



500 SERIES FWD



523 SERIES 18

525 SERIES 18

526 SERIES 18

MAINTENANCE MANUAL

PLEASE LEAVE WITH OPERATOR

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EC DECLARATION OF CONFORMITY

(Guarantee of Production Quality)

We, Imperial Machine Company Limited of:

Unit 1, Abbey Road, Wrexham Industrial Estate, Wrexham, LL13 9RF

Declare under our sole responsibility that the following machines; 523, 525 & 526 – SERIES 18

As described in the attached technical documentation is in conformity with the Machinery Directive 98/37/EC (formerly 89/392/EEC) and is manufactured under a quality system BS EN ISO 9001. It is also in conformity with the protection requirements of the Electro Magnetic Compatibility Directive 2014/30/EU and is manufactured in accordance with harmonised standards EN61000-6-1:2007 Immunity and EN61000-6-3: 2007 Emissions (plus product specific standards).

IMC's product range also satisfy the essential health and safety requirements of the Low Voltage Directive 2014/35/EU and are manufactured in accordance with standards BS EN 60335-1 and relevant product specific standards.

Approved by

Eddy Plumb

Engineering Manager

A handwritten signature in black ink, appearing to read 'E Plumb', is written over a light grey background.

Signed at Wrexham, Date

February 2019

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GUARANTEE

This machine is guaranteed by TGMi for 1 Year from the date of purchase from TGMi or from one of its stockists, dealers or distributors.

The guarantee is limited to the replacement of faulty parts or products and excludes any consequential loss or expense incurred by purchasers. Defects which arise from faulty installation, inadequate maintenance, incorrect use, connection to the wrong electricity supply or fair wear and tear are not covered by the guarantee.

Please observe these instructions carefully

This guarantee applies in this form to installations within the UK only.

WASTE OUTLET CONNECTION

All 500 Series Disposers are fitted with a neoprene housing which is designed to couple to a 42mm copper or plastic fitting, lead piping should not be used. The size of the waste outlet must not be reduced. A running trap should be fitted although 'P' or 'S' type traps can be used. Do not fit a bottle trap. The length of run between the machine and the main junction must be kept to a minimum and the pipe must have a positive fall of at least 1 in 7. Changes of direction should be made with swept bends rather than elbows, and cleaning eyes should be fitted where possible, in accordance with standard plumbing practice.

The waste outlet position can be changed by loosening the hose clip at the top of the neoprene housing. The motor and housing can then be rotated until the outlet is in the required position. Tighten the hose clip once the outlet is in the required position.

All Waste Disposers must have an independent drain pipe that does not also serve sinks, dishwashers or similar equipment. The end of the waste pipe must be beyond any grease traps and if the outlet feeds into an outside gully, the pipe should enter the gully below the covering grid. Use a back entry yard gully.

When fitting the trap make certain that the top invert of the trap lies below the rubber outlet spout of the waste disposer. Failure to do this will prevent the machine from draining completely. Also ensure that on all models the outlet tail does not enter the outlet spout beyond the register, if this tail is fitted to deeply into the spout it will obstruct the outlet flow

The 523 Disposer is sink mounted and the neoprene housing contains an inlet boss for the sink overflow near the top of the housing. If this is required, the centre of boss needs to be cut out before the overflow is connected.

WATER SUPPLY CONNECTION

A cold water supply with a minimum head of 4m is required on the 525 and 526 Disposers. This is connected to the units at the solenoid valve using a 15mm compression joint, supplied with the machine. A stopcock should be fitted to the water supply. The 523 disposer draws its water supply from the sink tap.

The 500 series machine is to be fed by a cistern tank not mains water supply.

ELECTRICAL CONNECTION

All electrical work must be carried out by a qualified electrician and in accordance with the IEE Codes of Practice. Examine the rating plate attached to the motor to ensure that the characteristics shown are correct for the supply available. The cables fitted to the controller are the minimum required for individual connection to the mains supply. Site conditions may vary with additional length of cable run, encapsulation in trunking, bunched with other cables etc. Should this apply, the electrician must alter the cable accordingly.

All machines are supplied with a starter with forward, reverse and stop buttons. Where automatic water control is supplied the starter also controls the water flow. This unit must be connected to the mains supply using the starter provided. Omission of the starter eliminates overload protection for the motor and will invalidate the guarantee.



The 500 Series Disposers should be connected to a 30A isolator providing at least 3mm separation in all poles. The table below illustrates typical fuse ratings for an ambient temperature of 25°C to 35°C. Should the environment temperature be greater than this, adjust accordingly.

| Voltage | Full Load Current | Fuse Rating per Phase |
|------------------|-------------------|-----------------------|
| 230 – 1 – 50 | 5.0 Amps | 13 Amps |
| 115 – 1 – 60 | 10.0 Amps | 13 Amps |
| 220 – 1 – 60 | 5.6 Amps | 13 Amps |
| 254 – 1 – 60 | 5.2 Amps | 13 Amps |
| 400 – 3 – 50 | 1.7 Amps | 5 Amps |
| 220 – 3 – 50 | 3.0 Amps | 5 Amps |
| 230 – 3 – 60 | 2.7 Amps | 5 Amps |
| 440/460 – 3 – 60 | 1.7 Amps | 5 Amps |



The supply to the machine must also be protected by a 30mA RCD.

