

MAGNA MT[®]



THE **MAGNA MT[®]** SERIES INJECTION MOLDING MACHINES
TOGGLE HYDRAULIC TECHNOLOGY 170 - 225 - 310 - 450 U.S. TONS
FEATURES AND BENEFITS



**CINCINATI
MILACRON**

MAGNA MT[®]

ACCURATE, RELIABLE AND PRODUCTIVE

The **MAGNA MT[®]** Series is an exciting product for the plastics processor because it is simplistic, easy to set up and run, yet very reliable and precise. The **MAGNA MT[®]** Series has been upgraded to new levels of precision and reliability, and enhanced with the new MOSAIC Control. The new generation **MT[®]** is reflective of Milacron's continuing efforts to offer processors affordable solutions in a very competitive environment. Available in 170, 225, 310 and 450 US tons.

The **MAGNA MT[®]** Series was designed with the processor's needs *in* and complexity and costs *out*.

DURABILITY AND CONSISTENCY

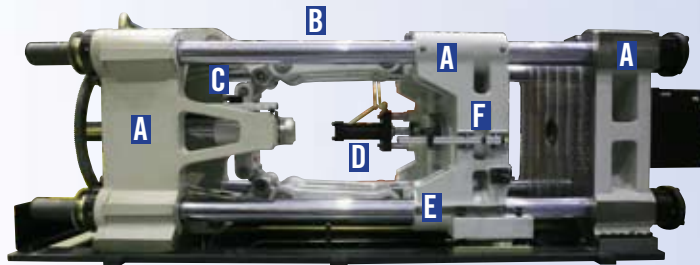
The **MAGNA MT[®]** Series is packed with features that will keep you producing quality parts with maximum uptime.

- Its Zero Leak Seal System eliminates hydraulic leak problems.
- Face seal fitting on all hydraulic lines provide leak-tight connections.
- Easy access to hydraulic components.
- Pump and motor slide out easily from under the base.
- Full flow 5 micron oil filtration provides greater protection of machine components.

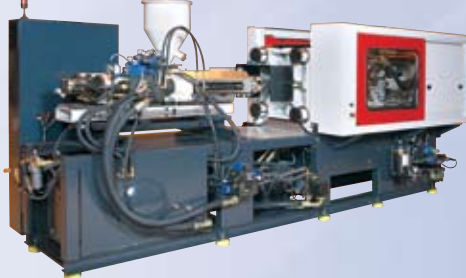
FAST, RIGID, DURABLE CLAMP

The ten-pin clamp linkage of the **MAGNA MT[®]** has a smaller footprint, which contributes to a shorter machine base. The ten-pin linkage design also provides a faster lock-over time, which results in shorter cycle times.

- Large tie bar spacing for greater mold versatility.



- A** Rigid cast platens designed for maximum rigidity and platen parallelism.
- B** Generous mold space increases production versatility.
- C** Hardened toggle linkage with double-shear design minimizes pin deflection and bearing wear.



RELIABLE AND DEPENDABLE

The **MAGNA MT[®]** Series provides high precision and high output production with state of the art proportional hydraulics, positioning accuracy to 0.001" and true closed-loop process control.

The **MAGNA MT[®]** is equipped with a variable volume P/Q servo pump for efficient energy operation. Closed-loop oil temperature control and a full time fixed volume pump cools the oil to ensure continuous excellent hydraulic performance.

- Long clamp stroke for increased minimum and maximum mold height.
- Automatic tonnage adjustment for fast mold changes and accurate tonnage set-up.
- Proportional speed control of all clamp motions.

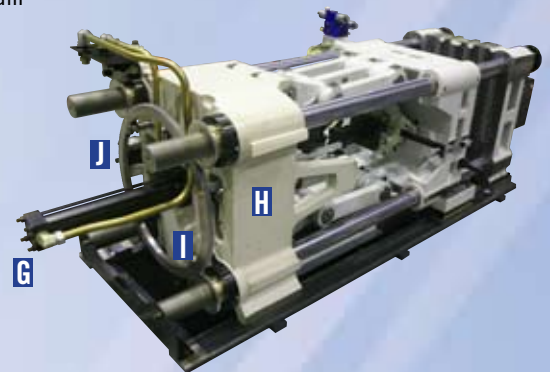
- D** Easy access to knock-out bar for quicker mold setups.
- E** Chrome plated tie bars and greaseless bushings assure continuous low friction.
- F** Position transducers with 0.001" precision positioning of moving platen and ejector.



