

# UNIVERSAL BUG-O-MATIC



Flexible, Compact Drive and Oscillator  
Combination for Welding in All Positions



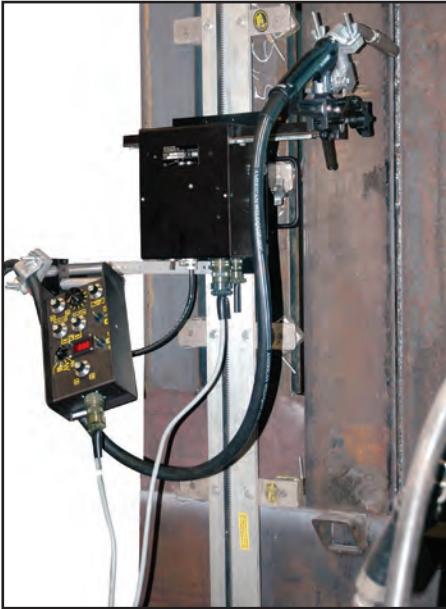
412-331-1776 [www.bugo.com](http://www.bugo.com)

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





# UNIVERSAL BUG-O-MATIC



The **Universal Bug-O-Matic** (BUG-5700, BUG-5702 and BUG-5704) is a compact unit which combines a powerful drive and precision oscillator all in one housing. The unit is lightweight and can easily be handled by one operator. The machine works in all positions and can be used for vertical and overhead welds. By simply changing the carriage, the unit can work on rigid rail, semi-flex rail, hi-flex rail or complete ring rails. The opening mechanism of the carriage allows the unit to be released or installed anywhere on the rail.

While welding, adjustments can be made to the travel speed, amplitude and oscillation speed as well as dwell left and dwell right. While the machine is welding, the torch can be guided by a separate steering knob. Closed loop feedback and dynamic braking allow the Bug-O-Matic to make precise starts, stops and travel at a constant speed.

The **Universal Bug-O-Matic with Auto Height Control** (BUG-6550, BUG-6552 and BUG-6554) has the same functions as the Universal Bug-O-Matic, but in addition features amperage sensing automatic torch height adjustment which maintains constant torch to work distance. The Height Control features a motorized slide which provides a total of 2" (51 mm) of vertical travel.

## Pendant Control

The Universal Bug-O-Matic features a remote control pendant which allows the operator to run the machine from up to 10 feet (3 m) away. The pendant can be clamped to the machine handle for easy storage or transport.

**NEW FEATURE:** All Universal Bug-O-Matics now include a Control Orientation Reversing switch. The pendant controls can be set to match the machine orientation. Example: 2 machines, running on one ring, welding a joint on a horizontal pipe.

**Standard Pendant**



**Automatic Height Control Pendant**





# UNIVERSAL BUG-O-MATIC

## Universal Bugomatic Options

### 1 RAILS



**Hi-Flex Rail** 57.72" (1.47 m) - Flex to minimum radius 30" (760 mm)  
FMD-1050

**Aluminum Rigid Rail 8' (2.37 m)**  
ARR-1080

**Aluminum Rigid Rail 4' (1.18 m)**  
ARR-1085

**Semi-Flex Rail 8' (2.37m) - Flex to minimum radius 15' (5 m)**  
AFR-3000

**Bent Rigid Rail**  
BRR-1180

**Rigid Ring Rail**  
BRR-3250-XX

Minimum Workpiece Diameter 9" (230 mm)

**Piper Steel Rail**  
PSR-2000-\_\_

Minimum Workpiece Diameter 12" (304.8 mm)

**Piper Flex Rail**  
PSR-2200-\_\_

### 2 ATTACHMENTS



**Vacuum Cup**  
FMD-1036

**R.E. On/Off Magnet**  
FMD-2010

**Swivel Magnet w/ Release**  
FMD-2325



**Support Bar w/ Screw Feet**  
ARM-2380

**Support Bar w/ Screw Magnet Feet**  
ARM-2480

**Support Bar w/ Screw and Magsquare Feet**  
ARM-2580



**Piper Flex Magnet**  
PSR-2210



**Vacuum Cups**  
ARV-1036

**R.E. On/Off Magnet**  
ARM-2010

**Swivel Magnet w/ Release**  
ARM-2325

**Fixed Magnet Plate w/ Release**  
ARM-2265



**Vacuum Cups**  
ARV-1036

**R.E. On/Off Magnet**  
AFR-2010

**Swivel Magnet w/ Release**  
ARM-2425

**Fixed Magnet Plate w/ Release**  
ARM-2465

For more information on vacuum cups, magnets and rails, please see the corresponding rail page in the "Rails and Attachments" brochure in order to match the correct attachments with your rails.

