

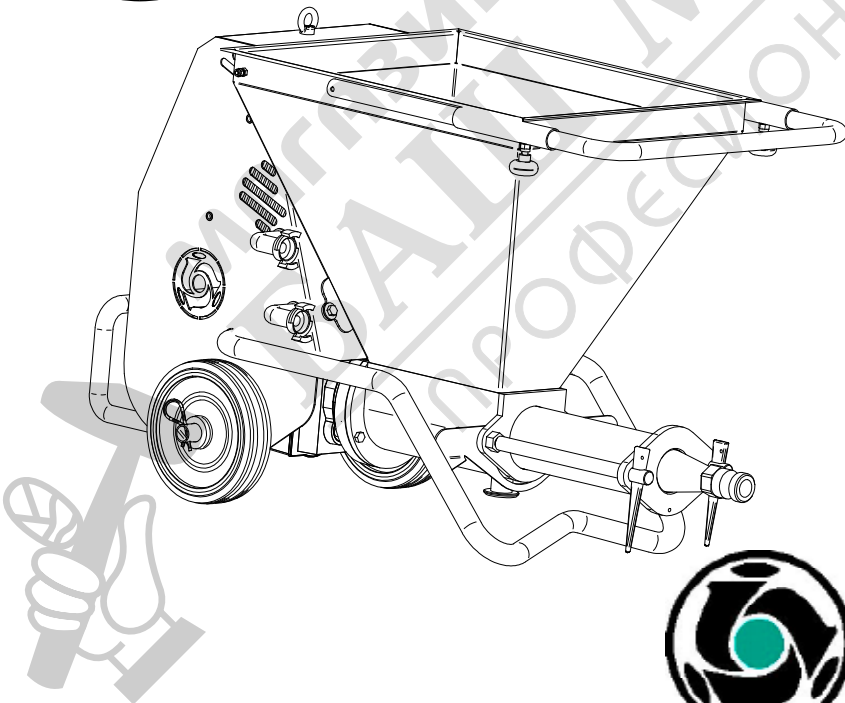
SMALL 50

(1106045)

EL

INTONACATRICE
GUNITEUSE
MORTAR MIXER
VERPUTZMASCHINE
ENFOCADORA

- I** Manuale uso manutenzione ricambi
- F** Manuel utilisation entretien pièces de rechange
- GB** Operating, maintenance, spare parts manual
- D** Handbuch für Bedienung, Wartung und Ersatzteile
- E** Manual de uso, mantenimiento y recambios

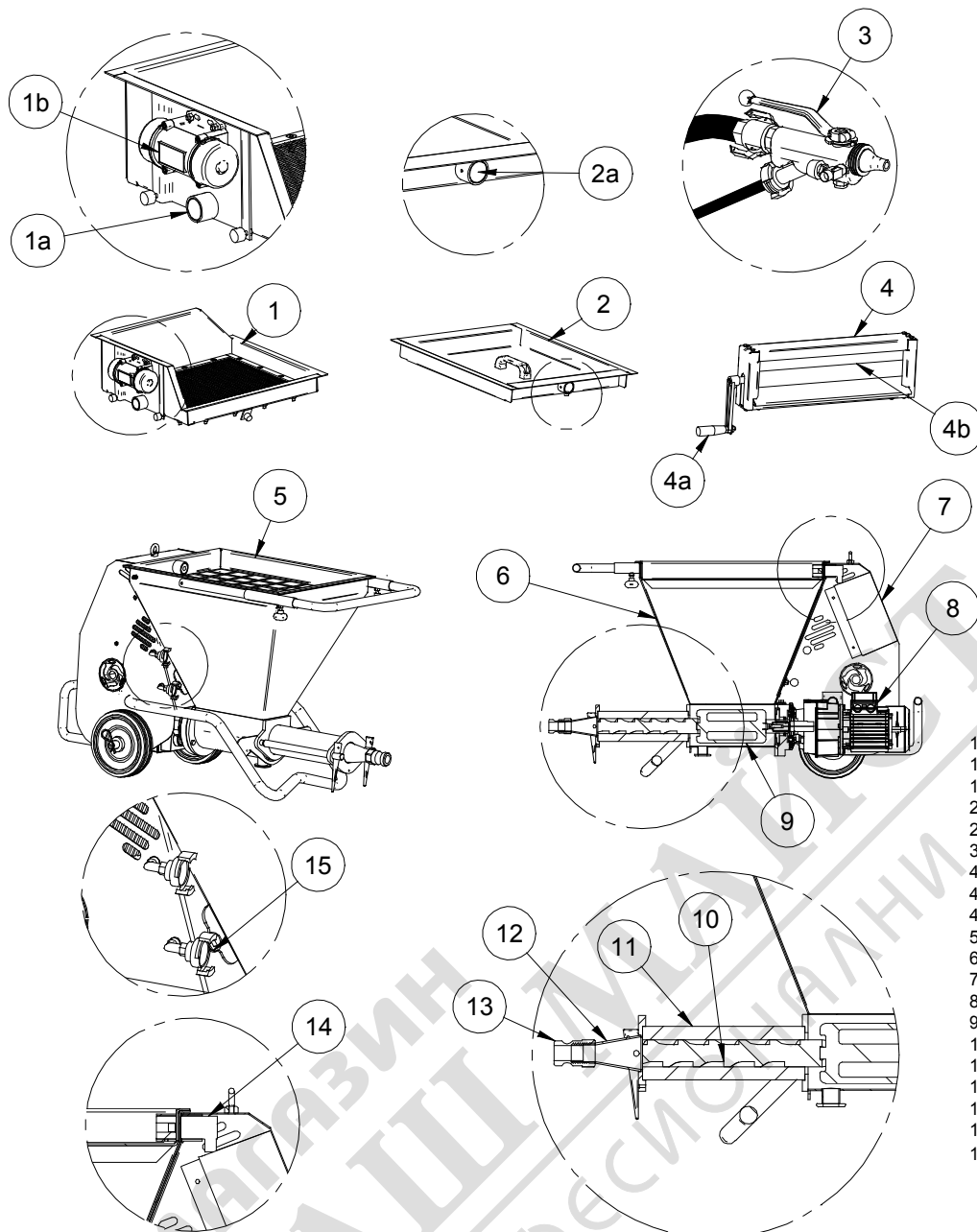


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02/2006R1
- Cod. 3225890 -





- 1) VIBROSETACCIO
1a) SENSORE VIBRO
1b) VIBRATORE
2) COPERCHIOTRAMOGGIA
2a) SENSORE COPERCHIO
3) LANCIA SPRUZZATRICE
4) SCHIACCIA SACCHI
4a) MANOVELLA
4b) RULLO
5) GRIGLIA TRAMOGGIA
6) TRAMOGGIA
7) QUADRO ELETTRICO
8) MOTORIDUTTORE
9) AGITATORE
10) ROTORE - VITE ECCENTRICA -
11) STATORE - VITE ECCENTRICA -
12) TUBO USCITA MATERIALE
13) ATTACCO A CAMME
14) SENSORE MACCHINA
15) ATTACCHI ARIA

