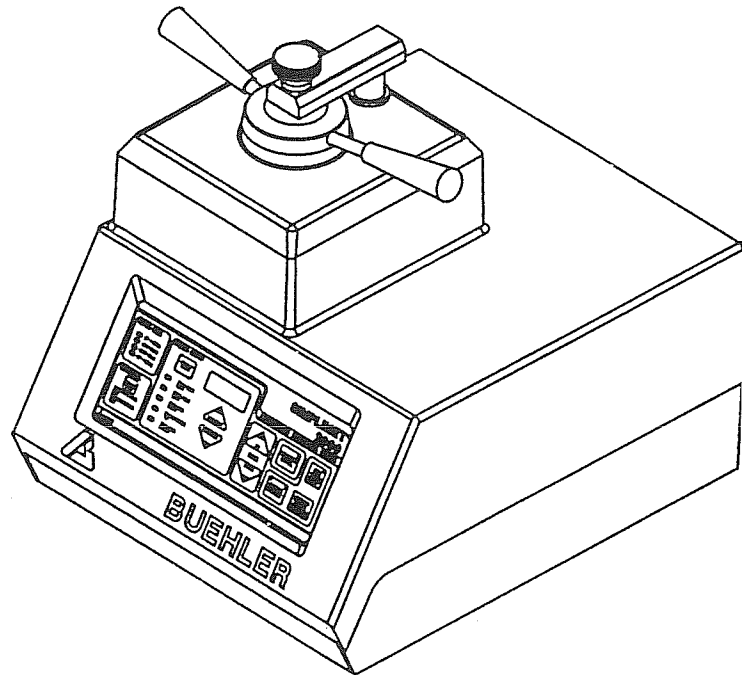


BUEHLER

Operation and Maintenance Instructions

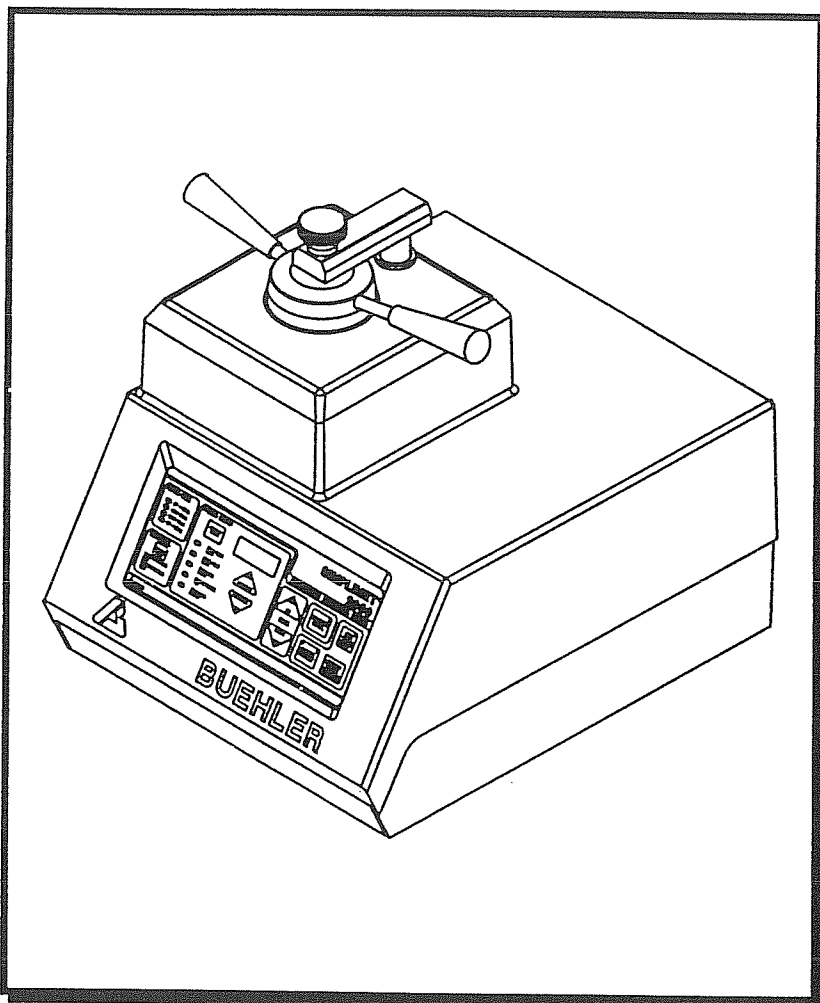




BUEHLER®

ISO 9001
Registered Company

SIMPLIMET® 2000 Mounting Press



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This manual is a custom generated document.
It includes all revisions relative to this specific BUEHLER Item
as of the date shown below

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Tel: (905) 475 4686
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Republic of China

Tel: (886) (2) 325 9555
Fax: (886) (2) 784 0022

Declaration of Conformity

Declaration of Conformity

We **BUEHLER KRAUTKRAMER**

Of University of Warwick Science Park
Coventry CV4 7HS
England

Declare under our sole responsibility that the product.

SIMPLIMET 2000 Mounting Press

To which this declaration relates is in conformity with the following standards

EN 292	Part 1	1991	EN 50081	Part 1	1992
EN 292	Part 2	1991	EN 50082	Part 1	1992
EN 60204	Part 1	1993			

Following the provisions of 89/392/EEC (and amendments) Safety of Machinery Directive and
89/336/EEC (and amendments) EMC Directive.

Signature



Date 16/01/1996

Position:- Engineering Manager

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Operation and Maintenance Instructions

BUEHLER®

SIMPLIMET® 2000 Mounting Press 20-1430

Warranty

This unit is guaranteed against defective material and workmanship for a period of two (2) years from the date of receipt by the customer. Warranty is void if inspection shows evidence of abuse, misuse or unauthorised repair. Warranty covers only replacement of defective materials.

If, for any reason, this unit must be returned to BUEHLER for warranty service, please apply for prior authorisation with shipping instructions, and include the following information: Model Number, Serial Number and Reason for Return.

Environment

The SIMPLIMET® 2000 Mounting Press is designed to operate with electrical, pneumatic and water supplies as specified in the installation section of this manual.

As with all hot mounting presses certain areas may get hot. If hot mounts are ejected from the mould cylinder, it is strongly recommended to wear protective gloves.

Unpacking

Carefully remove the SIMPLIMET® 2000 mounting press from the shipping container. **NOTE:-** SIMPLIMET® 2000's weight is approximately 33 Kg (72 lb) Exercise correct lifting practice when removing the press from the box. To remove the Press from its shipping box, grip all four corners of the plywood base board. (Fig.1.) The Press is bolted to this board. Lift the unit straight up out of the box and support it such that the 3 shipping bolts can be removed from the bottom of the shipping board. (Fig.2) Keep the SIMPLIMET® 2000 upright at all times.

