





Eccentric worm-drive pumps

FLUX eccentric worm-drive pumps



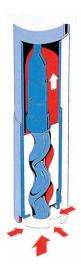




In this brochure:

FLUX high viscosity liquid pumps have been tried and tested in numerous industrial sectors around the world. Three pump designs are available in differing models to meet every requirement for transferring thin to high viscosity media.

All models are easy to operate and maintain. Naturally, they all carry the advanced design and safety features that users expect from FLUX. For more than 50 years we have manufactured innovative, high-quality products. Operators readily acknowledge the performance of our powerful and extremely reliable pumps.



Positive displacement pump – eccentric worm type:

- smooth pumping of the liquid with very little turbulences
- easy to clean
- advanced pump design without any inaccessible or hidden voids, ideal for use in the food, cosmetic and pharmaceutical industries
- sanitary version available with 3A-approval
- vertical and horizontal use
- low wear, no valves, vanes etc.
- high output of 30 l/min or 50 l/min

FLUX eccentric worm-drive pumps type F 550 are designed for a wide range of applications. Two versions are available:

The robust **bearing flange version type F 550 S** is suited to continuous operation and is available with a three-phase electric motor or a compressed-air motor.

The lightweight, easy-to-handle version for quick-change applications **type F 550 GS** is **equipped with a planetary gear**. These models are used with a FLUX commutator or compressed-air motor, and are ideal for conveying substances with up to 30.000 mPas (cP) viscosity.

The **F 550 GS6** model is designed for lower capacities, covering the viscosity range up to 80.000 mPas (cP).

Under type code F 560 both pump designs are available in sanitary version type F 560 S and F 560 GS, especially designed for use in the food, cosmetic and pharmaceutical industries. To meet the highest sanitary standards these pump models are also available with 3A-approval.

For use in hazardous areas Zone 0

for transferring high flammability liquids class IIA or IIB, FLUX high viscosity liquid pumps type F 550 and F 560 are available in versions "XA" and "XB", tested and certified according to ATEX-Directive 2014/34/EU.



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Industrial eccentric worm-drive pumps type F 550 S Version with bearing flange

Recommended for transferring

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

Typical applications

Transferring viscous substances from drums 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 or if a follower plate would support the continuous flow of the product to the pump inlet – please confer to VISCOFLUX system on page 23.

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.

The types XA and XB are delivered with stator.

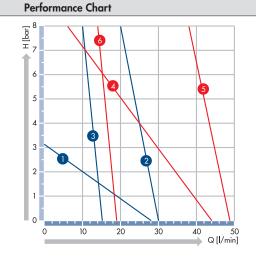


Technical data

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







Eccentric worm-drive pumps with mechanical seal, in bearing flange version, drive motors see page 16

Туре	F 550 S-50/21	F 550 S-54/26	F 550 SXA-50/21	F 550 SXB-50/21
Delivery rate max.	30 l/min	50 l/min	30 l,	/min
Delivery head max.		8 b	ar	
Thread on outlet		G 1½ A (BSP 1	½" male)	
Seal type		mechanical seal in ceram	ic oxide, o-rings in FKM	
Material	bearing flange in alumi	nium*; outer tube, torsion sh	aft and eccentric worm in sto	ainless steel 316 Ti
Outer-Ø	50 mm	54 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	
Explosion-proof according to ATEX-Directive 2014/34/EU for use in Zone 0	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			(Ex)	(Ex)
Immersion length 700 mm	10-550 25 507 /4,9 kg	10-550 25 649 /5,4 kg	10-550 23 020 /5,5 kg	10-550 23 400 /5,5 kg
Immersion length 1.000 mm	10-550 25 510 /5,6 kg	10-550 25 652 /6,1 kg	10-550 23 021 /6,1 kg	10-550 23 401 /6,1 kg
Immersion length 1.200 mm	10-550 25 512 /6,1 kg	10-550 25 654 /6,6 kg	10-550 23 022 /6,6 kg	10-550 23 402 /6,6 kg

Other lengths on request.

Also available:

- Version with cardan shaft for higher torque
- Pumps with right/left rotation
- Pumps for VISCOFLUX and VISCOFLUX mobile

Stators for eccentric worm-drive pumps type F 550 S

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	10-550 24 248 /0,5 kg	10-550 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	10-550 24 244 /0,5 kg	10-550 25 620 /0,6 kg
FKM (Fluor Rubber) elastomer	max. 120°C	excellent chemical resistance to all different kind of products, not suitable for food products	10-550 24 247 /0,5 kg	10-550 25 619 /0,6 kg
PTFE (Ethylene-Tetra-Fluor-Ethylene) solid material	max. 120°C	excellent chemical resistance, particularly suitable for food products, pharmaceuticals and cosmetics	10-550 24 256 /0,6 kg	10-550 25 625 /0,7 kg

Hose connection in stainless steel, complete with union nut G $1\frac{1}{2}$

Type F 550 S	Part No./Weight
for flexible hose, inside DN 25	10-959 04 002 /0,2 kg
for flexible hose, inside DN 32	10-959 04 003 /0,3 kg
for flexible hose, inside DN 38	10-959 04 004 /0,4 kg

Sanitary pumps type F 560 S Version with bearing flange

Recommended for transferring

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

Typical applications

A pump designed to meet the specific requirements of the food, cosmetic and pharmaceutical industries.

The sanitary pump type F 560 S can be stripped down in no time for cleaning and/or sterilisation. The stator housing comprises a safety bar to protect containers and to allow transfer operations from plastic inliners.

3A-Certificate for USA

The F 560 S pump is available in special version with 3A-approval: ground and polished, equipped with a closed mechanical seal in stainless steel with sliding faces in silicium carbide (SiC).

FLUX FOOD for EU

The eccentric worm-drive pump F560 S is also available in FLUX FOOD version conform to the EU regulations (EG) 1935/2004 and (EU) 10/2011 - recognizable at the glass fork symbole.

(More information, see FLUX FOOD brochure)

Available drive motors

Three-phase electric motors or compressed-air motors

Scope of supply

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

The type XA is delivered with stator.



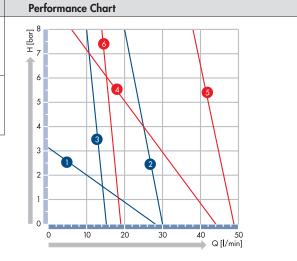
F 560 S3A-50/21 with three-phase motor

Technical data

Туре	Viscosity mPas (cP)	Curve No.
F 560 S1-50/21	1	0
F 560 S2-50/21	1.000-2.000	2
F 560 S3A-50/21	20.000-25.000	3
F 5/0 C1 54/0/	1	4
F 560 S1-54/26 F 560 S2-54/26	1.000-2.000	5
F 560 S3A-54/26	20.000-25.000	6

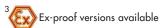
With higher viscosities delivery rate will be lower, depending on the velocity of the fluid.

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





products conform to EG 1935/2004 and EU 10/2011 available





Eccentric worm-drive pump with mechanical seal in bearing flange version, drive motors see page 16

Туре	F 560 S1-50/21	F 560 S2-50/21	F 560 S1XA-50/21	F 560 S2XA-50/21
Delivery rate max.	30 l/min			
Delivery head max.		8	bar	
Thread on outlet	Rd 58 x 1/6	G 11/2 A	Rd 58 x 1/6	G 1½ A (BSP 1½" male)
Seal type		mechanical seal in SiC, o	-rings in FKM (foodgrade)	
Material	bearing flange, outer tube, torsion shaft and eccentric worm in stainless steel 316 Ti			s steel 316 Ti
Outer-Ø		50	mm	
Stator	not included with the pump, separate part number please see list below		Stator PTFE white, included with the pump	
Explosion-proof according to ATEX-Directive 2014/34/EU for use in Zone 0	not approved for transferring highly flammable liquids in Zone 0		EC Type Examination Cer PTB 99 ATEX 4052 X (Ex	tificate No. II 1/2 IIA T4)
Part No./Weight			(x3)	(x3)
Immersion length 700 mm	10-560 24 407 /4,3 kg	10-560 24 507 /4,3 kg	-	-
Immersion length 1.000 mm	10-560 24 410 /5,7 kg	10-560 24 510 /5,7 kg	10-560 20 810 /7,1 kg	10-560 20 910 /5,5 kg
Immersion length 1.200 mm	10-560 24 412 /6,2 kg	10-560 24 512 /7,0 kg	10-560 20 812 /7,6 kg	10-560 20 912 /6,0 kg

Туре	F 560 S1-54/26 F 560 S2-54/26	
Delivery rate max.	50 l	/min
Delivery head max.	8	bar
Thread on outlet	Rd 58 x 1/6	G 1½ A
Seal type	mechanical seal in Si	C, o-rings in FKM (foodgrade)
Material	bearing flange, outer tube, torsion shaft and eccentric worm in stainless steel 316 Ti	
Outer-Ø	54 mm	
Stator	not included with the pump, s	eparate part number please see list below
Part No./Weight		
Immersion length 700 mm	10-560 25 507 /4,3 kg 10-560 25 607 /4,3 kg	
Immersion length 1.000 mm	10-560 25 510 /5,7 kg	10-560 25 610 /5,7 kg
Immersion length 1.200 mm	10-560 25 512 /6,2 kg 10-560 25 612 /7,5 kg	

Also available:

- FLUX FOOD pumps conform EG 1935/2004 und EU 10/2011
- Version with cardan shaft for higher torque
- Pumps with right/left rotation
- Pumps for VISCOFLUX and VISCOFLUX mobile

Eccentric worm-drive pumps type F 560 S3A in 3A version

Туре	F 560 S3A-50/21	F 560 S3A-54/26
Delivery rate max.	30 l/min	50 l/min
Delivery head max.	8 bar 3	8 bar
Thread on outlet	Clamp 2"	Clamp 2"
Seal type	closed mechanical seal in stainless steel, sliding faces in SiC, O-rings in FKM (foodgrade)	
Material	bearing flange, outer tube, torsion shaft and eccentric worm in stainless steel 316 Ti, ground and polished	
Outer-Ø	50 mm	54 mm
Stator	stator in PTFE included with the pump	
Part No./Weight		
Immersion length 700 mm	10-560 24 007 /5,8 kg 10-560 25 007 /6,3 kg	
Immersion length 1.000 mm	10-560 24 010 /6,5 kg	10-560 25 010 /7,0 kg
Immersion length 1.200 mm	10-560 24 012 /7,0 kg 10-560 25 012 /7,5 kg	

Stator in PTFE, Stator Housing in Stainless Steel with Safety Bar and inliner

Type F 560 S1, S2	Part No./Weight
Outer-Ø 50 mm	10-560 21 900 /0,6 kg
Outer-Ø 54 mm	10-560 23 900 /0,7 kg

Hose connection in stainless steel, complete with union nut or clamp connection

Part No./Weight	Type F 560 S1	Type F 560 S2	Type F 560 S3A
For flexible hose, inside Ø DN 25	10-959 04 115 /0,2 kg	10-959 04 002 /0,2 kg	-
For flexible hose, inside Ø DN 32	10-959 04 134 /0,3 kg	10-959 04 003 /0,3 kg	10-959 04 137 /0,4 kg
For flexible hose, inside Ø DN 38	10-959 04 130 /0,4 kg	10-959 04 004 /0,4 kg	10-959 04 109 /0,4 kg

Industrial eccentric worm-drive pumps type F 550 GS with planetary gear

Recommended for transferring

Thin to medium viscosity liquids up to a maximum viscosity of 30.000 mPas (cP).

Typical applications

Liquid transfer from barrels and/or containers. The eccentric worm-drive pumps type F 550 GS are particularly lightweight and easy-to-handle, making them extremely versatile pumps. The lightest model has a weight of 5,5 kg only. The weight of the complete pump depends on the immersion length and motor assembly.

Available drive motors

Commutator motors or compressed air motors.

An infinitely variable speed variator – also available on explosion-proof models – allows the operator to set pump capacity to specific delivery requirements.

Scope of supply

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

The types XA and XB are delivered with stator.



