

# SUBMERSIBLE TURBINE PUMPS

6" STS SERIES - 100 GPM

**FPS**

## FEATURES

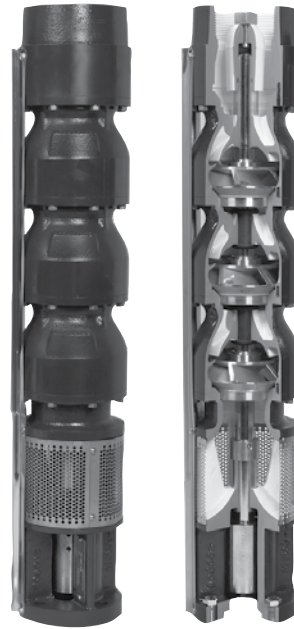
- 100% factory wet tested with test results shipped with each pump
- Premium ductile iron casting for longer life and higher pressures
- Longer discharge and motor bracket bearings for increased pump life
- Spiral cutlass rubber intermediate bearings designed for harsh environments
- 416 Stainless steel 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: 100STS6, PEI<sub>CL</sub> Number: 0.94

## 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



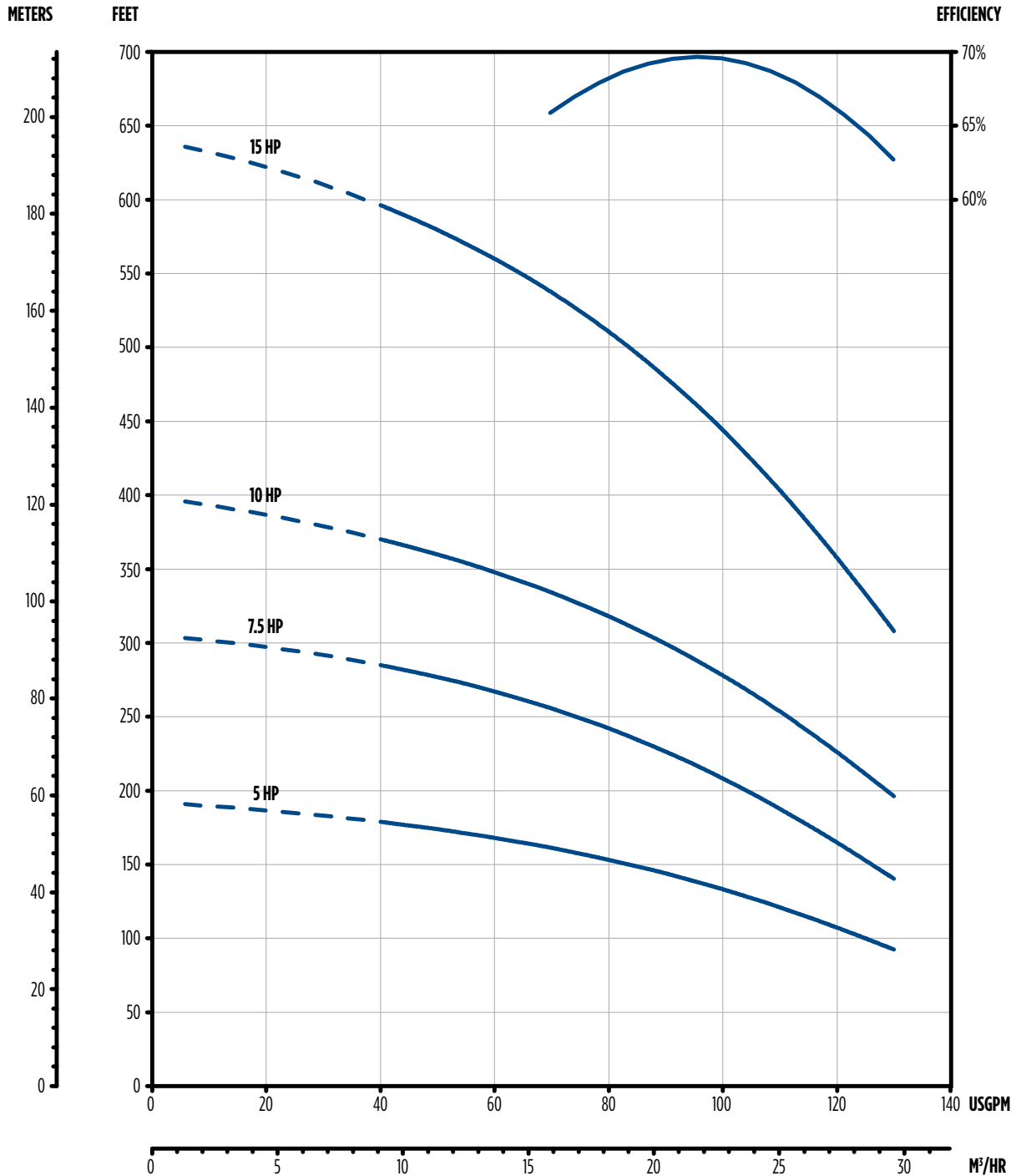
