



SP25 PEELER



SP12 & SP25 – SERIES 4
INSTALLATION, OPERATING AND MAINTENANCE MANUAL
PLEASE LEAVE WITH OPERATOR

A34/013 R17

ECN 8818 February 2019

EC DECLARATION OF CONFORMITY

(Guarantee of Production Quality)



Munk

We, Imperial Machine Company Limited of: Unit 1, Abbey Road, Wrexham Industrial Estate, Wrexham, LL13 9RF Declare under our sole responsibility that the machine

SP12 & SP25 - SERIES 4

As described in the attached technical documentation is in conformity with the Machine Safety Directive 98/37/EC and is manufactured under quality system BS EN ISO 9001. It is also in conformity with the protection requirements of the Electro Magnetic Compatibility Directive 2004/108/EEC and is manufactured in accordance with harmonised standards EN 61000-6-1 Immunity and EN 61000-6-3 Emissions (plus product specific standards).

It also satisfies the essential requirements of the Low Voltage Directive 2006/95/EC and is manufactured in accordance with harmonised standard EN 60204-1 Safety of Machinery (Electrical Equipment).

Approved by E Plumb, Engineering Manager

Signed at Wrexham, Date February 2019

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GUARANTEE

This equipment is guaranteed by IMC for 2 Years 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

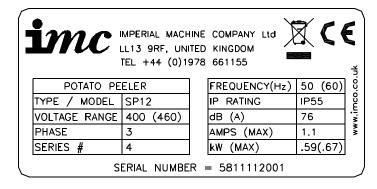
The machine is packaged in a carton. Please check the contents against the list below.

Peeler Unit, with lid, control box and mounting bracket			
Peeling plate	1		
Water supply pipe and 2 hose clips	1		
1m long 3" flexible waste hose and hose clip			
Instruction Booklet			

If any accessories have been ordered they will be supplied in separate packages.

Please notify 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 on the motor, is suitable for the supply and control voltage available. The rating plate is located at the back of the cylinder near the supply cable inlet.

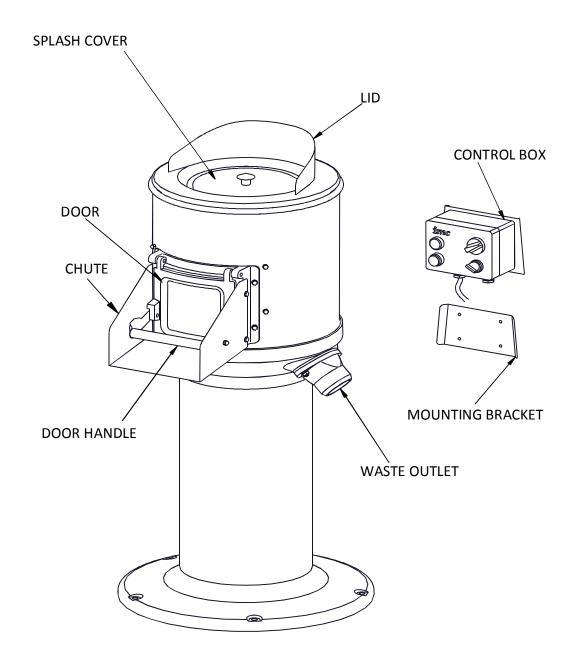
SAMPLE RATING LABEL



INTRODUCTION

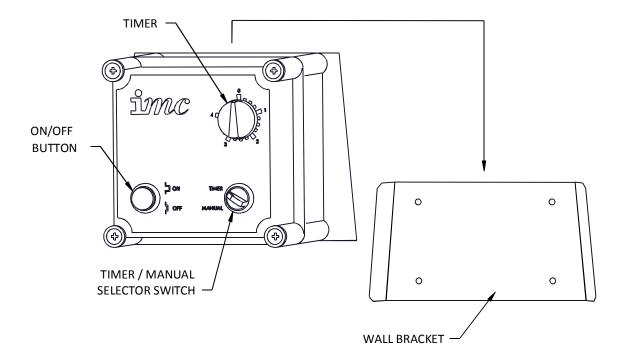
This machine is intended for peeling potatoes. Its use may be extended to other root vegetables. *It is not recommended to use this machine for peeling onions.*

YOUR PEELER



CONTROLS

The peeler has a separate box for mounting on a wall bracket near the machine.



