Cutting Positioning and Welding Equipment
Koike Aronson/Ransome’s history goes back to 1946 when Chuck Aronson founded the Aronson Machine Company, a welding positioner manufacturer at which he invented and patented positioners that are still used today. In 1969 Airco acquired Aronson Machine Company, then sold it 10 years later to BOC. In 1985, Koike Sanso Kogyo (est. 1918) of Tokyo, Japan, acquired the combined BOC and Aronson to add a world-class welding positioner line to their well-regarded cutting machine line. The result was a single company that supplied the market with the best welding positioners and thermal cutting products in the world.

In 2001 Koike Aronson purchased a large competitor based in Houston, TX called the Ransome Company. The acquisition allowed Koike Aronson to offer the most durable, safest, and largest variety of positioning equipment ever. Today we are known as Koike Aronson/Ransome, Inc., “The Most Complete Line in the Industry.”

Koike Aronson/Ransome is 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 our 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. We have a comprehensive facility that incorporates the latest technologies to engineer and manufacture heavy-duty equipment for maximum rigidity and long life. Our engineers, service technicians, and business unit representatives have well over 450 years of combined experience, and our shop personnel have on average 25 years of experience each. Koike Aronson/Ransome has a sound balance sheet, showing a healthy cash position with access to multiple untouched lines of credit. This allows us to aggressively support our continuous improvement efforts and to invest in new and better products for our markets.
Koike Aronson, Inc./Ransome is located in Arcade, New York in a facility that is regularly expanded to meet demand. The 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.

Since 2006 we have spent more than $25 million to expand our production of welding positioners, water tables, and cutting machines. This investment and increase in capabilities proves our commitment to the metal cutting industry and our determination to manufacture the best products in the market. Our commitment is also shown by the ISO 9001 certification achieved by our entire NY facility. We have in place the means to continually improve our products, our service, and our ability to support customers.

With the knowledge, workers, skills, and capacity we possess you can be sure that we can meet your requirements. No project is too big for Koike Aronson/Ransome.

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 not just quality products but also 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. Further assistance is just a phone call away Monday through Friday, 8am – 5pm ET. Additional training and onsite repairs are available for machine issues that cannot be resolved over the telephone. Technical phone support is handled directly by a Koike Field Service Technician, not an anonymous call center, for the entire life of the machine.

We also maintain a 4,200 sq. ft. demo area to display our product line, provide demonstrations, and to train our service technicians. To see how Koike Aronson/Ransome can help make metal more profitable for you, schedule a visit to our facility today. All expenses are paid: airfare, transportation, room, and meals. (Contact the Koike Aronson/Ransome operator at 585-492-2400, ext.0).
1 - 7 CUTTING MACHINES

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Koike Aronson offers the industry’s most extensive lines of cutting machines.

Choose from oxy-fuel, plasma, laser, or waterjet systems for optimum performance, then match the machine with one of our CNC controls for added precision and versatility.

Great starting point for any fabrication shop, garage builder or large production company with limited space.

- Oxy-fuel and plasma cutting to achieve high precision cuts from gauge material up to 4” mild steel.
- Extremely rigid rail system with precision ground linear guides and a structurally compact design; this machine offers the strongest rails in its class.
- C-channel rail provides extra stability and durability in a heavy duty working environment.
- Mechanical torch breakaway system to prevent torch impact with part tip-ups. Uses magnetic force to detect collision as well as initial height sense.
- Three table options are available; one for steel plate less than 1 inch (plasma); one for steel plate up to 3 in (oxy-fuel); and build your own with free DXF plans available upon request.
- Comes with your choice of basic artistic or heavy fabrication nesting software with available upgrade package
- Welding option available
**MONOGRAPH EXTREME**

**Thermal Cutting Machine**

| 510 | 512 | 520 | 610 | 612 | 620 |

**Offers advanced plasma and thermal cutting affordable to smaller shops**

- Easy installation thanks to unitized design and screw-type leveling pads
- Available in downdraft or water table.
- Compact footprint and design afford full operator view of the cutting process
- CNC control with CAD/CAM/CUT
- 750 IPM rapid traverse speed
- 5 ft or 6 ft cut width
- 10, 12, 20 ft cut length

**SHOPPRO**

**CNC Plasma & Oxy-Fuel Cutting Machine**

| SP-44 | SP-48 | SP-510 |

**Offering fabricators unprecedented value for small shops**

- Effective cutting width 4ft, 8ft, 10ft
- Effective cutting length 4ft, 5ft
- Oxy-fuel and plasma cutting capabilities
- Cutting thickness from gauge up to 2” mild steel
- Helical gear rack with AGMA 12 grade ground pinions
- CNC control with CAD/CAM/CUT
- Precision helical gearboxes with NEMA-34 stepper motors
- Solid steel construction
- Traverse speeds as high as 1,000 IPM

**Optional Pipe Rotator (ShopPipe™)**

- Maximum pipe diameter: 6 in with 1/2 in wall
- Maximum pipe length: 8 feet
- Maximum weight capacity: 600 lb
- Fume collector connection point
PLATEPRO™

CNC Cutting Machine

1500  2000  2500

Affordable plasma CNC cutting for light to medium-duty jobs

- Simple to operate, easy to install, works in limited spaces
- 5, 6, and 8 ft. of cut width; 10, 12, 20, and 24 ft. of cut length
- 800 IPM rapid traverse speed
- CNC with CAD/CAM/CUT
- Rigid beam with linear round way provides smooth and accurate motion
- Holds up to four tool stations
- Cutting table optional

Featuring a hot rolled fabricated main beam with ribs and gussets for strength and durability

- Effective cutting width up to 10 ft
- Effective cutting length up to 100 ft
- Oxy-fuel and plasma cutting capabilities
- Up to 4 oxy-fuel stations available; optional capacitive height control & automatic ignition
- Rapid traverse speeds as high as 1,500 IPM
- Contour speed of 400 IPM
- 22kg floor mounted machine rail support.
- 25mm linear rails and AGMA 12 helical rack and pinion on transverse axis
- Cutting table optional
- Full contour plasma bevel capability
PLATE-FAB

High Productivity Precision Cutting Machine

Compact unitized design, productive and accurate cutting

- Easy to use
- Small footprint, easy to set up or move around
- Traverse speeds as high as 1,000 IPM
- 5 ft. to 6 ft. cut widths; 10 ft. to 12 ft. cut lengths
- High precision linear bearings both X & Y axis
- Dual side drive Servo drives, motors, and planetary gear boxes
- Plasma and oxy-fuel capacity
- 2 inch maximum material thickness
- Integrated downdraft or water table

Unitized cutting machine offers either water or downdraft table.

