



CS-C1 CHIPPER



CS-C1 – SERIES 3

INSTALLATION, OPERATING AND MAINTENANCE 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 machine

CHIPPER – CS-C1 SERIES 3

As described in the attached technical documentation is in conformity with the Machinery directive 98/37/EC (Formally 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 EN61000-6-1:2001 Immunity and EN61000-6-3:2001 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 E Plumb, Engineering Manager

A handwritten signature in black ink, appearing to read 'E Plumb', is written over a light blue horizontal line.

Signed at Wrexham, Date June 2018

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GUARANTEE

This equipment is guaranteed by IMC for 2 years from the date of its 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 that arise from faulty installation, inadequate maintenance, and incorrect use, connection to the wrong electricity supply or fair wear and tear are not covered by the guarantee.

Please observe these instructions carefully.

The guarantee applies in this form to installations within the United Kingdom.

DELIVERY

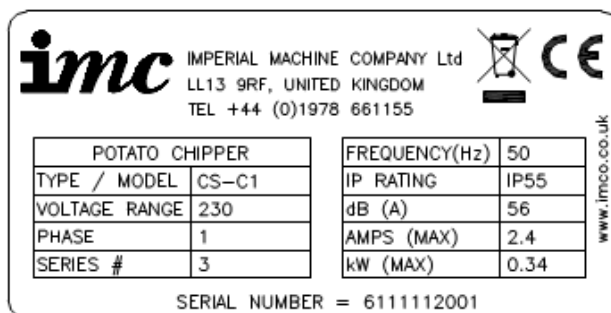
The packaged machine consists of:

Chipper Unit, Comprising:	1
Hopper	1
Knife Block	1
Main Unit	1
Instruction Booklet	1
Wall Plaque	1
Guarantee / Registration Card	1

Please notify both the carrier and the supplier within three days of receipt if anything is missing or damaged.

Check that the correct machine has been supplied and that the voltage, marked on the rating plate, is suitable for the supply available. The rating plate is located on the right hand side of the case.

SAMPLE RATING LABEL

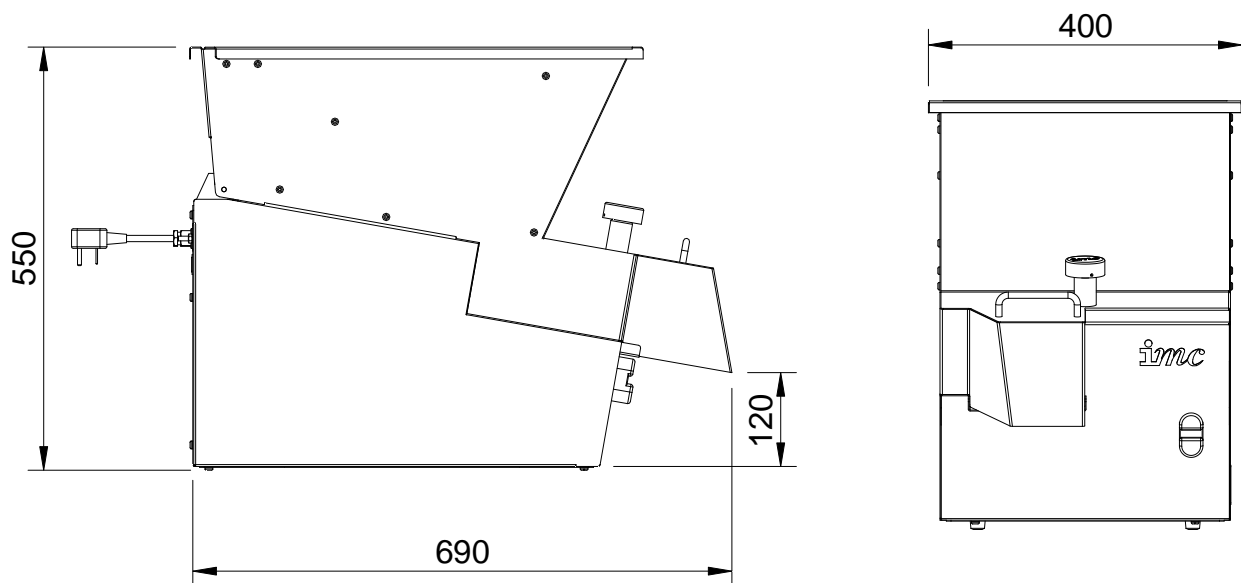


INTRODUCTION

The Chipper is intended for cutting peeled potatoes into chips or scallops, in a batch process.

