

FPS



50 Hz 105STS SERIES Submersible Turbine Pumps

FEATURES

- 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 abrasive environments
- 416 stainless steel pump shaft ground and polished for maximum durability
- Investment cast stainless steel impellers for maximum abrasion resistance
- Custom pumps available

SPECIFICATIONS

- 8" 105 m³/h

MODEL NO. EXPLANATION

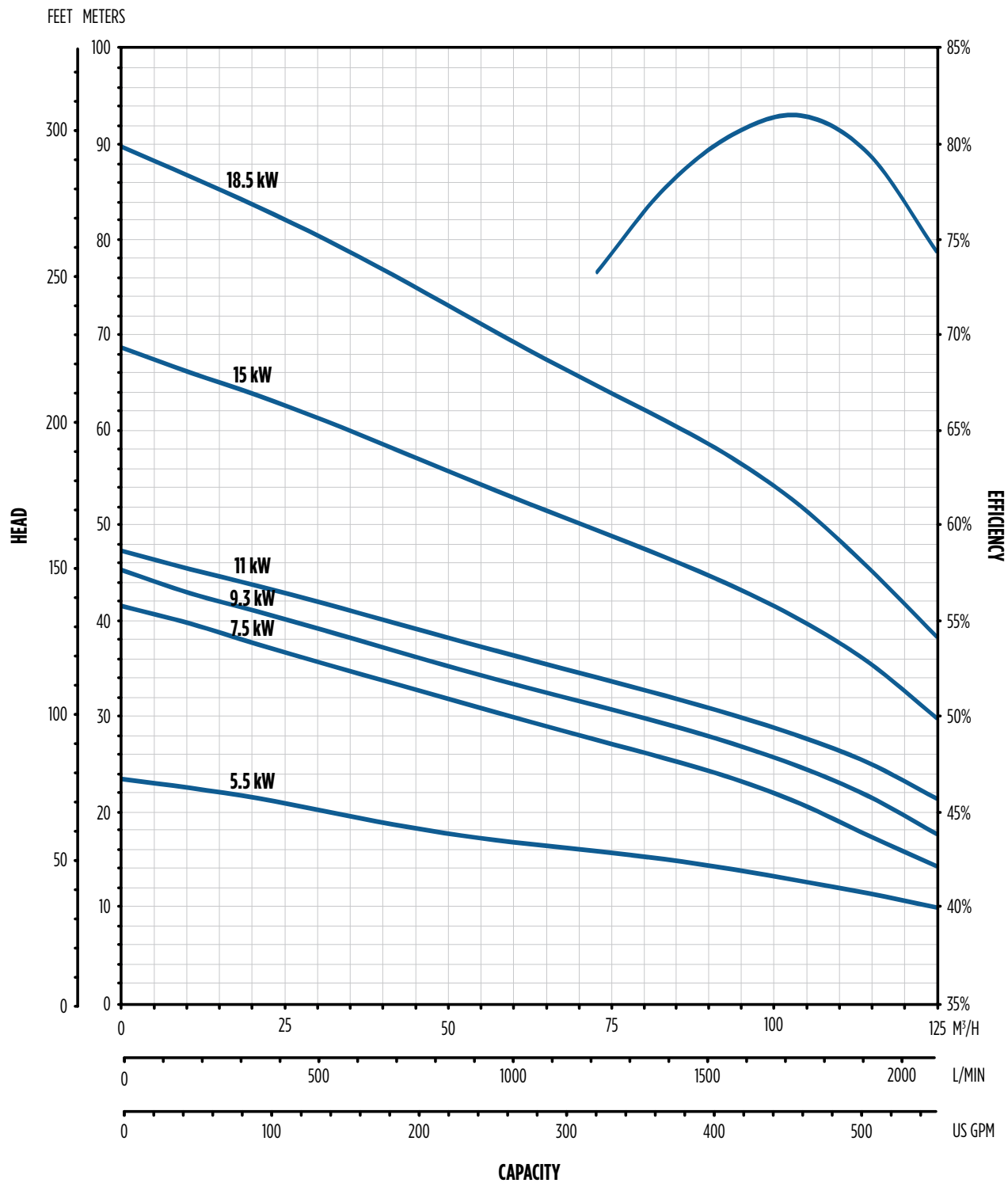
Example: 42STS11D8B-0366

- 42 = Flow series m³/h
- STS = Series (Sub Turbine)
- 11 = Motor kW (9.3)
- D = Ductile iron
- 8 = Pump diameter (8")
- B = Impeller trim configuration
- 03 = Number of stages
- 6 = Motor size (6")
- 6 = Discharge size (6")

