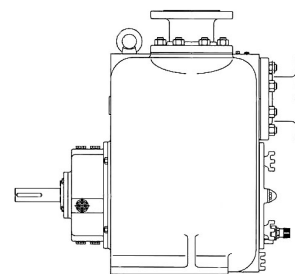




## PRODUCT BULLETIN MODEL ST SELF PRIMER

Since 1935, American-Marsh has manufactured high quality and durable self-primer pumps. These products incorporate features that you have asked for. Oil lubricated bearings, oil lubricated mechanical seal and a large cover plate for inspection and service of the impeller, mechanical seal, wear plate and suction check valve. All models feature completely removable rotating assemblies that allow for quick replacement and inspection.



### Material Specifications

CONSTRUCTION	PART				
	VOLUTE	IMPELLER	WEAR PLATE	SHAFT	MECHANICAL SEAL
Ductile Iron Fitted	Cast Iron	Ductile Iron	Ductile Iron	420 SS	Tungsten/Tungsten/Viton
Novolloy Fitted	Cast Iron	Novolloy	Novolloy	420 SS	Tungsten/Tungsten/Viton
Bronze Fitted	Cast Iron	Bronze	Bronze	420 SS	Tungsten/Tungsten/Viton
316 SS Fitted	Cast Iron	316 SS	316 SS	17-4 PH SS	Tungsten/Tungsten/Viton
Cd <sub>4</sub> MCu Fitted	Cast Iron	Cd <sub>4</sub> MCu	Cd <sub>4</sub> MCu	17-4 PH SS	Tungsten/Tungsten/Viton
All Novolloy	Novolloy	Novolloy	Novolloy	420 SS	Tungsten/Tungsten/Viton
All Bronze	Bronze	Bronze	Bronze	17-4 PH SS	Tungsten/Tungsten/Viton
All 316 SS	316 SS	316 SS	316 SS	17-4 PH SS	Tungsten/Tungsten/Viton
All Cd <sub>4</sub> MCu	Cd <sub>4</sub> MCu	Cd <sub>4</sub> MCu	Cd <sub>4</sub> MCu	17-4 PH SS	Tungsten/Tungsten/Viton

### MODEL ST PRONTO-PRIME SPECIFICATIONS

**Casing:** The casing is constructed of high tensile cast iron or other specified material. It is of the self primer volute type, carefully and accurately proportioned to permit smooth flow and to convert high velocity energy of the fluid as it leaves the impeller into pressure. Suction and discharge nozzles are cast integral with the volute. An integral check valve on the suction allows for very quick re-prime. The casing has cast integral feet standard and the coverplate has a standard pressure relief valve.

An oversized cleanout plate is located on the front of the casing for service and inspection. The impeller, wear plate, mechanical seal and suction check valve can be serviced through this cover plate without the need to disturb suction and discharge connections. Oversized fill ports as well as vent and drain openings are provided. To protect the pump and system piping, a standard pressure relief valve is located on the cleanout plate. Running clearances can be re-adjusted with adjustment screws on the cleanout cover to dial back factory running tolerances and efficiencies easily and effortlessly.

**Impeller:** The impeller is of the semi-open, solids handling type, casted in one piece of cast iron or other specified material. All impellers are dynamically balanced prior to assembly and all impellers are designed to pump large spherical solids. Impellers have back pump out vanes standard on the back side of the impeller to reduce material from building up behind the impeller.

**Wear Plate:** An oversized and heavy duty front and rear wear plate are standard to maintain close running clearances. The wear plates are

nitrile rubber coated allowing the pump to maintain closer running clearances producing quicker priming times than the competition. Each wear plate is easily replaceable minimizing pump downtime.

**Shaft:** The shaft is of high strength stainless steel or, ground to accurate dimensions and polished to a smooth surface. It is designed for extra stiffness to avoid all critical speeds in operation. The shaft is threaded internally on the outboard end allowing the use of belt drive accessories without any additional modification to the pump.

**Power Frame:** The power frame is constructed of high tensile cast iron or other specified material and provides support for the inboard and outboard bearings. Each bearing is designed to carry all thrust and radial loads encountered by the pump. The outboard bearing is oversized standard for use with belt drive systems. The power frame has an integral oil sump that provides oil for lubrication to each bearing and an oil level eye is provided standard on the power frame to visually indicate the oil level.

**Mechanical Seal:** The seal chamber is sized for a heavy-duty, front loading cartridge mechanical seal. The cartridge mechanical seal is constructed of a tungsten carbide rotary face, a tungsten carbide stationary face and viton elastomers standard. Other mechanical seal types are available upon request. The entire seal assembly is oil lubricated to ensure long life and durability.