F 550 GS-54/26 with commutator motor F 460 Ex

| Technical data

Туре	Viscosity mPas (cP)	Curve No.	Performance Chart F 550 GS-50/21	Performance Chart F 550 GS-54/26
FEM 4070 F 458/F 458 EL F 460 Ex F 460 Ex EL	1 up to 3.000 up to 12.000	1 2 3	T 7 6 6 6 6 6 6 6 6 6	E 2 3
F 458-1 F 460-1 Ex	1 up to 3.000 up to 25.000	4 5 6	5 9 9 3 8	5 0 0 0
F 416 Ex F 416-1 Ex F 416-2 Ex F 457/F 457 EL	1 up to 3.000 up to 30.000	7 8 9		2

Values \pm 10 %. Delivery rate depends on the velocity of the fluid.





Eccentric worm-drive pumps with mechanical seal in planetary gear version, drive motors see page 17

Туре	F 550 GS-50/21	F 550 GS-54/26	F 550 GSXA-50/21	F 550 GSXB-50/21
Delivery rate max.	30 l/min 50 l/min		30 l/min	
Delivery head max.		8	bar	
Thread on outlet		G 1	½ A	
Seal type		mechanical seal in ceram	ic oxide, o-rings in FKM	
Material	outer tub	e, torsion shaft and eccentric	worm in stainless steel 316	Ti
Outer-Ø	50 mm	54 mm	50 mm	
Stator	not included with the pum separate part number ple	not included with the pump, separate part number please see list below		Stator PTFE black, included with the pump
Explosion-proof according to ATEX-Directive 2014/34/EU for use in Zone 0	not approved for transferring highly flammable liquids in Zone 0		EC Type Examination Certificate No. PTB 99 ATEX 4050 X (Ex II 1/2 G IIA T4)	EC Type Examination PTB 99 ATEX 4051 X (Ex II 1/2 G IIB T4)
Part No./Weight			(EX)	Ex
Immersion length 700 mm	10-550 24 807 /4,3 kg	10-550 25 675 /4,8 kg	10-550 23 030 /4,8 kg	10-550 23 410 /4,8 kg
Immersion length 1.000 mm	10-550 24 810 /5,0 kg	10-550 25 676 /5,5 kg	10-550 23 031 /5,5 kg	10-550 23 411 /5,5 kg
Immersion length 1.200 mm	10-550 24 812 /5,5 kg	10-550 25 677 /6,0 kg	10-550 23 032 /6,0 kg	10-550 23 412 /6,0 kg

Other lengths on request.

Also available:

• Version with cardan shaft for higher torque

Stators for eccentric worm-drive pumps type F 550 GS

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	10-550 24 248 /0,5 kg	10-550 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	10-550 24 244 /0,5 kg	10-550 25 620 /0,6 kg
FKM (Fluor Rubber) elastomer	max. 120°C	excellent chemical resistance to all different kind of products, not suitable for food products	10-550 24 247 /0,5 kg	10-550 25 619 /0,6 kg
PTFE (Ethylene-Tetra-Fluor-Ethylene) solid material	max. 120°C	excellent chemical resistance, particularly suitable for food products, pharmaceuticals and cosmetics	10-550 24 256 /0,6 kg	10-550 25 625 /0,7 kg

Hose connection in stainless steel, complete with union nut G $1\frac{1}{2}$

Type F 550 GS	Part No./Weight
For flexible hose, inside Ø DN 25	10-959 04 002 /0,2 kg
For flexible hose, inside Ø DN 32	10-959 04 003 /0,3 kg
For flexible hose, inside Ø DN 38	10-959 04 004 /0,4 kg

Sanitary pumps type F 560 GS with planetary gear

Recommended for transferring

Thin to medium viscosity liquids up to maximum 30.000 mPas (cP).

Typical applications

Very lightweight and easy-to-handle pump for use in the food, cosmetic and pharmaceutical industries. The sanitary pump type F 560 GS can be stripped down in no time for cleaning and/or sterilisation. The stator housing comprises a safety bar to protect containers and to allow transfer out of plastic inliners.

The sanitary pump type F 560 GS is available in special version with 3A-approval: ground, polished, with a closed mechanical seal in stainless steel with sliding faces in silicium carbide (SiC).

Available drive motors

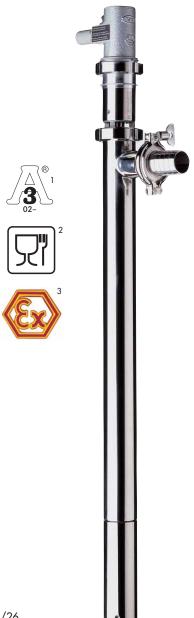
Commutator motors or compressed-air motors.

An infinite variable speed variator - also on explosion-proof motors - allows the operator to set pump capacity to specific delivery requirements.

Scope of supply

A complete sanitary pump consists of: drive motor, pump, stator and hose connection.

The type XA is delivered with stator.



F 560 GS3A-54/26 with air motor F 416-2 Ex

| Technical data

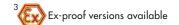
Туре	Viscosity mPas (cP)	Curve No.	Performance Chart F 560 GS-50/21	Performance Chart F 560 GS-54/26
FEM 4070 F 458/F 458 EL F 460 Ex F 460 Ex EL	1 up to 3.000 up to 12.000	1 2 3	B B E T T T T T T T T T	
F 458-1 F 460-1 Ex	1 up to 3.000 up to 25.000	4 5 6	5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	5 0 3
F 416 Ex F 416-1 Ex F 416-2 Ex F 457/F 457 EL	1 up to 3.000 up to 30.000	7 8 9		

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



3A certificated version available







Eccentric worm-drive pumps in planetary gear version with mechanical seal, drive motors see page 17

Туре	F 560 GS1-50/21	F 560 GS2-50/21	F 560 GS1XA-50/21	F 560 GS2XA-50/21		
Delivery rate max.		30 l/min				
Delivery head max.		8 b	ar			
Thread on outlet	Rd 58 x 1/6	G 11/2 A	Rd 58 x 1/6	G 11/2 A (BSP 11/2" male)		
Seal type		mechanical seal in SiC, o	rings in FKM (foodgrade)			
Material	outer tub	outer tube, torsion shaft and eccentric worm in stainless steel 316 Ti				
Outer-Ø		50 mm				
Stator	not included with the pump, separate part number please see list below		Stator PTFE white, included with the pump			
Explosion-proof according to ATEX-Directive 2014/34/EU for use in Zone 0	not approved for transferring highly flammable liquids in Zone 0		EC Type Examination Cer PTB 99 ATEX 4052 X (Ex	tificate No. II 1/2 G IIA T4)		
Part No./Weight			CX	CX		
Immersion length 700 mm	10-560 24 607 /4,3 kg	10-560 24 707 /4,3 kg	-	-		
Immersion length 1.000 mm	10-560 24 610 /5,7 kg	10-560 24 710 /5,7 kg	10-560 21 010 /5,9 kg	10-560 21 110 /5,9 kg		
Immersion length 1.200 mm	10-560 24 612 /6,2 kg	10-560 24 712 /6,2 kg	10-560 21 012 /6,2 kg	10-560 21 112 /6,2 kg		

Туре	F 560 GS1-54/26	F 560 GS2-54/26		
Delivery rate max.	50 l/min			
Delivery head max.		8 bar		
Thread on outlet	Rd 58 x 1/6	Rd 58 x 1/6 G 1½ A (BSP 1½" male)		
Seal type	mechanical seal in SiC, o-rings in FKM (foodgrade)			
Material	outer tube, torsion shaft and eccentric worm in stainless steel 316 Ti			
Outer-Ø	54 mm			
Stator	not included with the pump, se	parate part number please see list below		
Part No./Weight				
Immersion length 700 mm	10-560 25 707 /4,3 kg	10-560 25 807 /4,3 kg		
Immersion length 1.000 mm	10-560 25 710 /5,7 kg	10-560 25 810 /5,7 kg		
Immersion length 1.200 mm	10-560 25 712 /6,2 kg 10-560 25 812 /6,2 kg			

Also available:

- FLUX FOOD pumps conform EG 1935/2004 und EU 10/2011
- Version with cardan shaft for higher torque

Eccentric worm-drive pumps type F 560 GS3A in 3A Version, drive motors see page 17

Туре	F 560 GS3A-50/21	F 560 GS3A-54/26	
Delivery rate max.	30 l/min	50 l/min	
Delivery head max.	8 bar 3	8 bar	
Thread on outlet	Clamp 2"	Clamp 2"	
Seal type	closed mechanical seal in stainless steel, sliding faces in SiC, o-rings in FKM (foodgrade)		
Material	outer tube, torsion shaft and eccentric worm in stainless steel 316 Ti: ground and polished		
Outer-Ø	50 mm 54 mm		
Stator	stator in PTFE inc	luded with the pump	
Part No./Weight			
Immersion length 700 mm	10-560 24 107 /5,4 kg 10-560 25 107 /5,8 kg		
Immersion length 1.000 mm	10-560 24 110 /5,7 kg 10-560 25 110 /6,2 kg		
Immersion length 1.200 mm	10-560 24 112/6,2 kg 10-560 25 112/6,7 kg		

Stator in PTFE, stator housing in stainless steel with safety bar and Inliner

Type F 560 GS1, GS2	Part No./Weight
Outer-Ø 50 mm	10-560 21 900 /0,6 kg
Outer-Ø 54 mm	10-560 23 900 /0,7 kg

Hose connection in stainless steel, complete with union nut or clamp connection

Part No./Weight	Type F 560 GS1	Type F 560 GS2	Type F 560 GS3A
For flexible hose, inside Ø DN 25	10-959 04 115 /0,2 kg	10-959 04 002 /0,2 kg	-
For flexible hose, inside Ø DN 32	10-959 04 134 /0,3 kg	10-959 04 003 /0,3 kg	10-959 04 137 /0,4 kg
For flexible hose, inside Ø DN 38	10-959 04 130 /0,4 kg	10-959 04 004 /0,4 kg	10-959 04 109 /0,4 kg

Eccentric worm-drive pumps type F 550 GS with planetary gear, ratio 1 : 6.75

Recommended for transferring

Thin to high viscosity substances up to a maximum viscosity of 80.000 mPas (cP).

Typical applications

Very lightweight and easy-to-handle pump designed for lower capacities. Extremely smooth transfer operations with a speed of 210 or 420 rpm only.

Available drive motors

Single-phase AC motors with capacitor switch or three-phase motors.

Scope of supply

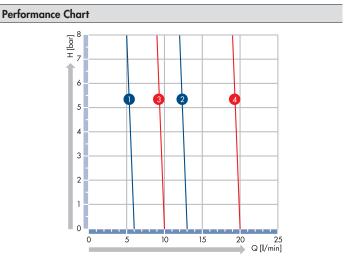
A complete eccentric worm-drive pump consists of: drive motor, pump, stator and hose connection.