Note: Control boxes for three phase machines have separate on and off buttons

INSTALLATION

For the Installer:

- These instructions contain important information designed to help the user obtain the maximum benefit from the investment in an IMC SP Peeler.
- 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 the installation of the machine is complete.

Procedure:

The SP Range is supplied with a pedestal and is designed to be bolted to the floor. The control box is designed to be mounted on a wall bracket so that it is easily accessible once the machine is installed.

Place the machine in its desired location and mark through the pedestal base the location of the five floor fixing holes. Remove the machine and prepare the floor for rawl bolts or other suitable floor fixings. Replace the unit into working position and fit the rawl bolts or other fixings. Tighten up the fixings.

Place the control box bracket in the desired location and mark through the four screw holes. Remove the bracket and prepare the wall for rawl plugs or other suitable wall fixings. Secure the bracket in place with four screws. Slide the control box onto its wall bracket.

WATER SUPPLY

Connect the water supply pipe to the water inlet located on the top of the lid, and secure using the supplied hose clips. Fit the other end of the supply pipe to a cold water supply that incorporates a tap or shut off valve that can be used to regulate the water flow to approximately 3 – 4 litres per minute. The water inlet is fitted with a baffle to improve the distribution of water into the cylinder. This may cause minor splashing on the surface of the lid; if this becomes severe, reduce water flow as required. The maximum water pressure for the supply is 10 bar. Ensure that the hose supplied with the machine is used and that an old hose is not reused.

PLEASE NOTE: These machines are fitted with an air-break to prevent back syphonage into the mains supply. Some local authorities may nevertheless require connection is made to a storage cistern rather than direct to the mains supply.

This applies to UK installations only. Overseas customers should install the machine in accordance with local regulations.

If in doubt, check with your local authority.

WASTE OUTLET CONNECTION

The peeler has two possible waste outlet locations. If it is required to change the waste outlet location, remove both the existing waste outlet and the blanking plate on the opposite side. Refit both the waste outlet and the blanking plate in their new positions.

A flexible hose, supplied with the machine, can be fitted over the waste outlet to direct the waste into a gully or intercepting tank. If required, secure with the hose clip supplied. Longer lengths of flexible hose are available from IMC on request.

The waste outlet also incorporates a 2" BSP female thread for connection to standard 54mm (2") waste pipe. DO NOT reduce the diameter of the waste pipe to below 54mm. The length of the pipe should be kept to a minimum and the pipe must have a fall of at least 1:15. Changes of direction should be made by swept bends rather than elbows and cleaning eyes should be fitted where possible in accordance with standard plumbing practice.

A trap is not necessary if the discharge is into a gully or an intercepting tank, although a trap must be provided in the outlet pipe from the intercepting tank. If a trap is required, it should be made with 45° bends and not with a 'U' or 'P' bend or with a bottle trap.

WASTE EJECTOR

The waste ejector is an optional fitting that dilutes the waste sludge to enable it to flow easily through the drains without fear of blockage.

Waste Ejectors are not recommended in the follow circumstances;

- A pipe run exceeding 15m between the machine and main drain
- When a fall of 1:15 cannot be achieved
- When piping is exceptionally complex

In any of the above cases, an interceptor tank is recommended.

Fitting the waste ejector

If the waste ejector is not fitted to the peeler when it arrives, it can be fitted as follows:

Remove the existing waste outlet. Decide on which side the outlet pipe is to be connected and, if necessary, remove the blanking plate and gasket from the alternative waste outlet position and refit to the other side. Fit the waste ejector and gasket in place of the waste outlet.

