INSTALLATION, SERVICE AND MAINTENANCE INSTRUCTIONS

TANK BOTTOM MIXER
DOUBLE MECHANICAL SEAL
SERIE 6100

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EC DECLARATION OF CONFORMITY

(In accordance with Directive 2006/42/EC, annex II, part A)

We, the manufacturer: **INOXPA, S.A.**
c/ Telers, 54
17820 Banyoles (Girona) - Spain

Hereby declare that the products

MIXER	**ME-6100**
Name	Type

are in conformity with the provisions of the Council Directives:

Machine Directive 2006/42/EC, and comply with the essential requirements of said Directive and the harmonised standards:

UNE-EN ISO 12100-1/2:2004
UNE-EN ISO 13857:2008
UNE-EN 953:1997
UNE-EN ISO 13732-1:2007

Low-Voltage Directive 2006/95/CE (replacing Directive 73/23/CE), and conform to UNE-EN 60204-1:2006 and UNE-EN 60034-1:2004

Electromagnetic Compatibility Directive 2004/108/CE (replacing Directive 89/336/CE), and conform to UNE-EN 60034-1:2004

In conformity with **Regulation (CE) No. 1935/2004** on materials and objects intended to come into contact with foodstuffs (repealing 89/109/EEC), in accordance with which the materials in contact with the product do not transfer its constituents to the foodstuffs in quantities large enough to put human health at risk.

Banyoles, 2013

Josep Mª Benet
Technical manager

1. Safety instructions

1.1. SAFETY INSTRUCTIONS

This instruction manual contains the basic indications that should be complied with during installation, start-up and maintenance. Consequently, it is essential that, before installation, both the installer and the plant technical manager read this instruction manual and that it be permanently available alongside the mixer or corresponding installation.
Not only must the detailed safety instructions in this chapter be complied with, but so also should the special measures and recommendations added in the other chapters of this manual.

1.2. SYMBOLS USED

The safety instructions included in this manual, whose non-compliance may cause risk to persons or to the machine and its correct operation, are expressed by means of the symbols indicated below:

Danger for people in general.

Danger! Suspended loads.

Electric danger.

Danger of injury caused by the agitator.

Danger for mixer and its operation.

Commitment to guarantee safety at the workplace.

1.3. GENERAL SAFETY INSTRUCTIONS

- Read the instructions in this manual before installing the mixer and before starting it up.
- The installation and use of the mixer must always be in accordance with the rules applying to health and safety.
- Connect the mixer to the tank before starting it up.
- Before starting up the mixer, check that it be correctly anchored and that the shaft be perfectly aligned. Poor alignment and/or excessive force in fitting may cause serious mechanical problems for the mixer.
- Check the other components of the installation (e.g. tank, valves, and pipes).

- Specialized personnel should carry out all electrical work.
- To control the engine characteristics and its control panel, especially in areas where there is a risk of fire or explosion, the user company's technical manager shall establish danger areas (area 0 – 1 – 2).
- Do not spray the motor directly during cleaning.
- Do not disassemble the agitator without previously disconnecting the power supply. Remove the fuses and disconnect the motor feed cable.

- Do not operate the mixer if turning components do not have the protection system or if they are badly fitted.
- The mixer has rotating parts. Do not put hands or fingers into an mixer whilst it is operating. This may cause serious injury.
- Do not touch any of the parts of the mixer that are in contact with liquid whilst in operation. If the mixer works with hot products at temperatures exceeding 50 ºC, there is a risk of burns. In these cases, collective protective measures should be put in order of priority (distance, protective screen, heat resistance), or – failing this possibility- to provide individual protection (gloves).

- Take all precautions when moving or assembling the mixer. A trans pallet will be used for this purpose. Aim to support the mixer between the motor and the lantern to make the assembly more stable.

- Withdraw all the tools used in mounting before starting up the mixer.
- The mixer is unable to work without liquid. Standard mixer are not designed to operate during the filling or emptying of tanks.

- Do not exceed the mixer's maximum operating conditions. Do not modify the operating parameters that were initially set for the mixer without the prior written consent of INOXPA.
- The mixers and their installation may cause noise levels that exceed 85 dB (A) in some unfavorable operating environments. In such cases, operators should wear hearing protection.

1.4. GUARANTEE

We wish to point out that any warranty issued will be null and void and that we are entitled to an indemnity for any civil liability claim for products which might be filed by third parties if:

- operation and maintenance work has not been done following the corresponding instructions; the repairs have not been made by our personnel or have been made without our written authorization;
- modifications are made to our material without prior written authorization;
- the parts or lubricants used are not original INOXPA parts/lubricants;
- the material has been improperly used due to error or negligence or have not been used according to the indications and the intended purpose.
- all components subject to wear are excluded from the guarantee.

The General Delivery Terms which you have already received are also applicable.

1.5. INSTRUCTIONS MANUAL

The information provided in the instruction manual refers to updated data.
We reserve the right to modify the design and/or manufacturing specifications of our products as required, devoid of any obligation on our part to adapt any product supplied prior to such alteration.
The technical information made available in this instruction manual, together with the graphs and technical specifications provided, shall continue to belong to us and should not be used (except for starting up this installation), copied, photocopied, made available or otherwise given to third parties without our prior written consent.
INOXPA is reservation the right to modifying this instructions manual without previous notice.

1.6. INOXPA SERVICE

In the event of doubt or should you require a fuller explanation on particular data (adjustment, assembly, disassembly...), please do not hesitate to contact us.

2. Index

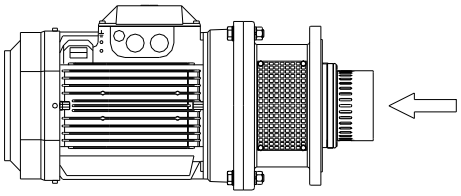
3. Reception, storage and transport

3.1. RECEPTION

INOXPA is not liable for any deterioration of the material caused by its transport or unpacking. Visually check that the packaging has not been damaged.

The following documentation is included with the mixer:

- Shipping documents.
- Instructions and Servicing manual for the mixer.
- Instructions and Servicing manual for the motor.



Unpack the mixer and check the following:

- The mixer stator and rotor, removing any remaining packaging material.
- Check that the mixer and motor have not suffered any damage.
- If not in good material condition and/or if not all the parts are included, the shipping carrier should submit a report as soon as possible.