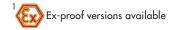
F 550 GS6-50/21 with three-phase motor F 403/4

Technical data

Туре	Speed	Curve No.
E 550 CS4 50/21	Motor 1.450 rpm Pump 210 rpm	0
F 550 GS6-50/21	Motor 2.850 rpm Pump 420 rpm	2
E 550 CS4 54/24	Motor 1.450 rpm Pump 210 rpm	3
F 550 GS6-54/26	Motor 2.850 rpm Pump 420 rpm	4



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





Eccentric worm-drive pumps with mechanical seal and planetary gear version

Туре	F 550 GS6-50/21	F 550 GS6-54/26	F 550 GS6XB-50/21		
Delivery rate max.	13 l/min	20 l/min	30 l/min		
Delivery head max.		8 bar			
Thread on outlet	G	1½ A (BSP 1½" male)			
Seal type	mechanical se	al in ceramic oxide, o-rings in FKA	1		
Material	outer tube, tor	outer tube, torsion shaft and eccentric worm in stainless steel 316 Ti			
Outer-Ø	50 mm	54 mm	50 mm		
Stator	not incl separate part	not included with the pump, separate part number please see list below			
Ex-marking					
Part No./Weight					
Immersion length 700 mm	10-550 23 200 /4,3 kg	10-550 23 300 /4,8 kg	-		
Immersion length 1.000 mm	10-550 23 201 /5,0 kg	10-550 23 301 /5,5 kg	10-550 23 221 /5,25 kg		
Immersion length 1.200 mm	10-550 23 202 /5,5 kg	10-550 23 302 /6,0 kg	_		

Also available:

Stators for eccentric worm-drive pumps type F 550 GS6

• Version with cardan shaft for higher torque

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	10-550 24 248 /0,5 kg	10-550 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	10-550 24 244 /0,5 kg	10-550 25 620 /0,6 kg
FKM (Fluor Rubber) elastomer	max. 120°C	excellent chemical resistance to all different kind of products, not suitable for food products	10-550 24 247 /0,5 kg	10-550 25 619 /0,6 kg
PTFE (Ethylene-Tetra-Fluor-Ethylene) solid material	max. 120°C	excellent chemical resistance, particularly suitable for food products, pharmaceuticals and cosmetics	10-550 24 256 /0,6 kg	10-550 25 625 /0,7 kg

Hose connection in stainless steel complete with union nut G 11/2

Type F 550 GS6	Part No./Weight
For flexible hose, inside Ø DN 25	10-959 04 002 /0,2 kg
For flexible hose, inside Ø DN 32	10-959 04 003 /0,3 kg
For flexible hose, inside Ø DN 38	10-959 04 004 /0,4 kg

Drive motors for eccentric worm-drive pumps type F 550 GS6

Single-phase AC motors with capacitor switch,

230 Volt, 50 Hz, jet-proof to IP 55, with motor protection switch, 5 m cable and plug

Туре	Capacity	Speed	Max. Viscosity	Part No./Weight
F 403/2	0,50 kW	2850 rpm	30.000 mPas	10-403 01 015 /8,0 kg
F 403/4	0,55 kW	1450 rpm	80.000 mPas	10-403 01 016 /11,0 kg

Three-phase motors 230/400 Volt, 50 Hz, jet-proof to IP 55, with motor protection switch, without cable

Туре	Capacity	Speed	Max. Viscosity	Part No./Weight
F 403/4	0,55 kW	1450 rpm	80.000 mPas	10-403 01 011 /8,0 kg
F 403/2	0,75 kW	2850 rpm	50.000 mPas	10-403 01 021 /8,0 kg

Three-phase motors 230/400 Volt, 50 Hz, explosion-proof to II 2 G EEx e II T3, with cable terminal box, without cable

Туре	Capacity	Speed	Max. Viscosity	Part No./Weight
F 403/6 Ex	0,55 kW	930 rpm	80.000 mPas	10-403 01 018 /10,0 kg
F 403/4 Ex	0,55 kW	1450 rpm	80.000 mPas	10-403 01 017 /8,0 kg
F 403/2 Ex	0,75 kW	2850 rpm	50.000 mPas	10-403 01 019 /8,0 kg

Accessories	Part No./Weight
Carrying handle, stainless steel for IP 55 motors	10-001 10 584 /1,0 kg
Carrying handle, stainless steel for explosion-proof motors	10-001 10 587 /1,0 kg

Eccentric worm-drive pumps with bearing flange for use in horizontal version

Recommended for transferring

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

Typical applications

Eccentric worm-drive pumps Type F 550 TR and F 560 TR are designed for horizontal use. A base plate or a pump trolley facilitates the installation with a three-phase electric motor.

This pump design is available in different versions:

Type F 550 SF TR with bearing flange in stainless steel and clamp connection between outer tube and stator housing is recommended for use in pharmaceutical and food industries.

Type F 560 S TR with bearing flange in stainless steel and clamp connection between outer tube and stator housing is recommended for use in cosmetics, food and pharmaceutical industries.

The pump can be stripped down in no time for cleaning and/ or sterilisation.

A special shaft design allows reversible flow operations.

Available drive motors

Three-phase electric motors with bottom flange

Scope of supply

A complete horizontal pump consists of: drive motor, pump and PTFE stator, hose connection on inlet and outlet, base plate or pump trolley.



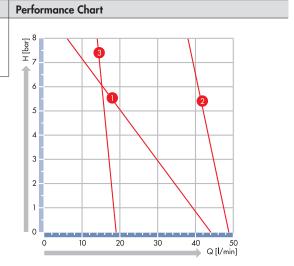
F 550 S-54/26 TR with three-phase motor



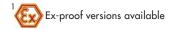
Technical data

Туре		Viscosity mPas (cP)	Curve No.
	F 550 S-54/26 TR	1	1
	F 560 S-54/26 TR	1.000-2.000	2
		20.000-25.000	3

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.





Eccentric worm-drive pumps type F 550 and F 560 with bearing flange for use in horizontal version

Туре	F 550 \$3-54/	26 GW TR	F 560 S2-54/26 TR L/R	F 560 S-54/26 TR L/R 😾	
Direction	one direction		xwise / anticlockwise		
Delivery rate max.			50 l/min		
Delivery head max.			8 bar		
Connection Suction side Discharge connection	Clamp 2" Clamp 2"			Clamp 2" Clamp 2"	
Seal type		mechai	nical seal in ceramic oxide,	o-rings in FKM	
Shaft		pinned cardan shaft		cardan shaft, pinned, easily detachable	
Material	flexible shaft o			bearing flange, ric worm in stainless steel 316 Ti	
Outer-Ø			54		
Stator	PTFE		not inc	cluded in the delivery	
Ex-marking	Ex II 2G c IIB TX	_	-	-	
Part No.	10-550 23 634	10-550 23 634 10-550 23 664 10-560 23 202		10-560 23 200	
	'			'	
				Part No./Weight	
Base plate in stainless steel (3	16 Ti)			10-001 15 033 /5,6 kg	
Pump trolley in stainless steel (304)				10-001 15 038 /9,0 kg	

Hose connection in stainless steel, complete with union nut or clamp connection

Part No./Weight	Type F 550 S TR Type F 550 S TR Outlet G 1½ A Inlet G 2 A (BSP 1½ male) (BSP 2" male)		Type F 550 S TR Clamp 2"
For flexible hose, inside Ø DN 25	10-959 04 002 /0,2 kg	-	-
For flexible hose, inside Ø DN 32	10-959 04 003 /0,3 kg	10-959 04 059 /0,3 kg	10-959 04 137 /0,4 kg
For flexible hose, inside Ø DN 38	10-959 04 004 /0,4 kg	10-959 04 060 /0,4 kg	10-959 04 109 /0,4 kg

Drive Motors with bottom flange for eccentric worm-drive pumps type F 550 S TR and F 560 S TR $\,$

Three-phase motors 230/400 Volt, 50 Hz, jet-proof IP 55, with motor protection switch, without cable

Capacity	Speed	Part No./Weight
0,75 kW	700 rpm	10-001 02 151 /22,0 kg
1,1 kW	930 rpm	10-001 02 159 /17,0 kg

Drive motors with bottom flange in other capacities on request.

Accessories for drive motors see page 16

Drive motors for eccentric worm-drive pumps

Drive motors for eccentric worm-drive pumps type F 550 and F 560* version with bearing flange







Compressed-air motor

C

Three-phase motors 230/400 Volt, 50 Hz, with motor protection switch, without cable

Capacity	Speed	Jet-proof to	Max. Viscosity	Part No./Weight
0,75 kW	930 rpm	IP 55	25.000 mPas (cP)	10-001 01 052 /12,5 kg
0,75 kW	700 rpm	IP 55	pasty	10-001 01 546 /22,0 kg
1,1 kW	930 rpm	IP 55	50.000 mPas (cP)	10-001 01 053 /16,0 kg
1,1 kW	700 rpm	IP 55	pasty	10-001 01 547 /23,0 kg

Three-phase motors 230/400 Volt, 50 Hz, with cable terminal box, without cable

Capacity	Speed	Jet-proof to	Max. Viscosity	Part No./Weight
0,75 kW	930 rpm	IP 55	25.000 mPas (cP)	10-001 01 030 /12,5 kg
0,75 kW	700 rpm	IP 55	pasty	10-001 01 506 /22,0 kg
1,1 kW	930 rpm	IP 55	50.000 mPas (cP)	10-001 01 031 /16,0 kg
1,1 kW	700 rpm	IP 55	pasty	10-001 01 507 /23,0 kg

Three-phase motors 230/400 Volt, 50 Hz, explosion-proof, with cable terminal box, without cable

·	1CA			
Capacity	Speed	Explosion-proof to	Max. Viscosity	Part No./Weight
0,75 kW	930 rpm	II 2 G EEx e II T3	25.000 mPas (cP)	10-001 01 066 /15,0 kg
1,1 kW	930 rpm	II 2 G EEx e II T4	50.000 mPas (cP)	10-001 01 067 /18,0 kg
0,95 kW	700 rpm	II 2 G EEx e II T4	pasty	10-001 01 567 /22,0 kg

^{*}drive motors for sanitary pumps in special white painting on request

Accessories	Part No./Weight
Carrying handle, stainless steel for three-phase motors, not explosion-proof for three-phase motors, explosion-proof	10-001 10 571 /1,0 kg 10-001 10 586 /1,2 kg
Power supply cable, 5 m long with plug 5 m long without plug yardware	10-934 08 020/1,4 kg 10-934 08 025/1,3 kg 10-934 08 901/0,2 kg
Cekon-plug, 5-pole	10-937 01 014 /0,1 kg
Motor protection switch, explosion-proof to II 2 G EEx de IIC T6 0,75 kW, 700 and 930 rpm, range of setting 1,6 – 2,5 A 0,95 and 1,1 kW, 700 and 930 rpm, range of setting 2,5 – 4,0 A	10-936 06 118/2,6 kg 10-936 06 119/2,6 kg

Compressed-air motors, max. operating pressure 7 bar, explosion-proof to II 2 G D c T4

Туре	Capacity	Speed at 6 bar	Connection	Max. Viscosity	Part No./Weight
FPM 4 Ex	0,5 kW	1000 rpm	G % (BSP %" female)	25.000 mPas (cP)	10-001 04 000 /5,0 kg
FPM 6 Ex	1,1 kW	1000 rpm	G ½ (BSP ½" female)	50.000 mPas (cP)	10-001 04 014 /7,0 kg
FPM 8 Ex	1,8 kW	1000 rpm	G ½ (BSP ½" female)	pasty	10-001 04 002 /10,0 kg

Accessories	Part No/Weight
Carrying handle, stainless steel	10-001 10 520 /1,0 kg
Filter-regulator-lubricator unit, connection G ½ (BSP ½" female)	10-001 10 103 /1,9 kg
Compressed-air hose, in PVC, DN 13, yardware	10-001 10 008 /0,2 kg
Hose coupling, brass, for compressed-air hose DN 13	10-959 13 122 /0,1 kg
Nipple, brass, for hose coupling DN 13 – G ½ A (BSP ½" male)	10-959 13 121 /0,1 kg
Hose nozzle, brass, for compressed-air hose, DN 13 – G ½ A (BSP ½" male)	10-959 05 017 /0,1 kg



Drive motors for eccentric worm-drive pumps type F 550 and F 560 version with planetary gear









FEM 4070 F 457/F 457 EL

Commutator motors 230 V, 50 Hz, 5 m cable and plug

Туре	Capacity	Protected to	Max. Viscosity	Part No./Weight version with NVR*	Part No./Weight version without NVR*
FEM 4070	500 Watt	splash proof IP 24	10.000 mPas (cP)	10-407 01 000 /2,6 kg	10-407 01 001 /2,6 kg
F 457	800 Watt	splash proof IP 24	30.000 mPas (cP)	10-457 01 005 /4,0 kg	10-457 01 002 /4,0 kg
F 457 EL**	800 Watt	splash proof IP 24	30.000 mPas (cP)	10-457 01 003 /4,0 kg	10-457 01 041 /4,0 kg
F 458	460 Watt	jet-proof to IP 55	12.000 mPas (cP)	10-458 00 006 /5,1 kg	10-458 00 001 /5,1 kg
F 458 EL**	460 Watt	jet-proof to IP 55	12.000 mPas (cP)	10-458 00 027 /5,1 kg	-
F 458-1	700 Watt	jet-proof to IP 55	25.000 mPas (cP)	10-458 01 004 /5,9 kg	10-458 01 001 /5,9 kg
F 460 Ex	460 Watt	II 2 G Ex de IIC T6 Gb	12.000 mPas (cP)	10-460 00 006 /5,1 kg	10-460 00 001 /5,1 kg
F 460 Ex EL**	460 Watt	II 2 G Ex de IIC T6 Gb	12.000 mPas (cP)	10-460 00 028 /5,1 kg	-
F 460-1 Ex	700 Watt	II 2 G Ex de IIC T6 Gb	25.000 mPas (cP)	10-460 01 004 /5,9 kg	10-460 01 001 /5,9 kg

