

INSTALLATION, SERVICE, AND MAINTENANCE INSTRUCTIONS

WINE AGITATOR

CPG



20.027.32.0002



Translation of the original instructions

20.027.30.01EN

(0) 2025/03



INOXPA S.A.U.

Telers, 60
17820 - Banyoles (Spain)

assume responsibility for declaring that

Machine: **SIDE-ENTRY AGITATOR**

Model: **CPG**

Serial number: **IXXXXXXXXXX to IXXXXXXXXXX**
XXXXXXXXXXIINXXX to XXXXXXXXXXXIINXXX

complies with the applicable provisions in the following directives:

Machinery Directive 2006/42/EC
Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment
Regulation (EC) No 1935/2004
Regulation (EC) No 2023/2006

and with the following harmonised standards:

EN ISO 12100:2010
EN 60204-1:2018
EN IEC 63000:2018

The person signing this document drafted this Technical File.

A handwritten signature in black ink, appearing to read "DR Brunet".

David Reyer Brunet
Technical Office Manager
12 February 2025



Document: 20.027.30.02EN
Revision: (0) 2025/02

Declaration of Conformity



INOXPA S.A.U.

Telers, 60
17820 - Banyoles (Spain)

assume responsibility for declaring that

Machine: **SIDE-ENTRY AGITATOR**

Model: **CPG**

Serial number: **IXXXXXXXXXX to IXXXXXXXXXX**
XXXXXXXXXXIINXXX to XXXXXXXXXXXIINXXX

complies with the applicable provisions of the following regulations:

Supply of Machinery (Safety) Regulations 2008
The Restriction of the Use of Certain Hazardous Substances in
Electrical and Electronic Equipment Regulations 2012 (as amended)

and with the following harmonised standards:

EN ISO 12100:2010
EN 60204-1:2018
EN IEC 63000:2018

The person signing this document drafted this Technical File.

A handwritten signature in black ink, appearing to be "DRB", written over a light grey rectangular background.

David Reyer Brunet
Technical Office Manager
12 February 2025

UK
CA

Document: 20.027.30.03EN
Revision: (0) 2025/02

1. Table of contents

1. Table of contents	
2. General considerations	
2.1. Instruction manual	5
2.2. Regarding compliance with the instructions	5
2.3. Warranty	5
3. Safety	
3.1. Warning symbols.....	6
3.2. General safety instructions	6
4. General information	
4.1. Description	8
4.2. Range of application	8
5. Installation	
5.1. Taking delivery of the agitator	9
5.2. Transportation and storage.....	9
5.3. Identifying the agitator.....	10
5.4. Location	10
5.5. Electrical installation	10
6. Start-up	
6.1. Start-up	12
7. Troubleshooting	
8. Maintenance	
8.1. General considerations	15
8.2. Check the mechanical seal	15
8.3. Storage.....	15
8.4. Lubrication.....	15
8.5. Spare parts	15
8.6. Conservation	15
8.7. Cleaning.....	15
8.8. Disassembly and assembly	16
9. Technical Specifications	
9.1. Technical specifications	18
9.2. Weights	18
9.3. CPG agitator dimensions	19
9.4. CPG-211A / B agitator exploded view.....	20
9.5. CPG-211A / B parts list	21
9.6. CPG-330 agitator exploded view.....	22
9.7. CPG-330 parts list	23

2. General considerations

2.1. INSTRUCTION MANUAL

This manual contains information regarding taking delivery of, installing, operating, assembling, disassembling, and maintaining the CPG wine agitator.

Before starting up the machine, read the instructions carefully, familiarise yourself with how the machine works and operates, and follow the instructions closely. These instructions should be kept in a set location and close to where it is installed.

The information published in the instruction manual is based on current data.

INOXPA reserves the right to amend this instruction manual without prior notice.

2.2. REGARDING COMPLIANCE WITH THE INSTRUCTIONS

Failing to comply with these instructions may prove hazardous for operators, the environment, the machine, and the installations, and may lead to losing the right to claim for damages.

Failing to comply with these instructions could lead to the following risks in particular:

- a fault with the machine and/or plant's main functions,
- specific maintenance and repair procedure errors,
- potential electrical, mechanical, and chemical risks,
- potential environmental harm from released substances.

2.3. WARRANTY

The warranty conditions are specified in the General Terms and Conditions of Sale provided when ordering.



The machine cannot be modified in any way without first checking with the manufacturer. Use original spare parts and accessories for your own safety. The manufacturer will not longer be liable should other parts be used.

Written authorisation from INOXPA is required for any potential change to the service conditions.

Failure to comply with the instructions in this manual means the machine has been used incorrectly from a technical and personal safety point of view, exempting INOXPA of any liability in the event of accidents or personal injury and/or material damage. Every fault resulting from improper machine use will not be covered by the warranty either.

Please do not hesitate to contact us if you have any queries or require more in-depth explanations about specific data (adjustments, assembly, disassembly, and so on).

3. Safety

3.1. WARNING SYMBOLS



General hazard to people



Electrical hazard

ATTENTION

A safety instruction to prevent damage to the machine and/or its functions.