3.2. STORAGE

If the mixer is not immediately installed, it must be stored in an appropriate place. The mixer must be stored in a horizontal position and on some wooden or similar supports.

3.3. TRANSPORT

Take all precautions when moving or assembling the mixer by using a pallet truck. Always support the mixer between the motor and the lantern to make the assembly more stable.

Depending on the model, the mixer are too heavy to store or install manually. Use an adequate means of transport.

Type	Weight [Kg.] with IE2 motor
ME-6103	35
ME-6105	65
ME-6110	86
ME-6125	180
ME-6125 (T.180)	205
ME-6130	255

4. Identification, description and use

4.1. IDENTIFICATION

The mixer is identified by means of a plate stating its characteristics attached to the motor. The type of mixer and serial number are on the plate. See figure 4.1 and 4.2.

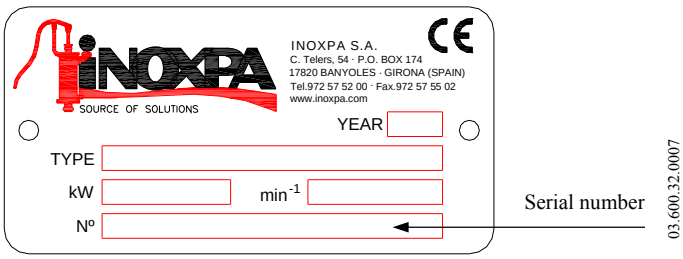


Figure 4.1: Characteristics plate mixer

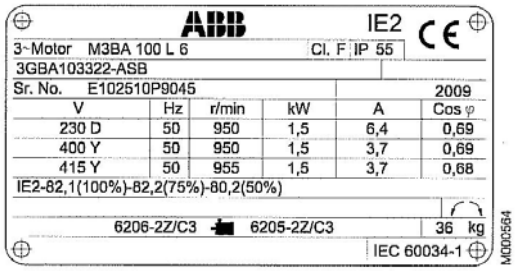


Figure 4.2: Characteristics plate motor

Example:

Head assembly

ME	**-**	**6125**
1		2

1. Number of MIXER

ME = MIXER emulsifier

2. Type.

6103
6105
6110
6125
6130

4.2. DESCRIPTION

The ME-6100 range includes high-shearing tank-bottom mixers
The mixers in this range have been designed so that the mechanical seal is accessible from inside the tank. As such, whenever it is necessary to change the seal, there is no need to detach the mixer from the tank. This range can be used in both open and closed tanks at atmospheric pressure or operating under pressure or in vacuum. They are especially suitable for work in conjunction with anchor-type agitators.
This equipment is suitable for use in the food-processing industry.

4.3. OPERATING PRINCIPLE

- The impeller sucks the fluid through the holes at the top.
- Once this suction is completed, the fluid reaches the impeller blades and these push it towards the stator where it is sheared.
- The fluid is expelled radially through the stator slots at high speed.

4.4. APLICATTION

Bottom mixers are suitable for particle-reduction processes, dissolution, dispersion, and emulsion. Given their hygienic design, these mixers are suitable for industries as demanding as cosmetics, foodstuffs, and pharmaceutics. They can also be used in other types of industries such as adhesives, chemicals, paints, and plastics.

Each mixer has performance limits. The mixer was selected for a given set of mixing conditions when the order was placed. INOXPA shall not be held responsible for any damage that might be suffered or malfunctioning of the equipment if the information provided by the buyer is incomplete or incorrect (e.g. nature of the fluids or installation details).

5. Installation and assembly

5.1. INSTALLATION AND ASSEMBLY

If the mixer is supplied without a drive or other element, the purchaser shall be responsible for its assembly, installation, start-up and operation.

5.2. LOCATION

Place the mixer in such a way as to facilitate inspection and servicing. Leave sufficient room around the mixer for adequate servicing, separate, even when it is in operation. It is very important to be able to obtain access to the electrical connection mechanism of the mixer, even when it is in working mode.
To achieve an effective mixing process it may be necessary to fit baffles to the bottom of the tank. Consult our technical department for each particular application. If required, the approximate dimensions of the baffles in relation to the diameter of the tank are shown in figure 5.1 and table 5.1.

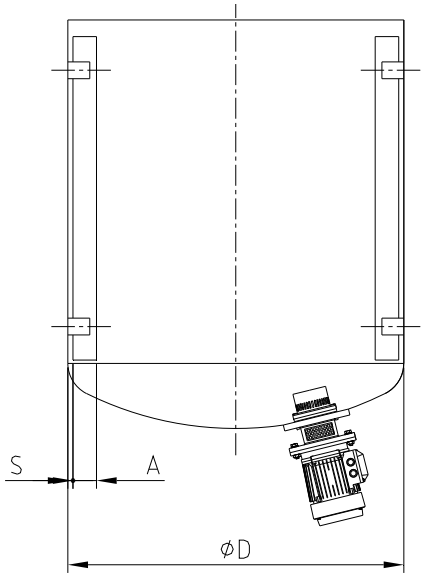


Figure 5.1

∅ D	300	400	500	600	800	1000	1200	1600	2000	2500	3000	3500	4000
A	20	30	35	40	50	70	80	115	130	180	200	240	280
S	5	5	10	10	10	15	20	20	30	30	50	50	50

Table 5.1

5.3. ASSEMBLY

- Place and assemble the mixer at the bottom of the tank ensuring that the O-ring is fitted.
- Once placed on the tank flange, place the screws and washers in their corresponding bore holes and fasten them tightly.
- Make sure that the order components of the installation are prepared and ready for start-up of the mixer.

Force should never be applied to the end of the agitator shaft, as it can easily suffer permanent damage.

5.4. PRESSURE VESSEL

Fort the models with double mechanical seals, it is necessary to install a pressure vessel.

ALWAYS install the pressure vessel at a height from 1 to 2 metres above the inlet and outlet of the seal.
ALWAYS supply the flushing liquid through the lower connection of the seal chamber.
Thus, the flushing liquid will be discharged through the upper connection. See Fig. 5.2.

