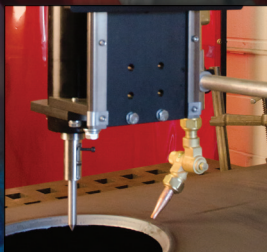


# Operator Controlled Mechanization



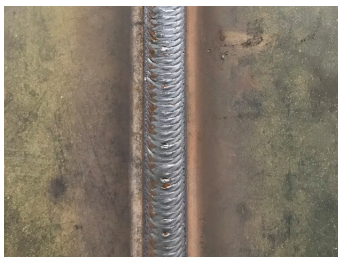
Phone: 412-331-1776

sales@bugo.com

www.bugo.com

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

# Why Choose a Mechanized Process?

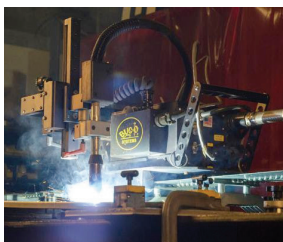


## Increase Production

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.

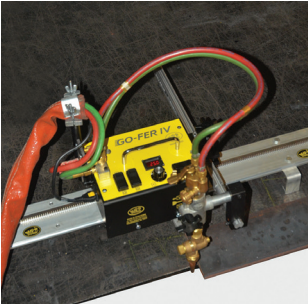
## Improve Worker's Environment

Reduce operator fatigue. Remove operator from welding/cutting fumes.



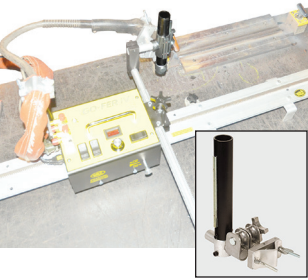


# Straight Line Cutting & Welding with Rails



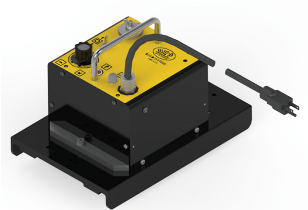
## GO-FER® IV

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)



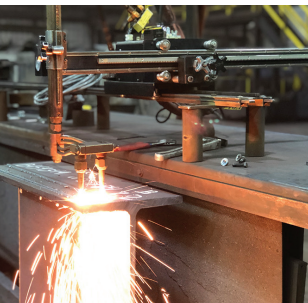
## WELDING SUPPORT KIT FOR GO-FER® IV

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  
120, 240 or 42 volt  
Weight: 18 lbs. (8 kg)

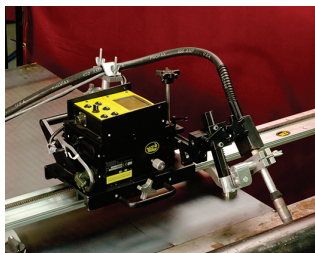


## DC-IV-HD

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)

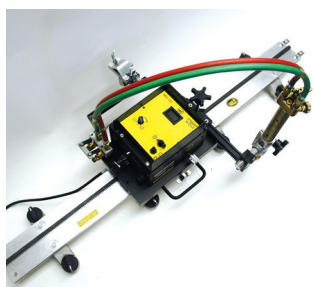


# Straight Line Cutting & Welding with Rails



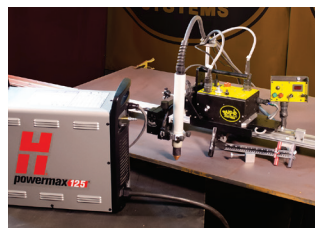
## MODULAR DRIVE SYSTEM

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)



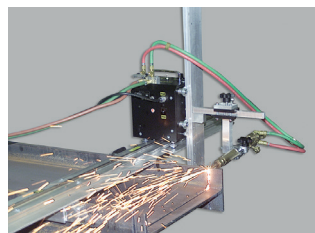
## MODULAR DRIVE SYSTEM

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)



## DC-IV MAX

A turnkey solution for  
off-table, repeatable  
beveling and cutting  
120 or 240 volt  
Speed: 2.5-120 ipm  
(6.4-254 cm/min)  
Weight: 34.5 lbs. (15.6 kg)

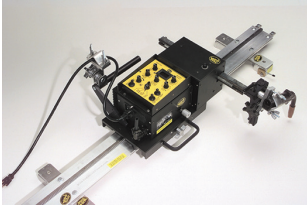


## BEAM BUG III

Portable machine to cut  
beams, channels and  
angles from one rail  
setting  
120 or 240 volt  
Speed: 2-50 ipm  
(50-1250 mm/min)  
Weight: 37 lbs. (17 kg)

