

# Formech

forming to perfection



300XQ



Installation, Operating  
and Service Manual



# User Manual

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# Safety

Thank you for choosing Formech.

Please read and follow the below safety instructions before attempting to install or operate your machine.



- ▶ Only use the machine for vacuum forming plastic. It is not intended for any other purpose.
- ▶ Read and understand all of this user manual.
- ▶ This is a 'single person operating' machine.
- ▶ Do not operate the machine until you have been trained and are fully conversant with it.
- ▶ Users of this machine should complete regular competence tests.
- ▶ Check your supply voltage and frequency. Make sure it is compatible with your machine. Your machine's electrical specification is on the plate on the Left hand side.
- ▶ You must ensure that the machine is properly earthed and fused.
- ▶ *If your machine is not equipped with a moulded mains connector then note that:*
  - The **earth wire** is GREEN with a YELLOW stripe. 
  - The **live wire** is BROWN 
  - The **neutral wire** is BLUE 
- ▶ Only suitably qualified personnel should make electrical connections
- ▶ Turn off the machine and disconnect the power supply when the machine is not in use.
- ▶ The heater and pump on this model are not intended to be left running indefinitely.
- ▶ This machine is fitted with a dry running vacuum pump. Do not lubricate. Do not allow any liquid to enter the vacuum system. Ensure that moulds are properly sealed to prevent ingress of dust into the vacuum circuit. Severe damage may be caused if the above is not observed.
- ▶ Note the safety warning labels situated on the front and rear panels. Never remove any warning labels from the machine.
- ▶ Never remove any panels unless the electrical supply has been isolated.
- ▶ Ensure that the area surrounding the machine is clean and frequently cleared of finished product and any scrap.
- ▶ Daily repetitive use of this or any other machine may lead to a) fatigue and loss of concentration b) possible strains. Operators should be trained in the use of correct lifting techniques in order to minimise these effects.

# Safety

## Hazards specific to this machine.



It is vital that any person using this machine and the person(s) responsible for the health & safety is made fully aware of the potential hazards that could arise from the use and misuse.



### 1. Electric shock.

This machine uses Voltages up to 240Vac.

NEVER ATTEMPT ANY REPAIR UNLESS THE ELECTRICAL SUPPLY DISCONNECTED. ONLY SWITCH ON WHEN ALL COVERS HAVE BEEN REPLACED.

ONLY A QUALIFIED ELECTRICAL TECHNICIAN MAY WORK ON ANY PARTS CARRYING MAINS VOLTAGE AND SHOULD BE RESPONSIBLE FOR ENSURING THAT THE MACHINE IS IN A SAFE CONDITION BEFORE ALLOWING SERVICES TO BE RESTORED.



### 2. Burning.

Parts of this machine reach temperatures in excess of 300°C. NOTE THE 'HOT SURFACES' SAFETY LABELLING ON THE HEATER & HEATER GUARD.

SPECIAL PRECAUTIONS MUST BE TAKEN TO ENSURE THAT ONLY THE MACHINE OPERATOR IS IN THE OPERATING AREA DURING USE.

USE PERSONAL PROTECTIVE EQUIPMENT SUCH AS GLOVES WHEN TESTING THE HEATED PLASTIC, HANDLING HOT VACUUM FORMED PARTS, MANUALLY ASSISTING THE FORMING PROCESS AND TOUCHING HOT SURFACES.

INFRARED RADIATION IS EMITTED BY THE QUARTZ HEATERS, ENSURE THAT ANY EXPOSURE TO THIS TYPE OF RADIATION IS SHORT OR COMPLETELY AVOIDED.

WAIT UNTIL THE MACHINE HAS COOLED DOWN BEFORE SERVICE WORK COMMENCES.



### 3. Toxic Fume Inhalation.

When plastic sheet is heated fumes will be given off.

ENSURE THAT THE MACHINE IS POSITIONED IN AN ADEQUATELY VENTILATED PLACE. IT IS THE RESPONSIBILITY OF THE OWNER OR DESIGNATED RESPONSIBLE PERSON FOR HEALTH AND SAFETY TO ASSESS THE RISKS ASSOCIATED WITH ANY DANGEROUS FUMES GIVEN OFF AND TO DETERMINE ANY NECESSARY PRECAUTIONS REQUIRED SUCH AS FUME EXTRACTION PRIOR TO USE.



### 4. Injury from Trapping.

CARE IS REQUIRED WHEN OPERATING THE CLAMPING FRAME TO ENSURE THAT FINGERS OR HANDS ARE NOT TRAPPED.

KEEP HANDS CLEAR OF THE HEATER RAILS WHEN PULLING THE HEATER FORWARDS.



### 5. Fire.

RISK OF FIRE AS A RESULT OF HEAT AND PLASTICS PRESENTS AN EMERGENCY SITUATION. ENSURE FIRE SAFETY TRAINING IS PERFORMED & CONTROLLED.

IT IS ESSENTIAL TO HAVE FIREFIGHTING EQUIPMENT AVAILABLE AT OR NEAR THE MACHINE. USE DRY POWDER (BLUE) OR CARBON DIOXIDE (BLACK) FIRE EXTINGUISHERS.



# Safety

## 6. Prohibited Uses

DO NOT USE THIS MACHINE FOR ANY PURPOSES OTHER THAN THE VACUUM FORMING AND BLOW MOULDING OF PLASTICS SHEET.