3.2. GENERAL SAFETY INSTRUCTIONS



Read the instruction manual carefully before installing and starting up the agitator. If in doubt, please contact INOXPA.

3.2.1. During installation



Always consider the [Technical Specifications](#) of section 9.

Check the agitator is secured correctly and that the shaft is aligned perfectly. Serious mechanical problems could occur with the agitator otherwise.

Check the motor's specifications are correct, especially if there is potential for an explosion hazard due to the operating conditions.



Authorised staff must carry out all electrical work during installation.

3.2.2. During operation



Always consider the [Technical Specifications](#) of section 9. The specified threshold values can NEVER be exceeded.

NEVER touch the agitator during operation if the agitator is being used in a tank with hot fluids given the potential burn risk. The agitator contains moving parts. Never put fingers inside the agitator during operation.

Remove the agitator shaft before closing the valve.

NEVER spray water directly onto the electrical motor. The motor protection standard is IP-55: protection against dust and water jets.

The agitator cannot operate without fluid. CPG agitators are not designed to operate while tanks are filling or draining.

3.2.3. During maintenance



Always consider the [Technical Specifications](#) of section 9.

NEVER remove the agitator until its temperature has dropped and is now safe to handle. The operator must always use suitable protection while carrying out agitator maintenance.

Do not leave loose parts on the floor.



ALWAYS disconnect the agitator's electrical power supply before starting maintenance.

Remove the fuses and disconnect the cables from the motor's terminals.

Authorised staff must carry out all electrical work.

4. General information

4.1. DESCRIPTION

CPG series wine agitators are side-entry agitators. They are designed for installation and removal through a full bore valve with the tank full of product, with no loss of pressure and no need to use tools or special equipment. The design is based on a sliding agitator shaft and a folding propeller that opens automatically on start-up. A mechanical seal provides the seal.

Every part that comes into contact with the product is made from grade 1.4404 stainless steel (AISI 316L). It has an electropolished surface finish. A type 12 folding propeller is the standard agitation element.

This machine is suitable for use with food processes.

4.2. RANGE OF APPLICATION

The CPG agitator has particular applications in the wine industry in general, maintaining solids in suspension, mixing wines (blending), gasification (SO₂ and CO₂), temperature homogenisation, syrup distribution, and so on. The maximum tank volume with this agitator is 100,000 litres and the viscosity ranges from 1 to 100 cPs (depending on the product's characteristics).

ATTENTION



Each agitator type has a limited range of application. The agitator was selected based on the agitation conditions specified when ordering. INOXPA shall not be liable for any potential damage should the purchaser have provided incomplete information (type of fluid, viscosity, RPM, and so on).

5. Installation

5.1. TAKING DELIVERY OF THE AGITATOR

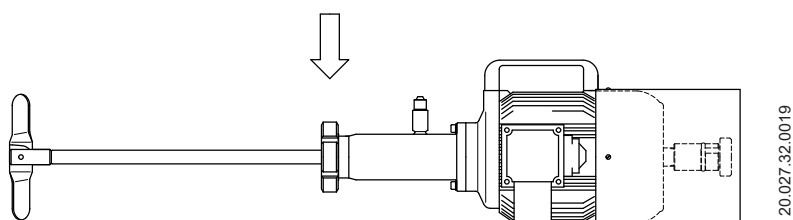


INOXPA will not be liable for any material damage during shipping or unpacking. Visually check the packaging remains intact.

The agitator comes with the following documentation:

- Shipping documents.
- The agitator's instruction and service manual.

On taking delivery of the agitator, check that the packaging and its contents match the delivery note. INOXPA package agitators fully assembled or unassembled as required. Ensure the agitator is not damaged. If not in perfect condition and/or if any part is missing, the carrier must submit a report as soon as possible.



5.2. TRANSPORTATION AND STORAGE



ATTENTION

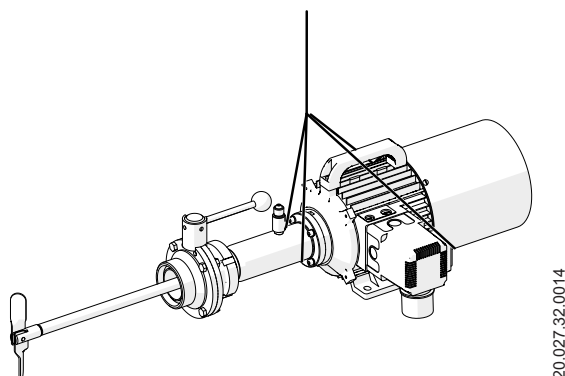
CPG agitators are often too heavy to be put into storage manually.



ATTENTION

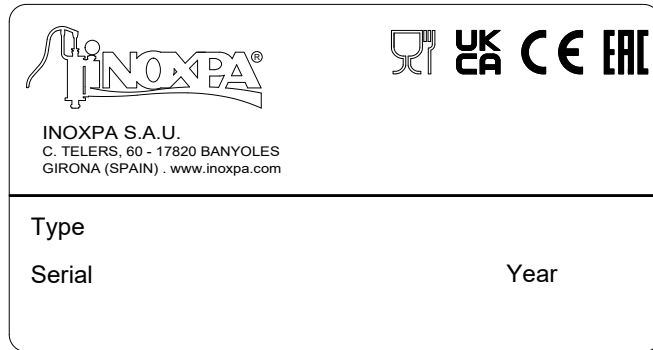
Do not handle the agitator using the shaft as it may bend.