CUTTING MACHINES

MASTERGRAPH EX2

Integrated Thermal Cutting and Marking System

Unmatched versatility and durability

- Effective cutting width 5 ft. (Model 1500) to 12 ft. (Model 3700)
- 1400 IPM rapid traverse speed, 600 IPM contour speed
- Heavy-duty, 37 kg, triple machined rail
- AC brushless drive motors, planetary gear boxes
- Precision linear ways
- CNC control with Koike operator interface
- Full contour beveling option
- Auto torch spacing option
- Operator platform is optional
- Cutting table optional
- Full contour plasma bevel capability

Shown: Self Cleaning downdraft table is optional
VERSAGRAPH EXTREME™

Integrated Thermal Cutting

2500  3100  3700
5000  6300  7500

Unmatched speed, accuracy, versatility, and durability

- Effective cutting width 8 ft. (Model 2500) to 24 ft. (Model 7500)
- 1400 IPM rapid traverse speed, 600 IPM contour speed
- Heavy-duty, 37 kg, triple machined rail
- AC brushless drive motors, planetary gear boxes
- Precision linear ways
- CNC control with Koike operator interface
- Full contour beveling option
- Auto torch spacing option
- Operator platform is optional
- Cutting table optional
- Full contour plasma bevel capability

5  CUTTING MACHINES

PLASMA BEVEL HEADS

3D-LT

3D-X & 3D-LT Bevel Heads

- Makes clean bevel cuts with less slag
- Performs contour cutting capable of beveling angles to +50° and -50°
- Head rotates continually without the torch leads “winding up”
- Attaches to the Versagraph Extreme and Mastergraph Extreme
- Uses a high density plasma system rated for bevel cutting mild steel up to 2 in.
- Can perform K, V, X and Y bevel types

Manual Plasma Bevel

- Manual angle to +/- 45°
- Bevel angle in rail axis only
SHOPJET™

Compact Waterjet Cutting System

44 48 510

Effectively cuts a wide range of materials and applications

- Cutting Sizes Available: 4 ft x 4 ft, 4 ft x 8 ft, 5 ft x 10 ft
- No heat effected parts and no discoloring during use
- Built using direct drive helical rack and pinion for maximum performance
- Built to ISO 230-2 to ensure accuracy and repeatability
- Manufactured by industry experts
- Solid steel structure
- Small footprint than others in its class
- Greater reliability and performance
- Made and fully supported in the USA

K-JET™

Ultra High Pressure Waterjet Cutting System

44 48 510 610 612

Ultra-High Pressure Waterjet Cutting

- Cutting Sizes Available: 4 ft x 4 ft, 6 ft x 6 ft, 6 ft x 10 ft, 6 ft x 12 ft
- Motorized Z axis travel = 6 in
- Pre-loaded bearings and precision ground ball screws
- 500 in/min traverse speed
- KMT Waterjet Intensifier Pumps
- Initial height control
- Laser alignment is optional
- Adjustable water level control is an option
- 400 Watt AC Drive
- Rack and pinion with linear bearings
- Pedestal mount CNC
- Optional programming software
CUTTING TABLES

Water Table
Pneumatic baffle design

- Manual water level control valves
- Optional electrically driven solenoid water level control valves
- Removable slats, slat frame and slag pan
- 5, 6, 8, 10, 12 ft. wide cutting widths
- Cutting lengths from 10 ft. to 50 ft.

Downdraft Table
Modular design for future expansion

- 5 ft. sections with four 15 in. zones for optimal fume extraction with 50% table coverage
- Removable slats, slat frame and slag pans for easy cleaning
- 5, 6, 8, 10, 12 ft. wide cutting widths
- Expandable to 150 ft. cutting length
- Mechanically driven zones
- No pneumatic or electrical components

Klean Sweep™
Self-cleaning cutting table

- Custom widths and lengths available
- Zoned damper control
- Slag removal collection options:
  - Slag container embedded into the floor
  - Above floor configuration.
No matter what size the piece, no matter what angle you need, Koike Aronson/Ransome has a positioner that will do the job efficiently. Our many models can handle standard parts or awkward objects in any shape from 100 lbs. to 4 million lbs.

Safe and quick manipulation of large, awkward pieces

- Allows the welder to position objects by fingertip pressure without raising a helmet or breaking an arc
- Pieces can be rotated 360° on the horizontal and vertical axis to maintain the most productive down-hand welding position
- Full range of models in capacities of 100 lbs. to 4,000 lbs.
**B Series**
Safe, versatile positioning of 100 lb. to 300 lb. weldments
- Variable speed SCR solid state electronic drives maintain precise speed and control during welding
- 135° forward tilt through manual hand-wheel
- Standard Start/Stop foot switch
- Model B1 max load: 100 lbs. at 1 in. off table; Model B3 max load: 300 lbs. at 3 in. off table

**LD-R Series**
Safe, versatile positioning of 132 lb. to 1,322 lb. weldments.
- Four load capacities; 132 lbs. (60 kg), 330 lbs. (150 kg), 660 lbs. (300 kg), 1,322 lbs (600 kg)
- Reliable Drive System with digital control
- 0 +/- 135° Tilt Angle
- Self Locking Worm Gear Precision Welded Trunnions
- Preloaded Taper Roller Bearings

**MD Series**
Mid-range lineup with the same quality and workmanship as our HD line without the cost.
- 1,500, 3,000, or 5,000 lbs capacities
- 135° powered forward tilt
- NEMA 12 electricals
- Pin-through post manual height adjustment
- Thru-hole tables
- Internal geared slew rings
- Low voltage hand control pendants
- Variable speed drives
- AC brake motors
- 2 year machine warranty
- 5 year variable frequency drive warranty
Safe, versatile positioning of weldments from 1,000 lbs. to 70,000 lbs.

