

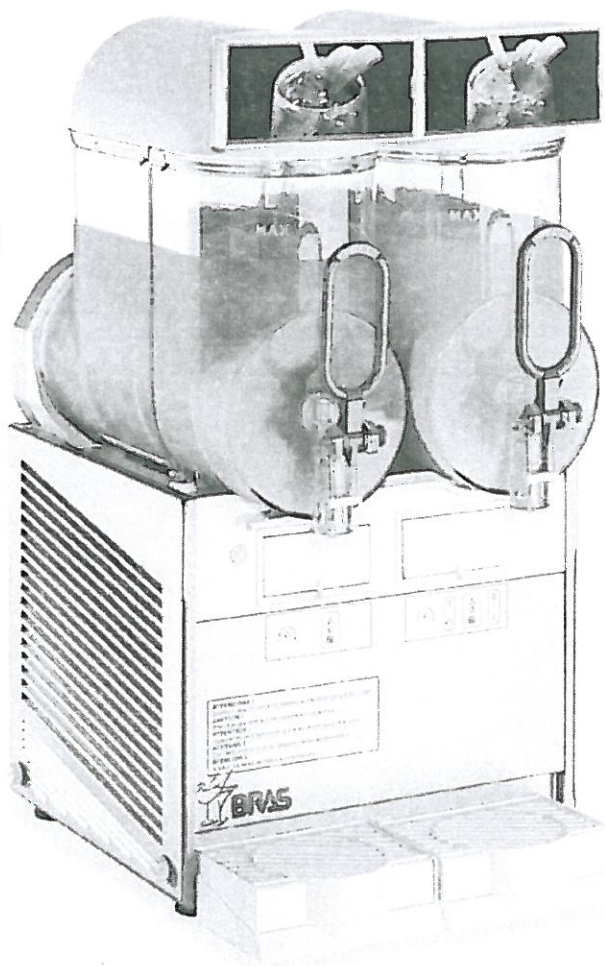
BRAS

Granitori

Now 2008.10.10.

FBM L

MANUALE D'ISTRUZIONI
OPERATOR'S MANUAL
CARNET D'INSTRUCTIONS
GEBRAUCHSANWEISUNG
MANUAL DE INSTRUCCIONES



1 TECHNICAL CHARACTERISTICS

		FBM1P	FBM2	FBM3
Transparent removable bowls	n	1	2	3
Capacity of each bowl, approx.	l	10	10	10
Dimensions:				
width	cm	28	36	54
depth	cm	47	47	47
height	cm	69	69	69
Net weight, approx.	kg	26	37	49
Gross weight, approx.	kg	29	40	54
Adjustable thermostats	n	1	2	3
Hermetic compressor				
Air-cooled condenser				
Overload protector				
Noise level lower than 70 dB (A)				



IMPORTANT

Read electrical ratings written on the data plate of the individual units; the data plate is adhered on the dispensing side panel of the unit, just behind the drip tray (the right side drip tray in multiple bowl models). The serial number of the unit (preceded by the symbol #) is adhered inside the left switch box. Data plate specifications will always supersede the information in this manual.

The electric diagram of the dispenser is located in the inner part of the dispensing side panel. Specifications are subject to change without notice.

2 INTRODUCTION

Please read all sections of this manual thoroughly to familiarize yourself with all aspects of the unit. Like all mechanical products, this machine will require cleaning and maintenance. Besides, dispenser working can be compromised by operator's mistakes during disassembly and cleaning. It is strongly recommended that personnel responsible for the equipment's daily operations, disassembly, cleaning, sanitizing and assembly, go through these procedures in order to be properly trained and to make sure that no misunderstandings exist.

3 INSTALLATION

1 Remove the corrugate container and packing materials and keep them for possible future use.



IMPORTANT

When handling the machine never grasp it by the bowls or by the evaporator cylinders. The manufacturer refuses all responsibilities for possible damages which may occur through incorrect handling.

2 Inspect the uncrated unit for any possible damage. If

damage is found, call the delivering carrier immediately to file a claim.

3 Install the unit on a counter top that will support the combined weight of dispenser and product **bearing in mind what is stated in the preceding point 1 IMPORTANT warning.**

4 A minimum of 15 cm (6") of free air space all around the unit should be allowed to guarantee adequate ventilation.

5 Ensure that the legs are screwed tightly into the base of the machine.

Replace the standard legs originally installed with the 100 mm (4") legs whenever they are provided with the unit.

6 Before plugging the unit in, check if the voltage is the same as that indicated on the data plate. Plug the unit into a grounded, protected single phase electrical supply according to the applicable electrical codes and the specifications of your machine. When the unit has no plug, install a proper grounded plug, in compliance with electrical codes in force in your area, suitable to at least 10 Amp 250 Volt (220-230 Volts 50-60 Hz areas) and 20 Amp 250 Volt (100-115 Volts 50-60 Hz areas) applications. Should you prefer to connect the unit directly to the mains, connect the supply cord to a 2-pole wall breaker, whose contact opening is at least 3 mm. Do not use extension cords.



ATTENTION

Failure to provide proper electrical ground according to applicable electrical codes could result in serious shock hazard.

7 Each drip tray has two diaphragm plugs: if a continuous drain is needed, perforate one of the drain plugs and connect it to a flexible drain line (see figure 1).

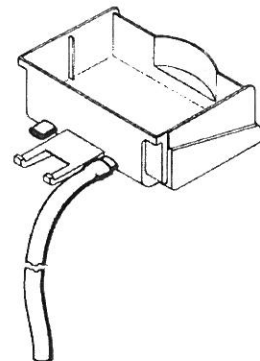


figure 1

8 The unit doesn't come presanitized from the factory. Before serving products, the dispenser must be disassembled, cleaned and sanitized according to this handbook instructions (chapter 5.3 CLEANING AND SANITAZING PROCEDURES).



IMPORTANT

Install the dispenser so that the plug is easily accessible.

4 TO OPERATE SAFELY

1 Do not operate the dispenser without reading this operator's manual.

2 Do not operate the dispenser unless it is properly grounded.

3 Do not use extension cords to connect the dispenser.

4 Do not operate the dispenser unless all panels are restrained with screws.

5 Do not obstruct air intake and discharge openings: 15 cm

(6") minimum air space all around the dispenser.