 $NVR^* = no-volt release$

EL** = version with infinitely variable speed variator

Accessories	Part No./Weight
Carrying handle, steel painted in black	10 001 10 500 /0 0
for drive motor Type F 457 for drive motors Type F 458 and F 460 Ex	10-001 10 533 /0,3 kg 10-001 10 557 /0,3 kg







F 416-2 Ex

Compressed air motors, max. operating pressure 6 bar, thread for compressed air hose G $\frac{1}{4}$ (BSP $\frac{1}{4}$ " female)

Туре	Capacity	Explosion-proof to	Max. Viscosity	Version	Part No./Weight
F 416 Ex	470 Watt	II 2 G cp IIC T6	30.000 mPas (cP)	with trigger valve	10-416 00 100 /1,4 kg
F 416-1 Ex	470 Watt	II 2 G cp IIC T6	30.000 mPas (cP)	without valve	10-416 00 020 /0,9 kg
F 416-2 Ex	470 Watt	II 2 G cp IIC T6	30.000 mPas (cP)	with ball valve	10-416 00 030 /1,0 kg

Accessories	Part No./Weight
Filter-regulator-lubricator unit, connection G 1/4 (BSP 1/4" female)	10-001 10 100 /1,0 kg
Compressed-air hose, electrically conductive, DN 10, yardware	10-001 10 098 /0,2 kg
Hose coupling, brass, for compressed-air hose DN 10	10-959 13 066 /0,1 kg
Nipple brass, for hose coupling DN 10 – G ¼ A (BSP ¼" male)	10-959 13 065 /0,1 kg
Hose nozzle, brass, for compressed-air hose, DN 10 – G ¼ A (BSP ¼" male)	10-959 05 022 /0,1 kg

Further accessories for drive motors please see special brochure FLUX ACCESSORIES.

Viscosity Chart

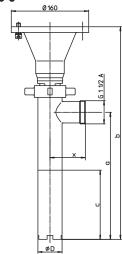
Media	Viscosity	Temperature
Alkyd resins	500-3.000 mPas (cP)	20 °C
Apple-purée	1.500 mPas (cP)	20 °C
Baby food	1.400 mPas (cP)	40 °C
Brewers's yeast	370 mPas (cP)	20 °C
Butter	30.000 mPas (cP)	40 °C
Butter cream, sour	550 mPas (cP)	20 °C
Butter fat	45 mPas (cP)	40 °C
Castor oil	2.420 mPas (cP)	10 °C
Castor oil	1.000-1.500 mPas (cP)	20 °C
Caustic soda 50 %	45 mPas (cP)	20 °C
Chocolate confectionery	2.600 mPas (cP)	40 °C
Chocolate sauce	280 mPas (cP)	50 °C
Cleaning emulsions	1.500 mPas (cP)	70 °C
Cocao butter	50 mPas (cP)	60 °C
Cocao paste	4.000 mPas (cP)	20 °C
Coconut oil	80 mPas (cP)	20 °C
Cod-liver oil	35 mPas (cP)	40 °C
Corn oil	30 mPas (cP)	60 °C
Cotton seed oil	60 mPas (cP)	20 °C
Cream, 30–50 % fat	11-115 mPas (cP)	20 °C
Dental adhesive	30.000 mPas (cP)	20 °C
Dipropyleneglycol	107 mPas (cP)	20 °C
Evaporated milk	80 mPas (cP)	40 °C
Evaporated milk, sweetened	6.100 mPas (cP)	20 °C
Fruit juice	50 mPas (cP)	20 °C
Fruit juice concentrate	1.500 mPas (cP)	20 °C
Fruit mash	600 mPas (cP)	20 °C
Gelatine	1.200 mPas (cP)	45 °C
Glucose	4.300-6.800 mPas (cP)	25-30 °C
Glycerine 100 %	4.500 mPas (cP)	10 °C
Glycerine 100 %	1.490 mPas (cP)	20 °C
Glycol	20 mPas (cP)	20 °C
Gravy	110 mPas (cP)	80 °C
Hand creme	8.000 mPas (cP)	20 °C
Honey	2.000 mPas (cP)	40 °C
Jam	8.500 mPas (cP)	20 °C
Lacquers (25 % pigments)	3.000 mPas (cP)	20 °C
Lard	65 mPas (cP)	40 °C
Latex emulsions	200 mPas (cP)	20 °C
Linseed oil	55 mPas (cP)	20 °C
Liqueurs	10–100 mPas (cP)	20 °C
Liquid egg	150 mPas (cP)	45 °C
		45 °C
Liquid soap	85 mPas (cP)	90 °C
Liquid wax	500 mPas (cP)	20 °C
Lubricating oil	60-200 mPas (cP)	
Machine oil, heavy	600 mPas (cP)	20 °C
Machine oil, light	150 mPas (cP)	20 °C
Malt extract	9.500 mPas (cP)	20 °C
Mayonnaise	2.000 mPas (cP)	20 °C

