



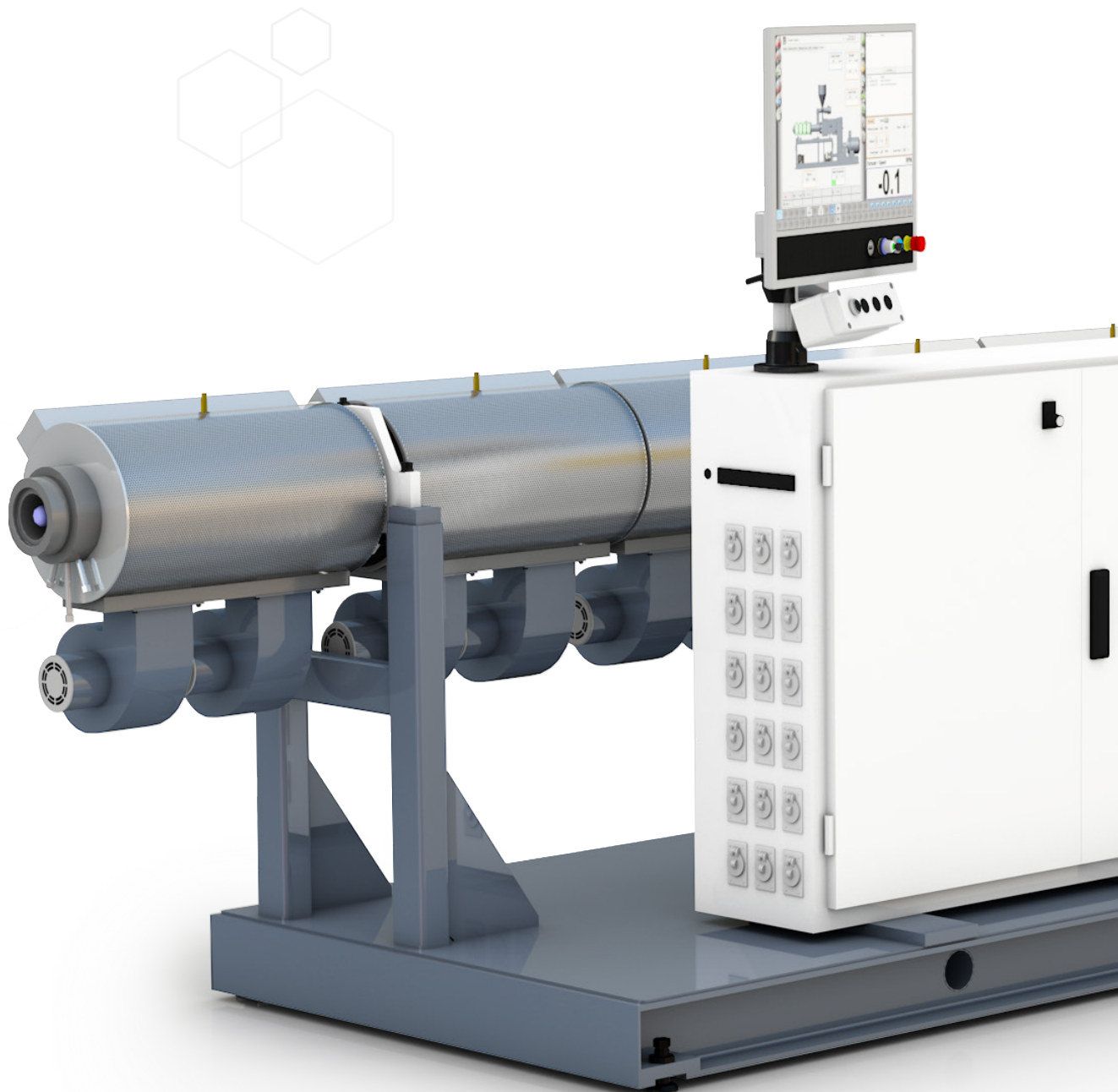
SINGLE SCREW



SINGLE SCREW

Milacron has engineered its single screw extruders with modular design concepts to meet market requirements. The result is built-in flexibility, lower cost, faster deliveries and, ultimately, an exceptionally competitive value to our customers from stand-alone extruders to complete systems.

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PERFORMANCE ADVANTAGES

- Ⓜ Flexible designs that optimize the processing window
- Ⓜ Advanced wear protection for long service life
- Ⓜ Designed for maximum flexibility in order to meet customer specific processing needs
- Ⓜ Standard discrete control with optional micro processor control
- Ⓜ Robust gearbox designs
- Ⓜ Die clamp for quick change overs
- Ⓜ Available in air- and water-cooled barrels



Milacron designs and builds full extrusion systems in-house, maintaining complete control of your precise equipment needs. From extruders to new / rebuilt extrusion barrels and screws, to pipe heads, dies and downstream equipment, you get powerful, reliable solutions that meet your unique needs.

