

INSTRUCTION MANUAL



GM2 +



ISOL INTERNATIONAL®

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CONTACTS

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CAUTION



THANK YOU FOR READING THIS DOCUMENT AND THE RECEIPT OF YOUR MACHINE BEFORE ITS COMMISSIONING.

YOUR MACHINE HAS BEEN SUBJECT TO MANY OPERATION TESTS IN OUR WORKSHOPS, AND ACCORDING TO INTENSIVE STANDARDS.

ITS HANDLING IS EASY AND ITS EFFICIENCY IS HIGH

DEPENDING ON THE PRODUCTS USED, THE ADJUSTEMENT OF THE MECHANICAL VARIATOR ALLOWS FLOWS OF UP TO 30 kg/min.

THE MATERIAL IS STANDARD IN ACCORDANCE WITH EUROPEAN DIRECTIVE 2006/42 / CE

NEVER TOUCH THE ROTATING ELEMENTS WITH HANDS OR ANY OTHER PART OF THE BODY- UNDER NO CIRCUMSTANCE NEVER GET ON THE MACHINE

1. GENERALITY

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

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The assembly and operating instructions are an integral part of the equipment and must always be available near the product. Strict adherence to these instructions is a necessary condition for the correct installation and use of the equipment.

Writing the assembly instructions and commissioning corresponds to the hardware version and the security standards in force on the date of printing.

NOTE - We strongly recommend that this guide be read by relevant managers and administrators, as well as maintenance personnel, so that they can assist those who use the equipment on a daily basis. Be sure to follow all instructions mentioned in this manual.

2. SECURITY

This manual contains essential instructions which must be observed during assembly and use. It is therefore essential that the installer and the operator of the equipment become aware of it before proceeding with assembly and commissioning.

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

2.1 SYMBOLS ET SIGNALS

SYMBOLS



: General danger signal



: Instructions on electrical hazards



Inter device symbol-secure locking - "Secure"



: Inter device symbol-unsecure locking- say « manual »

SIGNALS

- ✓ **DANGER !** = The user submits to an extremely dangerous situation which involve bodily injury (major) if the indication is not followed.
- ✓ **CAUTION !** = there is a risk a damaging system component (example: polyurethane)
« **Caution** » signal instruction whose non-observance may cause damage to the equipment and its operation.
- ✓ **NOTE** = useful note on handling the product. She points out the possible difficulties.

2.2 PERSONNEL QUALIFICATION

Care should be taken to ensure that the personnel required to use the equipment are qualified

2.3 DANGER IN CASE OF NON-COMPLIANCE OF THE INSTRUCTIONS

Failure to observe the safety instructions can constitute a danger to property and people. It may also result in the suspension of any warranty claim..

More specifically, the dangers involved may be the following :

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

2.4 INSTRUCTIONS OF SECURITY FOR THE USER

The instructions should be observed to exclude any risk of accident. The user must be qualified specialist who has read the contents of the manual. All installation operations must only take place if the corresponding components are stopped.

2.5 MACHINE MODIFICATION AND USE OF UNAPPROVED SPARE PARTS

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

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

3. UNAUTHORIZED MODES OF USE

The values mentioned in the user manual or the technical data sheet should under no circumstances be exceeded, both maximum and minimum. The operational safety of the delivered machine is only guaranteed if the requirements specified in this document are met.

4. TRAVEL AND STORAGE

4.1 TRAVEL

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

4.2. STORAGE

We recommend that you store your machine in a dry place away from bad weather.

5. GARANTEES

ISOL INTERNATIONAL® machines are guaranteed for 24 months from the date of invoice. The warranty does not include wearing parts (wear plate, fan blades, fan disc...)



CAUTION! Risk of material damage! In case of moving, incorrect transport and storage will result in material damage to the device.

This carding machine is designed for blowing, insufflating and spraying glass fibers, rock, cellulose.

A safety pedal allows the machine to be filled without stopping its operation. Its low power consumption allows it to be plugged into a 230 V single-phase (16A) socket.

