



THE SPECIALIST IN INNOVATIVE  
INSULATION EQUIPMENT

# USER MANUAL



BV Cert. 20013733  
Machines d'isolation



BV Cert. 21959263  
Service après-vente

**ISOL INTERNATIONAL®**

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# CONTACTS

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## PRECAUTIONARY



**PLEASE READ THIS DOCUMENT UPON RECEIPT OF YOUR MACHINE AND BEFORE PUTTING IT INTO SERVICE. IF YOU ARE PLANNING TO CONNECT TO A GENERATOR, PLEASE CONTACT US IN ADVANCE.**

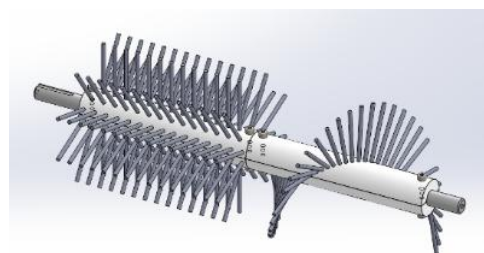
**THIS IS ESSENTIAL BEFORE IT IS PUT INTO SERVICE.**

**Your machine has undergone numerous functional tests in our workshops, according to intensive standards. It is easy to operate and highly efficient.**

**DEPENDING ON THE PRODUCTS USED, THE SETTING OF THE MECHANICAL VARIATOR ALLOWS FLOW RATES OF UP TO 30 KG/MIN.**

**THE EQUIPMENT IS STANDARDIZED [CE] IN ACCORDANCE WITH EUROPEAN DIRECTIVE 2006/42/EC.**

**THE BRUSH FEEDING AND DEFIBRATION SYSTEM IS PROTECTED BY PATENT NO. FR1914825**



**NEVER TOUCH ROTATING PARTS WITH HANDS OR ANY OTHER BODY PART – NEVER CLIMB ON THE MACHINE WHILE IT IS RUNNING UNDER ANY CIRCUMSTANCES.**

## **1. GENERAL INFORMATION**

About this document – Read this entire manual carefully before installing or using the machine.

The user manual is an integral part of the machine and must always be readily available near your appliance. Strict adherence to these instructions is essential for the proper installation and use of the equipment.

The wording of this document and the commissioning instructions correspond to the version of your device and the safety standards in force on the date of its printing.

**NOTES:** We strongly recommend that this guide be read by relevant managers and supervisors, as well as maintenance personnel, so they can assist your employees who use the equipment daily. Please ensure you follow all instructions in this manual..

## **2. SECURITY**

This manual contains essential instructions that must be followed during use. Therefore, it is crucial that the installer and the equipment operator read them before commissioning.

The instructions to be followed are not only those of general safety in this chapter, but also those of particular safety which appear in the following chapters, accompanied by a danger symbol.

### **2.1 SYMBOLS AND SIGNALS**



General danger symbol



Instructions regarding electrical hazards

**HAZARD !=** the user is subjected to an extremely dangerous situation which involves (serious) bodily harm when the instruction is not followed.

**ATTENTION !=** there is a risk of damaging system components (example: polyurethanes).

## **2.2 STAFF QUALIFICATIONS**

It is important to ensure that the personnel who will be using the equipment are qualified.

## **2.2 DANGERS IF INSTRUCTIONS ARE NOT FOLLOWED**

Failure to follow safety instructions can endanger property and people. It may also result in the suspension of any warranty claims.

More specifically, the potential dangers include the following:

- Danger to people due to electrical and mechanical influences
- Failure of the prescribed maintenance and repair process
- Property damage

## **2.4 USER SAFETY INSTRUCTIONS**

The instructions must be followed to eliminate any risk of accident. The user must be a qualified specialist who has read the contents of the user manual. All installation operations must only be carried out when the relevant components are switched off.

## **2.5 MODIFICATION OF THE MACHINE AND USE OF UNAPPROVED SPARE PARTS**

Any modification to the machine may only be carried out with the prior authorization of ISOL INTERNATIONAL®. The use of original spare parts and accessories authorized by the manufacturer guarantees safety.

