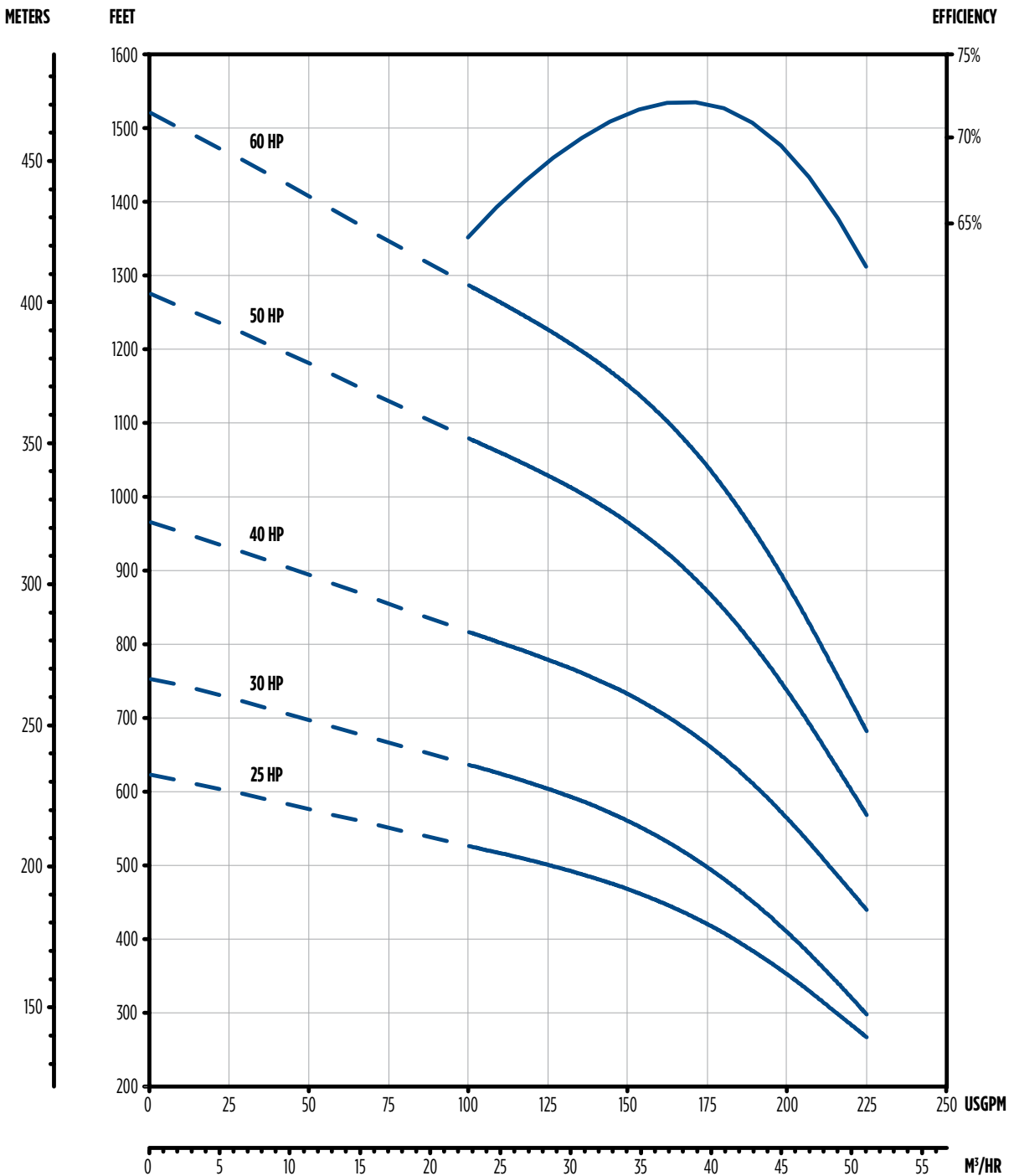
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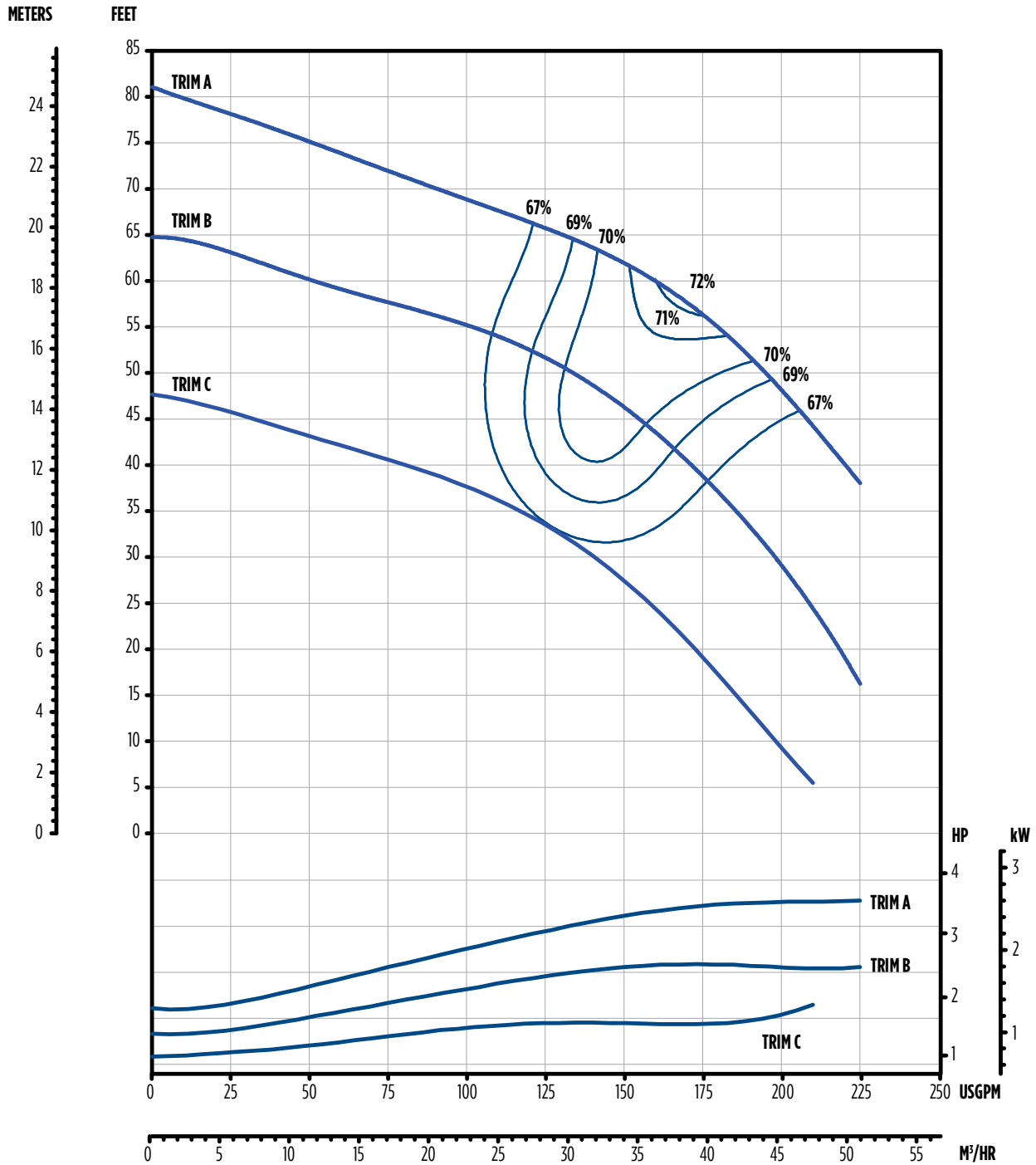