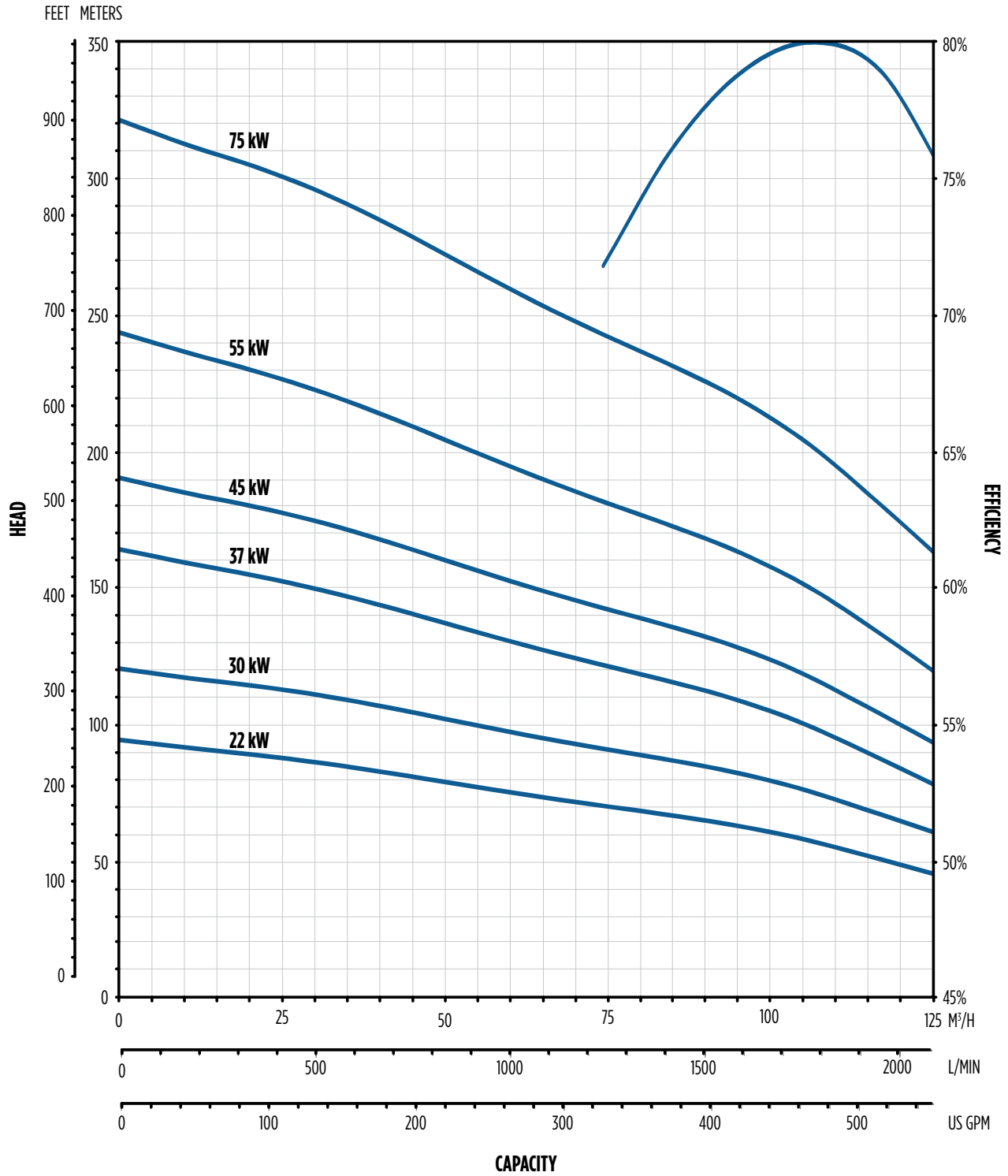


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PERFORMANCE - 8" 105 M³/H



Note: Performance based on 68 °F / 20 °C fresh water, 6" motor at 2900 rpm



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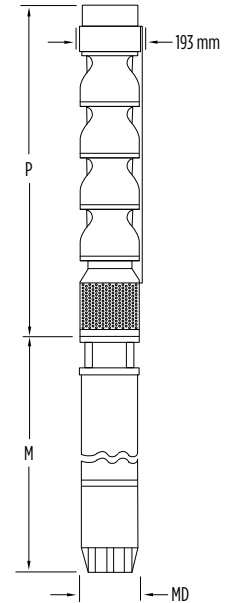
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INFORMATION - 8" 105 M³/H