# SUBMERSIBLE TURBINE PUMPS

6" STS SERIES - 100 GPM



## PERFORMANCE

Basic Model	PEI <sub>CL</sub> Number
100STS6	0.94



— RECOMMENDED OPERATING RANGE

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

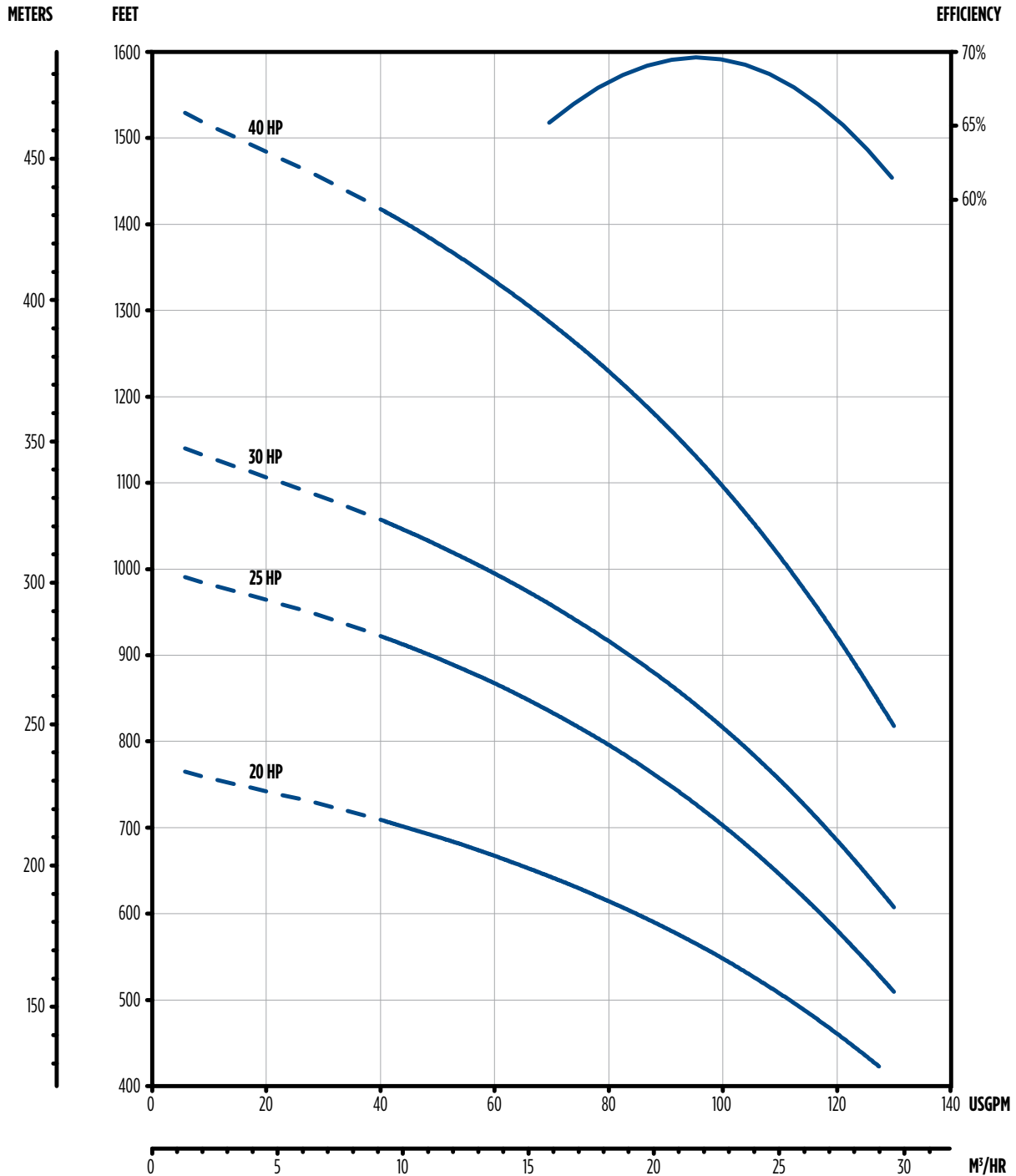
# SUBMERSIBLE TURBINE PUMPS

6" STS SERIES - 100 GPM



## PERFORMANCE

Basic Model	PEI <sub>CL</sub> Number
100STS6	0.94



— RECOMMENDED OPERATING RANGE

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

# SUBMERSIBLE TURBINE PUMPS

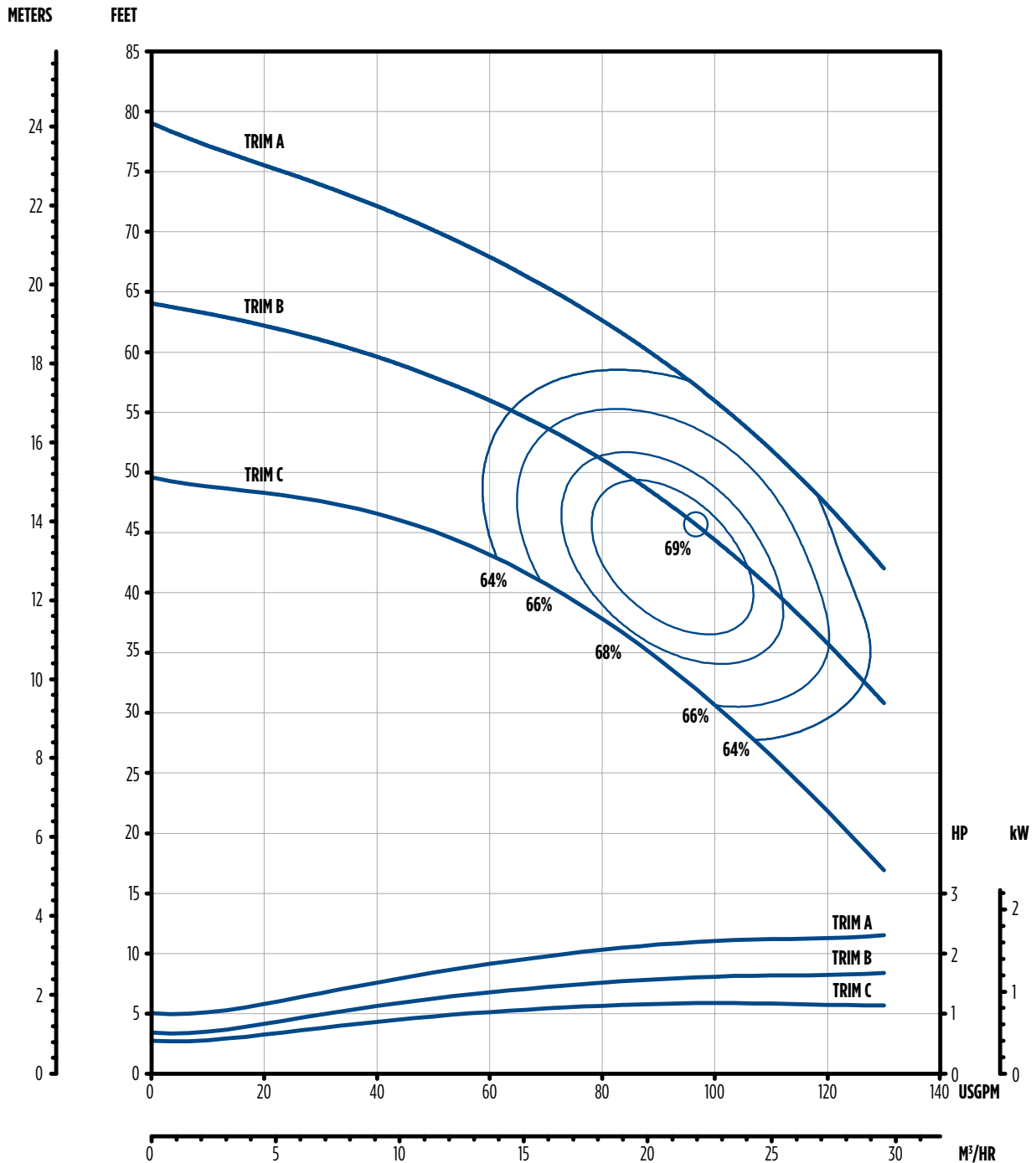
6" STS SERIES - 100 GPM



