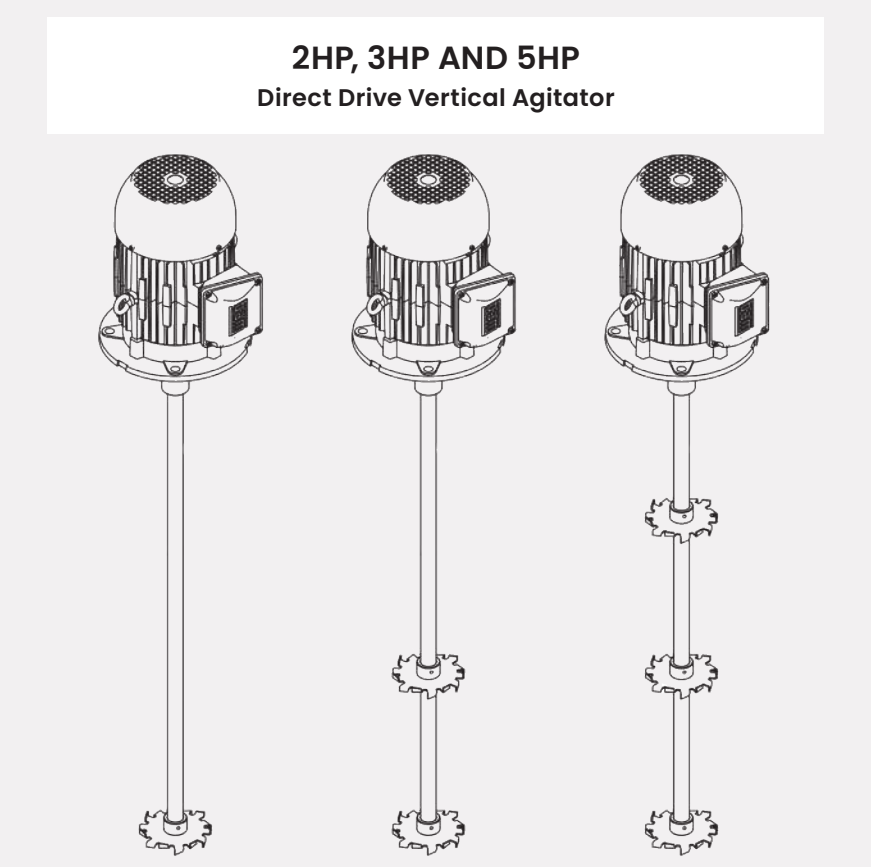
MIX FORCE
AGITATORS & MIXERS



Quick Guide
Direct Drive Vertical Agitator

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1. DIRECT DRIVE VERTICAL AGITATOR

1.1. INTRODUCTION

Congratulations!
You have just acquired a **Mixforce Vertical Agitator**, a robust, modern, and high-performance piece of equipment designed to deliver **efficient, safe, and reliable operation in industrial processes**.

Engineered to meet the demanding requirements of the **chemical, food, pharmaceutical, and general industrial sectors**, this agitator is ideal for applications such as:

- Viscous emulsions and pasty products
- Oils, resins, and high-viscosity additives
- Cleaning products and industrial chemicals
- Liquid fertilizers with suspended solids
- Sedimented fluids

This quick guide has been prepared to ensure that the initial operation of your equipment is carried out safely and efficiently, guaranteeing maximum performance and durability.

If you have any questions, please contact Mixforce Customer Support.

WARNING

Failure to verify and properly size the system beforehand may result in improper product operation

1.2. INCLUDED ITEMS

- Electric motor of 2 HP, 3 HP, or 5 HP (depending on your purchase);
- Shaft and impeller(s) made of stainless steel.

1.3. EXCLUDED ITEMS

- Power cable
- Industrial plug

Note: These items are not supplied with the agitator and must be purchased separately.

2. TECHNICAL SPECIFICATIONS

Below is the technical specifications table:

Specification	Description
Model	Direct Drive Vertical Agitator
Motor Power	According to the model (2HP, 3HP, or 5HP)
Voltage	220v, 380v and 440v
Applications	Viscous emulsions and pasty products, oils, resins, and thick additives, cleaning products, and industrial chemicals.
Material of Construction	Stainless steel AISI 304
Type of Impeller	Cowles or Pitch Blade Impeller

