

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 BEFORE PUTTING IT INTO SERVICE.

THIS IS ESSENTIAL BEFORE IT IS PUT INTO SERVICE.

YOUR MACHINE HAS UNDERGONE NUMEROUS OPERATIONAL TESTS IN OUR WORKSHOPS, AND ACCORDING TO INTENSIVE STANDARDS.

IT IS EASY TO HANDLE AND HAS A HIGH PERFORMANCE.

DEPENDING ON THE PRODUCTS USED, THE MECHANICAL VARIATOR ADJUSTMENT ALLOWS FLOW RATES OF UP TO 10 Kg/min.

NEVER TOUCH ROTATING PARTS WITH YOUR HANDS OR ANY OTHER PART OF YOUR BODY – NEVER STAND 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 available near your device at all times. Strict compliance with these instructions is a necessary condition 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 the relevant managers and supervisors, as well as maintenance personnel, so that they can assist your employees who use the equipment every day. Be sure to follow all instructions mentioned in this manual..

2. SECURITY

This manual contains essential instructions that must be followed during use. It is therefore essential that the installer and operator of the equipment read them before proceeding with commissioning.

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

2.1 SYMBOLS AND SIGNALS



General hazard symbol



Instructions relating to electrical risks

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

ATTENTION != there is a risk of damaging organs in the system (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 comply with safety instructions may pose a danger to property and people. It may also result in the suspension of any warranty claim.

More specifically, the dangers involved may be as follows:

- Danger to people from electrical and mechanical influences
- Failure of prescribed maintenance and repair process
- Material damage

2.4 USER SAFETY INSTRUCTIONS

The instructions must be followed to prevent any risk of accidents. 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 corresponding components are switched off.

2.5 MODIFICATION OF THE MACHINE AND USE OF NON-APPROVED SPARE PARTS

Any modification to the machine may only be carried out with prior authorization from the ISOL INTERNATIONAL® brand. 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 MODES OF USE

The values indicated in the user manual or technical data sheet must not be exceeded under any circumstances, either as a maximum or a minimum. The operational safety of the delivered machine is only guaranteed if the requirements specified in this document are respected.

4. TRANSPORT AND STORAGE OF THE MACHINE

4.1 TRANSPORT

According to European directive 2006/42 of May 17, 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 away from the elements.

5. GUARANTEES

ISOL INTERNATIONAL® machines are guaranteed for 24 months from the invoice date. This warranty does not include wear parts (polyurethanes, casters, etc.).

CAUTION! Risk of material damage! In case of removal, improper transport and incorrect storage may cause material damage to the machine.

The equipment is CE standardized in accordance with European directive 2006/42/EC.

The ISO 50 machine is intended for the projection of glass, rock and cellulose fibers.



TECHNICAL SHEET

Features	ISO 50
Dimensions (m)	L=1.50 W=0.67 H=1.55
Weight (kg)	385
Mixing Capacity (liter)	400
Air Propulsion	1 turbine
Air pressure (millibar)	0 to 400
Pipe diameter (mm)	60 Ø
Maximum pipe length (m)	60
Maximum difference in height (m)	15
Engine Power (kW)	- Motor Drive: 1.1 - Turbine Engine: 5.5 - Cardes Engine: 1.5 - Mixer reducer: 0.75
Mechanical variator	Planetary variator with an adjustment range of 1 to 7, the variation being carried out when stationary or in operation
Walking remote control Two positions	- On/Off + Air - Air + Product
Power supply	400 V, 16 A
Electrical protection	- 24V AC control, protected by a thermal magneto circuit breaker - Electrical panel, protected by 1 30 mA differential circuit breaker - Separate thermal protection of motors

COMMISSIONING THE MACHINE



VERY IMPORTANT

Connecting the machine requires special attention for safety reasons and to avoid damaging the equipment. Check that the voltage of the mains power outlet corresponds to that of the machine, and that the permissible amperage is at least 16 amps in 400 Volts three-phase. If the voltage does not match or if there is any doubt, consult the site electrician.