The waste ejector has a ½" BSP connection for the water supply on each side of the unit. Select which is to be used for the water connection and utilise the plug for sealing off the other. Connect the hose between the connector at the top of the waste ejector and the water inlet on the peeler lid.

Waste ejector adjustments

When the pipework is complete, set the ejector adjustments to give the correct water flow through the machine. Two adjusting screws and lock nuts are provided for this purpose. The top screw controls flow through the peeler and the lower screw controls the jet to the waste pipe. Adjust the top screw until the flow through the machine is between 2.25 and 7 litres per minute, then tighten the lock nut. Set the lower screw to allow a jet of water into the waste pipe of 2.25 to 3.5 litre per minute, then tighten the lock nut.

ELECTRICITY SUPPLY CONNECTION

Before connecting, examine the rating plate attached to the machine to ensure that the characteristics shown are correct for the supply available. Any changes to the supply or new mains run should be carried out by a qualified electrician and in accordance with the IEE Codes of Practice.

Single phase machines come supplied with a three pin plug. The socket used should be away from any splash area and be accessible with the peeler installed. A dedicated supply (not shared with any other equipment) to the socket is recommended and it should be protected by a C or D class circuit breaker rated at 10A for the SP12 and 16A for the SP25.

Three phase machines should be connected to a 15A isolator providing at least 3mm separation in all poles. The isolator should be fused at 10A.

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

Single phase machines should be installed with a surge protector in between the RCD and the machine, otherwise the inverter inside the machine's control box can cause the RCD to trip when powering on.

The mains lead fitted to the machine is the minimum required for individual connection to the mains supply. Site conditions may vary with additional length of cable run, encapsulation in trunking, etc. being required. Should this apply, a qualified electrician must alter the lead in accordance with the IEE Codes of Practice.



WARNING: This machine must be earthed

The wires in the mains lead for 1-phase supply are coloured:

Green and Yellow	Earth
Brown	Live
Blue	Neutral

The wires in the mains lead for 3-phase supply are coloured:

and the second rest of product of party and control of the second rest				
Green and Yellow	Earth			
Brown	Phase 1			
Black	Phase 2			
Grey	Phase 3			

The 3 phase machines do not have a neutral wire. If the supply has a neutral wire isolate it and only wire the unit to the 3 phases and earth. An equipotential earthing point is located on the back of the cylinder near the cable outlet if equipotential bonding is required.

Should the mains lead become damaged, it must be replaced by an IMC service agent or qualified electrician in order to avoid a hazard.



WARNING: 1-phase machines should not be PAT tested under any circumstances.

They contain an inverter (motor drive) which can be damaged by the test and the test results will be invalid anyway. This advice is in accordance with standard practice within the industry and is due to the inductive/capacitive components used within the inverter. If in doubt, please contact IMC Service Department.

COMMISSIONING

After making the electrical connection, switch on the machine, and check that the direction of the rotating peeler plate is CLOCKWISE when viewed from above.

The rotation direction of single phase units are set at the factory. If it is not rotating in the correct direction contact IMC. To change the rotation direction of three phase units, switch off the machine, isolate the supply and interchange any two phase wires.

OPERATION

- 1 Fit the peeling plate, ensuring that it is properly located on the drive shaft.
- Measure out the potatoes into a container which holds a known measured weight of 12kg or 25kg depending on machine size. Check for stones which could damage the abrasive. Should this happen, the noise will indicate the presence of stones. Switch off immediately and remove them. The top of the liner can also be used as a maximum loading line.
- 3 Set the run time required on the control panel two minutes is normally more than adequate or select manual operation, and press the green start button. Turn on the water supply.
- 4 Ensure that the chute discharge door is closed.
- 5 Load the potatoes into the peeler and place the splash cover onto the top of the cylinder.
- The machine is now operating. Remove the splash cover to check the progress of peeling process.
- 7 The peeler can be stopped at any time by pressing the Stop button, or it will stop on completion of a timed cycle.
- Turn off the water supply, open the chute door and while keeping the door open, press the Start button to evacuate the potatoes, press the Stop button when the peeler is empty.
- 9 Keep the peeled potatoes under water until required for cooking.