ENGLISH

- 1) VIBRATING SCREEN
1a) VIBRO SENSOR
1b) VIBRATOR
2) HOPPER COVER
2a) COVER SENSOR
3) SPRAY JET
4) BAG SPLITTER
4a) HANDLE
4b) ROLLER
5) HOPPER GRID
6) HOPPER
7) ELECTRICAL PANEL
8) GEARMOTOR
9) MIXER
10) ROTOR - CAM SCREW -
11) STATOR - CAM SCREW -
12) MATERIAL OUTFEED HOSE
13) CAM COUPLING
14) MACHINE SENSOR
15) AIR CONNECTIONS

FRANÇAIS

- 1) TAMIS VIBRANT
1a) CAPTEUR VIBRO
1b) VIBRATEUR
2) COUVERCLE TREMIE
2a) CAPTEUR COUVERCLE
3) LANCE DE VAPORISATION
4) ECRASE-SACS
4a) MANIVELLE
4b) ROULEAU
5) GRILLE TREMIE
6) TREMIE
7) TABLEAU ELECTRIQUE
8) MOTOREDUCTEUR
9) AGITATEUR
10) ROTOR - VIS EXCENTRIQUE -
11) STATOR - VIS EXCENTRIQUE -
12) TUBE SORTIE MATERIAU
12) TUBE SORTIE MATERIAU
13) FIXATION A CAMES
14) CAPTEUR MACHINE
15) RACCORDS AIR

DEUTSCH

- 1) RÜTTELSIEB
1a) SENSOR RÜTLER
1b) RÜTLER
2) TRICHTERDECKEL
2a) SENSOR DECKEL
3) SPRÜHPISTOLE
4) SACKPRESSE
4a) KURBEL
4b) WALZE
5) TRICHTERGITTER
6) TRICHTER
7) SCHALTAFEL
8) GETRIEBEMOTOR
9) RÜHRWERK
10) ROTOR - EXZENTERSCHNECKE -
11) STATOR - EXZENTERSCHNECKE -
12) MATERIALAUSSTRITTSROHR
12) MATERIALAUSSTRITTSROHR
13) NOCKENANSCHLUSS
14) SENSOR MASCHINE
15) DRUCKLUFTANSCHLÜSSE

ESPAÑOL

- 1) VIBROTAMIZ
1a) SENSOR VIBROTAMIZ
1b) VIBRADOR
2) TAPA DE LA TOLVA
2a) SENSOR TAPA
3) PISTOLA DE PROYECCIÓN
4) PRENSA DE SACOS
4a) MANIVELA
4b) RODILLO
5) REJILLA DE LA TOLVA
6) TOLVA
7) CUADRO ELÉCTRICO
8) MOTORREDUCTOR
9) AGITADOR
10) ROTOR - TORNILLO EXCÉNTRICO -
11) ESTATOR - TORNILLO EXCÉNTRICO -
12) TUBO SALIDA MATERIAL
12) TUBO SALIDA MATERIAL
13) RACOR TIPO CAMLOCK
14) SENSOR MÁQUINA
15) CONEXIONES DE AIRE

**Particolare attenzione deve essere fatta alle avvertenze contrassegnate con questo simbolo:
Il faut prêter une attention toute particulière aux notes précédées de ce symbole :
Special attention must be given to warnings with this symbol:
Lesen Sie die mit diesem Symbol bezeichneten Abschnitte mit besonderer Aufmerksamkeit:
Se tiene que prestar una atención especial a las indicaciones marcadas con el signo:**