INDUSTRIAL

Pulp & Paper, Steel Mill, Feed Lot, Manufacturing, Rendering Plant

COMMERCIAL

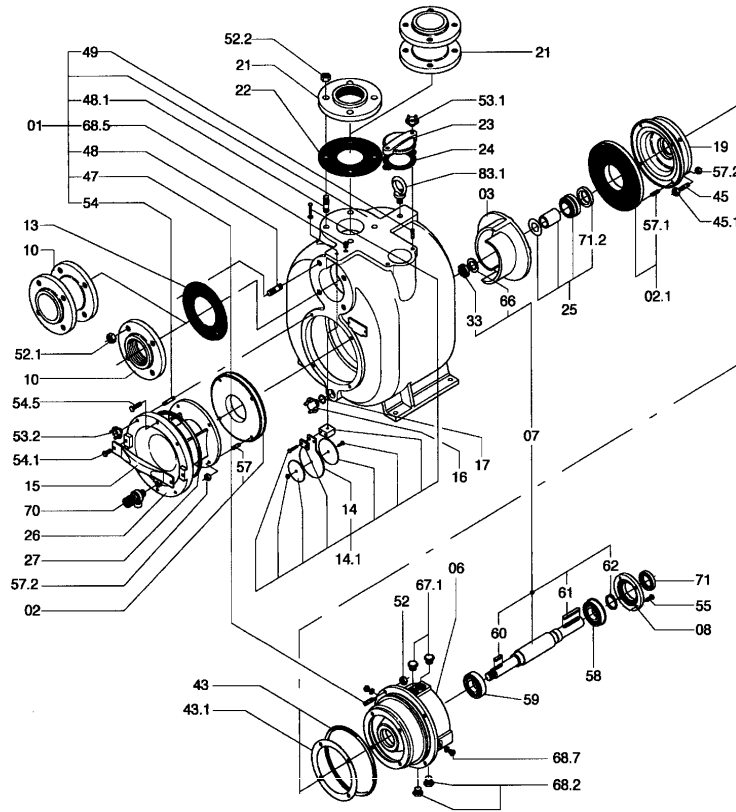
Jobsite De-watering, Mobile

MUNICIPAL

Lift Station, Sewage, Heavy Solids, Mobile

PRODUCT BULLETIN

MODEL ST SELF PRIMER  
PRONTO-PRIME



ST PRONTO-PRIME Sectional Drawing

Item Number	Item Description	Num. Req.
1	Casing	1
2	Wear Plate, Front	1
2.1	Wear Plate, Rear	1
3	Impeller	1
6	Bearing Housing	1
7	Shaft	1
8	Bearing Cover	1
10	Suction Flange	1
13	Gasket	1
14	Check Valve	1
14.1	Check Valve Assembly	1
15	Handle	1
16	Cover	1
17	Gasket	1
19	Head	1
21	Discharge Flange	1
22	Gasket	1
23	Cover	1
24	Gasket	1
25	Mechanical Seal Assembly	1
26	Cover	1
27	O-Ring	1
33	Impeller Nut	1
43	Casing Gasket	1
43.1	Gasket	1
45	Screw	Varies
45.1	Nut	Varies
47	Stud	Varies
48	Stud	Varies

Item Number	Item Description	Num. Req.
48.1	Stud	Varies
49	Stud	Varies
52	Nut	Varies
52.1	Nut	Varies
52.2	Nut	Varies
53.1	Wrench Nut	Varies
53.2	Wrench Nut	Varies
54	Stud	Varies
54.1	Screw	Varies
54.5	Screw	Varies
55	Screw	Varies
57	Screw	Varies
57.1	Screw	Varies
57.2	Nut	Varies
58	Ball Bearing, Outboard	1
59	Ball Bearing, Inboard	1
60	Key, Impeller	1
61	Key, Coupling	1
62	Locknut	1
66	Washer	1
67.1	Plug	2
68.2	Plug	1
68.5	Plug	1
68.7	Oil Level Indicator	1
70	Pressure Relief Valve	1
71	Lip Seal	1
71.2	Lip Seal	1
83.1	Eye Hook	1

Recommended spare parts are in **BOLD**.



All ST Models feature a completely removable rotating assembly for ease in maintenance. All rotating assemblies have jackscrews aiding in the removal of the rotating assembly. This allows for inspection of the impeller, bearings and mechanical seal without the need to adjust the piping or driver. The rotating assembly has two oil level indicators; one for oil level in the bearing housing and the other for oil level of the mechanical seal.

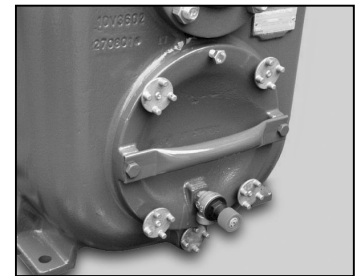
The impeller features a two vane, solids handling design with back pump out vanes on the reverse. Back pump out vanes minimize pressure on both the mechanical seals and the bearings. All models are designed to handle large spherical solids encountered in sewage and pulp & paper applications.