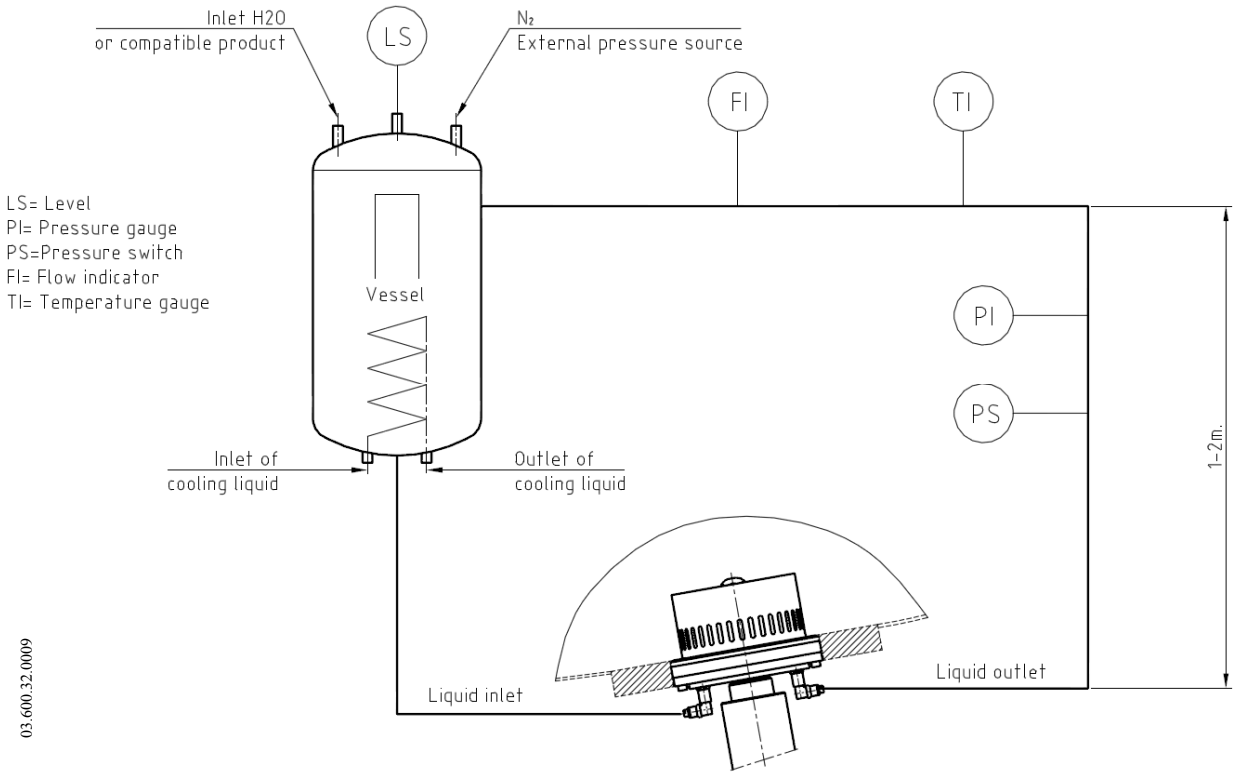


Figure 5.2 *Pressure vessel installation scheme*

5.5. ELECTRICAL CONNECTION

Before connecting the electric motor to the mains, check the local regulations and the corresponding standards regarding electrical safety. Take special account of those parts referring to command and control of the mixer. Check the manufacturer's instruction manual of the motor for connecting it to the mains.

Let the electrical connection of the motors to qualified personnel. Take the necessary measures in order to prevent any type of breakdown.
The motor should be protected with devices against overload and short-circuits.
It is not possible to use the agitator in areas of risk of fire or explosion if this has not been included in the order. Risk areas (zones 0 -1 - 2).

6. Start-up, operation and shutdown

Mixer start-up shall be able to be carried out if the detailed instructions in the section on installation and assembly have previously been realized.

6.1. START-UP

- Check that the electrical supply is appropriate for what is indicated on the motor plate.
- Check the tank's liquid level. Unless specified in the order, the mixer cannot function during tank filling or emptying.
- Check that the mechanical seal is in the condition required to operate properly (see technical specifications).

The mixer can NEVER run without a product. The agitation element must be submerged at least to a height between 2 times its diameters.

- All the guards must be in place.
- The performance of the mixer-emulsifier depends on the viscosity of the fluid being mixed. To properly operate the equipment, follow this loading procedure:
    1. Pour all the low-viscosity components inside the vessel.
    2. Start up the mixer.
    3. Check that the direction of rotation of the impeller is correct (it must rotate clockwise looking from the drive side See figure 6.1.
    4. Add the remaining fluid or soluble components.
    5. Add any solids that require to be cut or a predetermined time for reaction.
    6. Add the remaining components, including solids to stabilize the preparation or to increase viscosity.
- Check the motor's electrical consumption.

Respect the direction of rotation of the agitation element as indicated by the arrow stuck on the motor. The wrong direction will cause a loss of mixer efficiency.

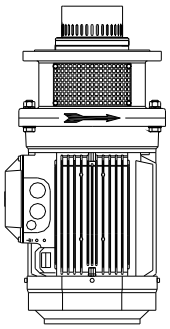


Figure 6.1

6.2. OPERATION

Do not modify the operating parameters for which the mixer was initially selected without prior written consent of INOXPA. (Risk of deterioration and danger for the user).
Follow the operating instructions and safety indications described in the instructions manual of the tank on which the mixer is mounted.

Mechanical hazards (drag, shearing, cutting, strike, squashing, clipping. etc.). If the mixer element is accessible from above or at the man way of the tank then the user is exposed to the aforementioned hazards.
The tank should be equipped with protection devices and safety equipment. Check the manufacturer's instructions manual.

The introduction of a solid object or raw material may cause breakage of the agitation element or the breakage of other mechanical parts and endanger safety and they warranty.

7. Maintenance and conservation

Maintenance work can only be carried out by qualified personnel that are trained and equipped with the necessary resources to carrying out this work.
All parts or materials that are replaced must be properly disposed of / recycled in accordance with the current directives applicable in each area.

Before beginning maintenance work, ensure that the electric motor is disconnected and that the tank is empty.

7.1. MANTENANCE

- Inspect the mixer regularly.
- Do not fail to keep the mixer clean.
- Check the state of the motor.
- Check the sealing: mechanical seal.

