Koike Aronson, Inc./Ransome is headquartered in Arcade, NY. We are a proud supplier of advanced cutting machines, welding positioning equipment, portable cutting/welding machines, and gas apparatus. Our knowledgeable staff can assist you with virtually all your needs in metal fabrication. Koike Aronson/Ransome cutting machines can be customized to fit most requirements, and our welding and positioning equipment can be made to accept work pieces of nearly any size.

Our manufacturing area consists of a machine shop, saw shop, two assembly shops, a burn shop, and a weld shop. Handling nearly all manufacturing in-house helps us maintain our extremely high quality. Our factory uses 5S, a lean tool directive, that increases productivity through tidiness and improved organizational practices. We have the capacity to run three shifts with approximately 100 employees per shift. Machining capabilities range anywhere from a small nut to a large weldment. Most importantly, we use our own products to build our customers' machines.

The Engineering Department is comprised of mechanical, electrical, and software engineers with over 250 combined years of design, process, and technical experience. Their knowledge allows us to apply proven designs to customer needs and to develop new technology for custom applications. AutoCAD, SolidWorks, and Cosmos software are used to optimize designs for standard products and to create custom solutions for specialized equipment. Our electrical and mechanical systems are designed to industrial standards for strength, reliability, and safety.

The Business Unit and Customer Service Representatives of Koike Aronson/Ransome offer our customers well over 170 years of combined experience. They work with our many distributors and manufacturer sales representatives to make sure you get quality products and the right equipment for your application. We encourage feedback, and are ready to work with you to keep your machine productive for many years.

The dedicated service technicians of our Field Service Department work as a team to keep machines running at top performance. This starts with sending pre-installation documentation to prepare our customers for machine delivery, installation, and training. Our website is filled with helpful information including the KAR Club, which offers numerous tips on troubleshooting, tuning your machine, and machine maintenance.
Koike Aronson’s Customer Visit Program was introduced to provide those looking to purchase equipment the opportunity to come visit us, meet our people, and tour our complete manufacturing facility.

Your visit to our facility is on us. All expenses paid for including: airfare, transportation, room and meals.

Call a Koike Representative for details and schedule your appointment today!
Phone: (585) 492-2400
Toll Free: (800) 252-5232
Fax: (585) 457-3517
Koike Aronson, Inc./Ransome has created a high quality industrial grade, gantry-style, thermal cutting machine using the latest technologies to assure this machine can operate in the most challenging environments. The Mastergraph EX2 series provides unmatched speed, performance, reliability, and flexibility in a thermal cutting machine.

The Mastergraph EX2 can be fully customized to fit your production needs and increase your productivity. Multiple plasma stations, oxy-fuel stations, marking options as well as full contour plasma beveling, which is controlled through a very easy to use operator interface. The Mastergraph EX2 provides the ultimate solution for Steel Service Centers, Heavy Fabricators, Equipment Manufacturers and Shipbuilders are just a few of our markets.

"We Make Metal More Profitable"
Drive System Engagement
Precisely engages the pinion into the rack using dual precision linear bearings. Makes for a long life and accurate machine motion.

Koike - Engineered Main Electrical Enclosure
No proprietary components are designed into the Koike main electrical enclosure. Only “Off-the-Shelf” components are structured for this design. This main electrical enclosure incorporates Sercos-III or EtherCat interface for fast communication between the CNC and electrical components. 18 Amp Bosch/Rexroth drives are used to give the HP required to achieve 1400 IPM rapid traverse speed. Power requirement is 480/3/60 @ 30 Amp.

A Global Standard Digital Interface for communicating between controls and motion devices
Sercos III Edge-Pro CNC provides fast communications between the CNC, tool options and ethernet. The easy to use operator console is designed to incorporate up to 2 plasma stations, 1 full contour plasma bevel head and up to 8 oxy-fuel torches. A swivel design allows the operator to work inside or outside of the longitudinal rail.

Powerful AC Servo Drives and Ultra Low Backlash Planetary Gearboxes
Powerful 6 HP drives, for X and Y-Axis is engineered for precise, smooth and accurate motion for excellent cut quality.

