

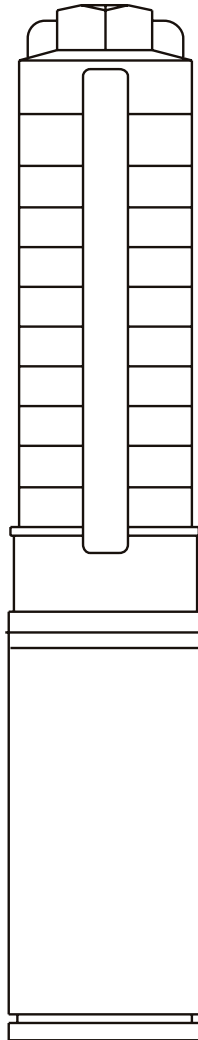


4770 SERIES

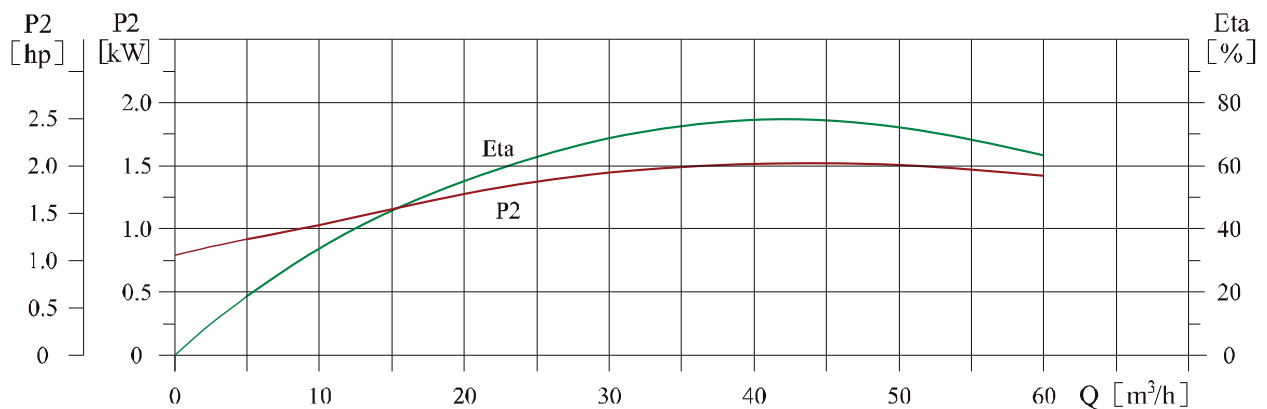
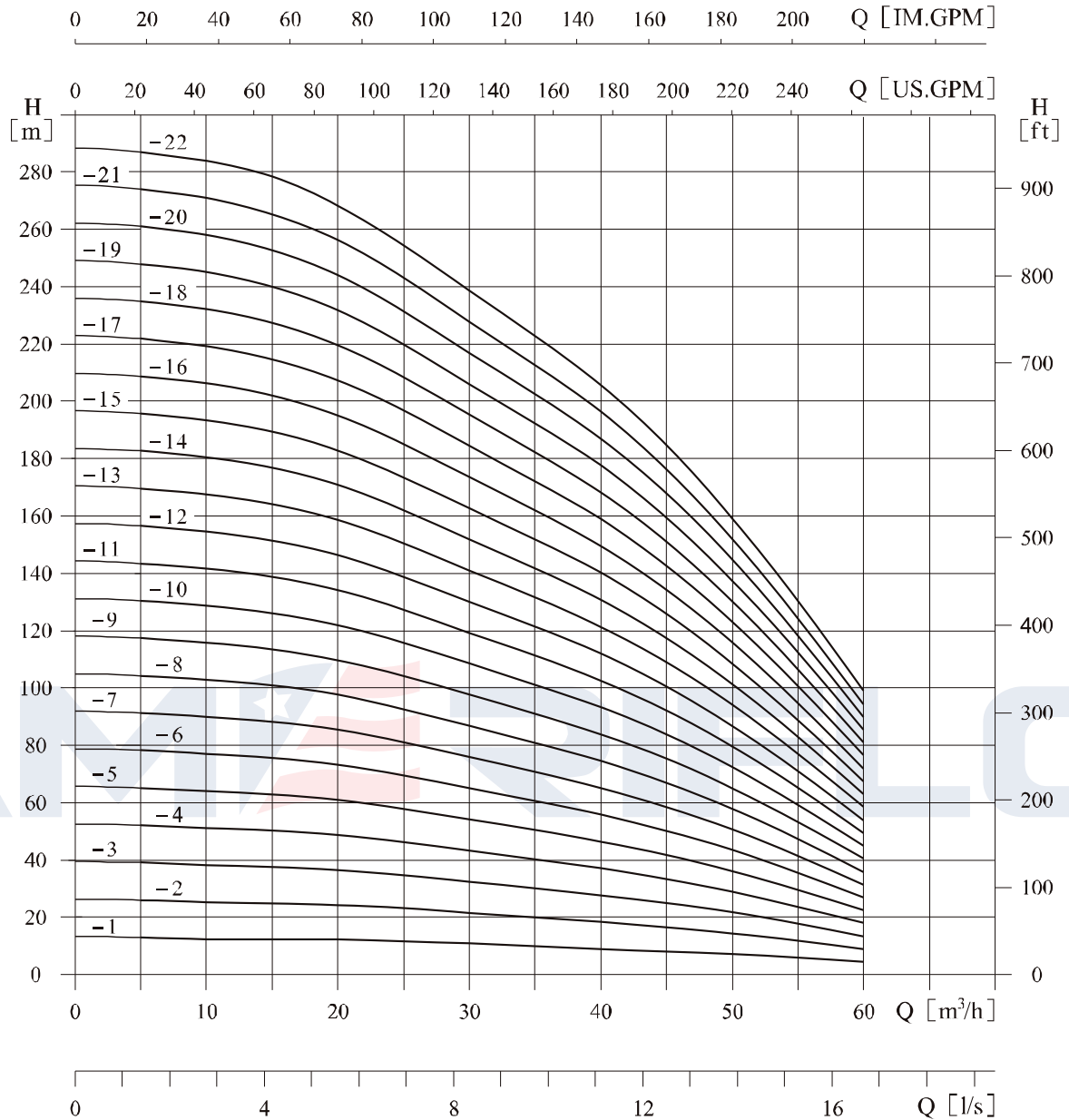
SUBMERSIBLE TURBINE PUMPS