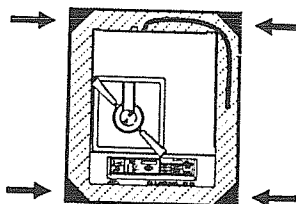


Fig.1

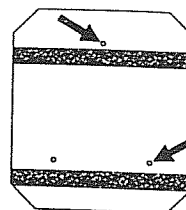


Fig.2

Packing List - (items Shipped Loose In The Box).

<i>Item Number</i>	<i>Part Number</i>	<i>Description</i>	<i>Quantity</i>
0	-	SIMPLIMET® 2000 Press	1
1	2395S039	6mm A / F Tee Handle	1
2	1430S096	Retaining Screws	4
3	1430S098	Screw Driver	1
4	R6182	Powder Scoop	1
5	1430S097	Brush	1
6	1430S015	Insulating Disc	1
7	-	Water Hose Assy Ø 10 (3/8")	1
8	B450328	Air Tube Ø 6	1
9	-	Mains Cord Set	1
10	-	Hose Securing Clip	1
11	-	Top Ram Spindle Assy	1
12	BSS243	SIMPLIMET® 2000 Manual	1

Installation

Locate the Press on a level laboratory bench close to water, air and electrical services.

Safety Note :- Before connecting SIMPLIMET® 2000 to the electrical supply, connect the air and water supplies.

Important :- After installing the mould cylinder the mould cylinder clamp screw **MUST** be tightened firmly. Ensure the mould cylinder is clamped, and cannot be rotated, before making a mount. Check tightness of clamping screw when press is up to temperature - tighten if required. This will ensure correct heat transference.

Note :- To remove a moulding cylinder the unit must be heated up prior to loosening the clamp screw.

The SIMPLIMET® 2000 Mounting Press is supplied with 8 default moulding parameters (4 mould sizes x 2 mounting materials) of 8 minutes heating/curing time. With experimentation these figures can be decreased or increased to suit particular customer applications and variations in mains supply voltages.

Air

SIMPLIMET® 2000 **must** be supplied with filtered dry air, lightly lubricated at a recommended pressure of between 5.5 bar (80psi) and 6.0 bar (90psi).

The SIMPLIMET® 2000 is supplied with a length of 6mm diameter tubing. Push one end into the push-in fitting on the rear panel (Fig.3) and connect the other end to the air supply.

A filter lubricator set can be supplied - BUEHLER Part No 20-1364

WARNING : AVOID EXCESSIVE LUBRICATION

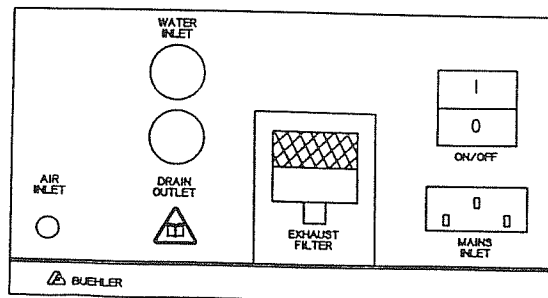


Fig.3

Water

Cooling water flow recommended is a minimum of 2 litres/min (0.5 gallons/min) with a water pressure between 1-2 bar (14-28 PSI).

Water supply different from above will not affect the operation of the press but different cooling times might be needed.

Attach the threaded end of the 10mm (3/8") bore hose to the connection on the rear panel and connect the other end to the water supply.

WARNING: During normal press operation steam is released for a short time from the drain hose at the beginning of the cooling cycle. The drain hose should be configured as follows:-

- ◆ Run the drain hose to drain as shown in Fig.4.
- ◆ Keep the drain hose length as short as possible.
- ◆ Provide the hose with a continuous fall to drain.
- ◆ Locate the open end of the hose to ensure as little movement, as possible.
- ◆ Use the clip provided if necessary.

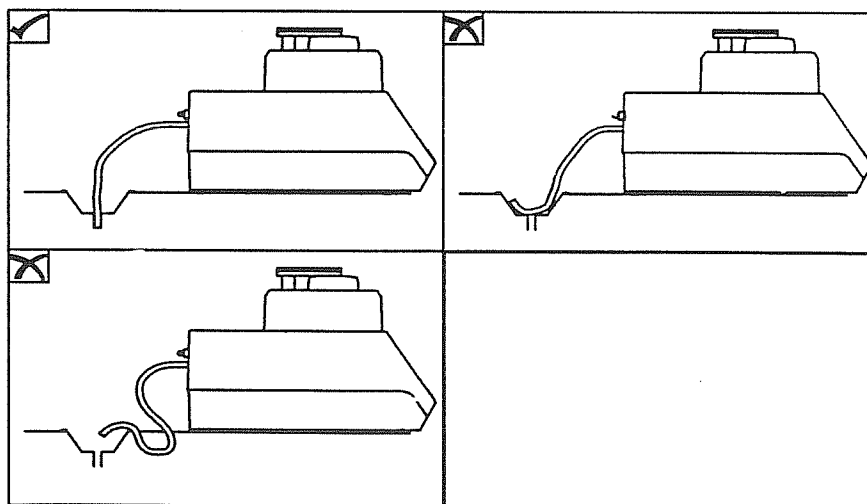


Fig.4.

Electrical

Before connecting the SIMPLIMET® 2000 Mounting Press to the electrical supply, check the specification plate on the rear of the unit to make sure the model is correct for the supply. SIMPLIMET® 2000 Mounting Press is available for operation on 90/132V, 50/60 Hz and 207/253V, 50Hz. Appropriate cord set for country of use is supplied.

Model	Volts
20-1430-220	207/253
20-1430-115	108/132

Mould Assembly

The SIMPLIMET® 2000 mounting press is shipped fully assembled except for the mould assembly.

Due to the various size options available, mould assemblies are supplied as separate order items. Mould assembly numbers may be found at the end of this manual.

CAUTION: Before installing or replacing mould cylinder components, use manual cool function to reduce mould cylinder components to approximately 40°C (hand hot).

WARNING: SIMPLIMET® 2000 must be disconnected from the electrical supply before installation or removal of the moulding cylinder.