Large Heavy Duty Rail System
The floor mounted rail systems provides a very rigid foundation for the large 37 KG triple machined rail. This is necessary for very accurate and smooth machine motion. This large heavy duty rail system can be easily expanded to accommodate additional cutting lengths or additional machines on a common rail.

Large Diameter Drive Pinions
Large diameter pinions offer accurate and smooth machine motion and are designed to achieve 1400 IPM rapid traverse speeds.

Large Diameter Drive Pinions
Large heavy-duty main saddle rollers provide stability for heavy loads while achieving smooth motion.

Large Brass Rail Scrapers
Provide excellent scraping of debris to keep machine motion smooth and stable.
**STANDARD EQUIPMENT**

**Rail Axis Cable Carrier**
Can be mounted on the floor or overhead (optional)

**Heavy Duty Cross Axis Linear Bearings**
Precision linear bearings provide smooth and very accurate motion while providing very heavy load capacities.

**Cross Axis Cable Carrier**
A sealed design keeps hoses and cables protected from harsh environments.

**Machine Tool Testing**
All machines tested to ISO 230-2 standards.
- Machine Motion Accuracy: .015” Accuracy
- .005” Repeatability
  (compensated machine motion in 72”, measured with laser interferometer).

**Cable and Hose Management**
All cable and hoses are properly installed to eliminate twisting and fraying during machine motion.

**Slave Carriage Band Clamp**
Allows easy and accurate manual placement and spacing of tools such as oxy-fuel and plasma torches.

**MARKING OPTIONS**

**Plasma Plate Marking**
Low amperage plasma marking with the ability to adjust marking depth through the CNC parameters.

**Pneumatic Dot-Peen Pin Stamp Marker Station**
Carbide tipped variable speed punch for marking bend lines, layout lines, drill locations and lettering/numbering as small as 1/4” high.
Hypertherm HyPerformance/HyDefinition Plasma Systems
HyPerformance Plasma cuts fine-feature parts with superior quality and consistency while eliminating cost of secondary operations. The quick disconnect torch makes changing consumables fast and easy. Long consumable life, dross free edges, minimum angularity and high system reliability maximize productive “arc-on-time”. HyPerformance Plasma combines fast cutting speeds, rapid process cycling, quick changeovers and high reliability to maximize productivity. 130 amp to 800 amp systems are available to meet your production demands.

Hypertherm Conventional LongLife Air and Oxygen Plasma Systems
Heavy-Duty production tools with cost reducing LongLife technology for dramatically longer consumable life and much lower operating costs. The quick disconnect torch makes changing consumables fast and easy. Impressive cut speeds, consistent cut quality and exceptional consumable life gives this plasma system a reliable performance across a wide range of industrial applications.

Laser Pointer
Allows operator a visual indicator for plate alignment and torch positioning.

3D-LT Bevel Unit with Koike HD Sensor-THC Height Control
True focal point technology. This head is designed so motors and gearboxes are receiving maximum protection from the cutting environment. No electrical wires or components near the heat, smoke and dust involved with the cutting process. Designed for simplified alignment and lower maintenance costs.

- Continuous 360° rotation.
- Accuracy +/- .5 Degrees
- Bevel Angle Capability:
  - Positive bevel angle: 50°
  - Negative bevel angle: 50°

- Bevel Types include: A, V, X, Top Y, Bottom Y & K Bevels

TrueHole™ Ready
TrueHole™ Technology founded by Hypertherm® produces a significantly better hole quality than what has been previously possible before using plasma. This technology was developed for mild steel from gauge to 1” (25 mm) and has been optimized from a 1:1 to a 2:1 diameter to thickness ratio.

Koike Integrated Sensor THC Torch Height Control
- 12” (340.8 mm) Lifter Travel
- 1,000 IPM Programmable Lifter Speed
- Adjustable stroke retract between cuts
- Dynamic positioning.