CHIPPER DIMENSIONS

All dimensions are in mm.



INSTALLATION

For the Installer:

These Instructions contain important information designed to help the user obtain the maximum benefit from the investment in an IMC Chipper.

Please read them carefully before starting work, and consult with 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 unit is designed to stand on a bench, table, or on a draining board. Ensure that whatever is used for this purpose is sturdy and rigid and not more than 750 mm high. A higher table makes it difficult to load the machine.

The Chipper should be placed where supplies of peeled potatoes from the peeling machine are readily accessible, after which the output of chips need to be in easy reach of the fryer.

The IMC Chipper has a top loading hopper into which potatoes can be tipped from either side or from the front. The discharge of chips is from the chute at the front of the machine, and the machine should be placed so that this chute is directly over a receiving container.

ELECTRICITY SUPPLY CONNECTION

A Wiring Diagram is shown on Page 11.

The electricity supply connection should be made to a power outlet socket or isolator mounted on the wall close to the machine. This socket or isolator must be accessible once the machine is installed. Before connecting, check that the voltage shown on the rating is correct for the electricity supply you have available. The outlet should be fused at 13 amps.

NOTE: The plug is fitted with a 10amp fuse.



WARNING: This machine must be earthed

Should the supply cord become damaged then an approved electrician must fit a replacement. The IEE Codes of Practice must be observed.

An equipotential bonding terminal is provided at the back of the unit near the cable outlet for external earth bonding. Provision of an earth bond does not remove the requirement for an earth in the electrical supply.

COMMISSIONING

Open the hopper by fully unscrewing the interlock knob at the front and lifting up until the hopper is fully resting back on its hinges. Turn the rotor by hand to ensure that it is completely free to rotate. Check that the knife block assembly is in the correct position and screwed down firmly. Replace the hopper and screw down the interlock knob until it is tight.

It is now safe to switch on at the wall socket and to start the machine by pressing the start button on the front of the machine (green button). To stop the machine press the red button.

The IMC Chipper features safety interlock devices that ensure the machine cannot run unless both the knife block and the hopper are properly and fully in position. This makes it impossible for the operator to touch the spinning rotor whilst it is running.

To confirm that the interlock is operating correctly press the start button to switch the machine on. Then whilst it is still running, unscrew the hopper interlock knob. After two or three turns the machine should switch off, but there are still two or three further turns of the knob necessary before the hopper can be opened. The rotor should be stationary within 2 seconds of the hopper being opened. If the knife block is not in place, another interlock will prevent the machine from running.

OPERATION

With the machine running, feed peeled potatoes into the hopper. It will hold approximately 15kg of potatoes, which self feed into the mechanism of the machine and discharge as cut chips from the chute. Always turn the chipper off once all potatoes have been cut.

Some care is necessary when loading, as the rotor will not accept abnormally large potatoes, so these must be cut into two. The hopper is specially designed not to pass potatoes which are over size and which could otherwise clog the mechanism. It is also essential that only potatoes be fed in to this machine.

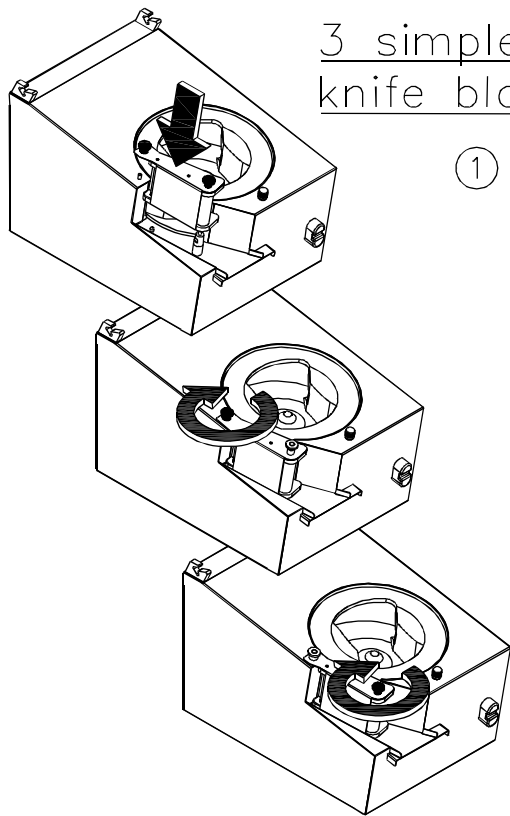
NOTE: Take great care to ensure that there are no stones mixed in with the potatoes.

