



## **500 SERIES FWD**



**1-PHASE: 523, 525 & 526 SERIES 19**  
**3-PHASE: 523, 525 & 526 SERIES 17**  
**INSTALLATION AND OPERATING MANUAL**  
**PLEASE LEAVE WITH OPERATOR**



**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:

1-PHASE: 523, 525 & 526 – SERIES 19; 3-PHASE: 523, 525 & 526 – SERIES 17

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 horizontal line.

Signed at Wrexham, Date

September 2019

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## GUARANTEE

This machine is guaranteed by IMC for 1 Year from the date of purchase from IMC 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.

## DELIVERY

### 1-phase machines

The packaged machine (523, 525 & 526) consists of:

- 1) The machine itself with integral mains cable, fitted with 3-pin plug
- 2) One isolator box, fitted with RCD, 30mA
- 3) One release key
- 4) One wall plaque
- 5) One rammer (523 model only)

### 3-phase machines

The packaged machine (523, 525 & 526) consists of:

- 1) The machine itself with integral mains cable
- 2) One release key
- 3) One wall plaque
- 4) One rammer (523 model only)

Please notify the carrier and the supplier within 3 days if anything is missing or damaged.

Check that the correct machine has been supplied and that the voltage, marked on the rating plate on the motor, is suitable for the supply and control voltage available.

**Figure 1 – Sample Rating Label**

<b>imc</b> IMPERIAL MACHINE COMPANY Ltd		CE	
LL13 9RF, UNITED KINGDOM			
TEL +44 (0)1978 661155			
FOOD WASTE DISPOSER		FREQUENCY(Hz)	50
TYPE / MODEL	FWD 526	IP RATING	IP55
VOLTAGE RANGE	230	dB (A)	75
PHASE	1	AMPS (MAX)	5.2
SERIES #	19	kW (MAX)	0.55
SERIAL NUMBER = 520719001			

www.imco.co.uk

## INTRODUCTION

The 500 series machines are intended for the disposal of food waste matter by maceration under water flow and discharge into the drainage system. Before fitting this appliance, ensure that the authorities allow the installation.

## INSTALLATION

### For the installer:

These instructions contain important information designed to help the user obtain the maximum benefit from the investment in an IMC 500 series food waste disposer. Please read them carefully before starting work, and consult the supplier in the event of any queries. Be sure to leave this Instruction Manual with the user after installation of the machine is complete.

### Procedure:

The 523 is designed to be connected to a 3.5" (89mm) sink outlet.

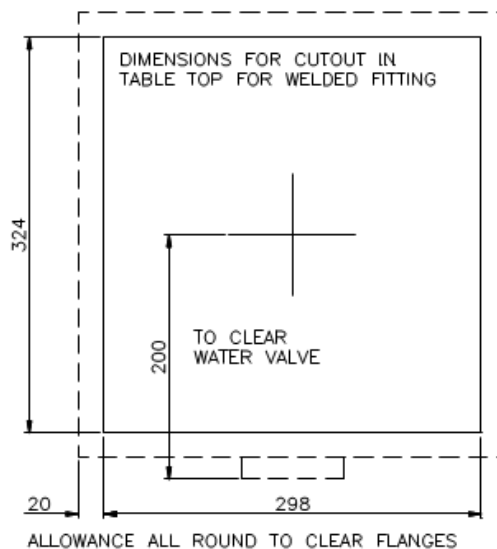
The 525 is designed to be welded into a tabletop, the required size of the cut-out in the tabletop is shown below.

The 526 is designed to be free standing and must be bolted to the floor, using the bolt holes provided, to avoid straining the service connections.

When installing the food waste disposer ensure that, the controls are located in a position that is readily accessible to unit operator.

The wall plaque supplied with the machine should be placed in a prominent position near the machine.

**Figure 2 – 525 Tabletop cut-out details**



## 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 drainpipe 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.

In case of difficulty, contact your supplier or IMC.

**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.



**(SINGLE PHASE MACHINES ONLY) The 500 Series Disposers must be connected to the mains supply using the 32A isolator box, 30mA RCD and mains plug and cable all provided with the machine. Please refer to PAGE 8 for full wiring instructions.**

The **RCD** (Residual Current Device) is a safety device, which automatically switches off the supply if an earth fault develops.