- Lift the agitator using the points indicated in the picture.
- Secure the points to prevent slippage.



5.3. IDENTIFYING THE AGITATOR

A nameplate fitted onto the motor is used for identifying the agitator. The plate includes the agitator type and serial number.



5.4. LOCATION

After deciding the agitator's location, use the nut on the outlet pipe to attach it to the tank, using a suitable spanner to tighten it firmly.

Be careful to ensure the agitator shaft does not receive any impacts during fitting, and do not force it to avoid it bending.



Ensure suitable ventilation when installing the agitator. Any outdoor agitator installation must be under a roof. The location must allow for easy access for inspection or maintenance tasks.

ATTENTION



Never apply force to the end of the agitator shaft as it can easily become permanently bent.

ATTENTION



The CPG-330 agitator has to always rest on a support when fitted to the tank.

5.5. ELECTRICAL INSTALLATION

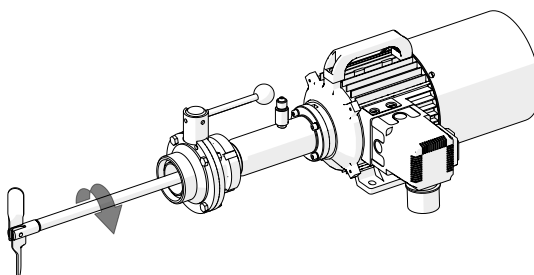


Specialised staff must carry out all electrical work. Take whatever measures are necessary to prevent connection and cable faults.



Electrical equipment, terminals, and components of control systems may still carry a charge after being disconnected. Coming into contact with them can jeopardise operator safety or cause irreversible damage to the material. Ensure the motor's power supply is disconnected before handling the agitator.

- Follow the motor manufacturer's instructions when connecting the motor.
- Check the rotation direction (see the label on the agitator).



20.027.32.0015

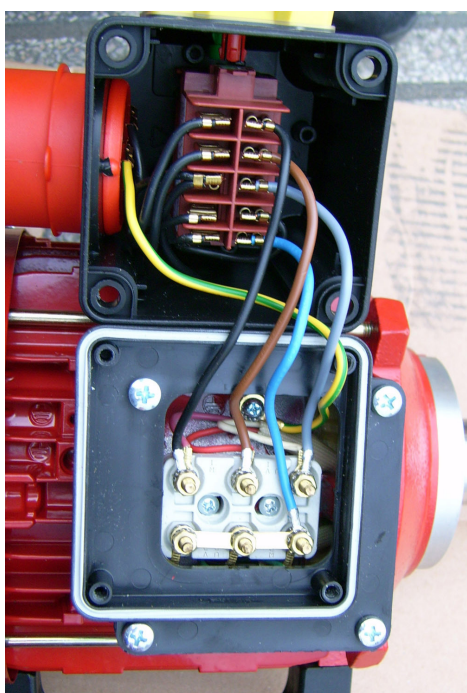
Start up the agitator's motor briefly. Ensure it rotates in the direction shown on the nameplate. The folding propeller may fall into the tank if the agitator operates in the wrong direction.

CAUTION

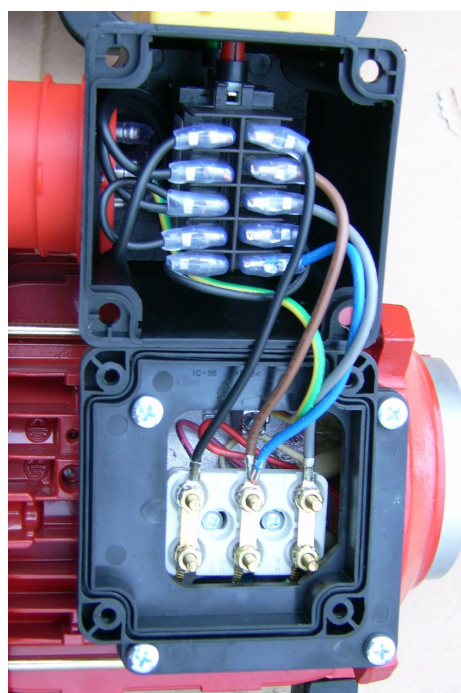


ALWAYS ensure there is fluid inside the agitator when checking the motor's rotation direction.

- The agitator is manufactured with the connection ready to operate at 400V (left photo). If the customer has 230V voltage, the connection should be changed as shown in the right photo.



380 – 480V



220-280V

20.027.32.0017 - 0018

6. Start-up



Read the instructions in section [5. Installation](#) carefully before starting up the agitator.

6.1. START-UP



Read section [9. Technical Specifications](#) carefully. INOXPA is not liable for the machine being used incorrectly.
NEVER touch the agitator when it is operating with high temperature fluids.

