Operator Controlled Mechanization

Bug-O Systems is committed to empowering our customers by providing operator controlled mechanized solutions for their welding, cutting and custom applications.

Phone: 412-331-1776
Fax: 412-331-0383
www.bugo.com
Why Choose a Mechanized Process?

**Increase Production**
The machine replaces the operator’s hand to control the process. Continuous welding, no stopping and starting.

**Improve Quality**
Precise speed and path control improves appearance and quality. Decreases defects and costly repairs.

**Reduce Material Handling**
Take the machine to the work. Work in all positions.

**Reduce Distortion**
Regulate travel speed. Provide uniform heat input.

**Improve Worker’s Environment**
Reduce operator fatigue. Remove operator from welding/cutting fumes.
Straight Line Cutting & Welding with Rails

GO-FER® IV
Straight line cutting machine for oxy-fuel or plasma, remote pendant option available
120 or 240 volt
Speed: 2.5-100 ipm
(63.5-2540 mm/min)
Weight: 37 lbs. (16.8 kg)

WELDING SUPPORT KIT FOR GO-FER® IV
Used with the Go-fer® IV for straight line semi-automatic welding

DC-IV
Rack and pinion drive with six speed ranges available. Runs on aluminum rigid and semi-flex rail.
42, 120 or 240 volt
Weight: 18 lbs. (8 kg)

DC-IV-HD
Rack and Pinion tractor w/ Extra Heavy Duty torch support racking for Aluminum Rigid Rail
120, 240 or 42 volt
Weight: 24 lbs. (10.9 kg)
MODULAR DRIVE SYSTEM
Stitch welding kit
110, 220 or 42 volt
Adapts to all Bug-O rail
Speed: 2-120 ipm
(51-3048 mm/min)
Weight (machine only):
30 lbs. (13.61 kg)

MODULAR DRIVE SYSTEM
Straight Line Cutting Kit
110, 220 or 42 volt
Adapts to all Bug-O rail
Speed: 2-120 ipm
(51-3048 mm/min)
Weight (machine only):
28 lbs. (12.7 kg)

Shape Cutting / Welding
MDS PROGRAMMABLE SHAPE KIT
2 axis portable
programmable cutting/
welding machine
120, 240 and 42 volt
Speed: 5-100 ipm
(127-2540 mm/min)
Net Weight: 47 lbs. (21 kg)
Straight Line Welding with Oscillation

MODULAR DRIVE SYSTEM
Linear weaver kit
110, 220 or 42 volt
Adapts to all Bug-O rail
Speed: 2-120 ipm
(51-3048 mm/min)
Weight (machine only):
41 lbs. (18.6 kg)

MODULAR DRIVE SYSTEM
Pendulum weaver kit
110, 220 or 42 volt
Adapts to all Bug-O rail
Speed: 2-120 ipm
(51-3048 mm/min)
Weight (machine only):
40 lbs. (18.14 kg)

HIGH CAPACITY MODULAR DRIVE SYSTEM
Can carry up to 140 lbs. (64 kg) vertically, and is compatible with all standard MDS components
Speed: 2-120 ipm
(51-3048 mm/min)
Net Weight (w/carriage):
26 lbs. (11.8 kg)

UNIVERSAL BUG-O-MATIC
Compact drive and weaver combination.
Adapts to all Bug-O rail
120, 240 or 42 volts
Speed: 3-66 ipm
(70-1670 mm/min)
Weight: 22 lbs. (10.5 kg)
PIPE WELDING SYSTEMS
Piper-Plus
• Self contained, digitally controlled - Produces excellent quality repeatable welds with high deposition rates
• Fully integrated with power sources - advanced process control available (STT, GMAW-P, etc)
• Pipe Diameter 12 inches and larger
• Air-cooled & Water-cooled options available
120 or 240 volts
Speed: 0-80 ipm, (0-2000 mm/m)