A stone or any other foreign object will damage the cutting knives and could cause the machine to jam. In this event the machine has an inbuilt protection device, which will switch it off before the electric motor burns out. This overload protection feature will automatically reset itself when it cools down but it is necessary to wait a few minutes for this to happen. After clearing the jam resume operation by pressing the start button. Should a stone damage the knife blades they must be replaced as further use could break the blades.

The motor is also fitted with a thermal trip that will stop the machine if the motor overheats. This protection feature will automatically reset itself when it cools down but it is necessary to wait a few minutes for this to happen.

The machine will switch itself off in the event of failure of the electricity supply whilst operating. When the supply is restored the machine must again be switched on. It is fitted with no-volt release.

KNIFE BLOCK FITTING



3 simple steps to fitting your knife block

- ① Place the knife block in the recess on the chipper. Ensure the base of the knife block fits correctly on the location pins
- ② Push down on the rear knife block fixing knob whilst screwing down firmly to tighten
- ③ Tighten the front knob to fully secure the knife block

CHANGE CHIP SIZES

To change to a different size of chip, change the knife block assembly. Spare knife block assemblies are available from IMC. Open the hopper, un-screw the knife block and replace with the alternative selected. Knife blocks are available in the following sizes from the standard range: 12mm, 14mm, 14x17mm and 17x21mm

CLEANING

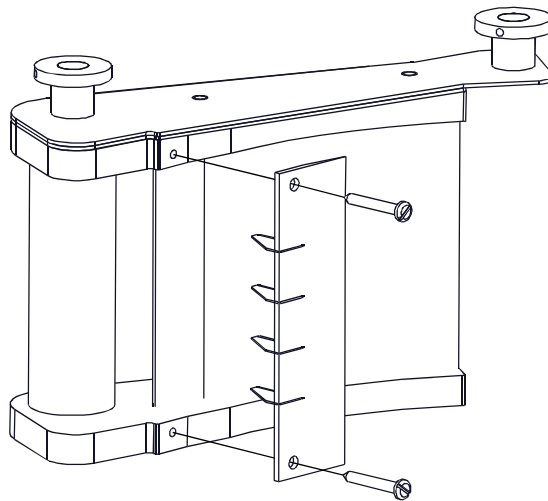
It is essential to clean the machine at least once a day, preferably at the end of each period of operation.

1. Switch off at the socket or isolator
2. Fully unscrew the interlock knob, open the hopper and lift it out of its hinge seating at the back.
3. Clean the hopper in a sink, dishwasher, pot wash or by hosing with a spray
4. Remove the knife block by fully un-screwing and lifting upwards, off its locating dowels
NOTE: Take care when handling the knife block. The blades are sharp.
5. Clean the knife block under a spray or running tap and remove any residual pieces of potato. **DO NOT use any metallic objects**, such as a knife or screwdriver, to un-block the knife block. Visually inspect all blades for wear or damage, and replace the knife pack as necessary. Do not attempt to straighten a bent blade - bent blades should be replaced immediately.
6. Lift the rotor carefully off its spindle.
7. Clean the rotor in a sink, pot wash, etc.
8. Clean out the interior of the base unit and wipe over the exterior with a damp soft cloth. Do not hose down the exterior of the machine.
DO NOT USE CLEANING MATERIALS CONTAINING ABRASIVES OR BLEACHES.
9. Reassemble the machine, reversing the above disassembly procedure. When replacing the rotor, ensure that it is put back square on its spindle. Make sure that it is properly seated on its cross pin by turning it slowly until it drops onto this seating. When replacing the knife block ensure it is screwed down firmly.