6 Do not put objects or fingers in panels louvers and faucet outlet.

7 Do not remove bowls, augers and panels for cleaning or routine maintenance unless the dispenser is disconnected from its power source.

5 OPERATING PROCEDURES

1 Clean and sanitize the unit according to the instructions in this manual. See chapter 5.3 CLEANING AND SANITIZING PROCEDURES.

2 Fill the bowls with product to the maximum level mark. Do not overfill.
The exact quantity of product (expressed as liters and gallons) is shown by marks on the bowl.

3 In case of products to be diluted with water, pour water into bowl first, then add correct quantity of product. In case of natural squashes, it is advisable to strain them, in order to prevent pulps from obstructing the faucet outlet.

4 To obtain the best performance and result, use bases designed to be run in Granita freezers. Such bases have a sugar content of 34 degrees Baumé corresponding to 64 degrees Brix.
For soft drinks the bases are to be diluted with more water, on a 1 plus 5/5.5 basis.
In any case follow the syrup manufacturer's instructions for both Granita and soft drink recipes.
If natural juices (e.g. lemon, orange) as well as sugarless products (e.g. coffee) are used, dissolve 150 - 200 grams of sugar per liter.



IMPORTANT

Operate the dispenser with food products only.



IMPORTANT

However Granita mix may be done, its Brix (sugar percent content) must be at least 13.

5 Set the control switches as shown in chapter 5.1 DESCRIPTION OF CONTROLS.

6 Always leave the dispenser on, as the refrigeration stops automatically when Granita reaches the proper thickness. The mixers will continue to turn.

5.1 DESCRIPTION OF CONTROLS

The dispenser is equipped with a power switch and a light switch. In addition each bowl is individually operated by a mixer/refrigeration switch. In fact it is possible to dispense both soft drinks and Granita.

When a bowl is in Soft Drink mode the beverage temperature is controlled by the corresponding thermostat.

When a bowl is in Granita mode the mix viscosity is controlled by the corresponding adjustment screw located in the rear wall of each container (for temperature and viscosity setting make reference to chapter 5.2 OPERATION HELPFUL HINTS).

All the switches are located on the faucet side of the dispenser

in switch panels protected by switch covers (see figure 2).

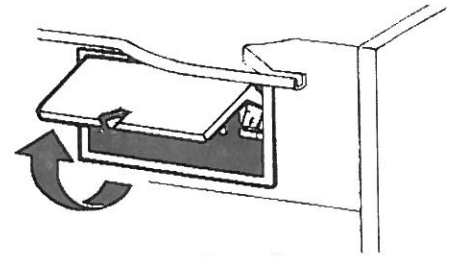


figure 2

With reference to figure 3 dispenser controls functions are as follows:

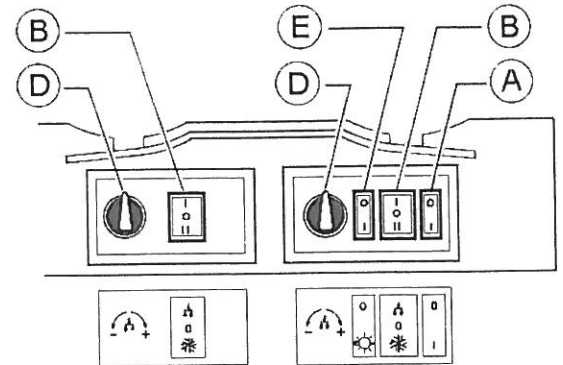


figure 3

Power switch (A)

- 0 position : power is turned OFF to all functions.
- I position : power is turned ON to all functions and the other switches are enabled. The fan motor runs.

Light switch (E)

- 0 position : all top cover lights are OFF.
- I position : all top cover lights are ON, provided that power switch (A) is set to I.

Mixer/refrigeration switch (B)

- I position : mixer and refrigeration ON. SOFT DRINK mode.
- 0 position : OFF.
- II position : mixer and refrigeration ON. GRANITA mode.

Thermostat (D)

- Turn clockwise : to decrease temperature
- Turn counterclockwise : to increase temperature

To operate the unit:

- 1** Set the power switch to I position.
- 2** Set the mixer/refrigeration switches as follows:
 - to the I position to get soft drink.
 - to the II position to get Granita.
- 3** Set the light switch to I position.

5.2 OPERATION HELPFUL HINTS

- 1 Granita viscosity adjustment:** proper Granita viscosity factory preset. To change the viscosity, if needed, use standard screwdriver to turn the adjustment screw located the rear wall of each container as follows (see figure 4):
 - towards right (clockwise) to obtain a thicker product (the ind

cator F will go down in opening G).
 - towards left (counterclockwise) to obtain a thinner product
 (the indicator F will go up in opening G).

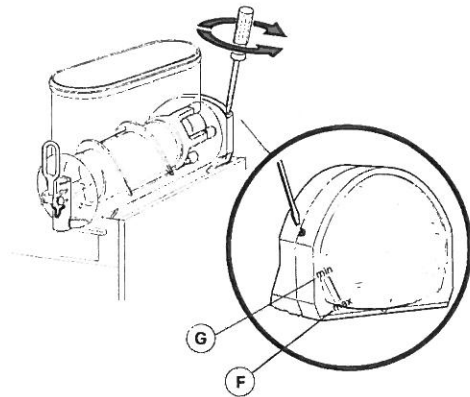


figure 4

2 Beverage temperature adjustment: proper beverage temperature is factory preset. To reset, turn the knob located in each switch box as follows:

- towards right (clockwise) to decrease temperature.
- towards left (counterclockwise) to increase temperature.

Note: beverage temperature is controlled by the thermostat only when the mixer/refrigeration switch(es) are in I position, Soft Drink mode.

3 The length of time for freeze down of Granita is governed by many variables, such as ambient temperature, mix initial temperature, sugar content (Brix level) and viscosity setting.

4 To shorten Granita recovery time and increase productivity, it is advisable to pre-chill the product to be used in the dispenser.

5 To shorten Granita recovery time and increase productivity, the bowl should be refilled after the product level drops lower than half of the evaporator cylinder and at the start of each day.