Molasses 80° Bx 10.000 mPas (cP) 20 °C Molasses 83° Bx 50.000 mPas (cP) 20 °C Molasses 85° Bx 100.000 mPas (cP) 20 °C Motor oil SAE 140 160 mPas (cP) 20 °C Motor oil SAE 140 2.300 mPas (cP) 20 °C Motor oil SAE 30 380 mPas (cP) 20 °C Motor oil SAE 40 600 mPas (cP) 20 °C Motor oil SAE 50 900 mPas (cP) 20 °C Motor oil SAE 50 900 mPas (cP) 20 °C Motor oil SAE 90 700 mPas (cP) 20 °C Motor oil SAE 90 700 mPas (cP) 20 °C Palm oil 130 mPas (cP) 20 °C Palm oil 130 mPas (cP) 20 °C Paraffin emulsion 3.000 mPas (cP) 20 °C Polyseter resin 3.000 mPas (cP) 20 °C Polyglycerine caprinate 6.000-7.000 mPas (cP) 15 °C Polygly (A-Component) 85.000 mPas (cP) 20 °C Polygl (A-Component) 85.000 mPas (cP) 20 °C Polyse in	Media	Viscosity	Temperature
Molasses 85° Bx 100.000 mPas (cP) 20 °C Motor oil SAE 10W 160 mPas (cP) 20 °C Motor oil SAE 20W 160 mPas (cP) 20 °C Motor oil SAE 30 380 mPas (cP) 20 °C Motor oil SAE 40 600 mPas (cP) 20 °C Motor oil SAE 50 900 mPas (cP) 20 °C Motor oil SAE 5W 50 mPas (cP) 20 °C Motor oil SAE 90 700 mPas (cP) 20 °C Oleic acid 40 mPas (cP) 20 °C Olive oil 85 mPas (cP) 20 °C Palm oil 130 mPas (cP) 20 °C Paraffin emulsion 3.000 mPas (cP) 20 °C Polyester resin 3.000 mPas (cP) 30 °C Polygtycerine caprinate 6.000–7.000 mPas (cP) 15 °C Polygtycerine caprinate 50.000–7.000 mPas (cP) 20 °C Polygl (A-Component) 85.000 mPas (cP) 20 °C Polygl, non-pigmented 500–5.000 mPas (cP) 20 °C Potassium hydroxide 67 mPas (cP) 20 °C Printing ink (and colours) 550–2.200 mPas (c	Molasses 80° Bx	-	20 °C
Motor oil SAE 10W 160 mPas (cP) 20 °C Motor oil SAE 140 2.300 mPas (cP) 20 °C Motor oil SAE 30 380 mPas (cP) 20 °C Motor oil SAE 40 600 mPas (cP) 20 °C Motor oil SAE 50 900 mPas (cP) 20 °C Motor oil SAE 5W 50 mPas (cP) 20 °C Motor oil SAE 90 700 mPas (cP) 20 °C Oliei acid 40 mPas (cP) 20 °C Olive oil 85 mPas (cP) 20 °C Palm oil 130 mPas (cP) 20 °C Paraffin emulsion 3.000 mPas (cP) 20 °C Peanut oil 40 mPas (cP) 40 °C Polysester resin 3.000 mPas (cP) 30 °C Polyglycerine caprinate 6.000–7.000 mPas (cP) 30 °C Polygly (A-Component) 85.000 mPas (cP) 15 °C Polygly (A-Component) 85.000 mPas (cP) 20 °C Potassium hydroxide 67 mPas (cP) 20 °C Printing ink (and colours) 550–2.200 mPas (cP) 20 °C Rapeseed oil 160 mPas (cP) 20 °C <td>Molasses 83° Bx</td> <td>50.000 mPas (cP)</td> <td>20 °C</td>	Molasses 83° Bx	50.000 mPas (cP)	20 °C
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Motor oil SAE 20W 160 mPas (cP) 20 °C Motor oil SAE 30 380 mPas (cP) 20 °C Motor oil SAE 40 600 mPas (cP) 20 °C Motor oil SAE 50 900 mPas (cP) 20 °C Motor oil SAE 5W 50 mPas (cP) 20 °C Motor oil SAE 90 700 mPas (cP) 20 °C Olive oil 85 mPas (cP) 20 °C Palm oil 130 mPas (cP) 20 °C Paraffin emulsion 3.000 mPas (cP) 20 °C Perant oil 40 mPas (cP) 40 °C Polyseter resin 3.000 mPas (cP) 30 °C Polyglycerine caprinate 6.000-7.000 mPas (cP) 15 °C Polygl (A-Component) 85.000 mPas (cP) 20 °C Polyol, non-pigmented 500-5.000 mPas (cP) 20 °C Potassium hydroxide 67 mPas (cP) 20 °C Printing ink (and colours) 550-2.200 mPas (cP) 40 °C Rapeseed oil 160 mPas (cP) 20 °C Resin solution 7.100 mPas (cP) 20 °C Salad dressing 1.300-2.600 mPas (cP) <t< td=""><td>Motor oil SAE 10W</td><td>160 mPas (cP)</td><td>20 °C</td></t<>	Motor oil SAE 10W	160 mPas (cP)	20 °C
Motor oil SAE 30 380 mPas (cP) 20 °C Motor oil SAE 40 600 mPas (cP) 20 °C Motor oil SAE 50 900 mPas (cP) 20 °C Motor oil SAE 5W 50 mPas (cP) 20 °C Motor oil SAE 90 700 mPas (cP) 20 °C Olive oil 85 mPas (cP) 20 °C Palm oil 130 mPas (cP) 20 °C Paraffin emulsion 3.000 mPas (cP) 20 °C Peanut oil 40 mPas (cP) 40 °C Polyseter resin 3.000 mPas (cP) 30 °C Polyglycerine caprinate 6.000-7.000 mPas (cP) 15 °C Polygl (A-Component) 85.000 mPas (cP) 20 °C Polyol (A-Component) 85.000 mPas (cP) 10 °C Polyol, non-pigmented 500-5.000 mPas (cP) 20 °C Portassium hydroxide 67 mPas (cP) 20 °C Printing ink (and colours) 550-2.200 mPas (cP) 40 °C Resin solution 7.100 mPas (cP) 40 °C Resin solution 7.100 mPas (cP) 20 °C Salad dressing 1.300-2.600 mPas (cP)	Motor oil SAE 140	2.300 mPas (cP)	20 °C
Motor oil SAE 40 600 mPas (cP) 20 °C Motor oil SAE 50 900 mPas (cP) 20 °C Motor oil SAE 90 700 mPas (cP) 20 °C Oleic acid 40 mPas (cP) 20 °C Olive oil 85 mPas (cP) 20 °C Palm oil 130 mPas (cP) 20 °C Paraffin emulsion 3.000 mPas (cP) 20 °C Peanut oil 40 mPas (cP) 40 °C Polysester resin 3.000 mPas (cP) 30 °C Polyglycerine caprinate 6.000–7.000 mPas (cP) 15 °C Polygl (A-Camponent) 85.000 mPas (cP) 20 °C Polyol, non-pigmented 500–5.000 mPas (cP) 20 °C Protassium hydroxide 67 mPas (cP) 20 °C Printing ink (and colours) 550–2.200 mPas (cP) 40 °C Rapeseed oil 1.000 mPas (cP) 40 °C Resin solution 7.100 mPas (cP) 20 °C Salad dressing 1.300–2.600 mPas (cP) 20 °C Salad oil 65 mPas (cP) 20 °C Shampoo 3.000 mPas (cP) 20 °C <	Motor oil SAE 20W	160 mPas (cP)	20 °C
Motor oil SAE 50 900 mPas (cP) 20 °C Motor oil SAE 5W 50 mPas (cP) 20 °C Motor oil SAE 90 700 mPas (cP) 20 °C Oleic acid 40 mPas (cP) 20 °C Olive oil 85 mPas (cP) 20 °C Palm oil 130 mPas (cP) 20 °C Paraffin emulsion 3.000 mPas (cP) 20 °C Peanut oil 40 mPas (cP) 40 °C Polysester resin 3.000 mPas (cP) 40 °C Polysester resin 3.000 mPas (cP) 15 °C Polyglycerine caprinate 6.000-7.000 mPas (cP) 10 °C Polyglycerine caprinate 6.000-7.000 mPas (cP) 20 °C Polyglycerine caprinate 6.000-7.000 mPas (cP) 10 °C Polyglycerine caprinate 6.000-7.000 mPas (cP) 20 °C P	Motor oil SAE 30	380 mPas (cP)	20 °C
Motor oil SAE 5W 50 mPas (cP) 20 °C Motor oil SAE 90 700 mPas (cP) 20 °C Oleic acid 40 mPas (cP) 20 °C Olive oil 85 mPas (cP) 20 °C Palm oil 130 mPas (cP) 20 °C Paraffin emulsion 3.000 mPas (cP) 20 °C Peanut oil 40 mPas (cP) 40 °C Polysester resin 3.000 mPas (cP) 30 °C Polyglycerine caprinate 6.000–7.000 mPas (cP) 15 °C Polyglycerine caprinate 6.000–7.000 mPas (cP) 20 °C Polyol, non-pigmented 500–5.000 mPas (cP) 20 °C Polyol, non-pigmented 500–5.000 mPas (cP) 20 °C Potassium hydroxide 67 mPas (cP) 20 °C Printing ink (and colours) 550–2.200 mPas (cP) 40 °C Printing ink (and colours) 550–2.200 mPas (cP) 40 °C Rapeseed oil 160 mPas (cP) 20 °C Resin solution 7.100 mPas (cP) 20 °C Salad dressing 1.300–2.600 mPas (cP) 20 °C Salad oil 65 mPas	Motor oil SAE 40	600 mPas (cP)	20 °C
Motor oil SAE 90 700 mPas (cP) 20 °C Oleic acid 40 mPas (cP) 20 °C Olive oil 85 mPas (cP) 20 °C Palm oil 130 mPas (cP) 20 °C Paraffin emulsion 3.000 mPas (cP) 20 °C Peanut oil 40 mPas (cP) 40 °C Polysester resin 3.000 mPas (cP) 30 °C Polyglycerine caprinate 6.000–7.000 mPas (cP) 15 °C Polyglycerine caprinate 6.000–7.000 mPas (cP) 20 °C Polyol, non-pigmented 500–5.000 mPas (cP) 20 °C Polyol, non-pigmented 500–5.000 mPas (cP) 20 °C Protassium hydroxide 67 mPas (cP) 20 °C Protassium hydroxide 67 mPas (cP) 20 °C Printing ink (and colours) 550–2.200 mPas (cP) 40 °C Prudding 1.000 mPas (cP) 40 °C Rapeseed oil 160 mPas (cP) 20 °C Resin solution 7.100 mPas (cP) 20 °C Salad dressing 1.300–2.600 mPas (cP) 20 °C Salad oil 65 mPas (cP)	Motor oil SAE 50	900 mPas (cP)	20 °C
Oleic acid 40 mPas (cP) 20 °C Olive oil 85 mPas (cP) 20 °C Palm oil 130 mPas (cP) 20 °C Paraffin emulsion 3.000 mPas (cP) 20 °C Peanut oil 40 mPas (cP) 40 °C Polysester resin 3.000 mPas (cP) 30 °C Polyglycerine caprinate 6.000–7.000 mPas (cP) 15 °C Polyglycerine caprinate 6.000–7.000 mPas (cP) 20 °C Polygly (A-Component) 85.000 mPas (cP) 20 °C Polygl (A-Component) 85.000 mPas (cP) 20 °C Polygl, non-pigmented 500–5.000 mPas (cP) 20 °C Potassium hydroxide 67 mPas (cP) 20 °C Printing ink (and colours) 550–2.200 mPas (cP) 20 °C Pudding 1.000 mPas (cP) 40 °C Rapeseed oil 1.60 mPas (cP) 20 °C Resin solution 7.100 mPas (cP) 20 °C Salad dressing 1.300–2.600 mPas (cP) 20 °C Salad oil 65 mPas (cP) 20 °C Salad oil 65 mPas (cP) 20	Motor oil SAE 5W	50 mPas (cP)	20 °C
Olive oil 85 mPas (cP) 20 °C Palm oil 130 mPas (cP) 20 °C Paraffin emulsion 3.000 mPas (cP) 20 °C Peanut oil 40 mPas (cP) 40 °C Polyester resin 3.000 mPas (cP) 30 °C Polyglycerine caprinate 6.000-7.000 mPas (cP) 15 °C Polyglycerine caprinate 5.000 mPas (cP) 20 °C Polygl (A-Component) 85.000 mPas (cP) 10 °C Polyol (A-Component) 85.000 mPas (cP) 20 °C Polyol, non-pigmented 500-5.000 mPas (cP) 20 °C Potassium hydroxide 67 mPas (cP) 20 °C Printing ink (and colours) 550-2.200 mPas (cP) 40 °C Pudding 1.000 mPas (cP) 40 °C Rapeseed oil 1.60 mPas (cP) 20 °C Resin solution 7.100 mPas (cP) 20 °C Salad dressing 1.300-2.600 mPas (cP) 20 °C Salad oil 65 mPas (cP) 20 °C Salad oil 65 mPas (cP) 20 °C Salad oil 65 mPas (cP) 20 °C	Motor oil SAE 90	700 mPas (cP)	20 °C
Palm oil 130 mPas (cP) 20 °C Paraffin emulsion 3.000 mPas (cP) 20 °C Peanut oil 40 mPas (cP) 40 °C Polyester resin 3.000 mPas (cP) 30 °C Polyglycerine caprinate 6.000–7.000 mPas (cP) 15 °C Polygl (A-Component) 85.000 mPas (cP) 20 °C Polyol, non-pigmented 500–5.000 mPas (cP) 20 °C Potassium hydroxide 67 mPas (cP) 20 °C Printing ink (and colours) 550–2.200 mPas (cP) 40 °C Pudding 1.000 mPas (cP) 40 °C Rapeseed oil 160 mPas (cP) 20 °C Resin solution 7.100 mPas (cP) 20 °C Salad dressing 1.300–2.600 mPas (cP) 20 °C Salad oil 65 mPas (cP) 20 °C Salad oil 65 mPas (cP) 20 °C Soft cheese 30.000 mPas (cP) 20 °C Soybean oil, treated 600–800 mPas (cP) 20 °C Starch solution 25° Baumé 300 mPas (cP) 20 °C Steam turbine oil 300–1.100 mPas (cP)	Oleic acid	40 mPas (cP)	20 °C