DO NOT USE THE HEATER TO APPLY HEAT TO ANY MATERIAL OTHER THAN PLASTIC SHEET AS PART OF THE VACUUM FORMING PROCESS SUCH AS: FOOD PRODUCTS, ALL TYPES OF PARTICLES, POWDER, DUST, ALL TYPES OF LIQUID, WOOD, PAPER, METALS AND ANY FORMS OF COMBUSTABLE MATERIALS.

DO NOT USE THE TABLE MECHANISM TO CLAMP, COMPRESS, FOLD OR APPLY FORCE TO ANY ITEM UNDER ANY CIRCUMSTANCES.

DO NOT USE THE CLAMPING FRAME TO CLAMP COMPRESS, FOLD OR APPLY FORCE TO ANY ITEM OTHER THAN THE CLAMPING OF SHEET PLASTICS AS PART OF THE VACUUM FORMING PROCESS.

DO NOT USE THE TOP OF THE HEATER OR TOP OF THE HEATER GUARD TO STACK PLASTICS OR OTHER MATERIALS.

DO NOT USE THE MACHINE TO STACK OR LEAN ITEMS AGAINST THE SIDES.

DO NOT USE ANY OTHER PART OF THE HEATER TO MOVE THE HEATER FORWARDS AND BACKWARDS OTHER THAN THE HEATER HANDLE.

DO NOT USE OR MODIFY THE ELECTRICAL POWER IN THE INTERNAL WIRING TO SUPPLY ANY OTHER DEVICE OR TO APPLY MODIFICATIONS TO THE MACHINE OR ITS FUNCTIONS.

THIS IS NOT AN EXHAUSTIVE LIST OF THE POSSIBLE MISSUSE OF THIS MACHINERY.

THE USE OF THIS MACHINE MUST BE ASSESSED, MONITORED AND CONTROLLED BY THE PERSON RESPONSIBLE FOR THE HEALTH AND SAFETY IN THE ORGANISATION THAT OWNS AND OPERATES THIS MACHINE.

## Transportation / Positioning

The 300XQ will be supplied strapped to a Pallet or in a crate. The machine may unpacked and placed on a bench, table or 300XQ trolley. Ensure that the structure, size and load bearing capacity of the bench or table is sufficient for the machine weight. A minimum of 2 persons are required to lift the machine. In the case of the 300XQ trolley, ensure that the 2 machine retaining screws are fitted to the under side of the trolley / Machine.

## Noise emissions

Noise emissions on the Formech 300XQ are less than 70dB(A).

## Machine storage

The Formech 300XQ must be stored in a dry environment.

## Introduction and initial assembly

The Formech 300XQ is a highly versatile, manually operated Vacuum Forming Machine that will produce high definition mouldings in up to 6mm thick material. It is intended for use only for the Vacuum forming of plastics components and for the blow moulding of heated plastics.

Your Formech machine is supplied with



1x Electrical cable



1x Installation/Operations/Repair  
Manual



1x EC Certificate of conformity



1x Table lever <sup>(a)</sup>



1x Table mesh

<sup>(a)</sup> The 300XQ machine is fully assembled except for the table lever.

**ENSURE THAT THE TABLE LEVER IS TIGHTLY SCREWED INTO THE CRANK MECHANISM ON THE RIGHT HANDSIDE OF THE MACHINE. IF OPERATED WITH THE LEVER LOOSENED YOU MAY DAMAGE THE CRANK OR THE HANDLE.**



## Optional extras

The following items can be purchased for your 300XQ vacuum forming machine



1. Machine trolley with castors



2. Reducing windows



3. Blow mould window



4. Service kit

1. The Formech machine trolley allows you to easily move your 300XQ machine. The 2 locking castors assure the trolley remains in position all the time. Underneath there is also space to store plastic material and moulds.

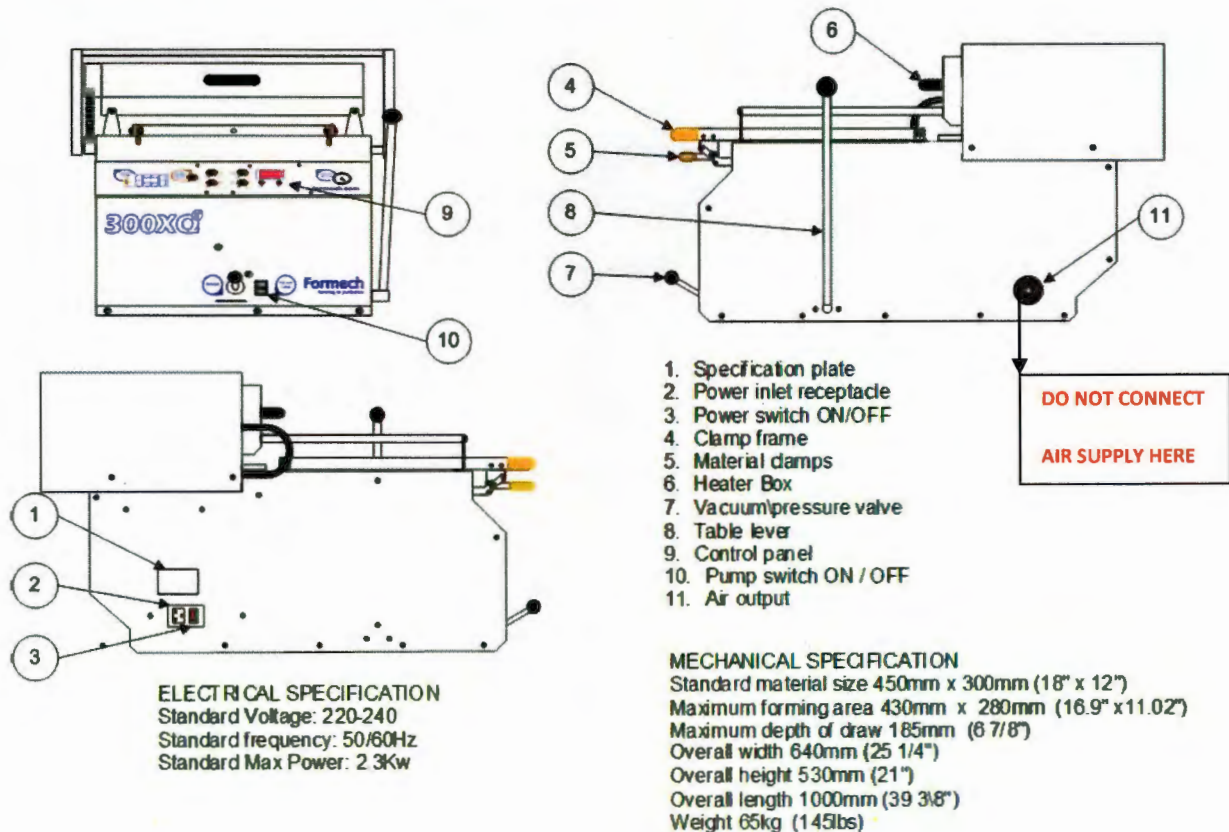
2. Formech have available a standard sizes of reducing plates. This reducing plate allows the use of plastic size 254mm x 228mm. Formech can also produce special size reducing windows. For more information please contact our sales department.

