

SUBMERSIBLE TURBINE PUMPS

6" STS SERIES - 500 GPM

FPS

FEATURES

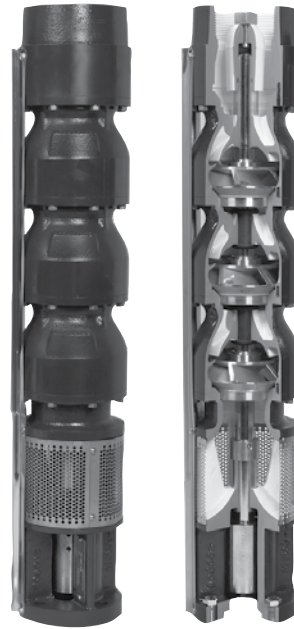
- 100% factory wet tested with test results shipped with each pump
- Premium ductile iron casting for longer life and higher pressures
- Longer discharge and motor bracket bearings for increased pump life
- Spiral cutlass rubber intermediate bearings designed for harsh environments
- 416 Stainless steel pump shaft ground and polished for maximum durability
- Investment cast stainless steel impellers for superior performance
- Custom configurations available
- The optional bracket provides the ability to use larger 8" motors on smaller 5" and 6" pumps, offering higher performance ratings and system optimization

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: 500STS6, PEI_{CL} Number: 0.87

MODEL NO. EXPLANATION

- Example: 175STS10D6X-0464
- 175 = GPM
- STS = Sub Turbine Series
- 10 = Motor HP
- D = Ductile Iron
- 6 = 6" Pump
- X = Impeller Trim Configuration
- 04 = Number of Stages
- 6 = 6" Motor Bracket
- 4 = 4" Discharge



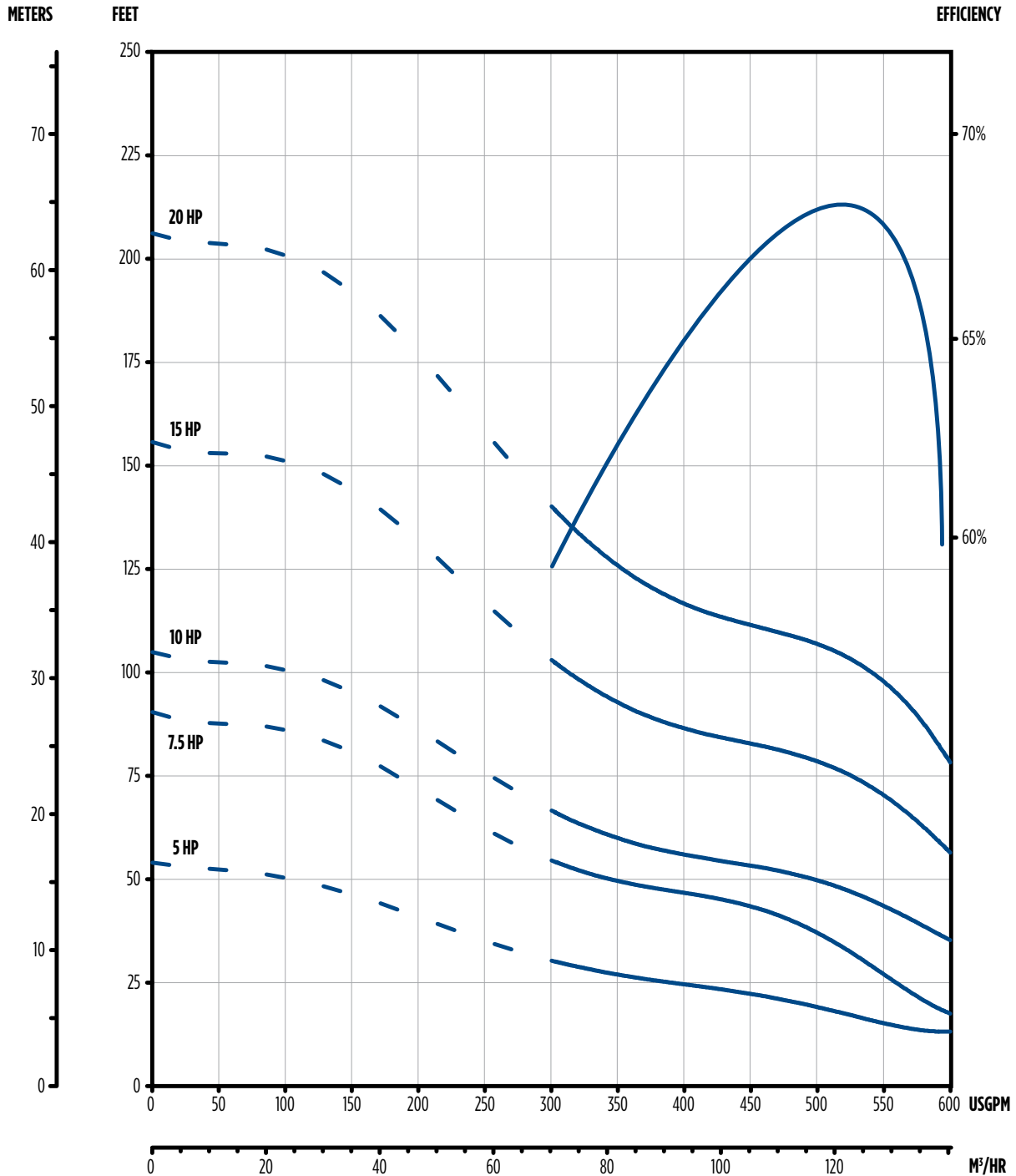
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PERFORMANCE