GM2+



<u>FEATURES</u>	<u>ISO Mini GM 2</u>
Dimensions (m)	L=1,20 l=0,53 H=1,40
Weight	110 Kg
Engines	Moteur 4 kW 230V mono 16A
Electrical intensity	15A
Diameter pipe (mm)	Ø 60 mm
Lenght pipe maxi (m)	60 m
Power supply	215 - 240 V (50 - 60 Hz)
Air pression	300 millibars
Flow variation	By drawer on power supply and by dimmer
Mixer	Automatic by agitation
Sound level	2 turbines = 87 DB
Remotes (in option)	● Customizable transmitters with your visual ● 3 functions 

COMMISSIONING THE MACHINE



VERY IMPORTANT

DO NOT ADD AN EXTENSION CORD TO THE MACHINE POWER SUPPLY.

IN CASE THE MACHINE IS CONNECTED TO THE GENERATOR, CONNECT THE EARTH STAKE OF THE GENERATOR OR OF THE MACHINE. OTHERWISE, ISOL INTERNATIONAL CANNOT GUARANTEE CORRECT OPERATION OF THE MACHINE.

1. START UP PROCEDURE



- Connect the electric cable to the machine on the 230 v 16A + EARTH socket
- Prepare the projection tubes
- Connect the pump to the 230 Volts + earth mains
- Put the suction tubes in a drum (200 liters minimum) which is supplied to the water network
- Connect the water tube to the pump and connect the gun
- Connect the machine power cable to the electrical network (230 volts + earth)
- Unlock the emergency stop by turning the red button to the right 1/4 turn
- Press the black Start button
- The indicator light comes on.

2. CONNECTING THE GUN

- Connect the plastic product outlet pipe to the aluminium tube.
- Connect the water outlet pipe of the pump to the 1/4 "valve.
- The gun is an essential element for the use of the machine, it must always be in a perfect state of cleanliness.
- The nozzles must be tight



Perfect sealing ensures optimal projection comfort.

1. START-UP OF THE PUMP

3.1 STRATING THE PUMP

- Set the control valve 1 to OFF.
- Run the pump for 2 minutes in this position.
- Put the valve control 1 in the ON position to obtain the optimum water pressure at the gun.
- The pressure is adjusted by turning the pressure valve knob 2 clockwise to increase the pressure and vice versa to decrease it.

3.2 USE OF THE PUMP

Normal use of this pump requires a water tank, with a minimum capacity of 120 liters, in which the two connected pipes, as well as the strainer, must be immersed well in the bottom of the tank.

Make sure that the water level is always above half of the tank, either visually or by an automatic system (level float).

Before using the pump, make sure the box is half full (20 W / 30 oil)

Make sure that the suction pipe joints are properly sealed to avoid any air costs and to check that the suction filter is still in place.

From time to time, check the pressure in the air bell.

This must be 1/10 of the working pressure.

3.3 STOP THE PUMP

- Set the control valve 1 to OFF.
- Disconnect the pump from the machine's electrical panel.
- Clean the assembly if necessary.
- In all cases, store the pump in a room with a minimum temperature of 5 °.
- If glue is used, rinse the pump thoroughly in operation with clean water until the discharge water from the pressure outlet and the return outlet becomes clean.
- All equipment, pump and suction and delivery hose, as well as pressure and gun hoses, must be cleaned under the same conditions, and this every day.

MACHINE FEATURES

1. LADING

Open the loading lock.

Check that there is no foreign object in the machine.

To put the fiber in the machine:

Cut the bag at the top with a blade.

Remove the plastic.

Press the pedal with your foot to open the hood

Position the bag on the machine's loading lock, opening the bag towards the machine.

Cut the bag lengthwise.

Push the assembly into the machine, retaining the plastic bag.

Optionally, break the fiber blocks by hand.