ATTENTION !

The machine is equipped with a phase detector, which ensures that the direction of rotation of the machine is correct:

When the machine is plugged in,

- If the red light next to the 400v socket is on, the direction of rotation is not correct, the machine is not working.

In this case, the phase at the machine socket must be reversed.

- If the light is off, everything is working, the direction of rotation is correct.

ISO 50 machines are manufactured by ISOL INTERNATIONAL®. They are easy to maintain and handle.



A) ELECTRICAL OPERATION

- Connect the machine to the 400 Volt three-phase mains supply
- Connect the remote control to the machine's electrical panel
- Disconnect the emergency stop (red button on the front of the panel) by turning the knob (1/4 turn) to the right. The power indicator light, just below, should light up when you press the black power button on the electrical panel.

Otherwise:

1. There is no electricity coming to the machine
2. The indicator lamp is defective

- Operate the remote control to turn the motors:

1. The left button starts the turbine drive motor, a few seconds later the carding motor starts. The carding motor's activation time can be changed from 0.1 to 30 seconds by turning the blue timer dial, located inside the cabinet, on the turbine control.
2. The right button starts the variator motor and turns the feed screw and the distributor. If nothing happens, reset the thermal relay by pressing its red button. Repeat the start-up operation.

B) SETTINGS

CARD

- Move the carding disc towards the feed screw to achieve fine carding. Be careful not to bring the disc and the feed screw into contact.
- Move the disc backward, gradually, to obtain a more airy nodule



DIMMER

The variator can be adjusted while the machine is stopped or running. Graduated from 1 to 7, it allows the machine to deliver between 0.8 kg/min and 15 kg/min. Operation is done by turning the handwheel on the left side of the machine.



PUMP

- Immerse the suction pipe with the strainer and the discharge pipe in a water tank.
- Connect the spray gun and check that the water is spraying correctly.

PUMP FLOW RATE

- **Very important:** For a good application, you need to use 0.7 liters of water per kilo of wool for products with hydraulic binder.

C) LOADING THE PRODUCT

Now it's your turn!

Open the half bag lengthwise as shown below. **Drop the product by itself towards the 2 feed screws (do not overload).** Then close the safety cover.



To stop the engine in an emergency, a stop button is located on the side of the machine under the loading deck.



D) MAINTENANCE

1. See notebook
2. Sealing flaps

Position on the lock rotor to ensure the distributor seals with the air propulsion supplied by the turbine.

To change them:

They are changed by opening the card box:

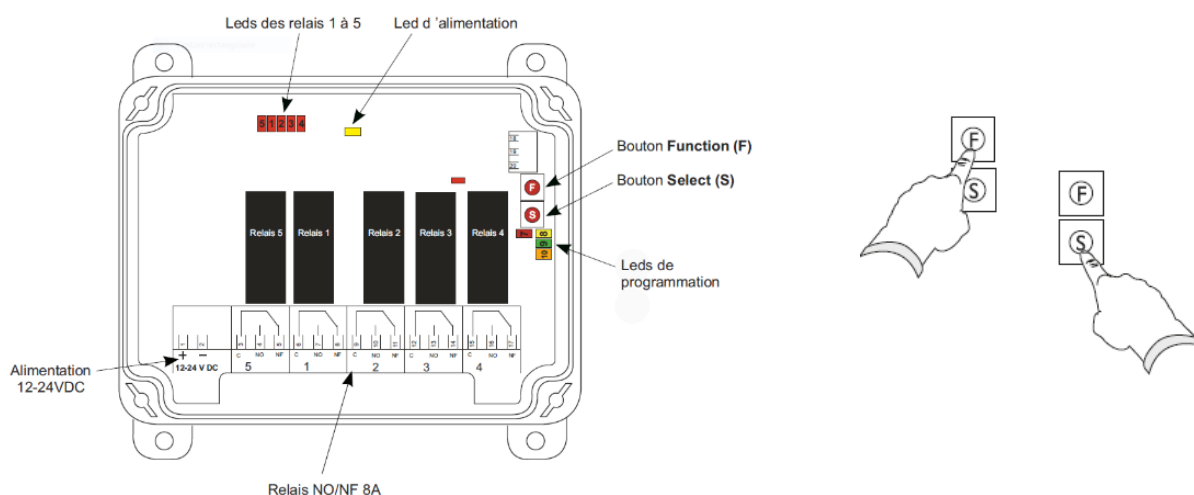
- Remove the 8 screws on the rotor plates
- Remove the clamping plate, change the defective polyurethane
- Position the variator at slow speed and turn the lock by impulse to place the next blade to be changed in front of you.