3. You can use your vacuum forming machine to do blow moulding by fitting a special circular reducing window to your machine. The maximum diameter you will get on the 300XQ is 300mm. For more information please contact our sales department.

4. It is unlikely that you will need to service or repair your machine for many years provided you follow the maintenance information contained in this manual; however the table and clamp seals, which are considered to be consumable items, will need to be replaced depending on the usage of the machine. Therefore this kit contains the essential consumables (seals and pump filter) to ensure a good performance of your machine year on year.



# General Arrangement



1. **Specification Plate.** This states the essential machine data & CE marking.

2. **Power Inlet receptacle.** The machine is supplied complete with a power cable that plugs into this receptacle and then into a suitable power socket. If your machine is a special voltage or frequency then it may be supplied with a lead not terminated into a mains plug. See Safety section at the beginning of this manual. Note the safety labelling.

3. **Power Switch ON/OFF.** This is the main switch. When in the OFF position power is cut to all functions. Before commencing any repair work always remove the mains lead from the Power Inlet Receptacle.

4. **Clamp Frame.** This holds the plastic material in position during the forming and release processes.

5. **Material Clamps.** These clamps fix the Clamp Frame firmly down. After placing the plastic under the clamp frame the material clamps are adjusted by tightening or loosening the orange outlets. The levers are pulled up until they are fully over-centre. Adjustment may only be carried out while not under pressure. The rear of the clamp frame is self adjusting.

6. **Heater Box.** This carries the heating elements and is drawn forward by pulling the centrally mounted handle.

7. **Vacuum/Pressure Valve.** When the vacuum pump is running this valve switches between removing air from between the mould and moulding during forming (vacuum) and introducing air between the mould and moulding for finished part release (pressure).



## General Arrangement (cont.)

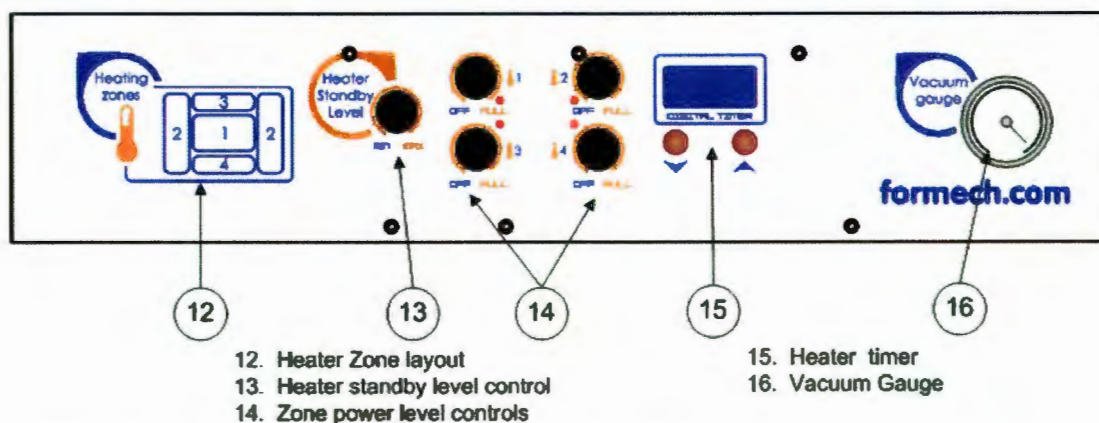
8. **Table Lever.** When pulled towards you the table will rise to the upper limit. A further application of pressure will lock the table in this position. During forming the table complete with mould is lifted into the hot plastic and locked in place to ensure a good vacuum seal. At the end of the cycle the table is returned to the lower position by pushing the handle back and away.

NOTE: A mechanical interlock designed to prevent a mould being raised into the heating elements stops the table being raised unless the heater box is fully back.