- Variable speed AC solid state drives and motors provide precise rotation speed and control during welding
- Powered 135° forward tilt; tilt protractor
- 90,000 psi aluminum-bronze wormgear drive
- Straddle supported tilt-pinions prevent misalignment of rotational gearing
- Boxed section design will not distort support gearing when loaded
- Standard hand pendant control includes Start/Stop/Forward/Reverse 10-turn speed potentiometer as well as Rapid Traverse
- Models HD400 to HD700 feature massive boxed beam-trunnions and spurgear final drive of table function
- Transportable throughout a facility
- NEMA 12 electricals

Our largest capacity positioner with power tilt, brings practicality to machining, welding and assembling massive structures

- Power tilt from 90° forward to 45° backward
- Fixed height bases, hollow spindles
- Fully enclosed bullgear, reinforced box-beam trunnion
- Wormgear drive box is weld-mounted to trunnion
- Worm driveshaft is protected by placement within trunnion journal
- Load capacities of 40,000 lbs. to 1,000,000 lbs.; higher capacities available on request
- Precision trunnion subassemblies
- Preloaded taper roller bearings with lifetime lubrication
- Reinforced boxed chassis
- Adjustable limit switch triggers
- High performance AC Inverter with Dynamic Braking
Geared Elevation Positioners
GE Series

Large capacity positioning in a compact unit
- Powered, optimum tilt and rotation for secure positioning
- Allows work to be performed at the lowest possible level, which makes welding faster and safer
- Simultaneous tilt, rotation and elevation
  Multiple posts with rack teeth for rigidity and safety
- Can be positioned to keep the weld seam at the lowest height for the operator
- Lift pinions run in unison so any failure halts entire assembly
- Load capacities from 2,500 lbs. to 350,000 lbs.

Power Elevating Positioner
PE Series

Safe, versatile positioning with powered lift for up to 120,000 lbs.
- Variable speed AC inverter drives for 360° of continuous table rotation
- Powered 135° forward table tilt with tilt protractor and adjustable limit switch stops
- Powered elevation lift provided by (2) large diameter acme screws drive by a wormgear/wormgear arrangement provide consistent elevation with a 4 to 1 safety factor
- Dependable worm gear elevation for pieces up to 120,000 lbs.
- Precise guidance thanks to wide, large-diameter cam followers bearing on flat guideways
- Rigid welded steel construction and boxed section design chassis
- Tables are machined and slotted for quick clamping of weldments
- Load capacities of 2,500 lbs. to 120,000 lbs.
HEAD/TAILSTOCKS

Fixed Height Headstock-Tailstock
HT Series

Allows full rotation through the horizontal axis, in the fashion of a lathe.

• Ideal for long structures
• Manipulates pieces into the most convenient working positions for faster, safer, high quality welding
• Table pilot holes
• Boxed section design chassis for strength; rigid welded steel construction
• Heavy-duty drive gearing delivers smooth rotation and minimal lost motion
• Available with fixed bases, manually adjustable bases, and gear-driven elevation
• Load capacities from 2,500 lbs. to 240,000 lbs.

HEAD/TAILSTOCKS

Patented “Geared Elevation”
HTS Series

The advantages of a headstock-tailstock positioner with the convenience of low loading.

• Pieces can be loaded low then raised to optimum working heights for faster, safer, high quality welding
• AC variable speed drive motors available with optional ratings
• Lifetime lubrication and sealed drive units
• NEMA 12 electricals, ground blocks, preloaded tapered roller bearings
• Load capacities from 2,500 lbs. to 240,000 lbs.
HEAD/TAILSTOCK

Power Elevating Head and Tailstocks
PE Series

Dependable worm gear elevation for pieces up to 80,000 lbs.

- Large diameter acme screws driven by a worm/wormgear arrangement provide consistent elevation with a 4 to 1 safety factor
- Precise guidance thanks to wide, large-diameter cam followers bearing on flat guideways
- Digital AC drives provide synchronization during elevation cycle and absolute mechanical re-synchronization at full stroke
- Rigid welded steel construction and boxed section design chassis
- Tables are machined and slotted for quick clamping of weldments
- Load capacities of 5,000 lbs. to 80,000 lbs.

TILTER

180° Tilt Positioners

In some long weldment applications, a faster mount than on headstock-tailstock positioners

- 90° rotation from the horizontal position assures accessibility for downhand and flat welding while ends of mounted objects remain free
- Operates in a single range of motion, requires minimum floor space
- Brakemotor drive systems, NEMA 12 dust-tight electricals
- Four-slot fixed table design
- Load capacities up to 75,000 lbs.
FLOOR TURNTABLES

FT Series

Dependable, rugged positioners for flame cutting, assembly, x-ray inspection, and machining

- Reliable ground current assured by tapered roller bearings and our exclusive ground block system
- Close tolerance gearing maintains backlash to within .005 in./in. of radius
- Anti-friction ball and taper roller bearings, maintenance-free steel gearboxes
- AC Inverter variable speed rotation
- Dynamic braking, rapid traverse
- Load capacities from 1,000 lbs. to 120,000 lbs.