PAIRING THE REMOTE CONTROL

ERASE 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 (S) button. All relay LEDs will light up.
3. Hold down until the relay LEDs turn off.



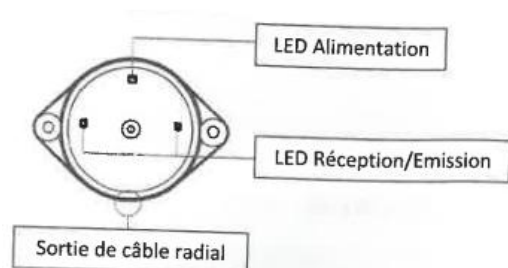
REGISTER THE TRANSMITTER IN THE RECEIVER

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



RADIO REPEATER PAIRING

DIAGNOSTIC LIGHT



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

The 2 Reception/Transmission LEDs flash with each Reception/Transmission of a radio frame.

PAIRING PROCEDURE



The repeater must be powered 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.

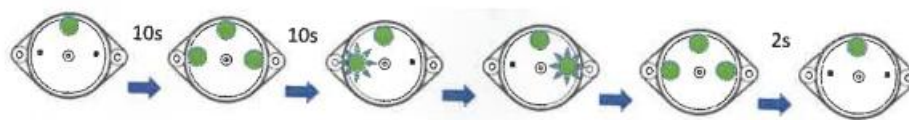
Press the pairing buttons on the product. Typically, these are buttons 1 and 2 or 1 and 3 if you have an ON/OFF function on button 2.

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

Hold down throughout the repeater startup phase below.

