

# Eccentric Worm-Drive Pumps Type F 550 S and F 550 SB Version with bearing flange

## Recommended for transferring

Thin to highly viscous, even pasty, still free flowing substances.

## Typical applications

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

## 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 highly viscous, 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.

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.





## 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 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  $\pm$  10% at 930 rpm. Delivery rate depends on the velocity of the fluid.

Type	F 550 S-50/21	F 550 SB-50/21	F 550 SXA-50/21	F 550 SXB-50/21
Delivery rate max.	8 GPM	8 GPM	8 GPM	8 GPM
Delivery head max.	116 PSi	116 PSi	116 PSi	116 PSi
Thread on outlet	G 1½ A (BSP 1½" male)	G 1½ A (BSP 1½" male)	G 1½ A (BSP 1½" male)	G 1½ A (BSP 1½" 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	2"	2"	2"	2"
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 ATEX-Directive 94/9/EC	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 27"	550 25 507/10.5 lbs	550 25 530/13 lbs	550 23 020/12 lbs	550 23 400/12 lbs
Immersion length 39"	550 25 510/12 lbs	550 25 531/14.5 lbs	550 23 021/13 lbs	550 23 401/13 lbs
Immersion length 47"	550 25 512/13 lbs	550 25 532/15 lbs	550 23 022/14.5 lbs	550 23 402/14.5 lbs

Type	F 550 S-54/26	F 550 SB-54/26
Delivery rate max.	13 GPM	13 GPM
Delivery head max.	116 PSi	116 PSi
Thread on outlet	G 1½ A (BSP 1½" male)	G 1½ A (BSP 1½" 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	2¼"	2¼"
Stator	not included with the pump, separate part number please see list below	
Part No./Weight		
Immersion length 27"	550 25 649/12 lbs	550 25 694/14 lbs
Immersion length 39"	550 25 652/13 lbs	550 25 695/15.6 lbs
Immersion length 47"	550 25 654/14.5 lbs	550 25 696/16.75 lbs

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. 194 °F	particularly suitable for oils and greases, also for food products	550 24 248/1 lbs	550 25 621/1 lbs
NBR black (Nitrile Butadiene Rubber) elastomer	max. 194 °F	particularly suitable for oils and greases, not suitable for food products	550 24 244/1 lbs	550 25 620/1 lbs
FKM (Fluor Rubber) elastomer	max. 302 °F	excellent chemical resistance to all different kind of products, not suitable for food products	550 24 247/1 lbs	550 25 619/1 lbs
PTFE (Ethylene-Tetra-Fluor- Ethylene) solid material	max. 302 °F	excellent chemical resistance, particularly suitable for food products, pharmaceuticals and cosmetics	550 24 256/1 lbs	550 25 625/1.5 lbs

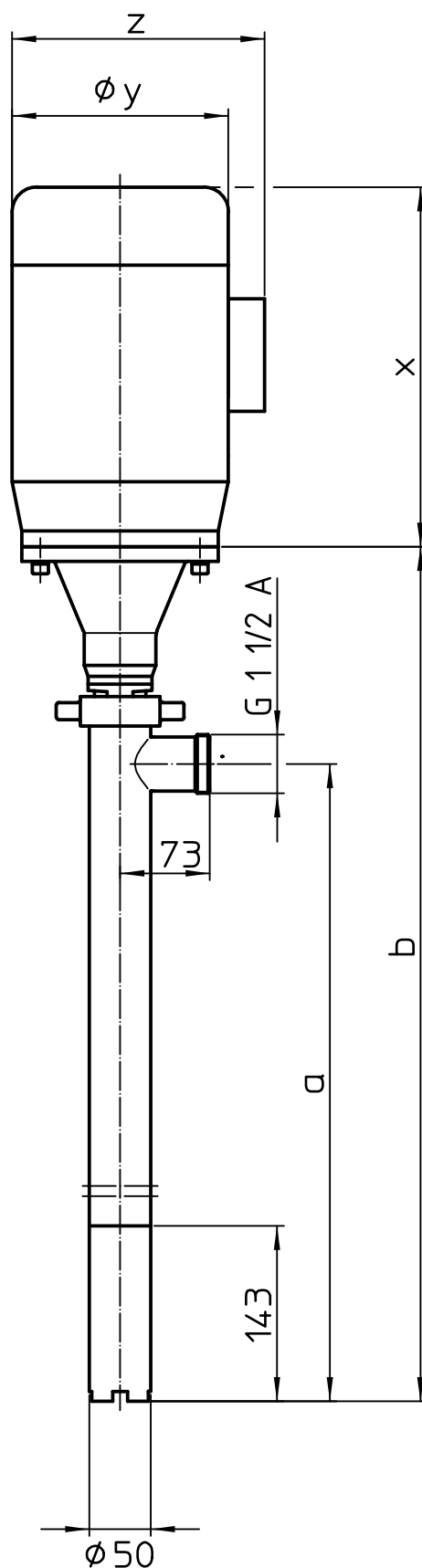
### Hose connection in Stainless steel, complete with union nut