The use of other parts releases the company from all liability.

## **3. UNAUTHORIZED USAGE METHODS**

The values indicated in the user manual or technical data sheet must not be exceeded under any circumstances, neither the maximum nor the minimum. The safe operation of the delivered machine is guaranteed only if the instructions specified in this document are followed.

## **4. TRANSPORT AND STORAGE OF THE MACHINE**

### **4.1 TRANSPORTATION**

According to European Directive 2006/42 of 17 May 2006, you must ensure the stabilization of the machine during transport with appropriate fixings (straps, support bars, etc.).

## 4.2 **STORAGE**

We recommend storing your machine in a dry place, protected from the elements.

## 5. **GUARANTEES**

ISOL INTERNATIONAL® machines are guaranteed for 24 months from the invoice date. This warranty does not cover wear parts (motor brushes, polyurethanes, rollers, feed brushes, etc.).

**WARNING! Risk of material damage! In the event of removal, improper transport and incorrect storage may result in material damage to the machine.**

**This carding machine is designed for blowing and injecting glass fibers, rock fibers, cotton, cellulose and all loose-fill insulating products.**

**The 2 x 230 V single-phase version allows you to connect directly to a private residence using two standard 16 A sockets.**



**TWISTER 3**

| <b><u>FEATURES</u></b>            | <b><u>TWISTER 3</u></b>                                                                                                                                                                                                                                                                                                                                                                |
|-----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Dimensions (m)</b>             | L=1.25 l=0.86 H=1.58                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Weight</b>                     | 320 kg                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Engines</b>                    | Carding motor: 1.5 kW<br>Air engine (3): 3.75 kW<br>Variable speed motor: 1.1 kW                                                                                                                                                                                                                                                                                                       |
| <b>Pipe diameter</b>              | Ø 100 mm                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Maximum hose length</b>        | 100 m                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Maximum elevation</b>          | 40 m                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Food</b>                       | 400 V three-phase or 2 x 230 V single-phase                                                                                                                                                                                                                                                                                                                                            |
| <b>Settings</b>                   | Air: via remote control or pressure relief valve<br>Wool: via mechanical speed control                                                                                                                                                                                                                                                                                                 |
| <b>Speed</b>                      | Rock wool: up to 1200 kg/h<br>Glass wool: up to 1200 kg/h<br>Cotton wool: up to 1000 kg/h<br>Cellulose wadding: 1800 kg/h                                                                                                                                                                                                                                                              |
| <b>Remote controls (optional)</b> | <p>Customizable transmitters with your design</p> <p>3 functions:</p> <ul style="list-style-type: none"> <li>- On/Off (Air motor power-up) <ul style="list-style-type: none"> <li>- Air+/Air- (Select 2 or 3 air motors)</li> <li>- Fiber (product power supply start-up)</li> </ul> </li> </ul>  |

# MACHINE PERFORMANCE CHART

| Materials                | Machine output in kg/h | Machine yield in m2/h in R7 |
|--------------------------|------------------------|-----------------------------|
| <b>ROCK WOOL</b>         | Up to 1200             | Up to 202                   |
| <b>GLASS WOOL</b>        | Up to 1200             | Up to 321                   |
| <b>COTTON WOOL</b>       | Up to 1000             | Up to 222                   |
|                          | Up to 1000             | Up to 166                   |
|                          | Up to 1000             | Up to 204                   |
|                          | Up to 1000             | Up to 228                   |
| <b>CELLULOSE WADDING</b> | Until 1800             | Up to 178                   |



# MACHINE COMMISSIONING



## VERY IMPORTANT

Connecting the machine requires special attention for safety reasons and to prevent damage to the equipment. Verify that the voltage of the mains power supply matches that of the machine, and that the maximum amperage is at least 16 amps for a 2x230 volt single-phase or 400 volt three-phase supply. If the voltage does not match or if there is any doubt, consult the site electrician or your client regarding their electricity contract with their supplier.

