



varisco®

solid pumping solutions



INNOVATION & QUALITY

ST-R - 0706 rev. 04 - US

Self-priming solids handling
trash pumps

ST-R

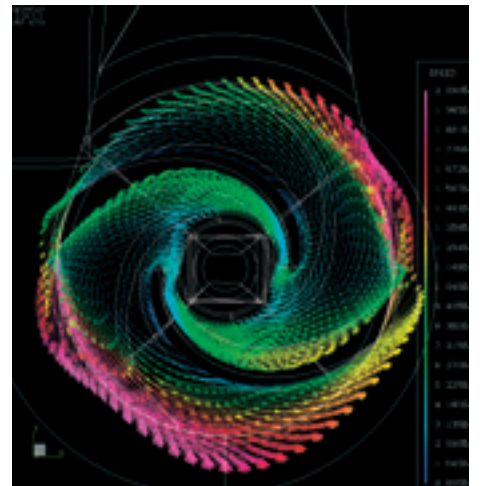
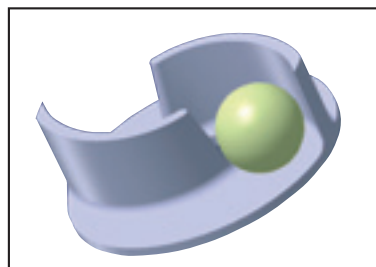
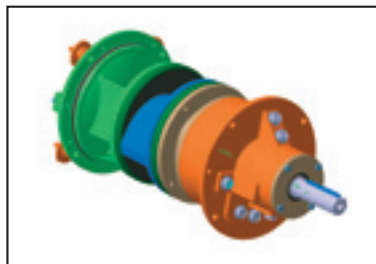
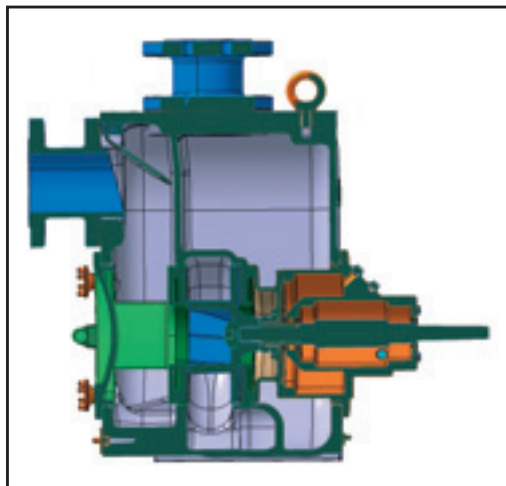
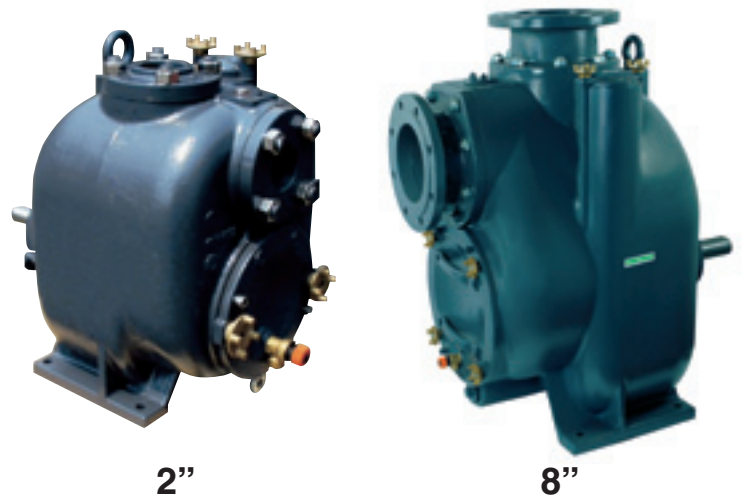
ST-R

ADVANTAGES

- ▶ Front and rear wear plates with oil resistant rubber facing (except ST-R8) to protect the faces of the impeller blades from wear due to small abrasive particles. This exclusive Varisco feature, based on over fifty years of experience in pumping on construction sites, ensures as new performance and priming capabilities well into the service life of the wear parts. (Cast iron or stainless steel wear plates available as an alternative when pumping liquids containing sharp solids or contaminated with petroleum products or chemicals.)
- ▶ The front wear plate can easily be adjusted from the outside to compensate for wear, if necessary.
- ▶ Self-aligning oil lubricated mechanical seal with tungsten carbide faces and Viton® elastomers.
- ▶ Dual protection of bearings through double oil bath, with intermediate discharge to atmosphere, to isolate the oil in the bearing housing from the oil in the mechanical seal. Leakages can be monitored through the intermediate cavity.
- ▶ Two vane, semi-open impeller handling solids up to 3" (75mm) in diameter. Pump out vanes on the rear of the impeller to reduce the build up of foreign matter behind the impeller.
- ▶ Impeller inspection cover with large handle for easy removal.
- ▶ Full access to the impeller and mechanical seal for inspection and maintenance without removing the pipework or the rotating assembly.
- ▶ Fast self-priming.
- ▶ Pump casing can easily be flushed with water before opening through the top cover and drain.
- ▶ Pressure release valve to bleed air from casing before opening.
- ▶ Removable rotating assembly. The entire assembly slides out of the back of the pump without dismantling the casing and pipework.
- ▶ Check valve can easily be replaced through the impeller inspection cover without dismantling the pipework.