Collision Detection Mount
- Magnetic integral breakaway for collision detection and system shutdown
- Primary Ohmic contact plate sensing for clean plate
- Secondary plate sensing means for scaled/rusty plate
- Primary and secondary means for lifter homing

Manual Plasma Bevel Station
Bevel in the rail axis only. Non-contour mechanical adjustment from +/- 0 - 45°.
Oxy-Fuel Torch Stations

(Up to 8 stations available)
Model “G” motorized lifter, 6-inch (150 mm) or 12” (300 mm) stroke at 40 IPM. All stations are controlled from the Operator Console. Capacitive height control (not shown) allows exact tip to work piece standoff distance (optional). Automatic ignition (not shown) allows tip ignition automatically through a program or can be executed manually from the Operator Console.

Koike Twin Tip Holder
Converts a single oxy-fuel cutting torch into dual cutting torches. Allows strip cutting and a closer distance between small parts.

Koike Torch Bevel Head Attachment
The bevel head attachment is used in place of a Koike cutting tip. It is used for bevel cutting operations, including top and bottom bevel cuts.

Koike D7 Cutting Tips
- Safer Operation
  Koike’s 100 Series tips are designed to reduce backfires to keep the operator and torch safe
- High Quality
  Each tip is thoroughly tested to ensure consistent high-quality cutting in every tip
- Faster Cutting
  Our high-speed divergent tip increases cutting speed by 20-28% over standard tips
- Gas Savings
  Gas consumption is reduced up to 26%.
- Durable
  A stainless steel cutting oxygen liner results in the tip lasting up to five times longer over standard tips
- Lifetime torch warranty

HI-LO Gas Control with Auto Ease-On
Allows high-lo preheat for fast preheating of plate and superior cutting quality. Features auto ease-on pierce control for cut oxygen. Allows for precise piercing on thicker plate.
**Water Cutting Table**

The Koike water cutting table is an economic solution to reducing smoke, sparks and dust into the environment.

- Constructed out of 1/4" thick steel the table offers a heavy duty design with reinforced side walls for extra durability.
- Has a steel tank air bladder allows raising and lowering the water level with air.
- Table allows 6" thick plate and under to be leveled to the table for more accurate cutting.
- 1/8" thick slats are spaced 3" apart and curved to help stop small parts from falling into the table and prevent straight line cutting along a slat. This feature reduces slag along the bottom of parts and prolongs the life of the slats.
- Easy lift lugs allows you to lift the whole slat and pan assembly or each individual component of this assembly. As an example: it allows for the lifting of slats and the holder for easy access to collector pans.

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**Klean Sweep Self Cleaning Downdraft Table**

- **Production**
  - No need to stop production to remove your slag.
- **Simple Operation**
  - Either remove slag by pressing a button or can be programmed to run in set intervals.
- **Collection Options**
  - Either choose to have your slag dumped into a container embedded into the floor or conveyed into a portable slag container.

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**Koike Zoned Downdraft Cutting Table**

- Modular designed
  - Provides ability to add space as you need it
- Simple Operation
  - Slat frames and slag pans easily remove for cleaning
- Multiple Zones
  - Provide optimal fume extraction

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**CNC Air Conditioning Unit**

Provides additional cooling- required for machines operating in temps above 120°F (49°C).

Consists of 1024BTU 115Vac industrial tool grade air conditioner and CNC enclosure for external cooling of CNC cabinet.

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**Fume Extraction Unit**

- Ledge-less construction
  - Eliminates dust build-up and accommodates wash down environments.
- Compact design
  - Minimizes floor space.
- Powerful performance
  - Proprietary ExtraLife™ Filter Cleaning System provides 30% more cleaning energy.
- Cost savings
  - Fewer filter change outs, reduced filter disposal costs, less energy usage.
- Reliability
  - Exceptional results for over 20 years and counting.

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**Safety Light Curtain**

Safeguards personnel from the potential dangers of moving machinery. Will shut-off machine if anything comes within the path of the light curtain while in motion.

