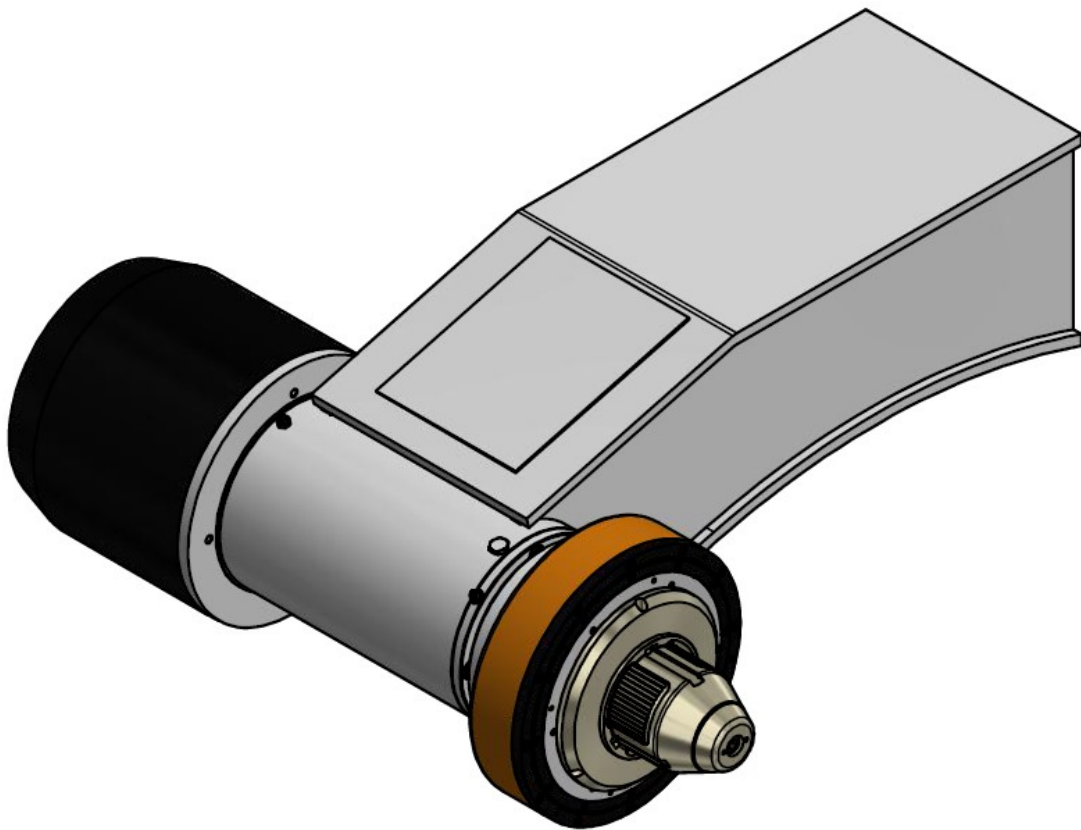


## Duplex assembly / disassembly manual





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## introduction

The following manual is intended for installers and users of the product and provides descriptions and explanations on the operations to be performed to assemble / disassemble a Renova Duplex.

As the product and Renova itself are constantly evolving in order to improve the quality and performance of its products, Renova reserves the right to update the manuals to new versions, without the obligation to update products already marketed and / or any previous manuals.

## warnings

**CAREFULLY READ THE INSTRUCTIONS AND WARNINGS IN THIS MANUAL AND KEEP THEM FOR FURTHER REFERENCE FOR THE ENTIRE LIFE OF THE PRODUCT. IN THIS MANUAL ARE IMPORTANT INSTRUCTIONS RELATING TO OPERATIONS AND SAFETY FOR THE INSTALLATION, USE AND MAINTENANCE OF THE PRODUCT.**

**WE STRONGLY RECOMMEND ASSEMBLY OF THE DEVICE BY QUALIFIED TECHNICAL PERSONNEL IN ORDER TO AVOID ANY RISK OF DAMAGE TO PEOPLE, THINGS OR THE PRODUCT ITSELF.**

**IN THE EVENT OF ANY BREAKAGE OF THE PRODUCT, THE OPERATOR SHOULD BE AWARE OF THIS MANUAL AND THE INFORMATION INSIDE IT, KNOWING AND KNOWING TO AVOID ANY RISKS AND / OR DANGERS, BEFORE ANY INTERVENTION BY OUR TECHNICIAN.**

## assistance

Renova is present all over the world with its agents and distributors.

