Settima SMT 16B

Screw pumps for low & medium pressure no noise applications

SMT16B are three screw pumps for industrial use at low and medium pressure (40 bar). SMT16B pumps represent a reliable and low noise component for many industrial applications where long life pump and low cost are required. SMT16B pump is a priming pump assembled into a body pump. The pump body 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. SMT16B has shorter screws compared to SMT pumps, to be used in application where the space is restricted.

Types **Tipi**	Dry (SMT16B) or submerged (SMIT16B) Esterno (SMT16B) o sommerso (SMIT16B)
Models **Modelli**	20 - 25 - 32 - 40 - 45 - 55 - 60 - 70 - 80 - 90 - 110 - 125 - 150 - 180
Installation **Installazione**	Free for SMT16B. Submerged (totally or partially) for SMIT16B - Foot mounted for model 125 and up. Qualsiasi per SMT16B. Sommersa (parzialmente o completamente) per SMIT16B - Con piedi per modelli 125 e superiori.
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)	
Flows **Portate**	From 4 up to 3.200 L/min (for model 20 to 110) - From 1.700 up to 4.900 L/min (for model 125 and up) Da 4 a 3.200 L/min (per modelli da 20 a 110) - Da 1.700 a 4.900 L/min (per modelli 125 e superiori)	
Outlet Pressure **Pressione di mandata**	Up to 40 bar Fino a 40 bar	
Inlet Pressure **Pressione in aspirazione**	Min. -0.7 bar max. 3 bar(2)	
Fluids(3) | Fluidi(3)	• Mineral oil HLP e HLVP • 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	• Oli minerali HLP e HLVP • 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 guarnizioni**	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**	Aluminum alloy Alluminio	
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 + 100°C (6) Da - 50 ° a + 100°C (6)	
Hydraulic Temperature **Temperatura Olio**	From - 50° C up to + 300° C (6) Da - 50° C a + 300° C (6)	
Filtration **Filtrazione**	Permissible degree of fluid contamination NAS to 1638 class 10 or ISO DIS 4406 – 19/16. Recommended filtration ß 25 ≥ 75 Contaminazione NAS tipo 1638 classe 10 o ISO DIS 4406 – 19/16 . Filtrazione raccomandata ß 25 ≥ 75	

(1)For shaft speed lower than 1.000 rpm and over 1.800 rpm please contact Settima.
Per velocità inferiori a 1.000 rpm e maggiori di 1.800 rpm contattare Settima.
(2)For higher pressure please contact Settima.
Per pressioni maggiori contattare Settima.
(3)For request of different fluids please contact Settima.
Per l'utilizzo di diversi fluidi contattare Settima.
(4)For level of viscosity lower than 20 cSt and over 320 cSt please contact Settima.

Per livelli di viscosità inferiori a 20 cSt a superiori a 320 cSt contattare Settima.
(5)For special seals please contact Settima.
Per tenute speciali contattare Settima.
(6)For higher/lower temperature please contact Settima.
Per temperature superiori/inferiori contattare Settima.

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