ON NO ACCOUNT put a hand or implement into the machine, or wedge the door open while discharging.

SAFETY

All SP-Range peelers are controlled so that if the electricity supply is interrupted the machine will not restart automatically.

All single phase SP-Range controls are fitted with a thermal trip. This ensures that the controls cannot overheat and become damaged. If the thermal trip cuts in, the machine will not run until it has cooled down and the peeler is switched off and on again. The controls will not overheat in normal usage.

Do not put hands into the machine while it is running.

On single phase machines do not unplug the unit with wet hands.

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 Remove the lid and splash cover.
- 3 Lift out the peeling plate.
- 4 Clean the peeling plate and cylinder in a sink, pot wash or by hosing with a spray.
- Rinse the inside of the peeling chamber and base with warm water, using a mild detergent if necessary to remove starch build up.
- Wipe the exterior of the machine with a damp cloth, again using a mild detergent if required.

NOTE

DO NOT USE CLEANING MATERIALS CONTAINING ABRASIVES OR BLEACHES.

DO NOT STEAM CLEAN.

DO NOT CLEAN WITH A WATER JET.

DO'S AND DON'TS

Do Install on a level service.

Do Ensure power supply isolator or socket is accessible with the peeler installed.

Do Clean the machine after each period of use.

Don't PAT test single phase machines, as they have an inverter inside the control box, which

invalidates any earth leakage tests. The inverter may also sustain damage, if these tests are

applied to it.

Don't Sit or stand on top of the peeler.

Don't Place hands inside unit while discharging or peeling.

Don't Use the unit outside.

MATERIAL CONTENT

The SP-Range peelers 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.

MAINTENANCE

Other than regular cleaning, the SP-Range of peelers require no maintenance by the end user. It is recommended that the unit is serviced by an IMC approved engineer at least once a year.

The motor in the single phase units is controlled via an inverter. The following warnings must be observer before working on this unit.



WARNING. Only suitably qualified personnel should service this equipment after becoming familiar with all safety notices, installation, operation and maintenance procedures related to the inverter.

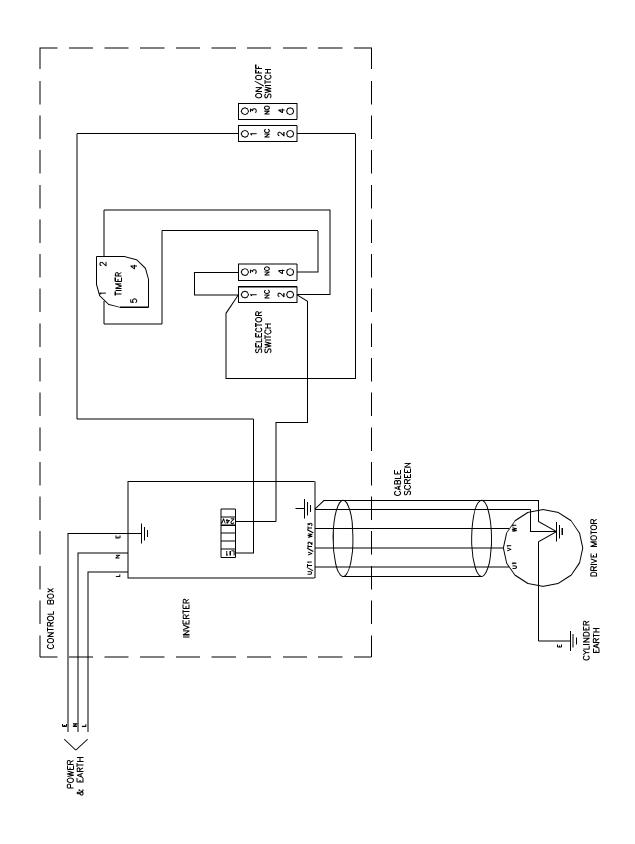


WARNING. Risk of electric shock. The capacitors in the inverter remain charged for 5 minutes after power has been removed. Do not open the control box until 5 minutes after power has been removed.

