

**GALOMB**



# The **Mix-Molder**<sup>®</sup> System

“Mix and inject molten polymers  
in your lab”

*Your competitive advantage!*



Model M-100 mixing device  
& ECB-001 controller\*



Model S-100 Injection Molder  
& ECB-001 controller\*

**It's as easy as 1,2,3...**

Pour resin pellets and a desired additive, colorant or filler into the removable melt chamber of Model-M device.



Melt the resin pellets and then mix materials with mixing tool.



Move the melt chamber to the Model-S machine and make an injection molded part with the mixed material.

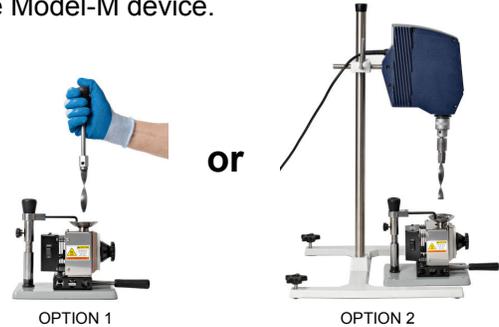


# Here's how it works...

1. Pour resin pellets and a desired additive, filler or colorant into the removable melt chamber of the Model-M mixing device.



2. Melt the materials in the chamber, and then mix them with the hand tool, or an overhead mixer positioned over the Model-M device.



3. Remove the melt chamber from the the Model-M mixing device.



4. Insert the melt chamber into the Model-S Injection Molder.



5. Inject the mixed material into a desired mold by pulling down the handle of the model-S machine.



6. Remove the mold from the Model-S machine, and then remove the injection molded part from the mold.



## More details....

The mixing blade inserts through a material stripping assembly positioned over the melt chamber, which prevents the molten polymer from being pulled out of the chamber when the blade is withdrawn.

The slotted center element freely rotates during the mixing operation.



The helical mixing blade creates excellent laminar and chaotic flow within the melt chamber, allowing the entire melt to experience a uniform processing history.



### MODELS-100 INJECTION MOLDER - SPECIFICATIONS

Maximum processing temperature	600 F (316 C)
Injection tube capacity	16 cm <sup>3</sup> /~1.0 cubic inch (about 16g by weight at 1.0 density)
Volts AC / Hz	120 V or 240 V 50/60Hz (See marking on machine)
Watts	600
Power switch w/ thermal breaker	10 AMP
Maximum mold size	2.50"D x 2.63"H x 4.00"W (64mm D x 67mm H x 102mm W)
Injection nozzle orifice	.125" dia. (3.175 mm )
Sprue center line	1.25" (~32mm) - from backing plate to nozzle orifice center line
Machine weight	35 lbs. (15.88 Kg)
Machine footprint	4"W x 8.25"D (10.2cm W x 21cm D)
Maximum machine dimension	9" x 14" x 25" (with handle up) (23cm x 35.5cm x 63.5cm)

1 Year Warranty



**Accessories included:** Practice Mold, Purge Block, Pour Tube, Wooden Craft Sticks, 1-lb. Resin Pellets (LDPE), Handle Extension, Mold Release Spray (2 oz. bottle), Sprue Cutter Pliers, Needle Nose Pliers, Sensor Jumper Wire (coiled), Power Input Jumper Cord, Instruction Manual.

### MODEL M-100 MIXING DEVICE - SPECIFICATIONS

Maximum processing temperature	600 F (316 C)
Injection tube capacity	16 cm <sup>3</sup> /~1.0 cubic inch (about 16 g by weight at 1.0 density)
Volts AC / Hz	120 V or 240 V 50/60Hz (See marking on device)
Watts	500
Power switch w/ thermal breaker	10 AMP
Injection nozzle orifice	.125" dia. (3.175 mm )
Device weight	16 lbs. (7.26 Kg)
Device footprint	6.0"W x 9.0"L (15.2cm W x 23cm L)

1 Year Warranty



**Accessories included:** Hand Mixing Tool, Helical Mixing Blade\*, Blade Alignment Tip, extra Material Stripping Elements\* (2 qty.), Stopper Tool, Sensor Jumper Wire (coiled), Power Input Jumper Cord, Needle Nose Pliers, Instruction Manual.