WARNING: This machine must be earthed

If the supply cord becomes damaged it must be replaced by qualified electrician in order to avoid a hazard.



MAINTENANCE

WARNING: BEFORE ATTEMPTING SERVICE WORK ENSURE THAT ELECTRICITY AND WATER SUPPLIES ARE TURNED OFF AT THE MAIN SUPPLY AND STOP COCK

12 Monthly, All models

Check the motor seals for wear by removing the motor and disassembling.

It is imperative that the motor seals are checked at least every 12 months and replaced if necessary. Failure to maintain the seals will result in water ingress to the motor.

Check for bearing wear by the sound of motor and side to side movement of rotor

Regular inspection of catering equipment can extend its working life. Please phone IMC for details of service contracts.

DO'S AND DON'TS

DO ENSURE CONTROLS AND ISOLATOR ARE ACCESSIBLE TO THE DISPOSER OPERATOR

DO SWITCH ON DISPOSER BEFORE INTRODUCING THE WASTE

DO CLEAN THE MACHINE AFTER EACH PERIOD OF USE

DON'T PLACE HANDS INSIDE THE UNIT WHILST MACERATOR IS SWITCHED ON

DON'T PLACE CLING FILM, LIQUID FAT, STRING, CLOTH, PLASTIC, WIRE, GLASS, CORK, STYROFOAM, BOILING WATER, HOT SOUP, HOT LIQUID OR METAL OBJECTS INTO THE MACHINE

DON'T USE CLEANING MATERIALS CONTAINING ABRASIVES OR BLEACHES

DON'T STEAM CLEAN THE MACHINE

**RELEASING A JAM**

Food Waste Disposers can jam under overload or if unsuitable materials are placed inside. IMC machines are designed to withstand this and no damage will normally result as the machine will switch itself off. It is necessary to clear the jam as follows:

1. Switch off at the mains isolating switch.
2. Remove the baffle by unscrewing the interlock knob and lifting off.
3. Take out any bulk waste in the disposal chamber. Rubber gloves are recommended
4. If the item which blocked the disposer is apparent, remove it.
5. A release wrench is provided with which to turn the rotor if it is jammed. Place the hexagon socket of the wrench over the hexagonal boss on the centre of the rotor and lever backwards and forwards until the jammed material releases. Remove the release wrench and pull out the material.
6. Replace the wrench, engaging the hexagon and ensure that the rotor is totally free throughout its full rotation.
7. Remove the release wrench.
8. Replace the baffle, screwing the interlock knob fully home.
9. Switch on at the mains isolating switch.
10. Press the START button and continue disposal.

NOTE

Single phase motors have a thermal overload switch built into the motor. If a jam occurs and the motor cuts out, then a cool down period of approximately 40 minutes will be required before the unit will restart. The thermal overload will reset itself during this period. Do not try and restart the FWD before the 40-minute time period is over and the motor has cooled down. Doing so could cause unnecessary damage to the motor.

FAULT DIAGNOSIS**Machine does not start**

| Cause | Action |
|--|---|
| Electrical supply is not turned on. | Switch on supply. |
| The fuses have blown or the circuit breaker has tripped. | Call site electrician to change fuse or reset circuit breaker. If problem persists contact service personnel. |
| Baffle is not correctly fitted. | Check baffle is secured. If problem persists contact service personnel. |