6 For good product conservation the dispenser must run overnight, at least in Soft Drink mode.

If this is not possible and product is left in the bowls overnight, the mixer/refrigeration switches must be set to the I position at least one hour before the unit is switched off. This eliminates any block of iced product forming overnight, which could result in damage to mixers or to their motor when the unit is switched back on. In any case, before the unit is restarted, make sure that no blocks of ice have been formed; if so, they are to be removed before the unit is switched on. Overnight operation in drink mode also eliminates possible ice accumulation from condensation all around the bowls.

7 Mixers must not be turned off when frozen product is in the bowl: if not agitated, the product may freeze to a solid block of ice. If the mixers are turned back on in this situation, damage to the mixers and their motor may result. Therefore, mixers may be restarted only after product is melted.

8 The dispenser is equipped with a magnetic coupling by which the gear motor (located outside the bowl) drives the mixers (inside the bowl).

The magnetic drive operates as an "intelligent clutch" able to automatically disconnect the mixers in case they are seized by ice or other causes.

This inconvenience can be soon noticed since an intermittent dull noise warns that mixers are still.

In this case it is necessary to unplug immediately the dispenser, empty the bowl and eliminate the cause of seizing.

9 The dispenser must be able to emit heat.

In case it seems excessive, check that no heating source is close to the unit and air flow through the slotted panels is not obstructed by wall or boxes. Allow at least 15 cm (6") of free clearance all around the dispenser.

10 Restrictor cap: when the unit is used in Soft Drink mode it is advisable to install the restrictor cap on the faucet outlet in

order to reduce the drink outflow (see figure 5).

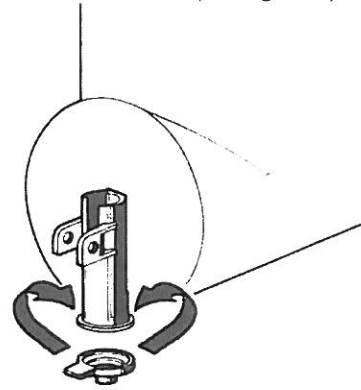


figure 5

5. 3 CLEANING AND SANITIZING PROCEDURES

1 Cleaning and sanitizing of the dispenser are recommended to guarantee the conservation of the best product taste and the highest unit efficiency. This section is a procedural guideline only and is subject to the requirements of the local Health Authorities.

2 Prior to the disassembly and cleaning, the machine must be emptied of product. To do this proceed as follows:

- set the power switch to I position
- set mixer/refrigeration switch(es) to I position (Soft Drink mode)
- place a pail under each faucet and drain all product from bowls
- set all control switches to the 0 position

5. 3. 1 DISASSEMBLY



ATTENTION

Before any disassembly and/or cleaning procedure make sure that the dispenser is disconnected from its power source by unplugging it or switching off the 2-pole wall breaker.

- 1** Remove cover from the bowl.
- 2** Remove the bowl by lifting its faucet side up and off the

fastening hooks (see figure 6) and slide it out (see figure 7).

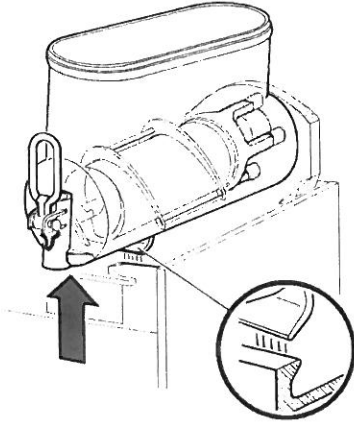


figure 6

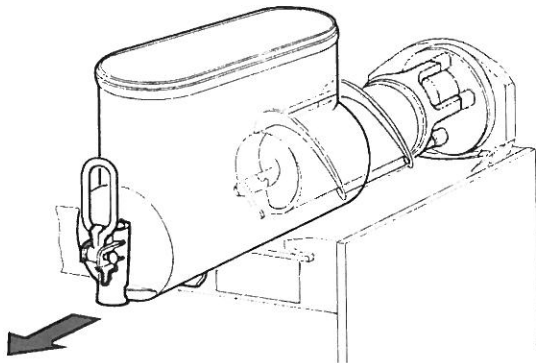


figure 7

3 Slide the outer spiral out (see 3) and then the inside auger (see figure 9).

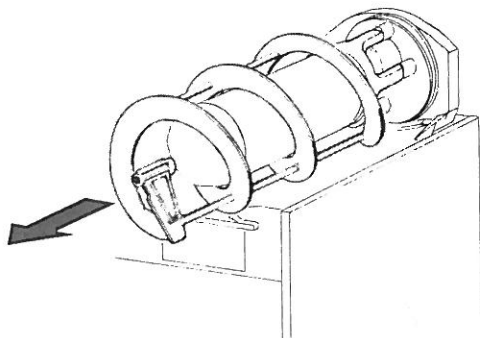


figure 8

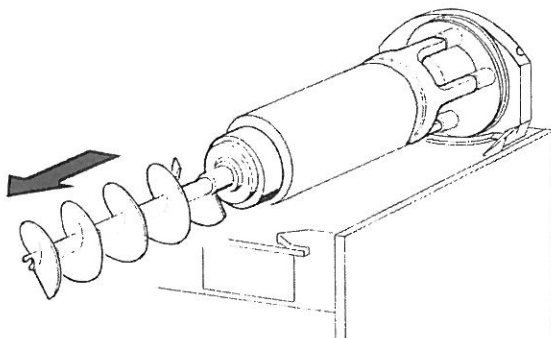


figure 9

4 Remove the bowl gasket from its seat (see figure 10).

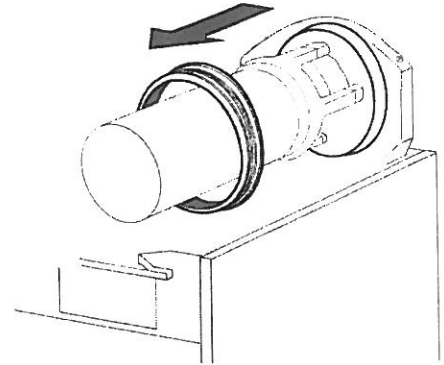


figure 10

5 Dismantle the faucet assembly (see figure 11).

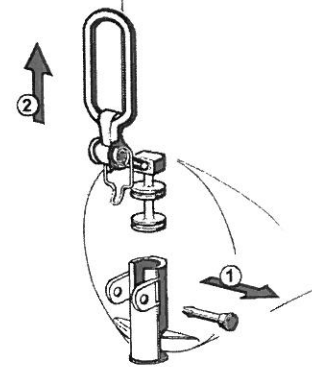


figure 11

6 Slide the drip tray out and empty it.

5.3.2 CLEANING



IMPORTANT

Do not attempt to wash any machine components in dishwasher.