Paraffin emulsion 3.000 mPas (cP) 20 °C Peanut oil 40 mPas (cP) 40 °C Polyester resin 3.000 mPas (cP) 30 °C Polyglycerine caprinate 6.000–7.000 mPas (cP) 15 °C Polyglycerine caprinate 20.000 mPas (cP) 20 °C Polygl (A-Component) 85.000 mPas (cP) 20 °C Polygl, non-pigmented 500–5.000 mPas (cP) 20 °C Potassium hydroxide 67 mPas (cP) 20 °C Printing ink (and colours) 550–2.200 mPas (cP) 40 °C Pudding 1.000 mPas (cP) 40 °C Rapeseed oil 160 mPas (cP) 20 °C Resin solution 7.100 mPas (cP) 20 °C Salad dressing 1.300–2.600 mPas (cP) 20 °C Salad oil 65 mPas (cP) 20 °C Shampoo 3.000 mPas (cP) 20 °C Soft cheese 30.000 mPas (cP) 20 °C Soybean oil, treated 600–800 mPas (cP) 20 °C Starch solution 25° Baumé 300 mPas (cP) 20 °C Steam turbine oil 300–1.100	Olive oil	85 mPas (cP)	20 °C
Peanut oil 40 mPas (cP) 40 °C Polyester resin 3.000 mPas (cP) 30 °C Polyglycerine caprinate 6.000–7.000 mPas (cP) 15 °C Polymer solution 20.000 mPas (cP) 20 °C Polyol (A-Component) 85.000 mPas (cP) 10 °C Polyol, non-pigmented 500–5.000 mPas (cP) 20 °C Potassium hydroxide 67 mPas (cP) 20 °C Printing ink (and colours) 550–2.200 mPas (cP) 40 °C Pudding 1.000 mPas (cP) 40 °C Rapeseed oil 160 mPas (cP) 20 °C Resin solution 7.100 mPas (cP) 20 °C Salad dressing 1.300–2.600 mPas (cP) 20 °C Salad oil 65 mPas (cP) 20 °C Shampoo 3.000 mPas (cP) 20 °C Soft cheese 30.000 mPas (cP) 20 °C Soft cheese 30.000 mPas (cP) 20 °C Soybean oil, treated 600–800 mPas (cP) 20 °C Strach solution 25° Baumé 300 mPas (cP) 20 °C Steam turbine oil 300–1.100 mPas (cP) </td <td>Palm oil</td> <td>130 mPas (cP)</td> <td>20 °C</td>	Palm oil	130 mPas (cP)	20 °C
Polyester resin 3.000 mPas (cP) 30 °C Polyglycerine caprinate 6.000-7.000 mPas (cP) 15 °C Polymer solution 20.000 mPas (cP) 20 °C Polyol (A-Component) 85.000 mPas (cP) 10 °C Polyol, non-pigmented 500-5.000 mPas (cP) 20 °C Potassium hydroxide 67 mPas (cP) 20 °C Printing ink (and colours) 550-2.200 mPas (cP) 40 °C Pudding 1.000 mPas (cP) 40 °C Rapeseed oil 160 mPas (cP) 20 °C Resin solution 7.100 mPas (cP) 20 °C Salad dressing 1.300-2.600 mPas (cP) 20 °C Salad oil 65 mPas (cP) 20 °C Shampoo 3.000 mPas (cP) 20 °C Soft cheese 30.000 mPas (cP) 20 °C Soybean oil 80 mPas (cP) 20 °C Starch solution 25° Baumé 300 mPas (cP) 20 °C Steam turbine oil 300-1.100 mPas (cP) 20 °C Sugar solution 65° Bx 120 mPas (cP) 20 °C Sugar solution 70° Bx 400 mPas (Paraffin emulsion	3.000 mPas (cP)	20 °C
Polyglycerine caprinate 6.000-7.000 mPas (cP) 15 °C Polymer solution 20.000 mPas (cP) 20 °C Polyol (A-Component) 85.000 mPas (cP) 10 °C Polyol, non-pigmented 500-5.000 mPas (cP) 20 °C Potassium hydroxide 67 mPas (cP) 20 °C Printing ink (and colours) 550-2.200 mPas (cP) 40 °C Pudding 1.000 mPas (cP) 40 °C Rapeseed oil 160 mPas (cP) 20 °C Resin solution 7.100 mPas (cP) 20 °C Salad dressing 1.300-2.600 mPas (cP) 20 °C Salad oil 65 mPas (cP) 20 °C Shampoo 3.000 mPas (cP) 20 °C Soft cheese 30.000 mPas (cP) 20 °C Soybean oil 80 mPas (cP) 20 °C Soybean oil, treated 600-800 mPas (cP) 20 °C Starch solution 25° Baumé 300 mPas (cP) 20 °C Steam turbine oil 300-1.100 mPas (cP) 20 °C Sugar solution 65° Bx 120 mPas (cP) 20 °C Sugar solution 70° Bx 400	Peanut oil	40 mPas (cP)	40 °C
Polymer solution 20.000 mPas (cP) 20 °C Polyol (A-Component) 85.000 mPas (cP) 10 °C Polyol, non-pigmented 500-5.000 mPas (cP) 20 °C Potassium hydroxide 67 mPas (cP) 20 °C Printing ink (and colours) 550-2.200 mPas (cP) 40 °C Pudding 1.000 mPas (cP) 40 °C Rapeseed oil 160 mPas (cP) 20 °C Resin solution 7.100 mPas (cP) 20 °C Salad dressing 1.300-2.600 mPas (cP) 20 °C Salad oil 65 mPas (cP) 20 °C Shampoo 3.000 mPas (cP) 20 °C Soft cheese 30.000 mPas (cP) 20 °C Soybean oil 80 mPas (cP) 20 °C Soybean oil, treated 600-800 mPas (cP) 20 °C Starch solution 25° Baumé 300 mPas (cP) 20 °C Steam turbine oil 300-1.100 mPas (cP) 20 °C Sugar solution 65° Bx 120 mPas (cP) 20 °C Sugar solution 70° Bx 400 mPas (cP) 20 °C Tomato ketchup 1.000 mPas (cP)	Polyester resin	3.000 mPas (cP)	30 °C
Polyol (A-Component) 85.000 mPas (cP) 10 °C Polyol, non-pigmented 500-5.000 mPas (cP) 20 °C Potassium hydroxide 67 mPas (cP) 20 °C Printing ink (and colours) 550-2.200 mPas (cP) 40 °C Pudding 1.000 mPas (cP) 40 °C Rapeseed oil 160 mPas (cP) 20 °C Resin solution 7.100 mPas (cP) 20 °C Salad dressing 1.300-2.600 mPas (cP) 20 °C Salad oil 65 mPas (cP) 20 °C Shampoo 3.000 mPas (cP) 20 °C Soft cheese 30.000 mPas (cP) 20 °C Soybean oil 80 mPas (cP) 20 °C Soybean oil, treated 600-800 mPas (cP) 20 °C Starch solution 25° Baumé 300 mPas (cP) 20 °C Steam turbine oil 300-1.100 mPas (cP) 20 °C Sugar solution 65° Bx 120 mPas (cP) 20 °C Sugar solution 70° Bx 400 mPas (cP) 20 °C Tomato paste 1.95 mPas (cP) 20 °C Transformer oil 30 mPas (cP)	Polyglycerine caprinate	6.000-7.000 mPas (cP)	15 °C
Polyol, non-pigmented 500–5.000 mPas (cP) 20 °C Potassium hydroxide 67 mPas (cP) 20 °C Printing ink (and colours) 550–2.200 mPas (cP) 40 °C Pudding 1.000 mPas (cP) 40 °C Rapeseed oil 160 mPas (cP) 20 °C Resin solution 7.100 mPas (cP) 20 °C Salad dressing 1.300–2.600 mPas (cP) 20 °C Salad oil 65 mPas (cP) 20 °C Shampoo 3.000 mPas (cP) 20 °C Soft cheese 30.000 mPas (cP) 20 °C Soybean oil 80 mPas (cP) 20 °C Soybean oil, treated 600–800 mPas (cP) 20 °C Starch solution 25° Baumé 300 mPas (cP) 20 °C Steam turbine oil 300–1.100 mPas (cP) 20 °C Sugar solution 65° Bx 120 mPas (cP) 20 °C Sugar solution 70° Bx 400 mPas (cP) 20 °C Tomato ketchup 1.000 mPas (cP) 20 °C Tomato paste 195 mPas (cP) 20 °C Transformer oil 30 mPas (cP) 40	Polymer solution	20.000 mPas (cP)	20 °C
Potassium hydroxide 67 mPas (cP) 20 °C Printing ink (and colours) 550–2.200 mPas (cP) 40 °C Pudding 1.000 mPas (cP) 40 °C Rapeseed oil 160 mPas (cP) 20 °C Resin solution 7.100 mPas (cP) 20 °C Salad dressing 1.300–2.600 mPas (cP) 20 °C Salad oil 65 mPas (cP) 20 °C Shampoo 3.000 mPas (cP) 20 °C Soft cheese 30.000 mPas (cP) 20 °C Soybean oil 80 mPas (cP) 20 °C Soybean oil, treated 600–800 mPas (cP) 20 °C Starch solution 25° Baumé 300 mPas (cP) 20 °C Steam turbine oil 300–1.100 mPas (cP) 20 °C Sugar solution 65° Bx 120 mPas (cP) 20 °C Sugar solution 70° Bx 400 mPas (cP) 20 °C Tomato ketchup 1.000 mPas (cP) 20 °C Tomato paste 195 mPas (cP) 20 °C Train oil 100 mPas (cP) 20 °C Train former oil 75 mPas (cP) 20 °C	Polyol (A-Component)	85.000 mPas (cP)	10 °C
Potassium hydroxide 67 mPas (cP) 20 °C Printing ink (and colours) 550–2.200 mPas (cP) 40 °C Pudding 1.000 mPas (cP) 40 °C Rapeseed oil 160 mPas (cP) 20 °C Resin solution 7.100 mPas (cP) 20 °C Salad dressing 1.300–2.600 mPas (cP) 20 °C Salad oil 65 mPas (cP) 20 °C Shampoo 3.000 mPas (cP) 20 °C Soft cheese 30.000 mPas (cP) 20 °C Soybean oil 80 mPas (cP) 20 °C Soybean oil, treated 600–800 mPas (cP) 20 °C Starch solution 25° Baumé 300 mPas (cP) 20 °C Steam turbine oil 300–1.100 mPas (cP) 20 °C Sugar solution 65° Bx 120 mPas (cP) 20 °C Sugar solution 70° Bx 400 mPas (cP) 20 °C Tomato ketchup 1.000 mPas (cP) 20 °C Tomato paste 195 mPas (cP) 20 °C Train oil 100 mPas (cP) 20 °C Train former oil 75 mPas (cP) 20 °C	Polyol, non-pigmented	500-5.000 mPas (cP)	20 °C
Printing ink (and colours) 550–2.200 mPas (cP) 40 °C Pudding 1.000 mPas (cP) 40 °C Rapeseed oil 160 mPas (cP) 20 °C Resin solution 7.100 mPas (cP) 20 °C Salad dressing 1.300–2.600 mPas (cP) 20 °C Salad oil 65 mPas (cP) 20 °C Shampoo 3.000 mPas (cP) 20 °C Soft cheese 30.000 mPas (cP) 60 °C Soybean oil 80 mPas (cP) 20 °C Soybean oil, treated 600–800 mPas (cP) 20 °C Starch solution 25° Baumé 300 mPas (cP) 20 °C Steam turbine oil 300–1.100 mPas (cP) 20 °C Sugar solution 65° Bx 120 mPas (cP) 20 °C Sugar solution 70° Bx 400 mPas (cP) 20 °C Tomato ketchup 1.000 mPas (cP) 30 °C Tomato paste 70.000 mPas (cP) 20 °C Train oil 100 mPas (cP) 20 °C Transformer oil 30 mPas (cP) 30 °C Transformer oil 75 mPas (cP) 20 °C		67 mPas (cP)	20 °C
Pudding 1.000 mPas (cP) 40 °C Rapeseed oil 160 mPas (cP) 20 °C Resin solution 7.100 mPas (cP) 20 °C Salad dressing 1.300–2.600 mPas (cP) 20 °C Salad oil 65 mPas (cP) 20 °C Shampoo 3.000 mPas (cP) 20 °C Soft cheese 30.000 mPas (cP) 60 °C Soybean oil 80 mPas (cP) 20 °C Soybean oil, treated 600–800 mPas (cP) 20 °C Starch solution 25° Baumé 300 mPas (cP) 20 °C Steam turbine oil 300–1.100 mPas (cP) 20 °C Sugar solution 65° Bx 120 mPas (cP) 20 °C Sugar solution 70° Bx 400 mPas (cP) 20 °C Tomato ketchup 1.000 mPas (cP) 20 °C Tooth paste 70.000 mPas (cP) 30 °C Tooth paste 70.000 mPas (cP) 40 °C Transformer oil 30 mPas (cP) 20 °C Vegetable soup 430 mPas (cP) 20 °C Vitamin oil 4.500 mPas (cP) 20 °C		550-2.200 mPas (cP)	40 °C
Rapeseed oil 160 mPas (cP) 20 °C Resin solution 7.100 mPas (cP) 20 °C Salad dressing 1.300–2.600 mPas (cP) 20 °C Salad oil 65 mPas (cP) 20 °C Shampoo 3.000 mPas (cP) 20 °C Soft cheese 30.000 mPas (cP) 60 °C Soybean oil 80 mPas (cP) 20 °C Soybean oil, treated 600–800 mPas (cP) 20 °C Starch solution 25° Baumé 300 mPas (cP) 20 °C Steam turbine oil 300–1.100 mPas (cP) 20 °C Sugar solution 65° Bx 120 mPas (cP) 20 °C Sugar solution 70° Bx 400 mPas (cP) 20 °C Tomato ketchup 1.000 mPas (cP) 30 °C Tomato paste 195 mPas (cP) 20 °C Train oil 100 mPas (cP) 20 °C Train oil 100 mPas (cP) 20 °C Transformer oil 75 mPas (cP) 10 °C Vegetable soup 430 mPas (cP) 20 °C Vitamin oil 4.500 mPas (cP) 40 °C Wh		1.000 mPas (cP)	40 °C