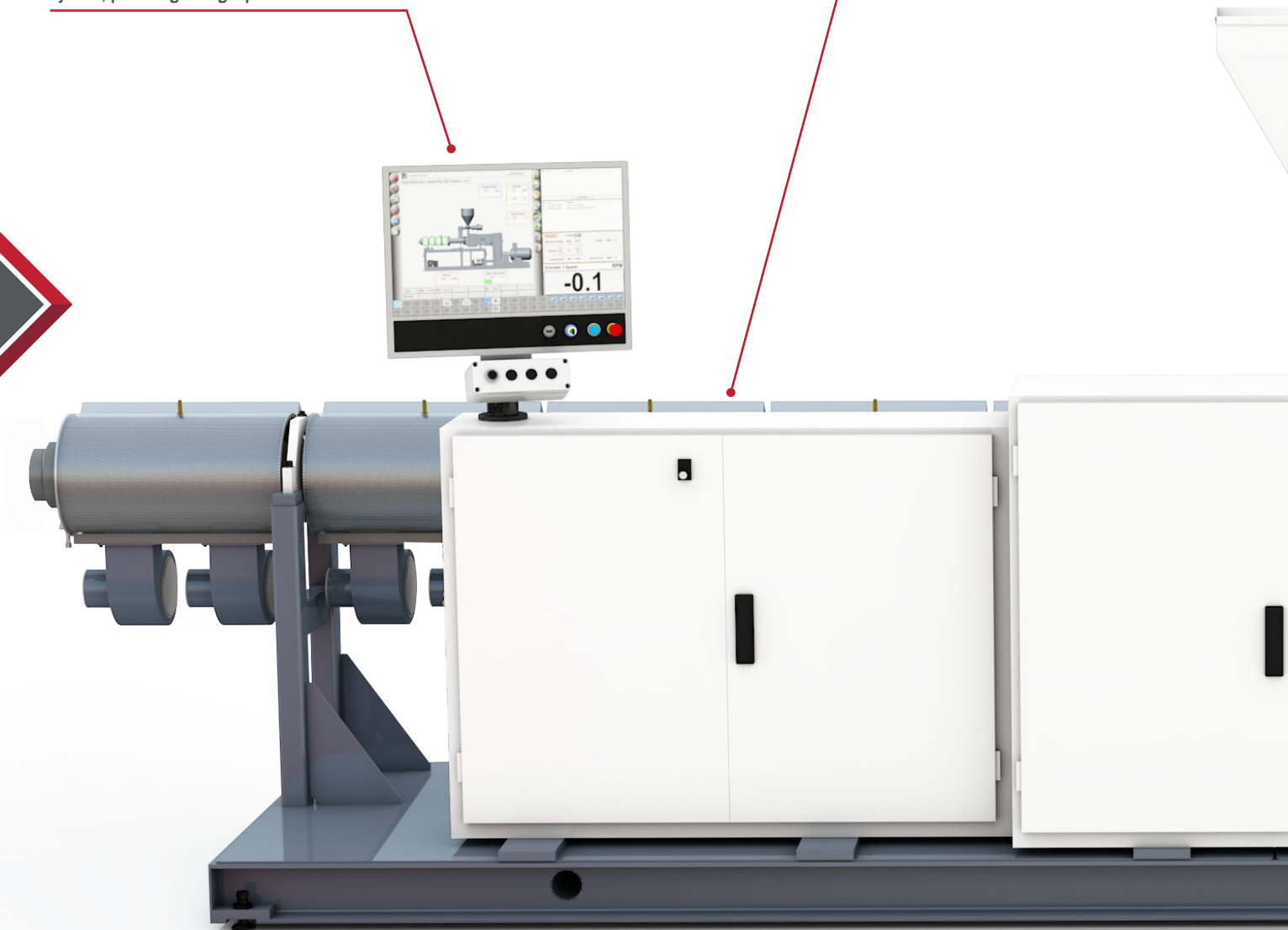
MOSAIC+ CONTROL

Standard discrete extruder control.
Optional Mosaic+ control with a 21" screen capable of interfacing with other extruders and downstream equipment within the extrusion system, providing a single point of control.

PROCESSING UNIT

Processing unit consisting of bimetallic barrel, custom screw design, and robust gearbox.

