

# SUBMERSIBLE PUMPS

## STS SERIES

☰ MENU



### 6-INCH - 150 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: 150STS6, PEI<sub>CL</sub> 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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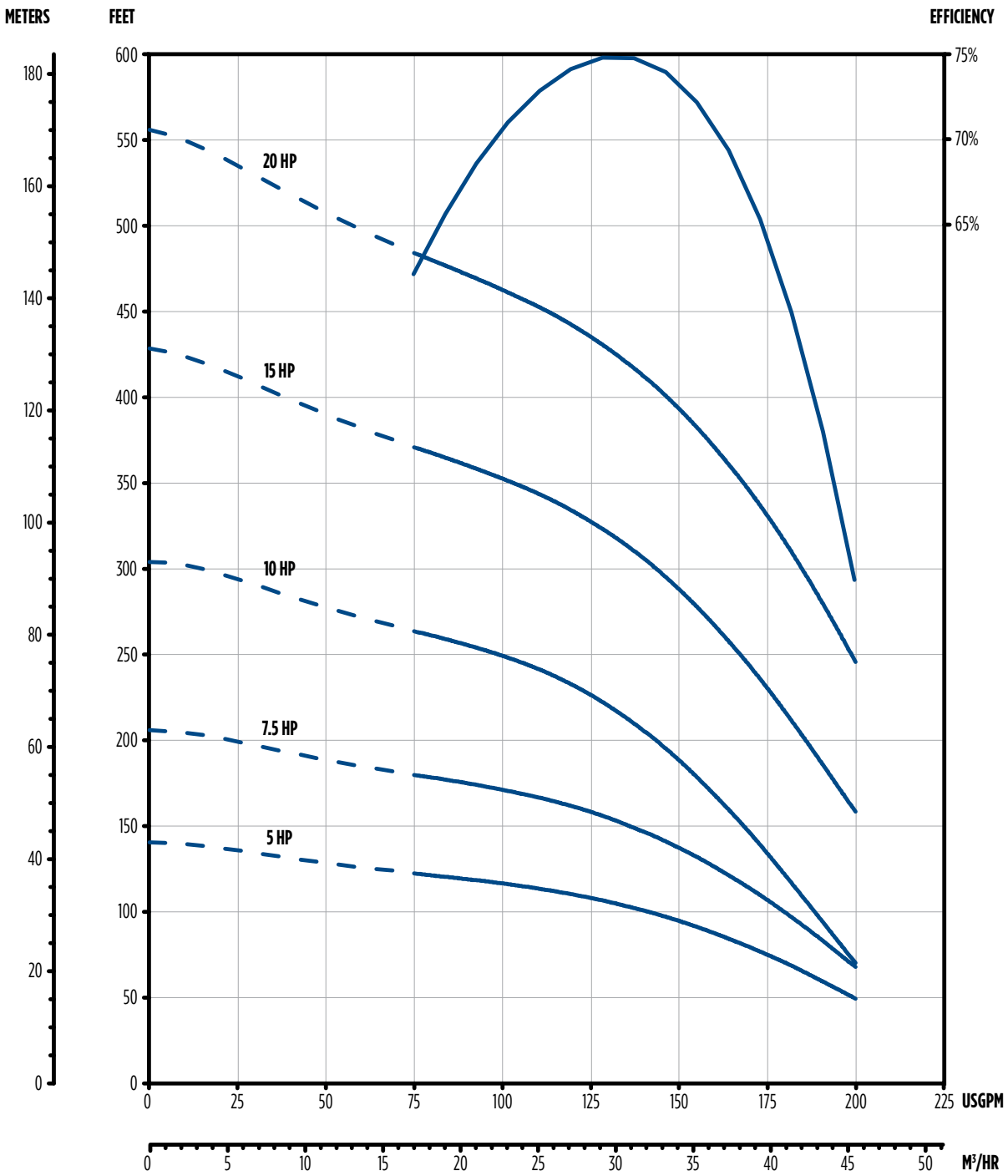
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6-INCH - 150 GPM