Unexpected system stop

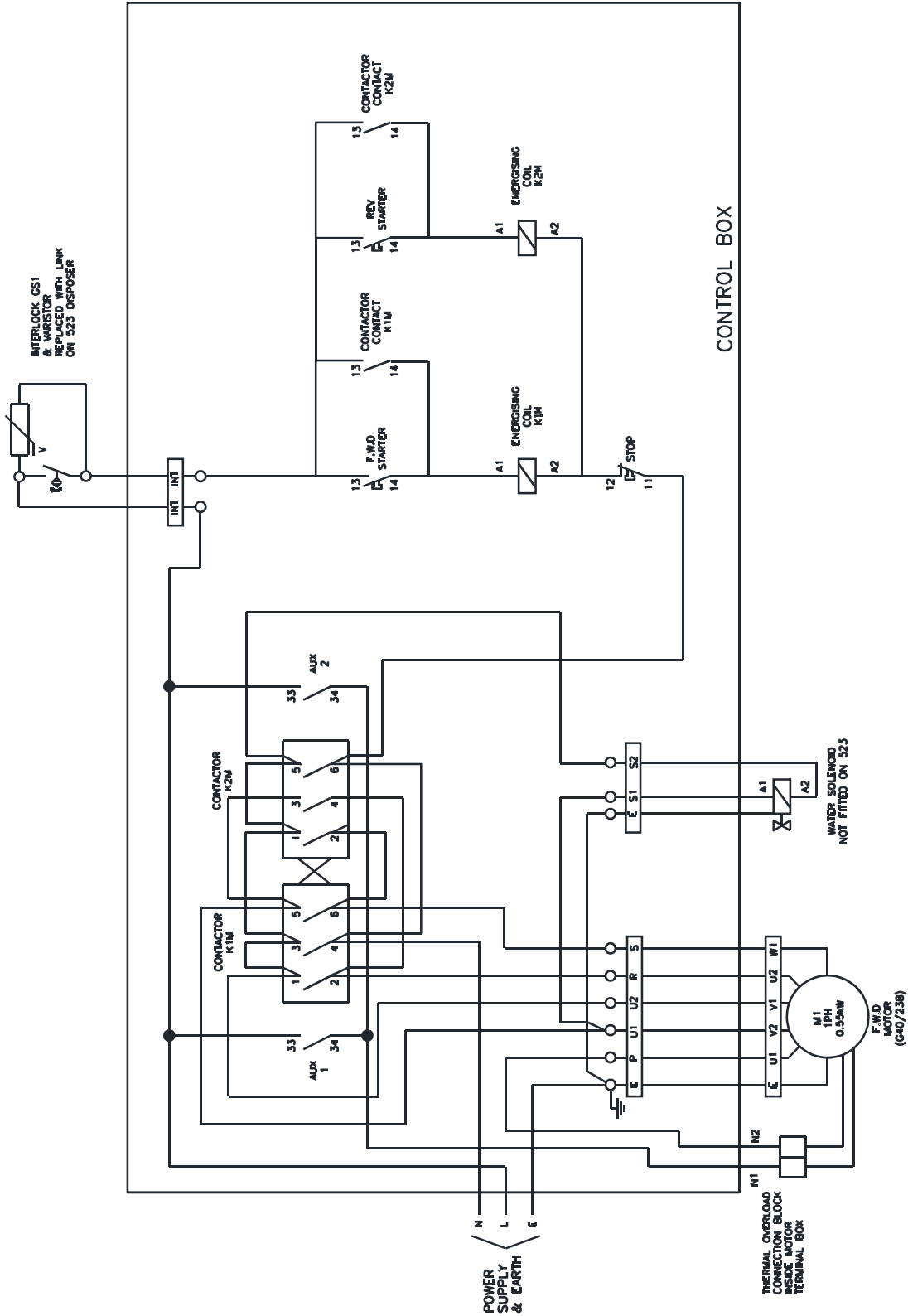
| Cause | Action |
|--|---|
| Electrical supply turned off. | Switch on supply. |
| The fuses have blown or the circuit breaker has tripped. | Call site electrician to change fuse or reset circuit breaker. If problem persists contact service personnel. |
| Baffle is not correctly fitted. | Check baffle is secured. If problem persists contact service personnel. |
| Waste jammed in disposer grinding unit. | Remove blockage from grinding unit. See instructions on page 3. |
| Motor overload has tripped. | Allow motor to cool for 10 minutes and restart. If problem persists contact service personnel. |

Waste not processed

| Cause | Action |
|--|---------------------------------|
| A blockage has occurred in the waste pipe. | Clear blockage from waste pipe. |

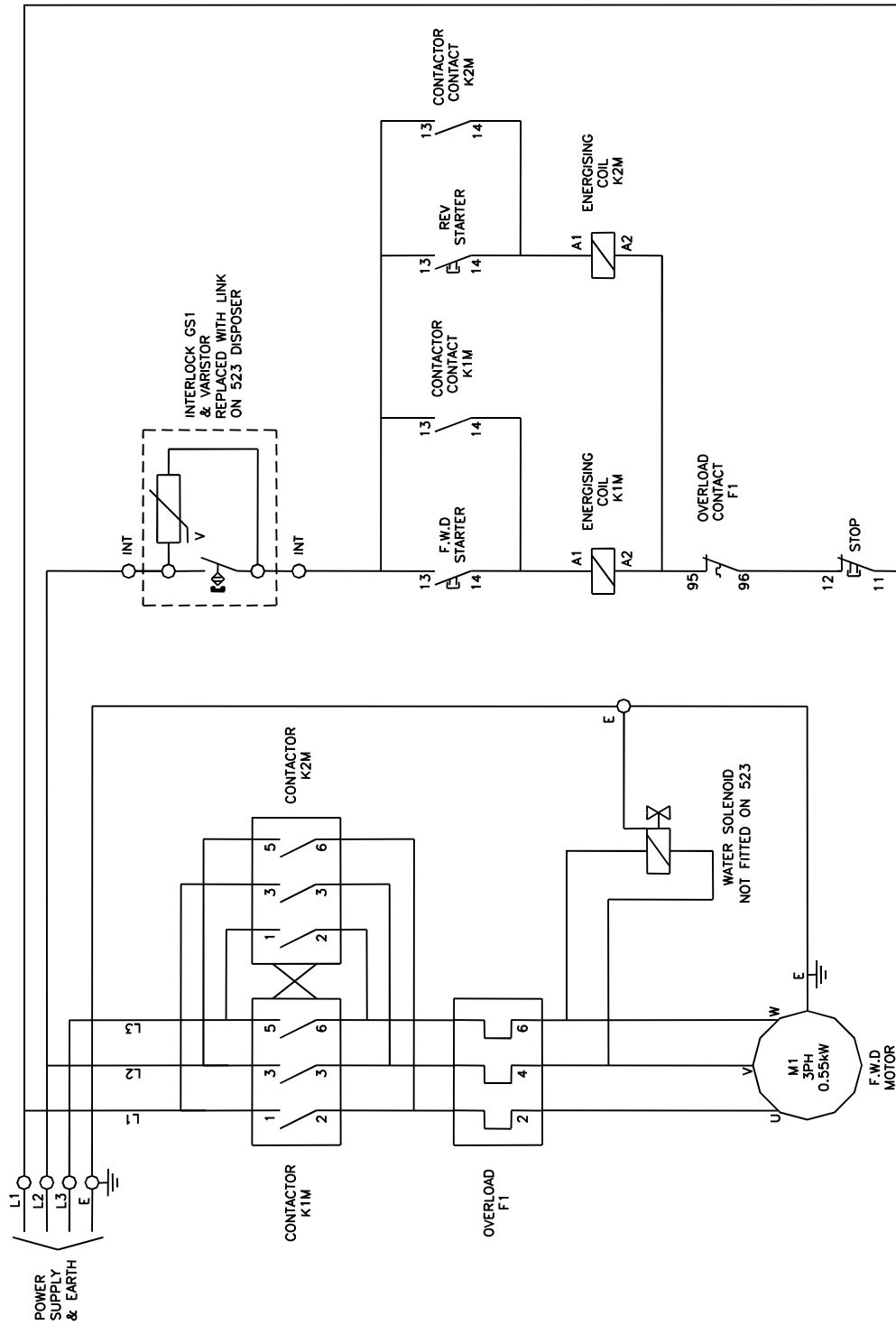
WIRING DIGRAMS. FIGURE 1 - WIRING DIAGRAM, SINGLE PHASE