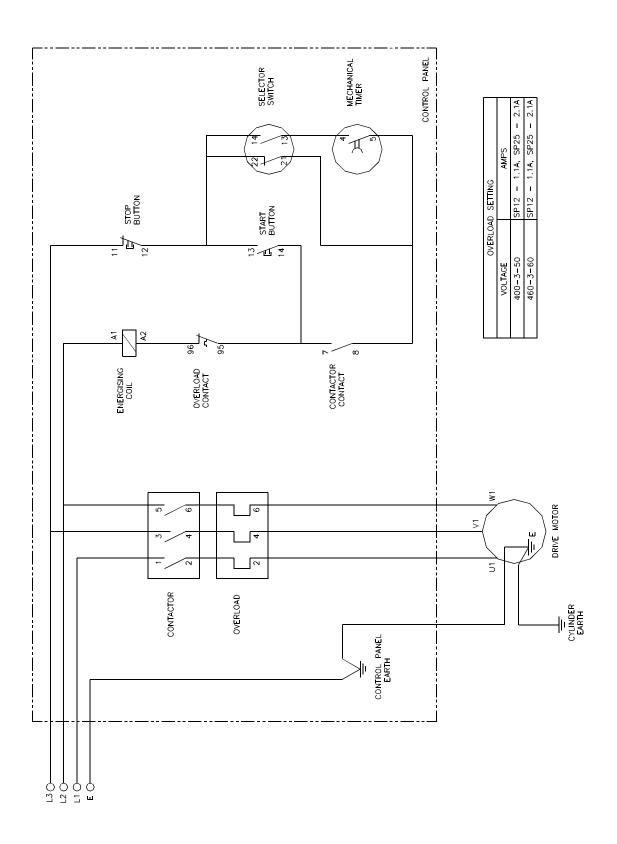


WARNING. Repairs to the inverter may only be carried out by Schneider Service, or by repair centres authorised by Schneider.

