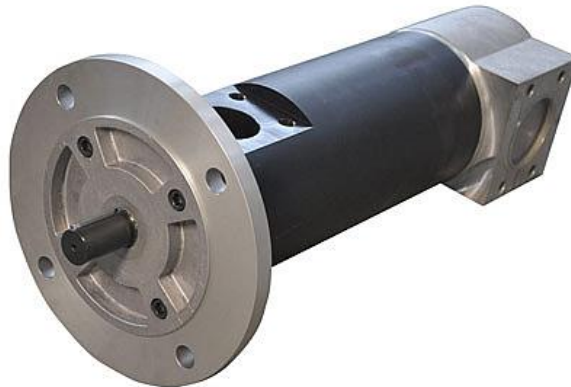


Settima SMT

Screw pumps for low & medium pressure no noise applications



SMT pumps are three screw pumps for industrial use at low and medium pressure (80 bar). SMT pumps represent a reliable and low noise component for many industrial applications where long life and low cost are required. SMT pump is a priming pump assembled into a body pump. The three screws rotate inside the body pump and the design of the screws avoids any axial load. The functional pressure develops some tolerance between the balancing piston of the main screw and the surrounding body. This creates a balancing hydrodynamic force of the screws and, at the same time, lubricates and cools down the sealing parts. The torque needed to move the lateral screws is transmitted hydraulically by the pumped fluid. This means that the screws rotate with no possibility of wearing.

The high quality of screw manufacturing ensures a very low level of acoustic emissions and pulsation.

The geometric design of the three screws creates sealing chambers. During the rotation of the screws, the main one creates a sort of cavity that holds the fluid and drives it with an axial direction from the inlet to the outlet port. SMT pumps may have internal or external relief security valves.

Types Tipi	Dry (SMT) or submerged (SMIT) Esterno (SMT) o sommerso (SMIT)
Models Modelli	20 - 25 - 32 - 40 - 45 - 55 - 60 - 70 - 80 - 90
Installation Installazione	Free for SMT. Submerged (totally or partially) for SMIT Qualsiasi per SMT. Sommersa (parzialmente o completamente) per SMIT
Flanges Flange	ISO 3019/2
Connections Connessioni	SAE 3000 - BSPP
Drive loading Carichi	No axial or radial loads Nessun carico assiale o trasversale

Shaft rotation Rotazione albero	Clockwise (from shaft end) , (suitable also for counter clockwise rotation) Destra (disponibile anche per rotazione sinistra)	
Shaft speed Velocità di rotazione	From 500 to 3.600 rpm(1) Da 500 a 3.600 rpm(1)	
Flows Portate	From 4 up to 1.220 L/min Da 4 a 1.220 L/min	
Outlet Pressure Pressione di mandata	Up to 80 bar Fino a 80 bar	
Inlet Pressure Pressione in aspirazione	Min. -0.7 bar max. 3 bar(2) Min. -0.7 bar max. 3 bar(2)	
Fluids(3) Fluidi(3)	<ul style="list-style-type: none"> • Mineral oil HLP e HVLP Ecologic fluids • HETG, HEPG, HEE Synthetic fluid or emulsion: HFA oil-water emulsion, • HFB water-oil emulsion 40% of volume, HFC water/ glycole – water max 35 to 55%, HFDR phosphate ester Lubrication high viscosity oils • Special synthetic fluid: MIL-H, SKYDROL, Fuel oil: MGO, MDO, Low sulfur MDO and HFO DMX (ISO8217), DMA, DMB, DMC, DMZ Bunker oil, furnace oil, engines oil, heating oil, hydraulics oils DIN 51524 	<ul style="list-style-type: none"> • Oli minerali HLP e HVLP • Fluidi ecologici HETG, HEPG, HEE • Fluidi sintetici o emulsioni: HFA emulsione olio-acqua, HFB emulsione acqua-olio 40% dl volume, HFC acqua/glicole – acqua max 35 to 55%, HFDR phosphate ester • Olio ad alta viscosità per lubrificazione • Fluidi speciali sintetici: MIL-H, SKYDROL, • Fuel oil: MGO, MDO, Basso livello di zolfo MDO e HFO • DMX (ISO8217), DMA, DMB, DMC, DMZ • Bunker oil, furnace oil, olio per motori, heating oil, olio idraulico DIN 51524
Viscosity Viscosità	From 2 up to 10.000 cSt(4) Da 2 fino a 10.000 cSt(4)	
Seals polymer (shaft, O-ring) Polimero guarnizioni (albero, anello di tenuta)	NBR, FKM, EPDM (5)	
Seal type Tipo di tenuta	TM, TMK, TMZ, FGM	
Acoustic Emissions Emissioni Acustiche	From 52 up to 68 db(A) at 2.950 rpm (value based on ISO 4412 test procedure) Da 52 fino a 68 db(A) a 2.950 rpm (ISO 4412 test)	
Pump body Corpo pompa	Extruded aluminum alloy Alluminio estruso	
Pump body (special applications) Corpo pompa (applicazioni speciali)	Cast iron, steel. Hardened steel and stainless steel available on request. Ghisa, acciaio. Acciaio temprato e acciaio inox su richiesta.	
Screws Viti	Steel for main screw , idler cast iron Acciaio vite principale, ghisa viti secondarie	
Screws (special applications) Viti (applicazioni speciali)	Core hardened steel screws, surface treated screws Viti in acciaio temprato, viti trattate superficialmente	
Environment temperature Temperatura ambiente	From -50° up to +60°C Da -50° a +60°C	
Hydraulic Temperature Temperatura olio	From -50°C up to +300°C Da -50°C a +300°C	

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