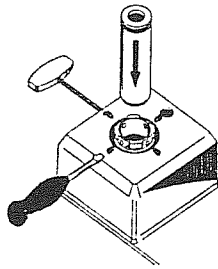


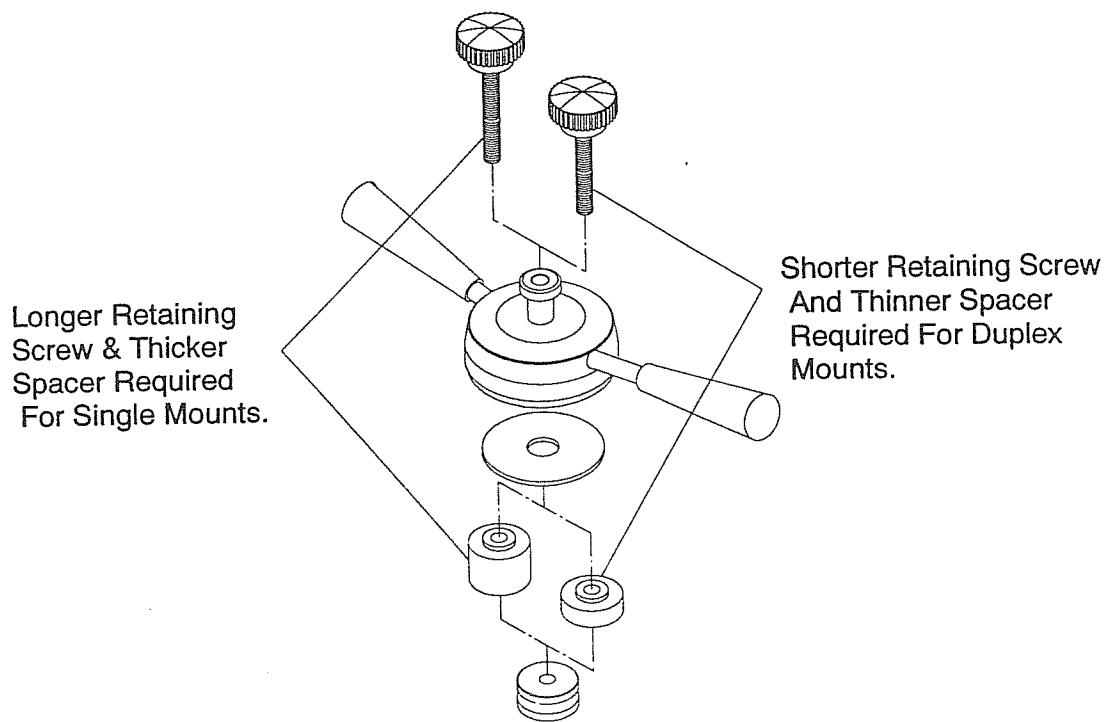
Fig.5

- 1) Using the socket wrench supplied (Item 1) undo the mould cylinder clamp screw by approximately 1 turn anti-clockwise. Insert the mould cylinder until it sits level with the top of the closure (Fig.5)
- 2) Fit the four screws supplied (Item 2) with the screw driver (Item 3) **Caution :-** align the holes in the inner insulation ring with the screws. Tighten until they lock. (Fig.5)
- 3) **Tighten the mould cylinder using the clamp screw until firmly clamped.**
- 4) Install the top moulding ram and insulation parts as shown in (Fig.6.) depending on whether mounting single or duplex mounts.
- 5) Connect the SIMPLIMET® 2000 to the electrical supply, Switch on at the rear mains on/off switch, the front panel on/off switch illuminates the display. The mould cylinder size should now be indicated on the front panel.
- 6) Press and hold ram up, until the bottom ram reaches its full height.
- 7) Fit the bottom moulding ram (Fig.7.).
- 8) Press and hold ram down, until the ram is fully retracted.
- 9) The SIMPLIMET® 2000 is now ready for operation.

Important :

To avoid unexpected extended heating and cooling times The mould cylinder clamping screw should be checked for tightness periodically, especially after installing or changing a mould cylinder.

Mould Assembly Continued



Closure Arm Not Shown For Clarity.

Fig.6.

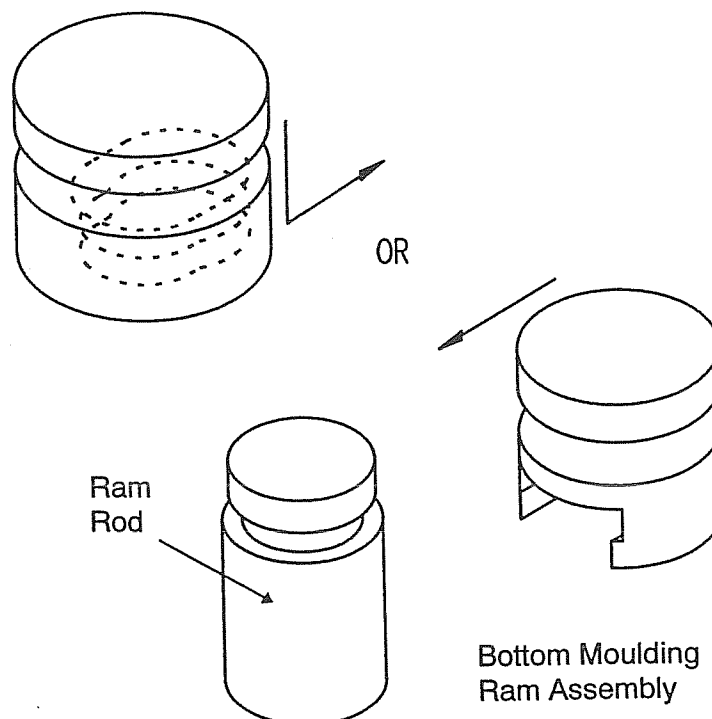


Fig. 7

Operation

General

The SIMPLIMET® 2000 may be used to mount a wide range of specimens into many compression moulding resins e.g. Phenolics, Epomet, Transoptic and other suitable thermosetting and thermoplastic resins, in a single or duplex configuration without changing the moulding cylinder.

Controls

Controls not on the front panel.

The main switch is located at the rear left corner of the unit (fig.3). This switch disconnects mains voltage supply to the SIMPLIMET® 2000 when in the down position.

Front panel controls.

The SIMPLIMET® 2000 utilises a microprocessor control system. For successful specimen mounting, the controls need to be understood and used correctly.