### 3 CARRIAGES



**Hi-Flex Carriage**  
FMD-1022



**12" (305 mm) Releasable Carriage**  
MPD-1065



**Tube Carriage**  
BUG-5960

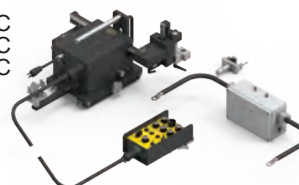
### 4 UNIVERSAL BUGOMATIC

**Universal Bugomatic**  
BUG-5700 120 VAC  
BUG-5702 240 VAC  
BUG-5704 42 VAC



**Universal Bugomatic with Automatic Height Control**

BUG-6550 120 VAC  
BUG-6552 240 VAC  
BUG-6554 42 VAC



**Universal Bugomatic for Pipe with Piper-Flex Rail**  
BUG-6550-QC-PSR





# UNIVERSAL BUG-O-MATIC

## All-In-One (AIO) Mechanized Guns for Uni-bugs and Universal Bug-O-Matic

Choose from the options below to fit your application.

### 1 GUN



#### Each gun includes:

|     |  |
|-----|--|
| 5X  | 100-0490 / 65-3103 EHD Retaining Head/Diffuser               |
| 10X | 100-0489 / 65-1135 EHD Contact Tip 0.035"                    |
| 10X | 100-0488 / 65-1145 EHD Contact Tip 0.045"                    |
| 2X  | 100-0635 / 65-2550 Nozzle, Copper 1/2" Bore, 1/8" Tip Recess |
| 1X  | 100-0492 / 64-4515 0.045-1/16", 15 Ft., Coil Liner           |

**100-1011-1-4.5-XX** 500 amp Lightning Auto Gun, 180 degree gooseneck with integrated cable management system

**100-1011-1-4.5-T** Includes 100-0484 Tweco #4 Power Pin

**100-1011-1-4.5-M** Includes 100-0485 Miller Power Pin

**100-1011-1-4.5-L** Includes 100-0486 Lincoln Power Pin Old Style

### 2 BUG-O TRIGGER CABLE

Connects the contact cable in the torch to the contact trigger amphenol on the bug.

Required to choose 1 - check the power input module connection on your Bug to find out if it is 2 Pin or 4 Pin.



100-1012-1-0.15 4 Pin Male Panel Connector



100-1012-2-0.15 2 Pin Male Panel Connector

### 3 AIO TO BUG POWER ADAPTER (Bug End)



100-1013-1 Power Cord Adaptor for 120/42 VAC

### 4 WIRE FEEDER TRIGGER CABLES (Feeder End)

Required to choose 1

Connects the contact cable in the torch to the wire feeder.



100-1020-1-0.15 (two male spade connectors)



100-1020-3-0.15 5-P Lincoln



100-1020-2-0.15 4-P Miller

### 5 STANDARD POWER CORD (From Rear of Gun Cable to Power Input)



BUG-9454 120VAC



BUG-9454-42 42VAC



BUG-9454-240 240VAC

Contact American Torch Tip for other consumables: 800-342-8477



# UNIVERSAL BUG-O-MATIC

The **Universal Bug-O-Matic** is operator friendly and produces precise, accurate welds. The remote pendant allows the operator to produce repeatable welds with pre-set parameters which increases production, improves quality and workers environment.