CHANGING KNIFE BLADES

The knife blades are supplied as a pack and individual blades cannot be changed. Change the knife blade pack as soon as it is damaged or blunt. To change the knife blade pack remove the knife block and undo the two screws securing the knife blade pack. Dispose of the old blades carefully and screw the new knife blade pack in place. See diagram below.

For optimum performance IMC recommend changing the blade pack every 6 months, or sooner depending on usage.

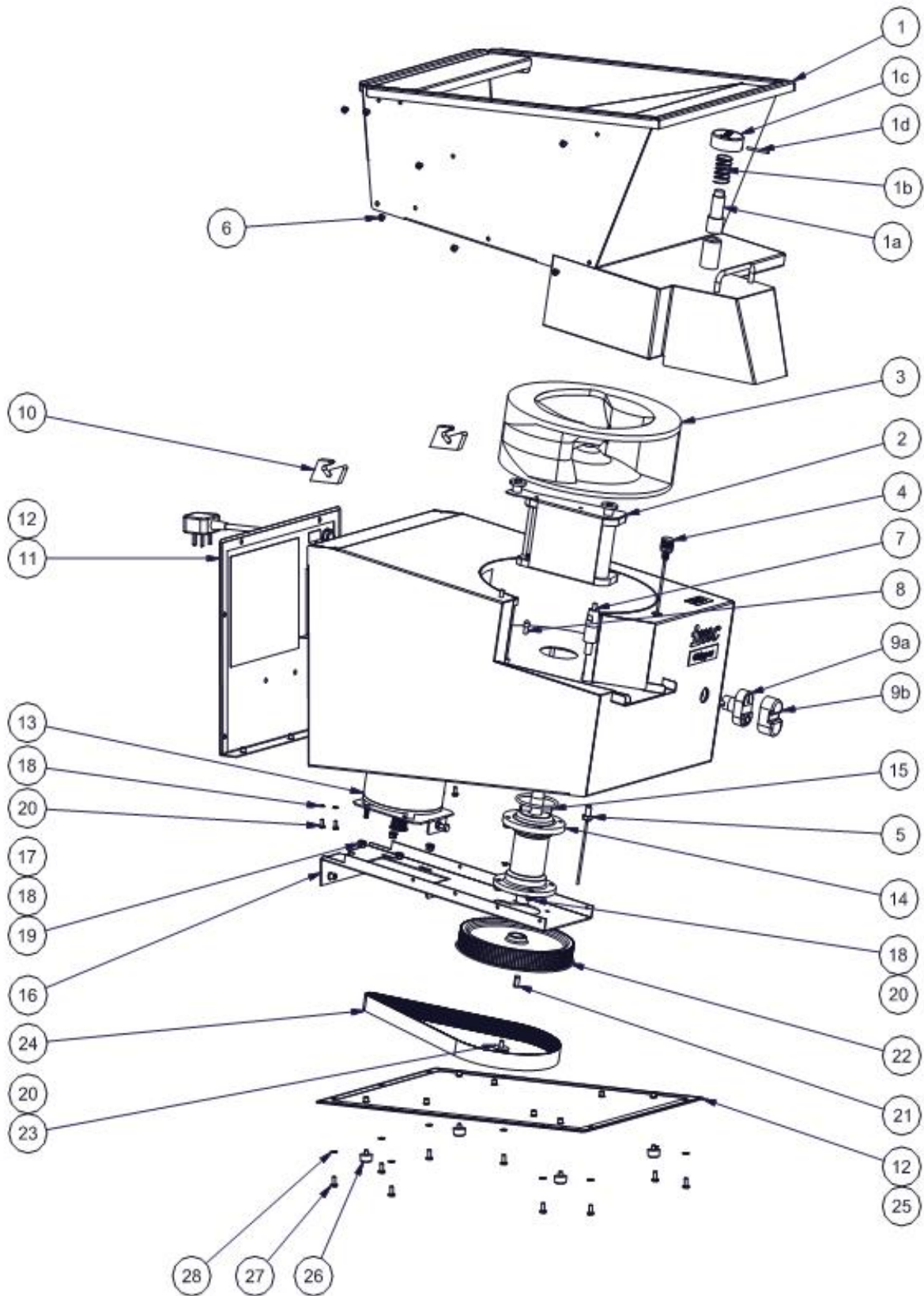


NOTE: Take care when handling the knife block. The blades are sharp.