PRODUCTIVITY FEATURES

The **MAGNA MT[®]** Series provides capacity, performance, versatility, accuracy and durability for every molding advantage along with these features:

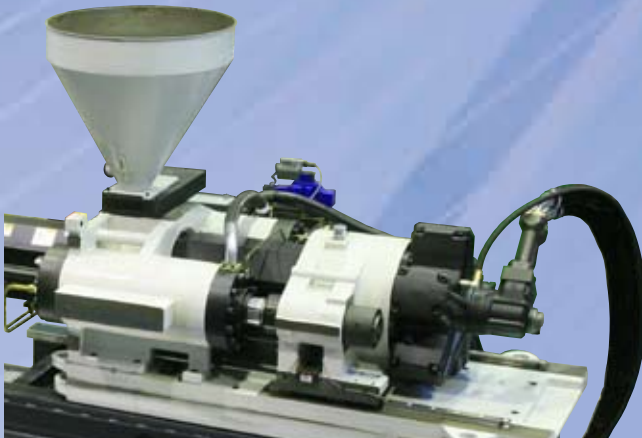
- Short, compact machine footprint
- Low noise levels
- Full range of options available
- ANSI Safety Code compliant
- Designed with FMEA engineering tools



PRECISE AND RELIABLE TONNAGE ADJUSTMENT

- G** Long stroke, fast acting clamp cylinder.
- H** Die height platen.
- I** Bull gear die height adjustment for automatic and accurate tonnage adjustment and positioning of the die height platen.
- J** Die height adjust hydraulic motor.

PRECISION PROCESSING PERFORMANCE



The **MAGNA MT[®]** Series injection units are equipped with twin injection cylinders and twin pull-in cylinders for precise alignment. Precision Ways improve misalignments affecting screw pick-up and cylinder leaks.

Clean, clear access to the purge area is provided on both the operator and non-operator sides of the machine. The injection unit can be swiveled to accommodate screw and end tip removal.

The **MAGNA MT[®]** Series provides versatility with multiple injection units available with A-B-C barrel and screw combinations.

Injection performance is assured with closed-loop control of injection velocity and pressure.

The extruder features 5 stage screw RPM for precise melt quality as well as closed loop back pressure control.

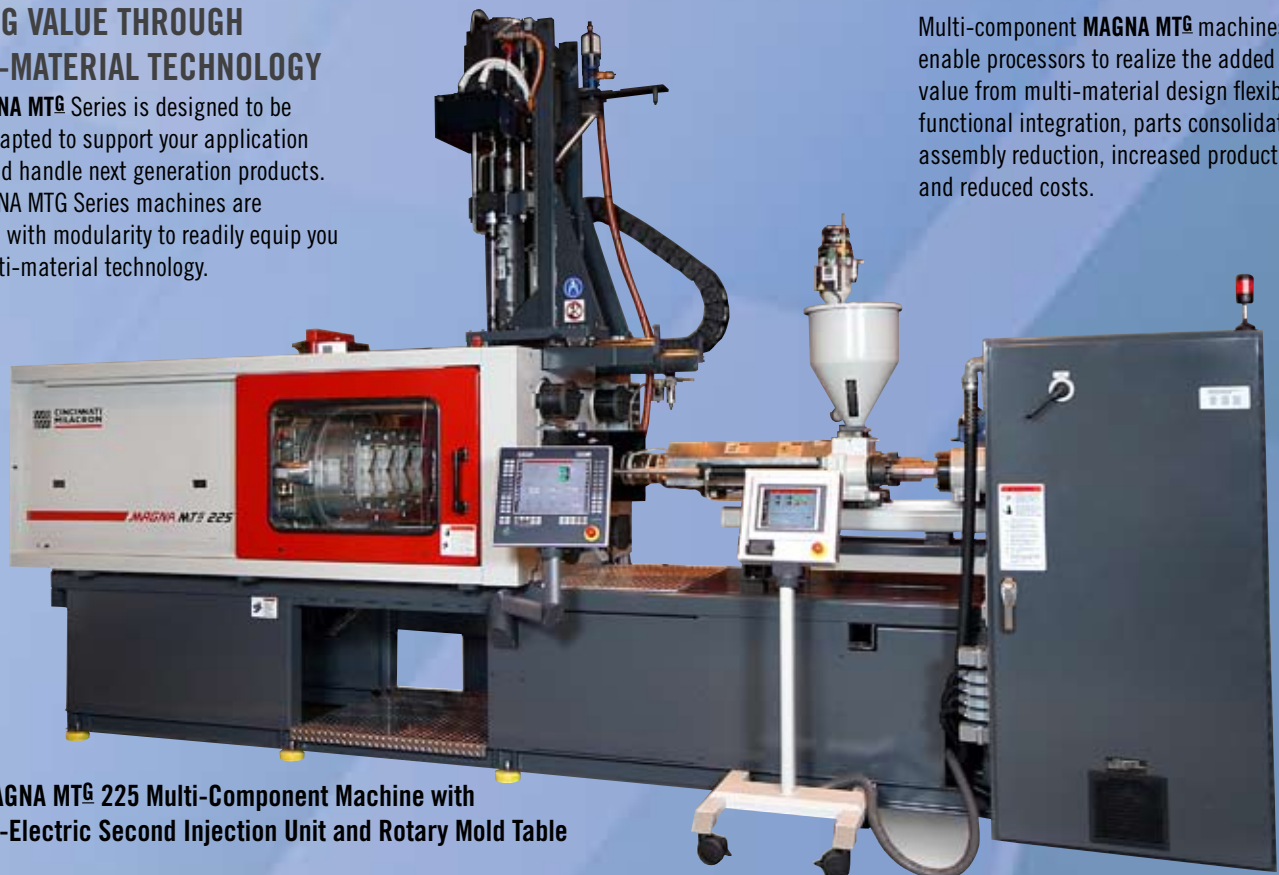
The **MAGNA MT[®]** Series has a wide selection of injection units and screw geometry available. This means application specific solutions for every material formulation and plasticizing rate, including **SERVTEK** packages for:

- High performance, high throughput
- Lower melt temperatures
- Better mixing and melt homogenization
- Wear resistant protection

ADDING VALUE THROUGH MULTI-MATERIAL TECHNOLOGY

The **MAGNA MT[®]** Series is designed to be easily adapted to support your application needs and handle next generation products. The **MAGNA MT[®]** Series machines are designed with modularity to readily equip you with multi-material technology.

Multi-component **MAGNA MT[®]** machines enable processors to realize the added value from multi-material design flexibility, functional integration, parts consolidation, assembly reduction, increased productivity and reduced costs.



MAGNA MT[®] 225 Multi-Component Machine with All-Electric Second Injection Unit and Rotary Mold Table

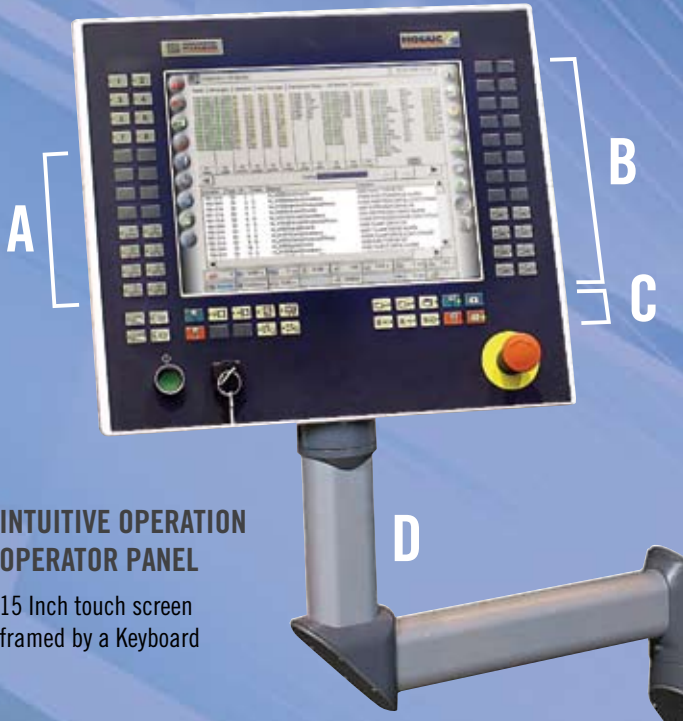


PRECISION CONTROL TECHNOLOGY FOR ALL APPLICATIONS

The MOSAIC Control is the high performance control system that controls and communicates all **MAGNA MT[®]** machine functions and parts producing processes. MOSAIC Control provides reliability, performance, and user-friendliness to keep your process in control.

MOSAIC CONTROL FEATURES

- 15 Inch Diagonal Screen
- TFT Flat Panel
- Touch Screen (Analog, Resistive)
- Dual Intel Processors
- Two USB 2.0 Ports
- Ethernet port - TCP/IP and FTP protocols
- All-digital feedback for accuracy
- Built-in Web Server
- Freely Configurable I/O
- Direct Menu Access
- Machine History Notepad
- Setpoint Overview
- Enhanced Operator ID
- Alarm Log and Change Log
- Process Monitor
- Statistical Process Control (SPC)
- Advanced Plotting Graphics
- Volume/Position/Pressure Injection Setpoints
- Choice of Language and Units of Measurement



- A** Individual forward and retract manual movement keys for each axis.
- B** Factory programmable buttons for added options.
- C** Logical grouping and separation of the machine function and manual operator keys.
- D** Sturdy industrial swing-arm mount can be optimally positioned for each operator, allowing for an unobstructed view of the mold area.

INTUITIVE OPERATION OPERATOR PANEL

15 Inch touch screen framed by a Keyboard

INTUITIVE OPERATION TOUCH SCREEN

Access Keys: Alarms, Overview, Mold Data, Temps, Clamp, Cores, Injection, Production, Automation

Message Bar: Displays the active alarm text or the current menu if no alarm exists.

Functions: Home, Page Back, Help, Screen Export, Data Export, Foreground, Diagnostics, System

Status Bar: The always visible Status Bar provides a quick glance at the current status of critical machine parameters.



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All specifications reflect average values based upon typical machine layouts. Actual figures will vary depending on final machine configuration. If you require more specific data, consult a certified installation print for your particular machine. Performance specifications are based upon theoretical data. Due to continual improvements, specifications are subject to change without notice. © 2008 MILACRON Inc. MILACRON, CINCINNATI MILACRON, MOSAIC, MAGNA MTG and the Globe Graphic are registered trademarks of MILACRON Inc. Printed in USA. 02/08 PM933