## Technical Data:

### Universal Bug-O-Matic

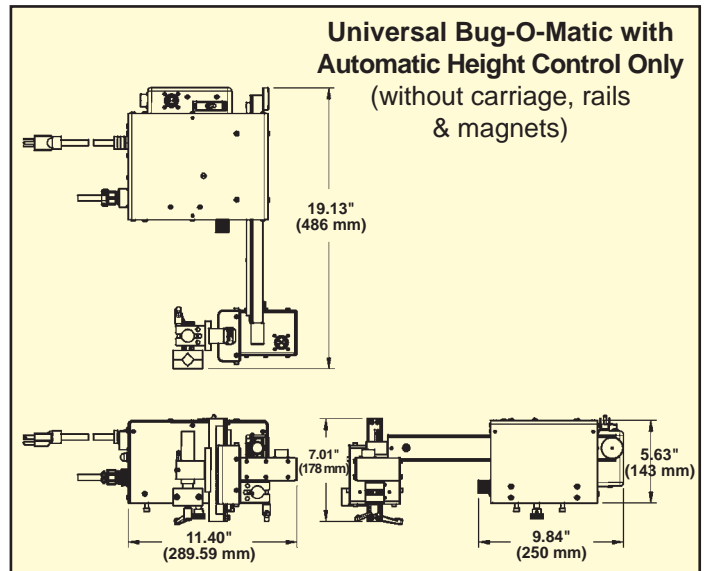
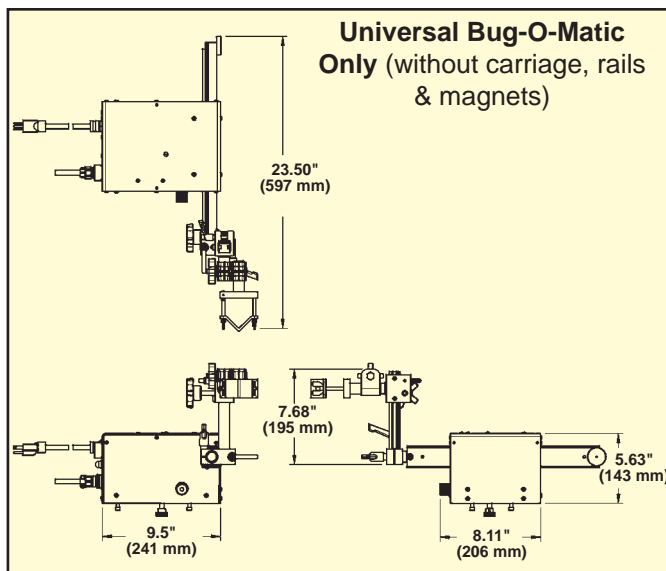
|                            |   |
|----------------------------|---|
| <b>Power Requirements:</b> | BUG-5700 120 VAC/50-60/1<br>BUG-5702 240 VAC/50-60/1<br>BUG-5704 42 VAC/50-60/1 |
| <b>Linear Speed:</b>       | 3-70 ipm (75-1750 mm/m)   |
| <b>Weave Speed:</b>        | 4-100 ipm (100-2500 mm/m)   |
| <b>Dwell Time:</b>         | 0-3 seconds, left and right   |
| <b>Weave Width:</b>        | 0.1-2" (2.5-50 mm)  |
| <b>Steering:</b>           | 2" (50 mm) left and right of center<br>4" (100 mm) total                        |
| <b>Load Capacity:</b>      | 30 lbs. (14 kg)   |
| <b>Net Weight:</b>         | 28 lbs. (13 kg)   |
| <b>Shipping Weight:</b>    | 33 lbs. (15 kg)   |

### Universal Bug-O-Matic With Auto Height Control

|                            |   |
|----------------------------|---|
| <b>Power Requirements:</b> | BUG-6550 120 VAC/50-60/1<br>BUG-6552 240 VAC/50-60/1<br>BUG-6554 42 VAC/50-60/1 |
| <b>Linear Speed:</b>       | 3-70 ipm (75-1750 mm/m)   |
| <b>Weave Speed:</b>        | 4-100 ipm (100-2500 mm/m)   |
| <b>Dwell Time:</b>         | 0-3 seconds, left and right   |
| <b>Weave Width:</b>        | 0.1-2" (2.5-50 mm)  |
| <b>Steering:</b>           | 2" (50 mm) left and right of center<br>4" (100 mm) total                        |
| <b>Load Capacity:</b>      | 30 lbs. (14 kg)   |
| <b>Net Weight:</b>         | 36 lbs. (16 kg)   |
| <b>Shipping Weight:</b>    | 41 lbs. (19 kg)   |

The Universal Bug-O-Matic with AHC requires a Constant Voltage (CV) power supply for operation. Consult factory for your particular application.

