



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

# DC-IV



## Powerful Welding Travel Carriage Handles the Toughest Applications

The DC IV basic drive tractor has six speed ranges available



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



## DC-IV



The **DC-IV** is a dual speed range, positive rack & pinion drive, ready for mounting welding or cutting attachments and accessories. It consists of a DC-IV Drive unit mounted on a 12" (305 mm) Carriage. This unit runs on standard Aluminum Rigid Rail, Aluminum Flex Rail or Bent Rigid Rail (with a minimum radius of 10' or 3 m).

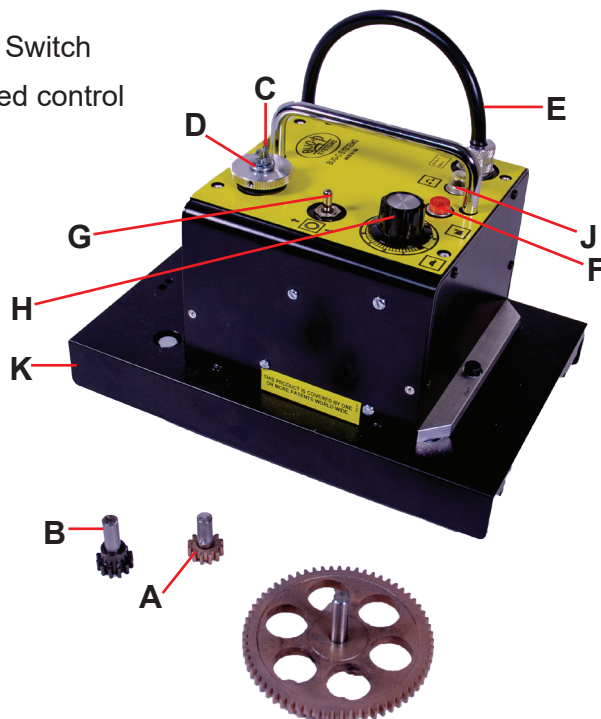
### Benefits:

As with all Bug-O equipment, you can expect the following advantages:

- **Increase Productivity** - With six speed ranges available, the DC-IV boosts production
- **Improve Quality** - The DC-IV improves quality and appearance of cuts and welds
- **Reduce Distortion** - Precise speed and path control of both cuts and welds
- **Diminish Material Handling** - Lightweight, compact footprint allows for the machine to be brought to the workpiece
- **Improve Worker's Environment** - Operators experience less fatigue on the job and are further away from fumes

### Features:

- C. Wing nut locks clutch
- D. Cam Clutch engages and disengages the drive
- E. Power Cord
- F. Power Indicator Light
- G. Forward-Off-Reverse Switch
- H. Infinitely variable speed control
- J. Circuit Breaker
- K. Carriage



Two pinion gears are provided. The factory installed pinion engages the bull gear to provide a high torque, low speed range (**A**). The user can easily install the alternate pinion to bypass the bull gear and obtain a low torque, high speed range (**B**).



## DC-IV

### Technical Data:

#### Power

**Requirement:** -60 watts at rated voltage:

**DC IV:**            BUG-034\_120 VAC/50-60/1  
                           BUG-044\_240 VAC/50-60/1  
                           BUG-054\_42 VAC/50-60/1

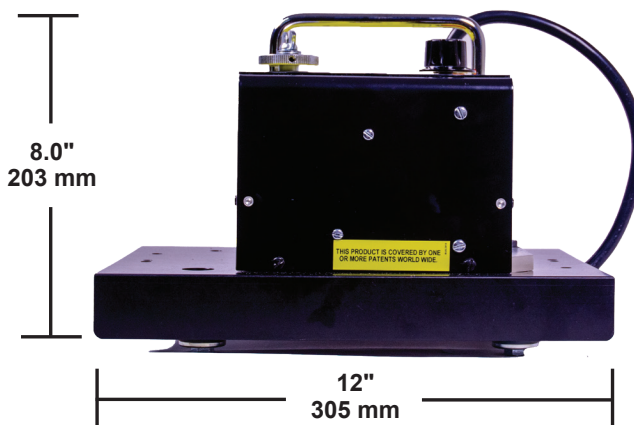
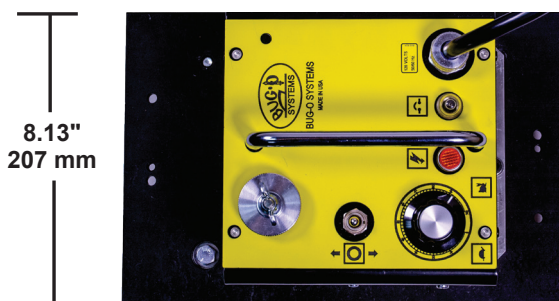
**Net Weight:**     18 lbs. (8 kg)