Also available Pull Rope E-Stop design

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**Optional Operator Platform**
<table>
<thead>
<tr>
<th><strong>Material Thickness Range</strong></th>
<th><strong>CNC Controller</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Plasma Thickness:</strong></td>
<td><strong>Hypertherm® EDGE Pro</strong></td>
</tr>
<tr>
<td><strong>Oxy-Fuel Thickness:</strong></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Rail Axis Cable Carrier</strong></th>
<th><strong>Plasma Type</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Floor Mounted</td>
<td>Hi-Definition</td>
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<tr>
<td>Overhead Mounted</td>
<td>Conventional</td>
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<table>
<thead>
<tr>
<th><strong>Plasma System</strong></th>
<th><strong>Oxy-Fuel</strong></th>
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<tr>
<td>Hypertherm®</td>
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<table>
<thead>
<tr>
<th><strong>Plasma Bevel</strong></th>
<th><strong>Auto Ignition</strong></th>
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<tbody>
<tr>
<td>Manual Type</td>
<td></td>
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<tr>
<td>3D-LT Automatic Full Contour</td>
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<table>
<thead>
<tr>
<th><strong>Plasma Height Control</strong></th>
<th><strong>Capacitive Height Control</strong></th>
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<tr>
<td>Koike Sensor-THC</td>
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<table>
<thead>
<tr>
<th><strong>Plate Marking</strong></th>
<th><strong>Manual Bevel Attachment</strong></th>
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<tr>
<td>Pneumatic Dot Peen</td>
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<table>
<thead>
<tr>
<th><strong>Offline Software</strong></th>
<th><strong>Cutting Tables</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypertherm® CAM Solutions</td>
<td>Pneumatic Water</td>
</tr>
<tr>
<td>SigmaNEST</td>
<td>Dry</td>
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<tr>
<td></td>
<td>Downdraft</td>
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<tr>
<td></td>
<td>Self Cleaning Downdraft</td>
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<tr>
<td></td>
<td>Fume Collector</td>
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## SPECIFICATIONS

### MODELS

<table>
<thead>
<tr>
<th>Models</th>
<th>MG-EX2 1500</th>
<th>MG-EX2 2500</th>
<th>MG-EX2 3100</th>
<th>MG-EX2 3700</th>
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</thead>
<tbody>
<tr>
<td>Effective Cutting Width (5-Slave Stations)</td>
<td>60 in</td>
<td>96 in</td>
<td>120 in</td>
<td>144 in</td>
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<tr>
<td>Effective Cutting Width (2-Slave Stations)</td>
<td>84 in</td>
<td>120 in</td>
<td>144 in</td>
<td>168 in</td>
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<tr>
<td>Distance Between Floor Mount Pads</td>
<td>108 ¼ in</td>
<td>144 ¼ in</td>
<td>168 ½ in</td>
<td>192 ¾ in</td>
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<tr>
<td>Machine Rail Gauge</td>
<td>126 ¾ in</td>
<td>162 ¾ in</td>
<td>186 ½ in</td>
<td>210 ¾ in</td>
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<tr>
<td>Machine Width</td>
<td>177 in</td>
<td>213 in</td>
<td>237 in</td>
<td>261 in</td>
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<tr>
<td>Effective Cutting Length (Expandable)</td>
<td>250 in</td>
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<td>Rapid Traverse Speed</td>
<td>1400 IPM</td>
<td>1400 IPM</td>
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<td>Contour Speed (Maximum)</td>
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<td>Machine CNC</td>
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<td>Hypertherm® EDGE Pro</td>
<td>Hypertherm® EDGE Pro</td>
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<td>Machine Drive System</td>
<td>AC Servo</td>
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<td>AC Servo</td>
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<td>Maximum Number of Tools</td>
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<td>Maximum Number of Slave Stations</td>
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<td>Maximum Plasma or Marker Stations</td>
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<tr>
<td>Maximum Oxy-Fuel Stations</td>
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<td>Oxy-Fuel Gas System 10 in Max. Thickness</td>
<td>Hi-Lo</td>
<td>Hi-Lo</td>
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<tr>
<td>Machine Voltage</td>
<td>480 VAC</td>
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<td>480 VAC</td>
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<tr>
<td>3-phase/30 AMP</td>
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Specifications are subject to change.