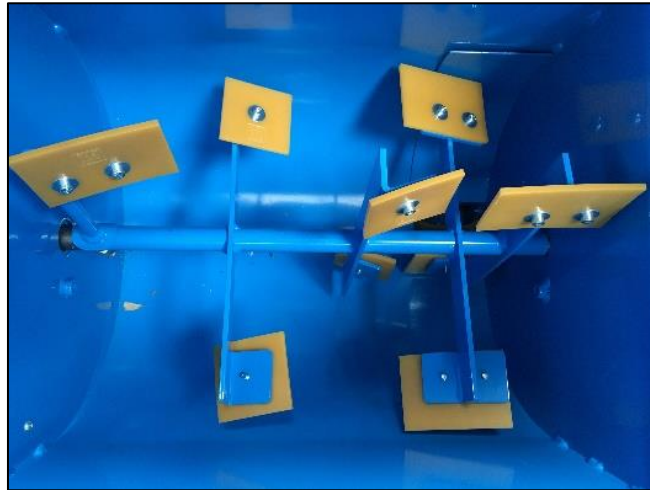
Do not put more than one bag in the machine (risk of damage to the gear unit).

Close the machine airlock.



DO NOT LIFT MORE THAN 20 KGS OF PRODUCT, OR LOAD BY HALF-BAG.

2. MIXER



Mixer with polyurethane flap for mixing fibers.
It is made of XC 38 steel and is used to supply the lock.

3. SLUICE

6 polyurethane blades

They ensure the seal between the fiber and the air distribution

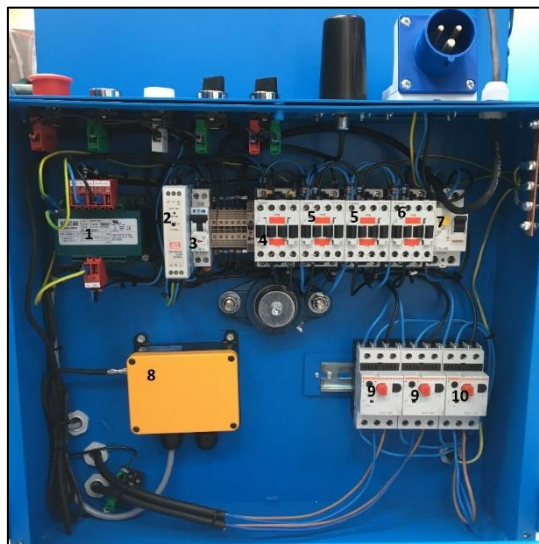
4. DISTRIBUTION DRAWER

It ensures the grain size and the flow of
fibers in the lock .



5. ELECTRIC STATION

The electrical panel is located under the rear of the machine, behind the guard.



USE STAGES

- Connect the Ø 60 tube to the machine outlet and put the 4-nozzle gun at the end of the tube.
- Connect the water tube to the gun and to the pump.
- Connect the pump suction and return tubes to a drum full of water.
- Adjust the water flow rate according to that of the product (see the product manufacturer's instructions).
- Put the fiber in the machine.
- Adjust the opening of the hatch and the speed of the variator according to the fiber flow rate and the desired grain size.
- Switch on the machine (230 volts) using the electrical outlet
- The machine will operate using the radio remote control
- When the machine is running and you need to replenish the fiber, press the pedal with your foot to be able to open the closing cover so that the machine does not stop and the projection can continue.



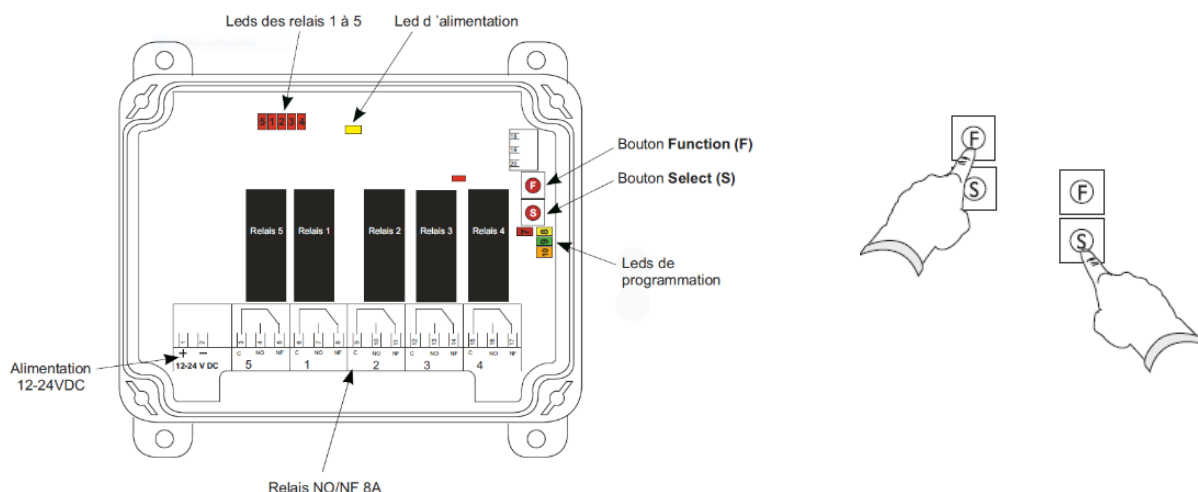
**Do not put your hands in the machine
even when stopped in a powered machine**