6.1.1. Checks before starting up the agitator.

- Check the agitator shaft's alignment and that it slides smoothly through the hollow shaft.
- Check the tank's fluid level. Agitators cannot operate while the tank is filling or draining if this was not specified when ordering.
- Open the valve where the agitator is attached.
- Insert the shaft into the tank.
- Remove any air in the mechanical seal area by opening the housing drainage outlet until fluid drains.

ATTENTION



The agitator must NEVER rotate when dry as the mechanical seal could incur serious damage.

- Check that the electrical power supply matches the indications on the motor's nameplate.
- Check the motor rotates in the right direction.

6.1.2. Checks when starting up the agitator

- Check the agitator is not making any strange noises.
- Check there are no leaks around the seals.

ATTENTION



Introducing an object or solid raw material may cause the agitation component or other mechanical parts to break and compromise its safety or warranty.

ATTENTION

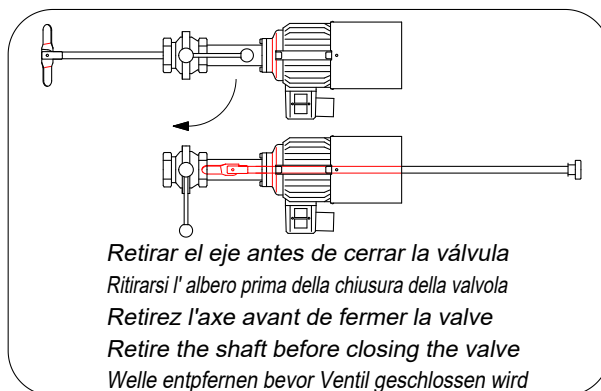


Monitor the motor's consumption to prevent over-current.

ATTENTION



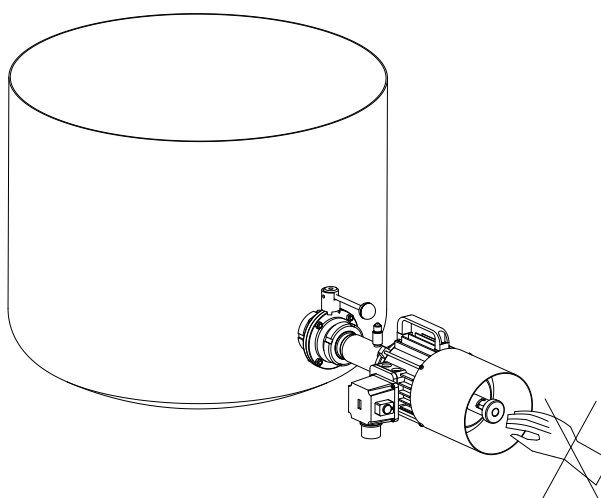
Remove the agitator shaft before closing the valve, as shown on the sticker on the agitator.



20.027.32.0012



Once the agitator is operational, be careful to avoid putting hands on the rear part of the agitator inside the motor's hood, because parts of the agitator are rotating there and could cause serious personal injury.



20.027.32.0020

7. Troubleshooting

The table below contains solutions for potential issues while operating the agitator. The agitator is assumed to have been installed and selected correctly for the use in question. Please contact INOXPA if technical support is required.

Motor Over-Current																									
Insufficient agitation																									
Vibrations and noise																									
Mechanical seal																									
O-ring																									
	<table border="1"> <thead> <tr> <th>PROBABLE CAUSES</th> <th>SOLUTIONS</th> </tr> </thead> <tbody> <tr> <td>• • Fluid too viscous.</td> <td>Reduce the viscosity, by heating the fluid for example.</td> </tr> <tr> <td>• High density.</td> <td>Reduce the propeller's diameter.</td> </tr> <tr> <td>• Tank too big for the selected agitator.</td> <td>Check with the technical department.</td> </tr> <tr> <td>• Rotates in the wrong direction.</td> <td>Reverse the rotation direction.</td> </tr> <tr> <td>• • Level too low or no fluid at all.</td> <td>Check the tank's fluid level.</td> </tr> <tr> <td>• Bent shaft.</td> <td>Replace the shaft.</td> </tr> <tr> <td>• Scratched shaft.</td> <td>Replace the shaft.</td> </tr> <tr> <td>• Critical velocity.</td> <td>Check the shaft gap.</td> </tr> <tr> <td>• Brass bushings worn.</td> <td>Replace the brass bushings.</td> </tr> <tr> <td>• Mechanical seal damaged or worn.</td> <td>Replace the mechanical seal.</td> </tr> <tr> <td>• • O-ring damaged or worn.</td> <td>Replace the O-ring.</td> </tr> </tbody> </table>	PROBABLE CAUSES	SOLUTIONS	• • Fluid too viscous.	Reduce the viscosity, by heating the fluid for example.	• High density.	Reduce the propeller's diameter.	• Tank too big for the selected agitator.	Check with the technical department.	• Rotates in the wrong direction.	Reverse the rotation direction.	• • Level too low or no fluid at all.	Check the tank's fluid level.	• Bent shaft.	Replace the shaft.	• Scratched shaft.	Replace the shaft.	• Critical velocity.	Check the shaft gap.	• Brass bushings worn.	Replace the brass bushings.	• Mechanical seal damaged or worn.	Replace the mechanical seal.	• • O-ring damaged or worn.	Replace the O-ring.
PROBABLE CAUSES	SOLUTIONS																								
• • Fluid too viscous.	Reduce the viscosity, by heating the fluid for example.																								
• High density.	Reduce the propeller's diameter.																								
• Tank too big for the selected agitator.	Check with the technical department.																								
• Rotates in the wrong direction.	Reverse the rotation direction.																								
• • Level too low or no fluid at all.	Check the tank's fluid level.																								
• Bent shaft.	Replace the shaft.																								
• Scratched shaft.	Replace the shaft.																								
• Critical velocity.	Check the shaft gap.																								
• Brass bushings worn.	Replace the brass bushings.																								
• Mechanical seal damaged or worn.	Replace the mechanical seal.																								
• • O-ring damaged or worn.	Replace the O-ring.																								