Basic Model	PEI _{CL} Number
500STS6	0.87



— RECOMMENDED OPERATING RANGE

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

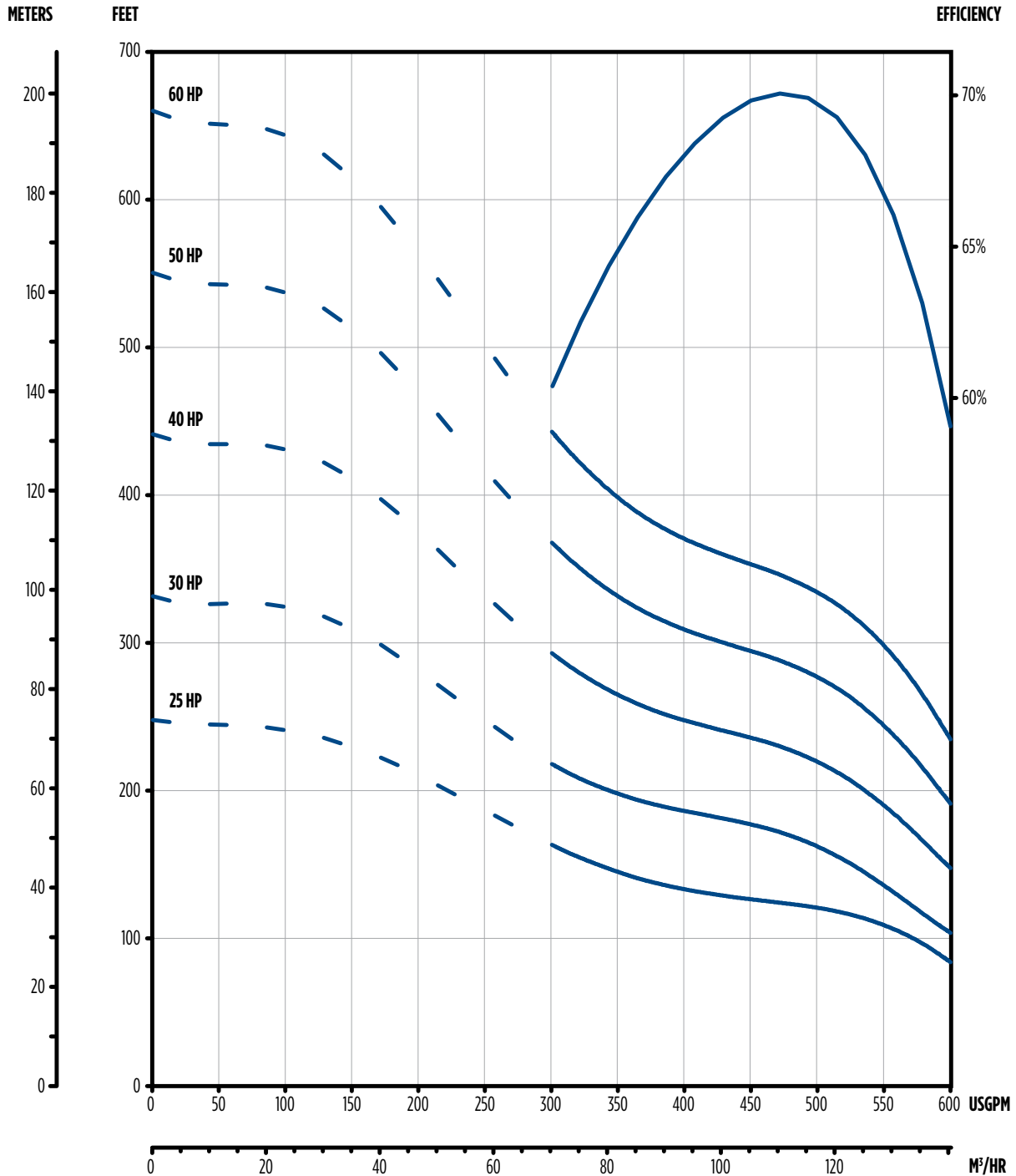