Motor maintenance shall be carried out in accordance with the manufacturer's instructions. See the instructions manual.

7.2. LUBRICATION

Should greasing of the motor bearings shall be carried out in accordance with the manufacturer's instructions.

7.3. SPARE PARTS

To order spare parts it 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 chapter 10, *technical specifications*.

7.4. CONSERVATION

If the agitator is out of service for a considerable period of time, clean and treat the parts with VG 46 mineral oil. The shaft must be stored in the horizontal position and on wooden supports or on supports of a similar material.

8. Operating problems: causes and solutions

Operating problems	Probable causes
Motor overload.	1, 2, 3, 10.
Insufficient mixer.	1, 3, 4, 5.
Vibrations and noise.	6, 7, 8.
Leakage.	9, 10.

	Probable causes	Solutions
1	Viscosity of the liquid too high.	Reduce the viscosity, e.g. by heating the liquid.
2	High density.	Increase motor power.
3	Tank too big for the chosen mixer.	Check with the technical department.
4	Wrong direction of rotation.	Change direction of rotation.
5	Mixer speed too low.	Increased the speed.
6	Liquid level insufficient or none.	Check liquid level in the tank.
7	Shaft bended.	Replace the shaft.
8	Worn bearing to motor.	Replace the motor bearing.
9	Seal damaged or worn.	The seal must be replaced if worn. Consult the Technical Dept. if the seal is damaged.
10	The impeller rubs	Decrease the temperature.

If the problems persist stop using the mixer immediately. Contact the MIXER manufacturer or the representative.

9. Disassembly and assembly

The assembly and disassembly of the agitators should only be carried out by qualified personnel. Ensure that staff read this instruction manual carefully, especially those parts that make direct reference to their work.

9.1. ELECTRICAL SAFETY

Ensure that the motor starter is turned off when carrying out disassembly or assembly work on the agitator.

- Place the agitator switch in the “off” position.
- Block the electrical panel and put a warning notice on it.
- Take out the fuses and take them with you to the work area.

9.2. DISASSEMBLY AND ASSEMBLY TO THE MIXER

9.2.1. Disassembly of the stator

- Empty the tank.
- Disconnect the cables from the motor terminals.
- Remove the protector (47) by taking out the screws (52) and washers (53).
- Disconnect the pressure vessel if there is.
- Enter the tank through the inspection hatch if possible. If not, detach the equipment from its location. In the latter case, remove the screws and washers fastening the mixer to the tank. This process must be carried out using a pallet truck in order to support the mixer and move it. Take care to ensure that the mixer is supported by the lantern/motor connection part for better stability and to prevent it from falling.
- Remove the stator (22), from inside the tank where applicable, by removing the Allen screws (51A).
- Remove O-ring (80A) from the stator (22).

9.2.2. Assembly the stator

- Place the O-ring (80A) to the stator (22).
- The stator (22) must be assembled from the inside of the tank. Attached the mixer to the tank fastening it with screws and washers. The process must be assisted by a pallet truck: to hold the mixer and to transport it. The mixer must be supported by the lantern/motor connection part for better stability to prevent it from falling.
- Attach the stator (22) to the cover (03) with the screws (51A).
- Connect the pressure vessel if there is.
- Place the protectors (47) to the lantern (04) and fasten them with screws (52) and washers (53).

9.3. DISASSEMBLY AND ASSEMBLY DOUBLE MECHANICAL SEAL

The double mechanical seal consists of a series of delicate parts which could be damaged by a blow or as a result of incorrect installation.

9.3.1. Disassembly.

- Perform all the steps in Section 9.2.1.
- Remove all the fittings (92) from the double mechanical seal cover (03).
- To remove the impeller (21), hold the shaft (05) with a spanner on the flats available on it, and use a pipe wrench and a mallet to remove the nut (45) with a dead blow in counterclockwise direction; the O-ring (80B) will come out with the nut (45).
- A rotating part of the double mechanical seal (08) will be released together with the impeller (21).
- Remove the key (61) from the shaft (05).
- Extract the first rotating part of the impeller (21) seal (08).
- Remove the double seal cover (03) by unscrewing the corresponding screws (51). Remove the stationary part of the double mechanical seal (08), which is attached to the double seal cover (03).
- Remove the O-ring (80) from the double seal cover (03).
- Loosen the studs (55) on the shaft (05) and separate it from the drive (93).
- The rest of the double mechanical seal (08) will come out with the shaft (05); remove the second stationary part of the double mechanical seal (08) together with its spring, then remove the second rotating part of the double mechanical seal (08).
- Unscrew the studs (55A) and remove the double sleeve seal (13) together with its O-ring (80C).
- Remove the splash ring (82) and the V-ring (81) from the shaft (05).

9.3.2. Assembly.

- Fit the O-ring (80C) on the double sleeve seal (13) and mount them on the shaft (05) using the studs (55A).
- Install the splash ring (82) and the V-ring (81) on the shaft (05).
- Connect the shaft (05) to the drive (93).
- Check the assembly dimensions of the seal. *See Sections 10.5. or 10.8.* Once checked, tighten the set screws (55) on the shaft (05). *In the case of model 6103, the lantern (04) must be removed in order to be able to tighten the hidden set screw (55).*
- Place the second rotating part of the double mechanical seal (08) on the shaft (05) aligning it correctly to the studs (55A).
- Fit the second stationary part of the double mechanical seal (08), together with its spring, on the shaft (05).
- Fit the O-ring (80) and the O-ring of the seal on the double seal cover (03) and proceed to place the double seal cover (03) on the lantern (04) *(ME-6103/6110)* or base plate (42) *(ME-6125/6130)*, taking care to align the slots of the second stationary part of the double mechanical seal (08) with the pins that prevent rotation and which are located on the double seal cover (03); tighten the Allen screws (51) to fix the double seal cover (03).
- Draw a mark with a marker pen on the first stationary part of the double mechanical seal (08), specifically on the upper part that does not come into contact with the rotating part of the seal, making sure that it matches the bottom slots on the former. Draw another mark on the double seal cover (03) that matches the pins which prevent it from turning.
- Place the first stationary part of the double mechanical seal (08) on the double seal cover (03), making sure that the marks match.
- Fit the key (61) on the shaft (05).
- Attach the first rotating part of the double mechanical seal (08) to the impeller (21), and mount the assembly on the shaft (05) making sure that markings on the cover (03) and on the first stationary part of the double mechanical seal (08) have not moved.
- Tighten the impeller (21) by hand against the force of the spring of the double mechanical seal (08) until you reach the shoulder on the shaft.
- Fix the impeller (21) to the shaft (05) using the nut (45), having previously fitted the corresponding O-ring (80B), turning the nut (45) by hand.
- Holding the shaft (05) with a spanner placed on the flats available on it, use a pipe wrench on the nut (45) to securely tighten the impeller (21).
- Check the play between the impeller (21) and the cover (03). *It should be approximately 0.5 mm all around.*
- Connect the fittings (92) to the double mechanical seal cover (03).
- Perform all the steps in Section 9.2.2.