Stop using the agitator immediately if the problems persist. Contact the agitator's manufacturer or their representative.

8. Maintenance

8.1. GENERAL CONSIDERATIONS

Just like any other machine, this agitator requires maintenance. The instructions in this manual include spare part identification and replacement. The instructions were drafted for maintenance staff and those responsible for spare part supply.



Please read section [9. Technical Specifications](#) carefully.
All replaced material must be disposed of/recycled as required in accordance with current guidelines in each area.



ALWAYS disconnect the agitator before starting maintenance work.



This symbol indicates that the product should be taken to sorting facilities for recovery and recycling and not be disposed of as unsorted waste.

8.2. CHECK THE MECHANICAL SEAL

Check regularly for any leaks from the area at the front of the motor. The mechanical seal should be replaced by following the instructions in the Disassembly and Assembly section in the event of a leak.

8.3. STORAGE

There should be no fluids at all in the agitator before storage. Avoid exposing parts to excessively humid environments as much as possible.

8.4. LUBRICATION

Follow the manufacturer's indications when lubricating the motor's bearings.

8.5. SPARE PARTS

When requesting spare parts, state the type and serial number indicated on the agitator nameplate, along with the part's position and description shown in section [9. Technical Specifications](#).

8.6. CONSERVATION

If the agitator is to be left out of service for a long time, clean and treat the parts with VG46 mineral oil. The shaft must be stored in a horizontal position and on wooden or similar material supports.

8.7. CLEANING



Using cleaning products such as caustic soda and nitric acid can burn the skin.
Wear rubber gloves during all cleaning procedures.
Always wear safety glasses.

8.8.2. CIP (clean-in-place) cleaning

The valve will not need to be removed if it is installed into a system with a CIP process. EPDM is the standard seal material that should be used for CIP cleaning, both with alkaline and acidic media. HNBR and FPM seal materials are not recommended.

Two types of solutions can be used for CIP processes:

a. an alkaline solution: 1% by weight of caustic soda (NaOH) at 70°C (150°F). To make this cleaning solution:

1 kg NaOH + 100 l H₂O¹ = cleaning solution

2.2 l of 33% NaOH + 100 l H₂O = cleaning solution

b. an acidic solution: 0.5% by weight of nitric acid (HNO₃) at 70°C (150°F). To make this cleaning solution:

0.7 l of 53% HNO₃ + 100 l H₂O = cleaning solution

1) only use chloride-free water when making cleaning solutions

ATTENTION



Control cleaning solution concentrations. The wrong concentration can cause valve seals to deteriorate.

ALWAYS rinse with clean water to remove cleaning agent residues when completing the cleaning process.