DIMENSIONS

kW	Stages	Trim	Motor	Dimensions [mm]			Motor Wt. [kg]	Pump Wt. [kg]
				P	M*	MD*		
5.5	1	1B	6"	645	615	138	44.9	43.1
7.5	2	2C	6"	825	645	138	46.7	56.7
9.3	2	2B	6"	825	678	138	49.3	56.7
11	2	1A, 1B	6"	825	711	138	51.7	56.7
15	3	1A, 2B	6"	1005	777	138	57.2	70.3
18.5	4	1A, 3B	6"	1185	841	138	63.5	83.9
22	4	3A, 1B	6"	1185	907	138	69.9	83.9
30	5	5A	6"	1365	1036	138	82.6	97.5
30	5	5A	8"	1400	925	196	124.3	108.9
37	7	5A, 2B	6"	1725	1405	138	119.3	124.7
37	7	4A 3B	8"	1760	1001	196	140.2	136.1
45	8	7A 1B	6"	1905	1557	138	132	138.3
45	8	6A, 2B	8"	1940	1069	196	156	150.1
55	10	7A, 3B	8"	2300	1204	196	181	177.4
75	13	12A, 1C	8"	2840	1394	196	218.2	218.6

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



ORDERING

kW	Stages	Trim	Motor	Discharge	Order No.	Model No.	Ship Wt. [kg]
5.5	1	1B	6"	4" BSPP	97080105001	105STS5D8B5-0164	50.3
5.5	1	1B	6"	6" BSPP	97080105101	105STS5D8B5-0166	50.3
7.5	2	2C	6"	4" BSPP	97080105002	105STS7D8C5-0264	64.9
7.5	2	2C	6"	6" BSPP	97080105102	105STS7D8C5-0266	64.9
9.3	2	2B	6"	4" BSPP	97080105202	105STS9D8B5-0264	64.9
9.3	2	2B	6"	6" BSPP	97080105302	105STS9D8B5-0266	64.9
11	2	1A, 1B	6"	4" BSPP	97080105402	105STS11D8X5-0264	64.9
11	2	1A, 1B	6"	6" BSPP	97080105502	105STS11D8X5-0266	64.9
15	3	1A, 2B	6"	4" BSPP	97080105003	105STS15D8X5-0364	79.8
15	3	1A, 2B	6"	6" BSPP	97080105103	105STS15D8X5-0366	79.8
18.5	4	1A, 3B	6"	4" BSPP	97080105203	105STS18D8X5-0464	94.8
18.5	4	1A, 3B	6"	6" BSPP	97080105303	105STS18D8X5-0466	94.8
22	4	3A, 1B	6"	4" BSPP	97080105004	105STS22D8X5-0464	94.8
22	4	3A, 1B	6"	6" BSPP	97080105104	105STS22D8X5-0466	94.8
30	5	5A	6"	4" BSPP	97080105005	105STS30D8A5-0564	110.2
30	5	5A	6"	6" BSPP	97080105105	105STS30D8A5-0566	110.2
30	5	5A	8"	4" BSPP	97080105805	105STS30D8A5-0584	121.6
30	5	5A	8"	6" BSPP	97080105905	105STS30D8A5-0586	121.6
37	7	5A, 2B	6"	4" BSPP	97080105007	105STS37D8X5-0764	138.8
37	7	5A, 2B	6"	6" BSPP	97080105107	105STS37D8X5-0766	138.8
37	7	4A 3B	8"	4" BSPP	97080105807	105STS37D8X5-0784	150.1
37	7	4A 3B	8"	6" BSPP	97080105907	105STS37D8X5-0786	150.1
45	8	7A 1B	6"	4" BSPP	97080105008	105STS45D8X5-0864	173.7
45	8	7A 1B	6"	6" BSPP	97080105108	105STS45D8X5-0866	173.7
45	8	6A, 2B	8"	4" BSPP	97080105808	105STS45D8X5-0884	185.1
45	8	6A, 2B	8"	6" BSPP	97080105908	105STS45D8X5-0886	185.1
55	10	7A, 3B	8"	4" BSPP	97080105810	105STS55D8X5-1084	217.7
55	10	7A, 3B	8"	6" BSPP	97080105910	105STS55D8X5-1086	217.7
75	13	12A, 1C	8"	4" BSPP	97080105813	105STS75D8X5-1384	264.4
75	13	12A, 1C	8"	6" BSPP	97080105913	105STS75D8X5-1386	264.4