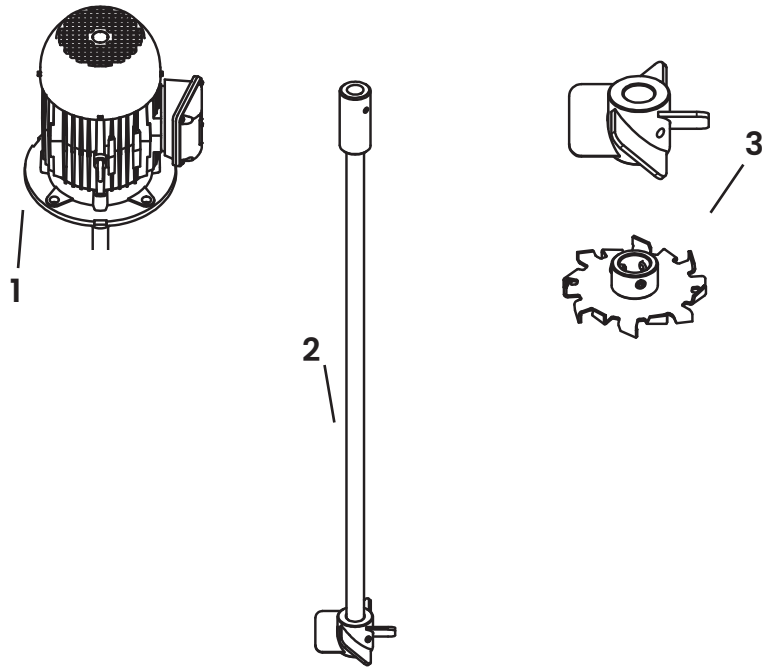
3. FIRST USE PROCEDURES

3.1. INTRODUCTION

Below we describe the correct procedure for the first use of your **Direct Drive Vertical Agitator**.

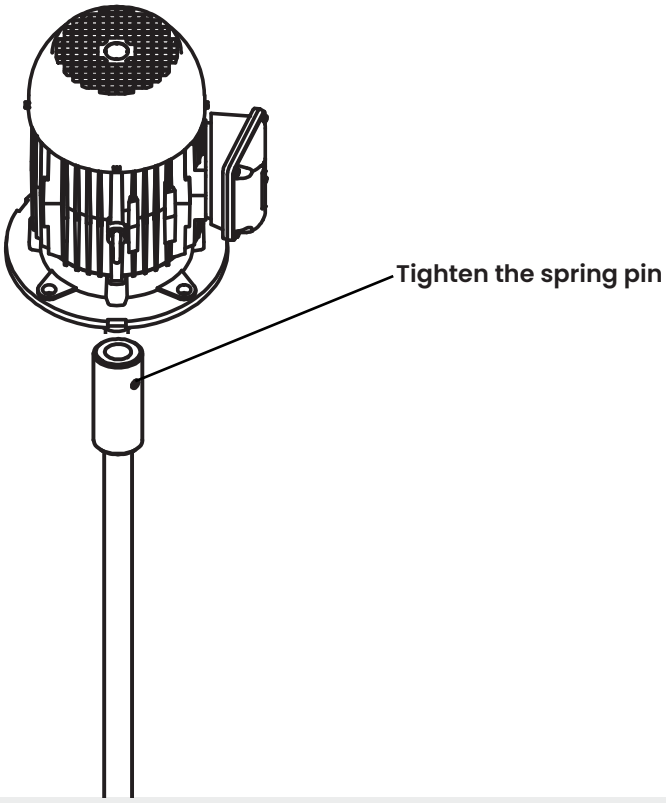
3.2. Getting to Know the Equipment Parts

1. Motor: Drives the mixing shaft, ensuring efficient movement of materials.
2. Impeller Shaft: Connects the motor to the impeller and transmits the motion.
3. Impeller: Responsible for agitating the product.