**WHEN USING A GENERATOR (12.5 KVA MINIMUM), CONNECT THE GROUNDING ROD. OTHERWISE, ISOL INTERNATIONAL® CANNOT GUARANTEE CORRECT OPERATION OF THE MACHINE.**

## 1. START-UP PROCEDURE

- In the case of a 230V single-phase machine, connect it to the mains or to a generator using a triple plug.
- In the case of a 400V machine, connect it to mains power or a generator.
- Disconnect the emergency stop (red button on the front of the panel) by turning the knob a quarter turn to the right. The power indicator light, located just below, should illuminate when the black power button on the electrical panel is pressed.

### Otherwise:

1. No electricity is reaching the machine
2. The circuit breaker needs to be reset.
3. The indicator light is faulty.

Using the radio remote control: set to motor position 2



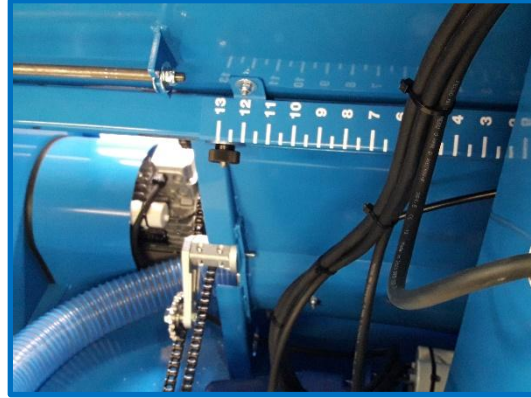
- Press the "on/off" button on the radio remote control to turn on the air blower.
- Press the "Air -/Air +" button to turn 2 or 3 air motors on or off.
- Press the "fiber" button on the radio remote control to turn on the product power supply.

## 2. SETTINGS

### 2.1 VARIATOR

The speed control can be adjusted whether the machine is stopped or running. Graduated from 1 to 7, it allows the machine's output to be varied up to 30 kg/min depending on the product.

The operation is done by turning the steering wheel to the left (-) or to the right (+).



**A) FIBER FEED SPEED ADJUSTMENT (variable speed control)**

**B) AIR PRESSURE ADJUSTMENT (remote control or pressure relief valve)**

## 3. BETTINGWHEN THE MACHINE STOPS

To stop the machine, you need to:



1. Press the "fibre" button on the radio remote control to stop the product's power supply.
2. Press the "on/off" button on the radio remote control to turn off the air motors.
3. Unplug the machine.

## 4. INTERVIEW



**ALWAYS STOP THE MACHINE WITH THE "EMERGENCY STOP" BUTTON BEFORE TOUCHING THE ROTATING PARTS!**

## 4.1 DAILY MAINTENANCE

CLEANING THE TURBINE INTAKE FILTER BY VACUUMING OR DUSTING IT

CHECK THE PRESSURE GAUGE ON THE MACHINE FOR SIGNIFICANT OSCILLATION (Sealing problem: defective sealing flaps, ...).



## 4.2 MAINTENANCE EVERY 200 HOURS



DISASSEMBLE THE CASINGS, GREASE THE BEARINGS AND CHAINS.

CHECK THE TIGHTENING OF THE PRESSURE BLOCKS ON ALL GEAR SPROUTS.