TABELLA - TABLEAU - TABLE - TABELLE - TABLA 1						
I	F	GB	D	E	SMALL 50	
DATI TECNICI	DONNEES TECHNIQUES	TECHNICAL DATA	TECHNISCHE DATEN	DATO TECNICOS		
Codice macchina	Code machine	Machine code	Maschinencode	Código de la máquina	1106045 (115V / 60 Hz)	
ALIMENTAZIONE PRINCIPALE	ALIMENTATION PRINCIPALE	MAIN POWER SUPPLY	HAUPTSTROMVERSORGUNG	ALIMENTACIÓN PRINCIPAL	V Hz	115 60
ALIMENTAZIONE COMANDI	ALIMENTATION COMMANDES	CONTROLS POWER SUPPLY	STROMVERSORGUNG BEDIENELEMENTE	ALIMENTACIÓN DE LOS MANDOS	V	24
COLLEGAMENTO ELETTRICO PRESA (MONOFASE) CAVO (FINO A 30M)	BRANCHEMENT ÉLECTRIQUE PRISE (TRIPHASÉE) CÂBLE (JUSQU'À 30M)	ELECTRICAL CONNECTION CONNECTOR (3-PHASE) CABLE (UP TO 30M)	STROMANSCHLUSS STECKDOSE (DREHSTROM) KABEL (BIS 30M)	CONEXIÓN ELÉCTRICA TOMA (TRIFÁSICA) CABLE (HASTA 30m)	V mm	115 3X2.5
GRUPPO ELETTROGENO MONOFASE(MINIMO)	GRUPE ÉLECTROGÈNE (MINIMUM)	GENERATOR SET (MINIMUM)	GENERATOR (MIN.)	GRUPO ELECTRÓGENO (MÍNIMO)	kVA	6
MOTORIDUTTORE POMPA 115V60Hz	MOTORÉDUCTEUR	GEARMOTOR	GETRIEBEMOTOR	MOTORREDUCTOR DEL	kW A r.p.m.	1.5 14.5 8-140
CORRENTE MAX (LINEA)					A	15
TARATURA PRESSOSTATO ARIA OPTIONAL (MIN/MAX)	ÉTALONNAGE PRESSOSTAT COMPRESSEUR(MIN/MAX)	COMPRESSOR PRESSURE SWITCH SETTING(MIN/MAX)	EEICHUNG DRUCKSCHALTER KOMPRESSOR(MIN/MAX)	CALIBRADO DEL PRESOSTATO DEL COMPRESOR(MIN/MAX.)	bar	2/2,2
COMPRESSORE A MEMBRANA (OPTIONAL)	COMPRESSEUR	COMPRESSOR	KOMPRESSOR	COMPRESOR	kW A NI/min	0.55 8 200
TARATURA VALVOLA DI SICUREZZA COMPRESSORE	ÉTALONNAGE SOUPAPE DE SÛRETÉ	COMPRESSOR SAFETY VALVE SETTING	EICHUNG KOMPRESSOR- SICHERHEITSVENTIL	CALIBRADO DE LA VÁLVULA DE SEGURIDAD DEL COMPRESOR	bar	4
PORTATA MATERIALE CON POMPA D8-1.5 (CIRCA)	DÉBIT MATÉRIAU AVEC POMPE D8-1.5(ENVIRON)	MATERIAL FLOW RATE WITH PUMP D8-1.5(APPROX.)	MATERIALDURCHSATZ MIT PUMPE D8-1.5(CA.)	CAUDAL DEL MATERIAL CON BOMBA D8-1.5(APROX.)	l/min	0.8-14
PRESSIONE MASSIMA	PRESSIÒN MAXIMUM	MAXIMUM PRESSURE	HÖCHSTDRUCK	PRESIÓN MÁXIMA	bar	15
MASSIMA DISTANZA DI POMPAGGIO (*) TUBO DIAM.19MM TUBO DIAM.25MM	DISTANCE DE POMPAGE MAXIMUM (*) TUBE DIAM.19MM TUBE DIAM.25MM	MAXIMUM PUMPING DISTANCE (*) HOSE DIAM.19MM HOSE DIAM.25MM	MAX. PUMPFÖRDERSTRECKE (*) SCHLAUCH DURCHM.19MM SCHLAUCH DURCHM.25MM	MÁXIMA DISTANCIA DE BOMBEO (*) TUBO DIAM. 19mm TUBO DIAM. 25mm	m m	15 25
DIMENSIONI X Y Z	DIMENSIONS X Y Z	DIMENSIONS X Y Z	ABMESSUNGEN X Y Z	DIMENSIONES X Y Z	mm mm mm	1120 520 650
ALTEZZA DI CARICAMENTO	HUTEUR DE CHARGEMENT	LOADING HEIGHT	LADEHÖHE	ALTURA DE CARGA	mm	650
CAPACITA' TRAMOGGIA	CAPACITÉ TRÉMIE	HOPPER CAPACITY	TRICHTERINHALT	CAPACIDAD DE LA TOLVA	l	50
PESO	POIDS	WEIGHT	GEWICHT	PESO	kg	69
LIVELLO EMISSIONE SONORA LPA A 1M - 98/37/CE LVA - EN ISO 3744 (2000/1/CE)	NIVEAU NUISANCE SONORE LPA A 1M - 98/37/CE LVA - EN ISO 3744 (2000/1/CE)	NOISE EMISSION LEVEL LPA A 1M - 98/37/CE LVA - EN ISO 3744 (2000/1/CE)	GERÄUSCHPEGEL LPA IN 1M - 98/37/EG LVA - EN ISO 3744 (2000/1/CE)	RUIDO LPA A 1M - 98/37/CE LVA - EN ISO 3744 (2000/1/CE)	dB(A)	<74 83
NORME DI PROGETTO	NORMES DE FABRICATION	DESIGN STANDARDS	PROJEKTNORMEN	NORMAS DE PROYECTO	EN 12100-1/2 EN 60204-1 EN 12001	

(*) NOTA: LA DISTANZA DI POMPAGGIO È SOGGETTA A DELLE VARIANTI, QUESTE POSSONO RIGLIARDARE: IL TIPO DI MATERIALE USATO, ALTEZZA SERVITA, CONSISTENZA DEL MATERIALE, TIPO DI POMPA (VITE+ STATORE) INSTALLATA.

(*) REMARQUE : LA DISTANCE DE POMPAGE EST SUJETTE À VARIATIONS, POUVANT CONCERNER : LE TYPE DE MATÉRIAU UTILISÉ, LA HAUTEUR SERVIE, LA CONSISTANCE DU MATÉRIAU, LE TYPE DE POMPE (VIS + STATOR) INSTALLÉE.

(*) NOTE: THE PUMPING DISTANCE IS SUBJECT TO VARIATIONS, WHICH MAY REGARD: THE TYPE OF MATERIAL USED, SERVICE HEIGHT, CONSISTENCY OF MATERIAL, TYPE OF PUMP (SCREW+ STATOR) INSTALLED.

(*) HINWEIS: LDIE PUMPFÖRDERSTRECKE VARIERT IN FUNKTION FOLGENDER FAKTOREN: , MATERIALTYP, PUMPHÖHE, MATERIALKONSISTENZ, PUMPE NTYP (SCHNECKE + STATOR).

(*) NOTA: LA DISTANCIA DE BOMBEO DEPENDE DE VARIOS FACTORES, COMO, POR EJEMPLO, EL TIPO DE MATERIAL USADO, LA ALTEZZA SERVIDA, LA CONSISTENCIA DEL MATERIAL Y EL TIPO DE BOMBA (TORNILLO+ESTATOR) INSTALADO.

Dear Customer,
compliments on your purchase: this IMER mortar mixer, the result of long-standing experience in the field, features maximum reliability and innovative technical solutions..

! - WORKING IN SAFETY.

To ensure complete safety, read all the instructions in this manual carefully.

This OPERATION AND MAINTENANCE manual must be kept by the Site Manager and be always available for consultation.

The manual is considered part of the machine and must be stored for future reference (EN 12100-2) through to scrapping of the machine itself. If the manual is lost or damaged, a replacement copy can be ordered from the manufacturer.

The manual contains the EC declaration of conformity (98/37/EC) important information on construction site procedures, installation, operation, maintenance and requests for spare parts. Nevertheless, the user must both have adequate experience and knowledge of the machine prior to use: the user should be trained by a person totally familiar with the operation and use of this machine.

To guarantee complete safety of the operator, safe operation and long life of equipment, follow the instructions in this manual carefully, and observe all safety standards currently in force for the prevention of accidents at work (use of safety footwear and suitable clothing, helmets, gloves, goggles etc.).