**To contact the Renova support service write to:**

**support@renova-srl.it**

## general information

These instructions will allow you to safely assemble, disassemble and use any type of Duplex renova. These instructions are an integral part of the product and must be accessible to personnel. Personnel must carefully read and understand these instructions before starting any work on the machine. Compliance with all safety and handling instructions contained in this manual is a fundamental requirement for working safely.

### explanation of symbols

In the following manual you may find the following symbols:



#### **DANGER!**

This symbol and the word "DANGER" indicate an immediate and dangerous situation that could lead to serious injury or death.



#### **WARNING!**

This symbol and the word "DANGER" indicate a potentially dangerous situation which could lead to serious injury or death if not avoided.



#### **CAUTION!**

This combination of symbol and word indicates a possible hazardous situation that can result in property damage or environmental damage if not avoided.

## protective equipment for personnel

- For all works, always wear:



#### **Protective clothes**

Protective clothing is heat-resistant and tight-fitting with low tear resistance, tight sleeves and no protruding parts that could get caught during various operations.



#### **Safety shoes**

Safety shoes protect feet from being crushed by parts that could fall and prevent slipping on slippery surfaces

- For special activities, wear:



#### **Protective gloves**

Protective gloves protect hands and forearms from contact heat and sharp objects



#### **Protective glasses**

Protective goggles protect the eyes from any flying objects that can be thrown by the system's pressurized air

## **Pre disassembly / assembly operations**

Perform these operations (or follow the rules indicated) before proceeding with the disassembly or assembly of any Duplex renova.



#### **DANGER!**

**Do not intervene on the Duplex with the shaft rotating or moving!**

An intervention on the moving machine could cause serious personal injury or in more serious cases, death.

**All interventions must be carried out with the machine stopped**



#### **WARNING!**

**Be careful to turn off both the electrical and pneumatic power supplies!**

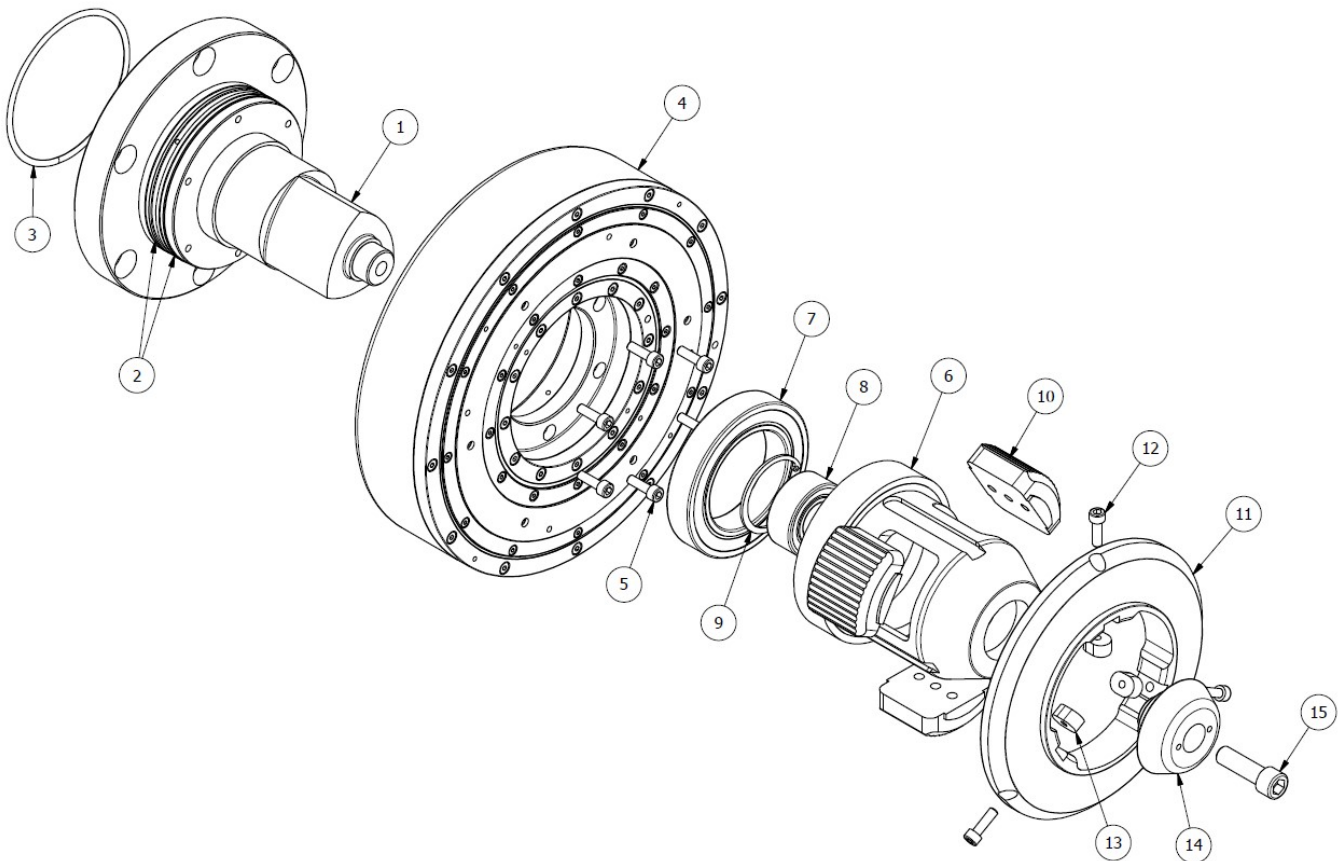
Do not perform interventions if any type of power supply is still present that could cause damage to the operator.