#### Shipping

**Weight:**           20 lbs. (9 kg)



### Dimensions:



## Drive Load Chart

Pinion Gear Used	Speed in/min	Range mm/min	Continuous			Model Number		
			Vert. Load LBS.	KG	Gear Ratio	120/50-60/1	240/50-60/1	42/50-60/1
Low Speed	1.5-30	38-750	50	22	50:1	BUG-0343	BUG-0443	BUG-0543
High Speed	8-160	200-4000	3	1.4				
Low Speed	.7-15	19-380	75	34	100:1	BUG-0345	BUG-0445	BUG-0545
High Speed	4-80	100-2000	15	7				
Low Speed	.5-10	12-255	100	45	150:1	BUG-0346	BUG-0446	BUG-0546
High Speed	2-50	50-1250	30	14				

# DC-IV

Custom configure from the options below to fit your application.

## 1 DRIVE UNIT WITH 12" CARRIAGE



**BUG-0343** DC-IV (50:1) 120 VAC  
**BUG-0443** DC-IV (50:1) 240 VAC  
**BUG-0543** DC-IV (50:1) 42 VAC

**BUG-0345** DC-IV (100:1) 120 VAC  
**BUG-0445** DC-IV (100:1) 240 VAC  
**BUG-0545** DC-IV (100:1) 42 VAC

**BUG-0346** DC-IV (150:1) 120 VAC  
**BUG-0446** DC-IV (150:1) 240 VAC  
**BUG-0546** DC-IV (150:1) 42 VAC

## 2 CABLE ANCHORS, RACKING GROUPS & MISCELLANEOUS SUPPORTS

### Cable Anchors

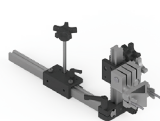


**BUG-2975** Cable Mounting Assembly - Standard



**BUG-5930** Low Profile Cable Anchor Assembly

### Racking Groups



**MDS-1040** Machined Rack Welding Group



**MDS-1050** Machined Rack Cutting Group

### Heavy Duty Racking Groups



**BUG-5275** H.D. Welding Group



**BUG-5285** H.D. Cutting Group

### Extra Heavy Duty Racking



**100-0442-19** 19" Length Racking  
**100-0442-33** 33" Length Racking  
**100-0442-40** 40" Length Racking

### Oxy-Fuel Accessories



**CIR-1010-XX** Twin Hose Assembly



**GOF-3025** 2-Hose Quick Acting Manifold



**MUG-1119-XX** Triple Hose Assembly



**BUG-9898** 3-Hose Quick Acting Manifold

## 3 CARRIAGE OPTIONS



**BUG-5260** 18" Carriage



**BUG-2790** 24" Carriage



**BUG-2785** 36" Carriage

## 4 ACCESSORIES



**\*GOF-1085-25-XX** Contact Cable



**BUG-5485** Contactor Cable Anchor

*\*XX stands for the power source:  
HYP=Hypertherm, L=Lincoln and M=Miller*

## 5 FACTORY INSTALLED OPTIONS



**\*BUG-1630-XX** Pendant Control

*\*XX stands for the cable length: 10', 25', 40', 50', 75'*



**\*BUG-1635-XX** Pendant Control with Weld Starter  
(Used with GOF-1085-25-XX, Weld Contact Cable)

*\*XX stands for the cable length: 10', 25', 50', 100'*



**BUG-1764-KIT** Digital Readout



**\*\*BUG-5140** Cycler Option 120 VAC  
**\*\*BUG-5142** Cycler Option 240 VAC  
**\*\*BUG-5144** Cycler Option 42 VAC

Unit cycles between limit stops until operators stops travel.



**\*\*BUG-9770** Limit Switch Kit  
Stops tractor movement when limit switch is pressed.



**\*\*BUG-9870** Stepping Module  
Adjustable, timed output, power control to step tractor movement.

**\*\*None of the above will impact process contact closure.**

## 6 RAILS AND MAGNETS - ALUMINUM RIGID RAIL "ARR"



- (1) **ARR-1080** 8' Aluminum Rigid Rail  
93-7/16" Actual Length (2.37 m)
- (2) **ARM-2010** R.E. On/Off Magnet
- (2) **ARM-2015** Spacer Bar



- (1) **ARR-1085** 4' Aluminum Rigid Rail  
46-9/16" Actual Length (1.18 m)
- (2) **ARM-2010** R.E. On/Off Magnet
- (2) **ARM-2015** Spacer Bar



- (1) **AFR-3000** Semi-Flex Rail  
93-7/16" Actual Length (2.37 m)
- (4) **AFR-2010** R.E. On/Off Magnet for Semi-Flex Rail

**AFR-3000 Semi-Flex Rail** can be bent inside or outside to a minimum radius of 15' (5.0 m) or 30' (10.0 m) diameter without permanent deformation.