ATTENTION

Before any disassembly and/or cleaning procedure make sure that the dispenser is disconnected from its power source.

1 Prepare at least two gallons of a mild cleaning solution warm (45-60 °C 120-140 °F) potable water and dishwash detergent. Do not use abrasive detergent. Important: if present, follow label directions, as too strong solution can cause parts damage, while too mild a solution will not provide adequate cleaning.



IMPORTANT

In order to prevent any damages to the dispenser use only a detergent suitable with plastics parts.

2 Using a brush, suitable for the purpose, thoroughly clean

disassembled parts in the cleaning solution.



ATTENTION

When cleaning the machine, do not allow excessive amounts of water around the electrically operated components of the unit. Electrical shock or damage to the machine may result.

- 3 Do not immerse the lighted top covers in liquid. Wash them apart with the cleaning solution. Carefully clean their undersides.
- 4 In the same manner clean the evaporator cylinder(s) using a soft bristle brush.
- 5 Rinse all cleaned parts with cool clean water.

5.3.3 SANITIZING

Sanitizing should be performed immediately prior to starting the machine. Do not allow the unit to sit for extended periods of time after sanitization.

- 1 Wash hands with a suitable antibacterial soap.
- 2 Prepare at least two gallons of a warm (45-60 °C 120-140 °F) sanitizing solution (100 PPM available chlorine concentration or 1 spoon of sodium hypochlorite diluted with two litres of water) according to your local Health Codes and manufacturer's specifications.
- 3 Place the parts in the sanitizing solution for five minutes.
- 4 Do not immerse the lighted top covers in liquid. Carefully wash their undersides with the sanitizing solution.
- 5 Place the sanitized parts on a clean dry surface to air dry.
- 6 Wipe clean all exterior surfaces of the unit. Do not use abrasive cleaner.

5.3.4 ASSEMBLY

- 1 Slide the drip tray into place.
- 2 Lubricate faucet piston, inside auger and outer spiral (see points A, B and C of figure 12) only with the grease supplied by the manufacturer or other **food grade approved** lubricant.

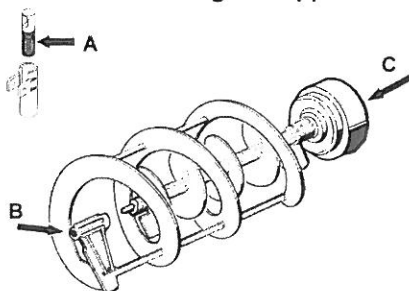


figure 12

- 3 Assemble the faucet by reversing the disassembly steps (see figure 11)
- 4 Fit bowl gasket around its seal.
Note: the largest brim of gasket must face against the rear wall

(see figure 13).

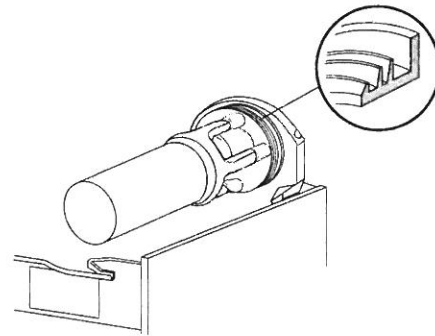


figure 13

- 5 Insert the auger into the evaporator taking care to accompany it to the end so as to prevent it from hitting against the rear wall (see figure 14).

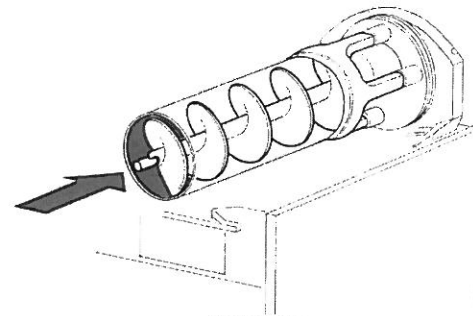


figure 14

- 6 Install the outer spiral. Slide it over the evaporator until its front notch engages with the exposed end of the auger shaft (see figure 15).

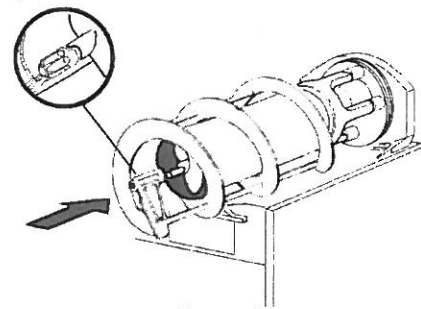


figure 15

- 7 Push the bowl towards the rear wall of the unit until it fits snugly around the gasket and its front fastening hooks are properly engaged (see figure 16).

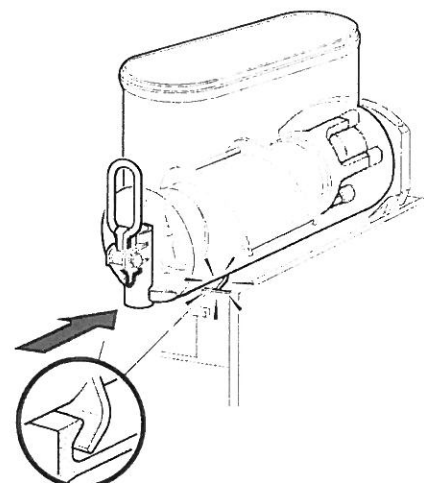


figure 16

- 8 Use fresh product to chase any remaining sanitizer from the

bottom of the bowl(s). Drain this solution. Do not rinse out the machine.

5.4 IN-PLACE SANITIZATION

The In-Place Sanitization prior to starting the machine may be performed, if needed, only as further precaution, in addition to the Disassembled Parts Sanitization described before, but never in lieu of it.