! - Make sure that all signs are legible.

! - Never make any modifications to the metal structure or mortar mixer systems.

IMER INTERNATIONAL accepts no responsibility in the event of failure to comply with laws governing the use of this type of equipment, with particular reference to: improper use, incorrect power supply, lack of maintenance, unauthorised modifications, failure to comply, either wholly or partially, with the instructions set out in this manual.

IMER INTERNATIONAL reserves the right to modify the characteristics of the mortar mixer and/or contents of this manual, without the obligation to update the previous machine and/or manuals.

1. TECHNICAL DATA

Table 1 provides the technical specifications of the mortar mixer, with reference to figure 1.

2. DESIGN STANDARDS

The mortar mixers have been designed and constructed according to the standards specified in table 1.

3. NOISE EMISSION LEVEL

Table 1 shows the sound pressure levels of the mortar mixer measured at the ear of the operator (L_{pA} at 1 m - 98/37/CE) and noise emission levels in the environment (power L_{WA}) measured according to EN ISO 3744 (2000/14/CE).

4. DESCRIPTION OF MORTAR MIXER OPERATION

! - THE CAM SCREW mortar mixer is designed for use in building sites, for pumping, injecting or spraying all wet or pre-mixed materials, compatible with this type of machinery: liquid cement, adhesives, finishing products, levelling products, waterproofing, finishing colours, grouting, traditional mortars or pre-mixed products, plasters with a lime/cement base or gypsum, fire-proof insulants etc.

4.1 DESCRIPTION OF MORTAR MIXER (see fig.1)

The mortar mixer comprises a wheeled frame (ref. N), which supports a hopper (ref. 6) with grid (ref. 5), an electrical panel (ref.7), a gearmotor (ref. 8), which, by means of a mixer (ref. 9) activates a cam screw pump (ref. 10/11) that conveys the material via a rubber hose to the jet (ref. 3).

If the material is sprayed, air is also delivered to the jet by means of a compressor (optional).

The mortar mixer can be controlled by means of: pneumatic control, electrical via cable (radio control-optional).

The flow rate is controlled by means of the buttons (+) and (-) on the control panel.

The flow rate is shown (0=min, 100=max) on the electrical panel display. The mortar mixer can be combined with various

accessories, as described in paragraph 4.2.

4.2 DESCRIPTION OF MAIN ACCESSORIES REQUIRED FOR THE RANGE OF APPLICATIONS

SMALL 50 is undoubtedly the smallest and most versatile pump available. There are manifold applications in which this pump represents the ideal solution in terms of operation and speed. By the simple addition or replacement of an accessory, SMALL 50 can be adapted to diverse requirements. For this reason, it is important to be aware of the wide range of accessories available, to enable full exploitation of the potential of this machine.

IMER INTERNATIONAL is available, through their dealers and authorised service centres to evaluate your requirements and find the ideal solution.

Commonly used optional accessories (see fig.1):

- IMER VIBRO - SCREEN code no. 1107548

! - This accessory replaces the hopper grid and is therefore equipped with a safety sensor.

It must be used when the material is to be mixed on site with collection of aggregate from a loose storage deposit: in this case some aggregate may have a larger particle size than admissible values, which could obstruct the spray outlet or cause premature wear of the stator

After removing the hopper grid (ref.5), position the screen on the hopper (ref. 6) and make the electrical connection with the machine's electrical panel (fig.5,ref. 12), fitted with the vibrator on/off control.

Operation: after positioning and connecting the machine, and before pouring the material into the hopper, set the main switch to ON to start up the vibrator. Pour in the required material and on completion turn the switch to OFF, removing any residue trapped in the screen.

**- HOPPER COVER (see fig.2)
IMER code no.1107513**

! - This accessory replaces the hopper grid and is therefore equipped with a safety sensor.

It is used to close the hopper and isolate the contents from air and possible impurities: finishing colour, finishing mortar etc. This delays drying of the materials thus enabling prolonged storage time in the hopper.

Position at the top of the hopper (ref. 5) with or without the hopper grid (ref. 6),

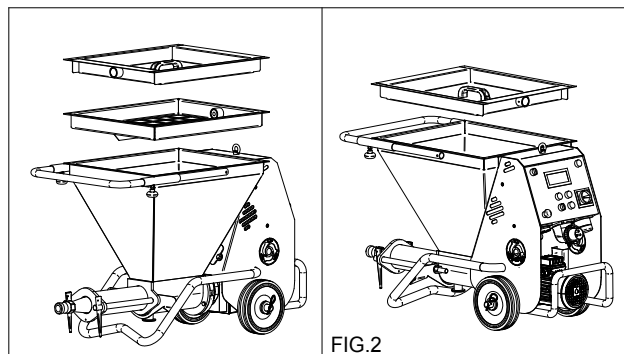



FIG.2

- IMER BAG SPLITTER code no.1107511

It is used to speed up and optimise emptying of the bags containing the wet material ready to use (e.g. the most common lime-based finishing mortar).

It features simple connection to the machine. If necessary the roller crushing pressure can be adjusted as required: loosen the screws to reduce and tighten to increase.

Intuitive operation: lay out a bag of material lengthwise on the hopper grid, move the protruding flap of the sack towards the rollers (ref. 4b), use the right hand to slightly turn the rollers clockwise by means of the handwheel (ref. 4a), so that the bag is trapped between the rollers. Use a cutter to open the sack at the other end, and turn the rollers until the bag is totally emptied. The material is now in the hopper ready to be pumped.


 - **Caution ! Keep hands away from the rollers when turning to avoid the risk of fingers becoming trapped.**


- IMER COMPRESSORS code no.1107546

The air delivered by the compressor to the spray jet via a rubber hose is used to spray the pumped material. Compressors with different air flow rates can be applied on the machine: from 180 l/min to 600 l/min of air output. The selection of the type of compressor to be used is based on the type of material handled and the type of application. In general, the greater the air flow rate, the finer the material spray delivered.

The 180 l/min compressor is suitable for most products which, after spraying on walls require manual distribution (thick applications: plaster, grouting, finishing mortar etc...). A compressor with greater output is required for all products, which, once sprayed uniformly onto the walls, do not need special spreading operations, or which are only smoothed (thin layer applications: levelling products, colours, some finishing mortars, waterproofing agents etc.).

