

ECCENTRIC WORM-DRIVE PUMPS TYPE F 550 S AND F 550 SB VERSION WITH BEARING FLANGE

Recommended for transferring

Thin to high viscosity, even pasty,
still free flowing substances.

Typical applications

Transferring viscous substances from barrels and/or containers.
Feeding filling machines.

Seal types

Type F 550 S with mechanical seal or
Type F 550 SB with stuffing box.

Available drive motors

Three-phase electric or compressed air motors.
Three-phase motors of 0,75 or 1,1 kW, with a speed of 930 or 700 rpm. For high viscosity, pasty substances a motor of 1,1 kW is required with a recommended speed of 700 rpm for viscosities exceeding 50.000 mPas (cP), because of the low velocity of such products. A speed of 930 rpm may be used if the product is still flowing or if a follow-on plate would support the continuous flow of the product to the pump inlet – please confer to VISCOFLUX system on page 26.

For viscosities up to 25.000 mPas (cP) a motor of 0,75 kW and 930 rpm will be sufficient.

On compressed air motors of 0,5 to 1,8 kW, the speed may be controlled by a valve in the air supply line.

Scope of supply

A complete eccentric worm-drive pump consists of:
drive motor, pump, stator and hose connection.



F 550 S-50/21
with three-phase motor

TECHNICAL DATA

Type	Viscosity mPas (cP)	Curve No.	Performance Chart
F 550 S-50/21	1	1	
F 550 SB-50/21	1.000–2.000	2	
F 550 SXA-50/21	20.000–25.000	3	
F 550 SXB-50/21	20.000–25.000	3	
F 550 S-54/26	1	4	
F 550 SB-54/26	1.000–2.000	5	
	20.000–25.000	6	

With higher viscosities delivery rate will be lower,
depending on the velocity of the fluid.

Values ± 10% at 930 rpm. Delivery rate depends on the velocity of the fluid.

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ECCENTRIC WORM-DRIVE PUMPS TYPE F 550 S AND F 550 SB, WITH BEARING FLANGE, WITHOUT DRIVE MOTOR

Type	F 550 S-50/21	F 550 SB-50/21	F 550 SXA-50/21	F 550 SXB-50/21
Delivery rate max.	30 l/min	30 l/min	30 l/min	30 l/min
Delivery head max.	8 bar	8 bar	8 bar	8 bar
Thread on outlet	G 1 1/2 A (BSP 1 1/2" male)	G 1 1/2 A (BSP 1 1/2" male)	G 1 1/2 A (BSP 1 1/2" male)	G 1 1/2 A (BSP 1 1/2" male)
Seal type	mechanical seal in ceramic oxide, o-rings in FKM	stuffing box in PTFE, re-adjustable	mechanical seal in ceramic oxide, o-rings in FKM	mechanical seal in ceramic oxide, o-rings in FKM
Material	bearing flange in aluminium*; outer tube, torsion shaft and eccentric worm in stainless steel 316 Ti			
Outer-Ø	50 mm	50 mm	50 mm	50 mm
Stator	not included with the pump, separate part number please see list below		Stator PTFE white, included with the pump	Stator PTFE black, included with the pump
Explosion-proof according to Directive 94/9/EC-ATEX 100	not approved for transferring high flammability liquids in Zone 0		EC Type Examination Certificate No. PTB 99 ATEX 4050 X (Ex II 1/2 G IIA T4)	EC Type Examination Certificate No. PTB 99 ATEX 4051 X (Ex II 1/2 G IIB T4)
Part No./Weight				
Immersion length 700 mm	550 25 507 /4,9 kg	550 25 530 /5,9 kg	550 23 020 /5,5 kg	550 23 400 /5,5 kg
Immersion length 1000 mm	550 25 510 /5,6 kg	550 25 531 /6,6 kg	550 23 021 /6,1 kg	550 23 401 /6,1 kg
Immersion length 1200 mm	550 25 512 /6,1 kg	550 25 532 /7,1 kg	550 23 022 /6,6 kg	550 23 402 /6,6 kg

Type	F 550 S-54/26	F 550 SB-54/26
Delivery rate max.	50 l/min	50 l/min
Delivery head max.	8 bar	8 bar
Thread on outlet	G 1 1/2 A (BSP 1 1/2" male)	G 1 1/2 A (BSP 1 1/2" male)
Seal type	mechanical seal in ceramic oxide, o-rings in FKM	stuffing box in PTFE, re-adjustable
Material	bearing flange in aluminium*; outer tube, torsion shaft and eccentric worm in stainless steel 316 Ti	
Outer-Ø	54 mm	54 mm
Stator	not included with the pump, separate part number please see list below	
Part No./Weight		
Immersion length 700 mm	550 25 649 /5,4 kg	550 25 694 /6,4 kg
Immersion length 1000 mm	550 25 652 /6,1 kg	550 25 695 /7,1 kg
Immersion length 1200 mm	550 25 654 /6,6 kg	550 25 696 /7,6 kg

Other lengths on request.

* Type F 550 SF with bearing flange in stainless steel (316 Ti) on request

STATORS FOR ECCENTRIC WORM-DRIVE PUMPS TYPE F 550 S AND F 550 SB

Material	Temperature	Recommended for	Part No./Weight outer-Ø 50 mm	Part No./Weight outer-Ø 54 mm
NBR white (Nitrile Butadiene Rubber) elastomer	max. 90 °C	particularly suitable for oils and greases, also for food products	550 24 248 /0,5 kg	550 25 621 /0,6 kg
NBR black (Nitrile Butadiene Rubber) elastomer	max. 90 °C	particularly suitable for oils and greases, not suitable for food products	550 24 244 /0,5 kg	550 25 620 /0,6 kg
CSM (Chlorosulfonated Polyethylene) elastomer	max. 90 °C	particularly suitable for corrosive products, not suitable for oils, greases nor food products	550 24 253 /0,5 kg	550 25 622 /0,6 kg
FKM (Fluor Rubber) elastomer	max. 150 °C	excellent chemical resistance to all different kind of products not suitable for food products	550 24 247 /0,5 kg	550 25 619 /0,6 kg
PTFE (Ethylene-Tetra-Fluor-Ethylene) solid material	max. 150 °C	excellent chemical resistance, particularly suitable for food products, pharmaceuticals and cosmetics	550 24 256 /0,6 kg	550 25 625 /0,7 kg

HOSE CONNECTION IN STAINLESS STEEL, COMPLETE WITH UNION NUT

Type F 550 S and F 550 SB	Part No./Weight
for flexible hose, inside Ø DN 25	959 04 002 /0,2 kg
for flexible hose, inside Ø DN 32	959 04 003 /0,3 kg
for flexible hose, inside Ø DN 38	959 04 004 /0,4 kg

Drive motors see page 16