**ARM-2010**  
**ARM-2010-HH\***



R.E. On/Off Magnet for ARR Rail only  
Holding power 250 lbs. (113.4 kg)  
Can be switched on and off for rapid set-up.



**ARM-2015**  
Spacer Bar for  
ARR Rail only



**AFR-2010**  
**AFR-2010-HH\***

R.E. On/Off Magnet for AFR-3000 Rail only  
Holding power 250 lbs. (113.4 kg)  
Can be switched on and off for rapid set-up.

\*All **XXX-2010-HH** are "High Heat" models and are rated at 180°C (356°F) for high temperature applications.

## Vacuum Systems For Non-Ferrous Metals

### Standard Vacuum Support Kits:

- ARV-1080 Vacuum Kit**  
For ARR-1080 & AFR-3000 Rails.
- ARV-1085 Vacuum Kit**  
For ARR-1085 Rails

- ARV-2020** 120 Volt/50-60 Hz
- ARV-2030** 220 Volt/50-60 Hz

The ARV-2020 (ARV-2030) Vacuum Pump Kit is recommended for use with a maximum of four (4) pieces of rail, or sixteen (16) vacuum bars.



**ARV-1085 Vacuum Kit** for  
ARR-1085 4' (102 mm) Rigid Rail



**ARV-1080 Vacuum Kit** for  
ARR-1080 8' (203 mm) Rigid Rail



**ARV-1080 Vacuum Kit** for  
AFR-3000 8' (203 mm) Semi-Flex Rail



## DC-IV

### Technical Data:



#### DC-IV Drive Unit

##### Power

**Requirements:** - 60 watts at rated voltage:

##### DC IV:

BUG-5100-\_BG 120 VAC/50-60/1

BUG-5102-\_BG 240 VAC/50-60/1

BUG-5104-\_BG 42 VAC/50-60/1

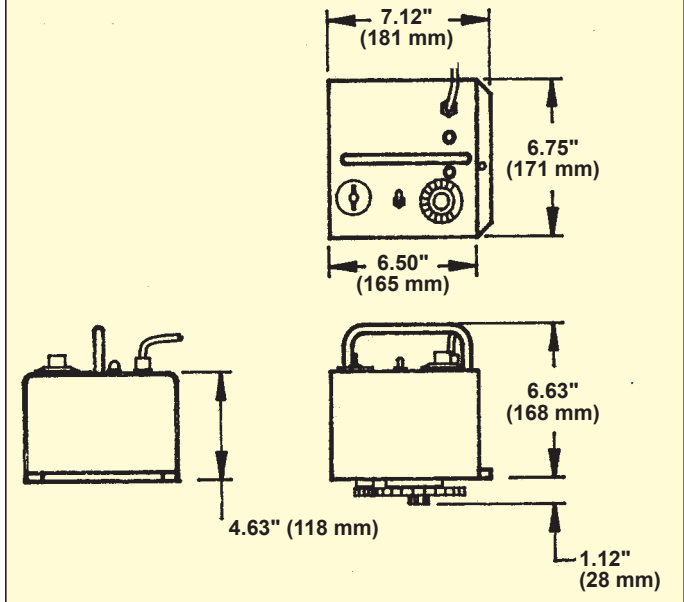
##### Dimensions:

7.12"L x 6.75"W x 6.63"H  
(181 mm x 171 mm x 168 mm)

**Net Weight:** 17 lbs. (7.7 kg)

**Shipping Weight:** 21 lbs. (9.5 kg)

### Dimensions:



### Drive Load Chart

Pinion Gear in/min	Speed in/min	Range LBS.	Continuous			Model Number		
			Vert. Load KG		Gear Ratio	120/50-60/1	240/50-60/1	42/50-60/1
Low Speed	1.5-30	38-750	50	22	50:1	BUG-5100-CBG	BUG-5102-CBG	BUG-5104-CBG
High Speed	8-160	200-4000	3	1.4				
Low Speed	.7-15	19-380	75	34	100:1	BUG-5100-EBG	BUG-5102-EBG	BUG-5104-EBG
High Speed	4-80	100-2000	15	7				
Low Speed	.5-10	12-255	100	45	150:1	BUG-5100-FBG	BUG-5102-FBG	BUG-5104-FBG
High Speed	2-50	50-1250	30	14				