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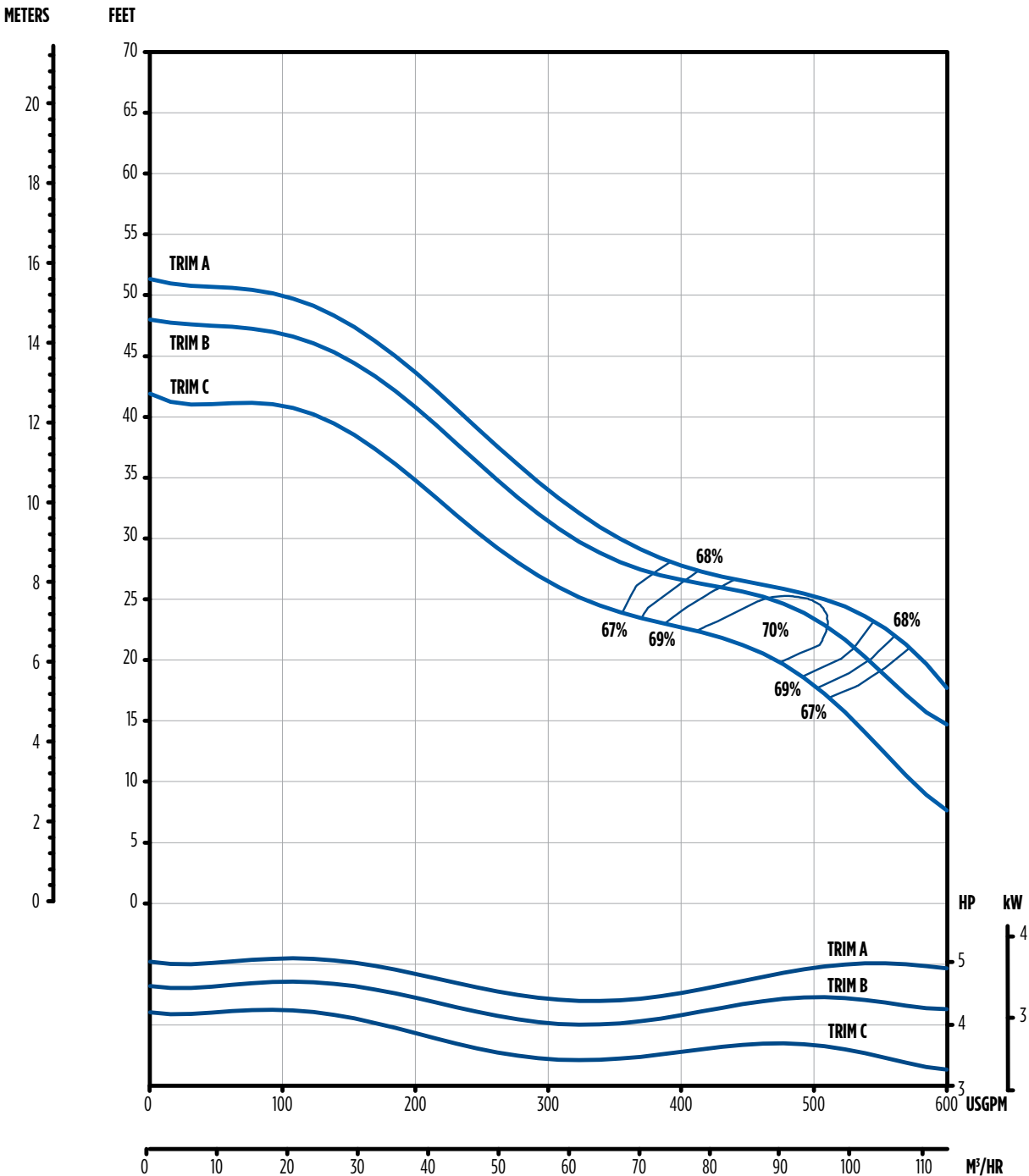
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DIMENSIONS