SPECIFICATIONS

Minimum Well I.D.	203 mm / 8"
Minimum Submergence Above Inlet	3 m / 10'
Discharge	4" or 6" BSPP

Note: Refer to Franklin Electric AIM data for motor cooling requirements.

MATERIALS

Part 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, Disch. & 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: Contact customer service for available bowl bearing and shaft options.

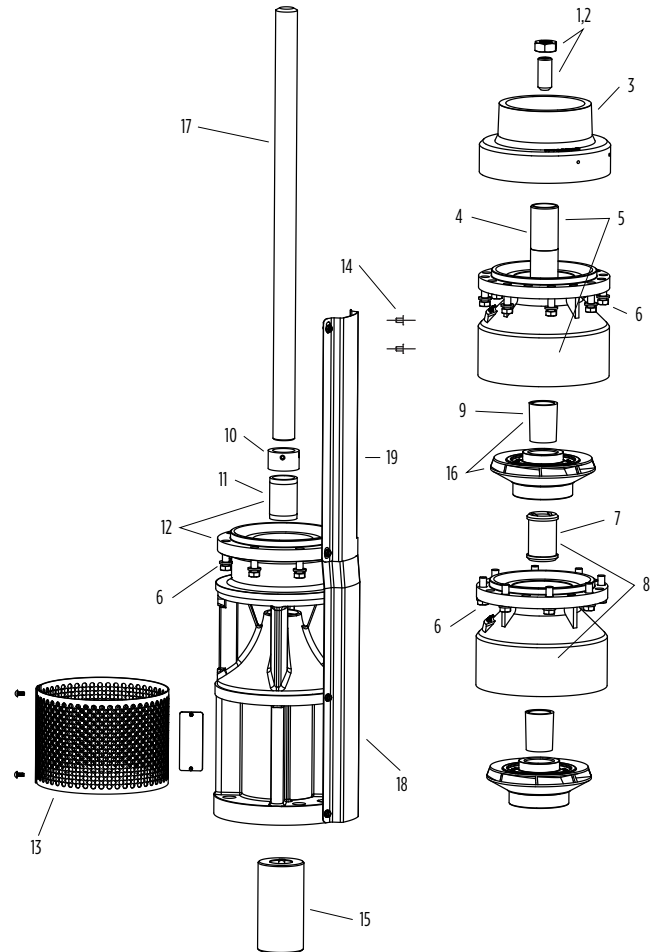
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EXPLODED PARTS - 8" 105 M³/H

REPAIR PARTS

Item No.	Description	Part No.	Qty.
1, 2	Upthrust Bolt/Nut Kit	305471553	1
3	Discharge 4" BSPP (42-190)	305471979	1
	Discharge 6" BSPP (42-190)	305471980	
4	Top Bearing - Bronze (Included in 5)	305471990	As Req.
5	Top Bowl with Bronze Bearing	305471991	As Req.
	Top Bowl with Bronze Bearing XP	305471992	
6	Bowl Bolt Kit (8 pcs.)*	305471549	As Req.
	Bowl Bolt Kit (500 pcs.)	305471551	
7	8" Bowl Bearing - Rubber (Included in 8)	305471400	As Req.
	8" Bowl Bearing - Viton (Included in 8)	305471401	
	8" Bowl Bearing - Bronze (Included in 8)	305471379	
8	Bowl and Bearing Assembly - Bronze	305471528	As Req.
	Bowl and Bearing Assembly XP - Bronze	305471531	
	Bowl and Bearing Assembly - Rubber	305471527	
	Bowl and Bearing Assembly XP - Rubber	305471530	
	Bowl and Bearing Assembly - Viton	305471529	
9	Taper Lock Collet Kit (Included in 10)	305471371	As Req.
10	Sand Cap w/ Set Screws	305471373	1
11	Motor Bracket Bearing - Bronze (Included in 14)	305471379	1
12	6" Motor Bracket with Bronze Bearing	305471438	As Req.
	8" Motor Bracket with Bronze Bearing	305471435	
13	Suction Screen with Screws for 6" Motor Bracket	305471375	1
	Suction Screen with Screws for 8" Motor Bracket	305471376	
14	Cable Guard Screw Kit	305471000	1
15	8" x 6" Motor Coupling	305471403	1
	8" x 8" Motor Coupling	305471404	
Not Shown	6" Motor Bolt Kit	305352901	1
	8" Motor Bolt Kit	305352902	1
	Nameplate with Drive Screws	305418901	1
	Owner's Manual	106089101	1