For supply: 230 – 1 – 50, 115 – 1 – 60, 220 – 1 – 60 & 254 – 1 – 60



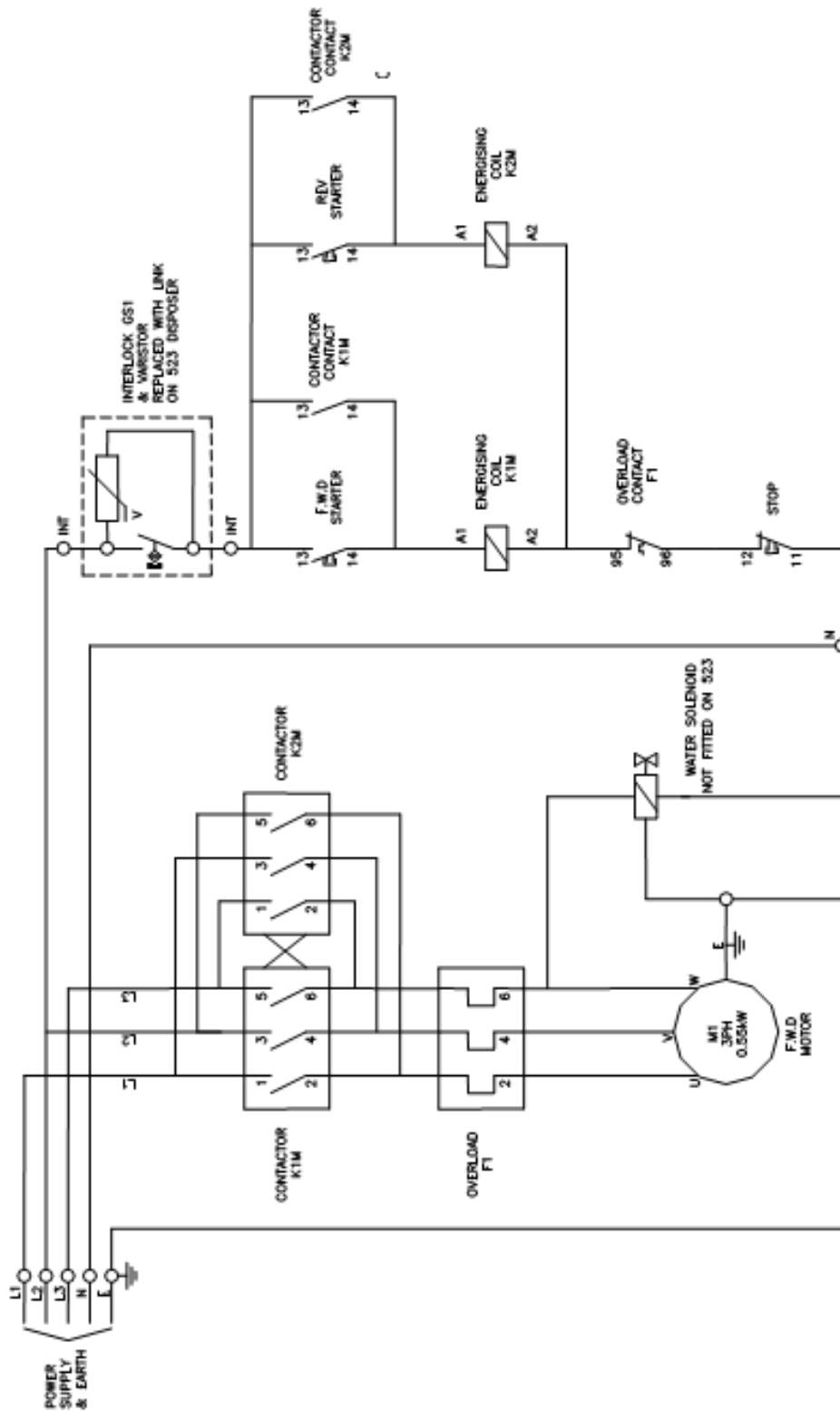
WIRING DIAGRAM. FIGURE 2 - WIRING DIAGRAM, 3 PHASE 4 WIRE