### ECB-001 TEMPERATURE CONTROLLER - SPECIFICATIONS

Power input / Hz	120 VAC or 240 VAC 50/60Hz (see control box label)
Power switch w/ thermal breaker	10 AMPS
Dimensions (approximate)	3.1"W X 4.1"D X 5.0"H (79mm W x 104mm D x 127mm H)
Weight (approximate)	2 lbs. (.91 Kg)

1 Year Warranty



**Accessories included:** Power input wire, Tilt Bracket, P.I.D. programming guide (from P.I.D. Mfr.), User's Guide

### CAPACITY CHANGE-OVER KIT - INCLUDES:

CCK-001-1 (10 cm <sup>3</sup> capacity)	CCK-003-1 (23 cm <sup>3</sup> capacity)
1 - Injection Ram & clevis	1 - Injection Ram & clevis
1 - Helical Mixing Blade*	1 - Helical Mixing Blade*
1 - Injection Tube Assembly (a/k/a. melt chamber)	1 - Injection Tube Assembly (a/k/a. melt chamber)
1 - Alignment Tip	1 - Alignment Tip
2 - Material Stripping Element	2 - Material Stripping Element
1 - Hex wrench + hardware	1 - Hex wrench + hardware
1 - Bushing	1 - Bushing

\*NOTE: The mixing blade in this kit will fit both the hand mixing tool included with Model-M device and the machine tool (MMT-001-1) for use with overhead mixers, available for purchase separately.



### MACHINE MIXING TOOL (MMT-001-1) - SPECIFICATIONS

Overall Length: 9.25" (23.5cm)	Shaft Length: 7.00" (17.8cm)
Shaft diameter: 3/8" (10 mm)	Features: Flexible Coupling





# Model B-100



## Hand-operated Plastic Injection Molder

“Ideal for prototyping & materials testing”

- Weighs about 35 lbs. (16 kg.)
- Plugs into ordinary wall socket
- High quality construction
- Solid cast iron frame
- Non-stick coating applied to injection ram
- Nickel plated injection chamber & nozzle
- Stainless steel protective enclosure
- Built-in thermal breaker switch for added safety
- Cleaning tool kit included for easy cleaning