SINGLE-STAGE

Basic Model	PEI _{CL} Number
500STS6	0.87



Note: Efficiencies are typical, 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 1.15 service factor; bowl #9 begins transition to double bolted (8 bolts at bottom, 14 bolts at top); nominal rpm is 3450

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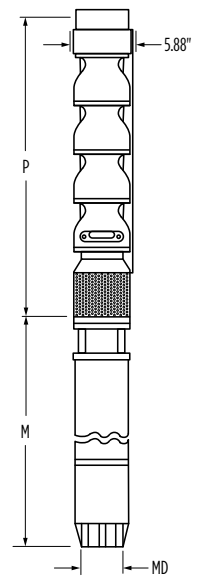
ORDERING INFORMATION

HP	Stages	Trim Size	Motor Size	Discharge Size	Basic Model	PEI _{CL}	Order No.	Model No.	Shipping Wt. (lbs)
5	1	1B	6"	4" NPT	500STS6	0.87	97060500001	500STS5D6B-0164	64
7.5	2	2C					97060500002	500STS7D6C-0264	77
10	2	1A 1B					97060500102	500STS10D6X-0264	77
15	3	2A 1B					97060500003	500STS15D6X-0364	92
20	4	4A					97060500004	500STS20D6A-0464	108
25	5	5A					97060500005	500STS25D6A-0564	122
30	7	7B					97060500007	500STS30D6B-0764	153
40	9	3A 6B					97060500009	500STS40D6X-0964	210
50	11	6A 5B					97060500011	500STS50D6X-1164	239
60	13	9A 4B					97060500013	500STS60D6X-1364	277

DIMENSIONS

HP	Stages	Trim	Motor Size	P	M*	MD*	Motor Wt.	Pump Wt.
				in	in	in		
5	1	1B	6"	21.31	22.90	5.38	101	52
7.5	2	2C		26.66	24.20	5.38	108	65
10	2	1A 1B		26.66	25.40	5.38	116	65
15	3	2A 1B		32.01	28.00	5.38	129	80
20	4	4A		37.36	30.56	5.38	135	94
25	5	5A		42.72	33.13	5.38	148	108
30	7	7B		53.42	35.69	5.38	162	137
40	9	3A 6B		64.12	40.81	5.38	195	164
50	11	6A 5B		74.82	57.83	5.38	310	193
60	13	9A 4B		85.52	63.83	5.38	340	221