IMER code no.1107546, is an autonomous compressor. It is connected to the site panel and the pneumatic circuit of the machine.

 - **Caution ! For installation, connections, operation and maintenance, refer to the compressor instruction manual.**

 - **This compressor is connected directly to the site mains electrical panel.**

This enables machine start-up when the air line is open and shutdown when it is closed. The compressor is equipped with an auto-shutdown system, overload cut-out, and main switch, which lights up when the unit is powered.

Maintenance: Check the air filters weekly, clean or replace when necessary, above all if working in excessively dusty environments (see compressor "operation and maintenance" manual).

It is positioned in the vicinity of the mortar mixer and connected directly to the spray jet hose.

In this case the machine is turned on and off from the jet position, using the remote control supplied with the mortar mixer, or the optional radio control.

- RADIO CONTROL code no.1107518

Enables remote control of machine start-up/shutdown with electrical cable connections.

The receiver is installed in the electrical panel.


The receiver is extremely practical; it can be held in the hand, pocket or fixed to the spray jet, outlet or other element by means of magnets. To turn on the machine, press ON, and to shut down press OFF.


 - **Caution ! Protect the unit from water jets; it must never get wet.**

- PRESSURE GAUGE code no. 1107512

This is a control instrument used to read pressure levels in the material hose lines.


For example: in the case of using traditional mortar at the maximum flow rate of 100 on the panel display, and if pressure exceeds 15 bar (maximum pump pressure). To prevent tripping of the machine protection devices, simply reduce the material flow rate by pressing the pushbutton (-) on the electrical panel, until the value falls below 15 bar.

 - **Before using the mortar mixer, ensure that it is fitted with all safety devices.**

 - **Never insert parts of the body and/or tools in the hopper .**

All current standards governing accident prevention and safety devices must be observed in the workplace.

Take care when handling bags of material, to avoid sprays which may come into contact with the eyes or other parts of the body. Wear safety goggles and gloves. Avoid the dispersion of dust which may be inhaled. Always wear a mouth and nose protection mask during use.

 - **Never use the machine in areas subject to the risk of explosion/fires or in underground installations.**

The mortar mixer is not equipped with a lighting system and therefore the workplace must be fitted with adequate lighting.

The power lines must be laid to prevent any possible damage. Never place the mortar mixer on electric power cables.

Ensure that the electrical connection is protected against the risk of water penetration in connectors. Use exclusively connectors and couplings equipped with water spray protection.

- Never use inadequate or provisional electric lines; if in doubt consult specialist personnel for assistance.

- Repairs to the electrical circuit must be performed exclusively by specialised personnel. Disconnect the machine from the power supply before performing maintenance or repairs.

- Avoid contact of electric wires with movable and/or moving parts of the machine to avoid injury from contact with live metal parts.

6. ELECTRICAL SAFETY

The SMALL 50 mortar mixer is constructed according to standard EN 60204-1, with protection against water sprays and protection against overload and power failure.

The mortar mixer must be connected to the earthing circuit.

5. OPERATION SAFETY

7. MECHANICAL SAFETY

The hazardous points on the IMER mortar mixer are protected by means of suitable safety devices, which must remain fitted at all times and kept in perfect condition, such as the electric motor cooling fan guard, the grid on the hopper, the vibro-screen and the hopper cover to prevent contact with the mixer. All elements are connected to a safety sensor: when disengaged, all moving parts of the machine are shut down.

8. TRANSPORT (see fig.3/4)

⚠ - Caution! Before moving the mortar mixer, always detach the power plug.

Before moving the mortar mixer the air hose and material delivery line must be removed.

Only a minimal amount of the material should be in the hopper when handling.

Move the machine by means of the specific handles.

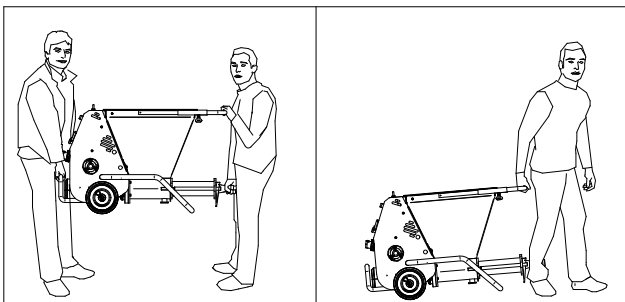


FIG.3

⚠ - Caution! Before lifting the mortar mixer, always disassemble the compressor for separate transport.

⚠ - Caution! Before lifting the machine, always check that all machine components are correctly secured and fitted in place.

To lift the machine, use the three specific attachment points.

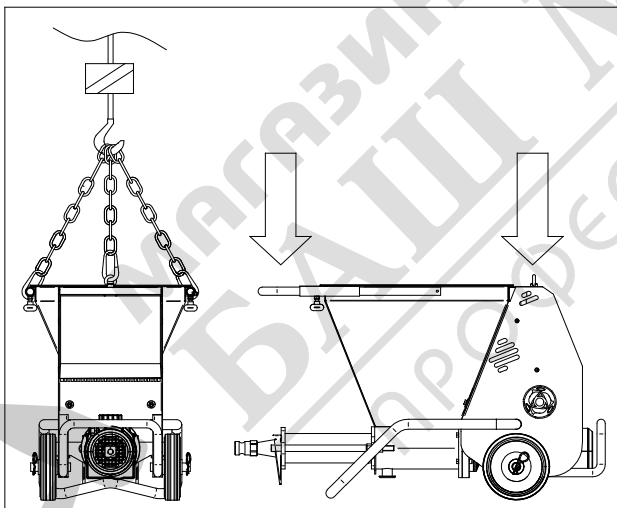


FIG.4

⚠ - Caution! Lift with care to avoid hazardous oscillations

⚠ - Caution! Never use points other than as specified in figure 3 to lift the machine.

Use lifting equipment suited to the overall weight of the machine indicated in table 1.

9. INSTALLATION

Position the mortar mixer in a suitably ventilated environment where it does not constitute an obstruction either during use or cleaning at the end of the work shift and where a minimum quantity of pipelines is required.

Place the machine according to the application in a clear area if ready-to-use bags are fed into the machine: below the mixer outlet in the case of mixes being mixed on site. The machine must always be placed on a flat surface or slightly inclined towards the material outlet.

Route machine pipelines as required by the product application, avoid excessive bends or kinks on the hoses. If pipelines are routed upwards, secure the lines to scaffolding or other support points.