## PERFORMANCE

Basic Model	PEI <sub>a</sub> Number
150STS6	0.90



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

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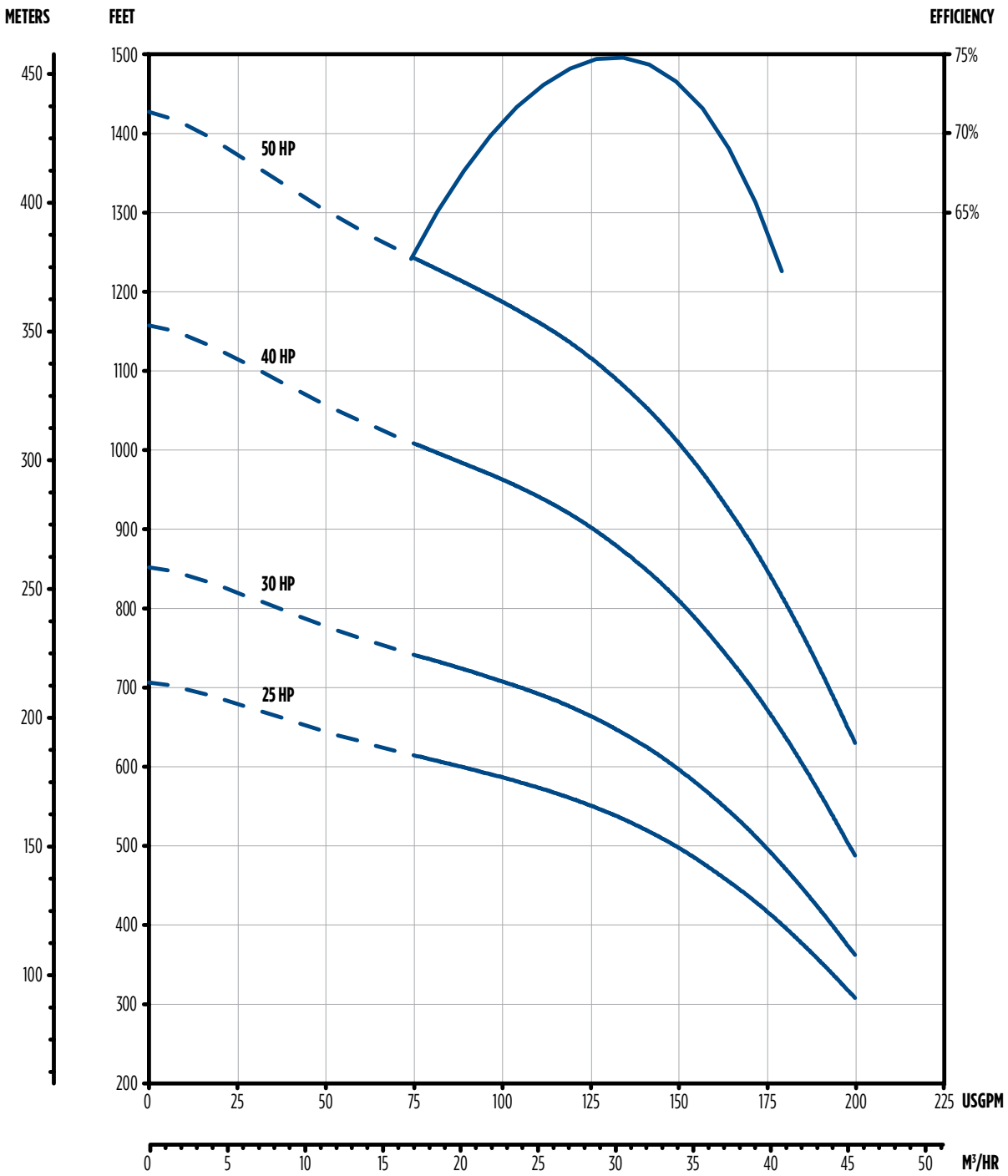
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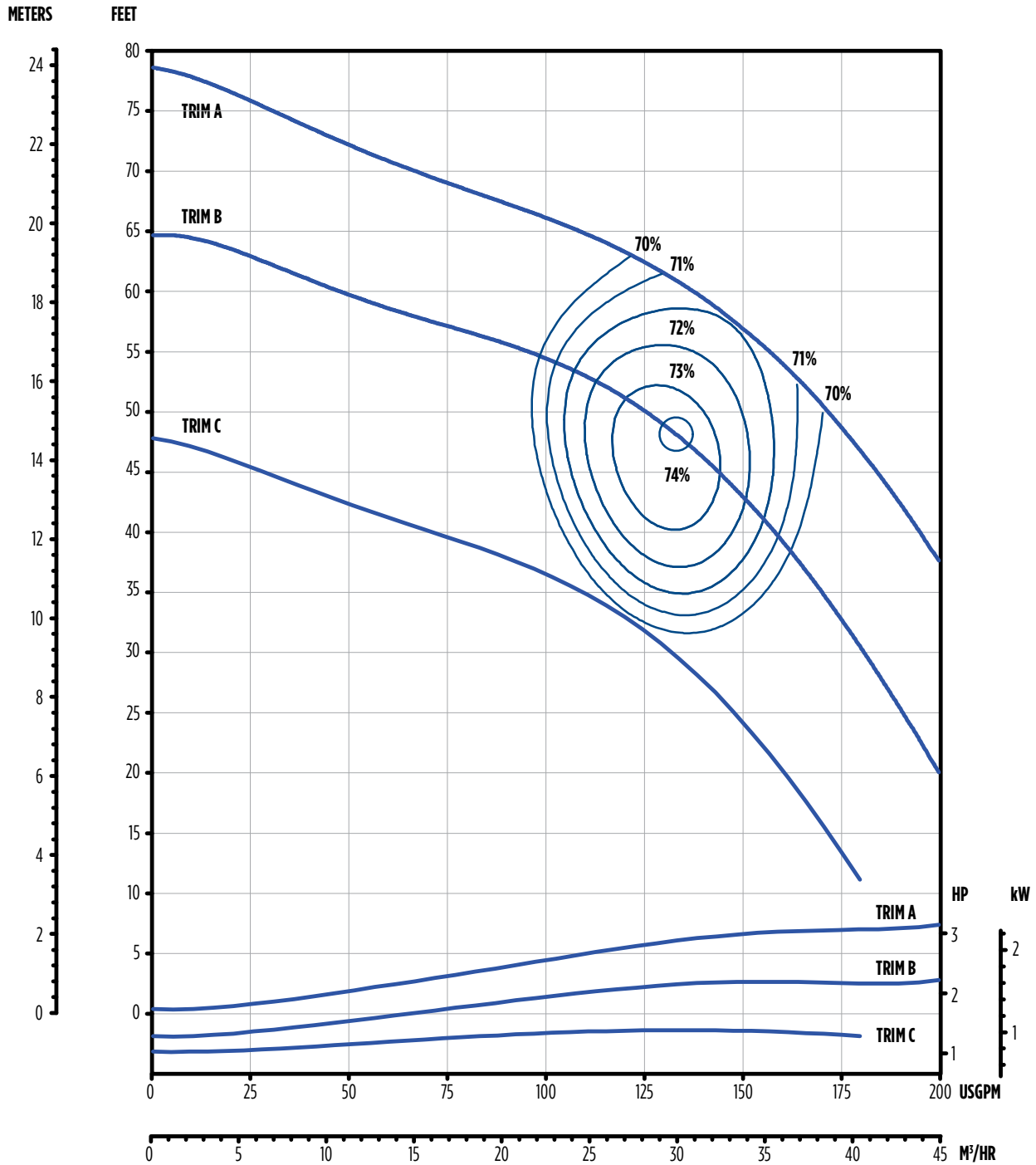