9. **Control Panel.** See below control panel layout.

10. **Vacuum Pump ON/OFF switch.** This turns the vacuum pump on and off. The vacuum pump evacuates the air between the plastic sheet and the mould. It also provides pressure to release the finished moulding from the mould.

11. **Air pressure outlet.** When the vacuum pump is running, the pressure is diverted to this outlet. This can be used to supply or run other equipment when not being used for vacuum forming. **Do not block this outlet or attempt to connect air supply. This machine DOES NOT require air supply.**



12. **Heater Zone layout.** Pictogram showing the corresponding zone layout of the quartz heater zones.

13. **Heater Standby Level (Power Saving Feature).** The 300XQ is supplied with fast acting heating elements. This means that when the heater is not actually heating plastic the power can be turned down. As the heater is moved from the rear position the elements begin to heat up to the set power level.

For this feature to work effectively the power level at rest or standby must be set to approx. 30%. For continuous usage the standby level may be set lower. For infrequent usage it may be required for the standby level to be set higher. For non-time critical uses the standby level can be set at about 10%. Although the plastic may take a few extra seconds to heat, the overall power saving will be substantial.

**Safety Notice:** It is advisable to monitor the heating stage by making frequent observations.  
Never leave the machine unattended when actively heating plastic.

14. **Heater Zone Controls.** The 300XQ heater is divided into 4 zones as shown by the diagram (12) on the control panel. This is to allow the user maximum flexibility especially when producing mouldings from difficult moulds or difficult plastics. It is usual to turn the centre zone 1 down slightly because it gains extra heat from the other zones surrounding it. The back zone 3 also tends to stay hotter than the front zone 4 because the rear of the machine is heated by the heater when it is not heating plastic. A key feature of quartz heating is

the response time for changing to different power levels. The zone controllers are highly accurate and keep the element power level within 1% of the requested setting. Beginners to vacuum forming will quickly become accustomed to setting the zone controls for best results.

**15. Digital Timer.** When producing a quantity of mouldings using the same mould and plastic the heating time will be nearly constant for each one. In this case the timer can be used. Record the heating time for the first moulding then set the timer (in seconds) using the UP / DOWN buttons the buttons. When the heater is pulled forward the timer counts down from the set time and sounds a buzzer when zero is reached. The heater is then pushed back. The set time is stored until it is altered. If you don't want to use the timer, set the time to zero.

The timer has built in safety features. If the heater is forward for more than 2 minutes after the timer has completed the set time the heater will switch to the standby setting. If the heater is not returned to the standby position after a further 2 minutes then the heater will turn off all power to the heating elements.

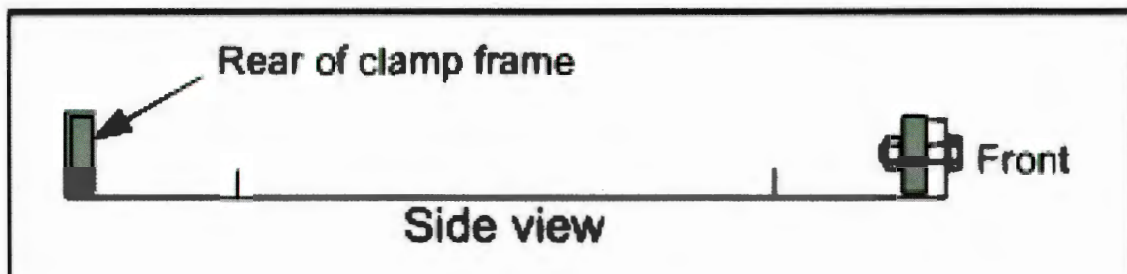
**16. Vacuum Gauge.** This is situated on the top RHS of the front panel and gives indication of the vacuum level achieved at the table mould area during moulding. It is usual to expect approx 22"Hg / -750mbar of vacuum. If such levels are not achieved check your mould / table configuration & clamp / plastic sealing.

## Reducing Windows

Reducing windows allow the use of smaller sheet material for smaller mouldings. Reducing windows allow for better sheet utilisation.

To fit the reducing window.

1. Lift the clamp frame.
2. Place the lower reducing window plate on to the top frame aperture so that the corner locating screws are aligned.
3. Place the top reducing window plate on the underside of the clamp frame. There are folded sections on the front and rear. The rear edge has the larger return and wraps completely around the clamp frame bar. The front fold is smaller and returns against the front clamp frame bar. The fixing bolt is fitted through the clamp frame bar and reducing plate and secured using the fixing nut.. See diagram below of side view of the top plate fitting.



4. Close the clamp frame. Check alignment of top and bottom plate. Fit the required plastic material on the sealed lower reducing plate. The material toggle clamps will need adjusting so that the clamp frame can be locked to achieve the necessary clamping pressure.



# Operating procedures

## BASIC OPERATION



Turn the power switch to ON. The digital timer in the front panel will illuminate.



Set the zone controls as below:  
- Zone 1 at 60%,  
- Zones 2, 3 & 4 at about 75% <sup>(1)</sup>



Set the heater standby level to about 30%



Set the timer to zero using 'DOWN' button. <sup>(2)</sup>



With the heater fully back and the mould table in the up position place your mould onto it. <sup>(3)</sup>



Place the table into the lower position by pushing the table lever away from you



Open the material clamps and raise the clamp frame



Position a sheet of plastic over the aperture. The plastic should completely cover the white seals around the aperture.