## 5. REPLACEMENT OF SEALING FLAPS (polyurethanes):

### Steps to test the water tightness of your machine:

1. Empty the machine of insulation
2. Set the machine to air + fiber operation
3. Seal the product outlet

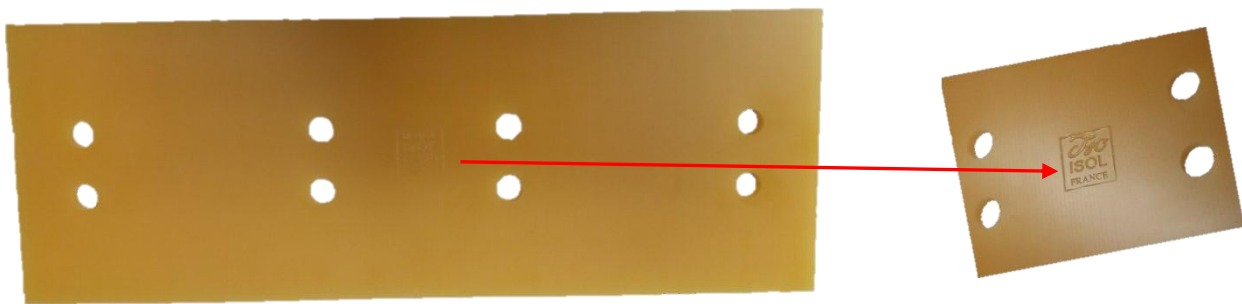
Maximum pressure: 300 mbar

Operating pressure: between 100 and 150 mbar

Significant oscillation of the pressure gauge needle = sealing problem

### Replacement of the sealing flaps (polyurethanes):

- Remove worn sealing flaps using a 5mm Allen key
- Replace the sealing flaps with original polyurethanes (identifiable by the Isol International® stamp)



- Carefully center the sealing flaps against the sealing rings (photo below)
- Tighten with the same wrench, from the center outwards.

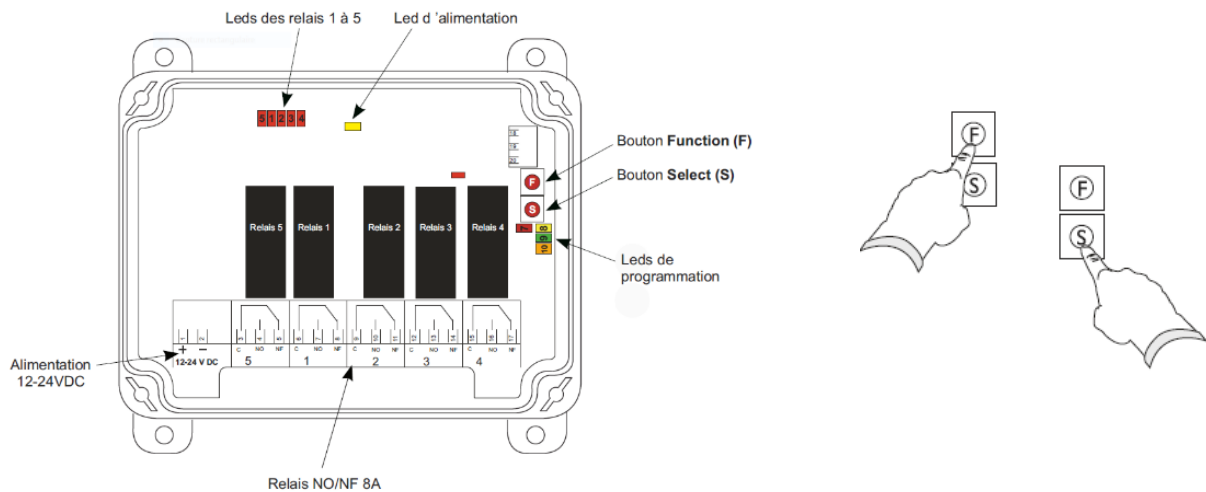
**Reassembly:** Reverse direction of disassembly



# PAIRING THE REMOTE CONTROL

## ERASE ALL TRANSMITTERS IN THE RECEIVER

1. In the receiver, press the Function button (F). The red LED 7 will light up.
2. Press and hold the Select (S) button. All the relay LEDs will light up.
3. Keep pressed until the relay LEDs turn off.