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**PROVIDING THE HIGHEST PERFORMANCE,
PRECISION, AND FLEXIBILITY.**

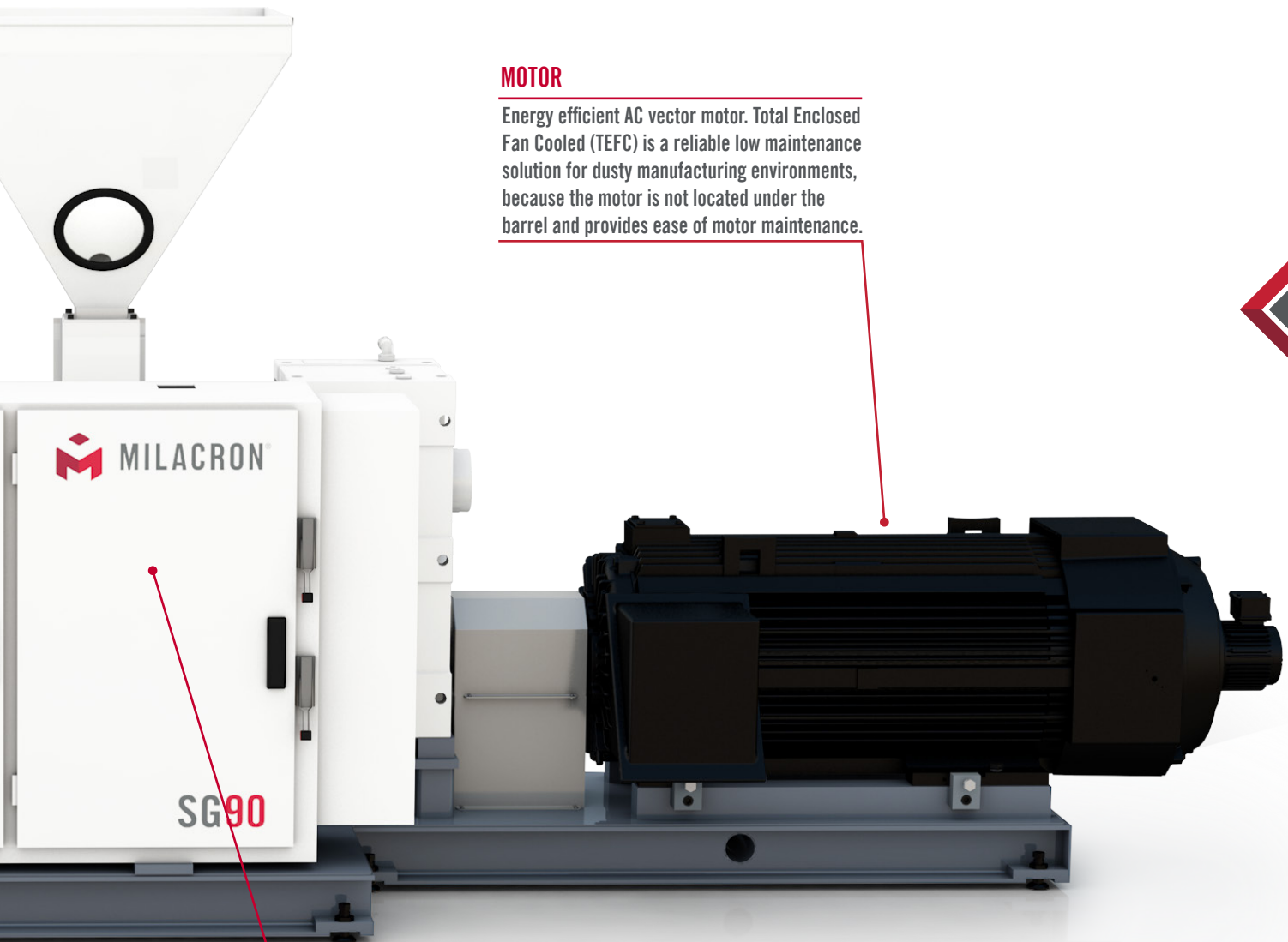


MILACRON M•POWERED

- Designed to fully utilize our M-Powered suite of connectivity products.
- Reduces failures, improves uptime and OEE.

MOTOR

Energy efficient AC vector motor. Total Enclosed Fan Cooled (TEFC) is a reliable low maintenance solution for dusty manufacturing environments, because the motor is not located under the barrel and provides ease of motor maintenance.



BASE-MOUNTED ELECTRICAL PANEL

Configurable panel design for die zones

APPLICATIONS



Single Screw (S), Single Screw Mobile (SM), and Single Mobile Tilt (SMT) extruders handle applications including sheet, profile, pipe, pelletizing, medical tubing, wire, and cable.

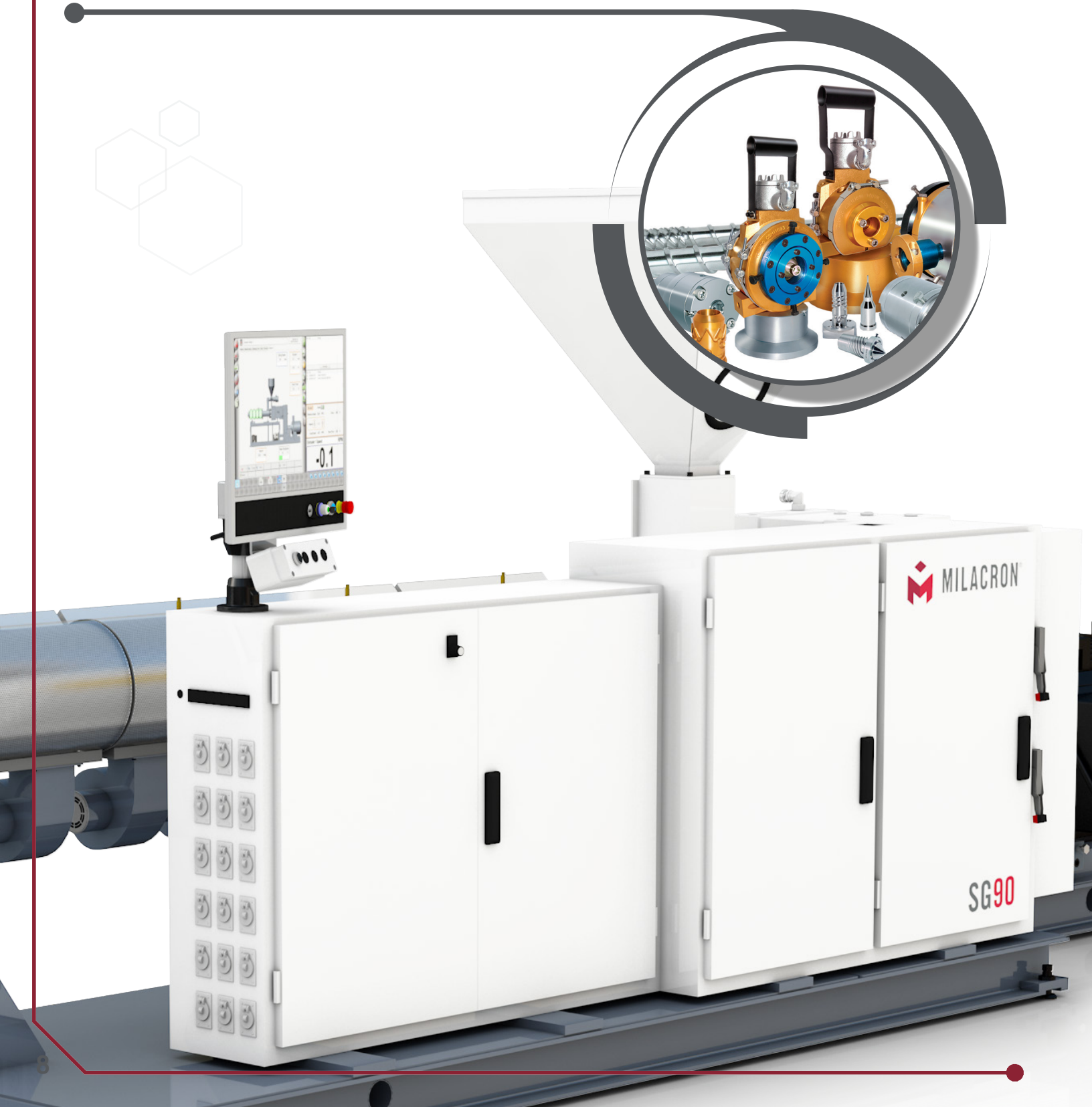
Single Grooved (SG) Series extruder is designed to provide a consistent homogeneous melt for the production of polyethylene and the polypropylene pipes.