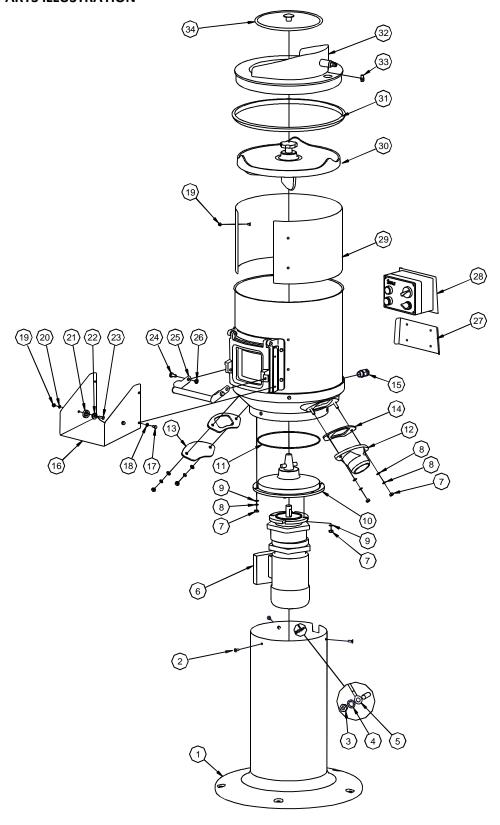
WIRING DIAGRAM 1PH UNITS



WIRING DIAGRAM 3PH UNITS



PARTS ILLUSTRATION



SPARES PART LIST

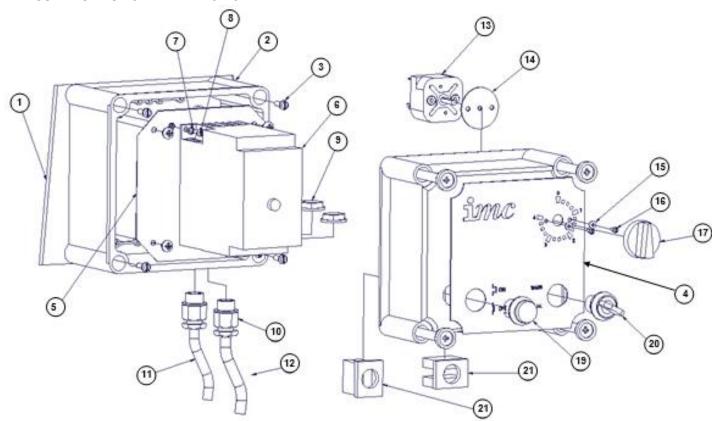
		SP12	SP25		
Item	Part No	Description	Part No	Description	
1	S58/593	SP12 LOW PEDESTAL	S58/590	SP25 LOW PEDESTAL	
	S58/594	SP12 HIGH PEDESTAL	S58/591	SP25 HIGH PEDESTAL	
2	D18/050	SCREW M6X16MM CSK S.S	D18/050	SCREW M6X16MM CSK S.S	
3	D20/038	NUT M5 FULL S.S.	D20/038	NUT M5 FULL S.S.	
4	D25/004	WASHER M5 SHAKEPROOF	D25/004	WASHER M5 SHAKEPROOF	
5	G60/369	EARTH WIRE, MOTOR TO PEDESTAL	G60/369	EARTH WIRE, MOTOR TO PEDESTAL	
6	G40/205	MOTOR GEARBOX 0.37kW	G40/237	MOTOR GEARBOX 0.75kW	
	G60/372	MOTOR CABLE 1PH	G60/372	MOTOR CABLE 1PH	
	G60/373	MOTOR CABLE 3PH	G60/373	MOTOR CABLE 3PH	
	G86/003	FERRITE CLIP BEAD (1PH ONLY)	G86/003	FERRITE CLIP BEAD (1PH ONLY)	
7	D20/014	M8 FULL S.S. NUT	D20/014	M8 FULL S.S. NUT	
8	D25/079	M8 SPRING WASHER SS	D25/079	M8 SPRING WASHER SS	
9	D25/068	M8 PLAIN WASHER SS	D25/068	M8 PLAIN WASHER SS	
10	S58/549	BEARING HOUSING ASSEMBLY	S58/549	BEARING HOUSING ASSEMBLY	
11	A02/070	O-RING 3mm	A02/070	O-RING 3mm	
	C28/023 M1		C28/023 M1		
12	Z2	WASTE OUTLET CASTING, MACHINED	Z2	WASTE OUTLET CASTING, MACHINED	
13	E58/059	COVER PLATE, WASTE OUTLET	E58/059	COVER PLATE, WASTE OUTLET	