**IMPORTANT!** Please note that the **RCD** contained within the isolator box **MUST be tested on completion of the installation and then quarterly for the lifetime of the machine.**

To test the RCD, proceed as follows:

Press the button marked "T". The device should switch off the supply and should then be switched on to restore the supply. If the device does not switch off the supply when the button is pressed, seek expert advice.



**WARNING: This machine must be earthed**



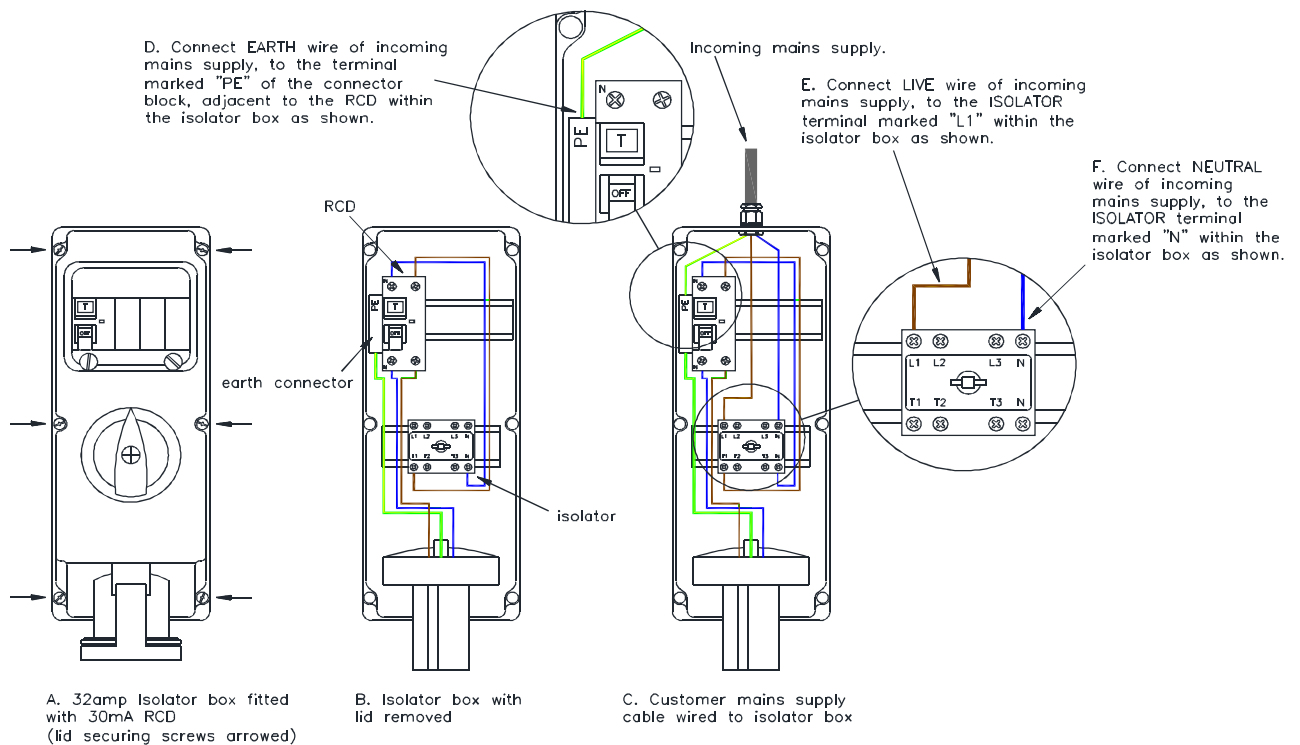
**All machines are supplied with a starter with forward, reverse and stop buttons. Where automatic water control is supplied, the starter also controls the water flow. This unit must be connected to the mains supply using the starter provided. Omission of the starter eliminates overload protection for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



