

TOUGH TECHNOLOGY  
**GILKES**

## Self-priming centrifugal pumps ST SERIES



experience of a lifetime // innovation for tomorrow

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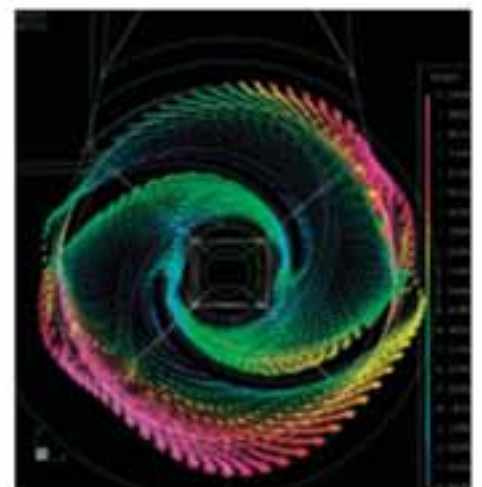
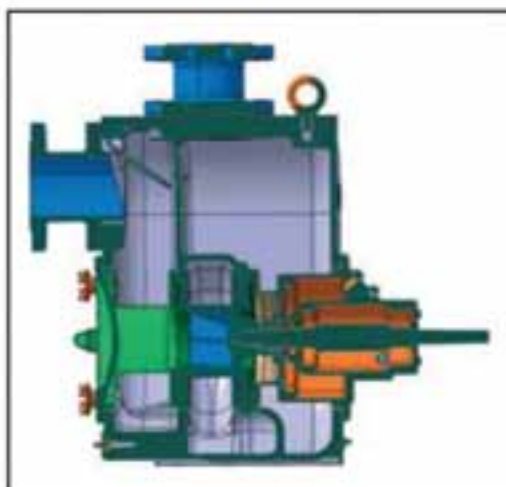
**varisco**<sup>®</sup>  
a solid name in fluids

- ▶ 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

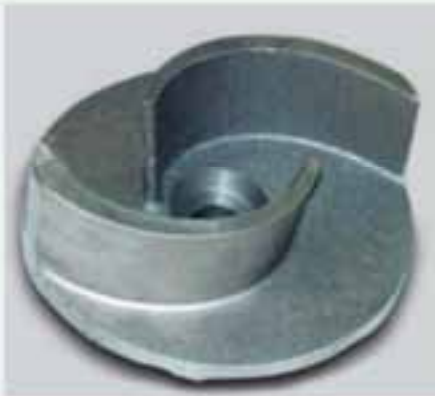
# CONSTRUCTION



- ▶ 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 Vitor® 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.

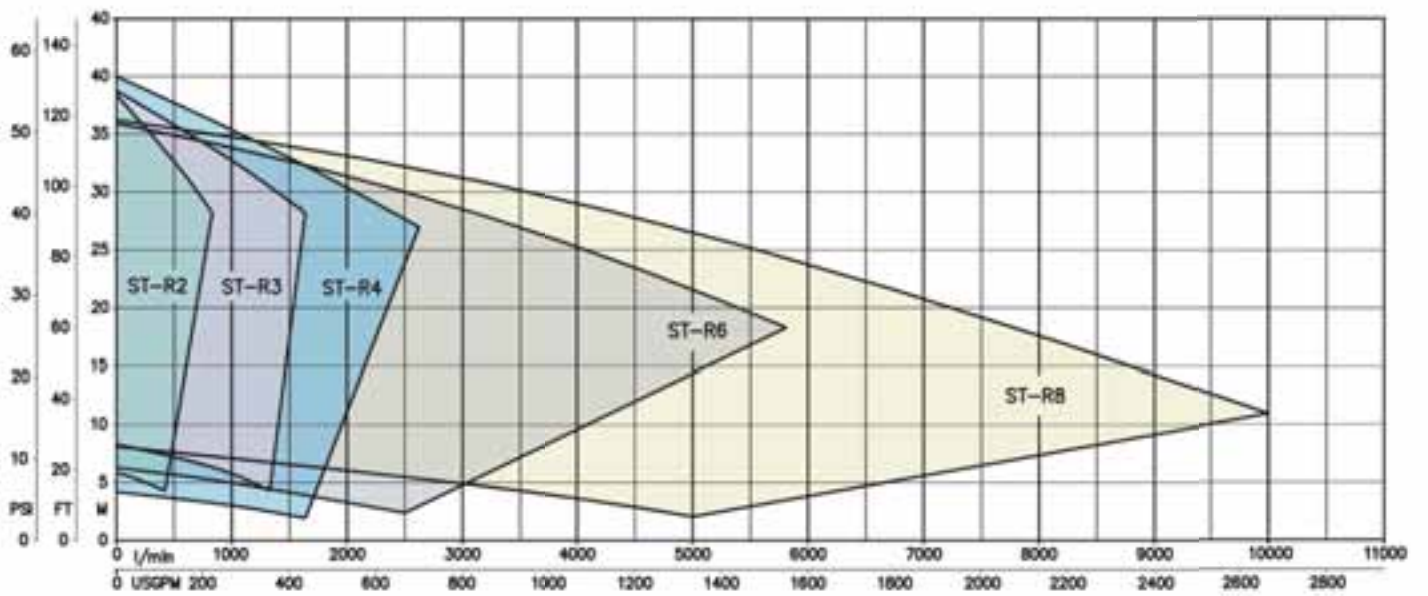


- ▶ Separate oil filling plugs for bearings and mechanical seal with sight gauges.