TURNING ROLLS

Portable Pipe Rolls
TR Series

Lightweight rolls that can be easily carried and set up at the work site

- Rubber tired driver and idler rolls
- Compact, can be set up just about anywhere in the factory
- 3.5 in. to 40 in. diameter range
- Optional small diameter auxiliary wheel handles diameters from 1.5 in. to 3.5 in.
- Each driver and idler turning roll has a capacity of 3,000 lbs. One driver, two idler configuration has a capacity of 9,000 lbs.
MRD Series

Lightweight, high quality turning roll design.
- Capacities from 10,000 to 60,000 bs.
- Rubber tired driver and idler rolls
- Wide diameter range; from 6 in. to 56 in. diameter range.
- Single or dual wheel drive
- NEMA 12 Electricals
- Low voltage hand control pendants
- 2 year machine warranty
- 5 year variable frequency drive warranty
- Constant center-line

Conventional Turning Rolls
TR Series

Effective positioning of long or cylindrical workpieces
- Rubber or steel wheels
- AC Inverter drive with dynamic braking provides smooth, precise operation
- All-steel Gearcase Final Drive is fully enclosed and lifetime lubricated
- Roller spacing adjusts to a wide range of diameters
- Tie-Rod Axles assure perfect backlash-free gear mesh
- Rapid traverse
- Load capacities from 30,000 lbs. to 600 tons; turning capacity from 300 tons to 1,200 tons.
### Koike’s Exclusive Eccentric Axle
- Minimal vessel movement during drift corrections
- Small correction forces required
- Fast response time to correct vessel drift
- Lower cost due to design and common components
- Low maintenance design

### Conventional forms of Anti-Drift Control
- Lateral Moving Base causes vessel centerline to be shifted left and right

### Vertically Moving Wheels
- Causes vessel centerline to be shifted left, right, up and down

### Koike’s Patent Pending Eccentric Axle Design
- Maintains Vessel Centerline
- Lowers Vessel Centerline
- Closer to the floor
- Automatically compensates for vessel irregularities and roll misalignment
- Holds vessel axially in position on rolls within +/- .04 in. (1 mm)

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### Rustler Self-Aligning Rolls

**Adjusts automatically to accommodate any circular piece keeping a constant centerline**

- Four self-aligning wheels automatically move into ideal support position—no operator adjustment needed
- Adjusts automatically for load conditions
- Variable speed drive, self-locking gear reducers, self-aligning bearings
- Turning capacities from 15 tons and up
- Hand pendant controlled
TURNING ROLLS

Fit-up Roll

Fits up and tacks shell courses together for a uniform diameter vessel
• Capacity range from 20 tons to 100 tons
• Ideal for high-production tank shops
• Available different length roll sections couple and uncouple to allow full or partial drive down the line
• Provided in 10 ft. sections, can be connected to make sections up to 100 ft. long

UNITIZED TURNING ROLLS

Unitized Turning Rolls

Safely turns heavy cylindrical pieces without marring, wrinkling, or indenting
• Various frame lengths available
• Wheels can be positioned anywhere
• Wheels have taper-lock hubs which require no keyways on the axles
• Maximum diameter 10 ft., (Models 5, 10, and 20); 13 ft. (Model 30)
• Load capacities from 5,000 lbs. to 30,000 lbs.
TURNING ROLLS

Tilting Turning Rolls
TR Series

Power tilting for operations from horizontal to 45°

- Precise tilt determined from the side-mounted protractor
- Adjustable trigger can be set to stop movement at a precise tilt at any given angle
- Diameter ranges 3 in. to 72 in.
- Load capacities from 3,000 lbs. to 30,000 lbs.

TURNING ROLLS

Trac-Tred® Turning Rolls
TR Series

Precision rotation of thin walled vessels

- Safely turns thin walled or precious surfaced cylindrical pieces without marring, wrinkling, or indenting
- Patented Trac-Tred® system allows for steady, precise rotation of vessels from 4 ft. to 10 ft. standard, up to 16 ft. optional
- Load capacities from 6,000 lbs. to 18,000 lbs.
TURNING ROLLS

PTR Pipe and Tube Roll

PTR pipe and tube roll on a convenient adjustable base
- Capacity range of 1000 lbs. to 10,000 lbs
- Rubber-tired PTR idler roll accommodates diameters from 2 in. to 36 in.
- Stand allows 8 in. of vertical adjustment
- Roller bearings, constant center adjustment
- Can be used as an auxiliary support roll with positioners, headstocks, or powered rolls

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TURNING ROLLS

Turbine Rotor Turning Rolls
TR Series

Cost-effective controlled rotation of rotors
- More economical than vee-blocks, requires only cranes for mounting and unloading
- Easily rotates objects such as steam and gas turbines for sonic inspection and welding repair
- Phenolic laminated wheels in rigid chassis allow precise setup
- Welded steel gear cases and tapered roller bearing axles
- Load capacities from 60 tons to 250 tons; other capacities upon request
CRICKET-ll™

Welding Manipulator

SteadyMax™ for consistent arc stability
- 500 pound load capacity
- NEMA 12 electricals
- Optional x-base or travel car available
- Optional mast rotation
- Manual rack & pinion reach with optional powered reach
- Cam roller guidance on lift and reach axis
- Ball screw with integrated anti-fall mechanism
- Cable management either through or over top of boom

Shown with optional Cross Slide Plus, the cross slide with built-in oscillation function. See page 21.