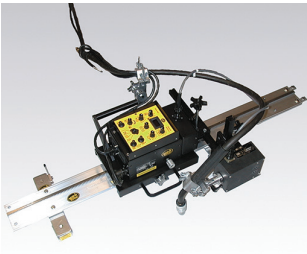


# Straight Line Welding with Oscillation



## 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)



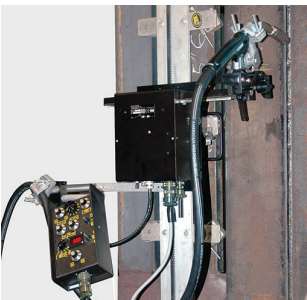
## MODULAR DRIVE SYSTEM

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)  
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)



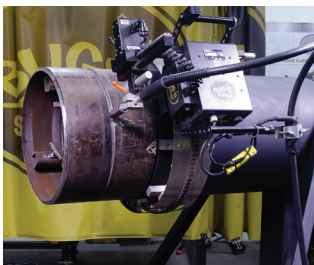
## Pipe Welding/Cutting



### PIPE WELDING SYSTEMS

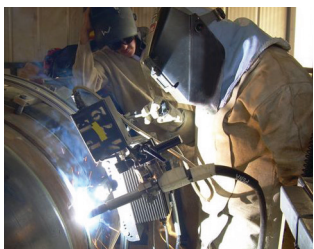
#### Piper-Plus

- 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" (304.8 mm) 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)

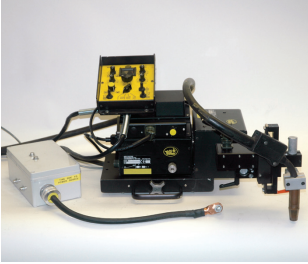


### MODULAR DRIVE SYSTEM

A versatile machine that can be customized for pipe welding or cutting  
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

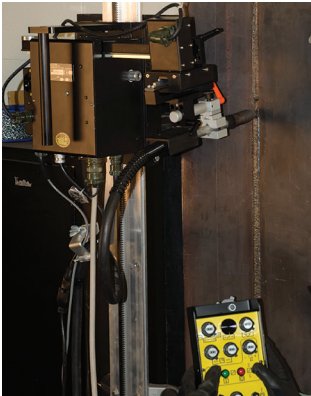
110, 220 or 42 volt

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

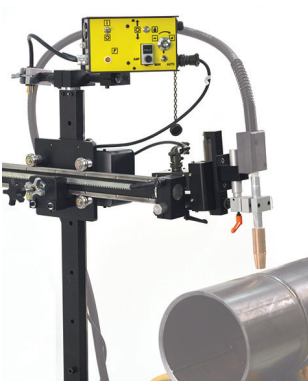
Adapts to all Bug-O rail

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

120 or 240 volts

Total Vertical

Adjustment: 25" (635 mm)

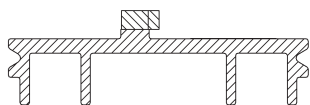
Total Horizontal

Adjustment: 25" (635 mm)

Weight: 41 lbs. (19 kg)



## Rails

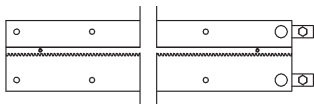


### RIGID RAILS

Heavy Duty

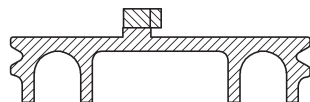
ARR-1080

8' (2.37 m) Long sections



ARR-1085

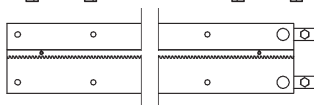
4' (1.18 m) Long sections



Extra Heavy Duty

ARR-1250

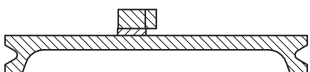
8' (2.37 m) Long sections



ARR-1200

4' (1.18 m) Long sections

***Hard coat rails for above available upon request.***



### 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



### K-BUG GUIDE RAIL

For use with K-BUG guide rail accessory kits  
100-0902

6' (1.83 m) Long with on/off magnets



### RING RAILS

Minimum work diameter of

9" (230 mm)





## Magnet/Support 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

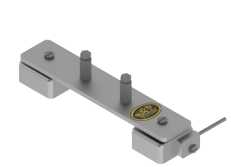
For Semi-Flex Rail  
ARM-2425



### R.E. ON/OFF MAGNET

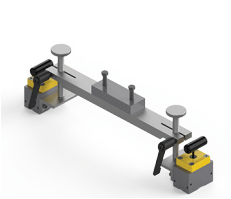
For Hi-Flex Rail  
FMD-2010

**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



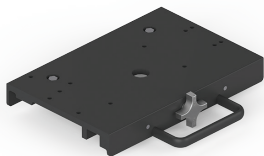
### SUPPORT BAR W/ SCREW FEET

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)

