

GALOMB



The Mix-Molder[®] 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.



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*** Patents Pending**

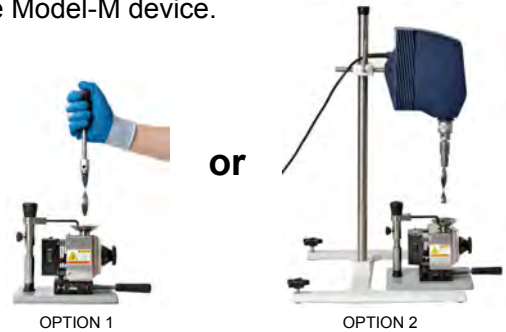
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Here's how it works...

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.



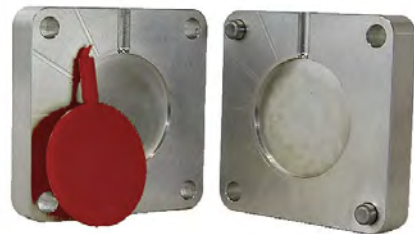
4. Insert the melt chamber into the Model-S Injection Molder.



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over the melt chamber, which prevents the molten polymer from being pulled out of the chamber when the blade is withdrawn.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 ³ /~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) |



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 ³ /~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) |



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.

*Fits 16 cm³ injection tube

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) |



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 ³ capacity) | CCK-003-1 (23 cm ³ 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”



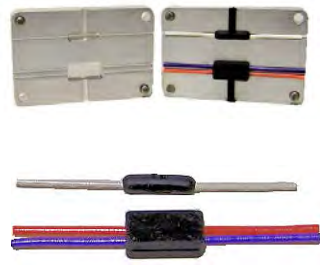

- Weighs about 35 lbs. (16 kg.)
- Plugs into ordinary wall socket
- High quality construction
- Solid cast iron frame
- Non-stick coating applied to injection ram
- Nickel plated injection chamber & nozzle
- Stainless steel protective enclosure
- Built-in thermal breaker switch for added safety
- Cleaning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

1 Year Warranty



Model B-100 Injection Molder &
ECB-001 controller

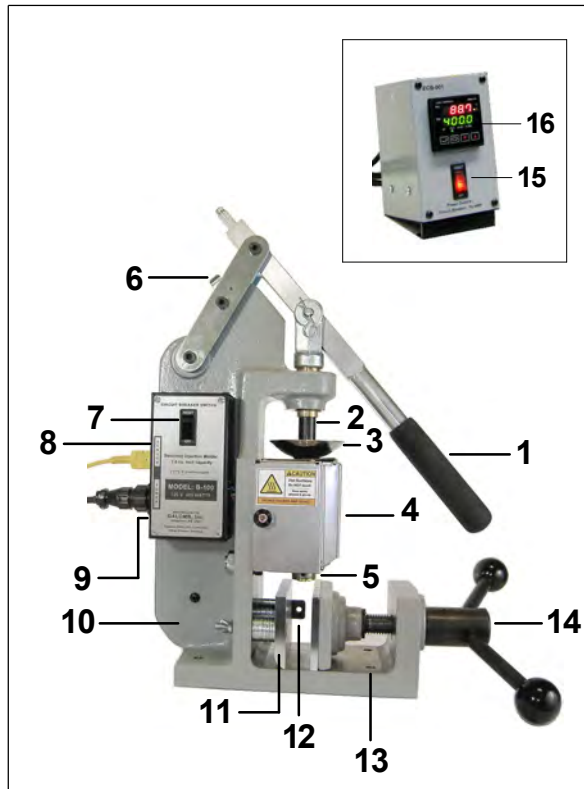
IDEAL FOR:

| 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 |  |  |  |
|--|---|---|--|
| What is the model number? | Model B-100 (+ ECB-001 controller) | Model S-100 (+ ECB-001 controller) | Model M-100 (+ 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). |

| QTY. | ITEM # | DESCRIPTION | PRICE | X |
|------|-----------|---|------------|---|
| | B100-AP2 | MODEL B-100 Benchtop Injection Molder w/ AP2 accessory pkg. | \$3,995.00 | |
| | S100-AP4 | MODEL S-100 Benchtop Injection Molder w/ AP4 accessory pkg. | \$5,995.00 | |
| | M100-AP5 | MODEL M-100 Mixing Device w/ AP5 accessory pkg. | \$3,995.00 | |
| | ECB-001-1 | Electronic control box - dual display P.I.D. (For use with models B, S, M) | \$495.00 | |
| | CCK-001-1 | CAPACITY CHANGE-OVER KIT - (10 cm ³ vol. Inj. tube) - for Model-S only | \$995.00 | |
| | CCK-003-1 | CAPACITY CHANGE-OVER KIT - (23 cm ³ vol. Inj. tube) - for Model-S only | \$995.00 | |
| | MMT-001-1 | MACHINE MIXING TOOL (not including mixing blade) | \$295.00 | |
| | CTK-001-1 | CLEANING TOOL KIT - Basic - (for model-B benchtop molder) | \$29.00 | |
| | CTK-001-2 | CLEANING TOOL KIT - Deluxe - (for Model-S benchtop molder) | \$79.00 | |
| | MRS-002-1 | MOLD RELEASE - (2 oz. non-aerosol spritzer bottle) | \$8.00 | |