ST42

ENGINEERING INFORMATION



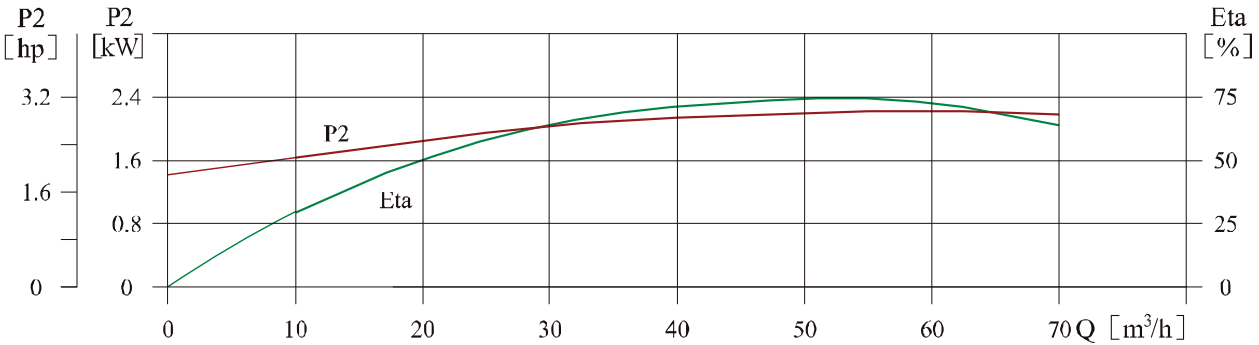
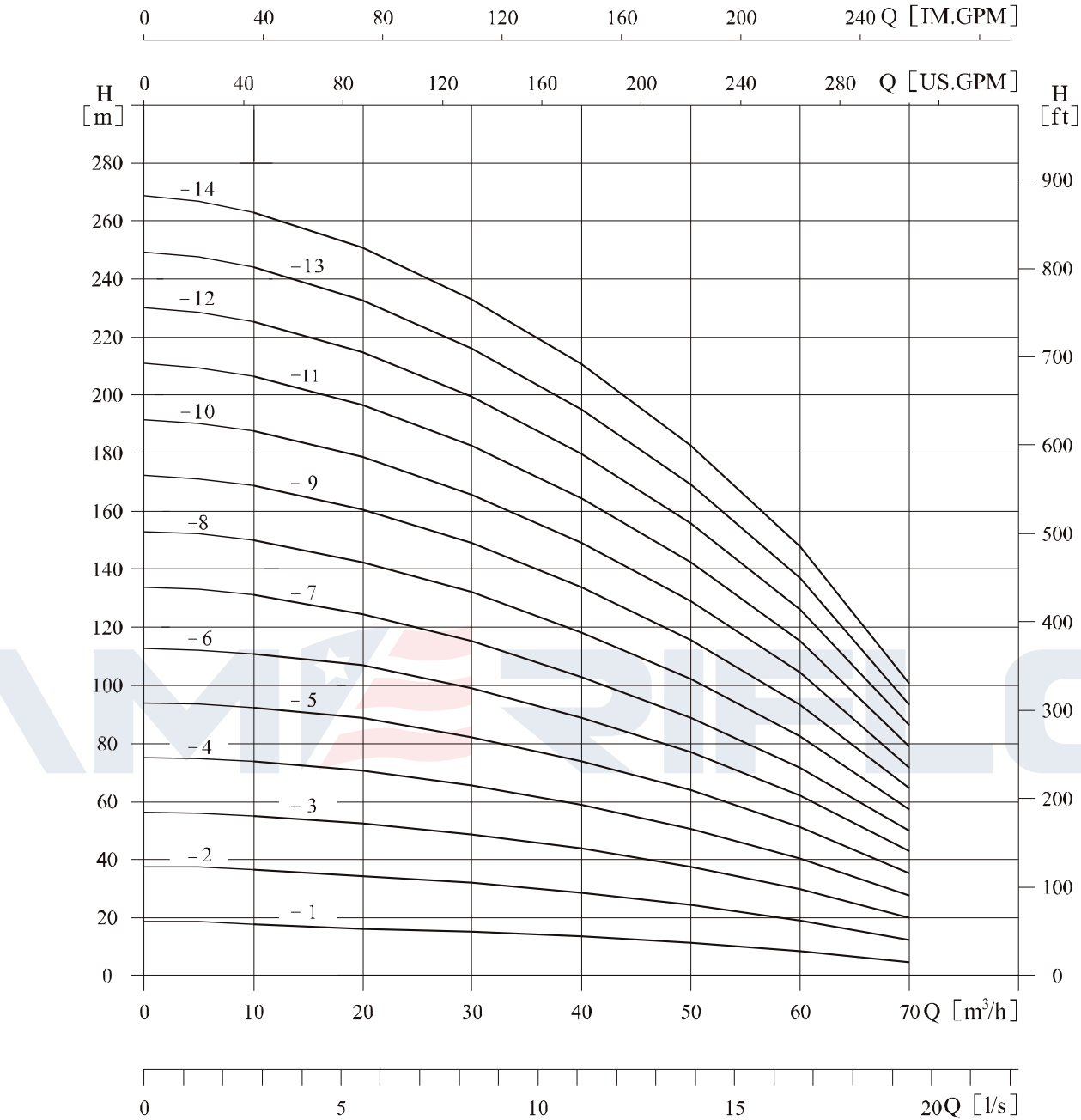
ST42 (3" NPT) 2900 RPM



MODEL ST42 - PERFORMANCE TABLE (2900 RPM)

MODEL	SPEED	MOTOR HP	FLOW GPM	20	40	90	140	175	225	260			
ST42-1	2900	3	HEAD (PSI)	20	19	18	16	14	11	6			
ST42-2		5		39	39	36	33	28	22	13			
ST42-3		7.5		61	58	55	49	42	33	20			
ST42-4		10		80	79	29	65	56	44	27			
ST42-5		10		100	98	92	82	71	58	35			
ST42-6		15		120	118	112	100	86	68	42			
ST42-7		15		139	1486	130	117	100	79	48			
ST42-8		20		159	158	148	132	114	88	55			
ST42-9		20		179	177	167	147	127	98	61			
ST42-10		20		200	197	185	164	141	109	68			
ST42-11		25		218	215	203	180	156	120	74			
ST42-12		25		238	235	221	197	170	132	82			
ST42-13		30		258	255	239	214	185	142	88			
ST42-14		30		277	274	258	230	198	155	95			
ST42-15		30		297	294	276	247	212	165	102			
ST42-16		40		317	314	294	264	227	176	109			
ST42-17		40		336	333	308	279	241	186	117			
ST42-18		40		356	353	330	295	255	198	123			
ST42-19		40		376	373	350	312	270	209	130			
ST42-20		40		395	392	368	329	283	220	136			
ST42-21		50		415	411	386	345	297	230	144			
ST42-22		50		435	429	405	361	311	242	150			