For supply: 400 – 3 – 50, 220 – 3 – 50, 440/460 – 3 – 60 & 230 – 3 – 60.

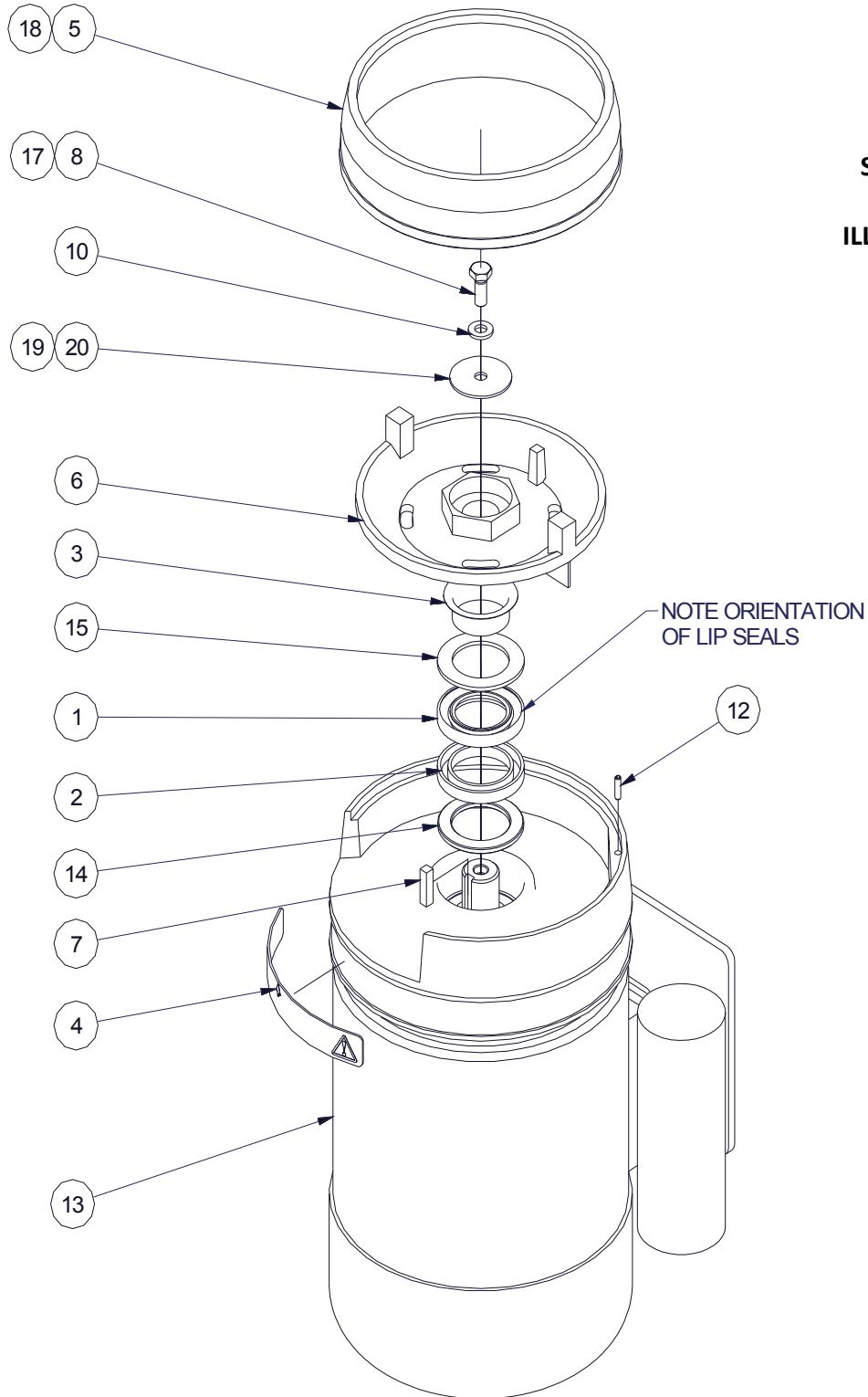


WIRING DIAGRAM. FIGURE 3 - WIRING DIAGRAM, 3 PHASE 5 WIRE

For supply 400 – 3 - 50



BASIC UNIT EXPLODED VIEW

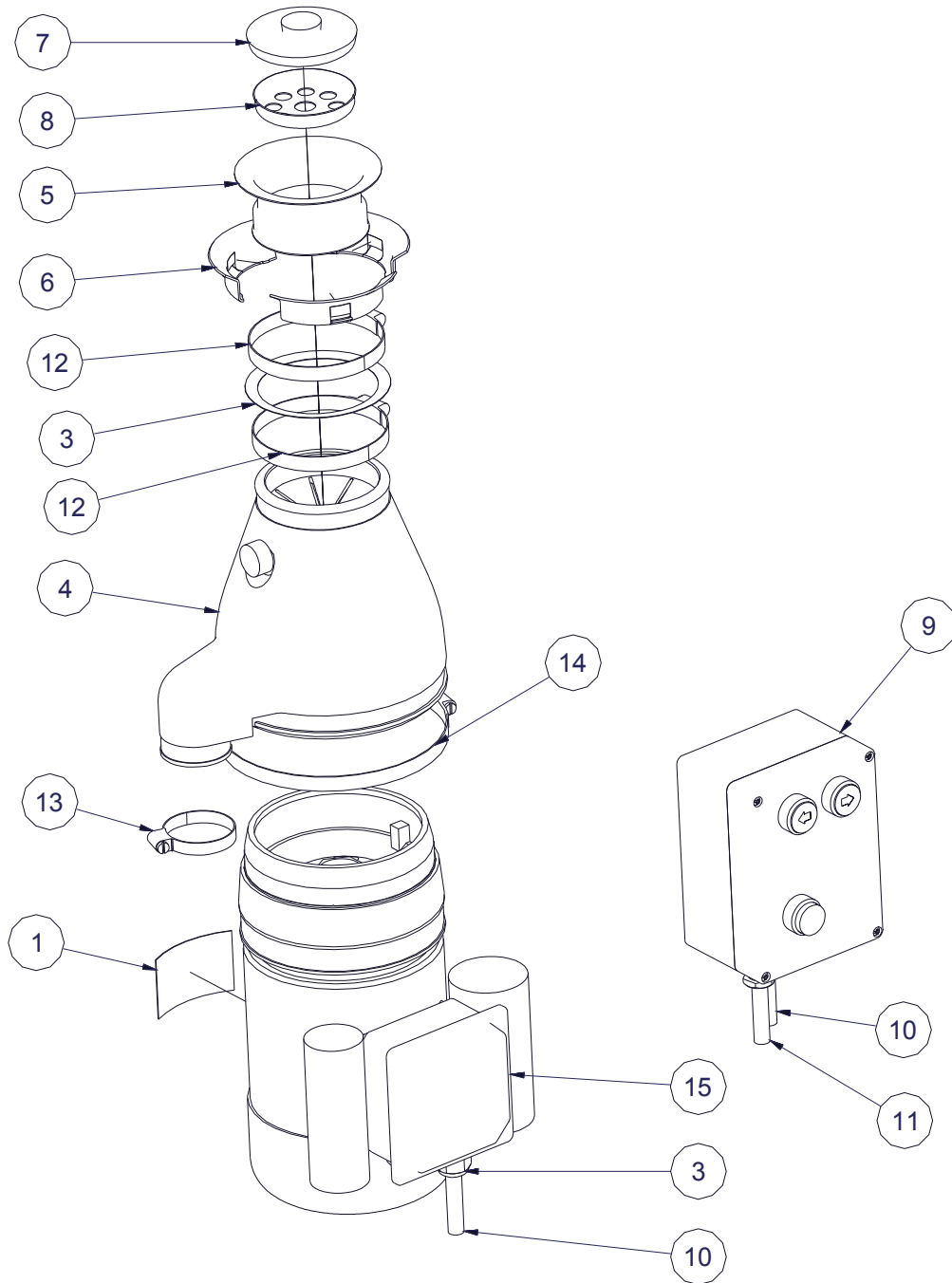


****NOTE
SINGLE PHASE
MOTOR
ILLUSTRATED****

PARTS LIST

| Item number | Part number | Description |
|--------------------|--------------------|----------------------|
| 1 | A02/050 | BROWN LIP SEAL |
| 2 | A02/051 | BLACK LIP SEAL |
| 3 | A02/054 | SPEEDI SLEEVE |
| 4 | A028/704 | WARNING LABEL |
| 5 | C14/014-M1 | CUTTER |
| 6 | C14/023-M1 | ROTOR |
| 7 | D14/012 | KEY |
| 8 | D19/039 | M6X16L HEX SCREW |
| 9 | - | - |
| 10 | D25/020 | WASHER |
| 11 | - | - |
| 12 | D26/010 | TENSION PIN |
| 13 | G40/238 | MOTOR 1ph |
| | G40/223 | MOTOR 3ph |
| 14 | L52/001 | DISTANCE RING |
| 15 | E35/076 | SEAL PROTECTOR |
| 17 | K09/029 | LOCTITE 270 |
| 18 | K09/079 | ARALDITE |
| 19 | K09/115 | HYLOMAR 303 SILICONE |
| 20 | D25/085 | WASHER |

