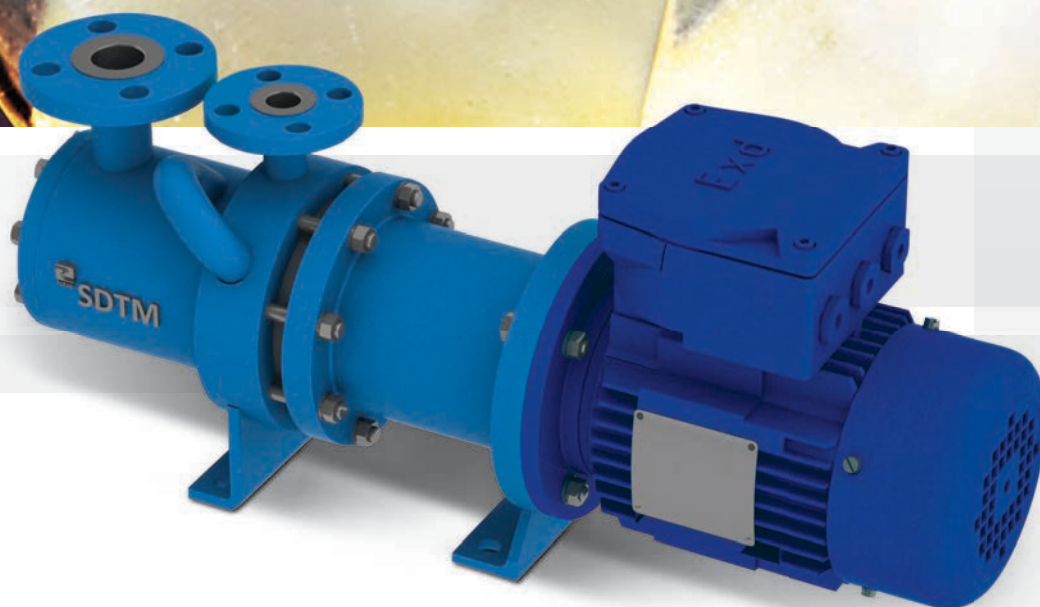


NEW PRODUCT

MULTI-STAGE MAGNETIC DRIVE PUMP



— Gruppo Aturia —



MULTI-STAGE MAGNETIC DRIVE PUMP SDTM Series

FEATURES

- Multi-stage Centrifugal/Turbine Pumps
- Performances and Dimensions our standard
- Models SDTM39 2S – SDTM39 3S
- Flanged PN 40 / ANSI 300
- Machined from alloy bar

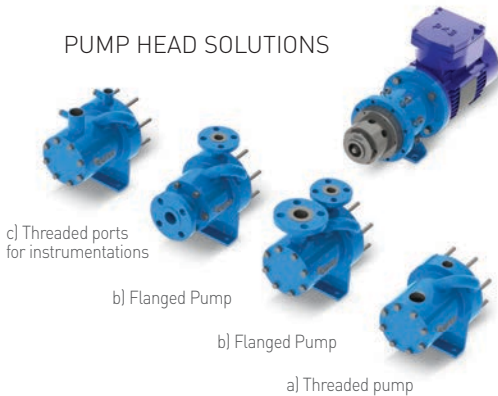
MATERIALS

- Stainless Steel / Carbon Steel

APPLICATIONS

- Refrigerants
- CFC Derivatives, CO₂, NH₃, etc.
- Oil and Gas Refineries
- Chemical plants
- Specially designed for liquefied gases

PUMP HEAD SOLUTIONS



SDTM magnetic drive process pumps have been designed for applications requiring low flows at high heads but with low NPSHa. SDTM magnetic drive process pumps are top suction top discharge, two and three stage configurations, with a centrifugal first stage impeller / inducer to achieve low NPSH values. The second and third stage are regenerative turbine impellers that develop heads up to 250 mt @ 50 hz and 1000 ft @ 60 hz. SDTM magnetic drive process pumps have been specifically designed for liquefied gases (e.g. NH₃, CO₂, LPG, butane, etc.). In particular, refrigeration applications where the total absence of liquid vapor releases to plant and personnel, or CFC derivatives into the atmosphere that is harmful to the environment.