Ⓜ AUTOMOTIVE Ⓜ CONSTRUCTION Ⓜ CONSUMER Ⓜ MEDICAL
Ⓜ RECYCLING Ⓜ WIRE/CABLE



TOOLING COMPONENTS

Die heads are available for the production of water, drain waste, and conduit pipes. They are designed to maximize the extruder's output performance, while maintaining product quality. Milacron die heads are also designed with features to allow timely and efficient pipe size change overs.

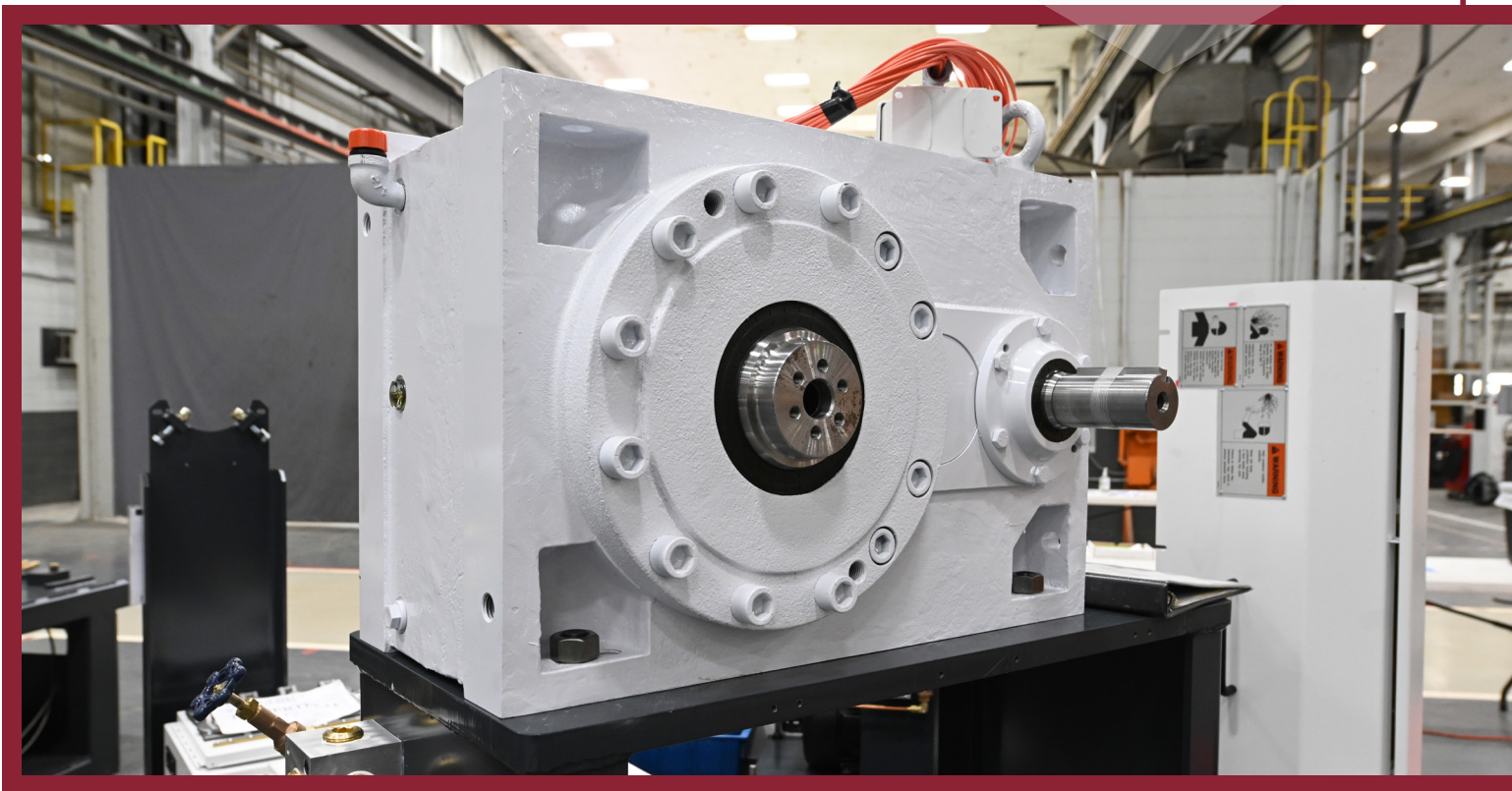


GEARBOXES

We offer extruder gearboxes with the highest performance and load capacity in the world, including Twin Conical, Twin Parallel, and Single Screw extruders.