Salad dressing 1.300-2.600 mPas (cP) 20 °C Salad oil 65 mPas (cP) 20 °C Shampoo 3.000 mPas (cP) 20 °C Soft cheese 30.000 mPas (cP) 60 °C Soybean oil 80 mPas (cP) 20 °C Soybean oil, treated 600-800 mPas (cP) 20 °C Starch solution 25° Baumé 300 mPas (cP) 20 °C Steam turbine oil 300-1.100 mPas (cP) 20 °C Sugar solution 65° Bx 120 mPas (cP) 20 °C Sugar solution 70° Bx 400 mPas (cP) 20 °C Tomato ketchup 1.000 mPas (cP) 30 °C Tomato paste 195 mPas (cP) 20 °C Tooth paste 70.000 mPas (cP) 40 °C Train oil 100 mPas (cP) 30 °C Transformer oil 30 mPas (cP) 20 °C Vegetable soup 430 mPas (cP) 20 °C Vitamin oil 4.500 mPas (cP) 20 °C Whey 800-1.500 mPas (cP) 40 °C Whipped foods 1.500 mPas (cP) 40 °C	Rapeseed oil	160 mPas (cP)	20 °C
Salad oil 65 mPas (cP) 20 °C Shampoo 3.000 mPas (cP) 20 °C Soft cheese 30.000 mPas (cP) 60 °C Soybean oil 80 mPas (cP) 20 °C Soybean oil, treated 600-800 mPas (cP) 20 °C Starch solution 25° Baumé 300 mPas (cP) 20 °C Steam turbine oil 300-1.100 mPas (cP) 20 °C Sugar solution 65° Bx 120 mPas (cP) 20 °C Sugar solution 70° Bx 400 mPas (cP) 20 °C Tomato ketchup 1.000 mPas (cP) 30 °C Tomato paste 195 mPas (cP) 20 °C Tooth paste 70.000 mPas (cP) 40 °C Train oil 100 mPas (cP) 20 °C Transformer oil 30 mPas (cP) 30 °C Transformer oil 75 mPas (cP) 10 °C Vegetable soup 430 mPas (cP) 20 °C Vitamin oil 4.500 mPas (cP) 20 °C Whey 800-1.500 mPas (cP) 40 °C Whipped foods 1.500 mPas (cP) 40 °C White oi	Resin solution	7.100 mPas (cP)	20 °C
Shampoo 3.000 mPas (cP) 20 °C Soft cheese 30.000 mPas (cP) 60 °C Soybean oil 80 mPas (cP) 20 °C Soybean oil, treated 600-800 mPas (cP) 20 °C Starch solution 25° Baumé 300 mPas (cP) 20 °C Steam turbine oil 300-1.100 mPas (cP) 20 °C Sugar solution 65° Bx 120 mPas (cP) 20 °C Sugar solution 70° Bx 400 mPas (cP) 20 °C Tomato ketchup 1.000 mPas (cP) 30 °C Tomato paste 195 mPas (cP) 20 °C Tooth paste 70.000 mPas (cP) 40 °C Train oil 100 mPas (cP) 20 °C Transformer oil 30 mPas (cP) 30 °C Transformer oil 75 mPas (cP) 10 °C Vegetable soup 430 mPas (cP) 20 °C Vitamin oil 4.500 mPas (cP) 20 °C Whey 800-1.500 mPas (cP) 40 °C Whipped foods 1.500 mPas (cP) 40 °C White oil 300 mPas (cP) 20 °C	Salad dressing	1.300-2.600 mPas (cP)	20 °C
Soft cheese 30.000 mPas (cP) 60 °C Soybean oil 80 mPas (cP) 20 °C Soybean oil, treated 600-800 mPas (cP) 20 °C Starch solution 25° Baumé 300 mPas (cP) 20 °C Steam turbine oil 300-1.100 mPas (cP) 20 °C Sugar solution 65° Bx 120 mPas (cP) 20 °C Sugar solution 70° Bx 400 mPas (cP) 20 °C Tomato ketchup 1.000 mPas (cP) 30 °C Tomato paste 195 mPas (cP) 20 °C Trooth paste 70.000 mPas (cP) 40 °C Train oil 100 mPas (cP) 20 °C Transformer oil 30 mPas (cP) 30 °C Transformer oil 75 mPas (cP) 10 °C Vegetable soup 430 mPas (cP) 20 °C Vitamin oil 4.500 mPas (cP) 20 °C Water-based lacquer 900 mPas (cP) 40 °C Whipped foods 1.500 mPas (cP) 40 °C White oil 300 mPas (cP) 20 °C	Salad oil	65 mPas (cP)	20 °C
Soybean oil 80 mPas (cP) 20 °C Soybean oil, treated 600-800 mPas (cP) 20 °C Starch solution 25° Baumé 300 mPas (cP) 20 °C Steam turbine oil 300-1.100 mPas (cP) 20 °C Sugar solution 65° Bx 120 mPas (cP) 20 °C Sugar solution 70° Bx 400 mPas (cP) 20 °C Tomato ketchup 1.000 mPas (cP) 30 °C Tomato paste 195 mPas (cP) 20 °C Tooth paste 70.000 mPas (cP) 40 °C Train oil 100 mPas (cP) 20 °C Transformer oil 30 mPas (cP) 30 °C Transformer oil 75 mPas (cP) 10 °C Vegetable soup 430 mPas (cP) 20 °C Vitamin oil 4.500 mPas (cP) 20 °C Water-based lacquer 900 mPas (cP) 20 °C Whey 800-1.500 mPas (cP) 40 °C Whipped foods 1.500 mPas (cP) 20 °C	Shampoo	3.000 mPas (cP)	20 °C
Soybean oil, treated 600–800 mPas (cP) 20 °C Starch solution 25° Baumé 300 mPas (cP) 20 °C Steam turbine oil 300–1.100 mPas (cP) 20 °C Sugar solution 65° Bx 120 mPas (cP) 20 °C Sugar solution 70° Bx 400 mPas (cP) 20 °C Tomato ketchup 1.000 mPas (cP) 30 °C Tomato paste 195 mPas (cP) 20 °C Tooth paste 70.000 mPas (cP) 40 °C Train oil 100 mPas (cP) 20 °C Transformer oil 30 mPas (cP) 30 °C Transformer oil 75 mPas (cP) 10 °C Vegetable soup 430 mPas (cP) 20 °C Vitamin oil 4.500 mPas (cP) 20 °C Whey 800–1.500 mPas (cP) 40 °C Whipped foods 1.500 mPas (cP) 40 °C White oil 300 mPas (cP) 20 °C	Soft cheese	30.000 mPas (cP)	60 °C
Starch solution 25° Baumé 300 mPas (cP) 20 °C Steam turbine oil 300-1.100 mPas (cP) 20 °C Sugar solution 65° Bx 120 mPas (cP) 20 °C Sugar solution 70° Bx 400 mPas (cP) 20 °C Tomato ketchup 1.000 mPas (cP) 30 °C Tomato paste 195 mPas (cP) 20 °C Tooth paste 70.000 mPas (cP) 40 °C Train oil 100 mPas (cP) 20 °C Transformer oil 30 mPas (cP) 30 °C Transformer oil 75 mPas (cP) 10 °C Vegetable soup 430 mPas (cP) 20 °C Vitamin oil 4.500 mPas (cP) 10 °C Water-based lacquer 900 mPas (cP) 20 °C Whey 800-1.500 mPas (cP) 40 °C Whipped foods 1.500 mPas (cP) 40 °C White oil 300 mPas (cP) 20 °C	Soybean oil	80 mPas (cP)	20 °C
Steam turbine oil 300-1.100 mPas (cP) 20 °C Sugar solution 65° Bx 120 mPas (cP) 20 °C Sugar solution 70° Bx 400 mPas (cP) 20 °C Tomato ketchup 1.000 mPas (cP) 30 °C Tomato paste 195 mPas (cP) 20 °C Tooth paste 70.000 mPas (cP) 40 °C Train oil 100 mPas (cP) 20 °C Transformer oil 30 mPas (cP) 30 °C Transformer oil 75 mPas (cP) 10 °C Vegetable soup 430 mPas (cP) 20 °C Vitamin oil 4.500 mPas (cP) 10 °C Water-based lacquer 900 mPas (cP) 20 °C Whey 800-1.500 mPas (cP) 40 °C Whipped foods 1.500 mPas (cP) 40 °C White oil 300 mPas (cP) 20 °C	Soybean oil, treated	600-800 mPas (cP)	20 °C
Sugar solution 65° Bx 120 mPas (cP) 20 °C Sugar solution 70° Bx 400 mPas (cP) 20 °C Tomato ketchup 1.000 mPas (cP) 30 °C Tomato paste 195 mPas (cP) 20 °C Tooth paste 70.000 mPas (cP) 40 °C Train oil 100 mPas (cP) 20 °C Transformer oil 30 mPas (cP) 30 °C Transformer oil 75 mPas (cP) 10 °C Vegetable soup 430 mPas (cP) 20 °C Vitamin oil 4.500 mPas (cP) 10 °C Water-based lacquer 900 mPas (cP) 20 °C Whey 800-1.500 mPas (cP) 40 °C Whipped foods 1.500 mPas (cP) 40 °C White oil 300 mPas (cP) 20 °C	Starch solution 25° Baumé	300 mPas (cP)	20 °C
Sugar solution 70° Bx 400 mPas (cP) 20 °C Tomato ketchup 1.000 mPas (cP) 30 °C Tomato paste 195 mPas (cP) 20 °C Tooth paste 70.000 mPas (cP) 40 °C Train oil 100 mPas (cP) 20 °C Transformer oil 30 mPas (cP) 30 °C Transformer oil 75 mPas (cP) 10 °C Vegetable soup 430 mPas (cP) 20 °C Vitamin oil 4.500 mPas (cP) 10 °C Water-based lacquer 900 mPas (cP) 20 °C Whey 800-1.500 mPas (cP) 40 °C Whipped foods 1.500 mPas (cP) 40 °C White oil 300 mPas (cP) 20 °C	Steam turbine oil	300-1.100 mPas (cP)	20 °C
Tomato ketchup 1.000 mPas (cP) 30 °C Tomato paste 195 mPas (cP) 20 °C Tooth paste 70.000 mPas (cP) 40 °C Train oil 100 mPas (cP) 20 °C Transformer oil 30 mPas (cP) 30 °C Transformer oil 75 mPas (cP) 10 °C Vegetable soup 430 mPas (cP) 20 °C Vitamin oil 4.500 mPas (cP) 10 °C Water-based lacquer 900 mPas (cP) 20 °C Whey 800-1.500 mPas (cP) 40 °C Whipped foods 1.500 mPas (cP) 40 °C White oil 300 mPas (cP) 20 °C	Sugar solution 65° Bx	120 mPas (cP)	20 °C
Tomato paste 195 mPas (cP) 20 °C Tooth paste 70.000 mPas (cP) 40 °C Train oil 100 mPas (cP) 20 °C Transformer oil 30 mPas (cP) 30 °C Transformer oil 75 mPas (cP) 10 °C Vegetable soup 430 mPas (cP) 20 °C Vitamin oil 4.500 mPas (cP) 10 °C Water-based lacquer 900 mPas (cP) 20 °C Whey 800-1.500 mPas (cP) 40 °C Whipped foods 1.500 mPas (cP) 40 °C White oil 300 mPas (cP) 20 °C	Sugar solution 70° Bx	400 mPas (cP)	20 °C
Tooth paste 70.000 mPas (cP) 40 °C Train oil 100 mPas (cP) 20 °C Transformer oil 30 mPas (cP) 30 °C Transformer oil 75 mPas (cP) 10 °C Vegetable soup 430 mPas (cP) 20 °C Vitamin oil 4.500 mPas (cP) 10 °C Water-based lacquer 900 mPas (cP) 20 °C Whey 800-1.500 mPas (cP) 40 °C Whipped foods 1.500 mPas (cP) 40 °C White oil 300 mPas (cP) 20 °C	Tomato ketchup	1.000 mPas (cP)	30 °C
Train oil 100 mPas (cP) 20 °C Transformer oil 30 mPas (cP) 30 °C Transformer oil 75 mPas (cP) 10 °C Vegetable soup 430 mPas (cP) 20 °C Vitamin oil 4.500 mPas (cP) 10 °C Water-based lacquer 900 mPas (cP) 20 °C Whey 800-1.500 mPas (cP) 40 °C Whipped foods 1.500 mPas (cP) 40 °C White oil 300 mPas (cP) 20 °C	Tomato paste	195 mPas (cP)	20 °C
Transformer oil 30 mPas (cP) 30 °C Transformer oil 75 mPas (cP) 10 °C Vegetable soup 430 mPas (cP) 20 °C Vitamin oil 4.500 mPas (cP) 10 °C Water-based lacquer 900 mPas (cP) 20 °C Whey 800-1.500 mPas (cP) 40 °C Whipped foods 1.500 mPas (cP) 40 °C White oil 300 mPas (cP) 20 °C	Tooth paste	70.000 mPas (cP)	40 °C
Transformer oil 75 mPas (cP) 10 °C Vegetable soup 430 mPas (cP) 20 °C Vitamin oil 4.500 mPas (cP) 10 °C Water-based lacquer 900 mPas (cP) 20 °C Whey 800-1.500 mPas (cP) 40 °C Whipped foods 1.500 mPas (cP) 40 °C White oil 300 mPas (cP) 20 °C	Train oil	100 mPas (cP)	20 °C
Transformer oil 75 mPas (cP) 10 °C Vegetable soup 430 mPas (cP) 20 °C Vitamin oil 4.500 mPas (cP) 10 °C Water-based lacquer 900 mPas (cP) 20 °C Whey 800-1.500 mPas (cP) 40 °C Whipped foods 1.500 mPas (cP) 40 °C White oil 300 mPas (cP) 20 °C	Transformer oil	30 mPas (cP)	30 °C
Vegetable soup 430 mPas (cP) 20 °C Vitamin oil 4.500 mPas (cP) 10 °C Water-based lacquer 900 mPas (cP) 20 °C Whey 800-1.500 mPas (cP) 40 °C Whipped foods 1.500 mPas (cP) 40 °C White oil 300 mPas (cP) 20 °C	Transformer oil		10 °C
Vitamin oil 4.500 mPas (cP) 10 °C Water-based lacquer 900 mPas (cP) 20 °C Whey 800-1.500 mPas (cP) 40 °C Whipped foods 1.500 mPas (cP) 40 °C White oil 300 mPas (cP) 20 °C	Vegetable soup		20 °C
Water-based lacquer 900 mPas (cP) 20 °C Whey 800-1.500 mPas (cP) 40 °C Whipped foods 1.500 mPas (cP) 40 °C White oil 300 mPas (cP) 20 °C			
Whey 800-1.500 mPas (cP) 40 °C Whipped foods 1.500 mPas (cP) 40 °C White oil 300 mPas (cP) 20 °C	Water-based lacquer	900 mPas (cP)	20 °C
Whipped foods 1.500 mPas (cP) 40 °C White oil 300 mPas (cP) 20 °C	· · · · · · · · · · · · · · · · · · ·		
White oil 300 mPas (cP) 20 °C	Whipped foods		40 °C
	Yogurt	150 mPas (cP)	40 °C