UNIVERSAL BUG-O-MATIC WITH AUTO HEIGHT CONTROL
An Excellent Choice for Pipe Welding for ease of operation.
120, 240 or 42 volts
Speed: 3-70 ipm
(75-1750 mm/min)
Weight: 36 lbs. (16 kg)

MODULAR DRIVE SYSTEM
A versatile machine that can be customized for pipe welding
110, 220 or 42 volt
Adapts to all Bug-O rail
Speed: 2-120 ipm
(51-3048 mm/min)
Weight: 39 lbs. (17.5 kg)
Welding with Automatic Height Control

MODULAR DRIVE SYSTEM WITH AUTOMATIC HEIGHT CONTROL
Available for straight-line or linear & pendulum weaving systems
110, 220 or 42 volt
Adapts to all Bug-O rail
Speed: 2-120 ipm
(51-3048 mm/min)
Weight: 45 lbs. (20 kg)

UNIVERSAL BUG-O-MATIC WITH AUTOMATIC HEIGHT CONTROL
Same as Universal Bug-O-Matic but with additional amperage sensing automatic torch height adjuster
Adapts to all Bug-O rail
120, 240 or 42 volts
Speed: 3-70 ipm
(75-1750 mm/min)
Weight: 36 lbs. (16 kg)

FREESTANDING TORCH SUPPORT WITH AUTOMATIC HEIGHT CONTROL
110 or 220 volts
Total Vertical Adjustment: 25” (635 mm)
Total Horizontal Adjustment: 25” (635 mm)
Weight: 41 lbs. (19 kg)
RIGID RAILS
Heavy Duty
ARR-1080
8' (2.37 m) Long sections
ARR-1085
4' (1.18 m) Long sections
Extra Heavy Duty
ARR-1250
8' (2.37 m) Long sections
ARR-1200
4' (1.18 m) Long sections
Hard coat rails available upon request for above.

SEMI-FLEX RAIL
Flexes to 15' (5 m) radius
AFR-3000
8' (2.37 m) Long sections

HI-FLEX RAIL
Flexes to 30'' (760 mm) Radius
FMD-1050
57.7" (1.47 m) Long sections

RING RAILS
Minimum work diameter of 9" (230 mm)
Magnet Bars

R.E. ON/OFF MAGNET
For Aluminum Rigid Rail
ARM-2010
High Heat Applications*
ARM-2010-HH

SWIVEL MAGNET
For Aluminum Rigid Rail
ARM-2325

R.E. ON/OFF MAGNET
For Semi-Flex Rail
AFR-2010
High Heat Applications*
AFR-2010-HH

MAGNET W/ RELEASE
For Semi-Flex Rail
ARM-2425

R.E. ON/OFF MAGNET
For Hi-Flex Rail
FMD-2010
High Heat Applications*
FMD-2010-HH

MAGNET W/ RELEASE
For Hi-Flex
FMD-2325

SUPPORT BAR WITH R.E. ON/OFF MAGNETS
For Bent Rail
3.5" (88.9 mm) of adjustment
ARM-2580

Support Bar w/ Screw Feet
For Bent Rail
4.5" (114.3 mm) of adjustment
ARM-2380

* High Heat App. = Rated @ 180°C (356°F)
Standard Heat = Rated @ 80°C (176°F)
Carriages - Vacuum Support