Varisco ST-R series pumps are recirculating self-priming pumps suitable for handling liquids with large solids in suspension. They are mounted above and out of the liquid to be pumped, enabling inspection and maintenance of the pump, drive and motor with greatly reducing health and safety hazards for maintenance personnel. The special design of the volute enables the pumps to prime and reprime automatically even without check valves. If the impeller should be clogged by rags or stringy materials, the large front cover can easily be removed to provide full access for inspection and maintenance. The entire rotating assembly can be removed from the pump casing without dismantling the pipes.

Varisco ST-R self-priming trash pumps are your best choice for difficult pumping applications: solid construction, easy installation and maintenance, replaceable wear parts. They feature both front and rear wear plates, protecting both the impeller and the seal housing from wear and reducing overall maintenance costs.



APPLICATIONS

- ▶ Sewage lift stations
- ▶ Sewer by-pass
- ▶ Sewage treatment
- ▶ Industrial wastewater treatment
- ▶ Pumping liquids with high concentrations of solids in suspension



Waste water treatment in a sugar refinery

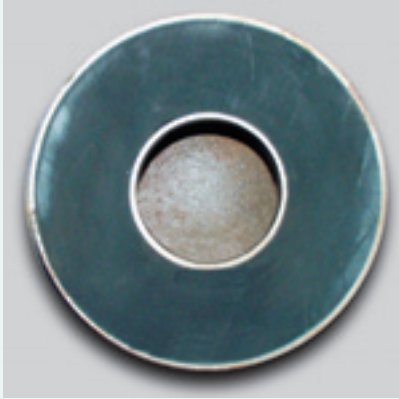


Sewage lift station

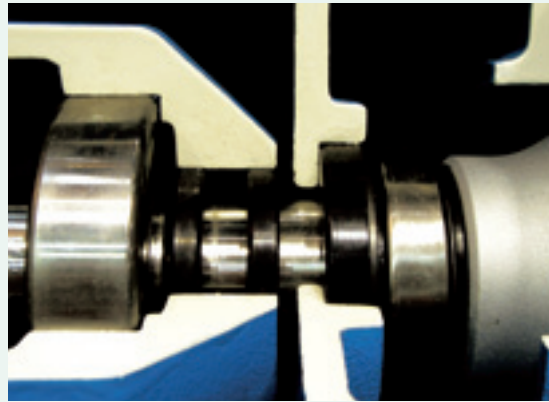


Chipboard manufacturing





- ▶ Replaceable front and rear wear plates with abrasion and oil resistant rubber facing (except for ST-R8). The rubber facing protects the impeller blades against wear due to small abrasive particles, reducing the need for adjustment to take up wear, thus ensuring as new performance and priming well into the service life of the wear parts. Cast iron and stainless steel wear plates available on request.



- ▶ Self-aligning mechanical seal with tungsten carbide faces and Viton® elastomers. Oil lubrication with double lip seal and cavity to isolate the seal oil from the bearing oil and permit monitoring of leaks from the seal from the outside.



- ▶ Balanced ductile iron or stainless steel two blade impeller handling solids up to 3" in diameter. Pump out vanes on rear to reduce the build up of foreign matter and reduce the pressure on the mechanical seal.

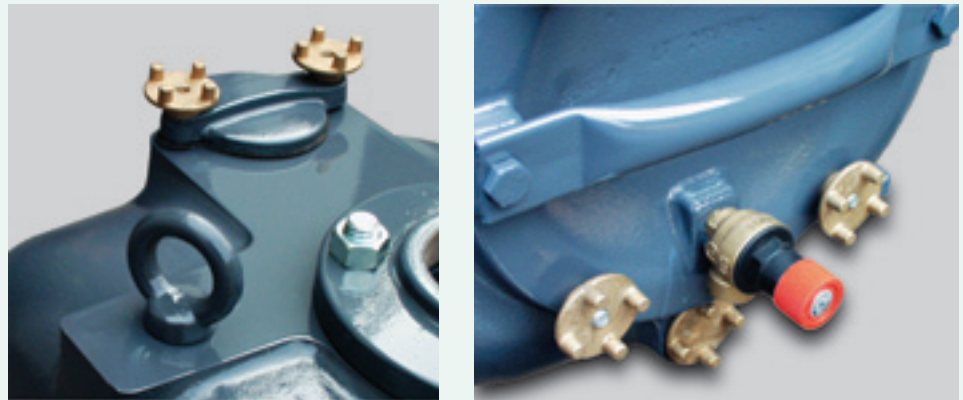


- ▶ Impeller inspection cover with large handle, brass wrenches and pusher bolts for easy removal.