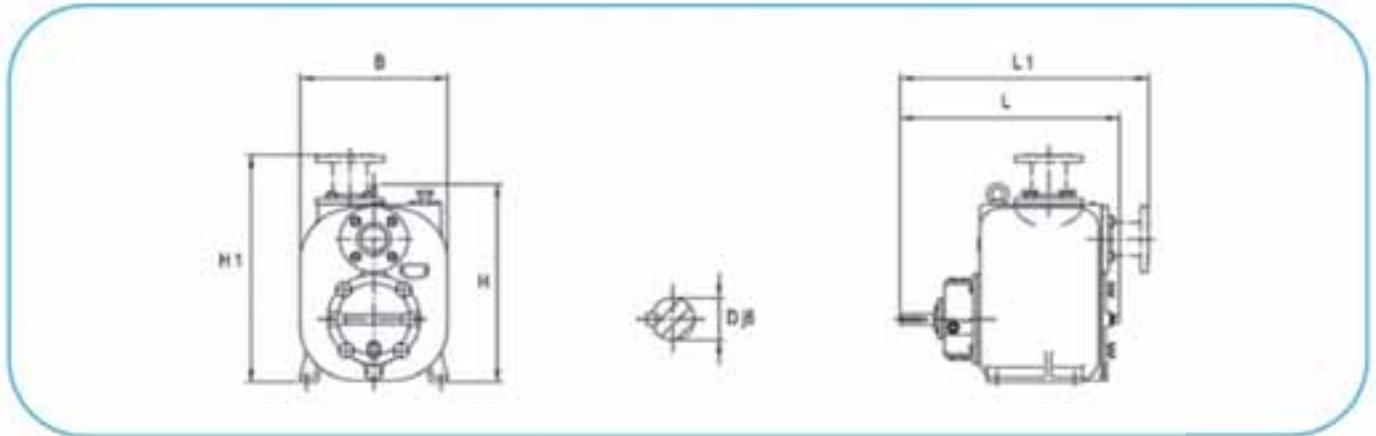


# PERFORMANCE

Model	Size		Speed (RPM)		Capacity (m <sup>3</sup> /h)		Head (m)	
	mm	in	min	max				
ST-2R	50	2"	min	1150	25	10	4	5
			max	2900	48	10	27	35
ST-3R	80	3"	min	1000	80	20	4	8
			max	2150	100	20	27	35
ST-4R	100	4"	min	650	100	40	1	3
			max	1950	160	40	27	35
ST-6R	150	6"	min	650	170	45	2	6
			max	1550	340	90	18	32
ST-8R	200	8"	min	650	300	55	2	8
			max	1350	600	140	11	34



# DIMENSIONS AND WEIGHT



Model	Size	B	H	H1	L	L1	D/φ	Weight
	in	mm	mm	mm	mm	mm	mm	Kg
ST-R2	2"	50	340	489.5	518	583.5	28	100
ST-R3	3"	80	432	599	687.5	677.5	32	190
ST-R4	4"	100	502	691	743	772.5	32	270
ST-R6	6"	150	578	788	896	808	42	370
ST-R8	8"	200	714	964	1068	978.5	35	560

# VERSIONS AND MATERIALS

Model	Size	Solids	Casing	Impeller	Wear Plate	Shaft
ST-R2 TWGS	2" (50 mm)	1 1/2" (38 mm)	GGG 40	GGG 40	GGG 40	38 Ni Cr Mo4
ST-R2 TWFS				CF8M	GG 20	SAF 2507
ST-R3 TWGS	3" (80 mm)	2 1/2" (63.5 mm)	GGG 40	GGG 40	GGG 40	38 Ni Cr Mo4
ST-R3 TWFS				CF8M	GG 20	SAF 2507
ST-R4 TWGS	4" (100 mm)	3" (76 mm)	GGG 40	GGG 40	GGG 40	38 Ni Cr Mo4
ST-R4 TWFS				CF8M	GG 20	SAF 2507
ST-R6 TWGS	6" (150 mm)	3" (76 mm)	GGG 40	GGG 40	GGG 40	38 Ni Cr Mo4
ST-R6 TWFS				CF8M	GG 20	SAF 2507
ST-R8 TWGS	8" (200 mm)	3" (76 mm)	GGG 40	GGG 40	GGG 40	38 Ni Cr Mo4
ST-R8 TWFS				CF8M	GG 20	SAF 2507

Legend:

GG 20	EN 1561 Cast iron
GGG 40	EN 1563 Ductile iron
38 Ni Cr Mo4	SAE 4140 Alloy steel
SAF 2507	Stainless steel
CF8M	ASTM A351 Stainless steel

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