Note: Refer to the front panel (Fig.8.) for the location of the following controls:-

Fig.8 (Europe)

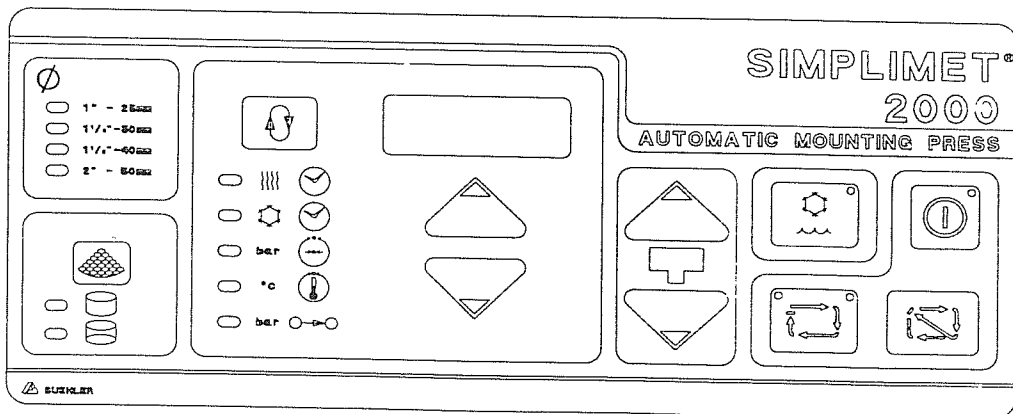
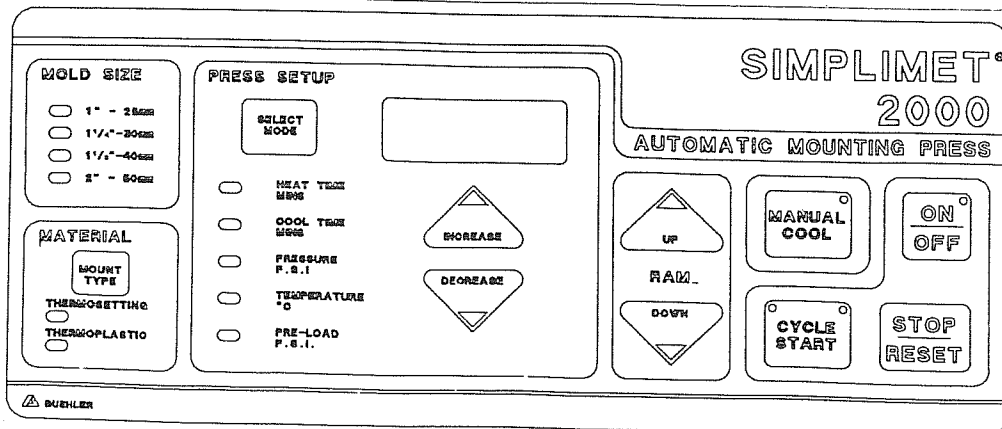


Fig.8 (USA)



ON / OFF



This turns the display on the front panel **ON** or **OFF** when the power switch at the rear of the unit is **ON**.

Note:- Mains power within the unit is only **OFF** when the power switch is in the down position.

Mould Size

MOLD SIZE



Automatically indicates the mould cylinder size that has been fitted to the SIMPLIMET® 2000.

Material



Selects between thermoplastic and thermosetting moulding parameters.



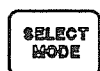
Thermosetting moulding material



Thermoplastic moulding material

Press Set Up

Select Mode



allows the user to view and adjust the five parameters:-

- ◆ Heat Time,
- ◆ Cool Time,
- ◆ Pressure (PSI or BAR)
- ◆ Temperature
- ◆ Pre-Load.

Continuously pressing the select mode control scrolls through the various settings.

Heating time

HEAT TIME
MINS



variable between 1 and 30 minutes.

Cooling time

COOL TIME
MINS



variable between 0 and 30 minutes

Moulding pressure

PRESSURE
PSI

bar



Moulding pressure up to 310 bar (4500 PSI) depending on mould size.

Mould curing temperature

TEMPERATURE
°C

°C

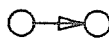


Mould curing temperature, variable between 50 and 180°C.

Pre-load pressure

PRELOAD
PSI

bar



Pre-load pressure variable between 3 and 30 bar (440PSI) dependant on mould size.

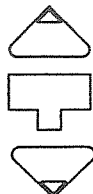
Increases or Decreases

INCREASE
DECREASE



Increases or decreases the above displayed parameters.

Ram



Raises or lowers the bottom moulding ram when pressed. If ram down is pressed for more than 2 seconds, the ram will lower to the bottom of the mould cylinder. Pressing any other button will stop the ram.

Note : Will not operate during a moulding cycle.

Manual cooling



Manual cooling turns the water ON or OFF when not in a moulding cycle.

Cycle Start



Starts an automatic moulding cycle.



Indicates an automatic cycle has started.



Indicates an automatic cycle has finished.

Stop / Reset



Stops an automatic moulding cycle.

This control will reset factory set moulding parameters when pressed and held for more than 5 seconds.

Mould Cylinder Pre-Warming

When both the mains switch and the front panel are **ON** and the closure is open, the mould cylinder is automatically pre-warmed and maintained to between 25 - 40°C. To ensure consistent moulding results this feature is switched off during manual cooling.

Mould Closure Status Sensor

This prevents an automatic cycle from being activated when the closure is not in position.

Soft Start

Applies low pressure and heating to initially compress the resin around the sample. Full moulding pressure is applied after 30 seconds. Not active if pre-load is selected.

Preload

Applies a set pre-load and heating to initially compress the resin around fragile samples. Full moulding pressure is applied when the set curing temperature is reached. This feature can be used with either thermosetting or thermoplastic material selection.

Controlled Cooling

Controls the cooling rate over the set cooling time to produce even cooling rate. The water solenoid valve may be heard to turn on and off to maintain the even cooling rate. This only operates when thermoplastic material is selected.

Rapid Cooling

The mould is cooled as fast as possible and is time and water temperature dependant. This only operates when thermosetting material is selected.

Display Window

The display will show the time remaining in either the heating or cooling section of the automatic cycle. Heating or cooling will be indicated by the illumination of the heat or cool time LED's.

Making a Mould

- 1) Select the mounting material.
- 2) Select pre-load if required. (Pre-load can be selected for thermosetting and thermoplastic moulding materials.
- 3) Set the desired time, pressure and temperature setting.
- 4) Press ram up and raise the bottom ram to the top of the mould cylinder.
- 5) Place sample centrally on the bottom ram.
- 6) Press ram down until the ram has been lowered enough to add mounting material.
- 7) Add moulding material and press and hold ram down until the ram is fully retracted
- 8) Rotate the closure arm into position and push down. Rotate the closure clockwise 45° to the stop.
- 9) Press cycle start. The press will now operate in a fully automatic mode until the curing cycle is complete, indicated by an audible signal.
- 10) When the cycle is completed rotate the closure 45° anti-clockwise to the stop.
- 11) Press ram up. Ram will rise up lifting the closure and mount.
- 12) Rotate the closure arm and remove the cured mount.
- 13) The SIMPLIMET® 2000 is now ready for the next mount.

Little routine maintenance is required on the SIMPLIMET® 2000 press.

Regular maintenance is confined to "Good House Keeping" practices (as detailed below) which will go along way to preventing major problems occurring.

CAUTION:- Before carrying out routine maintenance ensure the press is cool and isolated from all supplies.