ST42 (3" NPT) 3500 RPM



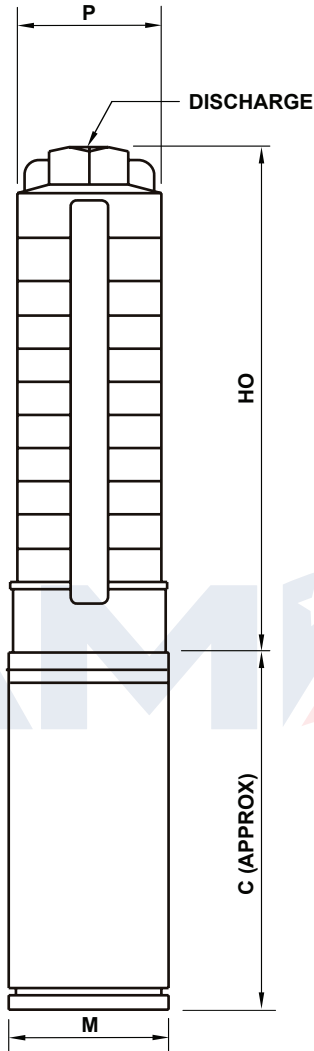
MODEL ST42 - PERFORMANCE TABLE (3500 RPM)

MODEL	SPEED	MOTOR HP	FLOW GPM	45	90	130	175	225	260	300			
ST42-1	3500	5	HEAD (PSI)	26	25	23	20	17	13	8			
ST42-2		7.5		55	52	48	43	37	29	19			
ST42-3		15		83	80	73	67	58	45	30			
ST42-4		15		112	106	98	88	77	61	41			
ST42-5		20		141	133	124	111	97	77	53			
ST42-6		25		168	162	150	135	117	94	65			
ST42-7		25		198	189	176	159	138	111	76			
ST42-8		30		227	217	201	182	158	127	85			
ST42-9		40		255	244	226	205	177	138	97			
ST42-10		40		283	271	251	227	198	159	109			
ST42-11		40		312	298	276	250	218	176	120			
ST42-12		50		341	326	301	273	238	191	132			
ST42-13		50		370	353	327	297	258	208	142			
ST42-14		50		398	380	353	320	277	224	153			