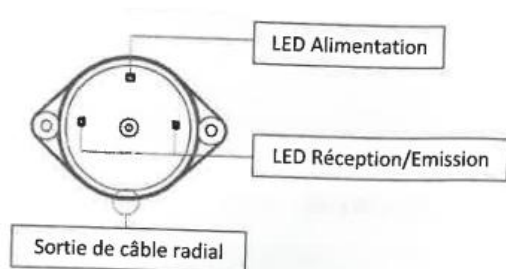


## REGISTER THE TRANSMITTER IN THE RECEIVER

1. In the receiver, press the Function button (F). LED 7 will light up.
2. Next, press the Select (S) button. All the LEDs will light up.
3. On the transmitter, press and hold buttons 1 and 2 until the relay LEDs flash 3 times.

# RADIO REPEATER PAIRING

## DIAGNOSTIC WARNING LIGHT



The power LED is solid green when the product is powered on.

The 2 Receive/Transmit LEDs blink each time a radio frame is received/transmitted.

## PAIRING PROCEDURE



The repeater must be switched off.



Check that the switch on the back of the product is in the [I] position.

If you have an ON/OFF function, turn on the remote control.

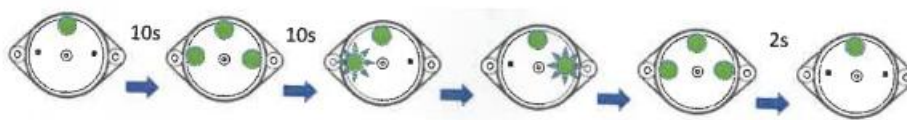
Press the product's pairing buttons. Generally, these are buttons 1 and 2, or 1 and 3 if you have an ON/OFF function on button 2.

*If you have a special program, consult the program sheet to identify the product pairing buttons.*

Keep pressed throughout the repeater startup phase below.



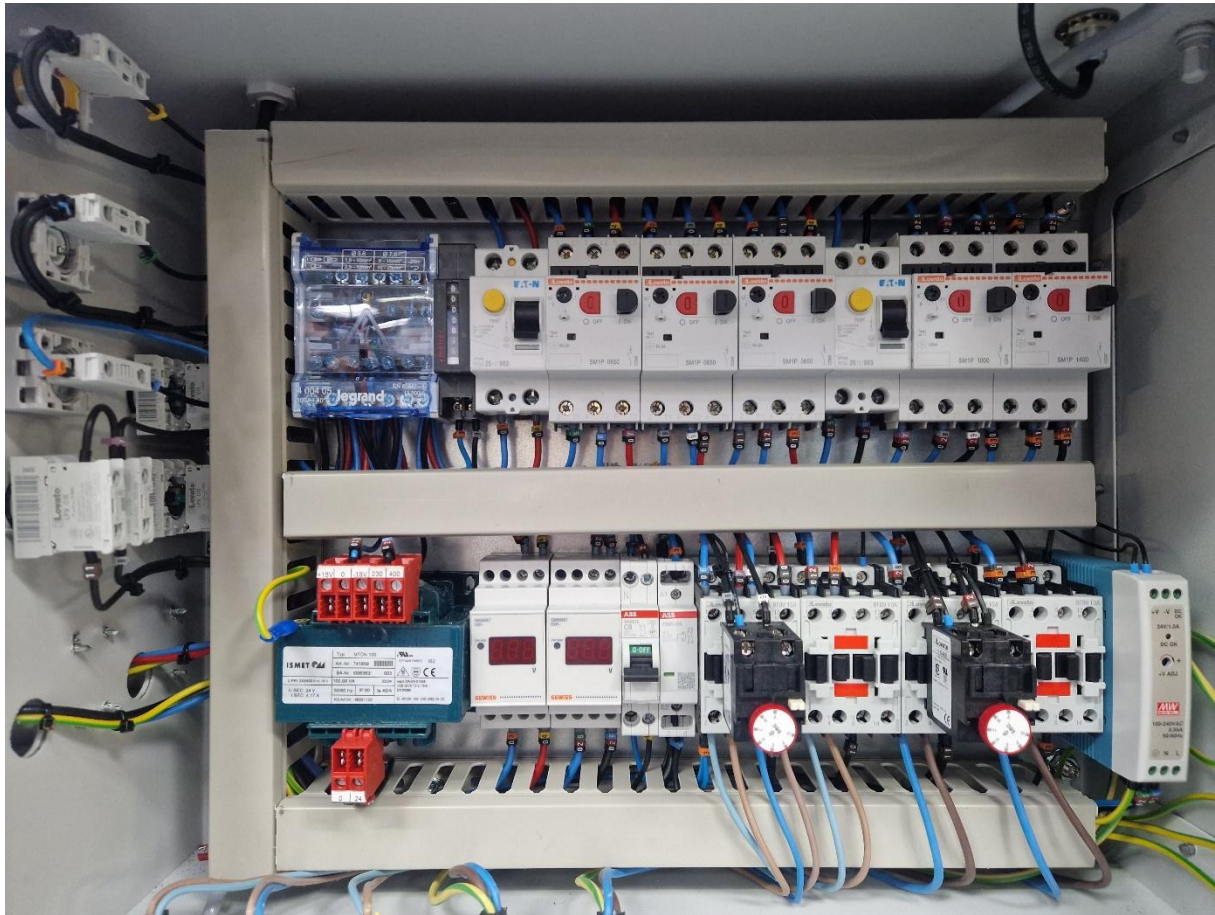
Turn the repeater on.