6-INCH - 175 GPM

PERFORMANCE

SINGLE-STAGE

Basic Model	PEI _u Number
175STS6	0.90



NOTE: Efficiencies are typical and not guaranteed. Efficiency correction required for low stage count (1 stage-6%, 2 stage-2%, 3 stage-1%).
Pumps are intentionally designed to utilize some portion of the motor's 115 service factor. Nominal RPM is 3450.
Bowl #9 begins transition to double-bolted (8 bolts @ bottom, 14 bolts @ top)

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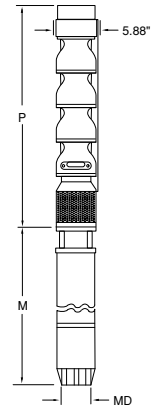
ORDERING INFORMATION

Pump Ends										
GPM	HP	Stages	Trim Size	Motor Bracket Size	Discharge Size	Order No.	Model No.	Ship Wt. (lbs)	Basic Model	PEI ₁ Number
175	5	2	B	6"	4" NPT	97060175102	175STS5D6B-0264	76	175STS6	0.90
	7.5	3	B	6"	4" NPT	97060175103	175STS7D6B-0364	90		
	10	4	B	6"	4" NPT	97060175304	175STS10D6B-0464	102		
	15	6	1A, 5B	6"	4" NPT	97060175306	175STS15D6X-0664	129		
	20	7	4A, 3B	6"	4" NPT	97060175307	175STS20D6X-0764	143		
	25	8	7A, 1B	6"	4" NPT	97060175008	175STS25D6X-0864	155		
	30	10	7A, 3B	6"	4" NPT	97060175310	175STS30D6X-1064	208		
	40	12	12A	6"	4" NPT	97060175012	175STS40D6A-1264	186		
	50	16	15A, 1B	6"	4" NPT	97060175016	175STS50D6X-1664	300		
60	19	18A, 1B	6"	4" NPT	97060175019	175STS50D6X-1964	343			