* Pumps with 13 stages or more require double bolting. Two bolt kits per stage are required for the 13th stage and above.



IMPELLER

Item No.	Description	Diameter [mm]	Angle	Kit w/ Collet
16	A Trim	144.12	17°	305471590
	B Trim	136.42		305471591
	C Trim	137.77		305471592

Note: Shaft and cable guard information located on the next page.

416 SS SHAFT*

Part No.	Length [mm]
305471367	1219
305471368	1829
305471369	2438
305471370	3048

*Double ended

SHAFT (8" X 6")*

Item No.	Stages	Length [mm]	Part No.	
			416 SS	Chrome
17	1	455	305472005	305472104
	2	595	305472007	305472106
	3	735	305472009	305472108
	4	875	305472011	305472110
	5	1015	305472013	305472112
	6	1155	305472015	305472114
	7	1295	305472017	305472116
	8	1435	305472019	305472118
	9	1575	305472021	305472120
	10	1715	305472023	305472122
	11	1855	305472025	305472124
	12	1995	305472027	305472126
	13	2135	305472029	305472128
	14	2275	305472031	305472130
	15	2415	305472033	305472132

* 8" pump with 6" motor bracket

SHAFT (8" X 8")*

Item No.	Stages	Length [mm]	Part No.	
			416 SS	Chrome
17	1	476	305472006	305472105
	2	608	305472008	305472107
	3	748	305472010	305472109
	4	888	305472012	305472111
	5	1028	305472014	305472113
	6	1168	305472016	305472115
	7	1308	305472018	305472117
	8	1448	305472020	305472119
	9	1588	305472022	305472121
	10	1728	305472024	305472123
	11	1868	305472026	305472125
	12	2008	305472028	305472127
	13	2148	305472030	305472129
	14	2288	305472032	305472131
	15	2428	305472034	305472133
	16	2568	305472035	305472134
	17	2708	305472036	305472135
	18	2848	305472037	305472136

* 8" pump with 8" motor bracket

CABLE GUARD (8" X 6" PRE-CUT)*

Item No.	Stages	Length [mm]	Part No.
18, 19	1	200	305471790
	2	340	305471793
	3	480	305471796
	4	621	305471799
	5	761	305471801
	6	901	305471804
	7	1041	305471806
	8	1181	305471838
	9	1321	305471853
	10	1461	305471839
	11	1601	305471872
	12	1741	305471843
	13	1881	305471874
	14	2021	305471876
	15	2161	305471844

* 8" pump with 6" motor bracket

CABLE GUARD (8" X 8" PRE-CUT)*

Item No.	Stages	Length [mm]	Part No.
19	1	568	305471864
	2	708	305471868
	3	848	305471870
	4	988	305471830
	5	1128	305471832
	6	1268	305471835
	7	1408	305471837
	8	1548	305471808
	9	1688	305471810
	10	1828	305471812
	11	1968	305471815
	12	2108	305471817
	13	2248	305471877
	14	2388	305471841
	15	2528	305471842
	16	2668	305471840
	17	2808	305471878
	18	2948	305471824

* 8" pump with 8" motor bracket

CABLE GUARD (BULK)

Item No.	Description	Length [mm]	Part No.
18, 19	Cable Guard 6" Motor Bracket Section*	359	305471001
	Cable Guard (10' Section)	3048	305471789

* Required for 6" motor bracket

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