Pull the clamp frame down and close the material clamps

<sup>(1)</sup> Each line in the heating zone corresponds to 10% power.

<sup>(2)</sup> When set to zero the timer will count up. This will help you establish the time for the heating cycle.

<sup>(3)</sup> A wire mesh is supplied with your machine to be placed under the mould to assist with vacuum airflow.



# Operating procedures

## BASIC OPERATION (Cont.)



- I. Depending on the plastic thickness you may need to use the adjusting screws on the material clamps to properly grip the plastic.



- II. Pull the heater forward over the plastic. As the plastic heats up it will begin to rise slightly. It will then soften and begin to drop back.



- III. Push the heater back slightly to test the softness of the plastic. Continue to heat until it is soft enough to form.



- IV. At this point, push back the heater all the way back



- V. Turn on the vacuum pump and raise the table until you can feel it lock into place.<sup>(3)</sup>



- VI. The plastic will form around the mould tool. You may need to assist this process.



- VII. Let the finished moulding cool down a little before pulling the release valve downwards<sup>(4)</sup>



- VIII. Finally, lower the table and release the material clamps to remove the finished moulding

<sup>(3)</sup> Remember that the heater must be fully back before the table can be raised

<sup>(4)</sup> If the plastic is still too soft when you try to release it, some distortion may occur.

## **F.A.Q.**

### **How long does it take to heat the plastic sheet?**

This depends on which material and thickness is specified.

### **How do I know when the plastic is ready to form?**

Generally speaking it is necessary with any new material to establish the correct heating cycle. Plastic is ready to form when it becomes soft and pliable especially nearer to the clamping frame. This is known as glass transition temperature (Tg). Once you have established the time you can set the heater timer for accurate and repeated heating cycles

### **Why is the plastic webbing on the mould?**

Material is too hot.  
Insufficient vacuum.  
Excess of material. Use reducing windows.  
Poor mould design.

### **Why can't I achieve good definition on the finished part?**

Material too cold  
Mould too cold.  
Insufficient vacuum.  
Insufficient vacuum holes in the mould

### **Why is the plastic thinning over the mould when formed?**

Sheet cooled whilst forming.  
Mould design with insufficient draft angles.  
Too thin plastic gauge.  
Pre-stretch required.  
Plug assist required.

### **Why does the plastic bubble and pit when heated?**

Material is Hygroscopic which needs to be pre-dried prior to forming.  
Overheating.  
Mould or plastic sheet too dusty

### **Why does the plastic stick to the mould when I try to release?**

Mould not fixed on baseboard.  
Mould not fixed to table.  
Insufficient draft.  
Mould undercuts.  
Poor mould quality.

**NOTE:** Formech has also available for download a [Vacuum Forming Guide](#), which has further and more in-depth information on plastics, moulds, forming and trimming process. Please contact us to gain access to this guide.

# Warranty

Your machine comes with a 12 months warranty from date of delivery. The warranty is validated by completing and returning the product registration slip below. Consumables are not covered under the warranty (heating elements, silicon seals, pump filter)

The vacuum system on this machine is fairly simple but uses high quality components throughout. The life expectancy of the vacuum system will be compromised by the ingress of dirt, shavings, dust, liquid etc.



THE VACUUM CIRCUIT INCLUDING THE VACUUM PUMP WILL NOT BE COVERED BY OUR WARRANTY IF THEY ARE FOUND TO BE BLOCKED WITH FOREIGN MATTER OR CORRODED BY THE INGRESS OF LIQUID.

**NOTE:** THE USE OF TALC AS A MOULD RELEASING AGENT IS NOT RECOMMENDED. IT MAY CLOG THE VACUUM CIRCUIT AND JEOPARDISE THE WARRANTY ON YOUR MACHINE

## PRODUCT REGISTRATION SLIP

Please complete the information below and fax it to +44 (0) 1582 46 96 46 or complete the form online at [www.for mech.com](http://www.for mech.com) (under the 'support' section)

### YOUR DETAILS

TITLE:	
MR/MRS/...	
FIRST NAME:	
SURNAME:	
ORGANISATION:	
DEPARTMENT:	
ADDRESS:	
ADDRESS:	
ADDRESS:	
TOWN:	
COUNTY:	
POST CODE:	
COUNTRY:	
TELEPHONE:	
FAX:	