**RELEASABLE CARRIAGE**
For Rigid & Semi-Flex Rail
MPD-1065

**HI-FLEX CARRIAGE**
For Hi-Flex Rail
FMD-1105

**SPLIT CARRIAGE**
Releasable from Rail
For Bent Rigid Rail
BUG-5910

**VACUUM BAR ASSEMBLY**
For non-ferrous material
For Hi-Flex Rail
(sold separately)
FMD-1036

**VACUUM BAR ASSEMBLY**
For non-ferrous material
For Rigid & Semi-Flex Rails
(sold separately)
ARV-1036

**VACUUM PUMP KIT**
ARV-2020
110 volt/50-60 Hz

ARV-2030
220 volt/50-60 Hz
Supports & Accessories

MDS-1040
Machined Rack Welding Group

MDS-1050
Machined Rack Cutting Group

MDS-1075
Dual Torch Welding Group

MDS-1090
Dual Torch Cutting Group

PAN-1000
Panograph Torch Floater

PAN-1008
Welding Panograph

PAN-1072
Double Torch Panograph

PAN-2145-L, R
Mechanical Corner Follower

PAN-2160
Mechanical Seam Follower

VACUUM PUMP KIT
ARV-2020
110 volt/50-60 Hz

ARV-2030
220 volt/50-60 Hz

VACUUM BAR
ASSEMBLY
For non-ferrous material
For Hi-Flex Rail
(sold separately)

FMD-1036
VACUUM BAR
ASSEMBLY
For non-ferrous material
For Rigid & Semi-Flex Rails
(sold separately)

ARV-1036
HOB-O ALL-POSITION HOLE BORER
Lightweight precision hole borer, beveler and welder. 120, 240 and 42 volt
Cutting Diameter:
1”-48” (25-1220 mm)
Weight: 30 lbs. (13.6 kg)

CIRCLE WELDERS
Nozzle welding units
Available for MIG/MAG and submerged Arc.
Multiple versions available for nozzle diameters of 1”-50” (25-1270 mm)
For multi-pass and multi-layer welding.

Circle Cutters

CB-1PR
Plasma circle burner with remote control for cutting beveled holes 1/2”-12” (13-305 mm) in Pipe up to 3/8” (7 mm) wall thickness includes plasma power source.
60% Duty cycle
Rise and Fall Cam: 5” (127 mm)
Speed: 0.2-11 rpm
Weight: 170 lbs. (77 kg)

CB-2
Circle burner with magnetic base process: Oxy-fuel
Cutting Diameter:
1.5”-42” (40-1066 mm)
beveled holes
4”-48” (100-1220 mm)
square cut
Rise and Fall Cam:
0-7” (0-175 mm),
Weight: 225 lbs. (102 kg)
Bug-O Advanced Process Circle Welders

DCW-5
Equipped with Lincoln Electric® Power Feed 84® or OTC-DAIHEN AF-4012 wire feeder.
Can weld 1-12" (25.4-304.8 mm) diameters

DCW-18-L
Equipped with Lincoln Electric® MAXsa® 10 Controller for Power Wave® AC/DC 1000® wire feeder or Miller® Digital interface for use with Miller® Digital series power sources.
Can weld 10-50" (254-1,270 mm) diameters

Shape Cutting / Welding

MDS PROGRAMMABLE SHAPE KIT
2 axis portable programmable cutting/welding machine
120, 240 and 42 volt
Speed: 5-100 ipm (127-2540 mm/min)
Net Weight: 47 lbs. (21 kg)
Pipe Cutting & End Preparation Units

**SE-2 PTD**
Programmable pipe cutter with 5" (127 mm) pipe pass through capability
Process: Oxy-fuel or Plasma
120 or 220 volts
Diameters:
1" - 4" (25-100 mm)
External Chuck:
4"-14" (100-355 mm)
Net Weight:
346 lbs. (157 kg)

**SE-4PD**
Programmable pipe cutter
Process: Oxy-fuel or Plasma
115 or 220 volts
Cutting Diameters:
1"-12" (25-300 mm)
Maximum Pipe Length:
18" (450 mm)
Weight: 201 lbs. (91 kg)

**SE-4PTD**
Programmable pipe cutter with 13" (330 mm) pipe pass through capability
Process: Oxy-fuel or Plasma
120 or 220 volts
Pass Through Pipe Cutting Diameters:
4" to 12-3/4"
(100-325 mm)
External Chuck up to 20" (500 mm)
Weight: 705 lbs. (320 kg)