- 1 Prepare two gallons of a warm (45-60°C, 120-140 °F) sanitizing solution (100 PPM chlorine residual) according to your local Health Codes and manufacturer's specifications.
- 2 Pour the solution into the bowl(s).
- 3 Using a brush suitable for the purpose, wipe the solution on all surfaces protruding above the solution-level and on the underside of the top cover(s).
- 4 Install the top cover(s) and operate the unit. Allow the solution to agitate for about two minutes. Drain the solution out of the bowl(s).
- 5 Use fresh product to chase any remaining sanitizer from the bottom of the bowl(s). Drain this solution. Do not rinse out the machine.

6 ROUTINE MAINTENANCE



ATTENTION

In case of damages, the power cord must be replaced by qualified personnel only in order to prevent any shock hazard.

- 1 **Daily:** inspect the machine for signs of product leaks past seals and gaskets. If proper assembly does not stop leaks around seals or gaskets, check for improper lubrication, worn or damaged parts. Replace parts as needed.



ATTENTION

Before any disassembly and/or cleaning procedure make sure that the dispenser is disconnected from its power source by unplugging it or switching off the 2-pole wall breaker.

- 2 **Monthly on FBM 1P, FBM 2 and FBM 3 models:** remove the dust from the condenser filter. A blocked filter will reduce performance and could cause compressor failure. Remove the only left panel (from faucet side) unscrewing the

two plastic coated screws (see figure 17).

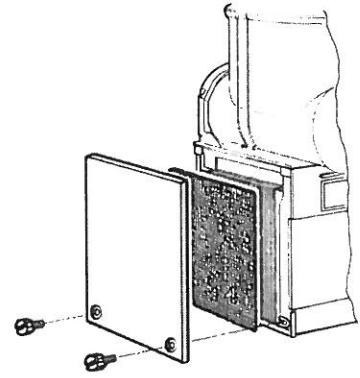


figure 17



ATTENTION

Condenser fins are very sharp. Use extreme caution when cleaning.

- 3 Replacement of lighted top cover bulb: remove the fix screw placed in the upper part of the top cover, remove lower part and replace the bulb (using a 24-28V 21W r bulb). Reassemble the top cover and replace the fix screw.(see figure 18)

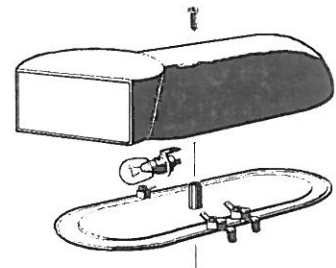


figure 18

6.1 MAINTENANCE (TO BE CARRIED OUT BY QUALIFIED SERVICE PERSONNEL ONLY)

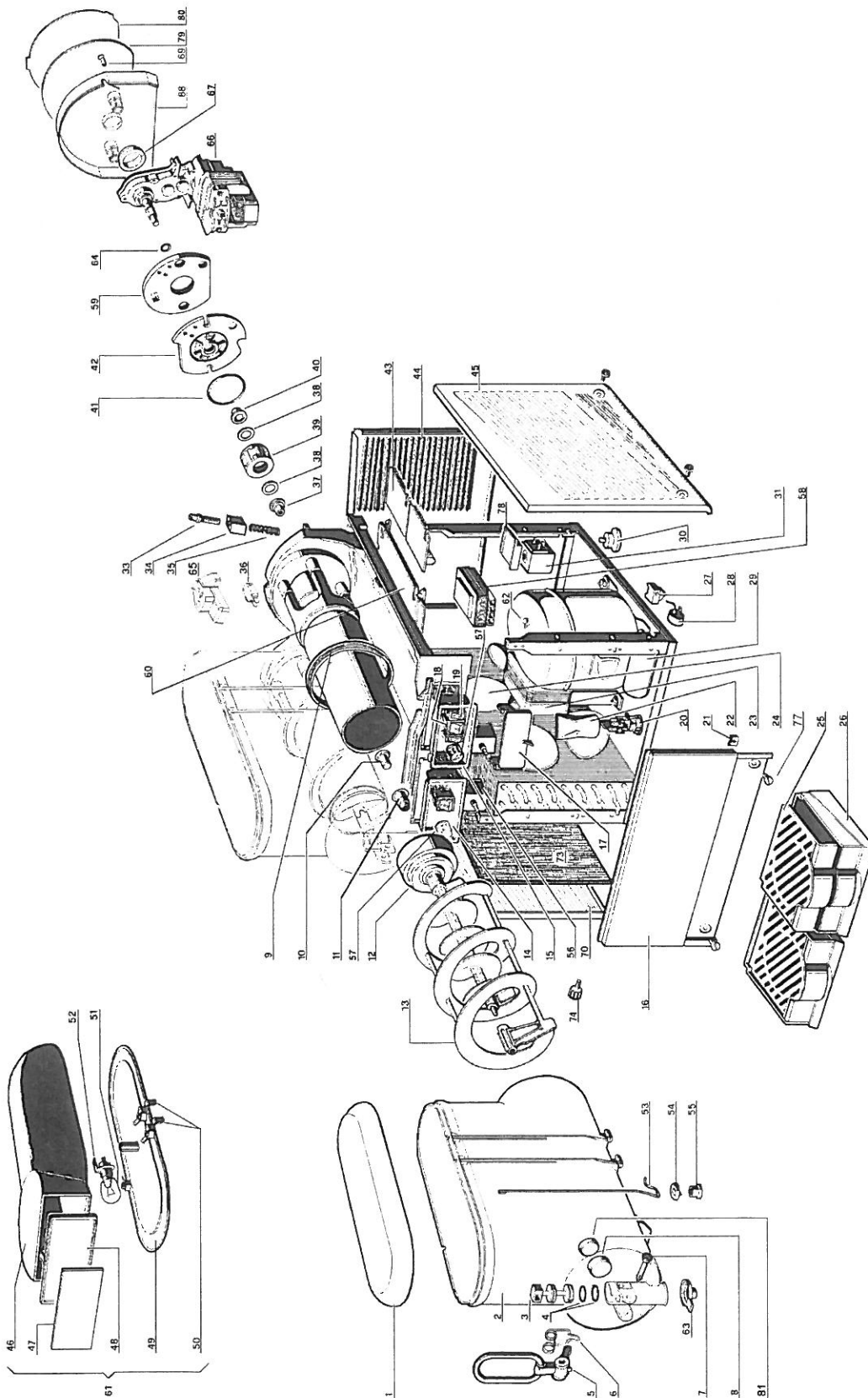
- 1 **Annually:** remove the panels and clean the inside of machine including the base, side panels, condenser, etc.
- 2 Never remove the insulating jacket from around the suction tubing of the evaporator (the copper tubing located on the right side of gear motor). In case the insulating jacket is missing, replace the entire parts with original spare parts from supplier.
- 3 In order to prevent any damages to the dispenser, plastics parts must be lubricated only with grease supplied by the manufacturer or with another lubricating product suitable polycarbonate.