DIMENSIONS

HP	Stages	Trim	Motor Size	P	M*	MD*	Motor Wt. lbs	Pump Wt. lbs
				in	in	in		
5	2	B	6"	25.46	22.90	5.38	101	65
7.5	3	B	6"	30.21	24.20	5.38	108	77
10	4	B	6"	34.96	25.40	5.38	116	89
15	6	1A, 5B	6"	44.46	28.00	5.38	129	114
20	7	4A, 3B	6"	49.21	30.56	5.38	135	126
25	8	7A, 1B	6"	53.96	33.10	5.38	148	138
30	10	7A, 3B	6"	63.46	35.70	5.38	162	162
40	12	12A	6"	72.96	40.80	5.38	195	186
50	16	15A, 1B	6"	91.96	57.80	5.38	310	235
60	19	18A, 1B	6"	106.21	63.80	5.38	340	271

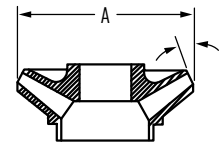
NOTE: *MD diameter = Franklin Electric Motor, M = Maximum Length of Franklin Electric Motor



DIMENSIONS

IMPELLER

Trim	A Diameter	C Angle
A	4.688"	20 °
B	4.250"	20 °
C	3.750"	20 °



MATERIALS

Part Name	Common Material Name	Material Spec. Number
Discharge Bracket	Ductile Iron	ASTM A536 65-45-12
Top Bowl	Ductile Iron	ASTM A536 65-45-12
Intermediate Bowl	Ductile Iron	ASTM A536 65-45-12
Bearings, Discharge & Suction	Bronze	ASTM B584 C89835
Impeller	304 Stainless Steel	ASTM A743/A743M CF8
Pump Shaft	416 Stainless Steel	ASTM A582 S41600
Suction Bracket	Ductile Iron	ASTM A536 65-45-12
Bowl Bearing	Rubber	Rubber
Sand Collar	300 Stainless Steel	ASTM A666
Suction Screen	302 Stainless Steel	ASTM A240 S30200
Cable Guard	300 Stainless Steel	ASTM A666
Shaft Coupling	416 Stainless Steel	ASTM A582 S41600
Upthrust Bolt	300 Stainless Steel	ASTM A666
Taper Lock	416 Stainless Steel	ASTM A582 S41600
Bolting	300 Stainless Steel	ASTM A666

NOTE: Bowl bearing and shaft options available. Contact customer service for available options

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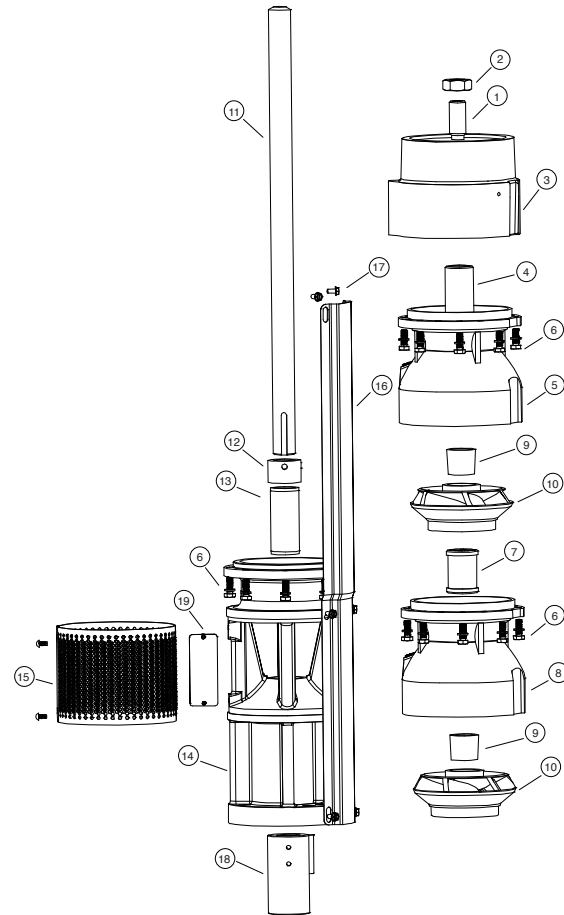