In normal spray operation with 40 meters of tubing, the pressure gauge should indicate a constant pressure between 80 and 110 millibars, if the needle oscillates a rubberblade is worn or broken.

REMOTE CONTROL PAIRING

DELETE ALL TRANSMITTERS IN THE RECEIVER

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



ENREGISTRER L'ÉMETTEUR DANS LE RÉCEPTEUR

REGISTER THE TRANSMITTER IN THE RECEIVER

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



HOW TO PROJECT ?

- . The position of the gun must always be 45 ° in relation to the support to be protected.
- . The distance from the gun to the support to be protected is always greater than or equal to 30 cm.
- . Always open the gun fully.
- . Wet the support to be projected (to wash it and ensure good projection)
- . Put the remote control in the ON position so that the air comes out of the gun and then engage in the FIBER position to send the fiber.
- . Choose your air flow with AIR + / AIR-
- . Apply a few square centimeters to the desired thickness.
- . Adjust the air flow with the AIR + / AIR- button on the remote control, and / or using the decompression valve and that of the fiber using the motor drive and the spool.
- . Check the proportion of water in relation to the fiber: by squeezing very strongly a handful of the product applied, it must be damp and a drop of water at most pearly with your hand to obtain a homogeneous mixture.
- . If the product is too dry, the water pressure must be increased by turning the knob **2** clockwise (and vice versa if the product is too wet).
- . Once the projection is done with the fiber, it is always recommended to roll it with a new short-nap painter's roller, or to float it using a traditional mason's float.



MAINTENANCE

- After each use, run the pump for a few minutes with clean water in order to avoid deposit formation, which is still harmful to its proper functioning.
- To allow complete drainage, run the pump with the suction hose out of the water.
- The special material used for the valves and the membranes, as well as the lubrication (oil bath) of all moving parts, limit maintenance operations to checking the oil level from time to time. If necessary, top up.



1. CHAINS TENSIONS

Tension the front chain with the appropriate wrenches (6 BTR and 13 flat).

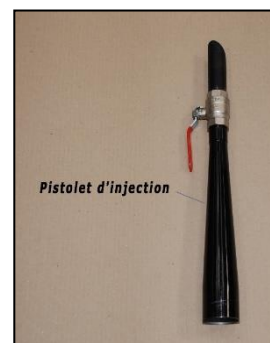
2. LUBRIFICATION

Lubricate the bearings and the chains with a grease gun.

3. SPRAYGUN AND REDUCER

Keep your spraygun very clean and in perfect condition.

The spraygun is as important as the machine and requires the same attention.



4. CLEANING THE AIR FILTER

4.1. AS OFTEN AS POSSIBLE (at least every week)

With a vacuum cleaner, vacuum the deposit of fiber dust directly on the filter located at the rear of the machine at the bottom under the handle.

4.2. SOMETIMES (at least every month)

- . Remove the two screws (1) using a 4 mm spanner.
- . Remove the mesh protection from the filter (2).
- . Remove the foam from the filter (3).
- . Clean the filter with a vacuum cleaner or compressed air.
- . Clean the interior with the same vacuum cleaner.
- . Reposition the filter foam (3).
- . Replace the filter mesh protection (2).
- . Replace the two screws (1) and tighten with the 4 mm Allen key.