MANIPULATOR

Custom Engineered Welding Manipulators

Speeds welding in fabrication and maintenance operations.
- Allows operator to maintain a steady arc, resulting in highly accurate welds, higher productivity, and less deflection
- Easy to operate, cost efficient
- All inclusive unit is reliable and easy to operate with maintenance-free preloaded wheels and anti-friction bearings throughout
- Lift, mast rotation, and a travel car
- Capable of supporting Sub-Arc equipment and TIG processes
- NEMA 12 electricals include dust tight enclosures and push button pendants
- Floor-base or car-track configurations available
- Load capacities from 300 lbs to 400 lbs, any size up to 6 ft x 6 ft; Locust-II capacities from 300 lb to 3,000 lbs.; any size up to 30 ft x 30 ft
CROSS SLIDE PLUS™
Cross Slide with built-in oscillation function

Optional add-on for new or existing manipulator booms.
- All-in one cross slide and oscillator
- Vertical and horizontal oscillation function
- 6 or 10 inch mechanical stroke
- Compatibility with most welding processes
- Manufactured by industry experts
- Independent parameter settings
- Center adjustment “on-the-fly”

21 POSITIONERS

GIRTH WELDER
AGW-I  AGW-II
(Automatic Girth Welder/3:00 Welder)

Delivers construction speeds up to 20 times faster than manual
- Self propelled unit for controlled quality
- Travel speeds from 4 IPM to 105 IPM based on procedures
- Plate sizes up to 10 ft. tall and up to 1-3/4 in. (44 mm) thick; tanks 30 ft. in diameter or larger
- Can use any combination of wire and flux based on procedure
- Can weld from one side or both sides of tank
- Can weld with single wire or tiny twin wire; sub arc or open arc process
GIRTH WELDER

AGW-I-LW Light Weight

Automatic system that speeds up construction of thin walled field erected storage tanks

- Straddles the shell plates riding on adjustable flanged wheels at operator controlled speeds of 4 to 105 IPM (1.0–2.67 M/min)
- Handles plates as thin as 3/16 in. and tank diameters down to 12 ft.
- Equipped with welding head, controls, flux support belts and recovery unit for 3 o’clock welding
- Standard Lincoln controls and welding head, straightener and 50 lbs. (22.7 kg) wire reel included
- Adjustable submerged arc flux belt mechanism ensures retention of the flux at the joint, and efficient recycling of flux
- Machine is 40% lighter than standard unit (just under 1000 lbs. complete)

VUP WELDING

VUP (Vertical Up) Welding System - NR-431 Process

Versatile welding that speeds production

- High deposition rates of 40 to 65 lbs. per hour
- Fast vertical speeds, 9 IPM on 3/8 in. (10 mm) plate; 6 IPM on 1 in. (25 mm) plate; 4 IPM on 4 in. (100 mm) plate
- X-Ray quality with impacts better than 20 ft.-lbs. at 0°F
- Weld joints of either square edge or single bevel
- Square butt reduces plate preparation time
- Operates with either two movable shoes or one moving shoe with a fixed backing bar (rear sliding shoe is standard)
- Self-shielding means no additional gas or flux is required
- Standard unit works on plates from 3/8 in (10 mm) up to 2 in. (50 mm) thick and 10 ft high
VUP WELDING

VUP (Vertical Up) Welding System - MIG, FCAW Process

Productive VUP welding for MIG and FCAW

- High deposition rates, fast vertical speeds
- X-Ray quality with impacts better than 20 ft.-lbs. at 0°F
- Weld joints of either single bevel, double bevel, or butt
- Standard unit works on plates from 3/8 in. (10 mm) up to 2 in. (50 mm) thick and 10 ft. high
- Does not require special process wire

SEAM WELDER

Easy to operate, accurate welding of seams on Internal, External and Flat Plates

- Large diameter mandrel with backing bar supports the work piece. Water Cooling and Gas Purging is available if needed
- Mandrel is adjustable for different thicknesses of material and different welding processes
- Replaceable copper clamping fingers mounted in aluminum retainers conduct heat away from the weld and prevent arc blow caused by magnetization
- Isolated support bushing guards against machine magnetization
- Top beam assembly supports the rack and pinion carriage assembly for the welding process
- Accommodates most all welding processes including sub arc welding, and gas shield welding, TIG and Plasma
- Utilities connections include shop air with pressure regulator, inert gas fitting, and cooling water
- Weld lengths from 24 in. and up, with plate thicknesses up to 3/8 in. (10 mm) maximum
Universal Controller
Koike Aronson’s Universal Control (UC) is a proprietary PLC control system designed to simplify and automate positioning tasks on one or more positioners via a user-friendly HMI. Axes on one or several positioners can be easily configured to work in concert to perform various process functions. The UC utilizes specialized software and motion control components, in conjunction with VFDs and/or servos with encoded motors to provide quick and easy control of the entire system via a graphical touch screen display.

Skyhook Welding Sequence
• Box frame welding sequence
• 40% faster time to position
• Downhand welding increases deposition rate and better welds
• Control thermal deformation
• Brings the weld to the welder

Cylinder Cladding
Overlay
“Growing Line”
SPECIAL APPLICATIONS

WUSPT
Special Design Positioner

Dual Head Pantograph Gantry

Side Beam Overlay Station

Steel Wheel Rolls on Rail

1,000 Metric Ton Turning Rolls
The Koike Aronson portable equipment line includes a wide array of cutting and welding machines for many different applications. Each delivers the same type of high quality results and manufacturing savings as our larger machines. Koike Aronson torches, tips, couplings and regulators also offer the same value as our bigger equipment by delivering long service life and safe operation.

