

**Mold  
Masters®**

**E-Multi®**



**THE MOST VERSATILE, ALL ELECTRIC  
SERVO DRIVEN, AUXILIARY INJECTION UNIT**

CONSUMER GOODS



MEDICAL



ELECTRONICS



PERSONAL CARE



CAPS & CLOSURES



THIN WALL PACKAGING



PET (DRINK BOTTLES/PREFORMS)



AUTOMOTIVE



# OPEN THE DOOR TO PRECISION MULTI-SHOT APPLICATIONS

Easily and economically convert any existing Injection Molding Machine to allow multi-shot capabilities. The successful E-Multi platform offers proven precision, repeatability, versatility and reliability. Compatible with a wide range of thermoplastic and LSR materials, E-Multi is ideal for a wide range of applications across any industry.

## KEY FEATURES

### SERVO DRIVEN

- High precision, fast, repeatable and reliable performance.
- Suitable for high tolerance applications.
- Program up to 10 injection profiles and holding pressures.
- Statistical process and production tracking.

### VERSATILE MOUNTING OPTIONS

- Vertical, horizontal and custom mounting options.
- Can adapt to many requirements.
- Various feeding options available.

### COMPACT DESIGN

- Preserves valuable floor space.
- Save up to 100ft<sup>2</sup> (9.3m<sup>2</sup>) of space compared to alternatives.
- Vertical installations virtually eliminate any footprint.