## ISOLATOR BOX & RCD UNIT – WIRING INSTRUCTIONS (SINGLE PHASE MACHINES ONLY)

1. Unscrew the 6 screws securing the lid to the isolator box (see fig. 1A)
2. Remove the lid and locate the RCD, earth connector and isolator within the isolator box (see fig. 1B)
3. Insert customer mains cable through empty cable gland provided and connect as follows:
  - i) Connect the EARTH wire of mains supply cable (see fig. 1D)
  - ii) Connect the LIVE wire of mains supply cable (see fig. 1E)
  - iii) Connect the NEUTRAL wire of mains supply cable (see fig. 1F)
4. Refit the lid and retighten the 6 securing screws (see fig. 1A)

**Figure 1**





**FUSE RATINGS**

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.

<b>Voltage</b>	<b>Full Load Current</b>	<b>Fuse rating per Phase</b>
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

If the mains cable becomes damaged, it must be replaced by qualified electrician in order to avoid a hazard.

## COMMISIONING

1. Turn on the water supply, and check for leaks in the supply pipework.
2. Switch on the electricity supply (for 1-phase machines, check that the isolator switch to is set to the "1" position).
3. Press one of the start buttons the unit will start and water flow into the disposer. Press the red button to stop the machine. All models are reversing and have two start buttons, one for each direction (check them both).
4. Inspect the waste piping for leaks. Adjust the water supply control valve (fitted to the solenoid valve) to achieve the desired flow rate
5. Feed a small amount of food into the disposer to check that there are no obstructions in the waste pipe.
6. With the machine running, unscrew the hopper baffle knob. The machine will switch itself off. By the time the knob of fully unscrewed and the baffle removed the rotor in the grinding chamber will have stopped.

## USAGE



1. **DO NOT PUT CLING FILM, LIQUID FAT, STRING, CLOTH, PLASTIC, WIRE, GLASS, CORK, STYROFOAM, BOILING WATER, HOT SOUP, HOT LIQUID OR METAL OBJECTS INTO THE MACHINE.**

2. **ALWAYS START THE MACHINE BEFORE PUTTING WASTE INTO IT. INTRODUCING MIXED WASTE INTO THE MACHINE WILL ENSURE MORE EFFICIENT DISPOSAL THAN ACCUMULATING AND INTRODUCING WASTE OF A SIMILAR NATURE.**



3. **DO NOT FEED LARGE AMOUNTS ALL AT ONCE. THIS WILL CAUSE BLOCKAGES.**



4. **IF FEEDING LARGE QUANTITIES OF THE SAME FOOD ITEM, I.E. RICE, PASTA, POTATOES ETC. IT MUST BE FED SLOWLY ALLOWING EACH SMALL BATCH TO PASS THROUGH THE DEWATERER INTO THE BIN OR BLOCKAGES MAY OCCUR.**

## OPERATION

### 523 Disposer

1. Turn on the cold-water tap to medium flow.
2. Switch on the electricity supply (for 1-phase machines, check that the isolator switch to is set to the "1" position).
3. Press the START button. NOTE units are reversing and have two start buttons, one for each direction, use them alternately
4. Remove sink stopper and take out silver saver.
5. Feed in the food waste by pushing though the rubber petals with rammer provided and leave the machine running until the noise of grinding ceases.
6. Allow to run for 20-30 seconds longer to ensure thorough flushing through.
7. Press the red STOP button, turn off tap, and replace the silver saver.

### 525 and 526 Disposers

1. Close the baffle and screw the interlock knob fully down
2. Switch on the electricity supply (for 1-phase machines, check that the isolator switch to is set to the "1" position).
3. Press the START button. NOTE units are reversing and have two start buttons, one for each direction, use them alternately
4. Place waste food into the baffle and push into the disposal chamber
5. Allow the machine to run until the disposal is complete. The noise of operation will indicate when the disposal chamber is empty.
6. Press the red STOP button

**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 (for 1-phase machines set the rotary switch on the isolator box to “0” position).
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, then lever it clockwise and then anti-clockwise 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 (for 1-phase machines set the rotary switch on the isolator box to “1” position).
10. Press the START button and continue disposal.

In the event of difficulty, call your supplier or the manufacturer for a qualified service engineer.