MODEL ST42 - SUBMERSIBLE TURBINE, NEMA MOTOR

GENERAL ARRANGEMENT DRAWING



ST42

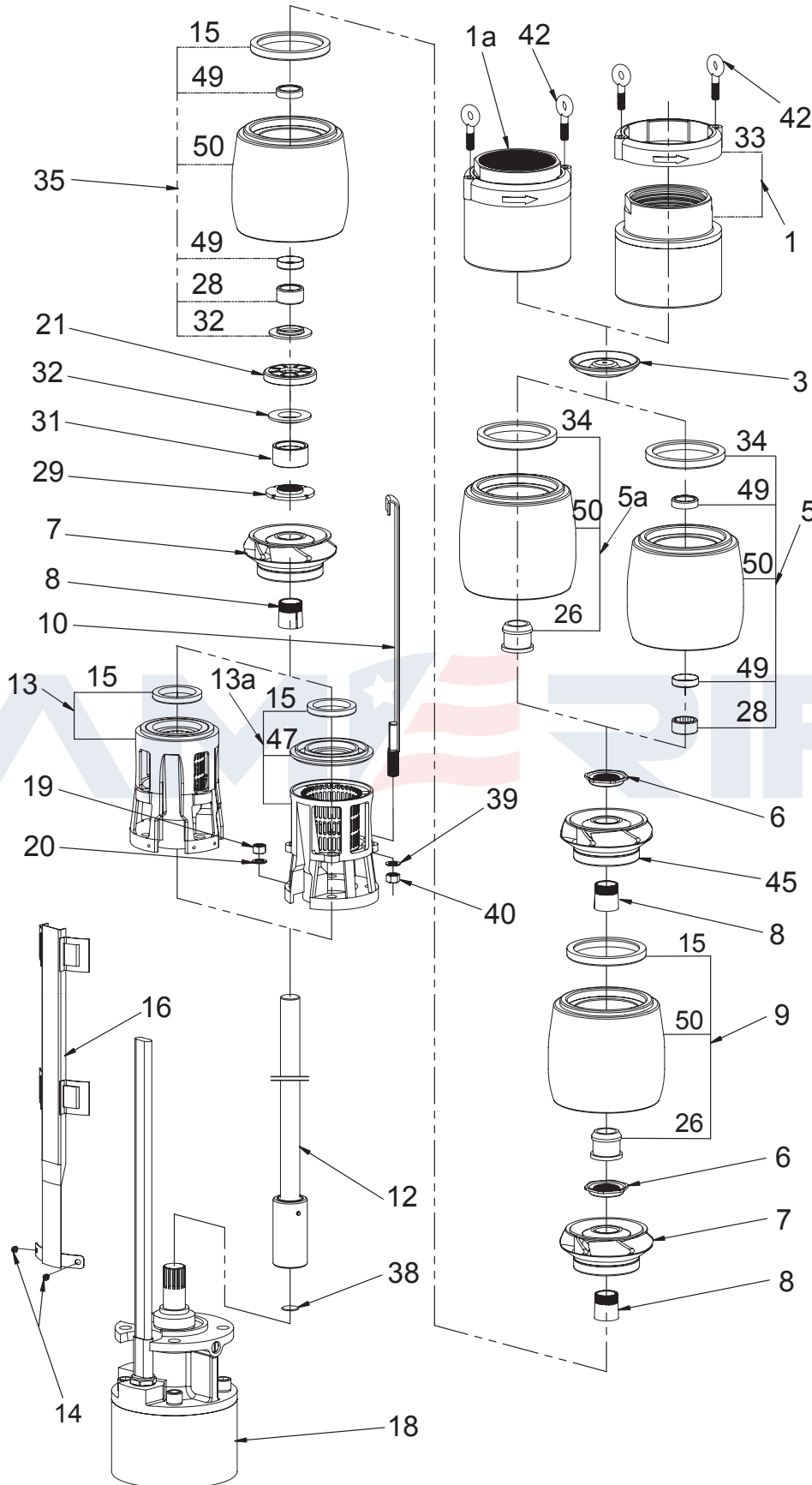
MODEL	DISCHARGE	C	HO	M	P	WEIGHT
						LBS
ST42-1	3 NPT	24.413	14.875	4	5.938	68
ST42-2	3 NPT	33.000	19.375	4	5.938	101
ST42-3	3 NPT	34.250	23.750	4 / 6	5.938	147
ST42-4	3 NPT	36.250	28.875	4 / 6	5.938	165
ST42-5	3 NPT	38.625	33.313	4 / 6	5.938	183
ST42-6	3 NPT	42.938	37.625	6	5.938	216
ST42-7	3 NPT	42.938	42.250	6	5.938	220
ST42-8	3 NPT	45.625	46.625	6	5.938	257
ST42-9	3 NPT	48.413	51.125	6	5.938	275
ST42-10	3 NPT	52.375	55.625	6	5.938	310
ST42-11	3 NPT	52.375	60.000	6	5.938	315
ST42-12	3 NPT	61.875	64.500	6	5.938	381
ST42-13	3 NPT	68.875	68.875	6	5.938	385
ST42-14	3 NPT	68.875	73.375	6	5.938	389
ST42-15	3 NPT	45.625	77.750	6	5.938	288
ST42-16	3 NPT	48.875	82.250	6	5.938	319
ST42-17	3 NPT	48.875	86.625	6	5.938	345
ST42-18	3 NPT	54.413	91.188	6	5.938	356
ST42-19	3 NPT	54.413	95.625	6	5.938	361
ST42-20	3 NPT	54.413	100.000	6	5.938	367
ST42-21	3 NPT	61.875	104.500	6	5.938	422
ST42-22	3 NPT	61.875	108.938	6	5.938	427

NOTES:

ALL DIMENSIONS ARE IN INCHES [MM] AND MAY VARY ± 0.375 INCHES.

DIMENSION "C" CAN VARY DEPENDING ON MOTOR MANUFACTURER.

THIS DRAWING IS NOT TO BE USED FOR CONSTRUCTION UNLESS CERTIFIED BY AMERIFLO.