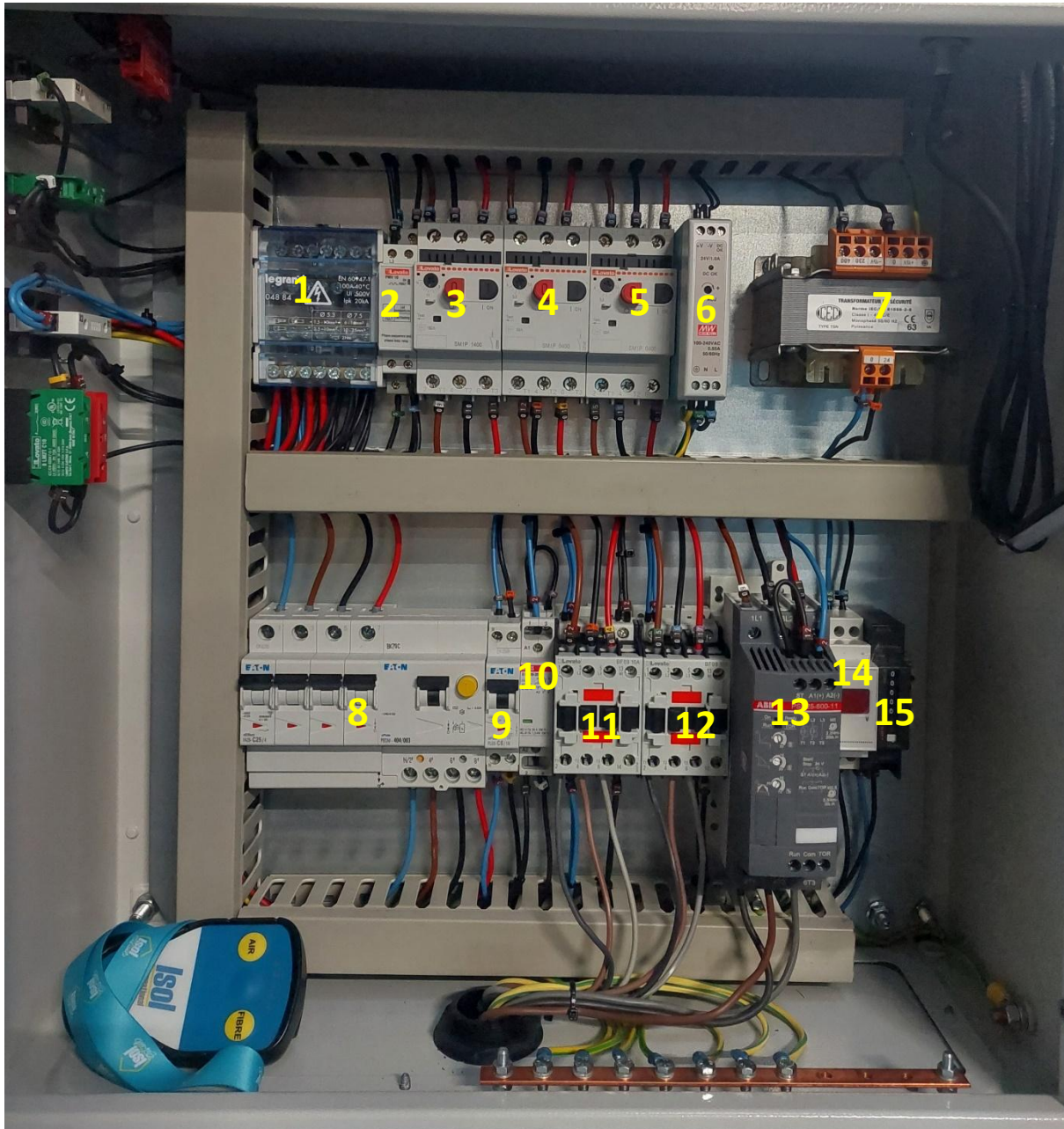


Power on the repeater.



Release the pairing buttons.

ELECTRICAL PANEL



ELECTRICAL COMPONENTS

1. Phase splitter
2. Phase detector
3. Air motor protection (value) 1400
4. Card motor protection (value) 0400
5. Motor-variator protection (value) 0250
6. 230VAC/24VDC radio transformer
7. Machine transformer (value) 400/24v
8. Differential circuit breaker (value) 25A
9. Control circuit breaker (value) C6
10. Modular contactor
11. Card motor contactor (value) 400V
12. Motor-variator contactor (value) 400V
13. Soft starter
14. Digital voltmeter
15. Hour meter
16. 400 V power supply
17. Detection phase
18. Power button
19. Indicator light
20. Order

STARTING THE PUMP

- 1) Before using the pump, make sure the box is half full. 20 W/ 30 oil.
- 2) Ensure that the suction pipe joints are properly sealed to prevent air from entering and check that the suction filter is still in place.
- 3) From time to time, check the pressure in the air bell. It should be 1/10 of the working pressure.
- 4) Open the pressure adjustment valve, open the tap.
Run the pump for a few minutes without pressure to facilitate priming and to allow complete evacuation of air.
- 5) Adjust the pressure until you obtain the desired working pressure.