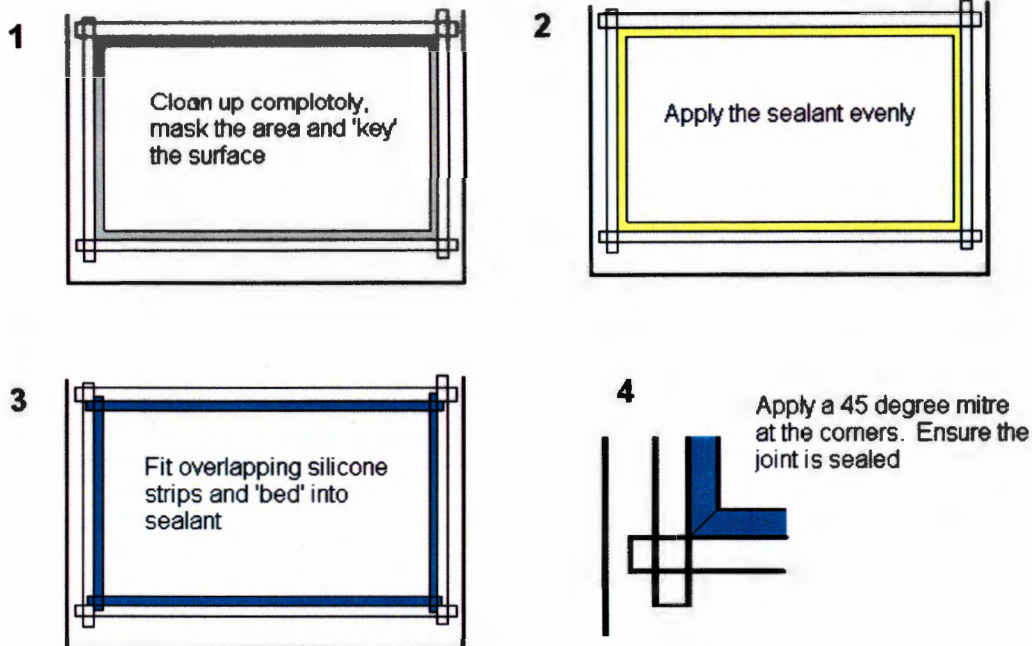
### PRODUCT DETAILS

MODEL	
SERIAL NUMBER	
DATE OF PURCHASE	
DD-MM-YYYY	
RETAILER/RESELLER	



# Service / Repair

## A. REPLACING SEALS



1. Remove all the existing seal and adhesive with a sharp blade. Mask off the sealing area with masking tape or similar (Mask the outside for top frames or reducing windows & the inside for table seals). Prepare the sealing area with emery cloth or similar to achieve a good surface for the new adhesive to key with. Ensure that the surface is clean from dust, dirt and grease.
2. Apply a generous bead of high modulus silicone sealant to the masked area and smooth down to give a consistent layer.
3. Cut the silicone strip in lengths long enough to overlap the corners. Do not stretch the seal strip when measuring or applying. Lay each strip on to the seal area overlapping at the corners. Ensure the seal strip is bedded down well by pressing firmly along the full length.
4. With a sharp blade cut a 45° mitre joint at all corners. Fill gaps in the joints with sealant. Remove the masking tape before the sealant has set. For best performance leave seal to set overnight.

# Service / Repair

## B. REPLACING A HEATING ELEMENT

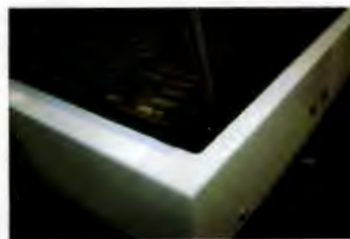
ELECTRICAL MAINTENANCE SHOULD ONLY BE ATTEMPTED BY SUITABLY QUALIFIED TECHNICIANS)



UNPLUG THE MACHINE FROM THE MAINS



Bring the heater completely forward.



Remove the 4 screws retaining the black cover on top of the heater.



At this stage check that all the element wires and interconnecting wires are fully tightened and that the fault was not merely a loose connection.



Remove the relevant terminal block cover(s).



Loosen and remove the element wires from the appropriate connector block.



Remove the nuts and washers holding the faulty element.



Remove element and fit replacement.



Ensure that the connections are fully tightened,

Reverse the above procedure to re-assemble.

## Service / Repair

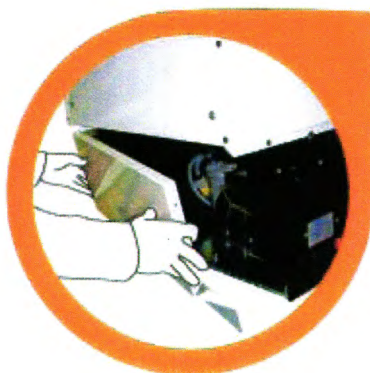
### C. ELECTRICAL TROUBLESHOOTING

In the event that neither the heater nor the pump work, check that your supply is OK. Check that the fuse in the mains lead is fitted.

If neither the fuse nor the mains supply are faulty then turn off the machine and UNPLUG THE MACHINE FROM THE ELECTRICAL SUPPLY



Remove the 7 self-tapping screws retaining the rear panel



Check all the connections to the inlet receptacle, the fuse holder and the power switch located in the inside back of the machine.

Check the internal fuse located in the fuse holder connected to the power inlet and switch. The fuse is 20MM, 12.5A .



## Service / Repair

### C. ELECTRICAL TROUBLESHOOTING (cont.)

If the fault still cannot be found then remove the front panel of the machine



Remove the 3 hex socket button screws (with nuts and washer) plus the 7 self-tapping screws retaining the front panel.



Check the pump switch connections

If the vacuum pump motor does not run, check the electrical supply. If the motor smells strongly of burnt lacquer then it is probably burnt out and the entire pump\motor assembly needs replacing.

If all the connections are good then the switches can be checked for continuity.

**Note:** Continuity should be obtained between the top and bottom contacts of the switch not side to side.

If the supply is present but the motor hums and does not run, the capacitor may be faulty or has become disconnected. Check the connections to the capacitor by carefully removing its black cover.

## Service / Repair

### D. VACUUM/PRESSURE TROUBLESHOOTING

If the vacuum or pressure appears to be weak or non-existent check the following.



Raise and lock the mould table in the up position



Turn the vacuum on and place your finger over the vacuum hole



Check the reading you get on the vacuum gauge

If the vacuum gauge reading of 22"Hg or higher is Normal. A lower reading indicates poor vacuum where attention is required.