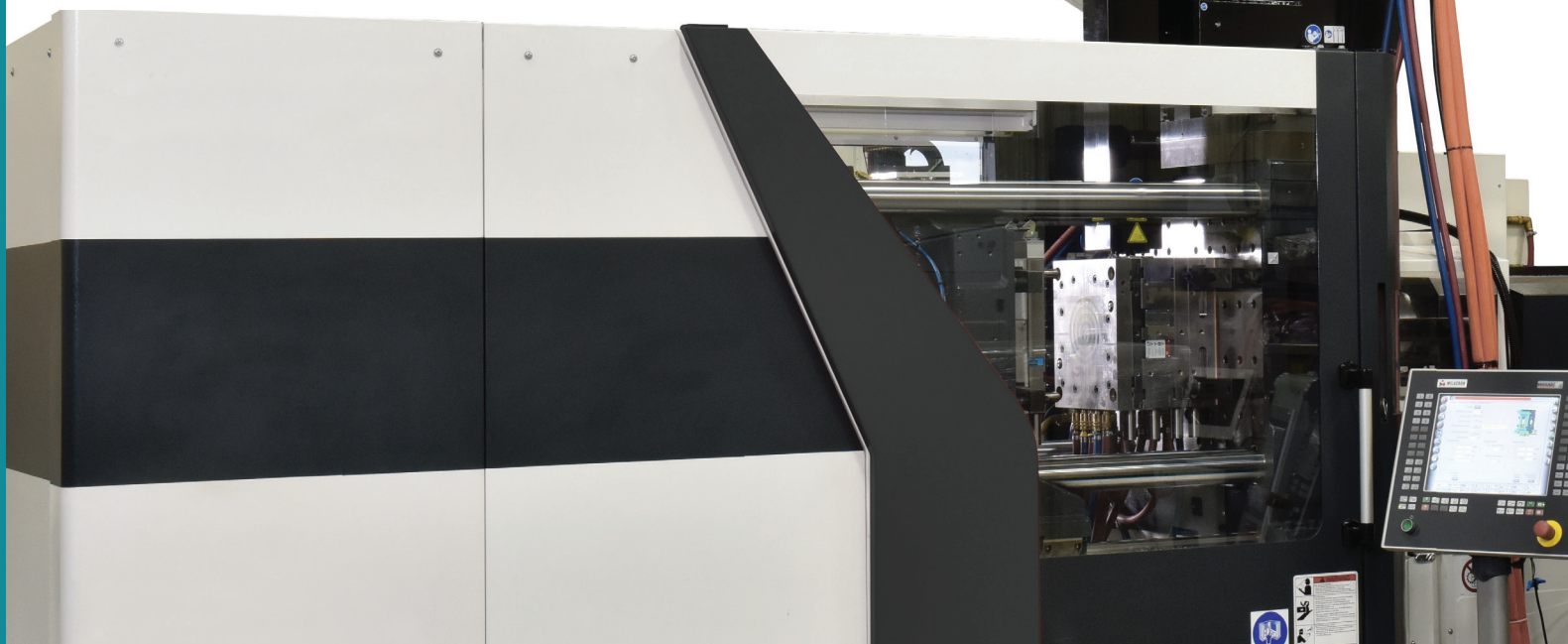
### UNIVERSAL COMPATIBILITY

- Can be installed on ANY Injection Molding Machine.
- Seamless operation via IMM interface.
- Integrate robotic interface.

### ALL ELECTRIC

- Energy efficient.
- Viable for clean room applications.
- Minimal maintenance requirements.

Full range of horizontal or vertical mounting options available

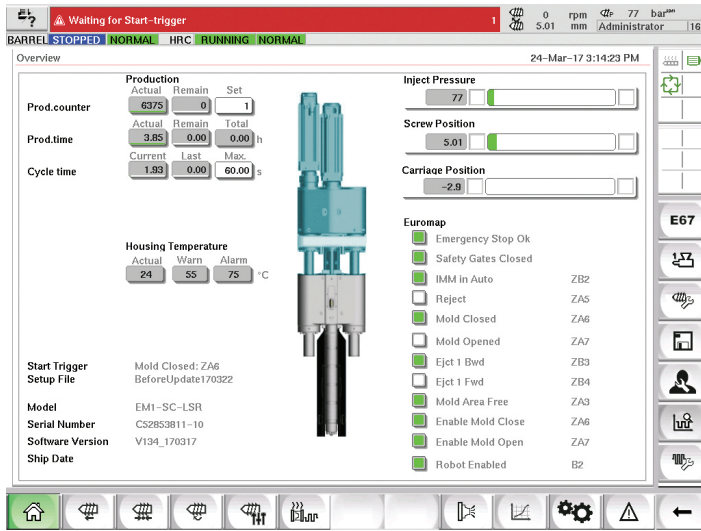




# EXPANDABLE MULTI-FUNCTION CONTROLS

Easily integrate additional functionality into your E-Multi controller. Centralize your molding process, eliminate unnecessary equipment and save valuable floor space.

- TempMaster Hot Runner Temperature Control
- Valve Gate Control
- E-Drive Synchro Plate Control
- Rotary Table Control
- M-Ax Auxiliary Servo Control