Apply or connect the accessories required from the specific application, with reference to paragraph 4.2

Always connect the remote control supplied in the case of use without compressed air or when using compressors with capacity of over 400 l/min

10. CONNECTIONS

10.1 ELECTRICAL CONNECTION (see fig.5)

⚠ - Ensure that the power supply voltage, mains frequency and electrical connection (socket, fuses, cable) correspond to specifications in table 1.

The electrical power line must be fitted with protection against current overload (e.g. by means of fuses or a thermal magnetic cut-out) and against indirect contact (e.g. with a differential circuit breaker). The electric cable wire size must take into account the operating currents and length of the line to avoid excessive voltage drops.

Avoid use of extension leads wound on drums. The power cable must be suitable for frequent movements and with an abrasion resistant sheath (e.g. type H07RN-F).

Before connecting the mortar mixer to the electrical mains, ensure that all safety devices are fitted and are in perfect condition, and check in particular that the hopper grid is secured in place, that the extension is in good condition and that the plugs and sockets are not wet.

Connect the mortar mixer socket on the electrical panel to the mains.

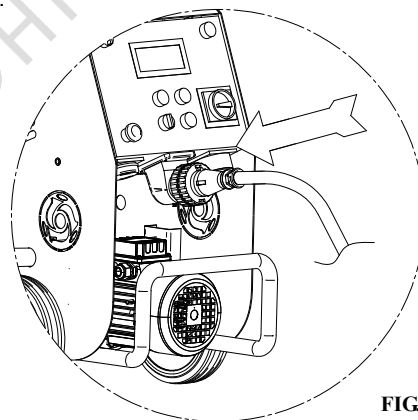
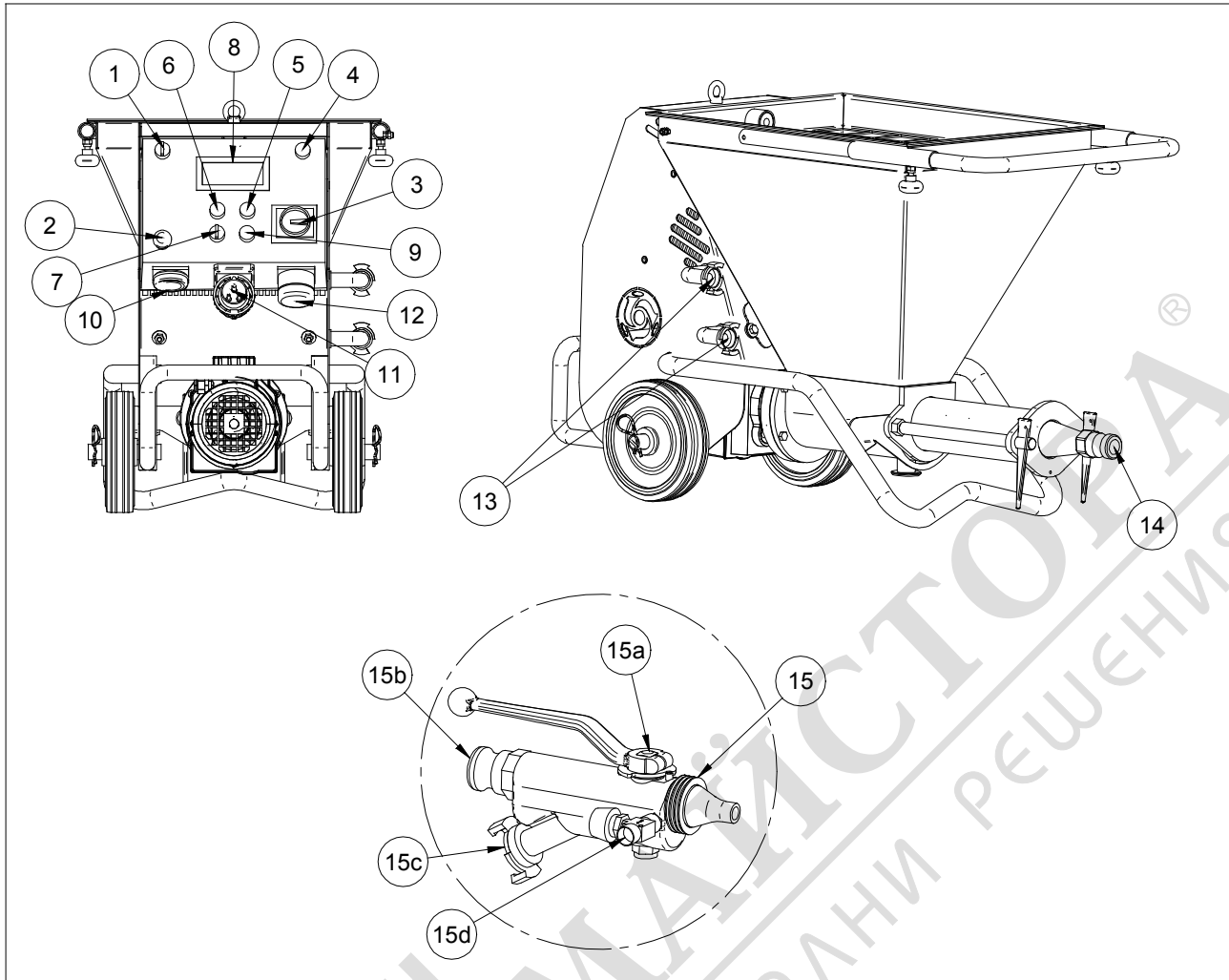


FIG.5

10.2 AIR CONNECTION FOR SPRAYING ONLY

In the case of compressors with outputs up to 400 l/min connect the air delivery directly to the jet as in the case of control of the machine by means of the incorporated pneumatic control (see par.4.2).

The machine can be controlled by means of the electric pendant control supplied. This solution is also possible for compressors with output below 400 l/min.



11. START-UP (see fig.6)

After positioning the machine, prepare a bucket with a quantity of approx. 10l. of grout. Pour the grout into the machine hopper, or, in the case of using colorant products, directly in the machine pipelines before connection. In the latter case, pour approx. 10l. of coloured product into the hopper. Check the material hoses to ensure perfect condition, that couplings are intact and the relative seals are fitted, then connect them to the delivery manifold and spray jet. Check that the cam levers (A) of the couplings have been tightened correctly and that the seal (B) is fitted as shown in fig. 6a.