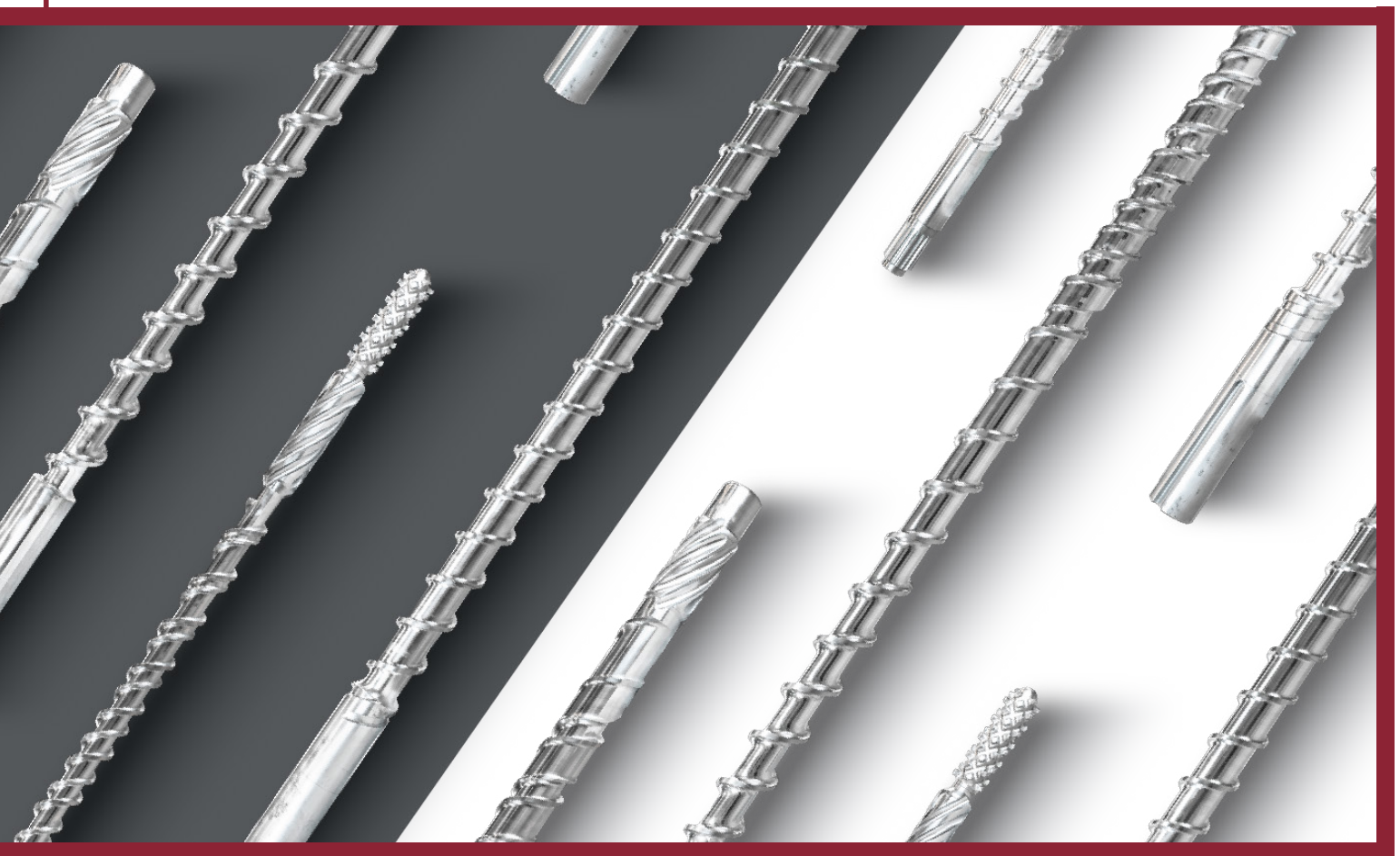
GEARBOX REBUILD PROGRAM

- Ⓜ Gearboxes are crated and stored in a clean environment.
- Ⓜ All components are coated with long-term storage lubricant.
- Ⓜ Shafts and seals are inspected and shafts are turned every quarter.
- Ⓜ Gearboxes are flushed and tested prior to shipment.



SCREWS

New feed screws with a variety of options are available. Feed screws are typically made of 4140 steel, polished, and hard-faced with either Colmonoy 56 or 83. They can also be chrome plated or surface treated with a carbide encapsulation for more abrasive or demanding applications. Several design options, such as conventional or barrier, with mixing options, such as straight Maddock, spiral Maddock, and Pineapple are available. Milacron is capable of handling requests of any size, application, and complexity.



BARRELS






Milacron Extrusion sells vented and non-vented barrels made of high quality steel. We offer clamp-type, bolt-on, or threaded discharge flanges. Barrels are centrifugally cast with bi-metallic liners of Nickel-Boron or Tungston-Carbide. Rupture disc and pressure transducer holes are pre-drilled at the factory and thermocouple holes can either be pre-drilled or drilled on site.



MOSAIC+ CONTROLLER SYSTEM











It's easy to maximize the reliability and adaptability of Milacron machines with the ergonomic touch-screen control of MOSAIC+. Fast processing speeds power extensive data collection and report generation, as well as integration with automation controls, to further simplify the process.

EXCEPTIONAL STANDARD FEATURES

-  Multi-touch capable 21.5" HD touch screen
-  Intuitive operator interface
-  Configurable screen layout
-  Windows-based operating system
-  Touch-screen is provided in English as standard, with optional alternative languages available.



Milacron offers an integrated system to include tanks, pullers, saws, cutters, printers, collection tables, bellers, and coilers. On select applications, we can also provide an integrated system to produce sheet

-  Set point overview page for quick access – actual set points for each axis at the bottom of the page
-  Display of 700 process monitor samples stored on controls, or unlimited samples on USB stick or network drive via reports
-  Graphic display of 33 integrated soft keys with LED's located below screen
-  Internal parameter storage – 40 formulations or dies
-  Self-diagnostic and fault finding capability
-  Data protection with four access levels for up to 30 machine operators
-  PID control of barrel and screw oil zones
-  High/low temperature alarms
-  Automatic PID barrel heat tuning
-  Up to 700 change and alarm log entries on the control, unlimited on a USB stick or network drive via reports