- ▶ Canvas reinforced nitrile rubber or Viton® suction check valve which can easily be replaced through the front cover without removing the pipework.



- ▶ Robust cast iron casing complete with easily removed priming cover and lower drain plug. Pressure relief valve mounted on the front cover to vent the casing before opening the cover.



- ▶ Back pullout rotating assembly which can be removed without dismantling the pipes or pump casing. Pusher bolts to facilitate dismantling. Provision for casing heater and external seal leakage monitor.

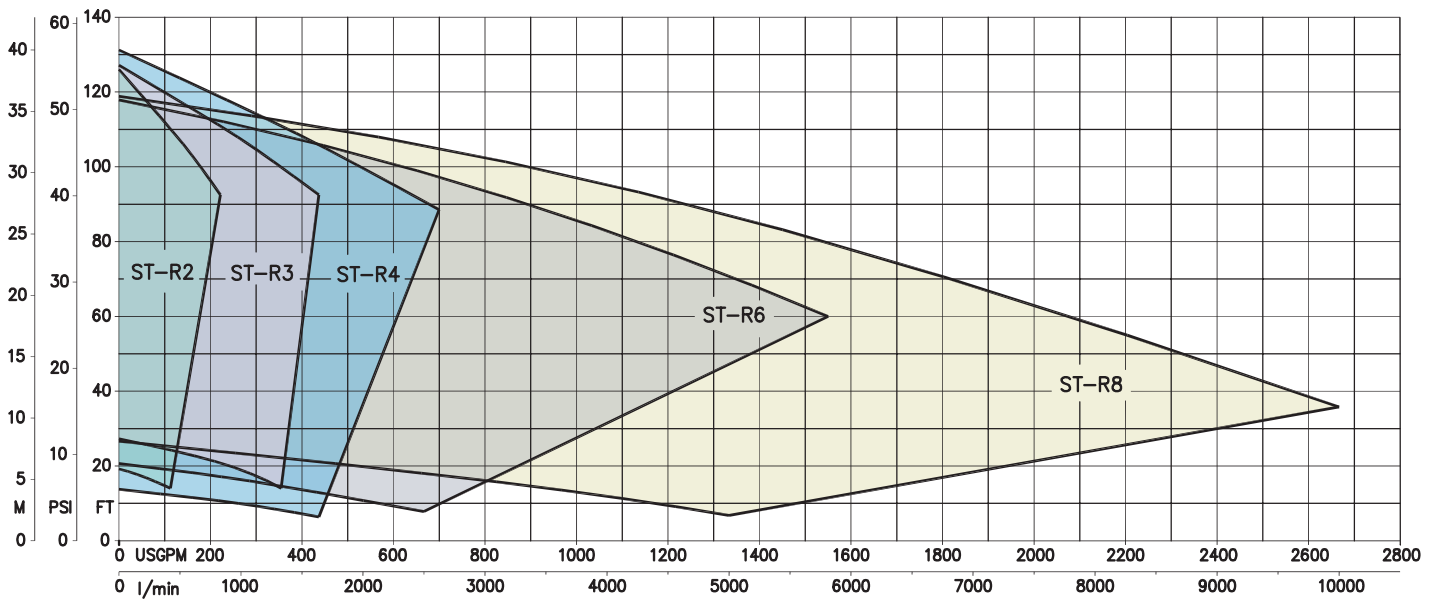


- ▶ Separate oil filling plugs for bearings and mechanical seal with sight gauges.