#### **CAUTION!**

The grease used for the lubrication of the two pistons is inert but to avoid any allergies it is recommended to use gloves when working on these parts.

## name of the parts



| Pos. | Description  | q.ty |
|------|--|------|
| 1    | Flangepin  | 1    |
| 2    | O-ring 3450  | 2    |
| 3    | O-ring (changes according to customer flange type) | 1    |
| 4    | Duplex piston                                      | 1    |
| 5    | Screws TCCE M6x20 – ISO4762                        | 6    |
| 6    | Cage   | 1    |
| 7    | Bearing 6014-2RS1                                  | 1    |
| 8    | Bearing 3205A-2RS1                                 | 1    |
| 9    | Seeger ring 52x2 – DIN 472                         | 1    |
| 10   | Jaws   | 3    |
| 11   | Expulsion flange                                   | 1    |
| 12   | Screws TCCE M6x20 – ISO 4762                       | 3    |
| 13   | Rounded keys 20x14x9 – M6 hole                     | 3    |
| 14   | Cup  | 1    |
| 15   | Screws M12x40 – ISO4762 - Brunished                | 1    |

**\*attention: parts such as screws, bearings etc... may change according to the duplex model**

## assembly procedures

Before proceeding with the assembly of one of our Duplexes, we remind you to follow the instructions listed above (**ref. Page 6 pre-assembly operations**).

We also recommend performing dimensional and visual checks in order to confirm the correct dimensions required and in order to check that there is no grease or oil coming from faulty bearing seals.

In addition, personnel should wear:



**Protective clothes**



**Safety shoes**



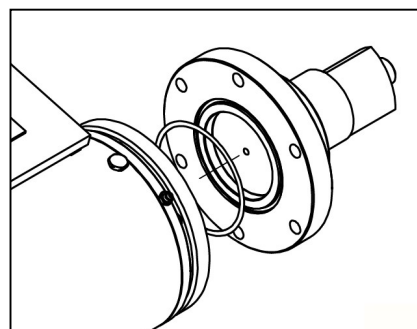
**Protective glasses**



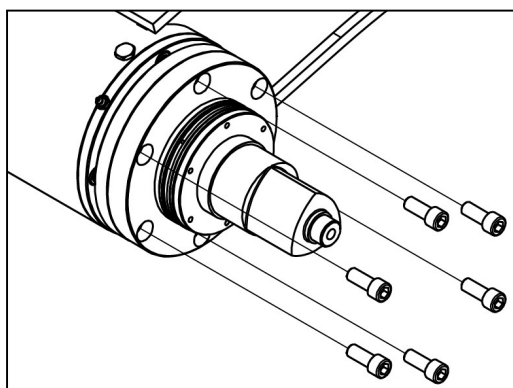
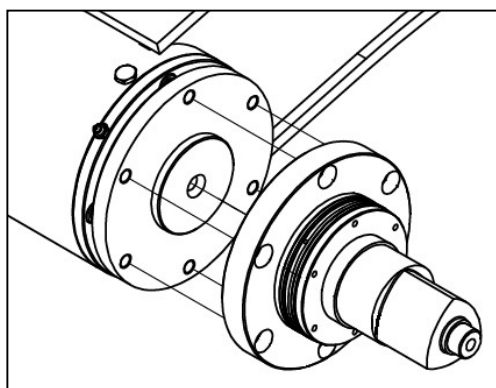
**Protective gloves**

Then proceed with the assembly of the Duplex through the following illustrated steps:

- 1) Insert the O-ring (3) in the appropriate chuck seat
- 2) Proceed to mount the flange pin (1) on the roll stand and fix it with the screws with the correct tightening values indicated:



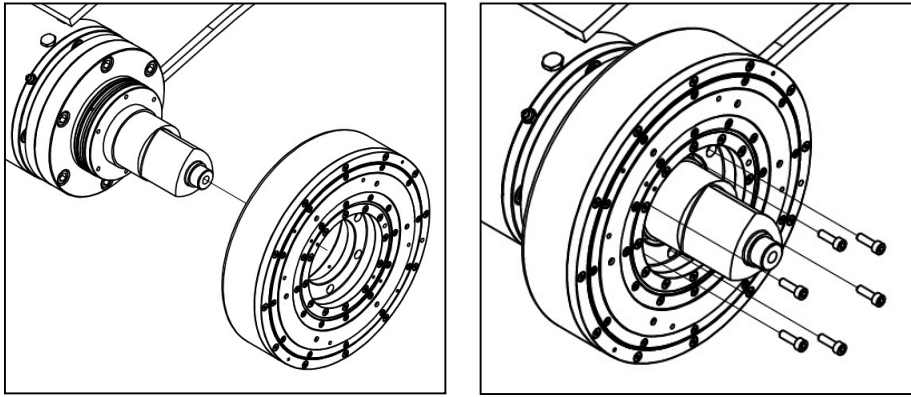
| Screw | M6            | M8         | M10        | M12        |
|-------|---------------|------------|------------|------------|
| 8.8   | 9.5 – 11.1 Nm | 23 – 27 Nm | 46 – 53 Nm | 79 – 92 Nm |



- 3) Mount the O-Ring (2) on the flange pin paying attention to assembly and grease them with grease.



- 4) Mount the cylinder group (4) with the screws M6 (5) fixing them to the flangepin



- 5) Insert the adapter group (number from 6 to 13 in the table) on the appropriate flangepin



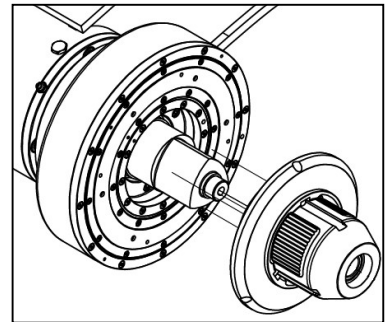
**Make sure that the chamfer of the jaws faces the roll side**



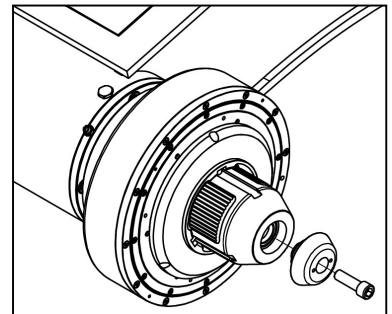
**WARNING!**

**During this operation paying attention at the jaws of the cage!**

Make sure that the jaws remain inside the cage seats. A jaw, if it were to fall, could damage the operator, the property or the tile itself making it unusable



- 6) Mount the cup (14) and fixing with the appropriate screw (15)



- 7) Check that all the screws are tightened and all the details are tight and that there is no air leak.