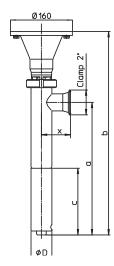
The media listed above have to be considered as examples only, as their viscosity may change substantially due to different composition and/or other temperatures. An in-service test will provide the utmost certainty in selecting the most suitable pump type. This applies especially to "Non-Newtonian liquids", the exact viscosity of which is difficult to define and may change during pumping operation (intrinsic viscosity). FLUX sales representatives will be at your disposal for an individual demonstration.





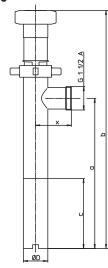




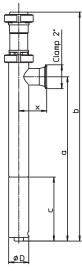


Туре	F 550 S-50/21			F 560 S-50/21					
Dimensions in mm	ØD	x	α	b	С		b	С	
Immersion length 700 mm	50	73	714	897	143		897	145	
Immersion length 1.000 mm	50	73	1014	1197	143		1197	145	
Immersion length 1.200 mm	50	73	1214	1397	143		1397	145	
Туре				F 550 S-54/26			F 560 S-54/26		
Dimensions in mm	ØD	x	а	b	С		b	С	
Immersion length 700 mm	54	75	740	923	170		924	172	
Immersion length 1.000 mm	54	75	1040	1223	170		1224	172	
Immersion length 1.200 mm	54	75	1240	1423	170		1424	172	

F 550 GS



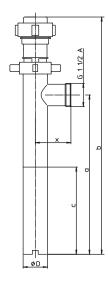
F 560 GS



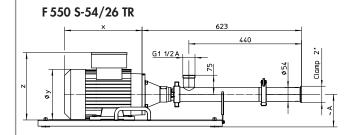
Туре				F 550 GS-50/21		F 5	F 560 GS-50/21	
Dimensions in mm	ØD	х	а	b	С	Ь	С	
Immersion length 700 mm	50	73	714	887	143	887	145	
Immersion length 1.000 mm	50	73	1014	1187	143	1187	145	
Immersion length 1.200 mm	50	73	1214	1387	143	1387	145	
Туре				F 560 (GS-54/26			
Dimensions in mm	ØD	х	α	b	С			
Immersion length 700 mm	54	75	740	914	172			
Immersion length 1.000 mm	54	75	1040	1214	172			
Immersion length 1.200 mm	54	75	1240	1414	172			

Dimensions

F 550 GS6

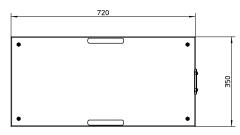


Туре	F 550	F 550 GS6-50/21			F 550 GS6-54/26					
Dimensions in mm	ØD	x	а	b	c	ØD	х	а	Ь	С
Immersion length 700 mm	50	73	713	867	143	54	75	740	894	170
Immersion length 1.000 mm	50	73	1013	1.167	143	54	75	1.040	1194	170
Immersion length 1.200 mm	50	73	1213	1.367	143	54	75	1.240	1394	170

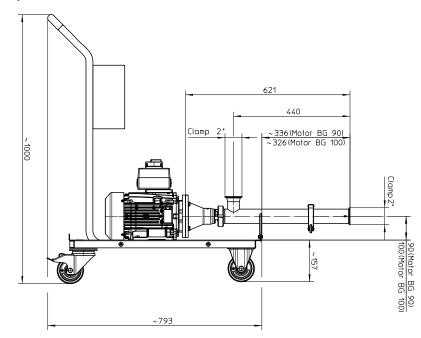


Console

Length: 720 mm Width: 350 mm



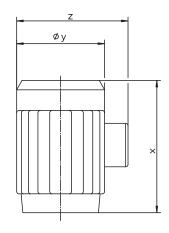
Pump trolley with pump F 560 S-54/26 TR



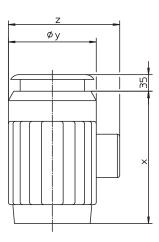


Three-phase motor for pumps with flange

TPM IP 55



TPM Ex



Three-phase motors (TPM), jet-proof to IP 55, for use with F 550 S and F 560 S

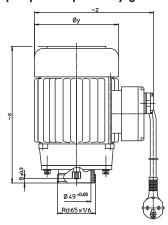
Times phase motors (11 M), jet proof to it 33, for use with 1 330 3 and 1 300 3				_	
Capacity	Speed	Х	ØY	KK	MSS
0,75 kW	930 rpm	286	182	244	305
0,75 kW	700 rpm	303	196	254	314
1,1 kW	930 rpm	303	182	244	305
1,1 kW	700 rpm	303	196	254	314

Three-phase motors (TPM), explosion-proof, for use with F 550 S and F 560 S

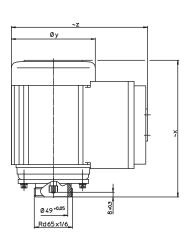
Capacity	Speed	Х	ØY	Z (KK)
0,75 kW	930 rpm	244	176	237
1,1 kW	930 rpm	269	176	237
0,95 kW	700 rpm	303	196	256
1,1 kW	700 rpm	303	196	252

Motors for pumps with planetary gear GS6

SPM



TPM



Single-phase motor (SPM) with capacitor switch, for use with F 550 GS6

Туре	Capacity	Speed	Х	ØY	Z (KK)	
F 403/2	0,50 kW	2.850 rpm	233	143	203	
F 403/4	0,55 kW	1.450 rpm	259	160	208	

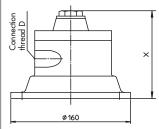
Three-phase motor (TPM), jet-proof to IP 55, for use with F 550 GS6 $\,$

Туре	Capacity	Speed	Х	ØY	Z (MSS)
F 403/4	0,55 kW	1.450 rpm	233	143	257
F 403/2	0,75 kW	2.850 rpm	259	160	277

KK = cable terminal box MSS = Motor protection switch

Dimensions

Compressed-air motors



for use with F 550 S and F 560 S version with bearing flange

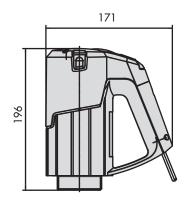
Туре	Capacity	Speed	Х	Connection thread D
FPM 4 Ex	0,5 kW	1000 rpm	117	G % (BSP %" female)
FPM 6 Ex	1,1 kW	1000 rpm	155	G ½ (BSP ½" female)
FPM 8 Ex	1,8 kW	1000 rpm	177	G ½ (BSP ½" female)

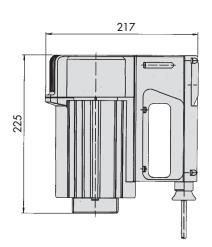
Drive motors for F 550 and F 560 version with planetary gear GS

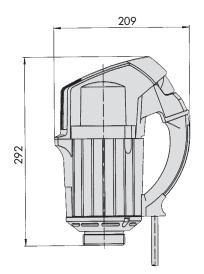
FEM 4070

F 457/F 457 EL

F 458/F 458 EL/F 458-1/ F 460 Ex/F 460 Ex EL/ F 460-1 Ex





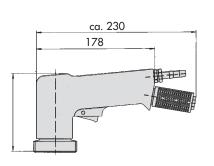


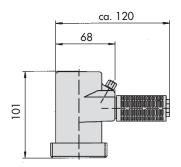
Compressed-air motor for F 550 and F 560 with planetary gear GS

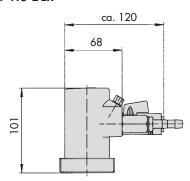
F 416 Ex

F 416-1 Ex

F 416-2 Ex







With motor and pump assembled, the total length reduces by 16 mm









The FLUX specialist for transferring higher-viscosity media that are just capable of flowing

The drum emptying system VISCOFLUX lite is used to transfer higher-viscosity media which are just capable of flowing, out of ISO drums with lid. In the Ex version it is suitable for the use in hazardous areas of zone 1 and for transferring a wide variety of flammable media (zone 0/1). The system transports the media gently and continuously. Like the VISCOFLUX and the VISCOFLUX mobile, the VISCOFLUX lite leaves just less than 1 % of the media in the drum.

Advantages

- Resource-saving up to less than 1 % residue
 Efficient use of the medium and low expenditure for disposal
- Ex-Version available For applications in zone 0/1
- Continuous and gentle transport No structural change of the medium
- Customised solution Due to individual selection of drive motor in combination with matching eccentric worm-drive pump
- Quick to install With few components
- For ISO drums Ø 571 mm
- For sea container drums Ø 540 mm at the top, Ø 571 mm at the bottom

(For more information please have a look on the brochure VISCOFLUX lite)



VISCOFLUX

The FLUX specialist for highly viscous materials

The unique VISCOFLUX drum emptying system is used by various industries for fast, cost-effective conveying of highly viscous, pasty and non-free flowing. It guarantees virtually complete and gentle emptying from standard drums with lids.

Advantages

- Low initial purchase costs Compared to stationary systems
- High flexibility Due to mobility of the system
- Low disposal costs Due to small residual quantity in the drum
- Process safety Even if the pumping process is interrupted during emptying due to hermetic sealing off the material
- Fast cleaning Thanks to dismantling with a few hand movements

(For more information please have a look on the brochure VISCOFLUX)



VISCOFLUX mobile

The stand-alone solution for transferring high-viscosity fluids

VISCOFLUX mobile is a portable and thus very flexible variant of the tried and tested VISCOFLUX drum emptying system. VISCOFLUX mobile is ideal for the gentle conveyance of high-viscosity, paste-like and non-free flowing materials, even from conical drums with aseptic bags. Industrial and Pharma Food Cosmetic versions are available - each for various drum diameters.

Advantage

- Mobile use Can be moved to the drum without a crane or fork-lift truck
- Low space requirement Can be transported even in lifts
- One transfer system for different drum types Also suitable for conical drums and for drums which have suffered the usual transportation dents
- Energy savings Usually no heating of the medium necessary
- No structural change to the medium Due to gentle, continuous transport
- Completely made of stainless steel

(For more information please have a look on the brochure VISCOFLUX mobile)







Today the FLUX name is recognised around the globe as the trademark for top standards in pump technology. Everything started with the invention of the electric drum pump in 1950. Nowadays FLUX has an extensive range of products each of which can be customized. FLUX pumps are used for example in the chemical and pharmaceutical industries; in machinery and plant engineering as well as companies in electroplating, effluent treatment and the foodstuffs sector.

Whether single-product or system solution – FLUX quality is synonymous with a long service life, excellent economy and maximum safety.

In addition to the excellent product quality FLUX customers appreciate the superb level of expertise our staff has to offer as well as their genuine customer focus.

These days FLUX-GERÄTE GMBH supplies pumps to almost 100 countries around the globe.

Talweg 12 · D-75433 Maulbronn Tel +49 7043 101-440 · Fax +49 7043 101-444 info@flux-pumpen.de · www.flux-pumps.com