The robust construction is achieved by machined billet from forged bars, and their seal less design, results in a safe, reliable and durable pump suitable for oil and gas refineries, chemical plants and OEM systems. When required, the SDTM pumps can be built in an API-685 configuration.

SDTM multi-stage magnetic drive pumps are available in two different basic models:

- SDTM 39 2s – two stages with flow from 0,5 to 10 mc/h and head up to 140 mt (50Hz) flow from 2 to 50 US gpm and head up to 600 ft (60Hz)
- SDTM 39 3s – three stages with flow from 0,5 to 10 mc/h and head up to 230 mt (50Hz) flow from 2 to 50 US gpm and head up to 900 ft (60Hz)

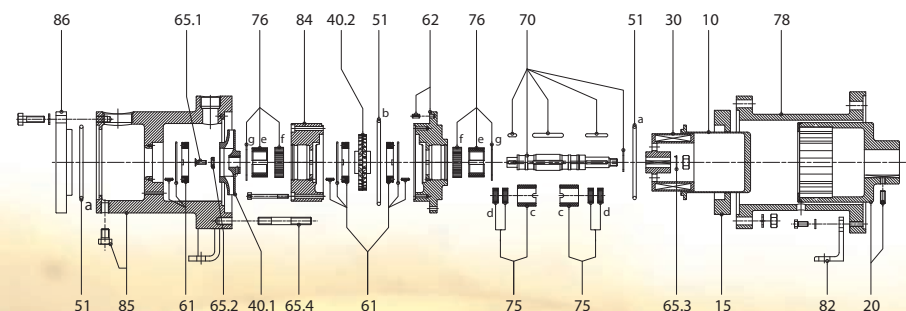
The hydraulic design prevents back flow, while achieving a stable curve with extremely low NPSHr values (lower than 1 mt – 3 ft) while circumventing the need to implement throttling valves or orifice plates. The unique SDTM concept has a shaft supported on two over-sized sleeve and journal bearings made of SiC / carbon. Due to the regenerative turbine self-balancing impeller(s), radial and axial thrust loads have been minimized, even in the presence of high suction pressures. The SDTM operational characteristics, compared to conventional pumps, provide improved reliability by reducing vibration and shaft deflection. The axially “floating” impellers feature ample clearances, thus allowing a reliable operation in extreme temperatures, hot or cold, accommodating thermal expansion or contraction. The pumping mechanism is engineered for maintaining design head and flow performances for extended MTBPM (Minimum Time Between Planned Maintenance).

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ref	DESCRIPTION	MATERIAL
10	Rear Casing	Titanium
15	Rear Casing Flange	SS316L
20	Ext. Magnet	Neodym. / Steel
30	Int. Magnet	SS316L / CoSm
40,1	Centrifugal Impeller	SS316L
40,2	Turbine Impeller	SS316L
51	O-Rings	Viton
61	Thrust Bearings	Carbon
62	Rear Ring	SS316L
65,1	Centrifugal Impeller Nut	SS316L
65,2	Impeller Lockwasher	SS316L
65,3	Int. Magnet Lockwasher	SS316L
65,4	Stud Nuts	SS316L
70	Shaft	SS316L
75	Sleeve Bearing	Sic / SS316L
76	Stationary Bushing	Graphite / SS316L
78	Bracket	Cast Iron
82	Rear Foot	Steel
84	Front Ring	SS316L
85	Pump Head	Carbon Steel
86	End Cover	Carbon Steel

NOZZLES	1½" Suction	1" Discharge
POLES	2 – 4	
FREQUENCY	50 Hz	60 Hz
CAPACITY	From 0.5 to 10 m ³ /h	From 2 to 50 USgpm
HEAD		
SDTM 39 2S	Up to 140 mt	Up to 600 ft
SDTM 39 3S	Up to 230 mt	Up to 900 ft
MAX. PRESSURE	PN 40	300 #
MAX. TEMPERATURE	300 °C	572 °F
MIN. TEMPERATURE	-100 °C	-148 °F

SECTIONAL DRAWING



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