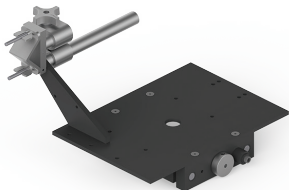


# Carriages - Vacuum Support



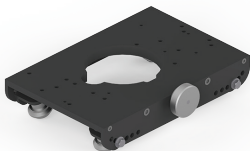
## RELEASABLE CARRIAGE

For Rigid & Semi-Flex Rail  
MPD-1065



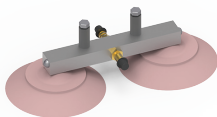
## HI-FLEX CARRIAGE

For Hi-Flex Rail  
FMD-1105



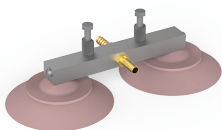
## SPLIT CARRIAGE

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



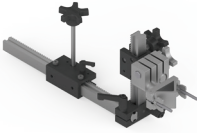
## VACUUM PUMP KIT

100-1297-120  
110 volt/50-60 Hz

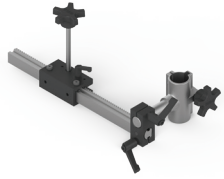
100-1297-240  
240 volt/50-60 Hz



# Supports & Accessories



MDS-1040  
Machined Rack  
Welding Group



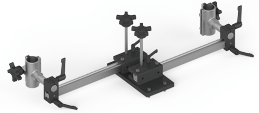
MDS-1050  
Machined Rack  
Cutting Group



100-0442-\_\_\_  
Extra Heavy  
Duty Racking



MDS-1075  
Dual Torch Welding  
Group



MDS-1090  
Dual Torch Cutting  
Group



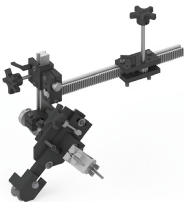
PAN-1000  
Panograph  
Torch Floater



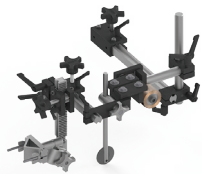
PAN-1008  
Welding Panograph



PAN-1072  
Double Torch  
Panograph



PAN-2145-L, R  
Mechanical Corner  
Follower



PAN-2160  
Mechanical Seam  
Follower

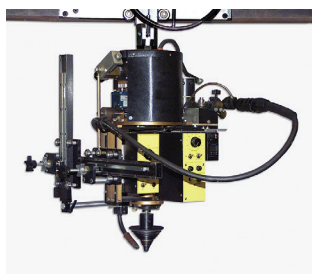


## Hole Cutter & Circle Welders



### 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)

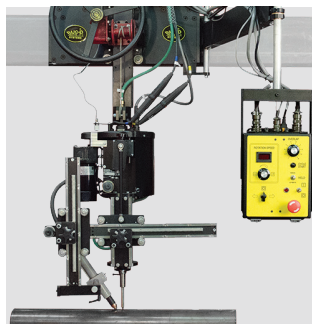


### CIRCLE WELDERS

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

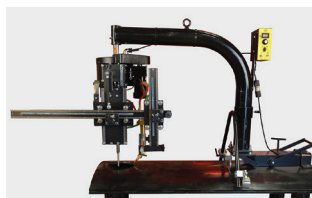


## Circle Cutters



### 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)

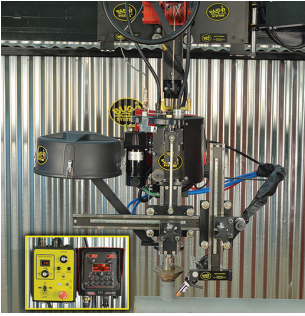


### CB-2

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

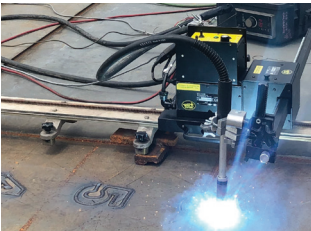


### DCW-18-L

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

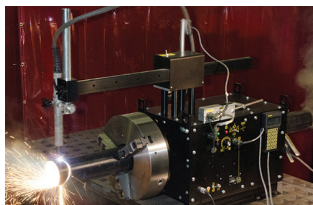


### MDS PROGRAMMABLE SHAPE KIT

2 axis portable programmable cutting/welding machine  
120, 240 and 42 volt  
Speed: 5-100 ipm  
(127-2540 mm/min)  
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