IMPORTANT

The electric diagram of the dispenser is located in the inner part of the dispensing side panel.

- ITALIANO** ELENCO RICAMBI
- ENGLISH** SPARE PARTS LIST
- FRANCAIS** LISTE DES PIECES DE RECHANGE
- DEUTSCH** ERSATZTEILLISTE
- ESPAÑOL** DESCRIPCION PIEZAS DE REPUEST



1	22800-23400	Coperchio trasparente	Transparent cover	Couvercle transparent	Deckel	Tapa trasparente
2	22800-17404	Contenitore	Bowl	Réservoir	Behälter	Contenedor
3	22800-14802	Pistone per rubinetto	Faucet piston	Piston du robinet	Kolben für Hahn	Pistón del grifo
4	22800-15100	OR per pistone rubinetto	Faucet piston OR	Joint OR du piston du robinet	O-ring für Hahn	Junta OR del pistón grifo
5	22800-27460	Leva rubinetto	Faucet handle	Lever de débit	Zapfhebel	Palanca grifo
6	22800-15002	Molla per leva rubinetto	Faucet handle spring	Ressort du livier de débit	Hahn-Feder	Muelle de la palanca grifo
7	22800-22161	Perno per leva rubinetto	Faucet handle pin	Pivot pour levier de débit	Fixierstift	Pivote de la palanca
8	22800-23502	Calotta per boccola	Thrust washer rubber cap	Calotte pour coussinet	Büchsegehäuse (aus Gummi)	Tapa de goma para buje
9	22800-17200	Guarnizione per contenitore	Bowl gasket	Joint du réservoir	Behälterdichtung	Junta del contenedor
10	10028-02803	Boccola frontale per spalla	Rear wall front bushing	Douille extérieure	Äußere büchse	Buje exterior
11	10028-02801	Boccola per mescolatore interno	Auger bushing	Douille pour racloir intérieur	Innere Schneckegehäuse	Buje para rascador interior
12	33800-08001	Mescolatore interno	Auger	Racloir intérieur	Innere Schnecke	Rascador interior
13	22800-16102	Raschiatore esterno	Outer spiral	Racloir extérieur	Äußere Schnecke	Rascador exterior
14	22800-16562	Portainterruttori senza int. generale	Switch box	Boîte porte-interrupteurs	Schaltergehäuse	Panel para interruptores
15	22800-16462	Portainterruttori con int. generale	Power switch box	Boîte porte-interrupteur général	Schaltergehäuse mit Schalter	Panel para interruptor general
16	○○○	Pannello lato rubinetto	Dispensing side panel	Panneau côté robinet	Front	Panel lado grifo
17	22800-16660	Sportello coprinterruttori	Switch panel cover	Couvercle boîte interrupteurs	Schalterabdeckung	Tapa panel interruptores
18	22800-24200	Interruttore a 3 posizioni	3-position switch	Interrupteur 3-positions	Umschalter	Interruptor de 3 posiciones
19	22800-24300	Interruttore a 2 posizioni	Switch	Interrupteur	Schalter	Interruptor
20	22800-05500	Passabloccacavo	Terminal block with cable clamp	Borne avec fixation du câble	Anschlußklemme m. Kabeleinführung	Pasacable
21	10554-45001	Clip	Clip	Clip	Clip	Clip
22	22800-12700	Protezione	Terminal block protection	Protection borne	Schutzkappe	Protección pasacable
23	○○○	Motore ventilatore	Fan motor	Moteur ventilateur	Lüftermotor	Motor ventilador
24	○○○	Ventola	Fan blade	Hélice	Lüfterflügel	Aspas
25	○○○	Griglia cassetto	Drip tray cover	Couvercle tiroir égouttoir	Tropfgitter	Rejilla cajón recoge-gotas
26	○○○	Cassetto raccogliacqua	Drip tray	Tiroir égouttoir	Tropfschale	Cajón recoge-gotas
27	※※※	Relè	Relay	Relais	Start-Relais	Relé
28	※※※	Salvamotore	Overload protector	Protège moteur	Klixon	Guardamotor
29	※※※	Condensatore d'avviamento	Starting capacitor	Condensateur de démarrage	Startkondensator	Condensador de arranque
30	22800-10000	Piedino	Rubber leg	Petit pied	Justiefüße	Pie nivelador
31	※※※	Bobina per elettrovalvola gas	Solenoid valve coil	Bobine électrovanne	Magnetspule	Bobine electroválvula
33	22800-16700	Vite di regolazione densità	Density adjustment screw	Vis de régulation densité	Regulierschraube	Tornillo regulador densidad
34	22800-16961	Bloccchetto guidamolla	Shaped nut	Ecrou-guide du ressort	Führung für Feder	Tuerca-guida del muelle
35	22800-16800	Molla	Spring	Ressort	Feder	Muelle
36	22800-09301	Microinterruttore	Microswitch	Microinterrupteur	Mikroschalter	Microinterruptor
37	10028-02802	Boccola posteriore per spalla	Rear wall rear bushing	Douille intérieure	Innere büchse	Buje interior
38	10028-02805	Ranella per rotore magnetico	Magnetic drive washer	Rondelle pour rotor intérieur	Innere Rotorscheibe	Arandela para rotor interior
39	33800-09601	Rotore magnetico	Magnetic drive	Rotor intérieur	Innere Rotor	Rotor interior
40	10028-02800	Boccola per flangia	Flange bushing	Douille pour bride	Flanschbüchse	Buje para brida
41	10028-02804	OR 3231 per flangia	Flange OR 3231	OR 3231 pour bride	O Ring 3231 für flansch	OR 3231 para brida
42	22800-15370	Flangia di supporto motoriduttore	Gear motor flange	Bride pour motoréducteur	Motoruntersetzungflansch	Brida para motoreductor
43	22800-05240	Ritardatore elettronico	Delay electronic device	Circuit imprimé de contrôle	Elektronik	Circuito electrónico
44	○○○	Pannello posteriore	Back panel	Panneau arrière	Rückwand	Panel posterior
45	22800-00260	Pannello laterale destro	Right side panel	Panneau latéral droit	Seitenwand, rechts	Panel lateral derecho
46	22800-17060	Coperchio con luce (parte superiore)	Lighted top cover (upper)	Couvercle éclairé (partie super.)	Deckel mit Beleuchtung (Überteil)	Tapa con luz (superior)
47	10028-03772	Fotografia	Picture	Photo	Dia	Fotografía
48	22800-16060	Schermo	Picture screen	Porte-photo	Rahmen	Armazon
49	22800-17100	Sottocoperchio	Lighted top cover (lower)	Fond du couvercle	Deckel-Unterteil	Fondo de la tapa
50	22800-11700	Contatto per luce	Top cover light contact	Contact pour éclairage couvercle	Kontakt	Contacto para luz
51	10028-03800	Lampada 28V	28V bulb	Ampoule 28 V	Birne 28 V	Lampara 28 V
52	10028-04210	Portalampada	Bulb socket	Douille	Lampenhalter	Portalampara
53	22800-15202	Molla contatto elettrico coperchio	Light wire	Ressort de contact	Feder	Muelle para contacto luz
54	22800-22861	Gommino con contatto	Flexible contact	Joint avec contact	Kontakt	Gomita con contacto
55	22800-23000	Anello di ancoraggio	Fixing ring	Anneau de fixation	Befestigungsring	Anillo de fijación
56	33800-08300	Termostato	Thermostat	Thermostat	Thermostat	Termostato
57	22800-14560	Manopola termostato	Thermostat knob	Pommeau du thermostat	Drehknopf für Thermostat	Pomo para termostato
58	○○○	Trasformatore	Transformer	Transformateur	Transformator	Transformador