5. REMPLACEMENT OF TURBINES MOTORS

- Position the seal as shown in the photo and slide it inside.
- Place the assembly in the flange and position the assembly on the opening of the Iso Mini S GM 2.
- Secure the assembly to the frame by tightening the 2 screws.



WEAR PARTS

1. REPLACEMENT OF POLYURETHANE FLATS

The 6 polyurethanes are wearing parts and must be changed if the air rises in the machine and the fiber propels jerkily.

Steps to test the tightness of your machine:

1. Empty the machine of fiber
2. Put the machine in air + fiber operation
3. Close the product outlet

Maximum pressure: 300 mbar

Pressure in use: between 80 and 110 mbar

Oscillation of the pressure gauge needle = sealing problem

Dismantling :

- Remove the screws from the backing plate and remove the used polyurethanes

Remplacement of polyurethanes flats :

- Remove the worn sealing flaps with a BTR 4 wrench
- Replace the sealing flaps with new ones (compatible exclusively with Isol International® products)

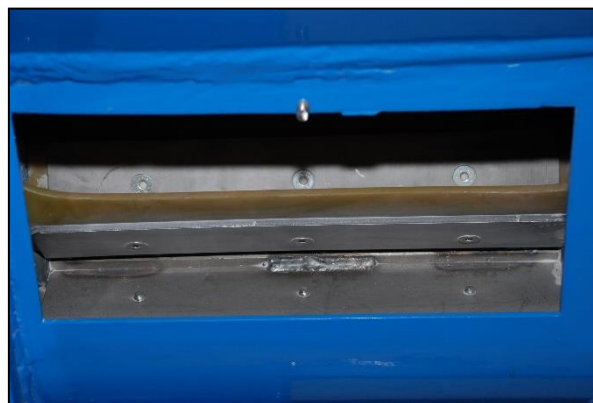


- Well center the sealing flaps by pressing on the sealing rings (photo below)
- Tighten with the same key