Type F 550 S and F 550 SB	Part No./Weight
for flexible hose, inside 1" ID	959 04 002/0.5 lbs
for flexible hose, inside 1¼" ID	959 04 003/1 lbs
for flexible hose, inside 1½" ID	959 04 004/1 lbs

Motor Moteur		kW
n=		min <sup>-1</sup>
x=		mm
øy=		mm
z=		mm
ET=		mm

1200	1214	1397
1000	1014	1197
700	714	897
ET	a	b

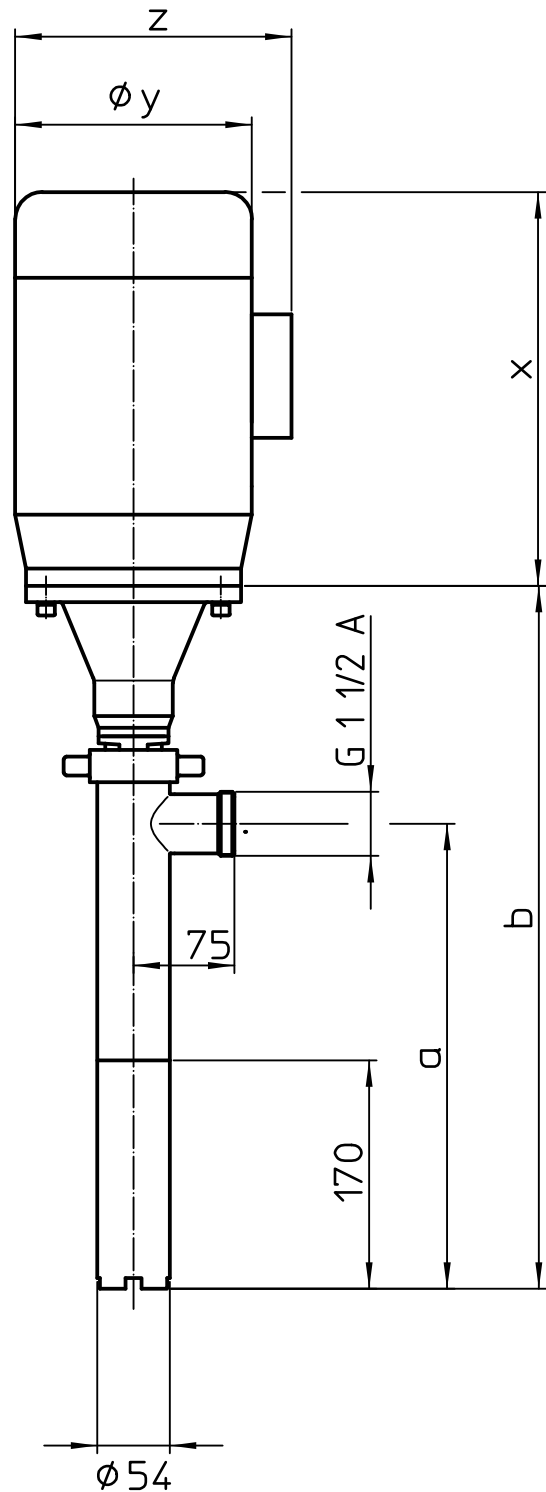
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 Immersion length  
 Longueur d'immersion



Motor Moteur		kW
n=		min <sup>-1</sup>
x=		mm
Øy=		mm
z=		mm
ET=		mm

1200	1240	1423
1000	1040	1223
700	740	923
ET	a	b

ET=Eintauchtiefe  
 Immersion length  
 Longueur d'immersion



# Drive Motors for Eccentric Worm-Drive Pumps

## Drive Motors for Eccentric Worm-Drive Pumps Type F 550 and F 560\* version with bearing flange



E3ph  
Three-phase motor



Compressed air motor

### Three-phase motors 230/400 Volt, 60 Hz, with motor protection switch, without cable

Capacity	Speed	jet-proof to	max. Viscosity	Part No./Weight
1.1 kW	840 rpm	IP 55	25.000 mPas (cP)	001 02 127/27.6 lbs

### Compressed air motors, max. operating pressure 7 bar, explosion-proof to II 2 G cT5

Type	Capacity	Speed at 6 bar	Connection	max. Viscosity	Part No./Weight
G22B	0,5 kW	1000 rpm	G 3/8 (BSP 3/8" female)	25.000 mPas (cP)	001 04 000/11.0 lbs
G11A	1,1 kW	1000 rpm	G 1/2 (BSP 1/2" female)	50.000 mPas (cP)	001 04 014/15.4 lbs
G28A	1,8 kW	1000 rpm	G 1/2 (BSP 1/2" female)	pasty	001 04 002/22.0 lbs