9.4. DISASSEMBLY AND ASSEMBLY OF THE SHAFT, LLANTER AND DRIVEN

9.4.1. Disassembly size 6103 to 6105

- Complete the instructions in chapter 9.3.1.
- Remove the screws (52B) and washers (53B) and the nut (54) to remove the drive (93) from under the lantern (04).

9.4.2. Disassembly size 6110

- Complete the instructions in chapter 9.3.1.
- Remove the screws (52B) and washers (53B) to remove the drive (93) from under the lantern (04).
- Remove the counter flange (23) to the lantern (04) removing the screws (52A) and washers (53A).

9.4.3. Disassembly size 6125 to 6130

- Complete the instructions in chapter 9.3.1.
- Remove the screws (52B) and washers (53B) to remove the drive (93) from under the lantern (04).
- Remove the gasket (18) of the protector (47A) of the lantern (04).
- Remove the base plate (42) and the countersunk screws (50) from the lantern (04).

9.4.4. Assembly size 6103 to 6105

- Place the drive (93) vertically and attach the lantern (04) with the washers (53B), screws (52B) and nuts (54).
- Complete the instruction in chapter 9.3.2.

9.4.5. Assembly size 6110

- Attach the flange (23) to the lantern (04) with screws (52A) and washers (53A).
- Place the drive (93) vertically and attach the lantern (04) to the counter flange (23) with the washers (53B) and the screws (52B).
- Complete the instruction in chapter 9.3.2.

9.4.6. Assembly size 6125 to 6130

- Place the gasket (18) and the protector (47A) to the lantern (04).
- Attach the drive (93) to the lantern (04) with the screws (52B), washers (53B) and nuts (54).
- Attach the base plate (42) to the lantern (04) with the countersunk screws (50).
- Complete the instruction in chapter 9.3.2.

10. Technical specifications

10.1. TECHNICAL SPECIFICATIONS

The following limits should be considered for options:

Materials

Parts in contact with the product..... AISI 316L
Other parts in stainless steel ..... AISI 304L
Seals in contact with the product ..... EPDM (standard)
Other materials for optional gaskets ..... Check with the supplier.
Surface finish..... Polishing Ra 0.8

Double mechanical seal

Type of seal ..... Double mechanical seal
Material 1n stationary part..... Silicon
Material 1n rotary part ..... Silicon
Material 2n stationary part..... Silicon
Material 2n Rotary part..... Graphite
Material V-ring ..... EPDM
Operating pressure *(if required)* ..... 1,5 -2 bar (22-29 PSI)
Above the mixer operating pressure

Motor

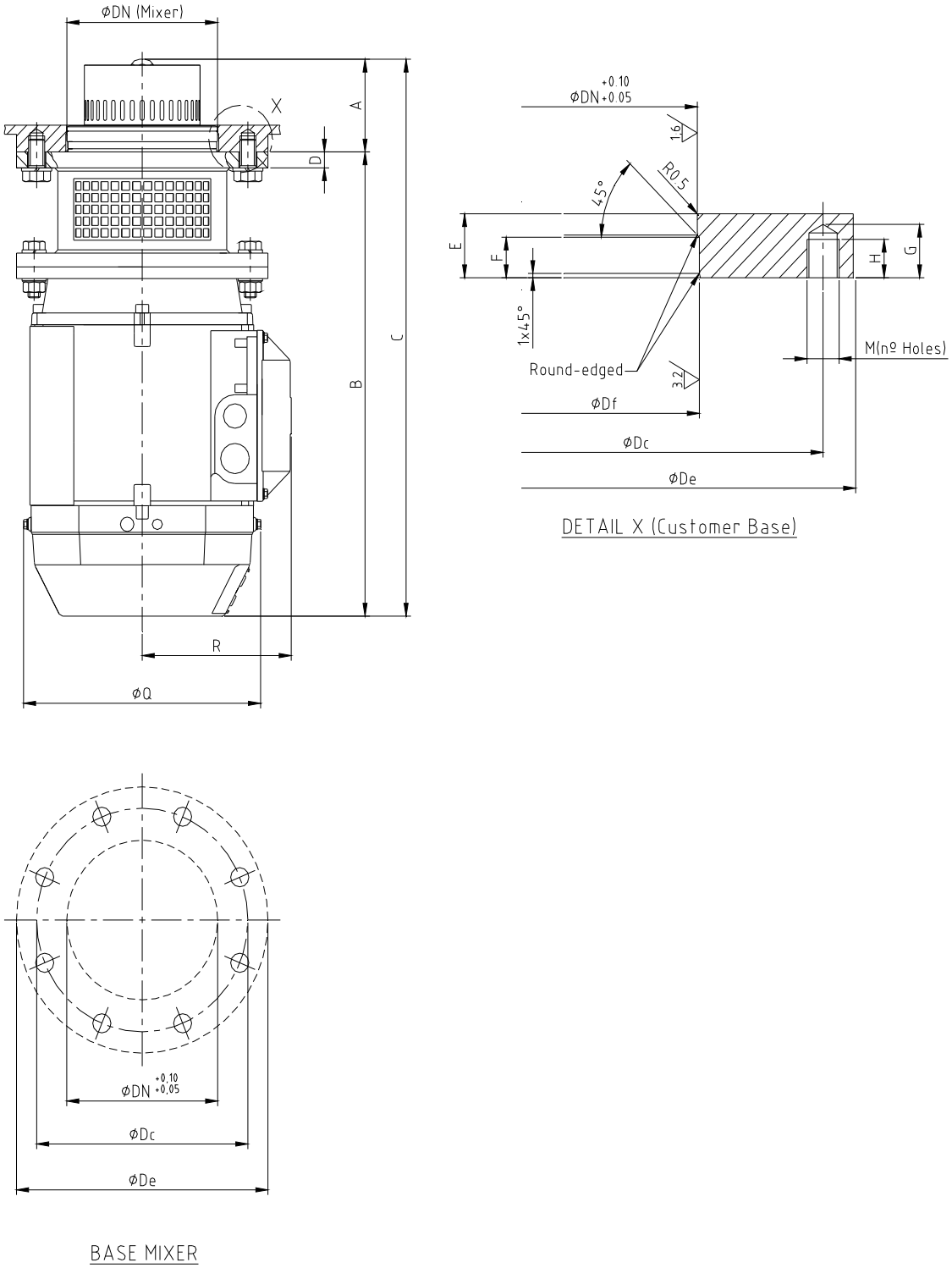
Motor standard, construction IE2 B5 (Flange)
2 poles = 2900 min^{-1} a 50Hz
4 poles = 1450 min^{-1} a 50Hz
Protection..... IP55
Connection..... 3 ~, 50Hz, 220-240VΔ/380-420VY
3 ~, 50Hz, 380-420VΔ/660-690VY