14	A11/026	WASTE OUTLET GASKETS	A11/026	WASTE OUTLET GASKETS	
15	G80/029	CABLE GLAND	G80/029	CABLE GLAND	
16	E58/081	CHUTE	E58/081	CHUTE	
17	D19/038	SCREW M6 X 12MM HEX S.S.	D19/038	SCREW M6 X 12MM HEX S.S.	
18	D25/052	PLAIN WASHER M6 ST STEEL	D25/052	PLAIN WASHER M6 ST STEEL	
19	D20/031	M6 DOME NUTS - STAINLESS	D20/031	M6 DOME NUTS - STAINLESS	
20	D25/005	WASHER M6 SHAKEPROOF S.S.	D25/005	WASHER M6 SHAKEPROOF S.S.	
21	M79	DOOR ROLLER	M79	DOOR ROLLER	
22	L21/048	ECCENTRIC	L21/048	ECCENTRIC	
23	D18/051	M6 X 20 CSK. SCREW S.S.	D18/051	M6 X 20 CSK. SCREW S.S.	
24	D21/057	SCREW M8x20 PAN SS	D21/057	SCREW M8x20 PAN SS	
25	S59/253	DOOR HANDLE	S59/253	DOOR HANDLE	
26	A00/058	NYLON SHOULDER WASHER	A00/058	NYLON SHOULDER WASHER	
27	E58/096	WALL BRACKET (1PH)	E58/096	WALL BRACKET (1PH)	
	E58/111	WALL BRACKET (3PH)	E58/111	WALL BRACKET (3PH)	
28	S58/587	SP12 CONTROL BOX ASSY (1PH) (Inc. wall bracket & cables	S58/588	SP25 CONTROL BOX ASSY (1PH) (Inc. wall bracket & cables	
	S58/595	SP12 CONTROL BOX ASSY (3PH) (Inc. wall bracket & cables	S58/596	SP25 CONTROL BOX ASSY (3PH) (Inc. wall bracket & cables	
	G60/370 M2	MAINS CABLE AND PLUG (1PH)	G60/370 M2	MAINS CABLE AND PLUG (1PH)	
	G60/371	3PH MAINS CABLE	G60/371	3PH MAINS CABLE	
29	E58/113 Z	LINER COATED SP12	E59/315 Z	LINER COATED EP25, SP25 & SMP25	