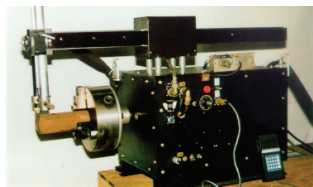
Diameters:

1" - 4" (25-100 mm)

External Chuck:

4"-14" (100-355 mm)

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

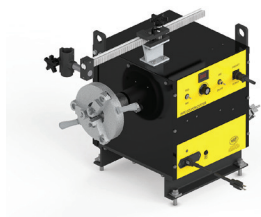
Pass Through Pipe Cutting  
Diameters:

4" to 12-3/4" (100-325 mm)

External Chuck up to

20" (500 mm)

Weight: 705 lbs. (320 kg)



### PCC-3

Pipe Coupon Cutter is a single axis machine for cutting or beveling the edge of a pipe

Process: Oxy-fuel or Plasma  
Dual voltage: 120/220 VAC  
0-8" (3.1cm) O.D., 3-11" (1.2-4.3 cm) I.D.

Weight: 180 lbs. (82 kg)

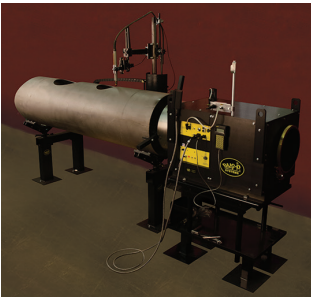


# Pipe Cutting & End Preparation Units



## MM1

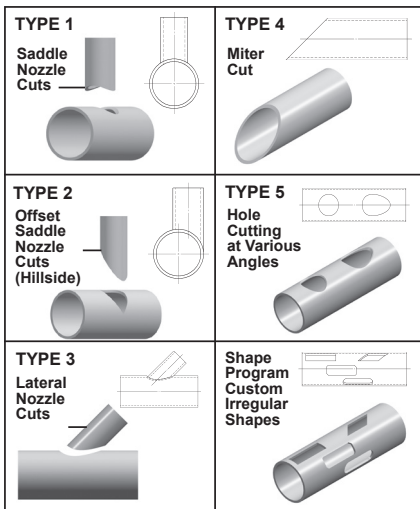
Programmable pipe cutter with pipe bed  
 Process: Oxy-fuel or Plasma  
 120 or 240 volts  
 Cutting Diameters  
 4"-16" (100-400 mm) O.D.  
 Pipe Length Capacity  
 up to 30' (9.14 m)  
 24" (600 mm) Diameter  
 Capacity Available



## MM5

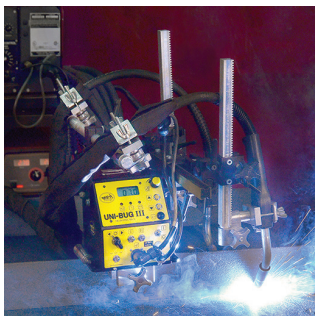
Programmable pipe cutter with pipe bed  
 Process: Oxy-fuel or Plasma  
 120 or 240 volts  
 Cutting Diameters  
 4"-39.375" (10-100 cm)  
 O.D.  
 Pipe Length Capacity  
 up to 8' (2.44 m)  
 Additional pipe bed  
 extensions of 8' (2.44 m)  
 can be added

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





# Trackless Mechanization for Cutting & Welding



## UNI-BUG® III

Programmable stitch welder

Runs directly on the work piece

Carriage options for the following structural profiles:

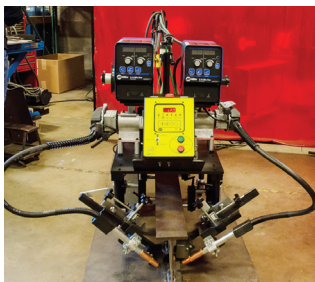
- Bulb Angle
- T Profiles • L Profiles

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)





# Trackless Mechanization for Fillet Welding

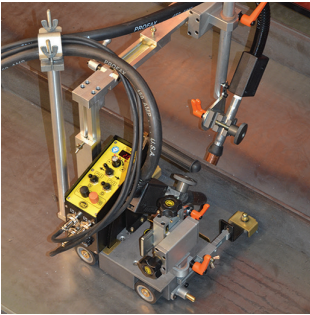


## K-BUG 1200\*

Fillet welder with continuous and programmable stitch  
42, 120 or 240 volt  
\*Battery version is available

Speed: 0.3-.37 in/min  
(0.1-95 cm/min)

