

SDD VERTICAL MIXER



INSTRUCTION MANUAL

TMXFLOW[®]
let it flow

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1. GENERAL INFORMATION

1.1 IDENTIFICATION

Thanks to the ID pasted on the mixer, you can see everything including the mixer's features and serial number. See figure.

The image shows a rectangular identification label for a TMXFLOW vertical mixer. At the top left is the 'TMXFLOW' logo and at the top right is the 'CE' mark. Below these are several input fields for technical specifications: 'Year', 'Model', 'N°', 'kW', 'min⁻¹', 'V', 'Hz', 'Qm³/h', 'Hm', and 'Ø IMPELLER'.

TMXFLOW VERTICAL MIXER

Model	Size
SDD	30-011
SDD	30-040
SDD	30-075
SDD	30-185

1.2 DESCRIPTION

SDD series mixers are vertical mixers mounted at the top of the tank. To fix Standard flange, DIN 2632 PN10 flange or rectangular flange can be used on the tank of the mixer. Standard the head is slotted, but there are two other designs in case the process requires it. Wandering or down thrust propellers can be installed on the shaft to increase mixing or create vortex. Shaft the lower part is guided by a bushing located just above the head. Standard ones are supplied in PTFE but If processing requires, it can be made from other materials. The sealing system consists of a V-ring and is driven directly by a motor.

1.3 OPERATING PRINCIPLE

The rotor suctions the product from the lower part of the tank. After the product is suctioned, the product arrives at the rotor blades. The rotor blades push the product to the stator where it is sheared and then is expelled radially through holes stator at a high speed.

1.4 APPLICATION

TMXFLOW vertical mixers provide particle reduction, dissolution, dispersion and emulsion. Given their hygienic design, these mixers are ideal for demanding industries such as cosmetics, food and pharmaceutical industries. It is also used in adhesives, chemicals, paints, etc. They can also be used in plastic industries.

2. MAINTENANCE

2.1 GENERAL MAINTENANCE

This mixer, as with any other machine, needs to be maintained. The instructions contained in this manual deal with the identification and replacement of the spare parts. These instructions have been drawn up by maintenance staff and are destined for those people who are responsible for supplying spare parts.



Maintenance work can only be carried out by qualified personnel that are trained and equipped with the necessary resources to carrying out this work.



ALWAYS disconnect the mixer before starting on any maintenance.

2.2 MAINTENANCE

- Inspect the mixer regularly.
- Do not fail to keep the mixer clean.
- Check the state of the motor.
- Check the V-ring.
- Check the bearing on completing every process. In the event of coming across excessive wear and tear, it must be changed.

2.3 LUBRICATION

The lubrication of the bearings of the motor will be carried out according to the manufacturer's instructions.

2.4 SPARE PARTS

To order spare parts is necessary to indicate the type and serial number included on the mixer's characteristics plate, as well as the position and description of the part as found in technical specifications.

3. DISASSEMBLY AND ASSEMBLY

3.1 DISASSEMBLY AND ASSEMBLY

DISASSEMBLY



Before disassembling , please disconnect the motor from the mixer.

- 1- Disassemble the mixer from its emplacement.
- 2- Clean and dry the mixer.
- 3- Unscrew and retire the rotor.
- 4- Remove the rotor nut and retire the rotor. Then, you can retire the rotor pin from the extreme of the shaft.
- 5- Remove the hexagonal screws with their flat washers to retire the stator, the lower flange and the bushing from the extreme of the shaft.
- 6- In case that the mixer has a down thrust propeller and recirculation remove them unscrewing the allen setscrews.
- 7- Remove the V-ring , the retaining ring and the sleeve.
- 8- Remove the pin of the shaft from the shaft complement and remove the shaft.
- 9- Remove the hexagonal screws with their flat washers and remove the motor. The shaft complement still will be fixed to the motor. Once the motor is removed, remove the O-rings from the shaft complement and then, remove the shaft complement unscrewing the allen setscrews.
- 10- Extract the countersunk screws to separate the structural rods from the upper flange.
- 11- Remove the countersunk screws and the lock washers to separate the structural rods from the upper flange.
- 12- Unscrew the structural rods from the coupling flange.

3.1 DISASSEMBLY AND ASSEMBLY

ASSEMBLY

- 1- Screw the structural rods to the coupling flange.
- 2- Place the structural rods to the upper flange and fix them with the countersunk screws.
- 3- Place, onto the motor shaft, the shaft complement and fix it with the allen setscrews.
- 4- Mount the motor on the upper flange and fix it with the hexagonal screws and their flat washers.
- 5- Situate the shaft in the internal part of the shaft complement. The correct situation of the shaft allows its fixation through the shaft pin.
- 6- Place the O-rings on the shaft complement.
- 7- Mount the sleeve on the shaft complement placing the retaining ring to avoid the displacement of the sleeve.
- 8- Place the V-ring.
- 9- In the case that the mixer has down thrust propellers and recirculation place them on the shaft in their corresponding situation and fix them with the allen setscrews.
- 10- Place the lower flange and the stator onto the coupling flange. These elements are fixed with the hexagonal screws and their flat washers.
- 11- Slide the bushing onto the shaft until it reaches up to the lower flange.
- 12- Place the rotor on the extreme of the shaft and with a spanner place at the shaft interface to avoid it turning, screw the rotor.
- 13- Mount the mixer in its emplacement.