The possible causes of poor vacuum are:

- a) mould or baseboard is blocking and covering the vacuum hole preventing air flow (\*)
- b) Top frame or table seals are worn or damaged and may need replacing.
- c) The mould table, top frame or reducing plates are damaged or distorted.
- d) Vacuum table pipe has been disconnected from underside of table.
- e) Vacuum pump filter is blocked.
- f) Vacuum circuit has loose or damaged pipes.
- g) Vacuum valve is blocked.
- h) Pump diaphragm is damaged.
- i) Pump is faulty.

(\*) Use the table mesh provided with the machine

### E. CLEANING

Ensure the inside of the machine and the heater tray is cleared of dust, dirt and debris. Do not allow dirt and loose particles to build up, particularly on the heater tray.

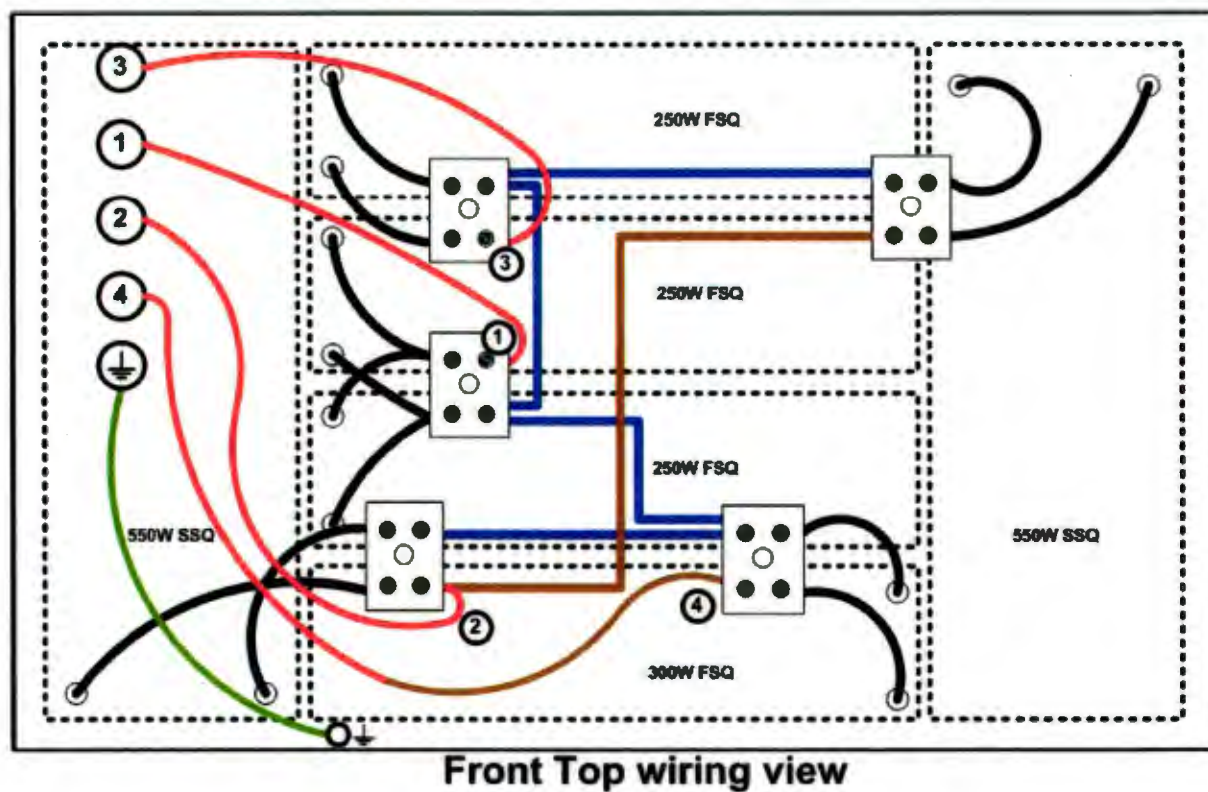
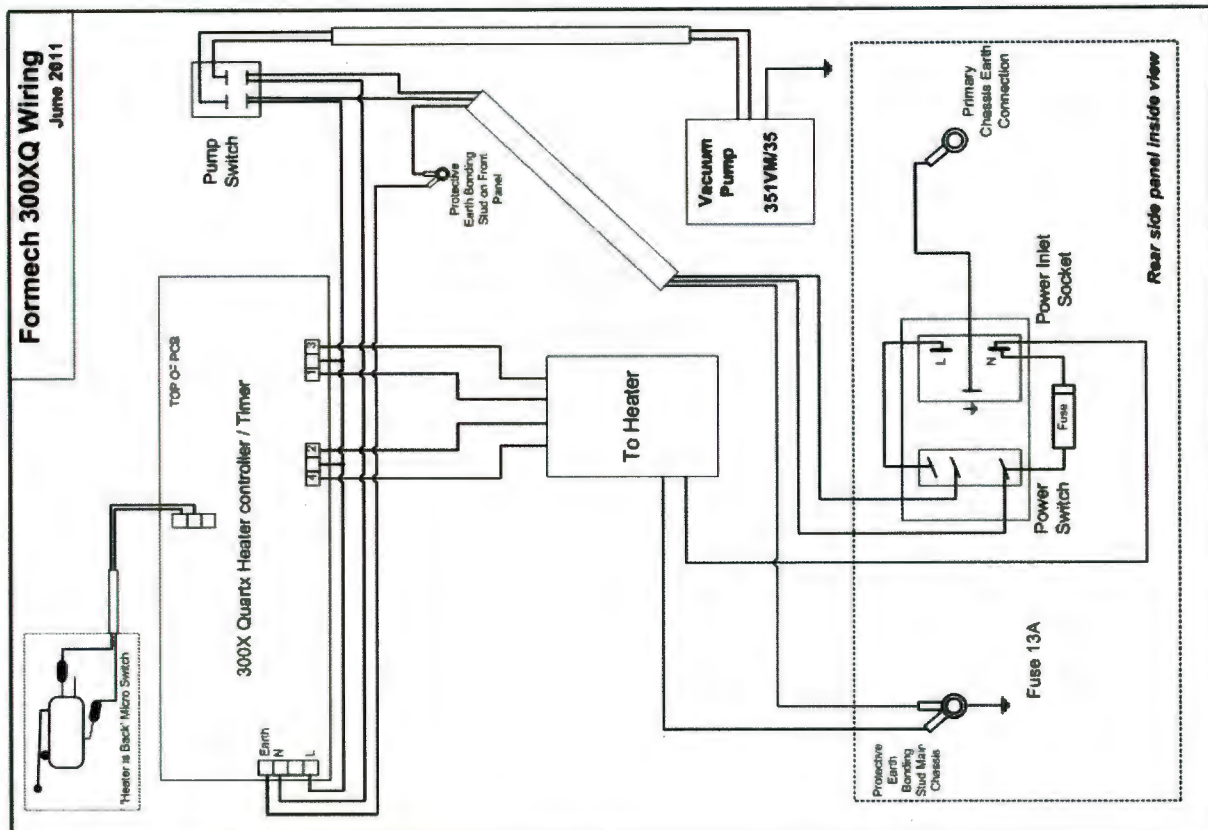
### F. LUBRICATION