523 EXPLODED VIEW

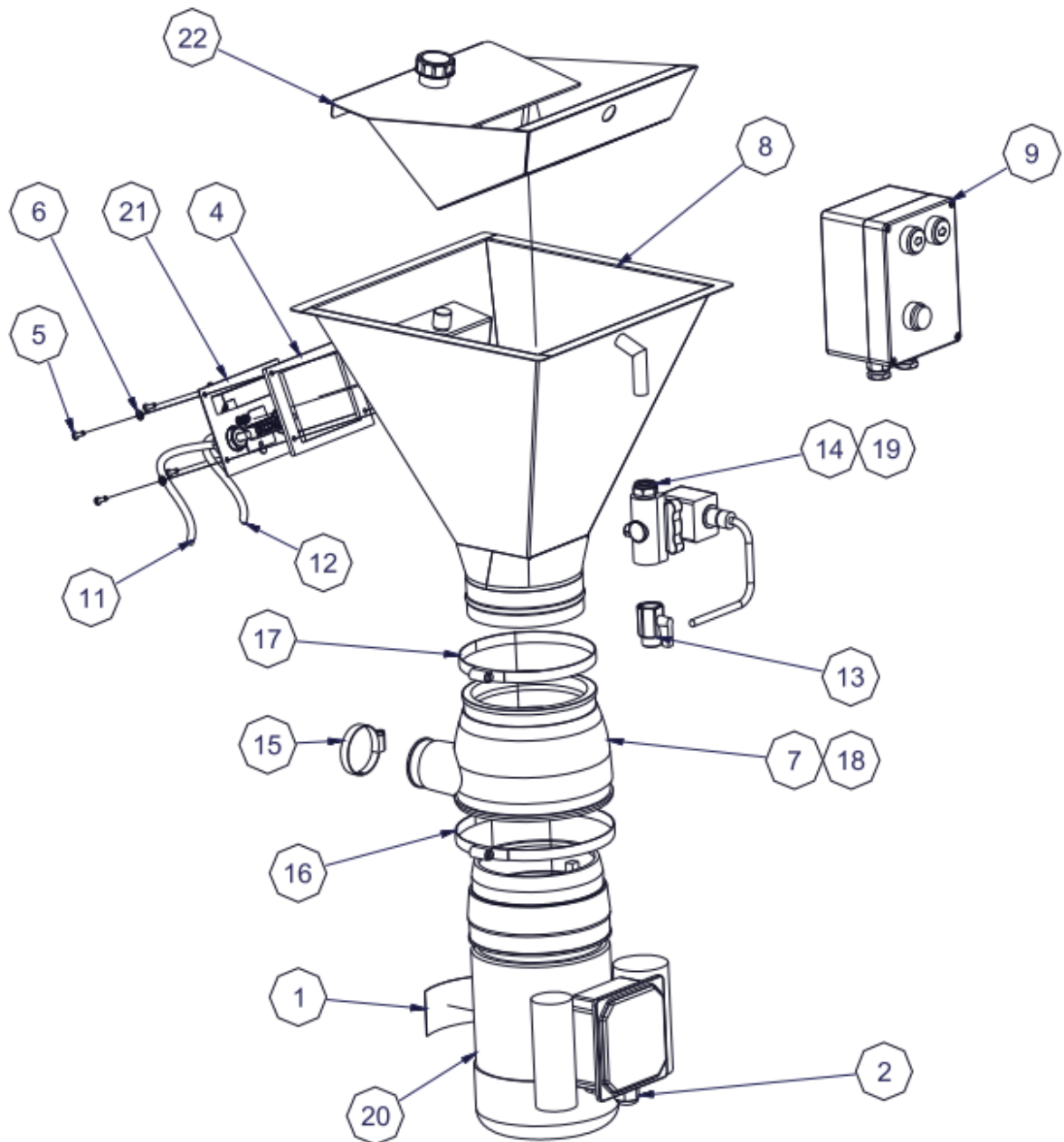


PARTS LIST

| Parts List | | | |
|------------|-------------|-----|---------------------------|
| ITEM | PART NUMBER | QTY | DESCRIPTION |
| 1 | | 1 | RATING LABEL |
| 2 | A10/280 | 1 | M20 CABLE GLAND |
| 3 | A11/027 | 1 | SINK OUTLET GASKET |
| 4 | E07/018A | 1 | RUBBER HOUSING |
| 5 | E10/016 | 1 | SINK OUTLET |
| 6 | E10/017 | 3 | CLAMP |
| 7 | E10/018 | 1 | PLUG 75 DEGREES |
| 8 | E10/019 | 1 | STRAINER STAINLESS STEEL |
| 9 | G30/360 | 1 | REVERSING STARTER 1PH |
| | G30/293 | 1 | REVERSING STARTER 3PH |
| 10 | G60/491 | 1 | 1PH MOTOR CABLE |
| | G60/165 | 1 | 3PH MOTOR CABLE |
| 11 | G60/493 | 1 | 1PH MAINS CABLE |
| | G60/154 | 1 | 3PH MAINS CABLE |
| 12 | J06/006 | 2 | CLIP. HOSE 80-100MM DIA |
| 13 | J06/010 | 1 | CLIP. HOSE 40-60MM DIA |
| 14 | J06/014 | 1 | CLIP. HOSE 150-180MM DIA |
| 15 | S52/010 | 1 | BASIC UNIT 1PH 500 SERIES |
| | S52/020 | 1 | BASIC UNIT 3PH 500 SERIES |

When ordering spare parts or accessories always quote the SERIES NUMBER of the machine, found on the rating label.