MIXER	Power kW	Speed min^{-1}
ME-6103	2,2	3000
ME-6105	4	
ME-6110	7,5	
ME-6125	18,5	
	22	
ME-6130	22	1500

When noise levels exceed 85 dB (A) in the area of work. The workers must wear hearing protection.

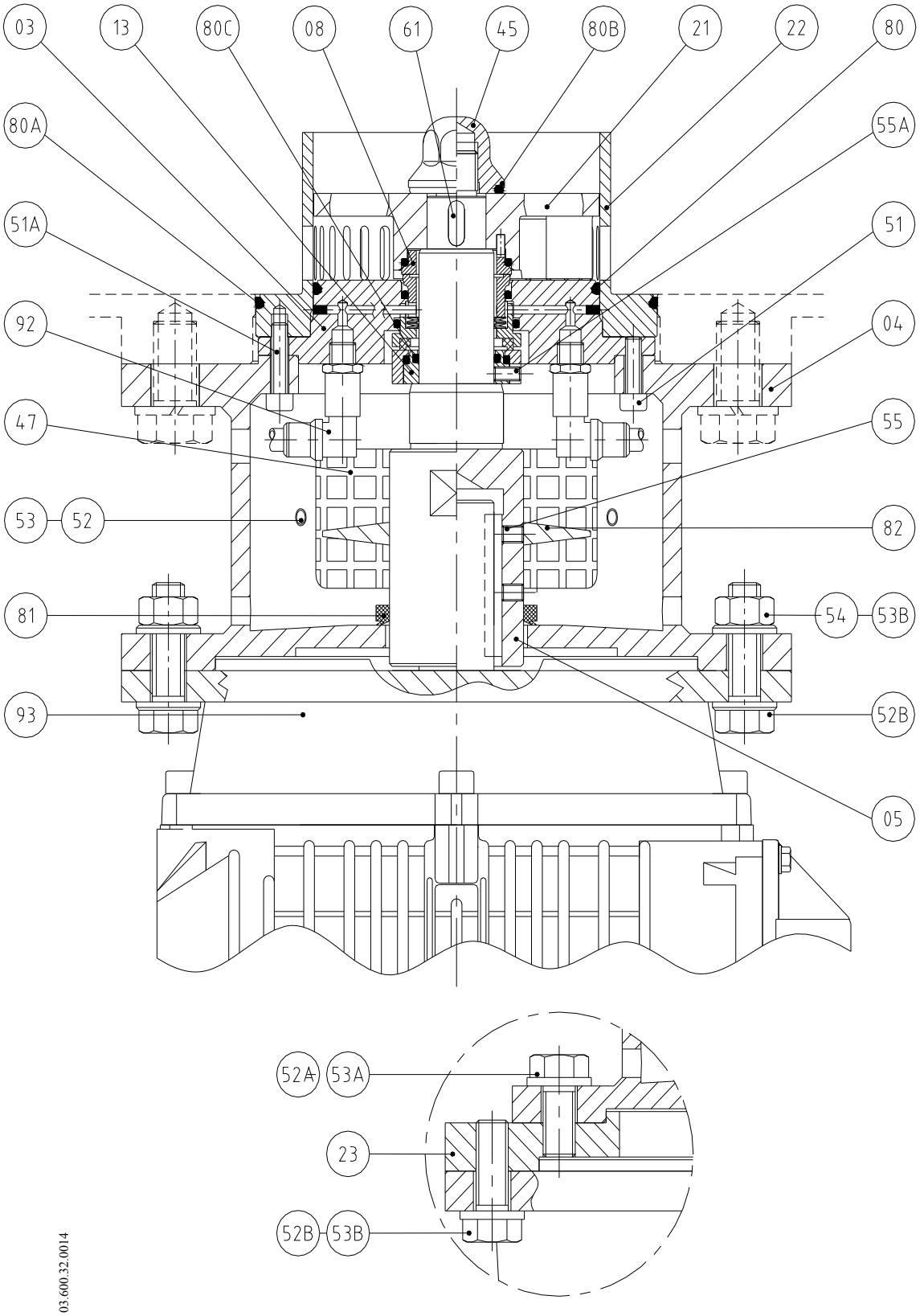
10.2. DIMENSIONS

Model	Size	Power kW	Speed Rpm	A	B	C	D	Q	R	Dimensions flange								
										ØDe	ØDc	ØDf	ØDn	Mxn	E	F	G	H
ME-6103	T-90L	2,2	3000	82	348	430	18	177	127	200	160	133.5	131.5	M16x4	25	12	21	15
ME-6105	T-112M	4		87	443	530	15	197	137	250	210	152	150	M16x8				
ME-6110	T-132S	7,5			478	565		261	164									
ME-6125	T-160L	18,5		108	732	840	26	323	210	350	300	177	175		30	15	27	20
	T-180M	22			777	885		354	225									
ME-6130	T-180L	22	1500	144	776	920						241	239					