Release the pairing buttons.



# ELECTRICAL PANEL



### **PRESSURE SWITCH ADJUSTMENT (if your machine is equipped with one)**

- 1) Press the middle button until you land on SP
- 2) Enter a value between 120 and 150
- 3) Press the middle button again until you reach the zero row.





# ELECTRICAL COMPONENTS

1. Transformer machine
2. Digital Voltmeter
3. Hour meter
4. Magneto-thermal circuit breaker (x3)
5. Card circuit breaker
6. Variable speed circuit breaker
7. Radio remote control transformer
8. Residual current circuit breaker (x2)
9. C6 24V circuit breaker (x2)
10. 24V circuit contactor
11. Contactor (x5)
12. Delay (x2)
13. Radio remote control receiver
14. Emergency stop
15. Power on
16. Indicator light
17. Emergency control (3-position button):  
    1st position off, 2nd position "Air", 3rd position "Fiber")
18. Select 2 or 3 engines
19. 230V power outlet
20. 230V power outlet

# TROUBLESHOOTING

| ANOMALY                                           | RESOLUTION                                                                                                                                                                                                                                                                                   |
|---------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| The power indicator light does not illuminate.    | <ul style="list-style-type: none"> <li>- The machine is not plugged in.</li> <li>- The residual current circuit breaker for the machine or power supply has tripped.</li> <li>- The light bulb is broken</li> <li>- The power cable is broken</li> <li>- Emergency stop activated</li> </ul> |
| One or more air motors are no longer working      | <ul style="list-style-type: none"> <li>- Air motor circuit breaker check</li> <li>- Is the air motor selection switch in the correct position?</li> <li>- The residual current circuit breaker has tripped.</li> </ul>                                                                       |
| An engine expels air instead of drawing it in.    | The motor is not receiving power or is faulty.                                                                                                                                                                                                                                               |
| The mill and/or the brushes are no longer turning | <ul style="list-style-type: none"> <li>- The motor-variator circuit breaker has been tripped.</li> <li>- The drive chain may be loose or damaged.</li> <li>- The motor-variator is broken</li> </ul>                                                                                         |
| The product rises in the tank                     | <ul style="list-style-type: none"> <li>- The polyurethanes in the mill are defective</li> <li>- Check the pressure gauge for significant oscillations.</li> </ul>                                                                                                                            |

**Before any intervention, we advise you to take a photo beforehand in order to facilitate the reassembly of the equipment.**

**In case of any problem, our technical service is available to help you resolve the issue and enable you to use your equipment under optimal conditions.**

## **WORKSHOP CONTACT:**

+33 (0)1 39 72 72 72

[atelier@isolinternational.com](mailto:atelier@isolinternational.com)

**Depending on the situation, we may be able to offer you troubleshooting via video assistance.**