## DIMENSIONS

## SINGLE-STAGE

Basic Model	PEI <sub>CL</sub> Number
100STS6	0.94



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

# SUBMERSIBLE TURBINE PUMPS

6" STS SERIES - 100 GPM



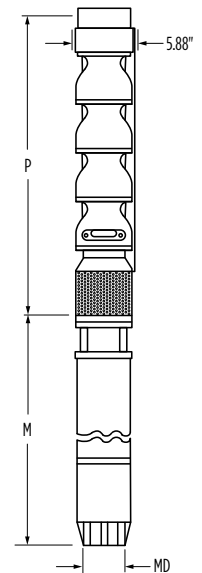
## ORDERING INFORMATION

HP	Stages	Trim Size	Motor Size	Discharge Size	Basic Model	PEI <sub>CL</sub>	Order No.	Model No.	Shipping Wt. (lbs)
5	3	B	6"	4" NPT	100STS6	0.94	97060100103	100STS5D6B-0364	83
7.5	5	4B, 1C					97060100105	100STS7D6X-0564	105
10	6	1A, 5B					97060100306	100STS10D6X-0664	116
15	10	B					97060100110	100STS15D6B-1064	161
20	10	9A, 1B					97060100310	100STS20D6X-1064	161
25	14	7A, 7B					97060100314	100STS25D6X-1464	230
30	15	13A, 2B					97060100315	100STS30D6X-1564	240
40	20	18A, 2B					97060100320	100STS40D6X-2064	310

## DIMENSIONS

HP	Stages	Trim	Motor Size	P	M*	MD*	Motor Wt.	Pump Wt.
				in	in	in		
5	3	B	6"	26.46	22.90	5.38	101	71
7.5	5	4B, 1C		33.46	24.20	5.38	108	91
10	6	1A, 5B		36.96	25.40	5.38	116	102
15	10	B		50.96	28.00	5.38	129	143
20	10	9A, 1B		50.96	30.60	5.38	145	143
25	14	7A, 7B		64.96	33.10	5.38	156	184
30	15	13A, 2B		68.46	35.70	5.38	174	194
40	20	18A, 2B		85.96	40.80	5.38	202	245

