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

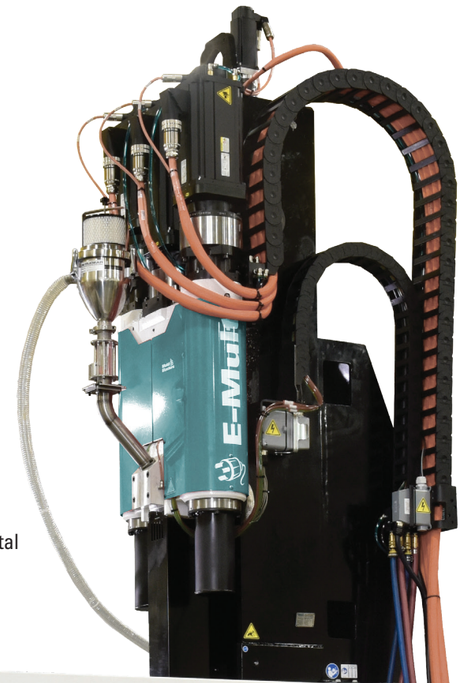
SERVO DRIVEN
- High precision, fast, repeatable and reliable performance.
- Suitable for high tolerance applications.
- Program up to 10 injection profiles and holding pressures.
- Statistical process and production tracking.

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

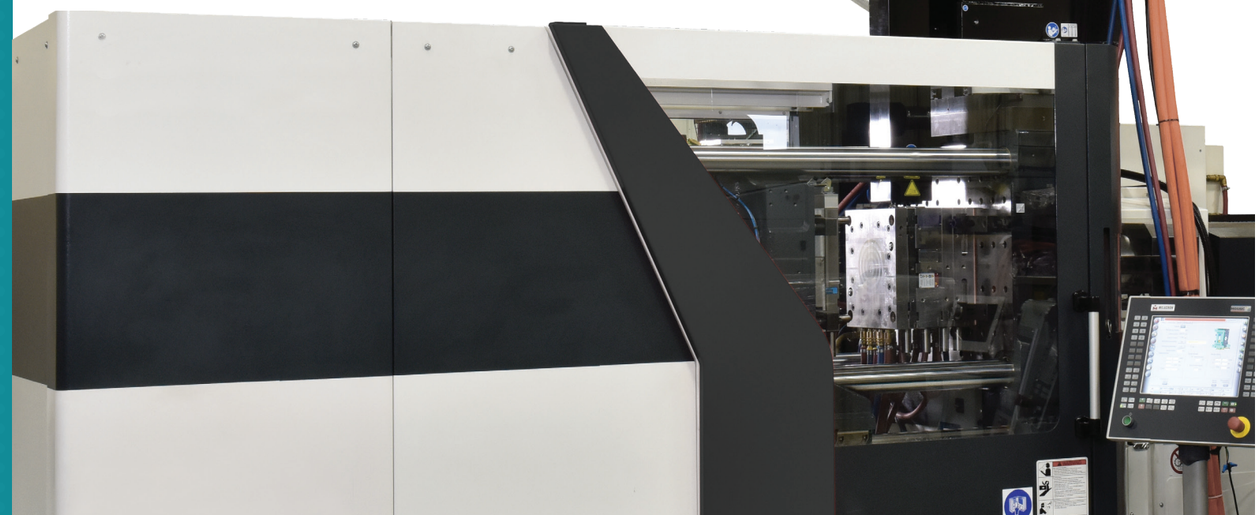
COMPACT DESIGN
- Preserves valuable floor space.
- Save up to 100ft² (9.3m²) of space compared to alternatives.
- Vertical installations virtually eliminate any footprint.

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.



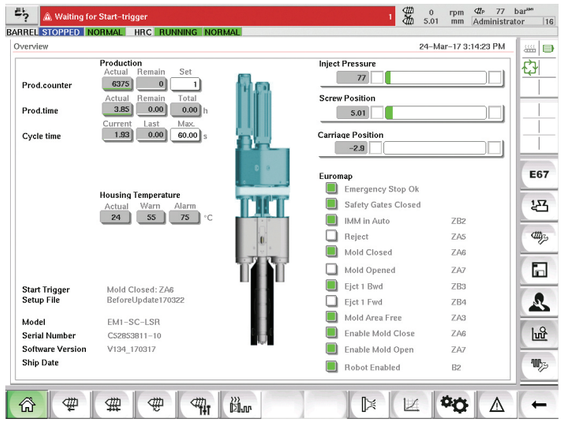
Full range of horizontal or vertical mounting options available