1 Year Warranty

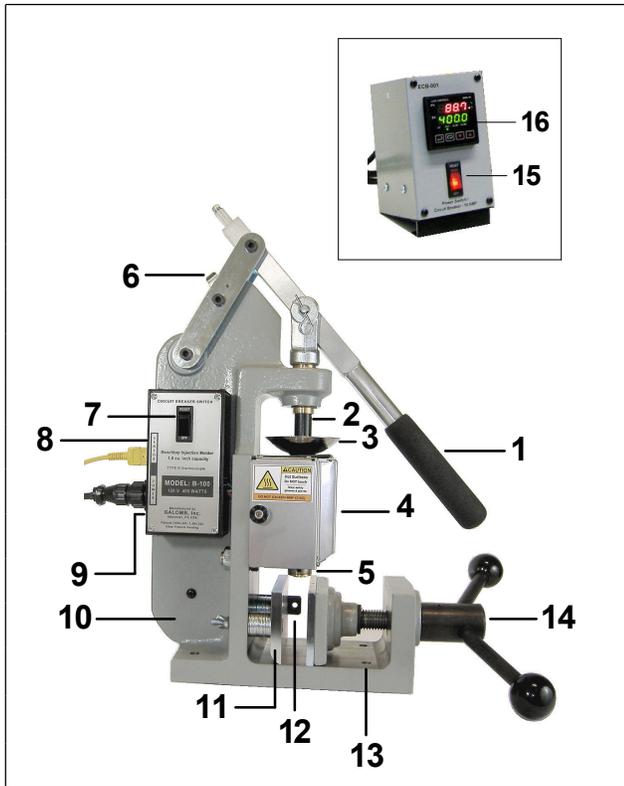


Model B-100 Injection Molder & ECB-001 controller

### IDEAL FOR:

Prototyping	Materials Testing	Overmolding	Educational

## Model B-100 INJECTION MOLDER w/ ECB-001 temperature controller



FEATURES	
1	Cushioned handle grip
2	Injection ram (with non-stick coating)
3	Pellet tray (chrome plated)
4	Protective enclosure (stainless steel)
5	Injection nozzle (removable)
6	Handle lock
7	Power switch (with built-in thermal breaker)
8	Sensor input jack (Type K thermocouple)
9	Power input jack
10	Support frame (cast iron / powder coated)
11	Back plate (adjustable position)
12	Mold stop
13	Mounting holes
14	Vise handle
15	Power switch (with built-in thermal breaker)
16	P.I.D. - (dual digital display)

### SPECIFICATIONS

Maximum processing temperature	600F (316C)
Injection tube capacity	Volume = 1 cu. inch. (16cc) – (about 17g of PS by weight)
Volts AC / Hz	120V or 240V 50/60Hz (see label on machine and controller)
Watts	400
Power switch (w/ built-in thermal breaker)	5 AMP
Maximum mold size	2.50"W x 2.63"H x 4.00"L (≈ 67mm X 64mm x 102mm)
Injection nozzle orifice	.125" dia. (≈ 3.17mm)
Sprue center line	1.25" (32mm) - distance from backing plate to nozzle orifice center
Machine weight	35 lbs. (≈16Kg)
Machine footprint	4.00"W x 8.25"D (≈10cm x 21cm)
Maximum machine dimension	9" x 14" x 25" (w/ handle up) - (≈ 23cm x 36cm x 64cm)

Equipment includes our 1 Year Limited Warranty. Model B-100 purchase includes the following accessories: practice mold, purge block, pour tube, handle extension, sprue cutter pliers, needle nose pliers, wooden craft sticks, mold release spray, 1 lb. of resin pellets (LDPE). Equipment does not carry a UL, or CSA mark. Our 240V units are CE marked.

If you would like to place an order or want a formal quotation, please contact us.

# COMPARISON CHART - ALL MODELS

QUESTIONS	 <b>Model B-100</b> (+ ECB-001 controller)	 <b>Model S-100</b> (+ ECB-001 controller)	 <b>Model M-100</b> (+ ECB-001 controller)
What is the model number?	<b>Model B-100</b> (+ ECB-001 controller)	<b>Model S-100</b> (+ ECB-001 controller)	<b>Model M-100</b> (+ ECB-001 controller)
What is the purpose of the device?	Injection molding machine.	Injection molding machine.	Polymer mixing device.
Can the device be used as a stand-alone unit?	Yes, as shown in picture.	Yes, as shown in picture.	No. After mixing the polymer, the injection tube must be moved to model S-100 for injecting.
Can the device be used in combination with the other models?	No	Yes. It can be used in combination with the Model M-100 mixing device.	Yes. It must be used in combination with the Model S-100 injection molder.
Does it have a removable injection tube?	No	Yes	Yes
How much plastic does the injection tube hold?	16cc (about 1 cu. Inch)	16cc (included with machine purchase)  Available for purchase separately: 10cc and 23cc capacity tubes.	16cc (included with device purchase)  Available for purchase separately: 10cc and 23cc capacity tubes.
Can molten polymers be mixed while contained in the device?	No	No	Yes
What is the maximum mold size the device can accommodate?	2.50"D x 2.63"H x 4.00"W (63mm x 67mm x 101mm)	2.50"D x 2.63"H x 4.00"W (63mm x 67mm x 101mm)	Not Applicable
Must device be attached to ECB-001 controller to operate it?	Yes, as shown in picture.	Yes, as shown in picture.	Yes, as shown in picture.
Can the device inject molten polymers?	Yes	Yes	No
What is the maximum operating temperature?	600F (316C)	600F (316C)	600F (316C)
Is the device manually operated?	Yes	Yes	Yes. Use hand mixing tool (included) or an overhead mixer (not included).