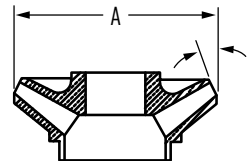
NOTE: \*MD diameter = Franklin Electric Motor, M = Maximum Length of Franklin Electric Motor



## DIMENSIONS

### IMPELLER

Trim	Diameter (in)	C Angle
A	4.688	18°
B	4.200	0°
C	3.688	0°



## 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

# SUBMERSIBLE TURBINE PUMPS

6" STS SERIES - 100 GPM

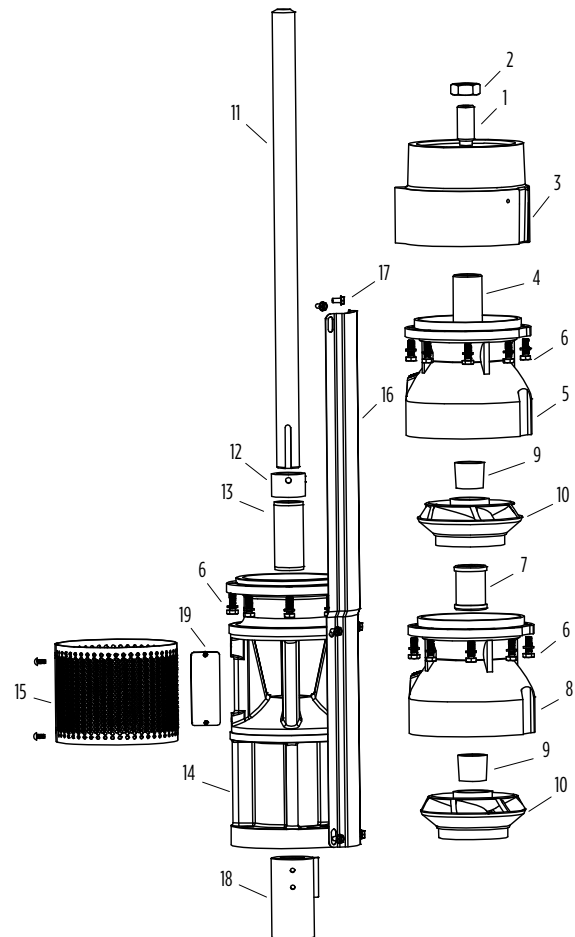


## REPAIR PARTS

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 w/Rubber Top Bearing	305471453	
	Discharge 4" NPT w/FKM Top Bearing	305471455	
4	Top Bearing, Bronze-100 GPM (included in 5)	305471386	As Req.
	Top Bearing, Rubber (included in 3)	305471395	
	Top Bearing, FKM (included in 3)	305471396	
5	Top Bowl w/Bronze Top Bearing	305471517	As Req.
	Top Bowl w/Bronze Top Bearing XP	305471518	
6	Bowl Bolt Kit (8 pieces)*	305471548	As Req.
	Bowl Bolt Kit (1000 pieces)	305471550	
7	Bowl Bearing, Bronze-100 GPM (included in 8)	305471388	As Req.
	Bowl Bearing, Rubber-100 GPM (Included in 8)	305471395	
	Bowl Bearing, FKM-100 GPM (included in 8)	305471396	
8	Bowl and Bearing Assembly, Bronze	305471479	As Req.
	Bowl and Bearing Assembly XP, Bronze	305471483	
	Bowl and Bearing Assembly, Rubber	305471477	
	Bowl and Bearing Assembly XP, Rubber	305471481	
	Bowl and Bearing Assembly, FKM	305471480	
	Bowl and Bearing Assembly XP, FKM	305471484	
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	305471424	1
	6" Motor Bracket w/Rubber Bearing	305471417	
	6" Motor Bracket w/FKM Bearing	305471418	
	8" Motor Bracket w/Bronze Bearing**	305472600	
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	4.688	18°	305471554
	B	4.200	0°	305471555
	C	3.688	0°	305471556