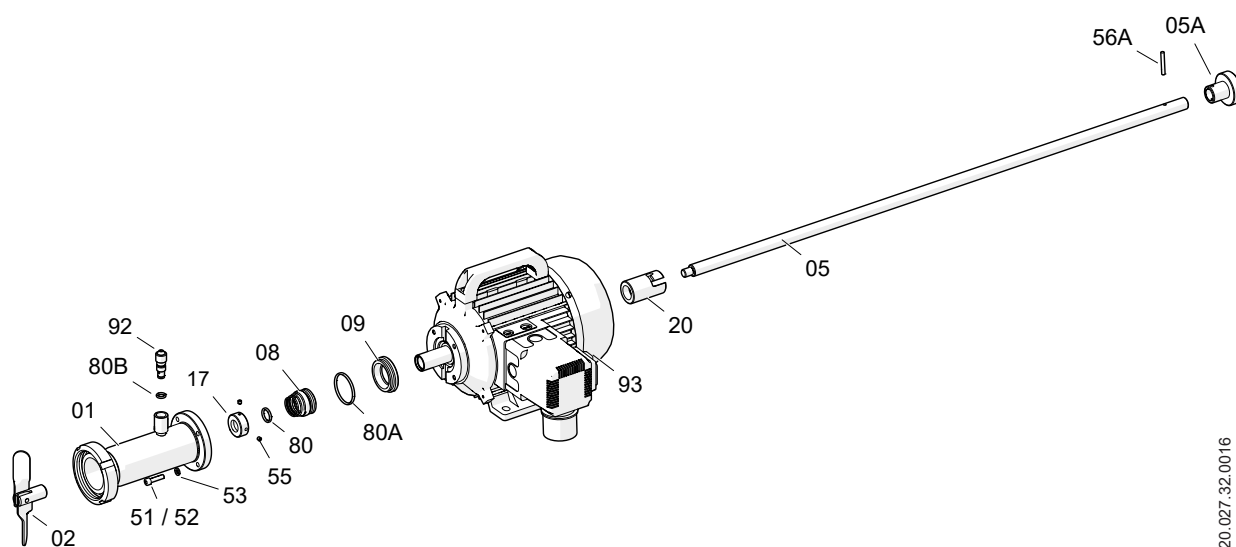
8.8. DISASSEMBLY AND ASSEMBLY

8.8.1. Disassembly

1. Remove the agitator from the tank.
2. Remove the blade unit (02) by unscrewing it from the agitator shaft (05).
3. Unscrew and remove the screws (51 / 52) and their grower washers (53) that connect the outlet pipe with drainage (01) to the motor (93).
4. Slide the pin (56A) along its guide and pull the shaft out from behind the motor (93).
5. If necessary, remove the pin (56A) and pull out the shaft rotator (05A).
6. If necessary, unscrew the centring tube (20) from the motor (93).
7. Remove the mechanical seal stopper (17) by removing the Allen screws (55).
8. Remove the rotating part of the mechanical seal (08).
9. Remove the mechanical seal cover (09) and the O-ring (80A).
10. Remove the non-moving part of the mechanical seal (08).

8.8.3. Assembly

1. Put the O-ring (80A) inside the mechanical seal cover (09).
2. Fit the mechanical seal cover (09) inside the motor flange housing (93).
3. Carefully insert the non-moving part of the mechanical seal (08) into the mechanical seal cover (09) housing.
4. Slide the rotating part of the mechanical seal (08) onto the motor shaft (93).
5. Move the mechanical seal stopper (17) until it touches the motor shaft and secure using the Allen screws (55).
6. Insert the outlet pipe with drainage (01) through the agitator shaft (05) and use the screws (51 / 52) and their grower washers (53) to secure it to the motor.
7. If necessary, screw the centring tube (20) to the motor (93).
8. If necessary, place the shaft rotator (05A) onto the agitator shaft (05) and use the pin (56A) to secure it.
9. Place the agitator shaft (05) through the motor's hole (93) and secure it by sliding the pin (56A) along the centring tube (20) guide.
10. Screw the blade unit (02) to the agitator shaft (05).



20.027.32.0016

9. Technical Specifications

9.1. TECHNICAL SPECIFICATIONS

Maximum viscosity	100 mPa.s.
Maximum pressure	2 bar
Maximum temperature.....	+80°C
	+176 °F
Noise level	60-80 dB(A)
Securing connection DIN 11851 (nut)	



Use special protection if the noise level in the work area exceeds 85 dB(A).

Materials

Parts in contact with the product	1.4404 (AISI 316L)
Other parts in stainless steel 1.4307 (AISI 304L)	
Seals in contact with the product.....	EPDM
Other optional seal materials.....	Check with the supplier
Surface finish.....	Matte

Mechanical seal

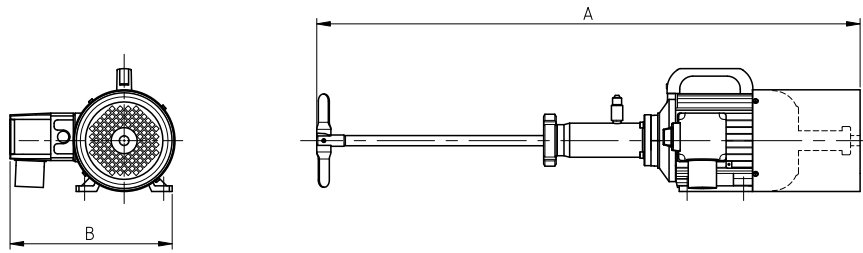
Seal type.....	simple internal seal
Non-moving part material	graphite
Seals in contact with the product.....	EPDM
Rotating part material	1.4404 (AISI 316L)
Seals material.....	EPDM

Agitator type	Power [kW]	Volume in H ₂ O [m ³]	Speed [r.p.m.]
CPG-211A	1.1	20	1400 / 1700
CPG-211B	1.1	25-50	1400
CPG-330	3	50-100	1400 / 1700