525 EXPLODED VIEW



PARTS LIST

| Parts List | | | |
|-------------------|--------------------|------------|----------------------------------|
| ITEM | PART NUMBER | QTY | DESCRIPTION |
| 1 | | 1 | RATING LABEL |
| 2 | A10/224 | 3 | CABLE GLAND NUT |
| 3 | A10/280 | 3 | M20 CABLE GLAND BLACK |
| 4 | A11/176 | 1 | GASKET |
| 5 | D21/038 | 4 | SCREW M4 X 12MM PAN S.S. |
| 6 | D25/007 | 4 | M4 SHAKEPROOF WASHER S.S. |
| 7 | E07/020 | 1 | RUBBER HOUSING |
| 8 | E35/045 | 1 | HOPPER 500 SERIES |
| 9 | G30/360 | 1 | CONTROL BOX ASSEMBLY 500 1PH |
| | G30/293 | 1 | CONTROL BOX ASSEMBLY 500 3PH |
| 10 | G60/152 | 1 | INTERLOCK CABLE |
| 11 | G60/491 | 1 | MOTOR CABLE 1PH |
| | G60/165 | 1 | MOTOR CABLE 3PH |
| 12 | G60/493 | 1 | MAINS CABLE 1PH |
| | G60/154 | 1 | MAINS CABLE 3PH |
| 13 | J03/093 | 1 | BALL VALVE |
| 14 | J03/144 | 1 | SOLENOID VALVE 1PH |
| | J03/145 | 1 | SOLENOID VALVE 3PH |
| 15 | J06/010 | 1 | HOSE CLIP 40-60mm DIA |
| 16 | J06/014 | 1 | HOSE CLIP 150-180mm DIA |
| 17 | J06/039 | 1 | HOSE CLIP |
| 18 | K07/063 | A/R | SILICONE OIL |
| 19 | K09/027 | A/R | LOCTITE 542 |
| 20 | S52/010 | 1 | BASIC UNIT 1PH 500 SERIES |
| | S52/020 | 1 | BASIC UNIT 3PH 500 SERIES |
| 21 | S52/025 | 1 | ELECTRICS PLATE ASSY 500 FWD 1PH |
| | S52/026 | 1 | ELECTRICS PLATE ASSY 500 FWD 3PH |
| 22 | S52/031 | 1 | BAFFLE ASSEMBLY 500 FWD |

When ordering spare parts or accessories always quote the SERIES NUMBER of the machine, found on the rating label.

PARTS LIST

| Parts List | | | |
|-------------------|--------------------|------------|---------------------------|
| ITEM | PART NUMBER | QTY | DESCRIPTION |
| 1 | A10/134 | 4 | BLIND GROMMET |
| 2 | A10/280 | 3 | M20 CABLE GLAND BLACK |
| 3 | A13/064 | 3 | INSERT SQ.TUBE |
| 4 | A13/056 | 1 | ADJUSTABLE FOOT M8 x40 |
| 5 | A13/065 | 1 | INSERT M8 THREAD SQ. TUBE |
| 6 | D21/038 | 6 | SCREW M4 X 12MM PAN S.S. |
| 7 | D21/050 | 2 | M6x12 PAN HD SCREW |
| 8 | D25/005 | 2 | WASHER M6 SHAKEPROOF S.S. |
| 9 | D25/033 | 6 | WASHER M4 SHAKEPROOF S.S. |
| 10 | E35/056 | 1 | OPTIONAL SIDE PANEL - 526 |
| 11 | E35/050 | 1 | HOPPER & TOP SUB-ASSY |
| 12 | E35/051 | 1 | 526 FWD FRAME ASSEMBLY |
| 13 | E35/062 | 1 | FRONT PANEL 526 FWD |
| 14 | E60/006 | 2 | BRACKET |
| 15 | E60/007 | 1 | BACK PLATE |
| 19 | CONTROL BOX | 1 | SEE 525 FWD EXPLODED VIEW |
| 20 | A10/012 | 2 | GROMMET |
| 21 | D21/044 | 2 | M5 X 12 PAN HEAD SCREW |
| 22 | D25/021 | 2 | BRIGHT WASHER M5 |
| 23 | D25/004 | 2 | WASHER M5 SHAKEPROOF |
| 24 | A11/177 | 3 | WATER INLET WASHER |

When ordering spare parts or accessories always quote the SERIES NUMBER of the machine, found on the rating label.

MATERIAL CONTENT

The 500 SERIES FWD range contain the following materials:

| | |
|---------------------|---|
| Metals | Stainless steel, Mild steel (inc plated), Aluminium and copper. |
| Plastics and rubber | Polycarbonate, Nylon, Neoprene rubber. |
| Other | Aluminium oxide, electrical components. |

ORDERING SPARE PARTS

In the event that spare parts or accessories need to be ordered, please always quote the SERIES AND SERIAL NUMBER of the machine. This is to be found on the rating plate located near the supply cable.

For installations outside the EU, please contact your supplier.

For information on TGMi spares and service support (if applicable), please call TGMi on:

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