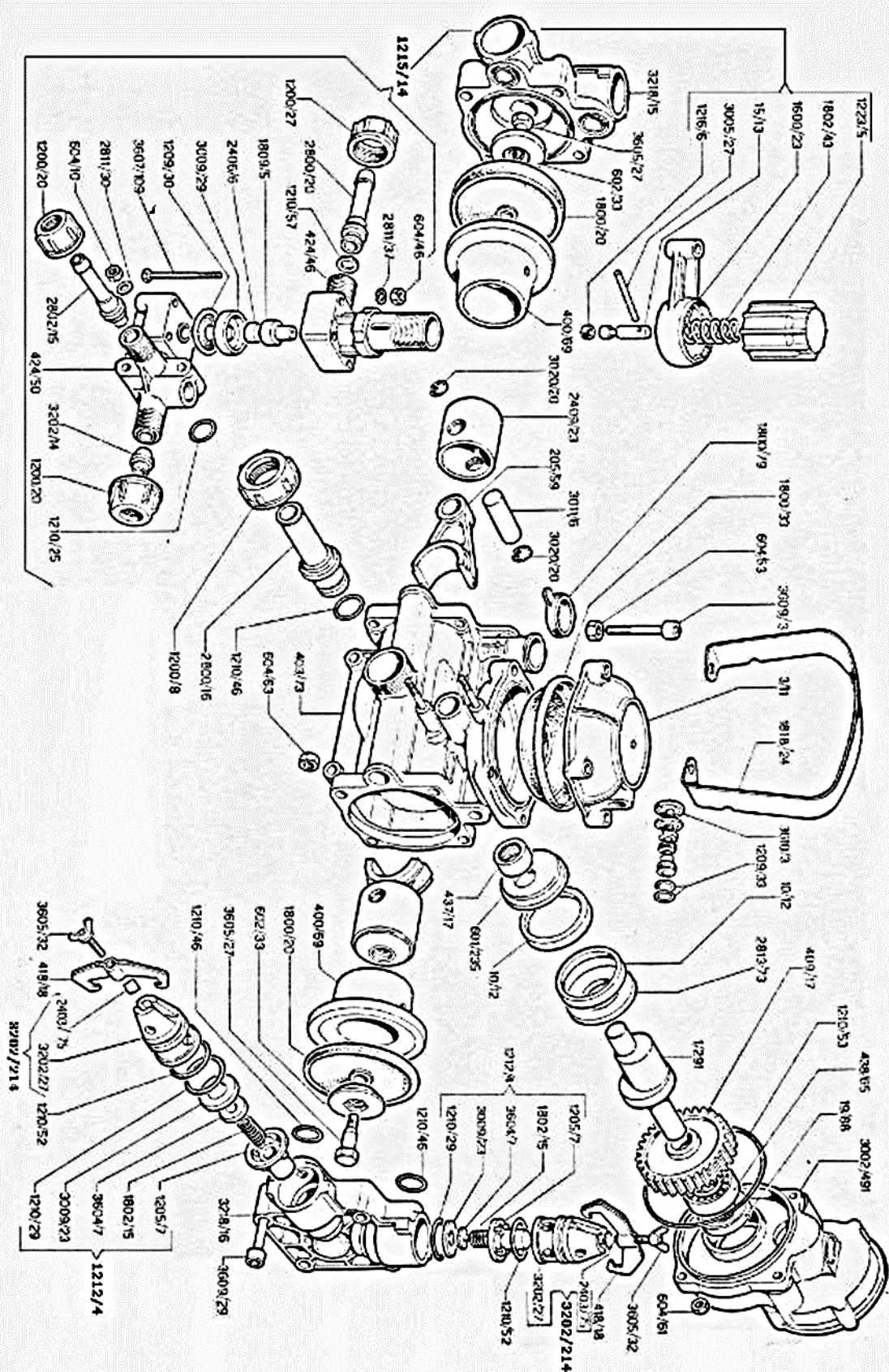
INTERVIEW

- 1) After each use, run the pump for a few minutes with clean water to prevent deposits from forming, which are always detrimental to its proper functioning. To allow complete drainage, run the pump with the suction pipe out of the water.
- 2) The special material used for the valves and membranes, as well as the lubrication (oil bath) of all moving parts, limits maintenance operations to an occasional check of the oil level. Top up if necessary.
- 3) Carry out an oil change every 200 hours or after each job.
To do this, remove the reservoir cap, turn the pump over and turn the shaft by hand until the oil has completely drained.
Top up with ½ liter of oil, fluidity 20 W/30.