Weight: 13 lbs. (5.9 kg)

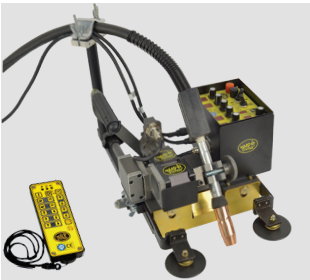


## K-BUG 2000

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)



## K-BUG 3000-BAT WITH OSCILLATION

Cordless, battery operated, welds in all positions

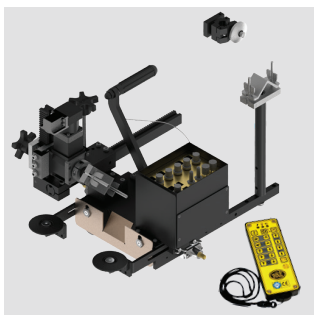
Includes wireless remote  
120 or 240 volt

Speed: 1.18-35 in/min  
(3.0-88 cm/min)

Weight: 26 lbs. (11.8 kg)

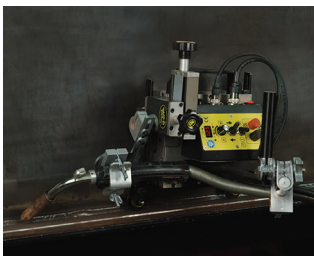


## Trackless Mechanization for Fillet Welding



### **K-BUG 3500**

Utilized in conjunction  
with K-BUG guide rail to  
weld butt joints  
120 or 240 volt  
Speed: 1.18-35 in/min  
(3.0-88 cm/min)  
Weight: 28.88 lbs.  
(13.10 kg)



### **K-BUG 4000**

Wall following continuous  
and stitch fillet welder  
120 or 240 volt  
Speed: 0-77 in/min  
(0-196 cm/min)  
Weight: 17 lbs. (7.5 kg)



## Girth Welders



### **UNIVERSAL GIRTH WELDERS**

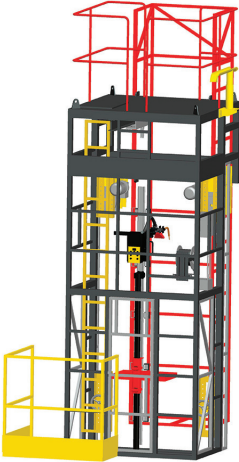
These girth welders are  
convertible for both  
bottom up and top down  
construction

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



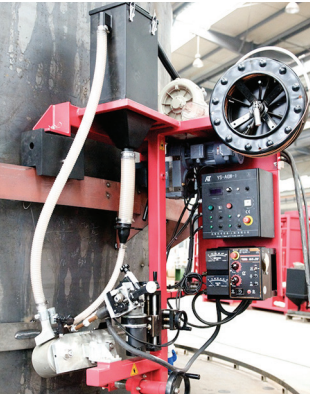
## Girth Welders



### **VERTICAL SEAM WELDER**

Similar design to BGW  
Performs vertical seam welds

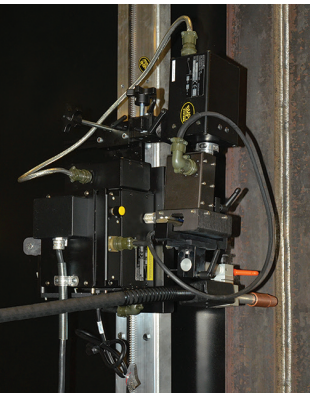
Includes elevating platform for operator



### **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**

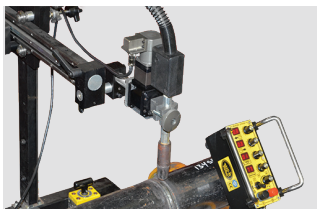
The Bug-O Zipper Welder is designed to weld vertical seams on field storage tanks

The system hooks on the top edge of the tank

It manually rolls to the next joint



## Bug-O Weavers



### K-BUG 5050

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

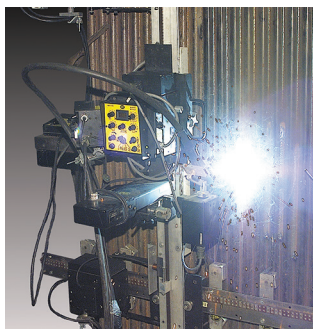


### K-BUG 6050

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

**A QUALITY PRODUCT FROM BUG-O SYSTEMS**

A DIVISION OF WELD TOOLING CORPORATION Litho in U.S.A.

280 TECHNOLOGY DRIVE • CANONSBURG, PA 15317 USA

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