FBM L

59	10570-13602	Guarnizione anticondensa	Insulation foam	Couche d'isolation	Isolationsschaum	Espuma aislante
60	22800-14652	Supporto circuito stampato	PWB housing	Support du circuit imprimé	Halter für Elektronik	Soporte circuito electrónico
61	33800-04860	Coperchio con luce	Lighted top cover (assy.)	Couvercle éclairé (complet)	Deckel mit Beleuchtung, komplett	Tapa completa con luz
62	22800-12860	Gommino antivibrante per pannello	Vibration damper for panels	Petit bouchon fixation panneaux	Schwingungsdämpfer aus Gummi	Goma contra vibraciones para panel
63	22800-24900	Restrittore di flusso	Restrictor cap	Réducteur du robinet	Drosselkappe	Tapa de restricción
64	10028-03217	OR per albero motoriduttore	Central shaft OR	Joint "OR" pour arbre moteur	O-ring für Zentralwelle	OR para eje central
65	10028-03222	Gommino di protezione micro	Micro-switch protection	Protection micro-interrupteur	Microschalterabdeckung	Goma de protección micro-interruptor
66	○○○	Motoriduttore	Gear motor	Motoreducteur	Getriebemotor	Moloreductor
67	22800-22300	Boccola posteriore	Rear bushing	Douille postérieure	Büchse	Buje posterior
68	22800-17562	Coperchio posteriore	Rear cover	Carter postérieur	Deckel	Tapa posterior
69	22800-22260	Vite di fissaggio	Rear cover fixing screw	Vis de fixation du carter	Schraube für Deckel	Tornillo de fijación de la tapa
70	22800-00360	Pannello laterale sinistro	Left side panel	Panneau latéral gauche	Seitenwand, links	Panel lateral izquierdo
73	10028-00905	Filtro condensatore	Condenser filter	Filtre du condenseur	Kondensatorfilter	Filtro del condensador
74	10028-03360	Pomello bianco di fissaggio pannello lat.	FBM side panel fixing white knob	Pommeau blanc de fixation du panneau	Weiss schraube für seitenwand	Pomo blanco de fijación panel lateral
77	10502-55010	Vite inox per fissaggio pannelli	Stainless steel fixing screw for panel	Vis inox de fixation panneau	Scrubber für frontwand	Tornillo inox fijacion paneles
78	22800-23799	Coperchietto bobina elettrovalvola	Solenoid valve plastic cap	Couvercle plastique pour sou-pape électrique	kappe für Magnetspule	Protección de plástico para bobina electrovalvula
79	10028-03771	Foto coperchio posteriore	Rear cover picture	Photo carter postérieur	Foto für Deckel-Rückseite	Fotografia para tapa posterior
80	10028-03703	Schermo per foto coperchio posteriore	Rear cover picture screen	Porte-photo carter postérieur	Displayscheibe für Foto der Rückseite	Armazón para fotografía tapa posterior
81	22800-23501	Boccola di rasamento	Thrust washer	Butée	Büchse	Arandela de empuje
	※※※	Ordinare con sigla riportata sul pezzo	Please order what printed on piece	Mentionner indicatif imprimé sur la pièce	Diese Teile bitte anhand der aufgedruckten Nummern bestellen	Pedir con la identificación marcada en la pieza
	○○○	Vedere tabella	See table	Voir tableau	Siehe Tabelle	Ver tabla

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MOD.	230V 50HZ	240V 50HZ	115V 60HZ	220V 60HZ	FBM 1P	FBM 2	FBM 3
23 FBM 1 L	33800-06910	33800-06910	33800-06911	33800-06910	16 22800-21662	22800-21760	22900-04060
23 FBM 1P/2/3 L	33800-00600	33800-00600	33800-00602	33800-00600	25 22800-00563	22800-00560	22800-00560
24 FBM 2 / 3 L	21488-00000	21488-00000	22800-13200	22800-13200	26 22800-00663	22800-00660	22800-00660
24 FBM 1P L	22800-13200	22800-13200	22800-13200	22800-13200	44 22800-06863	22800-00062	22800-06162
58 FBM 1P L	22800-18206	22800-18206	22800-18203	22800-18206			
58 FBM 2 L	22800-18220	22800-18220	22800-18221	22800-18220			
58 FBM 3 L	22800-18230	22800-18230	22800-18231	22800-18230			
66 FBM 1P/2/3 L	33800-04770	33800-04773	33800-04771	33800-04772			