9.2. WEIGHTS

Agitator type	Weight [kg]
CPG-211A	19
CPG-211B	19
CPG-330	42

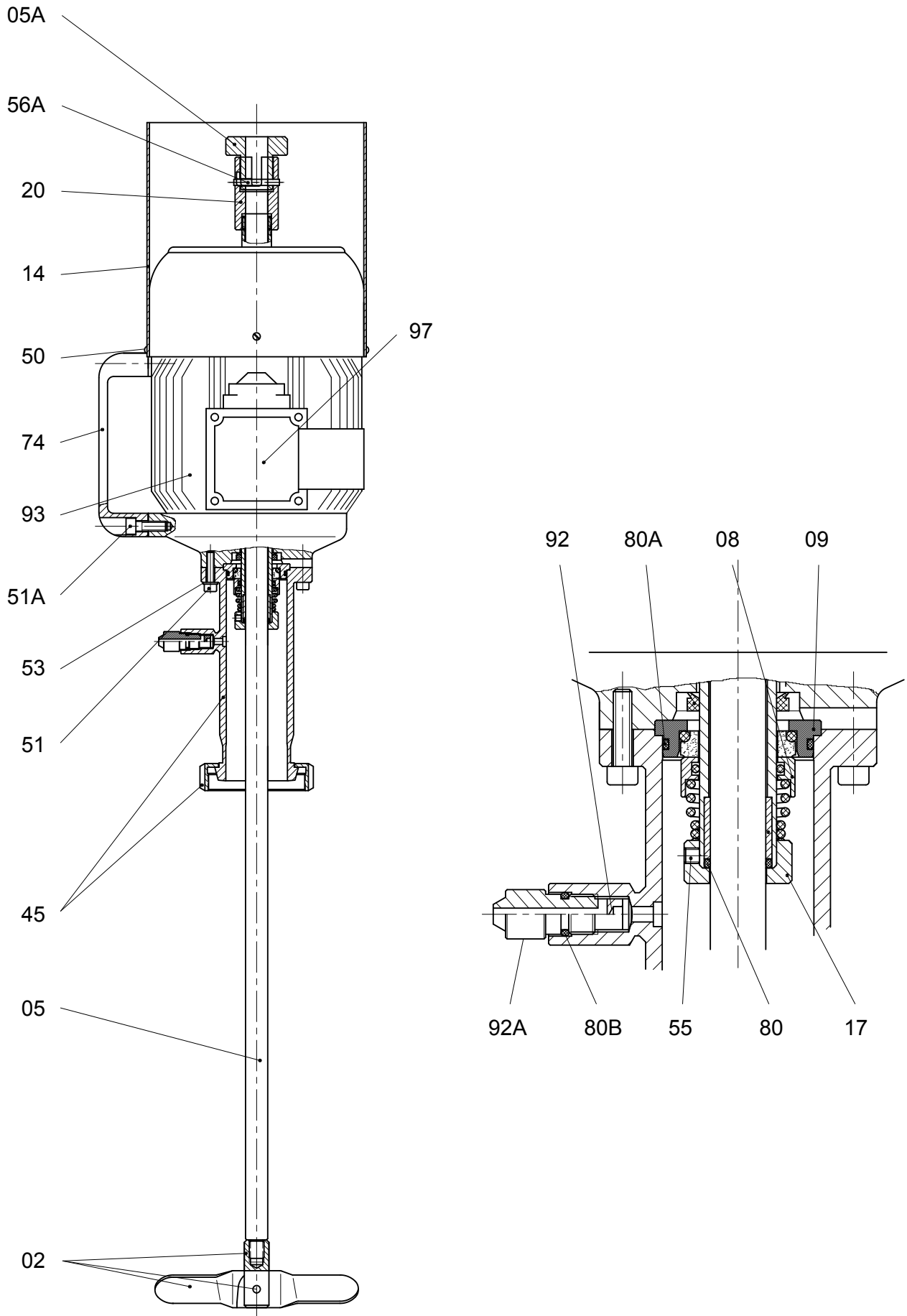
9.3. CPG AGITATOR DIMENSIONS



20.027.32.0013

Agitator type	DN	A	B
CPG-211A	50 / 2"	960	290
CPG-211B	50 / 2"	960	290
CPG-330	65 / 3"	1175	320