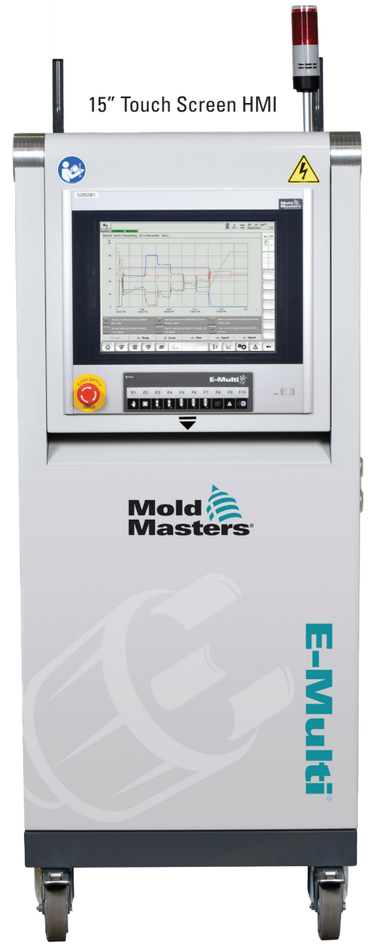
EXPANDABLE MULTI-FUNCTION CONTROLS

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	22	25	22	25	28	32	32	38	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	1.97	2.17
Injection Pressure	Bar	2000	1530	1210	1530	1210	810	2510	2000	1650	1280	2510	2510	2000	1530	2000	1420	2000	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	22,900	18,600	15,400
Injection Stroke	mm	50			100			125				150				150		210			
	in	2.0			3.9			4.9				5.9				5.9		8.3			
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	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	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	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	0.87	1.05
Max. Screw Speed	rpm	600			600			500				410				410		280			
Max. Screw Torque	Nm	80	80	80	80	80	80	80	140	200	200	250	300	350	350	350	350	350	600	700	800
Screw Length	L/D	20	18	16	24	21	18	26	23	21	18	29	25	22	19	24	20	24	21	19	17
* Max. Injection Velocity	mm/s	180 / 360			180 / 360			180 / 360				130 / 260				180		140 / 450			
	in/s	7.1 / 14.2			7.1 / 14.2			7.1 / 14.2				5.1 / 10.2				7.1		5.5 / 17.7			
* Max. Injection Rate	cc/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	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	166 / 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	9.3 / 29.89	11.26 / 36.15
Nozzle Touch Force	kN	10			10			17				25				25		35			
	lbf	2,200			2,200			3,800				5,600				5,600		7,900			
Installed Power	kW	12 / 18 kVA			12 / 18 kVA			24 kVA				35 / 47 kVA				47 kVA		70 kVA			
**Amperage	Amps	40			40			40				40 / 60				60		100			
Total Length 'L'	mm	1240			1340			1,650				1,945				2,045		2,450			
	in	48.8			52.8			65.0				76.6				80.5		96.0			
Overall Width 'W'	mm	390			390			440				490				490		650			
	in	15.4			15.4			17.3				19.3				19.3		26.0			
Overall Height 'H'	mm	400			400			450				510				510		610			
	in	15.7			15.7			17.7				20.1				20.1		24			
E-Multi Weight	kg	190			205			320				525 / 555				570		900			
	lbs	420			450			710				1200 /1225				1,300		1,980			
Nozzle Stroke	mm	100						100				100						100			

Notes:
1. *Standard Speed/High Speed Option.
2. Electrical - Standard Voltage 400/480 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.

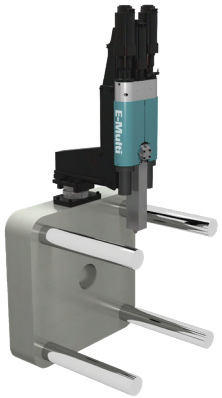
Specifications subject to change without notice.
Customizable & Specialty Material Solutions Available.
Other Configurations Available.

STANDARD PACKAGE

INJECTION UNIT	CONTROLLER
• General purpose plastizing screw	• 15" touch screen interface
• Material feed tube or hopper	• (2) RFID access cards (operator/supervisor)
• Oil fill kit	• Machine interface cable (E67)
• Lifting kit	• 4m power cable (3-phase) 400V/460V)
	• 7m servo drive cable to E-Multi
	• Remote diagnostics package
	• (2) valve gate control
OPTIONS	**OPTIONS**
• Servo carriage (for sprue break)	• 36-zone TempMaster HR control (max)
• LSR capability	• 12 valve gate control (max)
• Compact horizontal mount stand	• TempMaster M-Ax auxiliary servo, E-Drive rotary table and index platen controls
• Specialty screws	• E67->SPI/E12 robot IMM interface adapter
• Nozzle extensions (heated/unheated)	
• Shut-off nozzles	
• Mold mounting plate	
• Material feed vibe tube	
ON-SITE START-UP SUPPORT AND TRAINING	

Vertical mold mount

Compact stand
horiontal mount



E-Radial
vertical mount