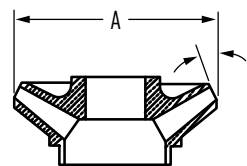
NOTE: *MD diameter = Franklin Electric Motor, M = Maximum Length of Franklin Electric Motor



DIMENSIONS

IMPELLER

Trim	Diameter (in)	C Angle
A	4.600	32°
B	4.475	32°
C	4.288	32°



MATERIALS

Part Name	Common Material Name	Material Specification No.
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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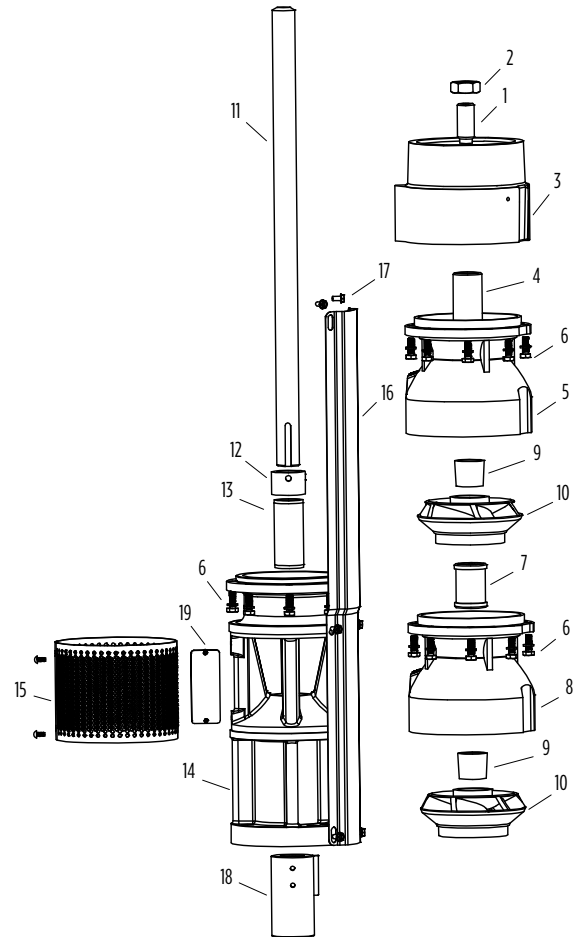


REPAIR PARTS

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 w/Rubber Top Bearing	305471453	
	Discharge 4" NPT w/FKM Top Bearing	305471455	
4	Top Bearing, Bronze-100 GPM (included in 5)	305471385	As Req.
	Top Bearing, Rubber (included in 3)	305471395	
	Top Bearing, FKM (included in 3)	305471396	
5	Top Bowl w/Bronze Top Bearing	305471911	As Req.
	Top Bowl w/Bronze Top Bearing XP	305471912	
6	Bowl Bolt Kit (8 pieces)*	305471548	As Req.
	Bowl Bolt Kit (1000 pieces)	305471550	
7	Bowl Bearing, Bronze-100 GPM (included in 8)	305471387	As Req.
	Bowl Bearing, Rubber-100 GPM (Included in 8)	305471398	
	Bowl Bearing, FKM-100 GPM (included in 8)	305471399	
8	Bowl and Bearing Assembly, Bronze	305471913	As Req.
	Bowl and Bearing Assembly XP, Bronze	305471914	
	Bowl and Bearing Assembly, Rubber	305471915	
	Bowl and Bearing Assembly XP, Rubber	305471916	
	Bowl and Bearing Assembly, FKM	305471917	
9	Taper Lock Collet Kit (included in 10)	305471372	As Req.
12	Sand Cap w/Set Screws	305471374	1
13	Motor Bracket Bearing, Bronze (included in 14)	305471389	As Req.
	Motor Bracket Bearing, Rubber (included in 14)	305471395	
	Motor Bracket Bearing, FKM (included in 14)	305471396	
14	6" Motor Bracket w/Bronze Bearing	305471431	1
	6" Motor Bracket w/Rubber Bearing	305471432	
	6" Motor Bracket w/FKM Bearing	305471434	
	8" Motor Bracket w/Bronze Bearing**	305472601	
15	6" Suction Screen w/Screws	305471377	1
17	Cable Guard Screw Kit (8 pieces)	305471000	1
18	6" Coupling	305471402	1
-	6" Motor Bolt Kit	305352901	1
19	Nameplate w/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 60 hp