PLUS SCREEN TECHNOLOGY

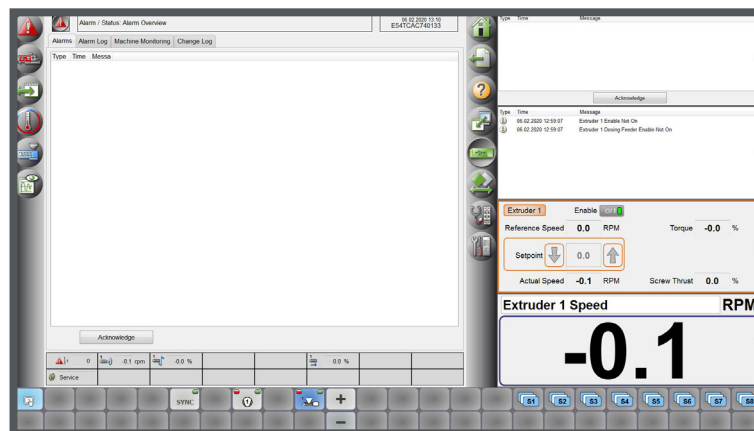
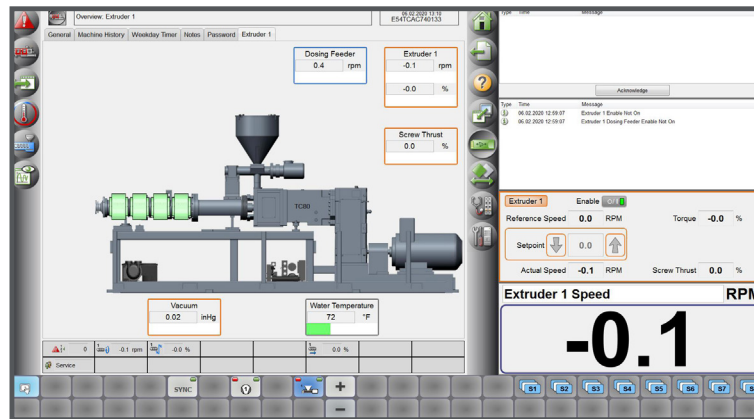
The PLUS section has four configurable window spaces. In this section, the operator can choose to show:

- Four small windows
- One large and two small windows
- Two large windows

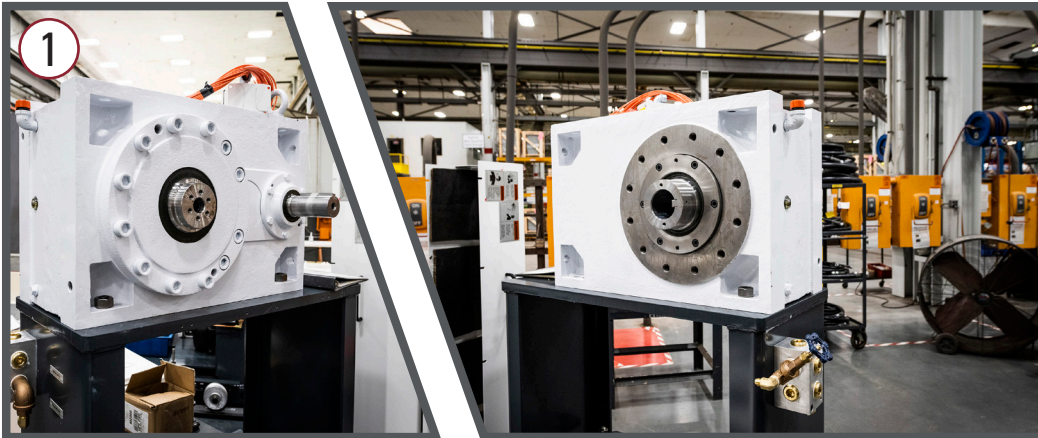


Content choices for the four windows include:

- Alarms log
- Production run
- Extrusion graphics
- Trend data analysis
- Trend graphics
- SPC charts
- Related equipment extruder-mounted feeder systems and downstream equipment
- Status page

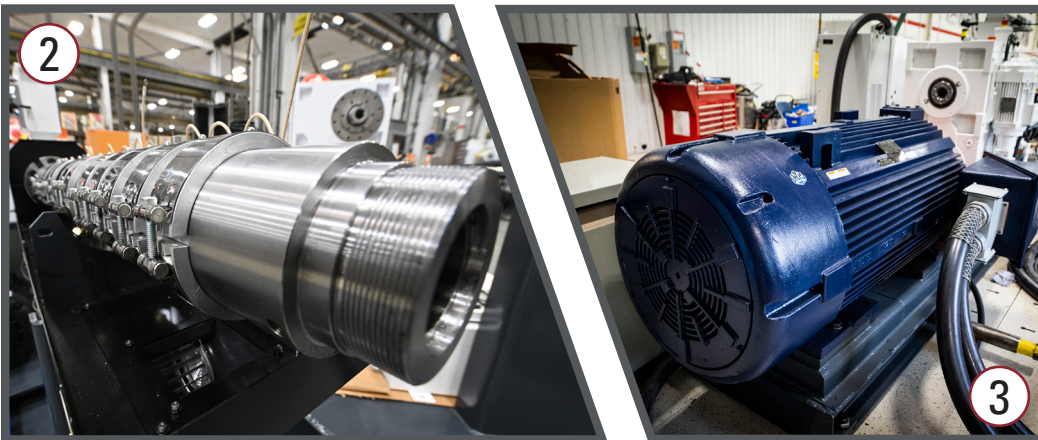


HIGH-QUALITY COMPONENTS



1. GEARBOX

High quality design with a standard AGMA service >1.5, integral thrust bearing, oil cooling, and method of lubrication designed to match to application (splash, forced flow, and cooling).