**PCC-1**
Pipe Coupon Cutter is a single axis machine for cutting or beveling the edge of a pipe
Process: Oxy-fuel or Plasma
120 or 220 volts
0-8" O.D. and 3-11" I.D. pipe
Weight: 180 lbs. (82 kg)
Pipe Cutting & End Preparation Units

**MM1**
Programmable pipe cutter with pipe bed
Process: Oxy-fuel or Plasma
120 or 220 volts
Cutting Diameters
4”-16” (100-400 mm) O.D.
Pipe Length Capacity
up to 30’ (9.14 m)
24” (600 mm) Diameter
Capacity Available

**MM5**
Programmable pipe cutter with pipe bed
Process: Oxy-fuel or Plasma
120 or 220 volts
Cutting Diameters
4”-39.375” (10-100 cm)
O.D.
Pipe Length Capacity
up to 8’ (2.44 m)
Additional pipe bed extensions of 8’ (2.44 m) can be added

Capabilities of Bug-O Pipe cutting & end preparation units. Pre-programmed and custom cuts.

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UNI-BUG® III
Programmable stitch welder. Runs directly on the work piece. Carriage options for the following structural profiles:
- Bulb Angle
- T Profiles
- L Profiles
110, 220 or 42 volt
Speed: 4-75 ipm
(102-1905 mm/min)
Weight: 18 lbs. (8.2 kg)

STIFFENER WELDERS
Mechanizes two wire feeders to weld various types of stiffeners. Available with Lincoln® Flex Feed 84 feeder or Miller® S74 feeder
120 or 240 volt
Speed: 3-44 ipm
(75-1100 mm/min)
Four Wheel Drive Trackless Mechanization for Fillet Welding

K-BUG 1200
Fillet welder with continuous and programmable stitch
42, 120 or 240 volt
Speed: 0.3-37 in/min
(0.1-95 cm/min)
Weight: 13 lbs. (5.9 kg)

K-BUG 1200-BAT
Cordless, battery operated fillet welder with continuous and programmable stitch
120 or 240 volt
Speed: 1.5-37 in/min
(3-95 cm/min)
Weight: 17 lbs. (7.71 kg)

K-BUG 2000
Dual Torch Fillet Welder
120 or 240 volt
Speed: 0.3-37 in/min
(0.1-95 cm/min)
Weight: 23.2 lbs. (10.5 kg)

K-BUG 3000
WITH OSCILLATION
Welds in all Positions
Includes wireless remote
120 or 240 volt
Speed: 1.18-35 in/min
(3.0-88 cm/min)
Weight: 20.2 lbs. (9.2 kg)
UNIVERSAL GIRTH WELDERS

These girth welders are convertible for both bottom up and top down construction. They are also capable of being used as a pair to construct a dual sided girth welder.

Special models can be built per customer’s request.
VERTICAL SEAM WELDER
Similar design to BGW. Performs vertical seam welds. Includes elevating platform for operator.

MINI PORTABLE AUTOMATIC GIRTH WELDER
Produces 2G horizontal sub-arc welds. Runs on a steel band support located anywhere on the work piece.

ZIPPER WELDER
The Bug-O Zipper Welder is designed to weld vertical seams on field storage tanks. The system hooks on the top edge of the tank. It manually rolls to the next joint.
Bug-O Weavers

**KBUG-5050**
Digital, compact pendulum weave welder
120 or 240 volt
Speed: 0 to 247 in/min
(6274 cm/min)
Weight: 10 lbs. (4.5 kg)

**KBUG-6050**
Digital, compact linear weave welder
120 or 240 volt
Speed: 0 to 188 in/min
(477 cm/min)
Weight: 14 lbs. (6.3 kg)

Custom Application Solutions

**OVERLAY SYSTEM**
Custom configured system for rebuilding and resurfacing material such as vessel walls and boiler tubes.
110, 220 or 42 volt
Travel Speed: 2-120 ipm,
(50-3000 mm)
Available in programmable or manual indexing versions and working envelopes