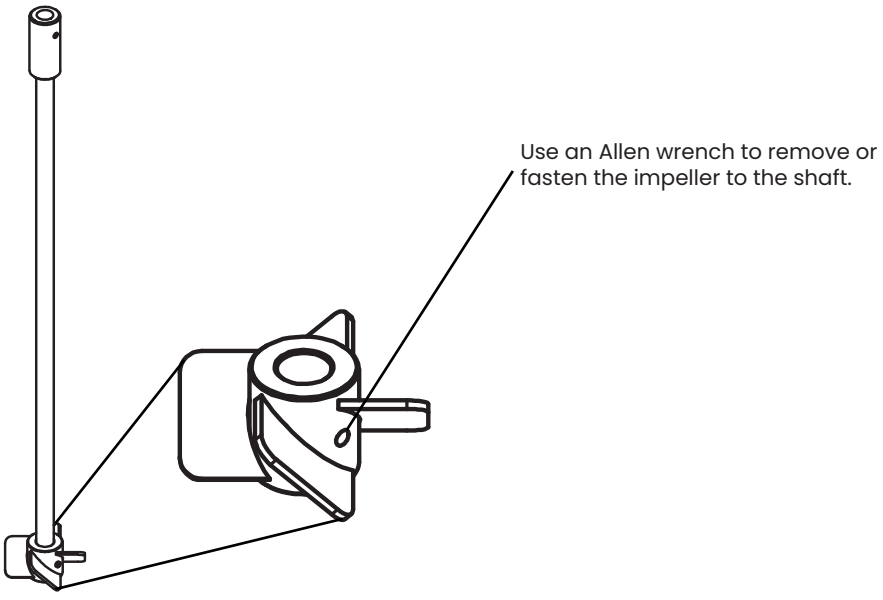
3.3. Shaft to Motor Coupling

- Carefully align the impeller shaft with the motor hole.
- Insert the spring pin all the way in to ensure the assembly is securely fastened



3.4. IMPELLER REPLACEMENT

- Use an Allen wrench to loosen the impeller's locking screw.
- Remove the old impeller and position the new one.
- Tighten the screw again with the Allen wrench until the impeller is firmly and securely fixed.



4. ELECTRICAL INSTALLATION

1- Check the electrical voltage compatibility of the location (220V, 380V, or 440V) before installation to ensure proper equipment operation.
2- Use an appropriate industrial socket for the equipment's voltage, ensuring a safe

BLUE SOCKET		
Gear Motor	**Socket**	**Voltage**
2HP	16A	220v
3HP	16A	220v
5HP	16A	220v

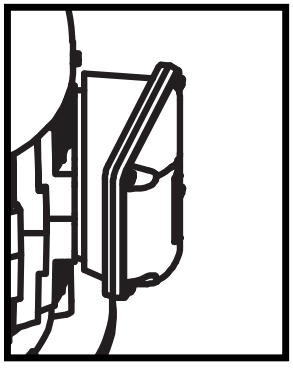
RED SOCKET		
Gear Motor	**Socket**	**Voltage**
2HP	16A	380v or 440v
3HP	16A	380v or 440v
5HP	16A	380v or 440v

WARNING

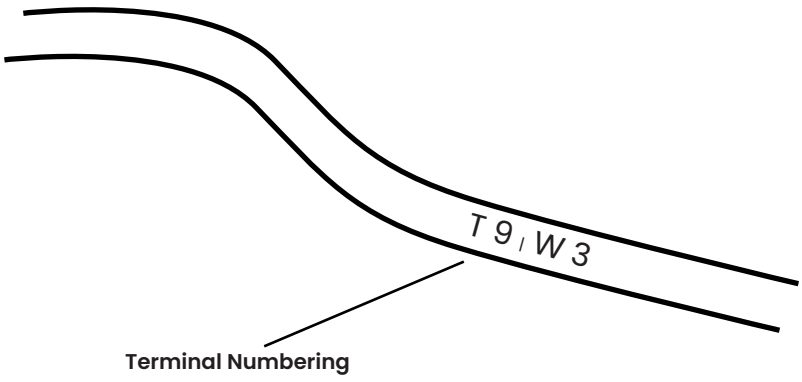
The connection to the grounding system is essential to ensure the operator's safety.

4.1. Preparation

1. Remove the cover of the motor junction box.
2. Pass all wires through the cable gland before connecting.
3. Identify the numbered motor terminals (T1, T2, T3, T4, T5, T6, T7, T8, T9, T10, T11, T12).