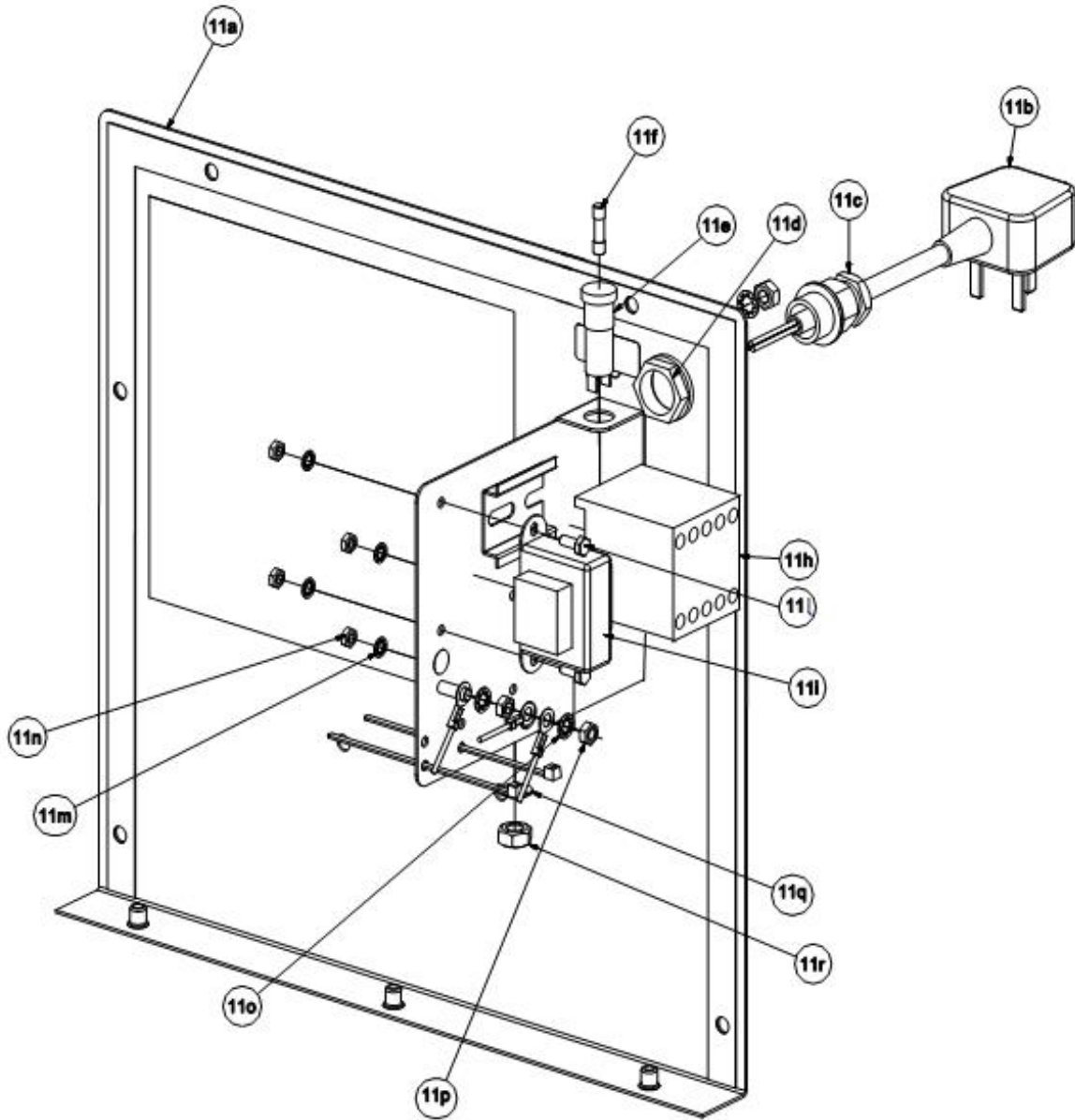
MAINTENANCE

Details of IMC Service Contracts are available on application.