1. Prior to making a mould remove any flashing that is left on the moulding rams.
2. Regularly brush away any loose moulding powder or other deposits from around the mould area.
3. Monthly, dependant on use, remove the bottom ram & cylinder and clean around the cylinder area with a vacuum cleaner.
4. Periodically check the four cylinder retaining screws for tightness And also check that they are not pushing the cylinder out of vertical alignment.
5. Periodically check the thermo jacket clamp screw for tightness but **do not over tighten**.
6. Occasionally check the exhaust filter bowl at the rear of the press. this is designed to catch excess oil in the lubricated air from being released into the atmosphere. If oil is found in the bowl, unscrew the black knob & drain in to a tray. Reduce the amount of lubrication oil in the air supply to the SIMPLIMET® 2000.
7. Do not attempt to disassemble or repair the SIMPLIMET® 2000 press. Serious injury could result due to service by unqualified personnel. For service contact the nearest BUEHLER dealer.
8. Periodically spray the working surfaces of the mould assembly with Mould Release, to maintain their smooth operation. The rams and cylinder should also be periodically checked for damage and any hard resin flash removed with a soft scraper or by prolonged soak in a stripping solvent.
9. Any burred edges which could prevent the ram(s) fitting into the cylinder or cause tightness may be removed by carefully filing the edge with a fine file or abrasive paper.

Trouble Shooting.

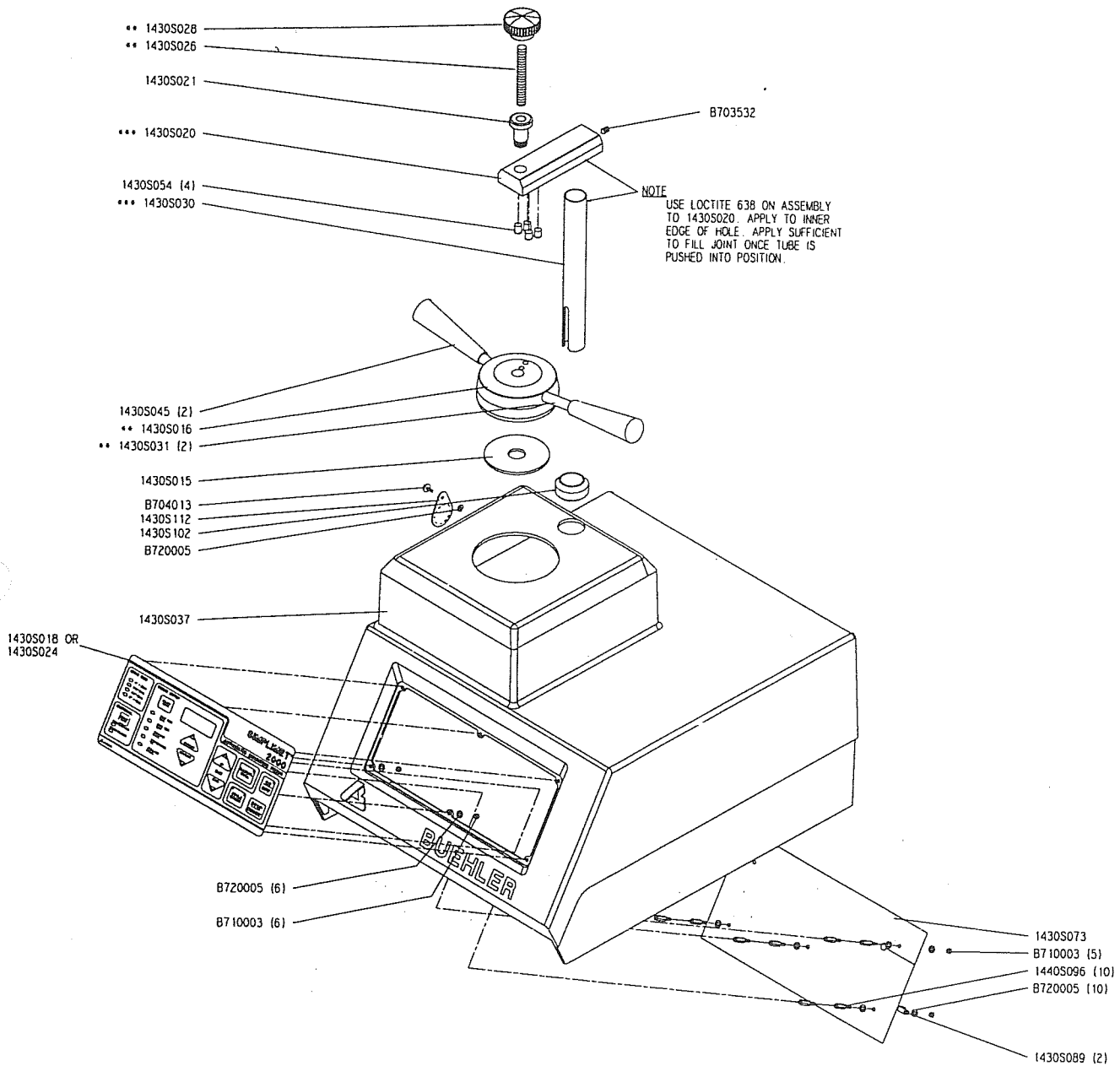
Problem	Probable Cause	Suggested Remedy
Heating and / or Cooling Cycle Time Extended	Mould Cylinder Clamp Screw Has Not Been Tightened	Tighten Mould Cylinder Clamp Screw (See Page 11 In This Manual)
No Display	No Power to Unit. Not Switched On	Connect Power to Unit. Switch On At Rear and on Facia
Display Shows All Dashes	No Mould Cylinder Fitted	Fit a Mould Cylinder
Mould Cylinder Will Not Fit	Heater / Cooler Unit Not Sufficiently Unclamped	Unclamp Heater / Cooler Screw
Ram Will Not Move Up or Down	No Air	Connect to 80 PSI Air
Repeated Clicking Noise During Cycle.	Insufficient Air For Mould Size.	Increase Air Pressure to 80 PSI
Continual Air Noise	Mains Air Pressure Above 95 PSI	Reduce Mains Air Pressure to 80 PSI
Ram Sticks When going Down	Build up of Moulding Material Flash Around Bottom Ram.	Eject Ram And Clean Flash Off The Bottom Ram.
Unable to close mould Closure.	Build Up of Moulding Material Flash Around Top Ram	Clean Flash From Around Ram and Top of Cylinder.
Hot Mould After Full Cycle.	No Cooling Water. 0 (Zero) Mins Cooling Time Entered.	Connect SIMPLIMET® 2000 to a Cooling Water Supply. Change Cooling Time To Suit. (3 Mins, Cooling Will Produce a Thermosetting mould At Approx. 40°C)
Ram sticks when going down on 2" or 50mm mould sizes	Heater/Cooler unit over clamped	Loosen mould cylinder clamp screw- BUT ensure that the mould cylinder WILL NOT ROTATE.

