

Formech 686



Machine Purpose: To Form heated plastic around a mold

Safety: **Must wear safety glasses while operating machine.** Beware of objects that dangle and could get caught in platen. Beware of hot plastic, fast moving parts and pinch points. **This machine has no built-in safety system.**

Materials: Thermoset Plastics

Machine Specs: 24x24 raw material, 22"x22" working area, 12.8" draw depth .25" thick material, 6 heating zones

Accessories: 22"x22" & 10"x10" working area window sets (24"x24" & 12"x12" raw stock)

Instruction Required: Individual Checkout



Machine Initialization

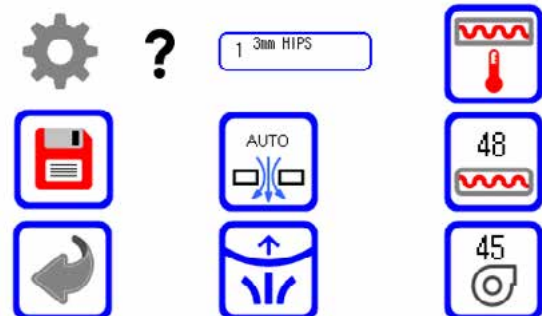
1. Turn on the airline and power on the backside of the machine, and at the air hose line at the wall. Make sure the PSI is reading 80.
2. On the main screen press the preheat button (a), then the green arrow, then select your desired job/material profile. If a desired profile is not present, you will need to create one in the building a profile menu (b).



3. Press Green arrow button
4. Machine will be fully heated once the protective grating above heating elements is uncomfortable to touch, generally 15-20 minutes

Building Job Profile

1. Job Profiles: are built for specific molds, but may be generalized for specific materials.
2. To enter the job profile page, click the profile selection button (b).
3. From here you can build a profile that is specific to your project or material properties.
4. Things to set



- a. Name of your profile
- b. Heat Zones – How large is your material, does the entire bed need to heat or only the interior
- c. Heat Intensity – Temperature of each heater in each zone, this will be dependent on material, operation time, mold design
- d. Heater Standby – How much the heaters can cool while the heater tray is in the rear position
- e. Auto Vacuum – Do you want the vacuum to automatically turn on when the table has rise to its highest extents.
- f. Auto Blower - This operation enables the beam sensor to provide automatic levelling of the sheet level during heating. Compressed air is applied under the heated sheet when the beam is broken.
- g. Save Icon



Changing Material Window

1. Release toggle clamps (c) and lift clamping handles so upper window is pivoted up
2. Lift off lower window from alignment pins at the rear of the table, replace with desired window size
3. Upper window unbolts front and back with single nut/bolt combo, store old upper window
4. Place new upper window against new installed lower window and lower arm over upper window and bolt into place



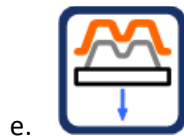
Loading Material/Mold

1. With desired window size installed and no material or your mold loaded, raise the bed to its most elevated position using two green buttons (beneath the toggle clamps) pushed simultaneously (c). The table should raise rapidly. If the vacuum pump turns on press the vacuum button (d).

Image C



2. With table raised, fit mold in open window centered as best as possible, though the vacuum hole at the bottom of the table needs to be covered by your mold. Make sure the metal screen material is on the table.
3. Once satisfied with mold position lower table using the table down button (e) to just below where material will droop but making sure the plastic will not touch once drooped.

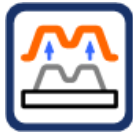


4. With upper window raised, place plastic sheeting over foam outline. Material must cover all of the foam table.
5. Lower upper window, clamp the toggle clamps to secure down.



Operation

1. With machine fully preheated, using the correct profile for your material, the correct window size installed, your mold positioned, and your material loaded, slide the heater over your material (this will initialize the timer). Reference guide for how long to expect for each material type/thickness to droop.
2. Keep an eye on the material. After some time it will rise, flatten then droop. Once it has drooped you will typically count to about 8, then it will be ready to be formed. *
3. Once material is ready, push heater all the way back in a firm solid motion, (this will stop the timer)
4. Press & hold both green buttons to raise the table to its fullest height. At this time if your profile calls for auto vacuum it will engage, if not engage the vacuum manually (d).
5. After material has formed and plastic temperature has dropped to a comfortable touch level, typically max of 30 seconds, turn off vacuum pump.
6. To aid in mold removal, press the mold release button to blast air into the chamber (f).



f.

7. With mold released, lower table using the table lower button (e).
8. Release toggle clamps, replace stock sheet and restart process.**

Icon descriptions



Heater timer

Shows the heater time. Press on the time value to adjust the heat timer on the operation screen. The time cannot be adjusted in manual mode.



Pre-Stretch

This operation will turn on the compressed air valve to allow air to flow into the sealed cabinet. This function does not latch. Press & hold to run. The Icon will change colour when pressed.



Vacuum

This operation will latch the pump and the vacuum valve on to apply vacuum to the table hole. The Icon will change colour when pressed.



Fan timer

This operation will latch the fan on for the time set for loaded settings. The fans will turn off when the time has elapsed. The Icon will change colour when pressed. Press again at any time to stop the fan.



Release

This operation will apply compressed air to the table hole. This function does not latch but will unlatch the vacuum. Press & hold to run. The Icon will change colour when pressed.



Table down

This operation will drive the table down. This function does not latch so it can be used to lower the table in steps if required. Also see section regarding the setting of table speed.



Save

When in the operation screen this allows the user to save the program or the times just used onto the memory and store as a new job. This function opens the settings screen. Also used on settings screens to save memory changes.





Back

This operation will exit the main operation screen and return to the main menu screen.



Auto-level

This operation enables the beam sensor to provide automatic levelling of the sheet level during heating. Compressed air is applied under the heated sheet when the beam is broken. This button latches and may be unlatched at any time.



Auto-Vacuum

This function allows the vacuum to be triggered by a limit switch mounted on the cylinder. When this feature is enabled the vacuum will be turned on automatically when the table is driven up. The switch position is adjustable.



Settings

This button provides access to the settings screen where the operating parameters may be adjusted.

Notes:

- * You will fine-tune the amount of time after a few pulls. The timer keeps track of from when you pulled the heater forward to when you pushed back.
- ** If there are any issues (webbing, thinning, mold not releasing, etc) with your mold refer to the guide books in the machine manual to evaluate your issues.