Intuitive touch screen process controls



# INTEGRATED COMMUNICATIONS



Injection Molding Machine

\*E12/SPI Adapter Available

Auxiliary



Produce consistent high quality multi-colored and multi-material parts

# SPECIFICATIONS

| Model Number              | EM1-15   |             |             |             |             | EM1-30      |             |             |             |             | EM2-80      |             |             |             |             | EM3-200   |           |              |              |              | EM3-250      |             |               |    |  | EM4-550 |  |  |  |  |
|---------------------------|----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-----------|-----------|--------------|--------------|--------------|--------------|-------------|---------------|----|--|---------|--|--|--|--|
| Screw Diameter            | mm       | 14          | 16          | 18          | 16          | 18          | 22          | 18          | 20          | 20          | 22          | 25          | 22          | 25          | 28          | 32        | 32        | 38           | 40           | 45           | 40           | 45          | 50            | 55 |  |         |  |  |  |  |
|                           | in       | 0.55        | 0.63        | 0.71        | 0.63        | 0.71        | 0.87        | 0.71        | 0.79        | 0.87        | 0.98        | 0.87        | 0.98        | 1.10        | 1.26        | 1.26      | 1.50      | 1.57         | 1.77         | 1.57         | 1.77         | 1.97        | 2.17          |    |  |         |  |  |  |  |
| Injection Pressure        | Bar      | 2000        | 1530        | 1210        | 1530        | 1210        | 810         | 2510        | 2000        | 1550        | 1280        | 2510        | 2510        | 2000        | 1530        | 2000      | 1420      | 2000         | 2000         | 1177         | 1580         | 1280        | 1060          |    |  |         |  |  |  |  |
|                           | psi      | 29,000      | 22,200      | 17,500      | 22,200      | 17,500      | 11,700      | 36,400      | 29,000      | 23,900      | 18,600      | 36,400      | 36,400      | 29,000      | 22,200      | 29,000    | 20,600    | 29,000       | 29,000       | 22,900       | 29,000       | 18,600      | 15,400        |    |  |         |  |  |  |  |
| Injection Stroke          | mm       | 50          | 50          | 50          | 100         | 100         | 125         | 125         | 125         | 125         | 150         | 150         | 150         | 150         | 150         | 150       | 150       | 150          | 210          | 210          | 210          | 210         | 210           |    |  |         |  |  |  |  |
| Shot Volume               | cc       | 7.7         | 10.1        | 12.7        | 20.1        | 25.4        | 38.0        | 31.8        | 39.3        | 47.5        | 61.4        | 57.0        | 73.6        | 92.4        | 120.6       | 120.6     | 170.1     | 263.9        | 334.0        | 283.9        | 334.0        | 412.3       | 498.9         |    |  |         |  |  |  |  |
|                           | oz. PS   | 0.26        | 0.34        | 0.43        | 0.68        | 0.86        | 1.28        | 1.08        | 1.33        | 1.61        | 2.08        | 1.93        | 2.49        | 3.12        | 4.08        | 4.08      | 5.75      | 8.92         | 11.29        | 8.92         | 11.29        | 13.94       | 16.87         |    |  |         |  |  |  |  |
| Shot Weight               | g/PS     | 7.7         | 10.1        | 12.7        | 20.1        | 25.4        | 38.0        | 31.8        | 39.3        | 47.5        | 61.4        | 57.0        | 73.6        | 92.4        | 120.6       | 120.6     | 170.1     | 263.9        | 334.0        | 263.9        | 334.0        | 412.3       | 498.9         |    |  |         |  |  |  |  |
|                           | lb.      | 0.02        | 0.02        | 0.03        | 0.04        | 0.05        | 0.08        | 0.07        | 0.08        | 0.10        | 0.13        | 0.12        | 0.16        | 0.20        | 0.25        | 0.25      | 0.36      | 0.56         | 0.71         | 0.56         | 0.71         | 0.87        | 1.05          |    |  |         |  |  |  |  |
| Max. Screw Speed          | rpm      | 600         | 600         | 600         | 600         | 600         | 600         | 500         | 500         | 500         | 410         | 410         | 410         | 410         | 410         | 410       | 410       | 410          | 280          | 280          | 280          | 280         | 280           |    |  |         |  |  |  |  |
| Max. Screw Torque         | Nm       | 80          | 80          | 80          | 80          | 80          | 80          | 80          | 80          | 80          | 250         | 29          | 300         | 350         | 350         | 350       | 350       | 350          | 350          | 350          | 600          | 700         | 800           |    |  |         |  |  |  |  |
|                           | lbf      | 20          | 18          | 18          | 24          | 21          | 18          | 28          | 23          | 21          | 18          | 29          | 25          | 22          | 19          | 24        | 24        | 24           | 24           | 24           | 21           | 19          | 17            |    |  |         |  |  |  |  |
| Screw Length              | mm       | 180 / 360   | 180 / 360   | 180 / 360   | 180 / 360   | 180 / 360   | 180 / 360   | 180 / 360   | 180 / 360   | 180 / 360   | 130 / 260   | 130 / 260   | 130 / 260   | 130 / 260   | 130 / 260   | 180       | 180       | 180          | 180          | 180          | 180          | 140 / 450   | 140 / 450     |    |  |         |  |  |  |  |