**HANDY AUTO Series**

**Automatic Gas Cutting Torch**

**Handy Auto**
**Handy Auto Plus**

- **Easy-to-operate hand torch with built-in auto ignition**
  - Simple adjustment of the torch allows straight line, circle, and shape cutting
  - Standard and optional drive attachments enhance versatility and efficiency
  - Simple push button ignition and extinguishing
  - Drive switch and cutting oxygen valve are linked for simultaneous operation of cutting oxygen and drive power
  - Set the preheat flame just once — no readjustment needed
  - Use with LPG, MAPP®, and Acetylene
  - **Weight:**
    - Handy Auto: 5.9 lb (2.7 kg)
    - Handy Auto Plus: 7.7 lb (3.5 kg)

- **Cutting thickness**
  - Handy Auto: 1/5 in. - 2 in. (5 - 50 mm)
  - Handy Auto Plus: 1/5 in. to 1-1/5 in. (5 - 30 mm)
**HAWK™**

Portable Automatic Gas Cutting & Beveling Machine

IK-93

Ideal for straight-line, hand-guided cutting
- Simple operation thanks to easy-to-reach trigger, coupled operation, and speed adjustment dial
- One-handed gas manipulation, clutch operation, and speed adjustment
- Forward and reverse cutting, use on or off track
- Cuts circles from 2 in. - 22 in. (50-550 mm) diameters
- Extendable 72 in. (1800 mm) track sections
- Cutting thickness: 1/4 in. - 4 in. (5-100 mm)
- Weight: 16 lbs. (7.2 kg)
- Can bevel plate in flat plane or serpin cutting

**BEETLE™**

Portable Automatic Gas Cutting Machine

IK-12

Economical solution for track cutting
- Easy to adjust forward/off/reverse switch, clutch lever, and speed adjustment knob
- Simple, accurate cutting of straight lines, circles, and bevels
- Single cone design in the drive ensures stable travel
- Optional circle cut from 1-1/2 in. - 96 in. (38-2450 mm) diameter adjustable radius bar. Extendable with 72 in. (1800 mm) track sections.
- Weighs only 20.9 lbs. (9.5 kg)
- Cutting thickness: 1/4 in. - 2 in. (5-50 mm)
IK-12 NEXT™
Portable Welding/Plasma/Oxy-fuel Cutting Machine

IK-12 NEXT is the latest model of straight line cutting and welding carriages

- Designed to replace the rugged IK-12 Max3, One of the most popular and longest selling gas cutting carriages in the fabrication industry.
- Multi-function control panel: The new digital control panel enables the operator to accurately set a wide range of parameters as they relate to each process. With the use of a LCD display, set-up time is greatly reduced and made more repeatable.
- Power train: Allows for extremely accurate positioning and ensures continuous drive speed and pulling force that is not compromised by power fluctuations or varying load weight.
- Multi-purpose cutting and welding: Machine comes standard with the ability to interface to most power sources. Whether cutting or welding, the Ik-12 next has a built in control that will send command signals directly to an attached power sources interlock switch.

IK-54D™
Portable Shape Cutting

Economically cuts virtually any shape

- Compact, simple to operate, easy to transport
- Ideal for high production and repetitive gas cutting work
- Powerful magnet roller smoothly and accurately guides the cutting torch around the steel template
- Automatic drive motion with integrated cutting oxygen valve
- Cuts steel plate up to 4 in. (100 mm) thick
- Optional ball transfer base
- Cutting range up to 67 in. (1700 mm) with optional attachment
- Weight: 72.5 lbs. (33 kg)

Circle Cutting Attachment (optional)

- Allows the IK-54D to cut circles without a template
- Enables the cutting of circles 2 in.- 16 in. (60- 400 mm) in diameter without a template
- Easy to attach, easy to set diameter
**IK-70™**

**Portable Single Purpose Circle Cutter**

Automatically flame cuts a wide range of circle sizes
- Cuts cleanly and with exceptional accuracy, delivering the same quality and output as fully automated systems.
- Straight and bevel cuts circles and holes
- Lightweight and portable
- Circle cutting diameters of 1-3/16 in - 40 in (30-1000 mm) diameters
- Cutting Thickness: 1/4 in - 2 in (5-50mm)
- Optional ball transfer base
- Weight with base: 121 lb. (55kg)

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**CIR-CUT I/II™**

**Automatic Circle Cutting Machine**

Accurate circle cutting that goes anywhere
- Lightweight, compact, and easy to carry
- Moving center makes positioning easy, eliminates melting loss of the center on extremely small holes
- Cuts circles from 1-9/16 in. – 8 in. (40-200 mm) diameters
- Straight and bevel cut circles and holes; horizontal and vertical cutting (vertical cutting only with CIR-CUT II)
- CIR-CUT I is a permanent magnet type and CIR-CUT II is an electromagnet type
- Weight: 25 lbs. (11.3 kg)
**AUTO PICLE-S™**

Remote Controlled Motorized Gas Pipe Cutting Machine

**Easy to use, portable cutter for larger pipes**
- Provides high cutting accuracy on large pipes (no guide rail needed below 24 in. (600 mm) diameter)
- Cuts pipe from 6 in. - 96 in. (150 - 2400 mm) diameter, optional guide band for pipe over 6 in. - 96 in. (150 - 2400 mm)
- Unique chain drive system adjusts quickly to different diameters
- Square and bevel cut, horizontal and vertical (vertical use with optional guide band)
- Remote pendant for operator comfort
- Very low maintenance
- PWM control for smooth, constant drive speed
- Weight: 33 lbs. (15 kg)

**PICLE-1-II™**

Portable Gas Pipe Cutting Machine

**Quick, manually operated portable pipe cutting**
- Cuts pipe from 4 in. - 24 in. (114- 600 mm) diameter with no electricity and no other attachments required
- Unique chain drive system adjusts quickly to different diameters
- Square and bevel cut
- Very low maintenance
- Versatile enough for field work
- Weight: 18.7 lbs. (8.5 kg)
MINI-MANTIS II™

Portable H-Beam Gas Cutting Machine

For easier, more accurate and cleaner beam cutting

- Rapid, precise cutting of H-beam web and flange
- Fast set-up thanks to combination rail, main unit and single-lever rail clamping
- Cuts web up to 60 in. (1525 mm) and flange up to 31 in. (785 mm) (with various options)
- Short and long torch models
- Automatic pilot flame saves time and gas between cuts
- 4-way jog control automates vertical and horizontal travel
- Automatic cut valve control engages with machine movement.