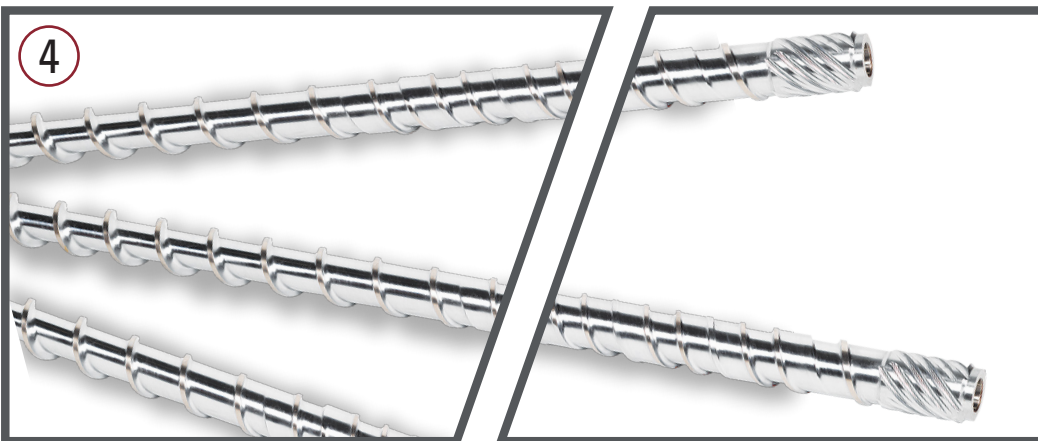


2. BARREL

Bimetallic nickel-boron lined barrel with multiple taps for installation of rupture disc, melt temperature, and pressure probes. Barrel discharge threaded to allow for installation of optional flange and clamp configurations.

3. MOTOR

AC vector motors with an energy efficiency rating of >90%. TEFC (Totally Enclosed Fan Cooled) motor design permits efficient cooling of the motor, while protecting the motor's critical components from dusty environments.



4. SCREW

Screw designs are customized to match the process requirements. High quality 4140HT steel is standard and wear resistance coatings are welded to the flight tips. Chrome, nickel plate, and tungsten spray coating are available.

STANDARD EQUIPMENT



	Standard	Optional
GENERAL		
Discrete temperature and speed control	●	
Mosaic+		○
AC motor and drive	●	
Belt and sheave motor to gearbox	●	
Bimetallic barrel	●	
Bimetallic barrel-tungsten		○
Air cooled barrel	●	
Hopper painted with shut off	●	
Line reactor-extruder drive		* ○
Machine-mounted die transformer	●	
UL, CUL, CSA electrical panel certerification		* ○
CE compliant electrical panel		○
Non-standard electrical supply voltage	●	○
Die clamp		* ○
Caster and track		○
Barrel heater/water cooled bands		○
Drawer magnet		○
Screw cooling-water		○
Direct couple motor and gearbox-consult factory		○

*Standard on SV model



AUXILIARY SOLUTIONS


FEEDER SYSTEMS

-  Volumetric feeder for color or other additives
-  Gravimetric feeder capable of accurately feeding one or more components

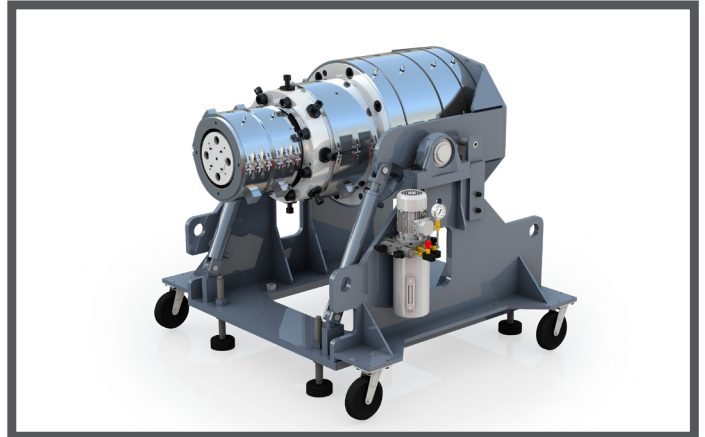
Feeding systems




DIE HEADS

-  Genca die heads for polyolefin pipe, wire and cable, medical tubing, industrial and commercial tubing

Die heads



DOWNSTREAM EQUIPMENT

-  Milacron offers integrated system to include tanks, pullers, saws, cutters, printers, collection tables, bellers, and coilers. On select applications, we can also provide integrated systems to produce sheet products.