Trouble Shooting Continued.

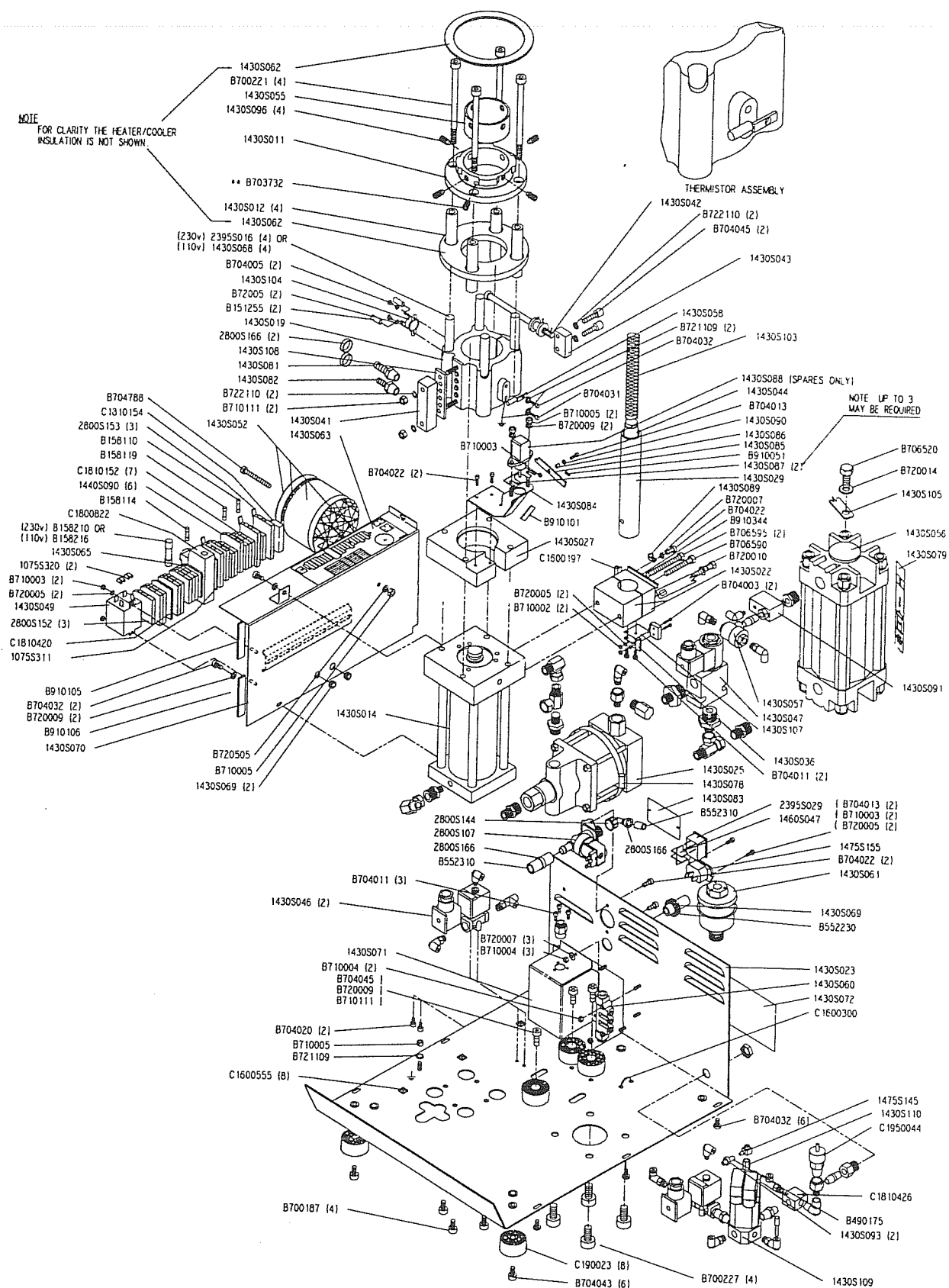
Problems associated with thermosetting resins:- Phenolic, DiallylPhthalate, Epomet & Conductomet.

Problem Mould Appears Grainy & Unfused.	Probable Cause Curing Temperature Too Low. Heat Time Too Short. Insufficient Moulding Pressure.	Suggested Remedy Increase Cure Temperature. Increase Heat Time. Increase moulding Pressure.
Bulging or Soft Mount.	Insufficient Cure.	Increase Heat Time. Increase Moulding Pressure.
Radial Splits or Cracks.	Sample Section Too Large. Sample Corners Too Sharp	Increase Mould Size. Decrease Sample Size. Round Sample Edges.
Circumferential Cracks.	Absorbed Moisture.	Store Resin In Dry Area. Keep Resin Containers Closed. Dry Resin At Low Temperature 100 - 120 °F.
Edge Shrinkage	Dirty Sample Surfaces. Wrong Resin Choice	Clean & Dry Specimens Thoroughly. Use Low Shrinkage Resin.