KHC-600D™

Portable Automatic Pipe Hole Gas Cutting Machine

Ideal for high precision cutting of T-joint circles

- Cuts from inside or outside vessels
- Rotating gas manifold keeps hoses from tangling
- Automatic torch stand-off maintains tip to work distance, ensuring accurate cuts
- Also cuts circles and bevel in flat plate
- PWM control for smooth, constant drive speed
- Cutting diameter: 3-1/8 in. - 23 in. (80 - 600 mm)
- Weight: 57.2 lbs. (26 kg)
IK-72T™

Portable Automatic All-position Gas Cutting Machine

Designed to cut most types of surfaces in flat or horizontal planes.

- 1, 2, and 3 dimensional cutting
- Square and bevel cut; horizontal and vertical
- Lightweight (about 13 lbs. (5.8 kg)), easy to set up, easy to move
- Smooth, stable travel on steel-reinforced rubber guide rails that can be curved through two or three planes
- 3D rail cuts to 36 in. (915 mm) radius, 2D rail cuts to 36 in. (915 mm) radius; cuts steel up to 2 in. (50 mm) thickness
- Weight without rail: 8.8 lbs. (4 kg)
- Commonly used in shipyards or general construction industries.

EDGE-CUT™

Trackless Gas Beveling Machine

Lightweight, compact, and trackless gas beveling machine

- Trackless Beveling; bevels plate edge top and bottom, up to 45° without the need for track
- Pre-set Flame with quick shut off
- Specialized Torch Set is designed to allow accurate bevels and quick set up
- Pistol Shape Grip provides operator ability to control forward/reverse, clutch, and speed adjustments with just one hand
- Multi Purpose Cutting
Compact Welding Carriage

Compact welding carriage for continuous welding designed to go where most welding carriages will not.

- Performs fillet, butt, and lap welds, horizontal and vertical without the use of a track
- Pulling capacity of 77 lb (35kg) (attachable/detachable magnet)
- Built-in limit switches to be used as automatic stop or machine jog to position.
- Overload detection function
- Weight: 16.5 lb (7.5kg)
- Less than 10” overall depth
- Digital display ensures accurate parameter settings
- Flexible guide wheel positioning with newly designed guide system

PORTABLE WELDING MACHINES

Compact Welding Carriage

Revolutionary new drive system. Compatible with all NEXT series machines.

- Multi position guide rollers ensures proper alignment with workpiece
- Performs straight line, stitch and weave type welds with the same carriage
- Strong enough for overhead applications
- Built in interface to welder. Does not require additional cabling for weaver.
- Machine will pause and perform a back step while welding. Ensures exact wire deposition throughout the weld
- Enhanced limit switch features. Stops the machine at the end of each weld but Doubles as a jog to position with a single press of the switch
- Encoder drive motor and control
- Multiple torch mounting configurations.
- Optional weaving unit (plug and play)
TWIN TORCH

Wel-Handy Multi Option

Twin torch option for controlling multiple welders in a single pass.
for welding both sides of a vertical plate (rib or stiffener). Twin Torch Option is used with the Wel-Handy Multi Standard or Stitch models. Easy to set up with two welding guns, the torch slide are designed to allow optimum torch positioning.

IK-72W Series

Magnetic Rail Welding Carriage

Lightweight welding carriage with magnetic rail system to perform consistent vertical welds.

- Allows welder to work in a more ergonomic position
- Secures track to plate; allows track to be used vertically.
- Aluminum rail; makes accurate straight cuts; extendable track allows welding of longer parts
- Releases side rollers to allow quick positioning of machine on rail
- Lightweight aluminum tubing and permanent magnets allow easy alignment and portability
- Provide steady consistent motion in both vertical and horizontal welds
- Standard and programmable weaving options
- Makes transport and setup easier
- Stitch welding capability
- Can add oxy-fuel torch kit; cut up to 10” mild steel
Torch Stand & Bench Positioner

L-Stand supports welding torches and assures accurate Welding
- Counter weighted boom allows quick adjustments in the vertical position
- Locking horizontal and vertical adjustments allow quick locating of torches
- Torch mounting options available for cutting and welding
- Rotating vertical column for fast loading/unloading of parts
- Ball transfer base allows moving the stand easily and quickly

LD-R Series- Safe, versatile positioning of 132 lb. to 1,322 lb. weldments
- Four load capacities; 132 lbs. (60 kg), 330 lbs. (150 kg), 660 lbs. (300 kg), 1,322 lbs. (600 kg)
- Reliable Drive System
- 0-90° Tilt Angle
- Self Locking Worm Gear
- Precision Welded Trunnions
- Preloaded Taper Roller Bearings
The **Koike Aronson** gas apparatus line includes a wide variety of cutting and welding products for many different applications. Each delivers the same type of high quality results and manufacturing savings as our larger machines. Koike Aronson torches, tips, couplings, and regulators also offer the same value as our bigger equipment by delivering long service life and safe operation.

**Compact, easy-to-use in any situation**
- Well balanced
- Three seat tip-mixing system greatly reduces the risk of flashback and backfire
- 6 in. (150 mm) thickness cutting capacity
- Produces high-quality cuts using all Koike 100 Series tips
- Locking cutting oxygen lever with ease-on cutting valve
MK-250™

Hand Cutting Torch

Universal-type torch with tip mixing method
- Well-balanced, rugged design reduces flashback
- Tip mixing method reduces risk of damage if flashback occurs
- Produces high-quality cuts using all Koike 100 Series tips
- Locking cutting oxygen lever with ease-on cutting valve
- Three models: 75° angle head, 90° angle head, and 180° angle head
- 10 in. (250 mm) thickness cutting capacity
- Shown with optional Safety-Z couplers

SILVERCUT 250™

Heavy-duty Hand Cutting Torch

Rugged, well-balanced design that’s easy to handle
- Three land tip-mixing system greatly reduces the risk of flashback
- Chrome plating provides corrosion resistance, reflects heat away from torch and reduces spatter adhesion
- Triangle tube design for greater strength
- Produces high-quality cuts using all Koike 100 Series tips
- 10 in. (250 mm) thickness cutting capacity
- Shown with optional Safety-Z couplers
Hand Scraping Torch
MK-36"
MK-48"