03.600.32.0009

10.3. CROSS-SECTION ME-6103/6110 DOUBLE MECHANICAL SEAL

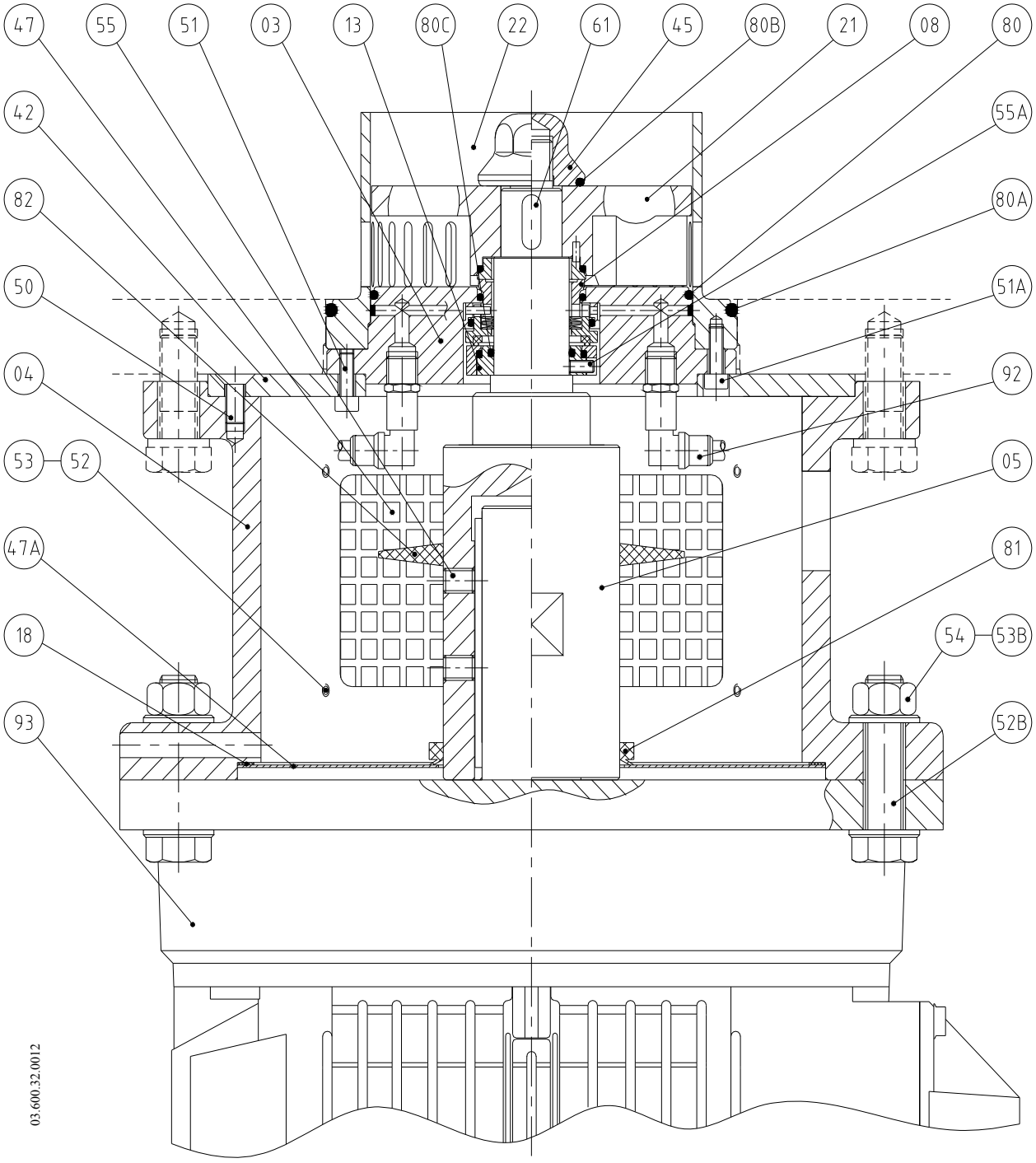


DETAIL BASE PLATE ME-6110

10.4. PARTS LIST ME-6103/6110 DOUBLE MECHANICAL SEAL

Position	Quantity	Description	Material
03	01	Cover double seal	AISI 316L
04	01	Lantern	AISI 304L
05	01	Shaft	AISI 316L
08	01	Double mechanical seal	Silicon/Graphite/EPDM
13	01	Jacket double mechanical seal	AISI 316L
21	01	Rotor	AISI 316L
22	01	Stator	AISI 316L
23	01	Base plate *(only for size ME-6110)*	F 1110
45	01	Blind nut	AISI 316L
47	02	Lantern protection	AISI 304L
51	04	Screw DIN-912	A2
51A	02	Screw DIN-912	A2
52	04	Screw DIN-933	A2
52A	04	Screw DIN-933	A2
52B	04	Screw	A2
53	04	Flat washer DIN-125	A2
53A	04	Flat washer DIN-125 *(only for size ME-6110)*	A2
53B	04	Flat washer DIN-125	A2
54	04	Nut DIN-934	A2
55	02	Stud DIN-916	A2
55A	03	Stud DIN-916	A2
61	01	Key	AISI 316L
80	01	O-ring	EPDM
80A	01	O-ring	EPDM
80B	01	O-ring	EPDM
80C	01	O-ring	EPDM
81	01	V-ring	NBR
82	01	Splash ring	EPDM
92	02	Fittings	INOX
93	01	Driven	-