Exploded View of SIMPLIMET® 2000

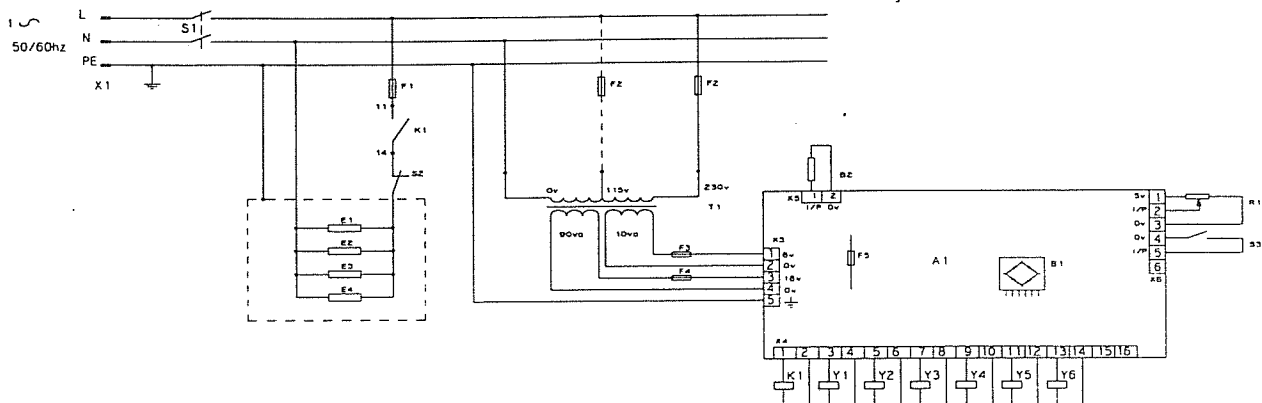


Exploded view of SIMPLIMET® 2000



SIMPLIMET® 2000 Electrical and Pneumatic / Hydraulic Diagrams

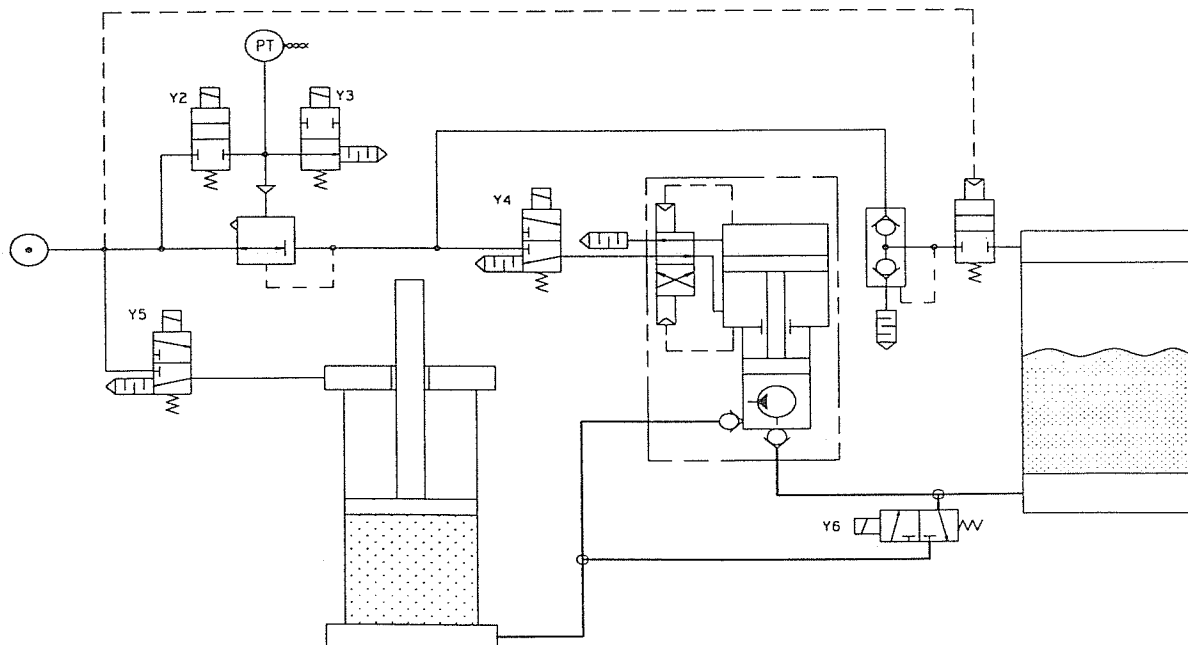
Electrical Connection diagram Fig.9



CIRCUIT LOGIC TABLE							
CCT REF	RAM UP	RAM DOWN	PRE-LOAD	SOFT START	MAIN PRESS	COOL CYCLE	
K1	---	---	---	---	---	---	
Y1	---	---	---	---	---	---	
Y2	I/O	---	I/O	I/O	I/O	I/O	
Y3	I	---	---	---	---	---	
Y4	I	---	---	---	---	---	
Y5	---	---	---	---	---	---	
Y6	---	---	---	---	---	---	

FUSE RATINGS			
FUSE	110V/100V	230V	TYPE
F1	16A/gg	10A/gg	30x10mm IEC Z5P
F2	2A(F)	2A(F)	20x5mm IEC 127
F3	1A(F)	1A(F)	20x5mm IEC 127
F4	3A(F)	3A(F)	20x5mm IEC 127
F5(PCB)	3A(F)	3A(F)	20x5mm IEC 127

Pneumatic / Hydraulic Diagram Fig.10



CIRCUIT LOGIC TABLE						
DESCRIPTION	CCT REF	RAM UP	RAM DOWN	PRE-LOAD	SOFT START	MAIN PRESS
VALVE, REGULATOR INLET	Y2	I/O	---	I/O	I/O	I/O
VALVE, REGULATOR EXHAUST	Y3	I	---	---	---	---
VALVE, MAXIMATOR ON/OFF	Y4	I	---	---	---	---
VALVE, HYDRAULIC UP/DOWN	Y5	---	---	---	---	---
VALVE, HYDRAULIC UP/DOWN	Y6	---	---	---	---	---

Parts Listing for SIMPLIMET® 2000

Part Number	Description	Quantity
B151234	Tube Heat Shrink (Not Illustrated)	1
B151255	Tube Heat Shrink PTFE (Not Illustrated)	2
B158110*	Fuse,20x5 1.0 AF	1
B158114*	Fuse,20x5 2.0 AF	1
B158119*	Fuse,20x5 3.15 AF	1
B158210*	Fuse,38x10.3 10A GG. For 220V Press	1
B158216*	Fuse,38x10.3 16A GG. For 115V Press	1
B450328	Tube 6mm O/D Nylon (Not Illustrated)	1
B451120	Tube 8mm O/D (Not Illustrated)	1
B490175	Tube 6mm O/D	1
B493084	Tube 4mm Twin	1
B552230	Hose 5/16" I/D	1
B552310	Hose 3/8" I/D	1
B700187	Screw,Skt Hd Cap M6x12mm	4
B700221	Screw,Skt Hd Cap M8x130mm	4
B700227	Screw,Skt Hd Cap M10x20mm	4
B703532	Screw,Skt Set Cone M6x8mm	1
B703732	Screw,Skt Set Flat Ss M6x8mm	1
B704003	Screw,Rec Pan Hd Ss M2x12mm	2
B704005	Screw,Rec Pan Hd Ss M3x6mm	2
B704013	Screw,Rec Pan Hd Ss M3x12mm	6
B704020	Screw,Pan Hd M4x6mm	2
B704031	Screw,Rec Pan Hd Ss M5x8mm	1
B704032	Screw,Rec Pan Hd Ss M5x10mm	9
B704043	Screw,Rec Pan Hd Ss M6x12mm	6
B704045	Screw, Rec Pan Hd Ss M6x20mm	3
B704788	Screw, Slot Pan Hd M5x60mm	1
B706520	Screw, Hex Hd Ss M10x20mm	1
B706590	Screw, Hex Hd Ss M6x50mm	1
B706595	Screw, Hex Hd Ss M6x70mm	2
B706606	Screw, Hex Hd Ss M8x30mm	3
B710002	Nut Hex Nyloc M2	2
B710003	Nut Hex Nyloc M3	1
B710004	Nut Hex Nyloc M4	6
B710005	Nut Hex Nyloc M5	3
B710006	Nut Hex Nyloc M6	1
B710111	Nut, Full Hex Ss M6	3
B720005	Washer, Plain A Ss M3	21
B720007	Washer, plain A Ss M4	4
B720009	Washer, Plain A Ss M5	4
B720010	Washer, Plain A Ss M6	1
B720505	Washer, Plain C Ss M5	1
B721109	Washer, S/C Spring Ss M5	3
B722110	Washer, shake proof M6	4
B910105	Seal Strip 0.01M Long	1
B910106	Seal Strip 0.065M Long	1
B910344	Seal Strip 0.065M Long	1
C1600300	Cable Tie (Not Illustrated)	15
C1600301	Cable Tie (Not Illustrated)	4
C1600555	Cable Tie Base	8
C1800822	Fuse Carrier	1