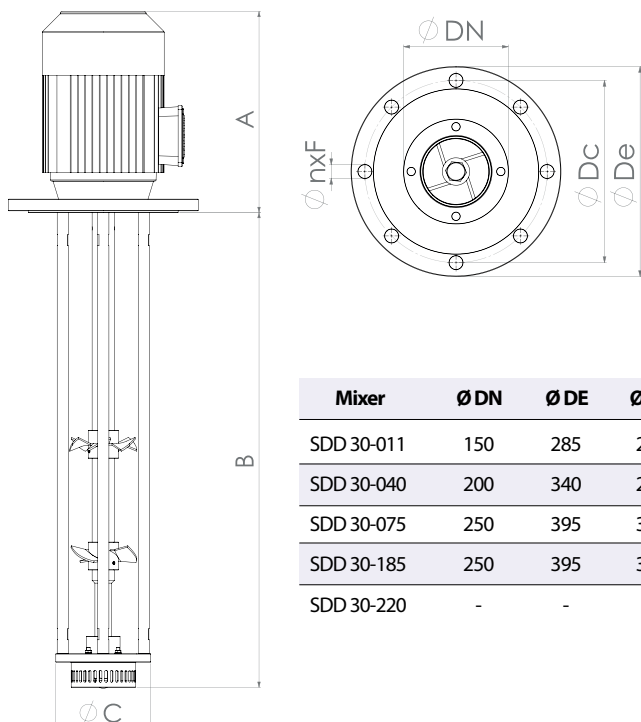
4. TECHNICAL SPECIFICATION

4.1 MATERIALS

Parts in contact with the product AISI 316L
 Bushing PTFE
 Other Optional Seal Materials Consult your supplier
 V-ring NBR

Mixer	1 CPU	3000 CPU	Additional Agitation	Power [kW]	Speed [rpm]
SDD 30-011	300 L	100 L	200 L	1.1	3000
SDD 30-040	500 L	300 L	400 L	4	3000
SDD 30-075	1000 L	750 L	900 L	7.5	3000
SDD 30-185	1500 L	1000 L	1200 L	18.5	3000

4.2 WEIGHT AND DIMENSIONS

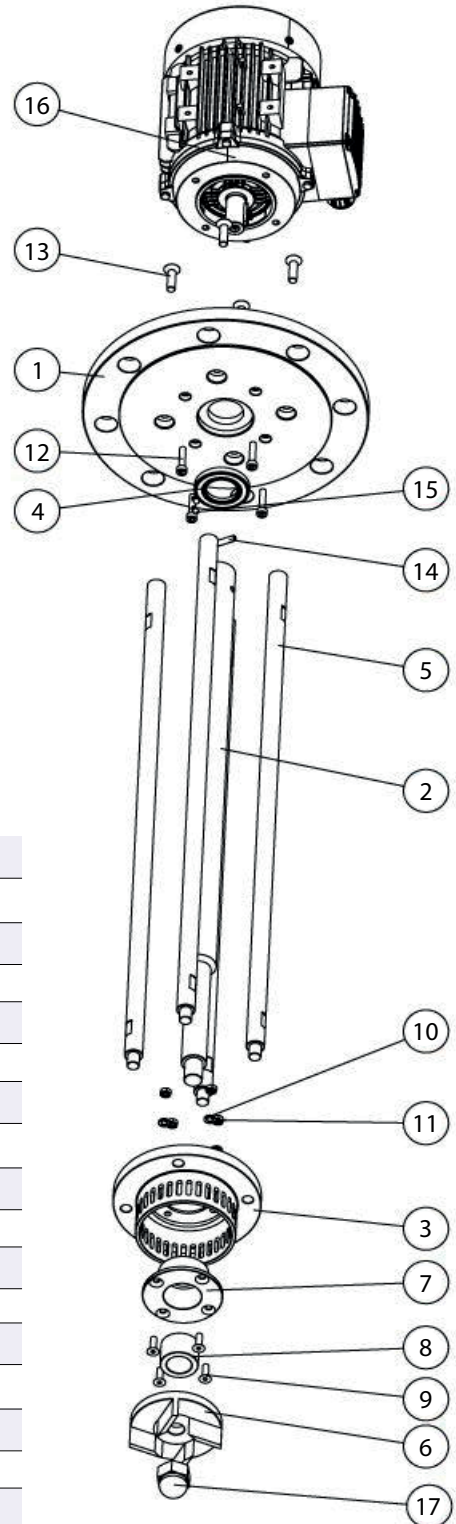


Mixer	Ø DN	Ø DE	Ø DC	N*F	A	B	C
SDD 30-011	150	285	240	4*11	258	750	123
SDD 30-040	200	340	295	4*13	355	850	170
SDD 30-075	250	395	350	4*13	450	1200	185
SDD 30-185	250	395	350	4*17,5	525	1400	215
SDD 30-220	-	-	-	-	-	-	290

4.3 STATOR OPTIONS



4.4 DRAWING AND PARTS LIST



Position	Description	Description	Material
1	Flange	1	AISI 316L
2	Shaft	1	AISI 316L
3	Stator	1	AISI 316L
4	Lip Seal	1	EPDM
5	Structural Rod	4	AISI 316L
6	Rotor	1	AISI 316L
7	Bushing Unit	1	AISI 316L
8	Bushing	1	AISI 316L
9	Countersunk Screw	4	A2
10	Washer	4	A2
11	Nut	4	2
12	Imbus Bolt	4	A2
13	Countersunk Screw	4	A2
14	Pin	1	AISI 316L
15	Setscrew	2	A2
16	Motor	1	-
17	Rotor Nut	1	AISI 316L