ATTENTION

During the winter period, make sure that the pump is completely drained, particularly the pipes of the lower cylinder head manifolds.

We recommend checking the membranes and, if necessary, replacing them.



COMET MC 20/20 PUMP SPARE PARTS LIST

Nouveau n° de Réf.	N° de Réf. de commande	Description	Quantité
.0001029100	.1/291	arbre excentrique	1
.0003001100	.3/11	accumulateur de pression partie haute	1
.0010001200	.10/12	anneau de bielle	2
.0015001300	15/13	soupape de régulation	1
.0019008800	19/88	anneau de tenue de l'arbre tournant	1
.0205005900	205/59	bielle 2 secteurs	1
.0400006900	400/69	chemise	2
.0403007300	403/73	carter de pompe	1
.0409001700	409/17	pignon d'entraînement Z = 54 (moteur thermique)	1
.0409001900	409/19	pignon d'entraînement Z = 52 (moteur électrique)	1
.0418001800	418/18	chemise	4
.0424004600	424/46	corps de la tête de régulation	1
.0424005000	424/50	corps de la tête de commande	1
.0437001700	437/17	roulement aiguille	1
.0438006500	438/65	roulement de la couronne	1
.0601023500	601/235	rondelle de calage de bielle	1
.0602003300	602/33	disque de tenue membrane	2
.0604001000	604/10	écrou UNI 5587 6MA x 10 x 6	2
.0604004600	604/46	écrou autobloquant 5MA x 8 x 6,7	4
.0604006100	604/61	écrou 5MA x 8 x 5 6S	4
.0604006300	604/63	écrou UNI 5588 8MA x 13 x 6,5	12
1200000800	1200/8	écrou plastique	1
1200002000	1200/20	écrou plastique	2
1200002700	1200/27	écrou plastique	1
1205000700	1250/7	Support de clapet. Mand.	4
1209003000	1209/30	joint torique normale Ø 11 x 29 x 12,5	1
1209003300	1209/33	joint torique normale Ø 6 x13 x 1,8	2
1210002500	1210/25	joint torique OR Ø 13,8 x 19,6 x 2,9	1
1210002900	1210/29	joint torique OR Ø 25,07 X 30,31 X 2,62	4
1210004600	1210/46	joint torique OR Ø 17,13 x 22,37 x 2,62	5
1210005200	1210/52	joint torique OR Ø 21,82 x 28,88 x 3,53	4
1210005300	1210/53	joint torique OR Ø 71,5 x 1,78 x 75,06	1
1210005700	1210/57	joint torique OR Ø 10,78 x 16,02 x 2,62	1
1212000400	1212/4	clapet d'aspiration complet	4
1215001400	1215/14	valve de régulation complète	1
1216000600	1216/6	joint Gaco Ø 6,2 x 10,1 x 3,2	1
1223000500	1223/5	molette de pression	1
1600002300	1600/23	levier de mise en pression	1
1800002000	1800/20	membrane de pompe	2
1800003300	1800/33	membrane accumulation de pression	1
1800007900	1800/79	membrane bouchon d'huile	1
1802001500	1802/15	ressort de la valve d'aspiration	4
1802004300	1802/43	ressort de pression de régulation	1
1809000500	1809/5	tige de commande de soupape de régulation	1
1818002400	1818/24	poignée	1