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REPAIR PARTS

Item No.	Part Description	Part No.	Qty. Per
1,2	Upthrust Bolt/Nut Kit	305471553	1
3	Discharge 4" NPT (No Top Bearing)	305471449	1
	Discharge 4" NPT with Rubber Top Bearing	305471453	
	Discharge 4" NPT with Viton Top Bearing	305471455	
4	Top Bearing - Bronze (Included in 5) (150-375 GPM)	305471385	As Req.
	Top Bearing - Rubber (Included in 3) (150-375 GPM)	305471395	
	Top Bearing - Viton (Included in 3) (150-375 GPM)	305471396	
5	Top Bowl with Bronze Top Bearing	305471519	As Req.
	Top Bowl with Bronze Top Bearing XP	305471520	
6	Bowl Bolt Kit (8 pcs.)*	305471548	As Req.
	Bowl Bolt Kit (1000 pcs.)	305471550	
7	Bowl Bearing - Bronze (Included in 8) (150-375 GPM)	305471387	As Req.
	Bowl Bearing - Rubber (Included in 8) (150-375 GPM)	305471398	
	Bowl Bearing - Viton (Included in 8) (150-375 GPM)	305471399	
8	Bowl and Bearing Assembly - Bronze	305471487	As Req.
	Bowl and Bearing Assembly XP - Bronze	305471491	
	Bowl and Bearing Assembly - Rubber	305471485	
	Bowl and Bearing Assembly XP - Rubber	305471489	
	Bowl and Bearing Assembly - Viton	305471488	
9	Taper Lock Collet Kit (Included in 10)	305471372	As Req.
	Sand Cap w/ Set Screws	305471374	
13	Motor Bracket Bearing - Bronze (Included in 14)	305471389	As Req.
	Motor Bracket Bearing - Rubber (Included in 14)	305471395	
	Motor Bracket Bearing - Viton (Included in 14)	305471396	
14	6" Motor Bracket with Bronze Bearing	305471419	1
	6" Motor Bracket with Rubber Bearing	305471420	
	6" Motor Bracket with Viton Bearing	305471422	
	8" Motor Bracket with Bronze Bearing**	305472598	
15	6" Suction Screen with Screws	305471377	1
17	Cable Guard Screw Kit (8 pcs.)	305471000	1
18	6" Coupling	305471402	1
	6" Motor Bolt Kit	305352901	1
19	Nameplate with Drive Screws	305418901	1
-	Owner's Manual	106089101	1

* Pumps of 9 stages or more require double bolting; two bolt kits (305471548) per stage will be required for the 9th stage and above
 ** 8" Motor rated up to 60hp



REPAIR PARTS

IMPELLER

Item No.	Description	Diameter (in)	Angle	Kit w/ Collet
10	A Trim	4.688"	20 °	305471560
	B Trim	4.250"	20 °	305471561
	C Trim	3.750"	20 °	305471562

NOTE: Shaft and cable guard information located on the following pages

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REPAIR PARTS

6" Shaft				
Item No.	Stages	Length	Part No.	
			416 SS	Chrome
11	1	15.56	305471302	305471345
	2	20.31	305471303	305471346
	3	25.06	305471304	305471347
	4	29.81	305471305	305471348
	5	34.56	305471306	305471349
	6	39.31	305471307	305471350
	7	44.06	305471308	305471351
	8	48.81	305471309	305471352
	9	53.56	305471310	305471353
	10	58.31	305471311	305471354
	11	63.06	305471312	305471355
	12	67.81	305471313	305471356
	13	72.56	305471314	305471357
	14	77.31	305471295	305471338
	15	82.06	305471315	305471358
	16	86.61	305471316	305471359
	17	91.56	305471317	305471360
	18	96.31	305471318	305471361
	19	101.06	305471319	305471362

6" Cable Guard (Pre-Cut)			
Item No.	Stages	Length	Part No.
16	1	18.62	305471121
	2	23.38	305471122
	3	28.12	305471123
	4	32.88	305471124
	5	37.62	305471125
	6	42.38	305471126
	7	47.12	305471127
	8	51.88	305471128
	9	56.62	305471129
	10	61.38	305471130
	11	66.12	305471131
	12	70.88	305471132
	13	75.62	305471133
	14	80.38	305471119
	15	85.12	305471134
	16	89.88	305471135
	17	94.62	305471136
	18	99.38	305471137
	19	104.12	305471138

6' Cable Guard			
Item No.	Description	Length (in.)	Part No.
16	Cable Guard (10 ft. Section)	120	305471100

6" 416 SS Shaft (Double Ended)	
Part No.	Length (ft.)
305471363	4
305471364	6
305471365	8
305471366	10