Part Number	Description	Quantity
C1810152	Terminal, 2-Way	7
C1810154	End Stop Rail Mtg	2
C1810194	Label, Warning	1
C1810420	End Cover (3)	1
C1810426	Adapter Cross, 1/8 Bsp	1
C190023	Feet	8
C1950044	Valve, Pressure Relief	1
1075S311	Fuse End Cover	1
1075S320	Buss Bar, 2-Way	2
1430S011	Ring, Bayonet	1
1430S012	Spacer Post, Bayonet Ring	4
1430S014	Cylinder, Hydraulic	1
1430S015	Spacer, Heat Resistant	1
1430S016	Cap, Bayonet	1
1430S018	Pcb, Fascia, For 220V Press	1
1430S019	Thermojacket	1
1430S020	Arm, Closure	1
1430S021	Retainer Cap	1
1430S022	Support Post	1
1430S023	Plate, Base	1
1430S024	Pcb, Fascia, For 115V Press	1
1430S025	Intensifier, Hydraulic	1
1430S026	Spindle, Top Ram	1
1430S027	Spacer, Mica	1
1430S028	Knob	1
1430S029	Retainer, Spring	1
1430S030	Shaft, Arm	1
1430S031	Shaft, Handle	2
1430S036	Bracket, Limit Switch	1
1430S037	Housing,	1
1430S041	Manifold	1
1430S042	Screw, Clamp	1
1430S043	Block, Clamp	1
1430S044	Rod, Spring	1
1430S045	Handle, Bayonet	2
1430S046	Valve, Solenoid	2
1430S047	Valve, Hydraulic	1
1430S049	Relay	1
1430S051	Wiring Kit (Not Illustrated)	1
1430S052*	Toroid	1
1430S053	Markers, Printed (Not Illustrated)	1
1430S054	Plunger, Spring	4
1430S055	Ring, Insulator	1
1430S056	Reservoir, Oil	1
1430S057	Quick, Exhaust	1
1430S058	Thermistor	1
1430S060	Manifold, Exhaust	1
1430S061	Filter, Exhaust	1
1430S062	Insulation, Heater Cooler (Not Completely Illustrated)	1
1430S063	Label, Internal	1
1430S065	End Cap	1
1430S066	Ferrule 0.75mm (Not Identified on Drawing)	4
1430S067	Ferrule 2.50mm (Not Identified on Drawing)	8
1430S068	Heater Cartridge 100 - 120V, For -115 Press	4

Part Number	Description	Quantity
1430S069	Grommet, Open	3
1430S070	Plate, Electric	1
1430S071	Cover, Exhaust	1
1430S072	Label, External	1
1430S073	Cover, Pcb	1
1430S074	Fittings Kit, Pneumatic (Not Identified on Drawing)	1
1430S075	Fittings Kit, Hydraulic (Not Identified on Drawing)	1
1430S078	Clip, Jubilee	1
1430S079	Label, Oil Level	1
1430S081	Fitting 1/4BSPx10mm	1
1430S082	Fitting 1/4BSPx8mm	1
1430S083	Label, Rating	1
1430S084	Bracket, Mould Sensing	1
1430S085	Lever, Mould Sensing	1
1430S086	Bush, Lever	1
1430S087	Shim, Mould Sensing	2
1430S089	P Clip	2
1430S090	Washer, Nylon	1
1430S091	Valve, Air Pilot	1
1430S092	Ferrule 1.0mm (Not Identified on Drawing)	3
1430S093	Clip, Hose Plastic	2
1430S096	Screw Retaining	4
1430S102	Guide	1
1430S103	Spring, Arm Closure	1
1430S104	Thermostat	1
1430S105	Strap Retaining	1
1430S107	Edge Protector	1
1430S108	Gasket Cooling Manifold	1
1430S109	Regulator Assembly	1
1430S110	Fitting Extension	1
1430S111	Plate Mounting	1
1430S112	Plate Cover	1
1440S090	Terminal, 4mm	6
1440S096	Spacer, M3x12mm	10
1460S047	Terminal Barrier	1
1475S145	Banjo Fitting 1/8" Tube x 10/32	1
1475S155	IEC Inlet Socket	1
2395S016*	Heater Cartridge 230V, For 220V Press	4
2395S029	Switch, Power	1
2395S037	Clip, Hose Retaining	1
2359S039	Key, 6mm A/F Hex. Tee handle	1
2800S107	Valve, Water	1
2800S144	Hose Tail & Washer	1
2800S152	Terminal, Earth	3
2800S153	Fuse Holder	3
2800S166	'O' Clip Dia 15 to 17mm	4
2801S020	Plug	1
Note:- All Items Marked * Are Preferred Spares.		
1430S097	Brush	1
R6182	Powder Scoop	1
1430S088	Sensor / Limit Switch Kit - Spares Only	1
1430S098	Screw Driver Flat Blade	1

Accessories and Supplies.

Standard Accessories

1. 6mm A / F Tee Handle	Part Number :-	2395S039
2. M8 Retaining Screws	Part Number :-	1430S096
3. Screw Driver Flat Blade	Part Number :-	1430S098
4. Brush	Part Number :-	1430S097
5. Powder Scoop	Part Number :-	R6182
6. Instruction Manual	Part Number :-	BSS 243

Mould Assemblies

Part Number	Description
No. 20-2401	Mould assembly, with duplex spacer 1" Diameter
No. 20-2402	Mould assembly, with duplex spacer 1 1/4" Diameter
No. 20-2403	Mould assembly, with duplex spacer 1 1/2" Diameter
No. 20-2404	Mould assembly, with duplex spacer 2" Diameter
No. 20-2405	Mould assembly, with duplex spacer 25mm Diameter
No. 20-2406	Mould assembly, with duplex spacer 30mm Diameter
No. 20-2407	Mould assembly, with duplex spacer 40mm Diameter
No. 20-2408	Mould assembly, with duplex spacer 50mm Diameter

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