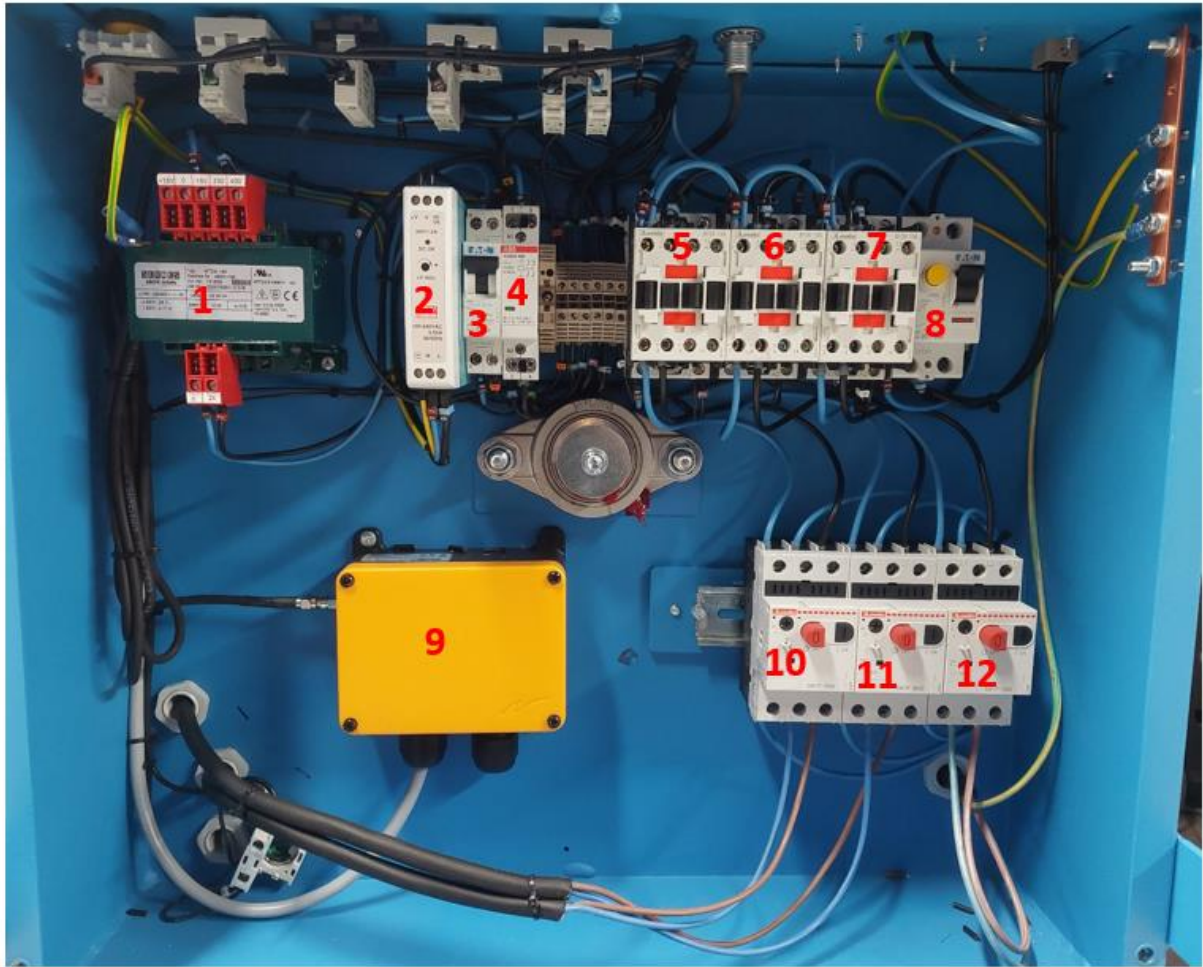


Reassembly:

- Reverse direction of disassembly
- Retension the chains
- Replace the mill plywood



SWITCHBOARD



ELECTRICAL COMPONENTS

1. 230 VAC / 24 VAC transformer
2. 230 VAC / 24 VDC radio transformer
3. 24V/C6 circuit breaker (control circuit)
4. 24V Modular contactor
5. Air motor contactor N1
6. Air motor contactor N2
7. motor-variator contactor
8. Differential circuit breaker 25A/30 mA
9. Radio receiver
10. Thermal protection 0650 AIR 1
11. Thermal protection 0650 AIR 2
12. Thermal protection 1000 of the motorcycle variator

TROUBLESHOOTING

ANOMALIES	SOLVING
MACHINE	
Pump no longer draws water	Check and clean the seats and valves
The white light does not come on	- The machine is not connected to the mains - The differential is disarmed, check the electrical connection - Reset the motor contactor
The machine does not work with the remote control	- Check if the remote control is in the ON position - Check if the batteries need to be changed
The machine clicks in the Fiber position of the remote control	- Retension the front chain
The turbine is not blowing enough	- Check and clean the filter or replace it - Check the condition of the mud flaps
The mixer stops	- Remove excess fiber in the machine - There are power cuts
The machine stops	Reset the motor contactor which has tripped
The machine is blocked during operation	Empty the machine and remove foreign bodies
PUMPS	
Pump no longer draws water	Check and clean the seats and valves One or more valves are blocked, check that the suction strainer is not blocked
The pipe is jerking hard	Check the suction pipe. Run the pump with the gun valve open
The water outlet is irregular	Check if the air bell is deflated, and inflate there to 4 bars
The oil comes out of the discharge, there is oil in the water	One or more membranes are damaged, drain the oil box, remove the cylinder heads and replace the damaged membranes. Top up with 20W / 30 fluidity oil
GUN	
Nothing comes out	- Open the valve - Unblock the tubes - Unclog the nozzles - Start the pump
The gun leaks	Check the tightness of the connection, and change the seal
Too much or not enough water	The pump is incorrectly adjusted

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

In the event of a problem, our technical service is at your disposal to resolve the anomaly with you and help you use your equipment in optimal conditions.

CONTACT

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Depending on the case, we may be brought to make you the proposal to make a troubleshooting by Visio-assistance.