REPAIR PARTS

IMPELLER

Item No.	Trim	Diameter (in)	C Angle	Kit w/Collets
10	A	4.600	32°	305471908
	B	4.475	32°	305471909
	C	4.288	32°	305471910

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

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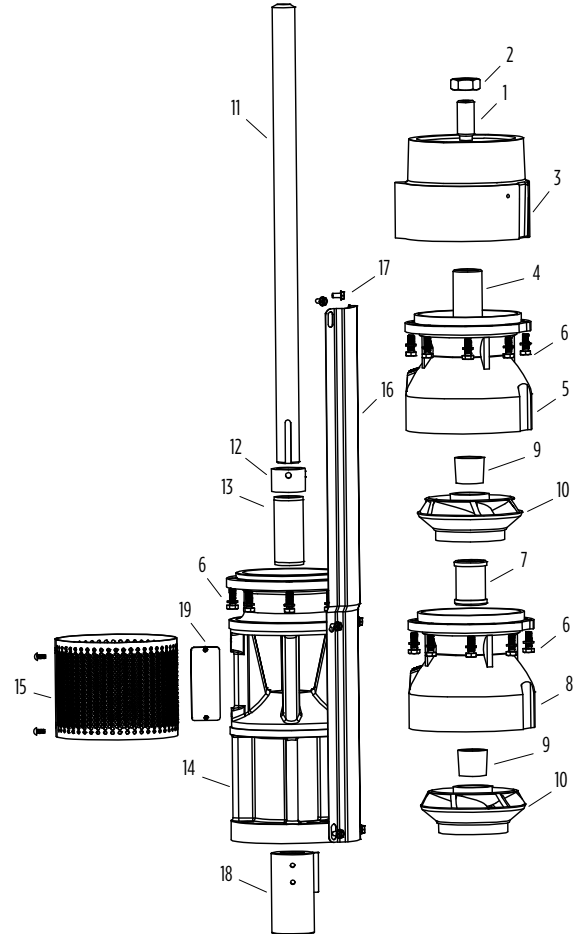
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REPAIR PARTS

6" Shafts				
Item No.	Stages	Length	Part No.	
			416 SS	Chrome
11	1	16.16	305471919	305471938
	2	21.51	305471920	305471939
	3	26.86	305471921	305471940
	4	32.21	305471922	305471941
	5	37.57	305471923	305471942
	6	42.92	305471924	305471943
	7	48.27	305471925	305471944
	8	53.56	305471310	305471353
	9	58.97	305471927	305471946
	10	64.32	305471928	305471947
	11	69.67	305471929	305471948
	12	75.02	305471930	305471949
	13	80.37	305471931	305471950
	14	85.72	305471932	305471951
	15	91.08	305471933	305471952
	16	96.31	305471318	305471361
	17	101.78	305471935	305471954
	18	107.13	305471936	305471955
	19	112.48	305471937	305471956
	Cut-To-Length	4	305471363	-
	Cut-To-Length	6	305471364	-
	Cut-To-Length	8	305471365	-
	Cut-To-Length	10	305471366	-

6" Cable Guards (Pre-Cut)			
Item No.	Stages	Length (in)	Part No.
16	Cut-To-Length	120.00	305471100
	1	19.22	305471957
	2	24.58	305471958
	3	29.92	305471959
	4	35.28	305471960
	5	40.63	305471961
	6	45.99	305471962
	7	51.33	305471963
	8	56.62	305471129
	9	62.03	305471965
	10	67.39	305471966
	11	72.73	305471967
	12	78.09	305471968
	13	83.43	305471969
	14	88.79	305471970
	15	94.14	305471971
	16	99.38	305471137
	17	104.84	305471973
	18	110.20	305471974
19	115.54	305471975	





Franklin Electric