## Dimensions:

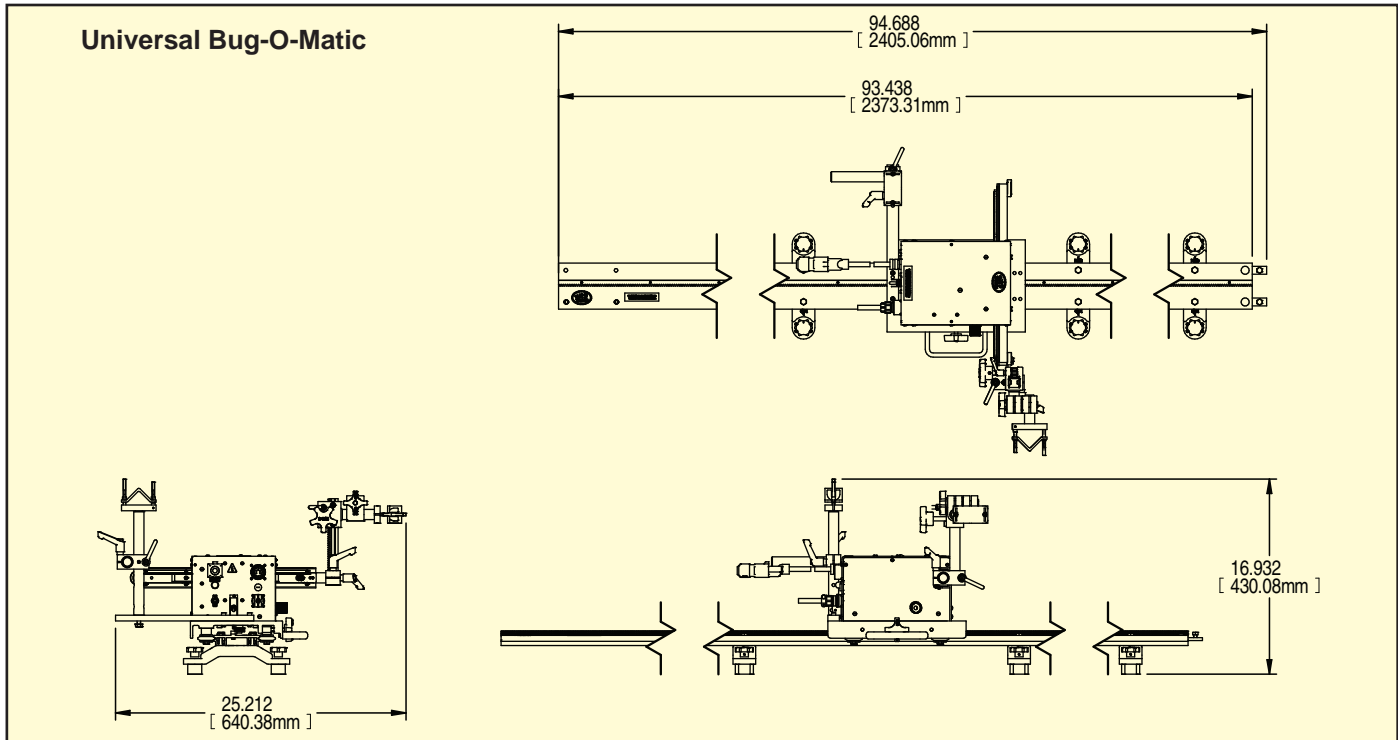




# UNIVERSAL BUG-O-MATIC

## Dimensions:

BUG-570X w/MPD-1065 w/ARR-1080 w/ARM-2010



BUG-655X w/MPD-1065 w/ARR-1080 w/ARM-2010