Close the spray jet valve (ref. 15a), turn the main switch (ref. 3) to 1(ON), switch on the optional compressor if used, and turn the selector (ref. 7) clockwise to the start position. The pushbuttons (+) flow rate (ref. 6) and (-) flow rate (ref. 5), control the flow rate as shown on the display (ref. 8) at 30. Open the spray jet air valve (or pneumatic control)(ref. 15d) or start the machine by means of the electric remote control: the pump starts to rotate slowly. Depending on the machine configuration, wait until the grout in the hopper reaches the level of the mixer, or until the coloured product is delivered from the jet. At this point shut down the machine by means of the pneumatic or electric control, fill the hopper and start work as required. Adjust the quantity of material delivered from the jet as required, by means of pushbuttons (+) and (-). When the electric remote control is connected, the selector should be set to the start position. The machine is controlled exclusively by means of the electric remote control.

The machine is fitted with protection against power failure: if this occurs, the main switch must be reset to restart the machine (turn from 0 to 1).

To stop the machine in the event of an emergency, press the red emergency button (ref. 2) To isolate the machine, all moving parts are shut down and then turn the main switch to 0 and remove the electric power plug from the socket (ref.11).

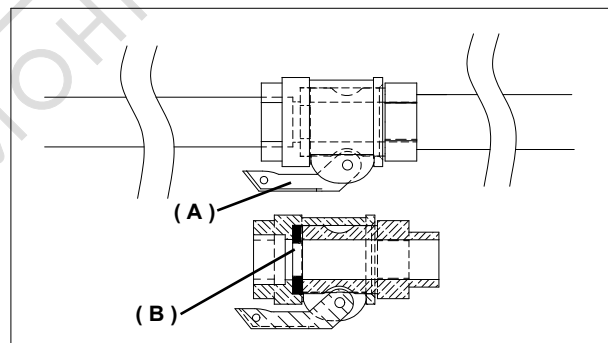


FIG.6a

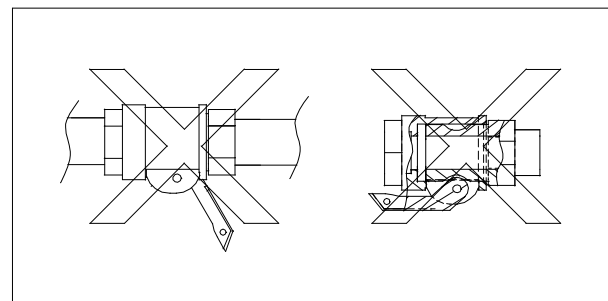


FIG.6b

The machine must never be started up or remain in operation if there is no material in the hopper, to avoid premature wear of the stator and screw.

- **Never direct the jet towards yourself or others**

OVERLOAD AND ELECTRICAL PROTECTIONS

⚠ - The electric motors are protected against overload by thermal magnetic cut-outs, the activation of which is indicated by total shutdown of the machine. In this case, after the motors have cooled, the specific personnel should reset the main switch to resume operation.

For the pump motor there is an additional safety protection: a thermal sensor shuts down the machine in the event of a motor temperature overload.

-The inverter device housed inside the electrical panel is equipped with protections for the event of a power failure or if power exceeds the set admissible limits, voltage fluctuations caused by other site utilities, overload of the electric motor due to improper use or overheating of the inverter.

Activation of these safety devices is indicated by illumination of a red light (ref. 9), in which case, authorised personnel must remedy the cause and reset the safety device via the main switch, turning it from 0 to 1.

- The main switch on the electrical panel (ref. 3) is only enabled when: power is connected to the protection grid or the vibroscreen is fitted on the machine.

12. OPERATION (see fig.1)

⚠ - The hopper safety grid must always be fitted. Never place materials other than premixed wet materials in the hopper.

⚠ - Removal of the hopper grid or vibro-screen causes shutdown of the machine moving parts. If this occurs, the grid or vibro-screen must be refitted and the main switch must be reset to restart the machine.

⚠ - Wear envisaged personal protection devices before starting work

Interruptions exceeding 30min should be avoided, and in any event these pauses should be reduced to the minimum possible when using rapid-drying materials

Prolonged shutdown can cause clogging in the material delivery lines: in this case no material is delivered from the jet and the pressure gauge indicates a higher pressure than the normal working value.

In this case, turn the selector anticlockwise (opposite position to normal work setting), the pump motor rotates in the opposite direction and the pipelines are depressurised. As soon as the pipeline becomes soft and flexible (the pressure gauge reads 0 bar), stop the machine.

Locate the point of clogging in the hose and remove by tapping the hose with a rubber mallet and totally empty by hand.

⚠ - If necessary, disconnect the jet or open the pipeline couplings, checking previously if any residual pressure is present.

The material pressure gauge must indicate 0 bar and the pipelines, excluding the clogged sections, must be flexible.

The personnel assigned for this task must be specially trained in these procedures.

In the event of any doubt as to the presence of residual pressure, never open the couplings.

Reconnect the pipelines and spray jet, set the main switch to the correct position and restart the machine.

⚠ - Do not move the machine with the hopper full.

A reduction in material flow to the jet may indicate a worn pump. To replace the pump, proceed as follows: with the machine empty and clean, remove the hopper grid, tilt the machine with manifold upwards, remove the wedges, with the aid of a mallet, and at the same time remove the delivery manifold, screw and stator (fig.N).

To insert the screw in the stator, use the lubricant spray available from IMER. Never use mineral oil or grease for screw assembly as this may damage the stator. Avoid all types of benzene. Refit the pump taking care to insert the mixer in the envisaged seats.

In the case of a power failure during operation, clean the machine and pipelines immediately. Also disassemble the pump, remove the screw from the stator and clean. On completion reassemble all components.

Refit the pump taking care to insert the mixer in the envisaged seats.

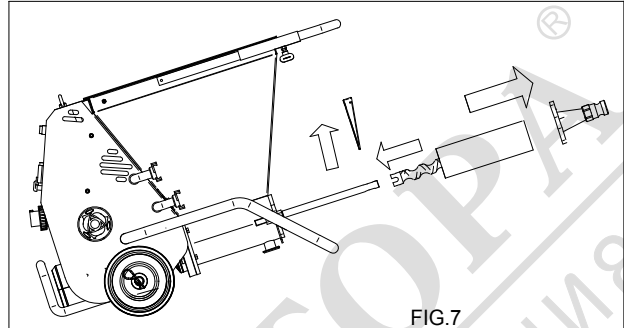


FIG.7

13. MACHINE SHUTDOWN AND CLEANING

At the end of work, stop the machine after completely emptying the hopper by means of the relative selector and set the main switch to 0.