The 300XQ requires minimum lubrication.

Apply general purpose grease to the table guide bars when required to assist with table movement.

Apply a small amount of fine silicone oil or fine oil to the heater slide bars when required to assist free movement of the heater.

# Schematics





## Spare Parts listing

Qty	Description	Part No
2	Quartz Heating Element, Zone 2	550 Watt SSQ
3	Quartz Heating Element, Zone 1,3	250 Watt FSQ
1	Quartz heating Element, Zone 4	300 Watt FSQ
1	Heater Cabling (m)	1.63mm DFGL BI /Br
1	Heater Cabling (m)	1.5mm SIAF Blue
1	Heater Cabling (m)	1.00mm SIFGL Brown
1	Sleeving HT	Mar 310
5	Ceramic Terminal Block	30A Ceramic block
1	Cable chain	Chain 20012
1	Cable chain end Bracket set	Brkt 20012
1	Heater handle	107 Black 300XQ
2	Toggle Clamps	Toggle Clamp 300XQ
2	Toggle Clamp Nutlet	Small Clamp Nutlet M5
2	Clamp Frame Grip	300XQ Clamp frame grip
1	Crank Handle Knob, 32dia M8 ball	M8 ball knob
1	Spring, Interlock	Std Interlock spring
1	5M Seal kit, 5M Top seal, 3m table seal, sealant	Seal kit A 300XQ
1	10M Seal kit, 10M Top seal, 3m table seal, sealant	Seal Kit B 300XQ
1	Sealant 85ml	Sealant 85ml
4	Foot	Std rubber foot
1	Vacuum Valve, 5/3, 1/4"	Std 1/4, 5/3, Lever valve
1	Vacuum Pump	351 VM 35
1	1/4" bore PVC tube (m)	Pipe 63/115
1	3/8" bore PVC tube (m)	Pipe 10/16
4	1/4" to 6mm Hosetail, Straight	468 46 048
1	1/4" to 10mm Hosetail, Elbow	469 50 048
8	Pipe Clip for 1/4" pipe	Clip C
2	Pipe Clip for 3/8" pipe	Clip F
1	Vacuum Gauge	40mm Vac gauge
1	Pump Filter	Std In-line filter
1	300XQ Heat Controller / Timer	AG 300XQ CTRL PCB
5	Knob	300XQ CTRL Knob
1	Paddle Switch	H11 E
1	Mains Inlet & Switch, C20	S1821
1	In line fuse Holder	R1583
1	Fuse 12.5A	R1080
1	Limit Switch	S4562
1	Mains lead, 16A. UK to C19	R6470
1	Mains lead, 16A, Schuko to C19	S9321
3	Label 'Hot Surfaces'	Hot Label
1	Mesh	300XQ Mesh

**E C Machinery Directive  
2006/42/EC  
Declaration of conformity**

We hereby certify that the machinery stipulated below complies with all the relevant provisions of the EC Machinery Directive and the National Laws and regulations adopting this Directive.

*Modifications to this machinery without prior approval from the undersigned will render this declaration null and void.*

**Machine Description:** Vacuum Forming Machine  
**Machine Function:** Thermoforming of Plastic Sheet  
**Model / Type:** 300XQ  
**Serial Number:**  
**Date of Manufacture:**

**Is in conformity with the provisions of the following other EC Directives:**

2004 / 108/EC – EMC

2006 / 95/EC – LVD

Technical File Compiled by: Andrew Berry at address below.

.....  
**Harmonised standards applied:**

EN ISO 12100 : 2010

EN 60204 –1 : 2006

EN 12409: 2008

Signed



Date: 14 February 2011

Name: Paul Vukovich

Position: Managing Director

Being the responsible person appointed by the manufacturer

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