30	S58/545	PEELER PLATE ASSY SP12	S58/546	PEELER PLATE ASSY SP25
31	M58/011 M1	SP12 RIM MOULDING	M58/011 M2	SP25 RIM MOULDING
32	S58/592	SP12 (CAST) LID ASSEMBLY (Inc. spray nozzle)	S58/589	SP25 (CAST) LID ASSEMBLY (Inc. spray nozzle)
33	J04/324	SPRAY NOZZLE - BRASS	J04/324	SPRAY NOZZLE - BRASS
34	S58/541	SPLASH COVER SP12	S58/542	SPLASH COVER SP12

	SP12 ACCESSORIES	SP25 ACCESSORIES	
A29/003	LID RETAINING WIRE	A29/003	LID RETAINING WIRE
S58/568	INTEGRAL FILTER BASKET	S58/568	INTEGRAL FILTER BASKET
S58/569	INTERCEPTOR TANK ASSEMBLY	S58/569	INTERCEPTOR TANK ASSEMBLY
S58/570	WASTE EJECTOR	S58/570	WASTE EJECTOR

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

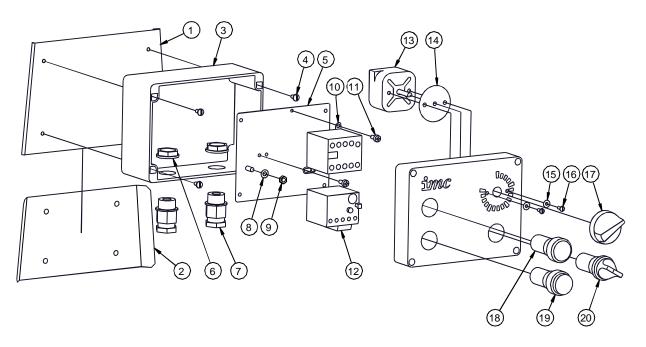
1PH CONTROL BOX SPARE PARTS LIST



	SP12p		SP25	
Item	Part No	Description	Part No	Description
1	E58/096	MOUNTING BRACKET	E58/096	MOUNTING BRACKET
	E58/097	WALL BRACKET (Not shown)	E58/097	WALL BRACKET (Not shown)
2	G76/031 M2	CONTROL BOX	G76/031 M2	CONTROL BOX
3	D21/052	SCREW M6 x 20 PAN SS	D21/052	SCREW M6 x 20 PAN SS
4	A08/641	DECAL	A08/641	DECAL
5	E58/116	CONTROL BOX PLATE	E58/116	CONTROL BOX PLATE
6	G30/431 M1	SCHNEIDER INVERTER 0.75kW PROGRAMMED	G30/431 M2	SCHNEIDER INVERTER 0.75kW PROGRAMMED
7	D25/033	WASHER M4 SHAKEPROOF S.S	D25/033	WASHER M4 SHAKEPROOF S.S
8	D21/038	SCREW M4 X 12MM PAN SS	D21/038	SCREW M4 X 12MM PAN SS
9	A10/224	M20 GLAND LOCKNUT	A10/224	M20 GLAND LOCKNUT
10	G80/029	CABLE GLAND	G80/029	CABLE GLAND
11	G60/372	MOTOR CABLE 1PH	G60/372	MOTOR CABLE 1PH
12	G60/370 M2	MAINS CABLE AND PLUG 1PH	G60/370 M2	MAINS CABLE AND PLUG 1PH
13	G34AL	TIMER	G34AL	TIMER
14	A11/219	GASKET, TIMER	A11/219	GASKET, TIMER
15	D25/066	WASHER M3 SELOC	D25/066	WASHER M3 SELOC
16	D21/031	SCREW M3 X 8MM PAN S.S.	D21/031	SCREW M3 X 8MM PAN S.S.
17	G45/066	TIMER KNOB	G45/066	TIMER KNOB
19	G45/113	BLACK PUSH BUTTON	G45/113	BLACK PUSH BUTTON
20	G45/114	SELECTOR SWITCH	G45/114	SELECTOR SWITCH
21	G45/111	BUTTON CONTACTORS AND HOLDER	G45/111	BUTTON CONTACTORS AND HOLDER

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

3PH CONTROL BOX SPARE PARTS LIST



	SP12		SP25	
Item	Part No	Description	Part No	Description
1	E58/117	CONTROL BOX BRACKET	E58/117	CONTROL BOX BRACKET
2	E58/119	WALL BRACKET	E58/119	WALL BRACKET
3	G76/041 M1	CONTROL BOX (INC. LID)	G76/041 M1	CONTROL BOX (INC. LID)
4	D21/097	SCREW M4 X 8MM PAN S.S.	D21/097	SCREW M4 X 8MM PAN S.S.
5	E58/118	CONTROL BOX PLATE	E58/118	CONTROL BOX PLATE
6	A10/224	CABLE GLAND NUT	A10/224	CABLE GLAND NUT
7	G80/029	CABLE GLAND	G80/029	CABLE GLAND
8	D25/004	WASHER M5 SHAKEPROOF	D25/004	WASHER M5 SHAKEPROOF
9	D20/038	NUT M5 FULL S.S.	D20/038	NUT M5 FULL S.S.
10	G30/316	CONTACTOR 400V	G30/316	CONTACTOR 400V
11	D22/022	SCREW NO.8 X 1/2"	D22/022	SCREW NO.8 X 1/2"
12	G30/318	OVERLOAD 3PH	G30/299	OVERLOAD 3PH
13	G34AL	TIMER	G34AL	TIMER
14	A11/219	GASKET, TIMER	A11/219	GASKET, TIMER
15	D25/066	WASHER M3 SELOC	D25/066	WASHER M3 SELOC
16	D21/031	SCREW M3 X 8MM PAN S.S.	D21/031	SCREW M3 X 8MM PAN S.S.
17	G45/066	TIMER KNOB	G45/066	TIMER KNOB
18	G45/099	PUSH BUTTON GREEN	G45/099	PUSH BUTTON GREEN
19	G45/100	PUSH BUTTON RED	G45/100	PUSH BUTTON RED
20	G45/102	SELECTOR SWITCH	G45/102	SELECTOR SWITCH
	G60/371	3PH MAINS SUPPLY CABLE	G60/371	3PH MAINS SUPPLY CABLE
	G60/373	MOTOR CABLE 3PH	G60/373	MOTOR CABLE 3PH

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

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

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