Easy to use and versatile
- MK-36” available with 75° and 90° head
- MK-48” available with 75° head
- Underhand style cutting oxygen lever
- Die forged head
- Easy grip valves
- Internal tip nut protects threads
- Use all Koike 100 series tips
- Cuts up to 8 in. (200 mm)
- Shown with optional Super Sentinel Coupler/Flashback Arrestors

300L™/500L™ TORCH
Machine Torches

Heavy duty, high quality cutting machine torches
- Tip Mixing System has a three land tip mixing system that assures greater safety and reduces the risk of flashback and backfire.
- Cutting Tips Save Gas since each tip is designed for each fuel gas BTU, thereby insuring proper plate preheating
- Faster Cutting- our high speed 106D7 divergent tips increase cutting speed by 20-28% over standard tips
- Safer Operation- Koike’s tips have been designed to reduce backfires to keep the operator and the torch safe

39 GAS APPARATUS
The bevel attachment is used in the tip area of long torches, it enables not only the top surface beveling but also any other bevel cutting operations including the top and bottom serpin cuts.

The Twin Tip Holder can be used to cut narrow width flat bar with a single torch, high accuracy is possible by reducing thermal distortions, and it is a common practice to employ multiple torches for such a process. The Twin Tip Holder cutting adapter for all Koike 100 Series torches allows converting a single oxy fuel cutting torch into dual cutting torches.
CUTTING TIPS

Gas Cutting Tips

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Superior design and manufacturing for more accurate, economical, and safer cutting

- An even cutting surface and no slag under various conditions
- Exclusive design helps prevent damaging flashbacks and backfires into the torch
- All tips are inspected and tested to ensure high quality performance
- Available for acetylene, LPG gas, ethylene, and natural gas for Koike equipment and other manufacturers’ equipment
- High Speed Divergent D7 series increase cutting speeds up to 28% while saving gas, stainless steel liner makes tips last up to 5X longer.

SENTINEL™ Series

Safety-Z Coupling Set

- WZA - Hose to Hose
- WZG - Regulator to Hose
- WZO - Torch to Hose

Easy click-in, click-out; prevents reverse flow

- Reverse-flow prevention valve keeps gases from mixing, greatly reducing the chance of explosion
- Cuts off flashback pressure and stops gas mixing in the event of a flashback caused by the welding/cutting machine
- Spring-load locking starts the gas flow immediately upon connection; single-action release
- UL Listed and complies with OSHA code 1915.55 (F) (5)
- Unique reverse disconnect feature “Will not come apart with a straight pull”
**SILVER ARRESTOR™**

**Regulator to Hose**

**Flashback Arrestor for Gas Regulators**
- Flashback Arrestor Filter uses sintered metal to cool down below ignition temperature
- Check Valve prevents reverse gas flow
- Thermal Cut-Off activates at 203°F (95°C)
- Gas Hose Coupler allows quick connecting and disconnecting of hoses
- Tight Sealing unique design and material prevent leaks and are tested for 30,000 cycles by UL

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**SENTINEL™ Series**

**Super Sentinel Coupling**
- ZOP-1A
- ZOP-2A
- ZOSP-1A
- ZOSP-2A

**Direct coupling, dry-type flashback arrestor for welding/cutting units**
- Combines convenient click-in, click-out Sentinel coupling with a built-in dry-type flashback arrestor
- Miniature arrestor connects directly with the welding/cutting unit and performs as well as larger arrestors
- UL Listed
GLOBAL™

Sentinel Inert Coupling Series

LS-3SF          LS-6SM
LSP-3SFM        LSP-3SMF
OP-3SF          OP-3SM

Quick releasing reverse-flow prevention valve

• Makes set up and removal of welding equipment on the job quick and simple
• Gas supply shut-off mechanism easily activated by removing a plug from the socket
• Safety lock mechanism
• Two seal packings between the plug and socket ensure a high degree of air tightness
• Sets available for flow meter outlet-to-hose and for hose-to-welding unit
• UL Listed

43 GAS APPARATUS

SNAP VALVE™

One-touch On/Off Gas Valve

Keeps gas supply pressure constant after a single setting

• Gas is turned on at the pre-set pressure by moving a simple toggle switch—no more adjusting each time cutting is started
• Prevents wasteful gas discharge
• Gas is controlled by the unit’s body valve, then by the on-off Snap Valve
• Optional flame adjustment valve
• Connections available for use with a variety of machines
Welding Gas Flow Regulator

Quick releasing reverse-flow prevention valve
- MIX-30 for Argon/CO₂
- CWH-30D heated type for CO₂
- Safety lock mechanism
- Exclusive piston design eliminates pressure variation, ensuring better accuracy and durability
- More accurate than a conventional ball/float system, saves time and gas
- Locks at each setting to prevent accidental adjustment
- No worries about flow tube breakage

ARGON-16/30

Adjusts the flow rate of gas with just one touch of the dial
- Argon gas regulator for TIG or MIG welding
- Exclusive piston design eliminates pressure variation, ensuring better accuracy and durability
- More accurate than a conventional ball/float system, saves time and gas
- Locks at each setting to prevent accidental adjustment
- Triple filter prevents dirt and grime from entering the system
- No worries about flow tube breakage
CUSTOM REGULATORS

Standard Single Stage Regulators

For oxygen, acetylene, and LPG
• Designed to properly regulate pressures for many applications
• Compact and economical
• Makes cutting, welding, and heating operations safe and effective
• Add our Sentinel Plus reset-able flashback arrestors for added safety

QUALITY POLICY

“Koike Aronson, Inc. through continuous improvement efforts, shall provide our customers with the highest quality products at a fair value and an environment for our employees that is safe and affords them opportunity for growth.”