▶ PERFORMANCE

Model	Size	Speed (RPM)		Capacity (USGPM)		Head (ft)	
		min	max	min	max	min	max
ST-R2	2"	min	1150	110	40	12	16
		max	2900	210	40	90	115
ST-R3	3"	min	1000	350	90	12	25
		max	2150	440	90	90	115
ST-R4	4"	min	650	440	175	10	4
		max	1950	700	175	87	115
ST-R6	6"	min	650	750	200	8	20
		max	1550	1500	400	60	105
ST-R8	8"	min	650	1320	250	7	25
		max	1350	2640	610	36	110



DIMENSIONS AND WEIGHTS



Model	Size in	B in	H in	H1 in	L in	L1 in	Dj6 in	Weight lb
ST-R2	2"	13.39"	19.27"	-	22.97"	-	1.13"	220
ST-R3	3"	17.01"	23.58"	27.07"	26.67"	28.74"	1.5"	420
ST-R4	4"	19.76"	27.20"	29.25"	30.41"	32.01"	1.5"	595
ST-R6	6"	22.76"	31.02"	35.35"	31.81"	35.51"	1.5"	815
ST-R8	8"	28.11"	37.95"	42.04"	38.5"	40.3"	1.75"	1240

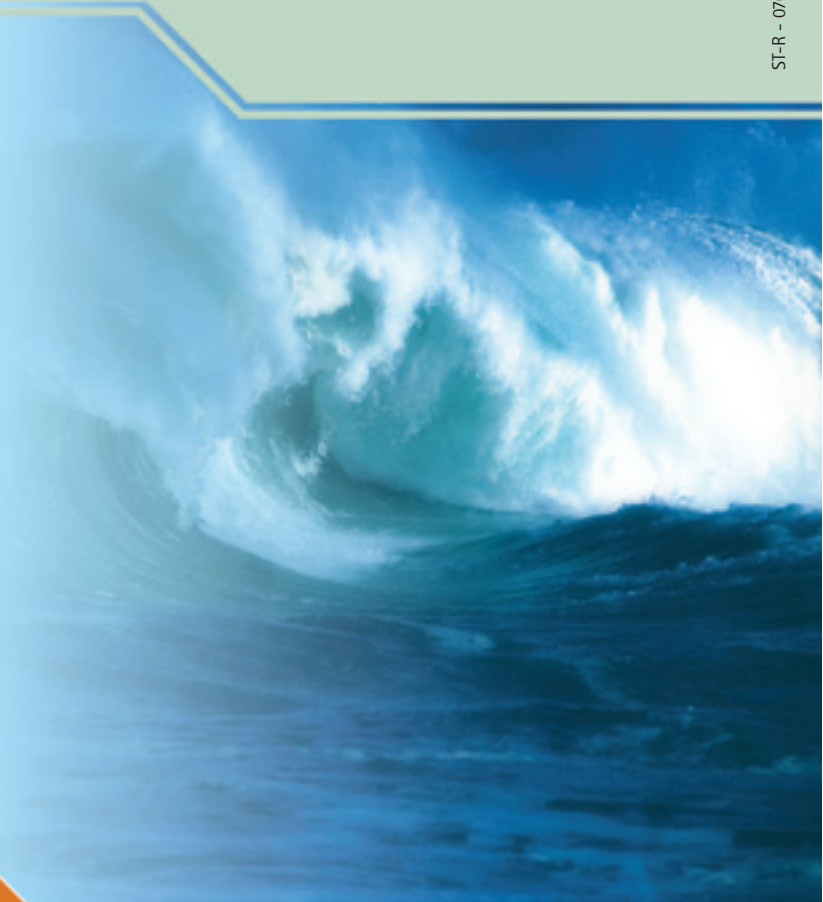
VERSIONS AND MATERIALS

Model	Size	Solids	Casing	Impeller	Wear Plate	Shaft
ST-R2 TWGS	2"	1 1/2"	GGG 40	GGG 40	GGG 40	38 Ni Cr Mo4
ST-R2 TWFS	2"	1 1/2"	GGG 40	CF8M	GG 20	SAF 2507
ST-R3 TWGS	3"	2 1/2"	GGG 40	GGG 40	GGG 40	38 Ni Cr Mo4
ST-R3 TWFS	3"	2 1/2"	GGG 40	CF8M	GG 20	SAF 2507
ST-R4 TWGS	4"	3"	GGG 40	GGG 40	GGG 40	38 Ni Cr Mo4
ST-R4 TWFS	4"	3"	GGG 40	CF8M	GG 20	SAF 2507
ST-R6 TWGS	6"	3"	GGG 40	GGG 40	GGG 40	38 Ni Cr Mo4
ST-R6 TWFS	6"	3"	GGG 40	CF8M	GG 20	SAF 2507
ST-R8 TWGS	8"	3"	GGG 40	GGG 40	GGG 40	38 Ni Cr Mo4
ST-R8 TWFS	8"	3"	GGG 40	CF8M	GG 20	SAF 2507

Legend:

GG 20	ASTM A48 Class 30 Cast iron
GGG 40	ASTM A536 60-48-18 Ductile iron
38 Ni Cr Mo4	SAE 4140 Alloy steel
SAF 2507	ASTM S32750 Stainless steel
CF8M	ASTM A351 Stainless steel





The specifications, illustrations and data in this leaflet are not binding.
The makers reserve the right to carry out modifications at any time without notice.

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