LISTE DES PIÈCES DÉTACHÉES DE LA POMPE COMET MC 20/20

Nouveau n° de Réf.	N° de Réf. de commande	Description	Quantité
2406000600	2406/6	pastille de la commande de régulation	1
2403007500	2403/75	pastille métallique	4
2409002300	2409/23	piston Ø 45	2
2800001600	2800/16	raccord d'aspiration Ø 18	1
2800002000	2800/20	raccord de retour pression	1
2802001500	2802/15	raccord de pression	1
2811003000	2811/30	rondelle métallique	2
2811003700	2811/37	rondelle métallique	4
28 3007300	2813/73	rondelle de calage de bielle	1
3002049100	3002/491	support manomètre p.d.f.	1
3005002700	3005/27	goupille	1
3009002300	3009/23	siège de clapet	4
3009002900	3009/29	siège de clapet	1
3011000600	3011/6	goujon	2
3020002000	3020/20	circlips	4
3202021400	3202/14	pastille de fermeture de pression	1
3202002700	3202/27	tête de support clapet	4
3202021400	3202/214	kit tête de clapet	4
3218001500	3218/15	culasse de pompe droite	1
3218001600	3218/16	culasse de pompe gauche	1
3604000700	3604/7	clapet d'aspiration	4
3605002700	3605/27	vis de fixation membrane	2
3605003200	3605/32	vis de fixation de tête de clapet 6 MA x 20	4
3607010900	3607/109	vis UNI 5737 5 MA x 45	4
3609000300	3609/3	vis UNI 5931 8 MA x 35	4
3609002900	3609/29	vis UNI 5931 8 MA x 40	8
3610000300	3610/3	soupape d'air	1

Toutes les pièces détachées doivent être commandées avec le n° de référence de commande

DAILY MAINTENANCE

- CLEANING THE SUCTION FILTER
- CLEANING AIR MOTORS BY DUSTING THEM
- CLEANING THE WATER PUMP BY DISASSEMBLING IT
- CHECK BELT TENSION

MAINTENANCE EVERY 200 HOURS

- CHECK THE BELTS AND THEIR TENSION
- CHECK THE OIL LEVEL IN THE PUMP
- CHECK THE PUMP DIAPHRAGM
- DISASSEMBLE THE CASINGS, GREASE THE BEARINGS AND CHAINS
- CHECK THE FIXING OF THE PULLEYS ON THEIR SHAFT
- CHECK THE TIGHTNESS OF THE SET SCREWS ON ALL SPROCKET GEARS

TROUBLESHOOTING

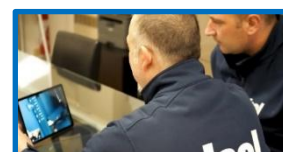
ANOMALY	RESOLUTION
The machine is blocked at the carding area. The product comes out irregularly.	Check the tightness of the polyurethane lock The card adjustment disc may be too tight
The air flow at the machine outlet has decreased	Check the condition of the turbine air filters Check the condition of the turbine belt tension Check the tightness of the polyurethane mill
The machine is banging	Check the chain tension
There is a whistling sound when the machine starts	Check the belt tension
There is a significant oscillation at the pressure gauge, maximum pressure = 400g	Check the condition of the sealing parts
The pump no longer sucks water. One or more valves no longer hold.	Check the seats and valves and clean them.
The pressure gauge is jerking. The pump may be sucking in air or the air may not have been evacuated.	Check the suction hose. Run the pump with the discharge valve and taps open.
The water outlet is irregular. The air bell is deflated.	Inflate the air bell (1/10 of the working pressure).
Water is coming out but the pump is not building up pressure. The discharge valve pad is worn.	Replace the pad and, if necessary, also the seat.
The flow rate decreases and the pump makes noise. The oil level has dropped.	Fill the oil tank halfway.
Oil is leaking from the discharge. One or more membranes are damaged.	Drain the oil box, remove the cylinder heads and replace the diaphragms

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 department is available to resolve the anomaly with you and help you use your equipment in optimal conditions.

WORKSHOP CONTACT:

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Depending on the case, we can offer you troubleshooting via video assistance.