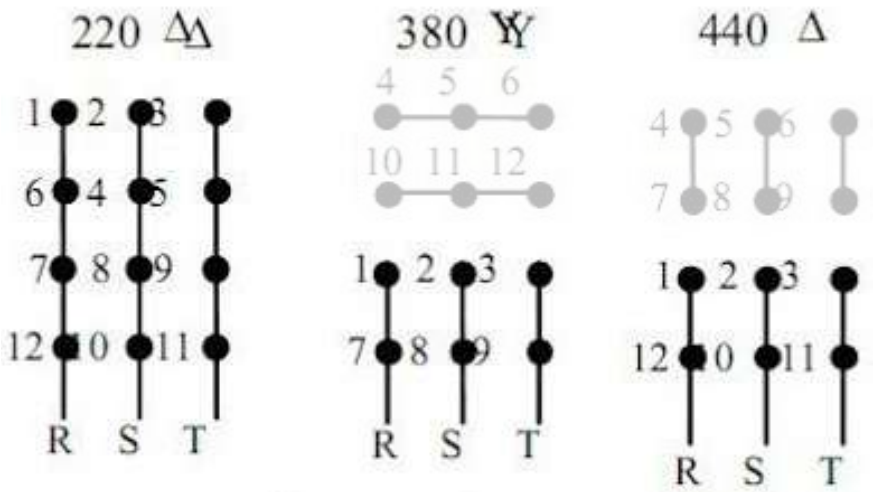


Junction Box



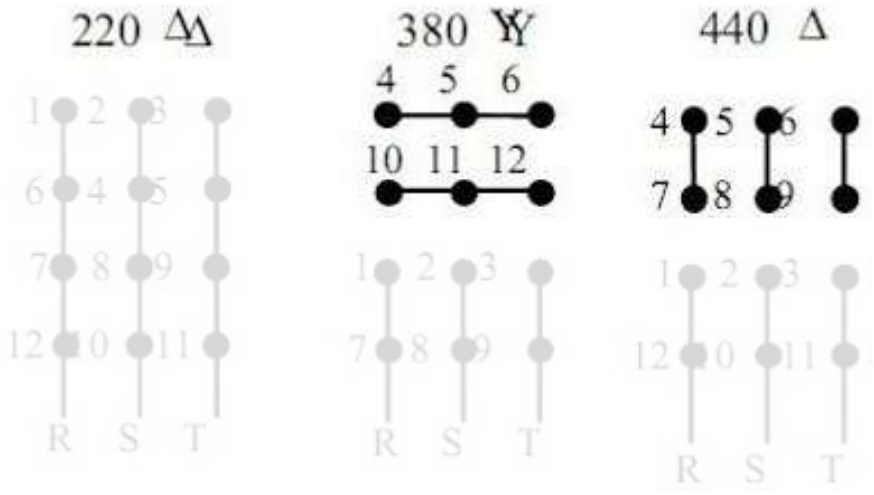
4.2. Phase Connection

1. Separate the wires according to their numbering.
2. Connect each phase to the corresponding terminals according to the voltage (see tables below).



4.3. Jumper Installation

1. Separate the wires according to their numbers.
2. Connect each phase to the corresponding terminals according to the voltage (see tables below).



4.4. Ground Connection

1. The green wire is always the ground (earthing) wire.
2. Secure it to the motor's grounding clamp.

4.5. Finalization

1. Tighten the cable gland to seal and protect the wires.
2. Ensure all connections are secure and insulated.
3. Replace and tighten the cover of the motor junction box.

WARNING

The connection to the grounding system is essential to ensure operator safety.

5. MAINTENANCE

To ensure the durability and efficiency of your **DIRECT DRIVE VERTICAL AGITATOR**, it is essential to perform preventive maintenance regularly. In addition to inspecting the main components of the mixer, it is recommended to carry out periodic checks of the electric motor. Refer to the catalog of each component to follow the specific maintenance guidelines and ensure the system's safe and efficient operation.

5.1. COMPONENTS

- Shaft and impeller(s) in stainless steel;
- Electric motor (see specific catalog);

Access the Mixforce Manual Center to download the file corresponding to your equipment.

Or visit: www.mixforce.com.br/manuais

6. WARRANTY TERMS

MIXFORCE guarantees the performance of its equipment, provided it is used according to the product's technical limitations and the conditions specified by the customer at the time of sale. The warranty covers a period of 12 months from the date of the sales invoice.

WARNING

The warranty exclusively covers manufacturing defects, provided they are properly verified by authorized MIXFORCE technicians. The product must be returned to MIXFORCE without having been disassembled or modified.

1. **The warranty will be valid provided that:**
   - Transportation, handling and storage must be carried out appropriately;
   - Installation must strictly follow the technical specifications, without exposing the equipment to aggressive agents;
   - The equipment must be operated within the recommended usage limits;
   - Preventive maintenance must be performed periodically, as indicated in the manual or data book;
   - Repairs and modifications must be carried out exclusively by professionals authorized by MIXFORCE;
   - Any defects must be reported immediately by the buyer and proven to be manufacturing faults.

2. **The warranty does not cover:**
   - Natural wear and tear resulting from the proper use of the equipment;
   - Incorrect installation or installation not in accordance with the technical instructions;
   - Damage caused by electrical variations or overloads, atmospheric discharges or natural agents;
   - Costs related to shipping and returning the equipment to the factory;
   - Disassembly and reassembly services performed at the buyer's location;
   - Expenses for travel, accommodation and meals for the technical team when the service is performed at the buyer's premises;
   - Damage to components such as gaskets, bearings, retainers and mechanical seals, when resulting from inadequate installation or improper storage.

If the buyer makes any modification or repair to the equipment without due authorization from MIXFORCE, the warranty will be automatically invalidated.

Repair or replacement of parts during the warranty period does not imply, under any circumstances, an extension of the original coverage period.

For more information or to activate the warranty, contact MIXFORCE through the official service channels.

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