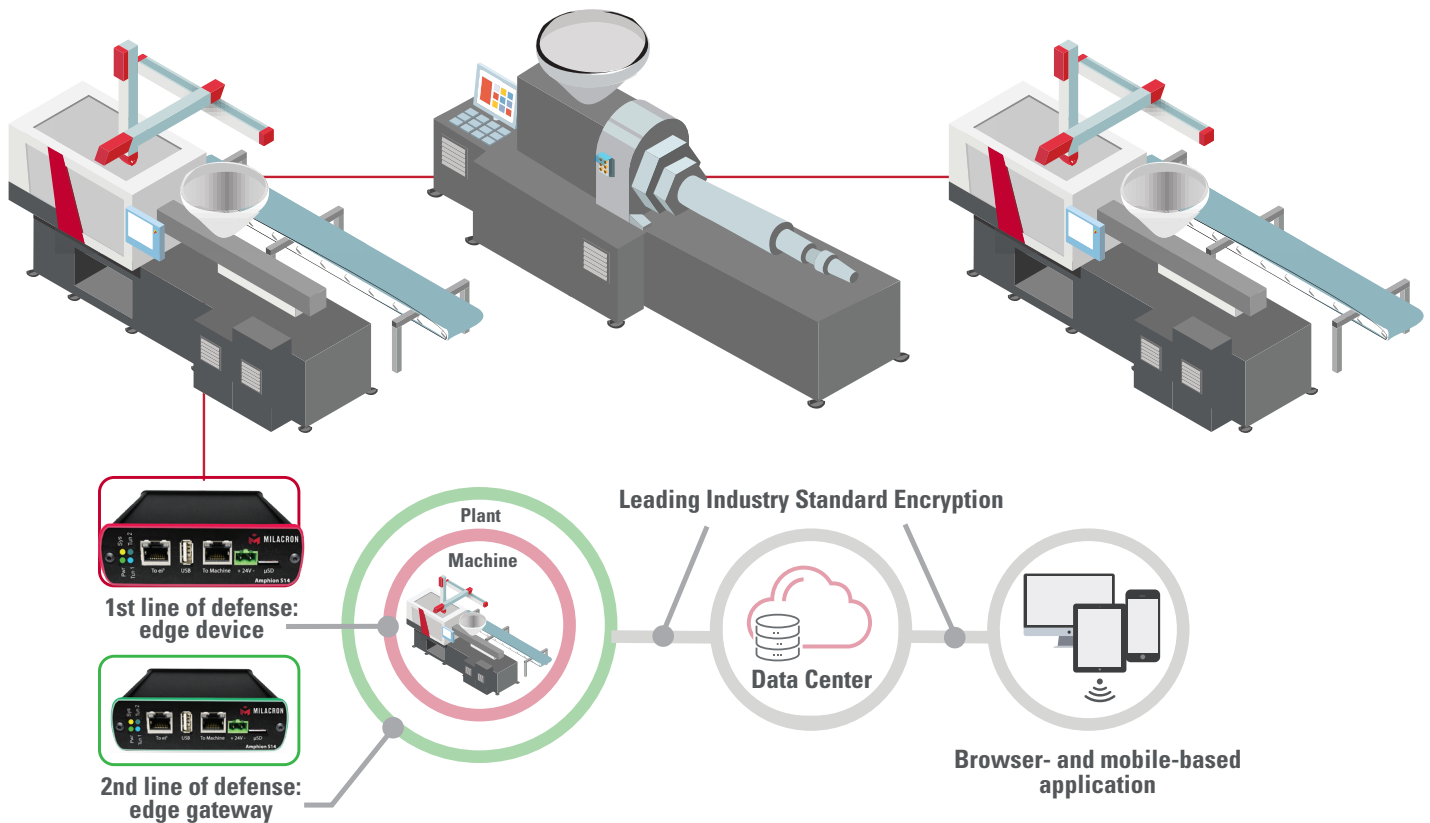
Downstream equipment



M·POWERED

Leading The Plastics Industry In Digital Transformation

M-Powered is a portfolio of easy-to-use observational, analytical and support services that provides customers a competitive advantage. Leveraging the Industrial Internet of Things (IIoT) technology, M-Powered runs sophisticated algorithms that utilize real-time machine learning to monitor machine operations, and provide alert in advance of potential issues.



M-Powered Uses End-to-End Data Protection

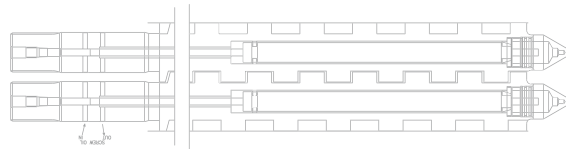
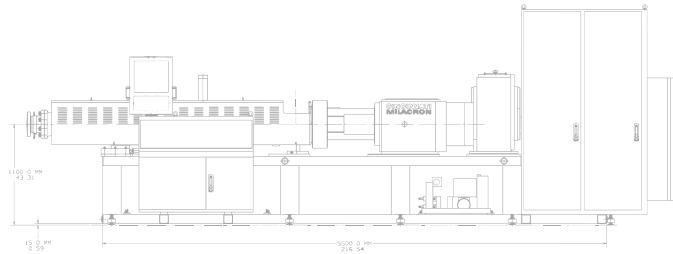
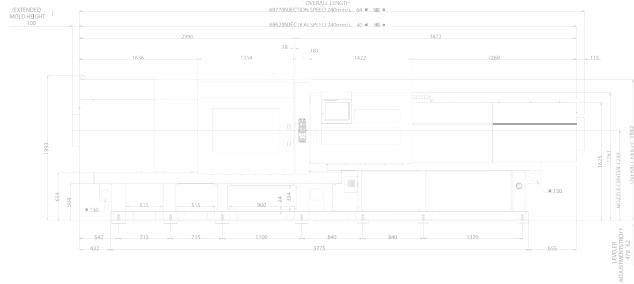
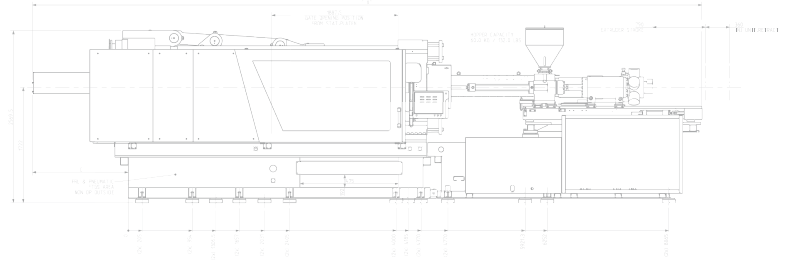
M-Powered Yields Unique Intelligence On:

- 🔴 Current and future operations
- 🔴 Manufacturing quality - reduce scrap
- 🔴 Uptime and OEE
- 🔴 Reduce power usage

The addition to your company's bottom line from implementing IIoT solutions are:

- 🔴 Alert for scheduled maintenance
- 🔴 Reduce unplanned outages
- 🔴 Increase productivity

To learn more, contact SALES@MILACRON.COM or MPOWERED@MILACRON.COM.



4165 Half Acre Rd., Batavia OH 45103
 513.536.2000
 info@milacron.com | www.milacron.com

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