**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 to restart the FWD before the 40-minute period is over and the motor has cooled down. Doing so could cause unnecessary damage to the motor.

### **WATER FLOW CONTROL (OPTIONAL EXTRA)**

Your IMC Food Waste Disposer is equipped with a device with which the operator can adjust the volume of water that flows through the Food Waste Disposer whilst it is processing food waste.

To reduce water flow, simply turn the water control knob to the left i.e. anti-clockwise. To increase water flow, turn the knob to the right i.e. clockwise.

When operating the FWD, the water flow control should initially be set at its highest position before turning it down whilst the waste is being processed. The rate of water flow can be adjusted up or down for each installation. To take account of unique factors such as the length of, and number of bends in, the drainage piping, the fall of the pipe, the amount of liquid already present in the waste and whether a DE waterer and / or Grease Trap is fitted downstream of the FWD.

When operating the system on reduced water flow it is recommended that, at the end of each "session," the water flow is turned up full for a minimum of 15 seconds to ensure that any residue is flushed through the drainage system. A bucket of warm, soapy water poured into the FWD's hopper at the end of each day will both clean the equipment and help disperse any residual solids in the piping.

### **NOTE**

The control knob operates within an arc from vertical (min water flow) to the 3 o'clock position (max water flow). Please do **NOT** force the control knob beyond its end stop positions.

Unless the FWD is being used to process food that is either consistently very wet or very dry, IMC recommends that the water pressure should be set at the mid-point of the published scale when the equipment is first installed.



## CLEANING

523 Disposers

**Clean the sink thoroughly after use.**

525 & 526 Disposers

Clean down thoroughly after use especially inside the hopper. Unscrew the interlock knob and open the baffle to gain access internally.

Cleaning is assisted by the use of a low pressure spray, an IMC Pre-Rinse Spray or a Reel-Kleen retractable hose reel.

Wipe over the exterior of the machine, including the back areas not normally visible with a damp cloth, using a mild detergent if required.



## MAINTENANCE

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

**FAULT DIAGNOSIS****Machine does not start**

<b>Cause</b>	<b>Action</b>
Electrical supply is not switched on or mains lead unplugged	Switch on mains supply and check mains cable is connected (For 1-phase machines, check that the mains lead is plugged in and the isolator switch is set to "1")
The fuses have blown	Call site electrician to change fuse
The RCD inside isolator box has tripped (1-phase machines only)	Call site electrician to reset the RCD inside the isolator box. If problem persists, contact service personnel.
Baffle is not correctly fitted.	Check that the baffle is secured. If problem persists contact service personnel.

**Unexpected system stop**

<b>Cause</b>	<b>Action</b>
Electrical supply is not switched on or mains lead unplugged.	Switch on mains supply and check mains cable is connected (For 1-phase machines, check that the mains lead is plugged in and the isolator switch is set to "1")
The fuses have blown	Call site electrician to change fuse
The RCD inside isolator box has tripped (1-phase machines only)	Call site electrician to reset the RCD inside the isolator box. If problem persists, contact service personnel.
Baffle is not correctly fitted.	Check that the baffle is secured. If problem persists contact service personnel.
Waste jammed in disposer grinding unit.	Remove blockage from grinding unit. See instructions on page 6
Motor overload has tripped.	Allow motor to cool for 10 minutes and restart. If problem persists contact service personnel.

**FAULT DIAGNOSIS (CONTINUED)****Waste not processed**

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

**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 UK, please contact your supplier.

For information on IMC spares and service support (if applicable), please call IMC on +44 (0)1978 661155. Alternatively, contact us via email or fax:

IMC Spares Desk      Fax: +44 (0)1978 667759  
E-mail:                      spares@imco.co.uk

IMC Service Desk      Fax: +44 (0)1978 667766  
E-mail:                      service@imco.co.uk

Imperial Machine Company Limited  
Unit 1, Abbey Road  
Wrexham Industrial Estate  
Wrexham  
LL13 9RF

E-mail: [info@imco.co.uk](mailto:info@imco.co.uk)  
Website: [www.imco.co.uk](http://www.imco.co.uk)