| QTY. | ITEM # | DESCRIPTION | PRICE | X |
|------|---|---|-------------------|---|
| | MBB-001-1 | MODEL B-100 BUNDLE OFFER - Includes: | | |
| |  | 1 - MODEL B-100 Benchtop Injection Molder w/ AP2 accessory pkg. | \$3,995.00 | |
| | | 1 - Electronic control box - dual display P.I.D. (ECB-001-1) | \$495.00 | |
| | | 1 - Cleaning Tool Kit - Basic CTK-001-1 (\$29.00 value) - NO CHARGE | \$0.00 | |
| | | TOTAL | \$4,490.00 | |

| QTY. | ITEM # | DESCRIPTION | PRICE | X |
|------|--|--|--------------------|---|
| | MMS-001-1 | MIX-MOLDER® BUNDLE OFFER - Includes: | | |
| |  | 1 - MODEL S-100 Benchtop Injection Molder w/ AP4 accessory pkg. | \$5,995.00 | |
| |  | 1 - MODEL M-100 Mixing Device w/ AP5 accessory pkg. | \$3,995.00 | |
| | | 2 - Electronic control box - dual display P.I.D. (\$495.00 ea.) | \$990.00 | |
| | | 1 - Cleaning Tool Kit - Deluxe CTK-001-2 (\$79.00 value) - NO CHARGE | \$0.00 | |
| | | TOTAL | \$10,980.00 | |

| QTY. | ITEM # | ALUMINUM MOLDS | PRICE | X |
|------|-----------|---|----------|---|
| | MLD-001-1 | MOLD BLANK - 2.63"h x 2.63"w x 1.00"d | \$99.00 | |
| | MLD-001-2 | MOLD BLANK - 2.63"h x 4.00"w x 1.00"d | \$109.00 | |
| | MLD-002-1 | PIN MOLD - makes a pin 3/16" dia x 2.50"L - single cavity | \$109.00 | |
| | MLD-003-1 | CIRCLE MOLD (1.50" dia. X .10" thick) - single cavity | \$129.00 | |
| | MLD-004-1 | TEST BAR MOLD - 12 mm W x 55 mm L x 2 mm thick - dual cavity | \$149.00 | |
| | MLD-005-1 | TENSILE TEST BAR MOLD - Type 5 - dual cavity | \$249.00 | |
| | MLD-006-1 | IZOD IMPACT TEST BAR MOLD - dual cavity | \$249.00 | |
| | MLD-007-1 | MULTI-PIN MOLD - makes 13 pins, each 3/16" dia. x 2.00"L | \$249.00 | |
| | MLD-008-1 | LARGE CHIP MOLD (1.50"w x 1.75"L x .12" thick) - dual cavity | \$249.00 | |
| | MLD-009-1 | SPRUE MOLD - makes a sprue 3/16" dia x 2.50"L - single cavity | \$129.00 | |
| | MLD-010-1 | SMALL CHIP MOLD (1.00"w x 1.00"L x .12" thick) - dual cavity | \$149.00 | |
| | MLD-011-1 | MULTI-DEPTH CHIP MOLD - (1.50"w x 2.25"L x .06/.12/.25) - single cavity | \$159.00 | |

| QTY. | ITEM # | MASTER MOLD FRAME SETS (aluminum) | PRICE | X |
|------|-----------|---|----------|---|
| | MMB-201-1 | MINI-MASTER MOLD FRAME SET - (cavity: 2.25"W x 2.00"H x 0.75"D) | \$149.00 | |
| | MMB-301-1 | MASTER MOLD FRAME SET -01 - (cavity: 3.38"W x 2.00"H x 1.00"D) | \$179.00 | |
| | MMB-401-1 | MASTER MOLD FRAME SET -02 - (cavity: 3.38"W x 2.00"H x 1.50"D) | \$199.00 | |

| QTY. | ITEM # | RESIN PELLETS (all resins are high melt flow grade) | PRICE | X |
|------|-----------|---|--------|---|
| | RSN-001-1 | Low density Polyethylene (LDPE) - 1 lb. | \$7.50 | |
| | RSN-002-1 | Polypropylene (PP) - 1 lb. | \$7.50 | |
| | RSN-003-1 | Polystyrene (PS) - 1 lb. | \$7.50 | |
| | RSN-004-1 | High impact polystyrene (HIPS) - 1 lb. | \$7.50 | |
| | RSN-005-1 | High density polyethylene (HDPE) - 1 lb. | \$7.50 | |