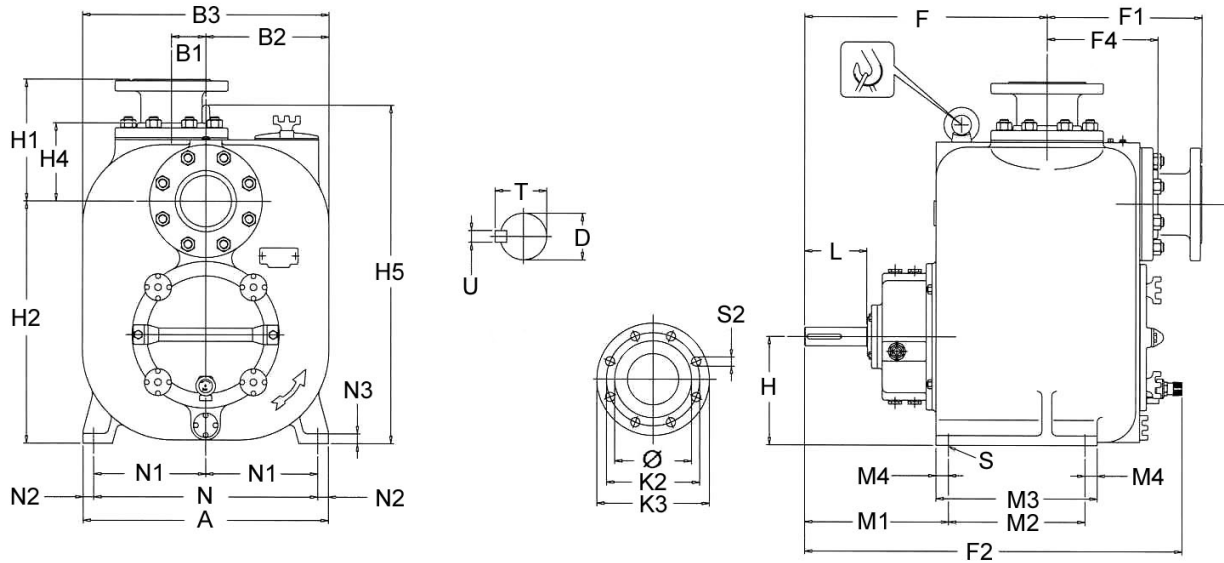
ST Model	Max. Solids	Flow (GPM)	Head (Feet)	Motor HP
3x3-8	2.50"	425	90	20
4x4-10	3.00"	640	90	30
6x6-12	3.00"	1250	70	40
8x8-15	3.00"	1900	75	60
10x10-13	3.00"	2800	100	100

Aggressive applications require top of the line features that ensure pump life. All ST Models feature Tungsten Carbide stationary and rotary faces. The self-aligning, oil lubricated, mechanical seal is designed for superior life during aggressive priming and aggressive pumping applications. Tungsten Carbide faces assure the end user of durability and long life.



The front of all ST models feature an oversized inspection and cleanout cover. The pump is designed so that the impeller and wear plate can be examined or replaced through the cleanout plate. The cleanout plate has adjustment screws to dial back factory tolerances and efficiencies. Integral on all ST Models is a pressure relief valve designed to protect the unit from over pressurizing.





**Approximate General Dimensions**

(Do not use for construction purposes)

ST PRONTO-PRIME SELF PRIMER					
	3x3-8 ST	4x4-10 ST	6x6-12 ST	8x8-15 ST	10x10-13 ST
Ø	3x3	4x4	6x6	8x8	10x10
MAX. IMP	8.750	9.750	12.438	14.750	13.250
WEIGHT LBS.	404	593	802	1170	1401
A	17.000	19.750	22.750	27.750	27.750
B1	2.750	2.750	2.750	0.000	0.000
B2	8.500	9.875	11.375	13.875	15.500
B3	17.000	19.750	22.750	27.750	31.000
D	1.500	1.500	1.500	1.750	1.750
F	17.250	19.500	19.500	24.000	20.625
F1	11.500	12.500	16.000	16.250	28.375
F2	26.625	30.438	31.625	40.250	49.000
F4	7.250	8.938	10.625	16.250	28.375
H	7.500	8.750	10.125	13.000	14.000
H1	10.000	9.750	12.938	13.500	15.938
H2	17.000	19.500	22.375	28.500	25.000
H4	5.250	6.250	7.500	9.313	15.938
H5	23.625	27.250	29.000	37.875	41.250
K2	6.000	7.500	9.500	11.750	14.250
K3	7.500	9.000	11.000	13.500	16.000
L	4.000	5.000	5.000	6.750	4.875
M1	11.188	11.625	11.625	16.000	12.625
M2	9.000	11.000	11.000	12.000	12.000
M3	11.000	13.000	13.000	15.000	15.000
M4	0.938	1.000	1.000	1.500	1.500
N	15.500	18.000	20.750	25.000	27.750
N1	7.750	9.000	10.375	12.500	12.50
N2	0.750	0.875	1.000	1.375	1.375
N3	0.750	0.750	1.000	1.250	1.375
S	0.688	0.688	0.688	0.875	0.875
S2	0.750	0.750	0.875	0.875	1.000
T	1.6875	1.688	1.688	1.938	1.938
U	0.375	0.375	0.375	0.375	0.375
SOLIDS	2.50	3.00	3.00	3.00	3.00

All dimensions are in inches.  
Optional suction and discharge spool pieces available.

- Your Local Authorized Distributor -



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