- Open the jet valve, detach the jet and clean thoroughly, cleaning the nozzle with the special tool supplied.

⚠ - Before disconnecting the jet or pipelines, ensure that there is no residual pressure.

-Disconnect the material pipelines from the delivery manifold.

-Remove the hopper grid or vibro-screen and clean thoroughly.

-Remove the plug at the bottom of the hopper and use water to wash the machine thoroughly, starting from the bag splitter if installed

- Refit the plug in the hopper and fill with water.

-Restart the machine for a few seconds until clean water is delivered from the manifold: this confirms complete cleaning of the pump.

- While the pipelines are still full, insert two cleaning sponges and refit the pipeline in the manifold (fig.8)

- Start the machine again so that the water in the hopper is pumped through the pipelines to remove all residue.

When the two sponges are delivered from the hose, washing is complete.

- At this point, on completion of machine cleaning, turn off the main switch, and disconnect the power plug.

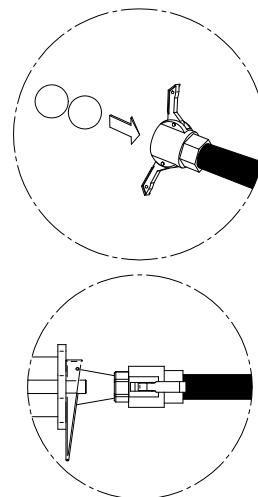


FIG.8

If there is any risk of freezing, open the hopper plug, disconnect the pipelines and drain all water from the circuit (fig.9).

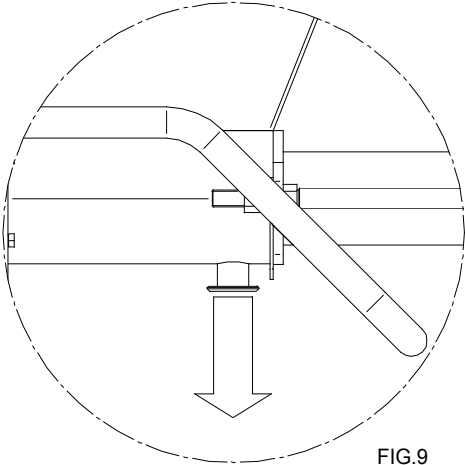


FIG.9

! - **Before opening the drain plug or the grid, ensure that the main switch is turned to 0 and the plug is disconnected from the power supply.**

14. MAINTENANCE

! - **Maintenance must be performed by adequately trained personnel, after switching off the machine, disconnecting it from the power supply and emptying the hopper.**

Check weekly that the compressor air filter is clean. If deteriorated, replace.

Check weekly that the electric motors are free of dust and dirt and if necessary clean using compressed air.

Check weekly that the plug and socket contacts are clean, dry and rust free.

Every six months arrange for an inspection of the machine by an authorised IMER service centre.

! - **Spent oil is a special waste. Therefore it must be disposed of according to current legislation.**

! - **Always keep notices and symbols on the machine legible.**

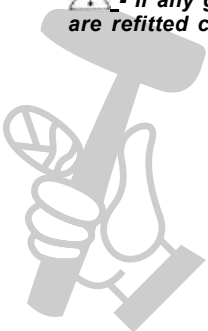
15. REPAIRS

! - **Never start up the mortar mixer during repairs.**

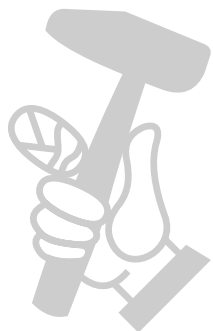
Repairs to the electrical installation must be performed exclusively by specialised personnel.

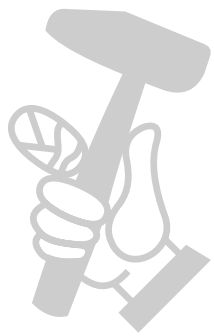
Use exclusively original IMER spare parts; modifications to parts are strictly prohibited.

! - **If any guards are removed for repairs, ensure they are refitted correctly at the end of work.**



FAULT	CAUSE	CORRECTIVE ACTION
Machine does not start, compressor does not start and the blue light is OFF	Electric current - No current delivered to connector of site panel (fuses)? - No power delivered to machine (defective connector connection? loose cable?) - Main switch not turned on	- Check points listed alongside
The machine does not start but the compressor starts no signal on display	Electric current (blu lamp on= main switch in correct position?) - Operating selector not in start position - Hopper grid missing - Plug not inserted correctly in socket - Remote control connected? - Spray jet nozzle dirty or clogged - Supply voltage too high (over 250 volt)	- Check points listed alongside - Start unit up from remote control - Clean nozzle with special cleaner
The machine starts but stops immediately ERR00 ERR04	Material - Material binding properties low (mortar pump seized?) - Material too dry	--Empty the hopper, ensure that the screw is not blocked. when the machine is clean, restart with liquid cement taking care to mix the solution with at least 400/500 kg of binder per cubic metre; - Bring the density of the material equal to that of a plastering mortar by adding water - Work with lower flow rates
Material flow to the gun stops. A red light illuminates on the electrical panel ERR00 ERR04	Clogging -Material hose clogged - Spray jet clogged - Low level of binder in mix - Sand not suitable for mix	- Remove obstruction - Connection to compressor detached - Bodies in mix with too large section - Use sand with constantly optimal particle size curve.
The machine stops during operation	The following texts appear on display - ERR00 : Material pressure or friction on screw too high - ERR01 :Inverter temperature too high - ERR02 : Motor temperature too high - ERR03 :Inverter module current too high - ERR04 :System overload - ERR05 :supply voltage too low	- Reduce flow rate before restarting - Low level of binder in mix, add cement or lime - Sand not perfectly suitable for pumping; correct - Pipeline length excessive; reduce - Wait for the motor to cool sufficiently before restarting - Check the power line. - Wait for the motor to cool sufficiently before restarting - Probable external short circuit - as per ERR00 - Pump seized - - Check that the power voltage is between 210 and 230 Volt with the machine running and that the cables are correctly sized, and that there is no other equipment (cranes, hoists, saws, cement mixers etc.) connected to the same power line





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