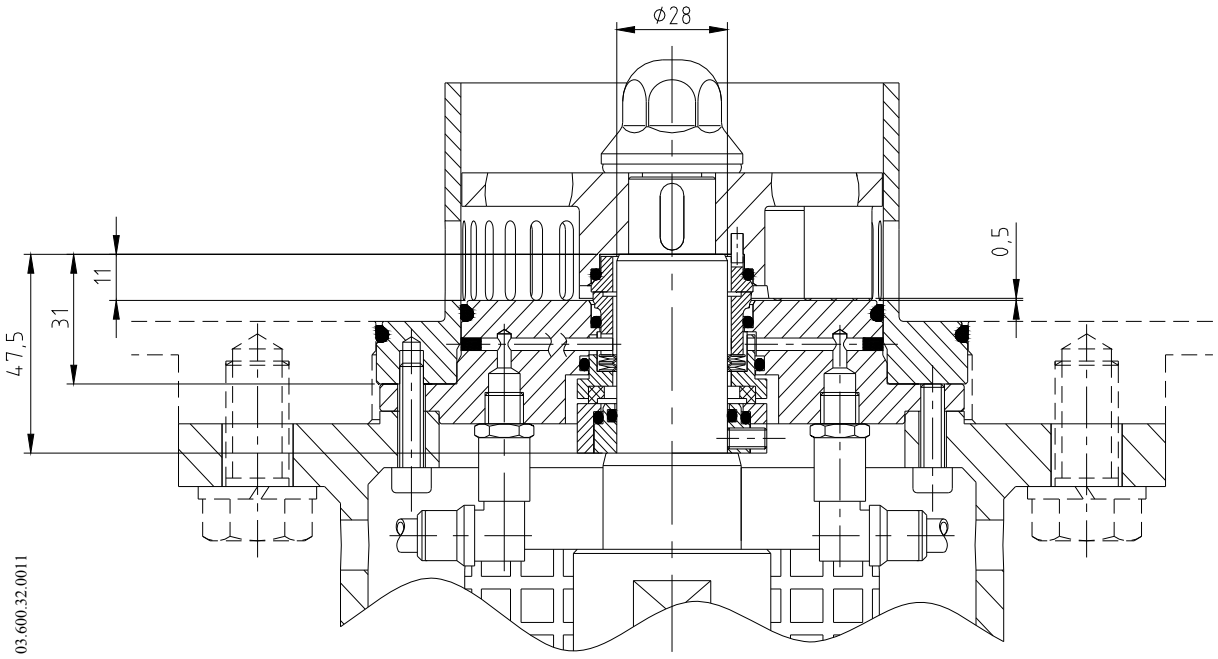
10.5. CROSS-SECTION ME-6125/6130 DOUBLE MECHANICAL SEAL



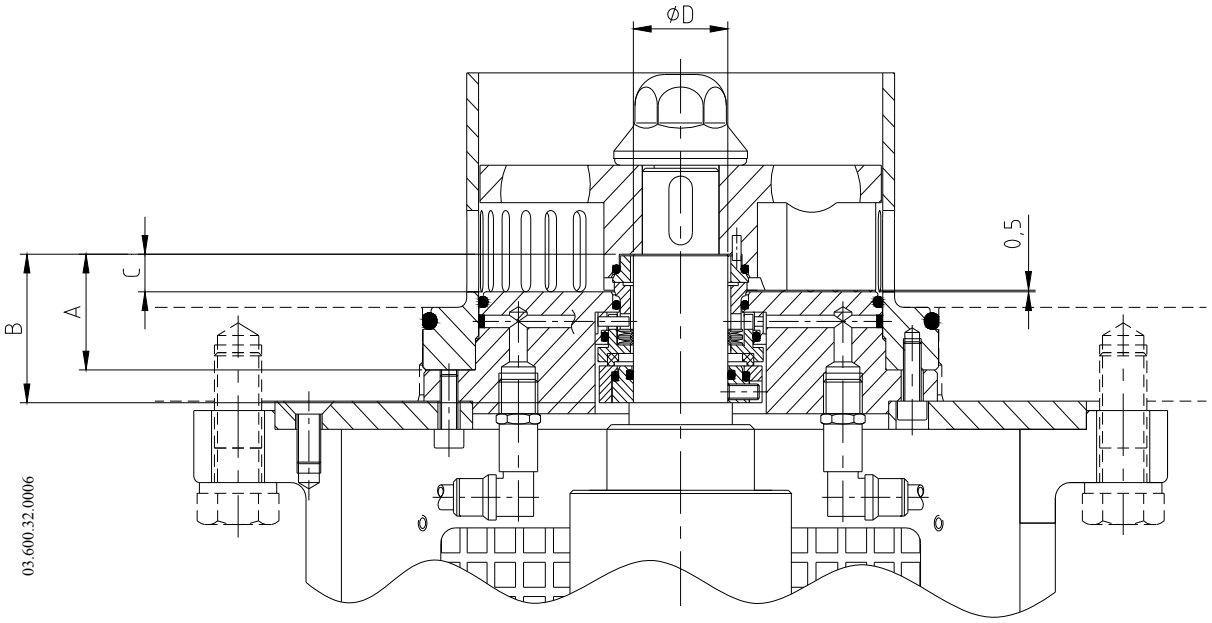
10.6. PARTS LIST ME-6125/6130 DOUBLE MECHANICAL SEAL

Position	Quantity	Description	Material
03	01	Cover double seal	AISI 316L
04	01	Lantern	AISI 304L
05	01	Shaft	AISI 316L
08	01	Double mechanical seal	Silicon/Graphite/EPDM
13	01	Jacket double mechanical seal	AISI 316L
18	01	Special gasket	PTFE
21	01	Rotor	AISI 316L
22	01	Stator	AISI 316L
42	01	Base plate	AISI 316L
45	01	Blind nut	AISI 316L
47	02	Lantern protection	AISI 304L
47A	01	Protector	AISI 304L
50	02	Screw DIN-7991	A2
51	04	Screw DIN-912	A2
51A	02	Screw DIN-912	A2
52	08	Screw DIN-933	A2
52B	04	Screw DIN-933	A2
53	08	Flat washer DIN-125	A2
53B	04	Flat washer DIN-125	A2
54	04	Nut DIN-934	A2
55	02	Stud DIN-916	A2
55	03	Stud DIN-916	A2
61	01	Key	AISI 316L
80	01	O-ring	EPDM
80A	01	O-ring	EPDM
80B	01	O-ring	EPDM
80C	01	O-ring	EPDM
81	01	V-ring	NBR
82	01	Splash ring	EPDM
92	02	Fittings	
93	01	Driven	-

10.7. ASSEMBLY DIMENSIONS ME-6103/6110 DOUBLE MECHANICAL SEAL



10.8. ASSEMBLY DIMENSIONS ME-6125/6130 DOUBLE MECHANICAL SEAL



Size	ØD	A	B	C
ME-6125	Ø32	37	47,5	12
ME-6130	Ø50	42	56	13

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