EXPLODED VIEW



ELECTRICAL CONTROL PARTS



PARTS LIST

ITEM	PART NO	DESCRIPTION
1	S61/150	HOPPER ASSEMBLY, INCORPORATING:
1a	M81A	INTERLOCK BODY & MAGNET
1b	A12/011	INTERLOCK SPRING
1c	L61/024	HOPPER KNOB
1d	D26/017	INTERLOCK PIN
2a	S61/184	21x17mm KNIFE BLOCK
	S61/145	12mm KNIFE BLOCK
	S61/151	14mm KNIFE BLOCK
	S61/144	14x17mm KNIFE BLOCK
2b	S61/183	21x17mm KNIFE PACK ASSY
	S61/134	12mm KNIFE PACK
	S61/129	14mm KNIFE PACK
	S61/128	17mm KNIFE PACK
3	C61/002 M1 Z	ROTOR
4	S61/178	HOPPER MAGNETIC SWITCH ASSY
5	S61/179	KNIFE BLOCK MAGNETIC SWITCH ASSY
6	D19/138	SCREW M5 X 8 SKT BUTTON HEAD
7	L61/025	KNIFE BLOCK LOCATING PIN, INCORPORATING:
7a	D25/003	SPRING WASHER M10 S.S.
7b	D20/015	M10 FULL NUT S.S.
8	L34/005	KNIFE BLOCK SHORT PIN, INCORPORATING:
8a	D25/052	PLAIN WASHER M6 ST STEEL
8b	D20/013	NUT M6 FULL SS
9	G45/109	PUSH BUTTON RED & GREEN, INCORPORATING:
9a	G45/110	BOOT FOR PUSH BUTTON
9b	G45/111	BUTTON CONTACTORS NO & NC
10	A13/024	HOPPER TRUNNION, INCORPORATING:
10a	D25/033	WASHER M4 SHAKEPROOF S.S.
10b	D19/120	SCREW M4 X 8MM HEX S.S.
11	S61/176	ELECTRIC PANEL ASSY, INCORPORATING:
11a	E61/133	REAR PLATE
11b	G60/101 M4	PLUG & CABLE ASSY
11c	A10/266	M20 CABLE GLAND BLACK
11d	A10/224	M20 GLAND LOCKNUT
11e	G35/012	FUSE HOLDER
11f	G35/004	FUSE 0.5A SEMI DELAY
11h	G30/343	24V AC MINI CONTACTOR
11i	G60/427	TRANSFORMER TERMINATED
11l	D19/110	SCREW M4 X 10MM HEX.S.S.
11m	D25/033	WASHER M4 SHAKEPROOF S.S.
11n	D20/011	NUT M4 FULL S.S.

PARTS LIST CONTINUED...

11o	D25/004	WASHER M5 SHAKEPROOF
11p	D20/038	NUT M5 FULL S.S.
11q	D25/062	LOCK WASHER M8 S.S.
11r	D20/014	M8 FULL S.S. NUT
12	K08/043	GASKET STRIP
13	S61/177	MOTOR ASSY, INCORPORATING:
13a	E61/014	MOTOR MOUNTING BRACKET
13b	D19/032	SCREW M5 X 12MM HEX S.S.
13c	D19/115	SCREW M6 X 30MM HEX S.S.
13d	D20/013	NUT M6 FULL SS
13e	A06/099	DRIVE PULLEY WITH KEYWAY
13f	L61/041	BUSH (FOR DRIVE PULLEY)
13g	D19/142	SCREW M4 x 25L HEX SS (FOR DRIVE PULLEY)
13h	G60/323	MOTOR CABLE ASSY 1PH
14	S61/118	BEARING HOUSING ASSEMBLY
15	A02/068	O-RING
16	E61/015	DRIVE BRACKET
17	D25/052	PLAIN WASHER M6 ST STEEL
18	D25/005	WASHER M6 SHAKEPROOF S.S.
19	D20/013	NUT M6 FULL S.S.
20	D19/038	SCREW M6 X 12MM HEX S.S.
21	D27/031	DRIVE KEY
22	A06/090	DRIVE PULLEY 114-5M-25F
23	D25/019	M6 WASHER 25OD
24	A05/041	DRIVE BELT 850 - 5M - 25
25	E61/107	BASE PLATE
26	A13/108	FOOT, BLACK POLYTHENE
27	D21/044	M5 X 12 PAN HEAD SCREW
28	D25/004	WASHER M5 SHAKEPROOF

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
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