MODEL ST42 - SECTIONAL VIEW

- 1 - Discharge Case
- 1a - Discharge Case
- 3 - Check Valve
- 5 - Discharge Diffuser
- 5a - Discharge Diffuser
- 6 - Impeller Nut
- 7 - Impeller
- 8 - Impeller Collet
- 9 - Diffuser
- 10 - Straps A (B)
- 12 - Pump Shaft A (B)
- 13 - Motor Bracket A (B)
- 13a - Motor Bracket A (B)
- 14 - Screw
- 15 - Neck Ring
- 16 - Cable Guard A (B)
- 18 - Submersible Motor
- 19 - Nut & Screw
- 20 - Washer
- 21 - Inlet Spacer
- 26 - Shaft ring
- 28 - Inlet Shaft Ring
- 29 - Inlet Impeller Nut
- 31 - Connecting Sleeve
- 32 - Inlet Wear Plate
- 33 - Discharge Head Ring
- (Only For ST42)**
- 34 - Discharge Ring
- 35 - Suction diffuser
- 38 - O-ring
- (Special For Shaft B)**
- 39 - Washer
- 40 - Nut
- 42 - Lifting Eye Bolt
- 45 - Impeller
- (Only For ST60)**
- 47 - Interconnector Ring
- 49 - Ring For Diffuser
- 50 - Inducer

MODEL ST42 - SECTIONAL VIEW PART REFERENCE

ITEM NUMBER	PART NAME	MATERIAL	
		ST (304 SS)	ST (316 SS)
1	Discharge Case	304 SS (EN 1.4301)	316 SS (EN 1.4401)
1a	Discharge Case	304 SS (EN 1.4301)	316 SS (EN 1.4401)
3	Check Valve	304 SS (EN 1.4301)	316 SS (EN 1.4401)
5	Discharge Diffuser	304 SS (EN 1.4301)	316 SS (EN 1.4401)
5a	Discharge Diffuser	304 SS (EN 1.4301)	316 SS (EN 1.4401)
6	Impeller Nut	304 SS (EN 1.4301)	316 SS (EN 1.4401)
7	Impeller	304 SS (EN 1.4301)	316 SS (EN 1.4401)
8	impeller Collet	304 SS (EN 1.4301)	316 SS (EN 1.4401)
9	Diffuser	304 SS (EN 1.4301)	316 SS (EN 1.4401)
10	Straps	304 SS (EN 1.4301)	316 SS (EN 1.4401)
12	Shaft	304 SS (EN 1.4301)	316 SS (EN 1.4401)
13	Motor Bracket	304 SS (EN 1.4301)	316 SS (EN 1.4401)
13a	Motor Bracket	304 SS (EN 1.4301)	316 SS (EN 1.4401)
14	Screw	A2-70 UNI 7323	
15	Neck Ring	304 SS (EN 1.4301)	316 SS (EN 1.4401)
16	Cable Guard	304 SS (EN 1.4301)	316 SS (EN 1.4401)
18	Submersible Motor	304 SS (EN 1.4301)	316 SS (EN 1.4401)
19	Nut	A2-70 UNI 7323	
20	Washer	A2-70 UNI 7323	
21	Inlet Spacer	304 SS (EN 1.4301)	316 SS (EN 1.4401)
26	Shaft Ring	FPM	
32	Inlet Wear Plate	FPM	
33	Discharge Head Ring	FPM	
34	Discharge Ring	FPM	
35	Suction Diffuser	304 SS (EN 1.4301)	316 SS (EN 1.4401)
38	O-Ring	FPM	
39	Washer	A2-70 UNI 7323	
40	Nut	304 SS (EN 1.4301)	316 SS (EN 1.4401)
42	Lifting Eye	304 SS (EN 1.4301)	316 SS (EN 1.4401)
45	Impeller	304 SS (EN 1.4301)	316 SS (EN 1.4401)
47	Interconnector Ring	304 SS (EN 1.4301)	316 SS (EN 1.4401)
49	Ring For Inducer	304 SS (EN 1.4301)	316 SS (EN 1.4401)
51	Suction Inducer	304 SS (EN 1.4301)	316 SS (EN 1.4401)

MODEL ST42 - ENGINEERING INFORMATION

RATED FLOW:	184.9 GPM [42 M³/HR]
FLOW RANGE:	22.0 - 308.2 GPM [5.0 - 70.0 M³/HR]
MAXIMUM PRESSURE:	406 PSI [28 BAR]
MAXIMUM POWER:	1.5 - 49.6 HP [1.1 - 37.0 KW]
MAXIMUM EFFICIENCY:	75%