| * Max. Injection Velocity | m/s      | 7.1 / 14.2  | 7.1 / 14.2  | 7.1 / 14.2  | 7.1 / 14.2  | 7.1 / 14.2  | 7.1 / 14.2  | 7.1 / 14.2  | 7.1 / 14.2  | 7.1 / 14.2  | 5.1 / 10.2  | 5.1 / 10.2  | 5.1 / 10.2  | 5.1 / 10.2  | 7.1         | 7.1       | 7.1       | 7.1          | 7.1          | 7.1          | 5.1 / 17.7   | 5.1 / 17.7  |               |    |  |         |  |  |  |  |
| * Max. Injection Rate     | c/s      | 28 / 55     | 36 / 72     | 46 / 92     | 36 / 72     | 46 / 92     | 68 / 137    | 46 / 92     | 57 / 113    | 68 / 137    | 88 / 177    | 49 / 99     | 64 / 128    | 80 / 160    | 105 / 209   | 145       | 204       | 176 / 565    | 223 / 716    | 176 / 565    | 223 / 716    | 275 / 884   | 333 / 1,069   |    |  |         |  |  |  |  |
|                           | oz. PS/s | 0.95 / 1.86 | 1.22 / 2.43 | 1.56 / 3.11 | 1.22 / 2.43 | 1.56 / 3.11 | 2.30 / 4.63 | 1.56 / 3.11 | 1.93 / 3.82 | 2.30 / 4.63 | 2.98 / 5.99 | 1.66 / 3.35 | 2.16 / 4.33 | 2.71 / 5.41 | 3.55 / 7.07 | 4.90      | 6.90      | 5.95 / 19.10 | 7.54 / 24.21 | 5.95 / 19.10 | 7.54 / 24.21 | 9.3 / 29.89 | 11.26 / 36.15 |    |  |         |  |  |  |  |
| Nozzle Touch Force        | KN       | 10          | 10          | 10          | 10          | 10          | 17          | 17          | 17          | 17          | 25          | 25          | 25          | 25          | 25          | 25        | 25        | 25           | 25           | 25           | 35           | 35          | 35            |    |  |         |  |  |  |  |
|                           | lbf      | 2,200       | 2,200       | 2,200       | 2,200       | 2,200       | 3,800       | 3,800       | 3,800       | 3,800       | 5,600       | 5,600       | 5,600       | 5,600       | 5,600       | 5,600     | 5,600     | 5,600        | 7,900        | 7,900        | 7,900        | 7,900       | 7,900         |    |  |         |  |  |  |  |
| Installed Power           | KW       | 12 / 18     | 12 / 18     | 12 / 18     | 12 / 18     | 12 / 18     | 24          | 24          | 24          | 24          | 35          | 35          | 35          | 35          | 35          | 35        | 35        | 35           | 35           | 35           | 60           | 70          | 80            |    |  |         |  |  |  |  |
|                           | amps     | 40          | 40          | 40          | 40          | 40          | 60          | 60          | 60          | 60          | 100         | 100         | 100         | 100         | 100         | 100       | 100       | 100          | 100          | 100          | 100          | 100         | 100           |    |  |         |  |  |  |  |
| Total Length L*           | mm       | 1240        | 1340        | 1340        | 1240        | 1340        | 1,650       | 1,650       | 1,650       | 1,945       | 2,045       | 2,045       | 2,045       | 2,045       | 2,045       | 2,045     | 2,045     | 2,045        | 2,045        | 2,045        | 2,450        | 2,450       | 2,450         |    |  |         |  |  |  |  |
|                           | in       | 48.8        | 52.8        | 52.8        | 48.8        | 52.8        | 65.0        | 65.0        | 65.0        | 76.6        | 80.5        | 80.5        | 80.5        | 80.5        | 80.5        | 80.5      | 80.5      | 80.5         | 80.5         | 80.5         | 96.0         | 96.0        | 96.0          |    |  |         |  |  |  |  |
| Overall Width W*          | mm       | 390         | 390         | 390         | 390         | 390         | 440         | 440         | 440         | 490         | 490         | 490         | 490         | 490         | 490         | 490       | 490       | 490          | 490          | 490          | 650          | 650         | 650           |    |  |         |  |  |  |  |
|                           | in       | 15.4        | 15.4        | 15.4        | 15.4        | 15.4        | 17.3        | 17.3        | 17.3        | 19.3        | 19.3        | 19.3        | 19.3        | 19.3        | 19.3        | 19.3      | 19.3      | 19.3         | 19.3         | 19.3         | 26.0         | 26.0        | 26.0          |    |  |         |  |  |  |  |
| Overall Height H*         | mm       | 400         | 400         | 400         | 400         | 400         | 450         | 450         | 450         | 510         | 510         | 510         | 510         | 510         | 510         | 510       | 510       | 510          | 510          | 510          | 610          | 610         | 610           |    |  |         |  |  |  |  |
|                           | in       | 15.7        | 15.7        | 15.7        | 15.7        | 15.7        | 17.7        | 17.7        | 17.7        | 20.1        | 20.1        | 20.1        | 20.1        | 20.1        | 20.1        | 20.1      | 20.1      | 20.1         | 20.1         | 20.1         | 24           | 24          | 24            |    |  |         |  |  |  |  |
| E-Multi Weight            | kg       | 190         | 205         | 205         | 190         | 205         | 320         | 320         | 320         | 320         | 525 / 555   | 525 / 555   | 525 / 555   | 525 / 555   | 525 / 555   | 525 / 555 | 525 / 555 | 525 / 555    | 525 / 555    | 525 / 555    | 900          | 900         | 900           |    |  |         |  |  |  |  |
|                           | lbs      | 420         | 450         | 450         | 420         | 450         | 710         | 710         | 710         | 710         | 1,160       | 1,160       | 1,160       | 1,160       | 1,160       | 1,160     | 1,160     | 1,160        | 1,160        | 1,160        | 2,000        | 2,000       | 2,000         |    |  |         |  |  |  |  |
| Nozzle Stroke             | mm       | 100         | 100         | 100         | 100         | 100         | 100         | 100         | 100         | 100         | 100         | 100         | 100         | 100         | 100         | 100       | 100       | 100          | 100          | 100          | 100          | 100         | 100           |    |  |         |  |  |  |  |