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

# SUBMERSIBLE TURBINE PUMPS

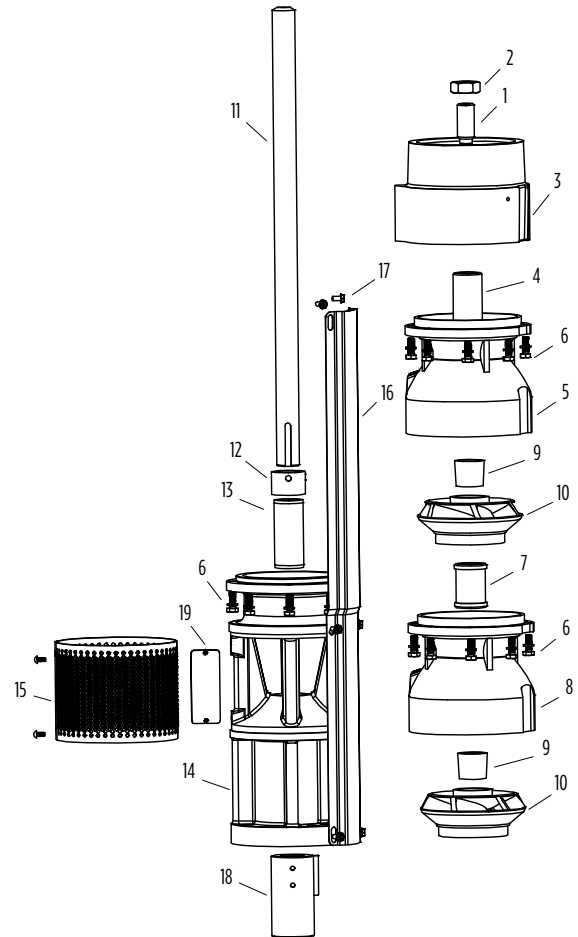
6" STS SERIES - 100 GPM



## REPAIR PARTS

Item No.	Stages	Length	6" Shafts	
			Part No.	
			416 SS	Chrome
11	1	14.31	305471277	305471320
	2	17.81	305471278	305471321
	3	21.31	305471279	305471322
	4	24.81	305471280	305471323
	5	28.31	305471281	305471324
	6	31.81	305471282	305471325
	7	35.31	305471283	305471326
	8	38.81	305471284	305471327
	9	42.31	305471285	305471328
	10	45.81	305471286	305471329
	11	49.31	305471287	305471330
	12	52.81	305471288	305471331
	13	56.31	305471289	305471332
	14	59.81	305471290	305471333
	15	63.31	305471291	305471334
	16	66.81	305471292	305471335
	17	70.31	305471293	305471336
	18	73.81	305471294	305471337
	19	77.31	305471295	305471338
	20	80.81	305471296	305471339
	Cut-To-Length	4	305471363	-
	Cut-To-Length	6	305471364	-
	Cut-To-Length	8	305471365	-
	Cut-To-Length	10	305471366	-

Item No.	Stages	Length (in)	6" Cable Guards (Pre-Cut)	
			Part No.	
16	Cut-To-Length	120.00	305471100	
	1	17.38	305471101	
	2	20.88	305471102	
	3	24.38	305471103	
	4	27.88	305471104	
	5	31.38	305471105	
	6	34.88	305471106	
	7	38.38	305471107	
	8	41.88	305471108	
	9	45.38	305471109	
	10	48.88	305471110	
	11	52.38	305471111	
	12	55.88	305471112	
	13	59.38	305471113	
	14	62.88	305471114	
	15	66.38	305471115	
	16	69.88	305471116	
	17	73.38	305471117	
	18	76.88	305471118	
	19	80.38	305471119	
20	83.88	305471120		





**Franklin Electric**