Once all the steps have been carried out correctly and verified that they are firmly installed, the assembly will be completed and the Duplex can be put into use.

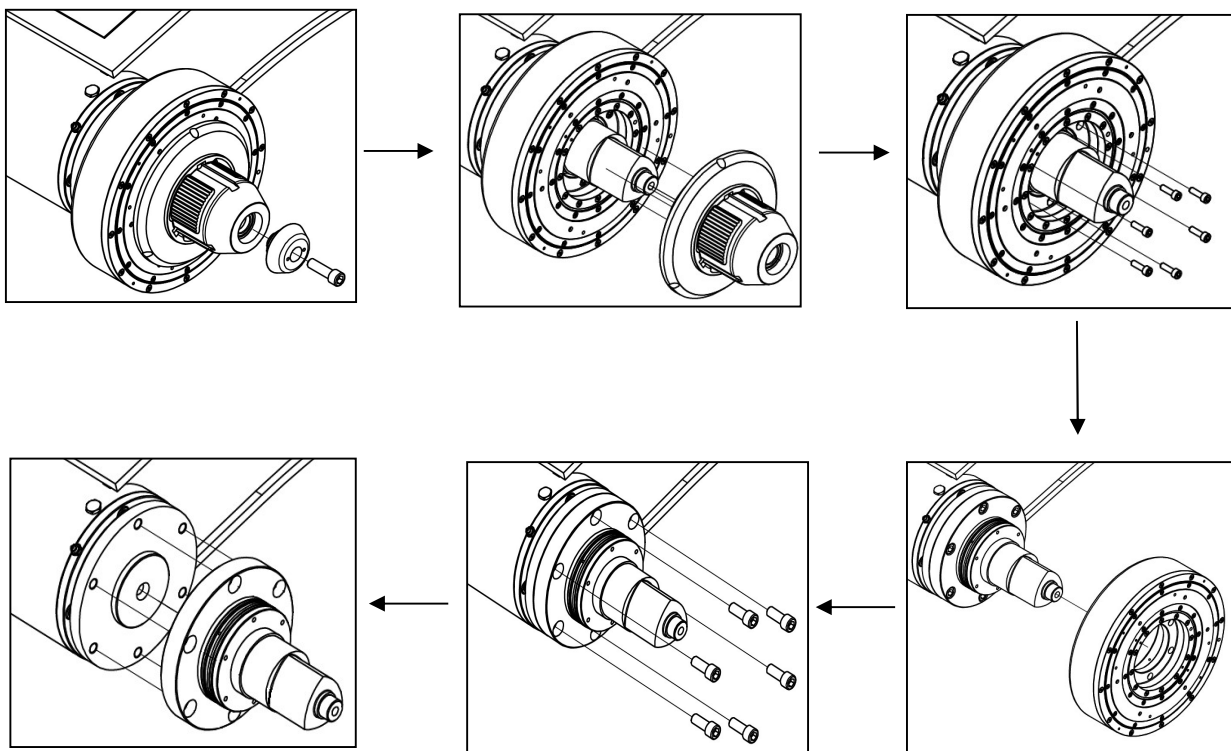
## disassembly procedure

Always remembering to turn off the machine and interrupt any type of activity in progress from it, to disassemble our Duplex you simply need to perform the steps listed above obviously starting from the last to get to the first.

We would like to remind you that to carry out any modification, maintenance or replacement, you must always wear the protective equipment described above (**ref. Page 8**)

To disassemble the Duplex then:

- 1) Unscrew the cup tightening screw, and remove the cup
- 2) Remove the adapter group from the flangepin, paying attention to the jaws, which must remain in the appropriate seats of the cage and must not fall
- 3) Unscrew the M6 screws, remove them and then proceed with disassembling the cylinder group.
- 4) Unscrew the fixing screws of the flangepin and proceed with the disassembly of the latter. During disassembly of the flangepin it is recommended to be careful not to lose the O-ring in the appropriate chuck seat.



## note

## Index of manual revision

| Rev. n. | Revision date | Description of the changes made |
|---------|---------------|---------------------------------|
|         |               |                                 |
|         |               |                                 |
|         |               |                                 |
|         |               |                                 |
|         |               |                                 |



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