## STANDARD PACKAGE

### INJECTION UNIT

- General purpose plastizing screw
- Material feed tube or hopper
- Oil fill kit
- Lifting kit

### CONTROLLER

- 15" touch screen interface
- (2) RFID access cards (operator/supervisor)
- Machine interface cable (E67)
- 4m power cable (3-phase) 400V/460V
- 7m servo drive cable to E-Multi
- Remote diagnostics package
- (2) valve gate control

### OPTIONS

- Servo carriage (for sprue break)
- LSR capability
- Compact horizontal mount stand
- Specialty screws
- Nozzle extensions (heated/unheated)
- Shut-off nozzles
- Mold mounting plate
- Material feed vibrate tube

### OPTIONS

- 36-zone TempMaster HR control (max)
- 12 valve gate control (max)
- TempMaster M-Ax auxiliary servo, E-Drive rotary table and index platen controls
- E67->SP/E12 robot IMM interface adapter

### ON-SITE START-UP SUPPORT AND TRAINING

Notes: 1. \*Standard Speed/High Speed Option  
 2. Electrical - Standard Voltage 480/480 Volt \*\*Calculated Amperage, E-Multi only  
 3. Shot Volume based on PS theoretical values.  
 4. Recommended actual maximum shot size is 50% to 75% of the shot volume in this specification, depending on the application.

Specifications subject to change without notice.  
 Customizable & Specialty Material Solutions Available.  
 Other Configurations Available.