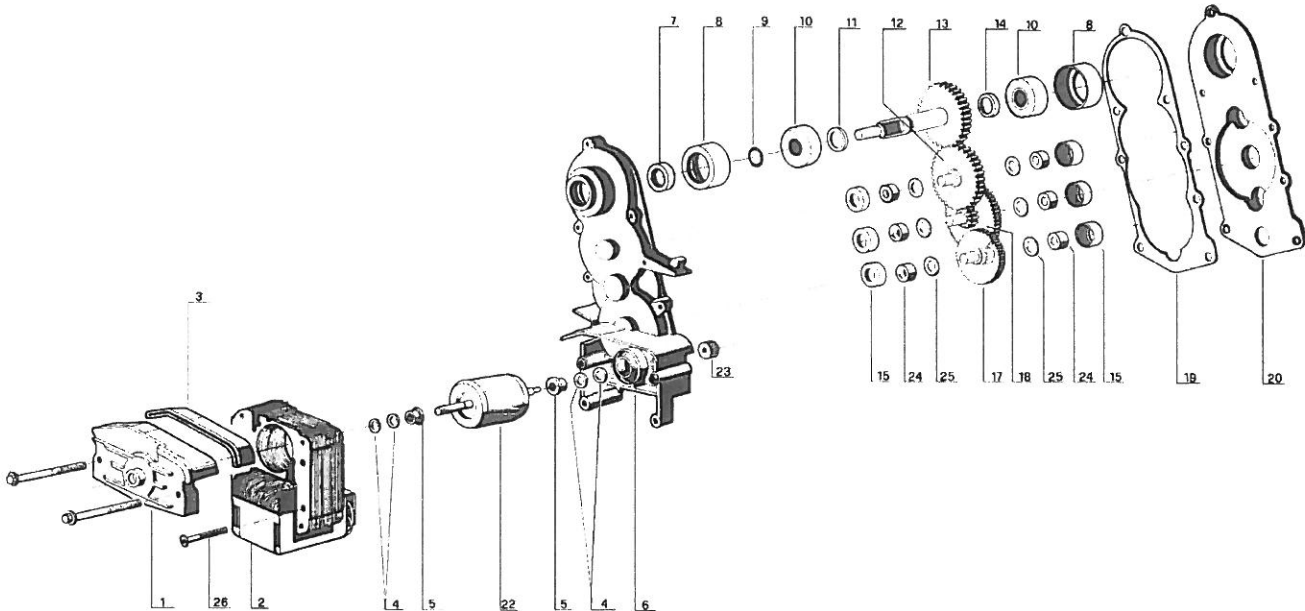
ITALIANO MOTORIDUTTORE

ENGLISH GEAR MOTOR

FRANCAIS MOTOREDUCTEUR

DEUTSCH MOTORUNTERSETZUNG

ESPAÑOL MOTORREDUCTOR



1	22800-22651	Ponticello completo di boccola	Bracket with bush	Support avec coussinet	Vorderes Lager	Soporte con buje
2	□□□	Statore	Stator	Stator	Stator	Estator
3	10028-03213	Guarnizione di protezione statore	Stator protection gasket	Joint protection du stator	Deckeldichtung für Stator	Junta de la cobertura estator
4	10028-03201	Ranelle	Washer	Rondelle	Scheibe	Arandella
5	10028-03200	Distanziale rotore	Rotor spacer	Entretoise du rotor	Büchse	Distancial del rotor
6	33800-03802	Scatola completa di boccola	Gear box with bushing	Boîte du réducteur avec coussinet	Gehäuse mit Lager	Caja reductor con buje
7	22800-22615	Anello di tenuta	Seal retainer	Anneau d'étanchéité	Schraube	Junta de retención
8	10028-03216	Calotta porta cuscinetto	Ball bearing rubber cap	Calotte pour roulement à billes	Lagergehäuse (aus Gummi)	Tapa de goma para cojinete
9	10028-03217	OR per albero centrale	Central shaft OR	Joint OR pour arbre moteur	O-ring für zentralwelle	OR para eje central
10	22800-22613	Cuscinetto Ø 28 mm	Ball bearing Ø 28 mm	Roulement à billes Ø 28	Lager Ø 28	Cojinete de bolas Ø 28
11	10028-03202	Distanziale spessore 1,5 mm	1.5 mm spacer	Entretoise 1,5 mm.	Scheibe 1,5 mm	Distancial 1,5 mm.
12	22800-22611	Terza ruota dentata	Third gear	Troisième engrenage	3a Zahnrad	Tercero engranaje
13	22800-22650	Quarta ruota dentata	Fourth gear	Quatrième engrenage	4a Zahnrad	Cuarto engranaje
14	10028-03203	Distanziale spessore 3,3 mm	3.3 mm spacer	Entretoise 3,3 mm.	Scheibe 3,3 mm.	Distancial 3,3 mm.
15	10028-03215	Calotta porta boccola	Bushing rubber cap	Calotte pour coussinet	Lagergehäuse (aus Gummi)	Tapa de goma para buje
17	22800-22639	Prima ruota dentata	First gear	Premier engrenage	1a Zahnrad	Primero engranaje
18	22800-22640	Seconda ruota dentata	Second gear	Deuxième engrenage	2a Zahnrad	Segundo engranaje
19	10028-03221	Guarnizione	Gasket	Joint	Dichtung	Junta
20	22800-22643	Coperchio	Gear box cover	Carter du réducteur	Deckel	Tapa de la caja reductor
22	22800-22602	Rotore	Rotor	Rotor	Rotor	Rotor
23	22800-22634	Pignone	Pinion	Pignon	Ritzel	Piñón
24	10028-03204	Bussola	Bushing	Coussinet	Büchse	Buje
25	10028-03205	Ranelle di rasamento	Washer	Rondelle	Scheibe	Arandella
26	10540-13532	Vite fissaggio rotore	Bracket screw	Vis du stator	Statorschraube	Tornillo del estator



2

230V 50HZ
22800-22500

240V 50HZ
22800-22503

115V 60HZ
22800-22501

220V 60HZ
22800-22502