6-INCH - 150 GPM

PERFORMANCE

SINGLE-STAGE

Basic Model	PEI <sub>a</sub> Number
150STS6	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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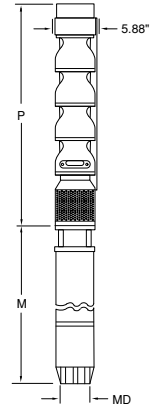
## ORDERING INFORMATION

Pump Ends										
GPM	HP	Stages	Trim Size	Motor Bracket Size	Discharge Size	Order No.	Model No.	Ship Wt. (lbs)	Basic Model	PEI <sub>1</sub> Number
150	5	2	1A, 1B	6"	4" NPT	97060150302	150STS5D6X-0264	76	150STS6	0.90
	7.5	3	1A, 2B	6"	4" NPT	97060150303	150STS7D6X-0364	90		
	10	5	4B, 1C	6"	4" NPT	97060150105	150STS10D6X-0564	117		
	15	6	4A, 1B, 1C	6"	4" NPT	97060150306	150STS15D6X-0664	129		
	20	7	A	6"	4" NPT	97060150007	150STS20D6A-0764	143		
	25	9	A	6"	4" NPT	97060150009	150STS25D6A-0964	196		
	30	11	10A, 1B	6"	4" NPT	97060150311	150STS30D6X-1164	220		
	40	15	14A, 1B	6"	4" NPT	97060150315	150STS40D6X-1564	288		
50	18	A	6"	4" NPT	97060150018	150STS50D6A-1864	331			

## DIMENSIONS

HP	Stages	Trim	Motor Size	P	M*	MD*	Motor Wt. lbs	Pump Wt. lbs
				in	in	in		
5	2	1A, 1B	6"	25.46	22.90	5.38	101	64
7.5	3	1A, 2B	6"	30.21	24.20	5.38	108	76
10	5	4B, 1C	6"	39.71	25.40	5.38	116	101
15	6	4A, 1B, 1C	6"	44.46	28.00	5.38	129	113
20	7	A	6"	49.21	30.60	5.38	135	125
25	9	A	6"	58.71	33.10	5.38	148	150
30	11	10A, 1B	6"	68.21	35.70	5.38	162	174
40	15	14A, 1B	6"	87.21	40.80	5.38	195	223
50	18	A	6"	101.46	57.80	5.38	310	260

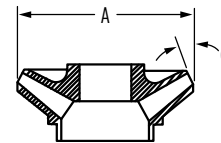
NOTE: \*MD diameter = Franklin Electric Motor, M = Maximum Length of Franklin Electric Motor



## DIMENSIONS

### IMPELLER

Trim	A Diameter	C Angle
A	4.688"	27 °
B	4.250"	27 °
C	3.750"	27 °



## 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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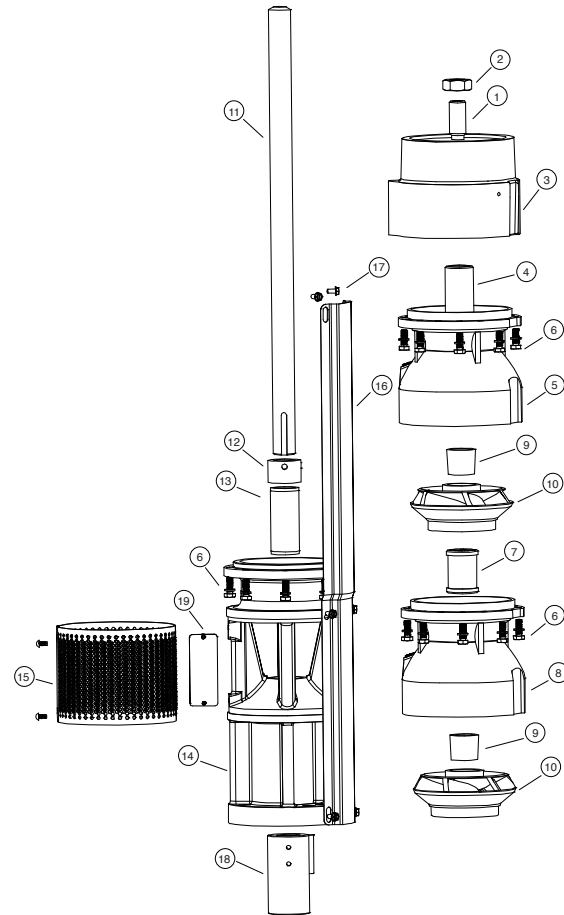


### 6-INCH - 150 GPM

#### 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	
12	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"	27 °	305471557
	B Trim	4.250"	27 °	305471558
	C Trim	3.750"	27 °	305471559

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