9.4. CPG-211A / B AGITATOR EXPLODED VIEW

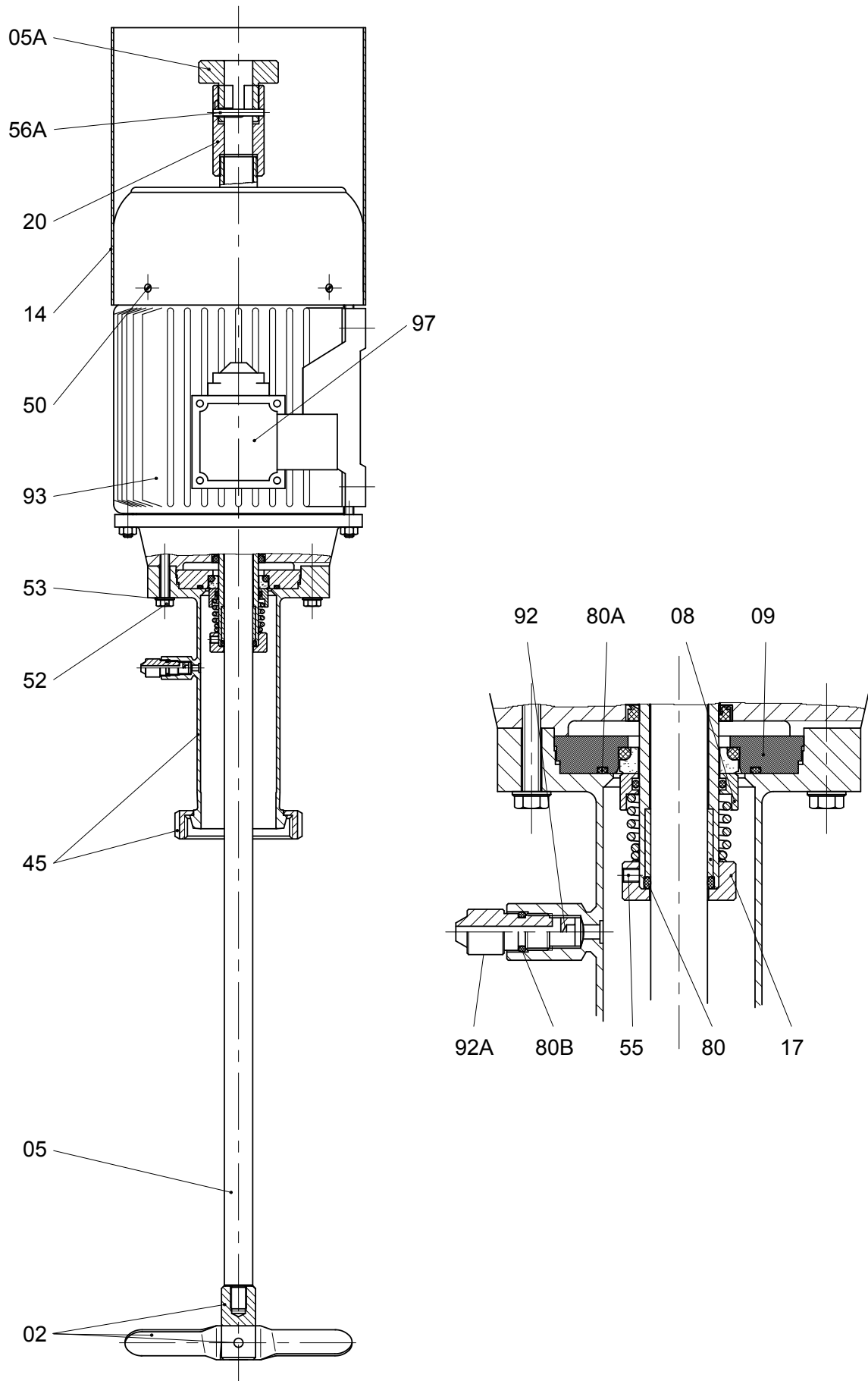


9.5. CPG-211A / B PARTS LIST

Position	Description	Quantity	Material
02	Blade unit	1	1.4404 (AISI 316L)
05	Agitator shaft	1	1.4404 (AISI 316L)
05A	Shaft rotator	1	1.4404 (AISI 316L)
08	Mechanical seal*	1	C/StSt/EPDM
09	Mechanical seal cover	1	1.4404 (AISI 316L)
14	Coating	1	1.4404 (AISI 316L)
17	Mechanical seal stopper	1	1.4404 (AISI 316L)
20	Centring tube	1	Brass
45	Nut	1	1.4404 (AISI 316L)
50	Screw	4	A2
51	Allen screw	4	A2
51A	Allen screw	2	A2
53	Grower washer	4	A2
55	Allen stud	2	A2
56	Blade pin	1	1.4404 (AISI 316L)
56A	Pin	1	1.4404 (AISI 316L)
74	Handle	1	Technopolymer
80	O-ring*	1	EPDM
80A	O-ring*	1	EPDM
80B	O-ring*	1	EPDM
92	Drainage shaft	1	1.4404 (AISI 316L)
92A	Drainage pivot	1	PTFE
93	Hollow shaft motor	1	-
97	Button panel	1	-

(*) Recommended spare parts

9.6. CPG-330 AGITATOR EXPLODED VIEW



9.7. CPG-330 PARTS LIST

Position	Description	Quantity	Material
02	Blade unit	1	1.4404 (AISI 316L)
05	Agitator shaft	1	1.4404 (AISI 316L)
05A	Shaft rotator	1	1.4404 (AISI 316L)
08	Mechanical seal*	1	C/StSt/EPDM
09	Mechanical seal cover	1	1.4404 (AISI 316L)
14	Coating	1	1.4404 (AISI 316L)
17	Mechanical seal stopper	1	1.4404 (AISI 316L)
20	Centring tube	1	Brass
45	Nut	1	1.4404 (AISI 316L)
50	Screw	4	A2
51	Allen screw	4	A2
51A	Allen screw	2	A2
53	Grower washer	4	A2
55	Allen stud	2	A2
56	Blade pin	1	1.4404 (AISI 316L)
56A	Pin	1	1.4404 (AISI 316L)
74	Handle	1	Technopolymer
80	O-ring*	1	EPDM
80A	O-ring*	1	EPDM
80B	O-ring*	1	EPDM
92	Drainage shaft	1	1.4404 (AISI 316L)
92A	Drainage pivot	1	PTFE
93	Hollow shaft motor	1	-
97	Button panel	1	-

(*) Recommended spare parts

How to get in touch with INOXPA S.A.U.:
The contact details for each country in our website are constantly updated.
Details available from www.inoxpa.com.



INOXPA S.A.U.
Telers, 60 - 17820 - Banyoles - Spain

