

# INSTRUCTIONS AND PARTS MANUAL

## PIPE COUPON CUTTING MACHINE 100-0388

Please record your equipment identification information below for future reference. This information can be found on your machine nameplate.

Model Number \_\_\_\_\_

Serial Number \_\_\_\_\_

Date of Purchase \_\_\_\_\_

Whenever you request replacement parts or information on this equipment, always supply the information you have recorded above.

LIT-100-0388-IPM-0919

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



### **BUG-O SYSTEMS**

A DIVISION OF WELD TOOLING CORPORATION

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## SAFETY

**PROTECT YOURSELF AND OTHERS FROM SERIOUS INJURY OR DEATH. KEEP CHILDREN AWAY. BE SURE THAT ALL INSTALLATION, OPERATION, MAINTENANCE AND REPAIR PROCEDURES ARE PERFORMED ONLY BY QUALIFIED INDIVIDUALS.**



### **ELECTRIC SHOCK CAN KILL.**

- 1) The equipment is not waterproof. Using the unit in a wet environment may result in serious injury. Do not touch equipment when wet or standing in a wet location.
- 2) The unused connectors have power on them. Always keep the unused connectors covered with the supplied protective panels. Operation of the machine without the protective panels may result in injury.
- 3) Never open the equipment without first unplugging the power cord or serious injury may result.
- 4) Verify the customer supplied power connections are made in accordance with all applicable local and national electrical safety codes. If none exist, use International Electric Code (IEC) 950.
- 5) Never remove or bypass the equipment power cord ground. Verify the equipment is grounded in accordance with all applicable local and national electrical safety codes. In none exist, use International Electric Code (IEC) 950.



### **EQUIPMENT DAMAGE POSSIBLE.**

- 1) Do not plug in the power cord with out first verifying the equipment is OFF and the cord input voltage is the same as required by the machine or serious damage may result.
- 2) Always verify both the pinion and wheels are fully engaged before applying power or equipment damage may occur.
- 3) Do not leave the equipment unattended.
- 4) Remove from the work site and store in a safe location when not in use.



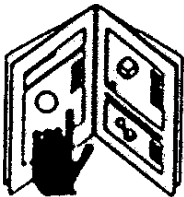
### **FALLING EQUIPMENT can cause serious personal injury and equipment damage.**

Faulty or careless user installation is possible. As a result, never stand or walk underneath equipment.



### **MOVING PARTS can cause serious injury.**

- 1) Never try to stop the pinion from moving except by removing power or by using the STOP control.
- 2) Do not remove any protective panels, covers or guards and operate equipment.



### **READ INSTRUCTIONS.**

Read the instruction manual before installing and using the equipment.

## HIGH FREQUENCY WARNINGS

**SPECIAL PRECAUTIONS ARE REQUIRED WHEN USING PLASMA, TIG OR ANY WELDING PROCESS THAT USES HIGH FREQUENCY TO STRIKE AN ARC.**



**WARNING:** HIGH FREQUENCY CAN EFFECT MACHINE OPERATION AND THEREFORE, WELD QUALITY.

Read the precautions below before installing and using the equipment.

### PRECAUTIONS:

- 1) Some plasma or welding cables are strong sources of high frequency interference. NEVER lay a plasma or welding cable across the controls of the machine.
- 2) Always physically separate the plasma or welding cable leads from the machine cables. For example, the plasma or welding cable leads should NEVER be bundled with a pendant cable or the machine power cord. Maximize the separation between any machine cables and the plasma or welding cables.
- 3) Strictly follow the grounding procedures specified for the plasma or welding unit. NOTE: Some plasma and welding units produce exceptionally large amounts of high frequency noise. They may require a grounding rod be driven into the earth within six feet (2 meters) of the plasma or welding unit to become compatible with an automatic cutting or welding process.
- 4) If the high frequency is produced using a spark gap, adjust the points so the gap is as small as possible. The larger the gap, the higher the voltage and the higher the interference.
- 5) Some plasma or welding units will inject high frequency interference into the AC power line. Use separate power line branches whenever possible to power the plasma or welding source and the machine. Do not plug them into the same outlet box.
- 6) High frequency noise may enter the machine through the plasma or welding supply remote contactor leads. Some plasma and welding sources can produce noise spikes of up to several thousand volts. These sources are not compatible with automated cutting and welding equipment. It is recommended that the remote contactor leads on these plasma or welding sources not be connected to the machine. An alternate solution is to purchase a separate remote contactor isolation box.

# PIPE COUPON CUTTING MACHINE 100-0388

## INSTRUCTIONS AND PARTS MANUAL

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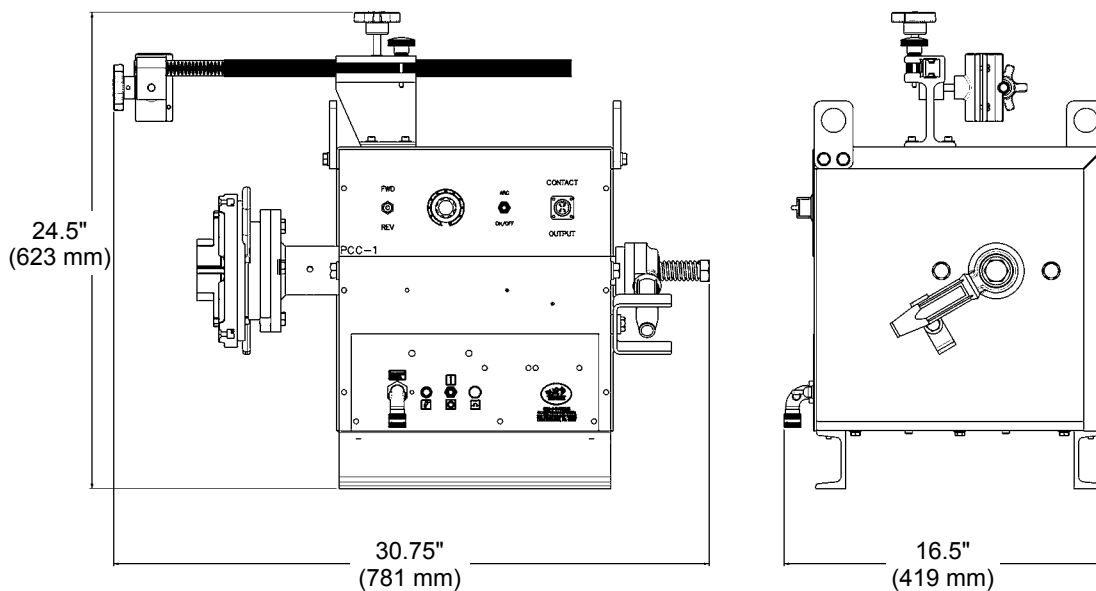
## INTRODUCTION

The Pipe Coupon Cutting Machine is used for cutting pipe to a desired length or for beveling the edge of a pipe for weld prep. The machine features a self-centering speed chuck capable of gripping 0-8" O.D. pipe and 3-11" I.D. pipe. A racking group supports your plasma or oxy-fuel torch which can be set up for square or beveled cuts up to 12" in length. The variable speed control can be adjusted from 1-6 rpm. A rotary ground is included on the plasma version and a quick action manifold is supplied on the oxy-fuel version. The Pipe Coupon Cutting Machine is available in both 110 volt and 240 volt models.

## TECHNICAL DATA

<b>Power Requirement:</b>	60 Watts at rated voltage 120 VAC / 50-60 Hz / Single Phase
<b>Speed Range:</b>	1-6 rpm
<b>Cutting Diameter:</b>	0-12" (0-305 mm)
<b>Pipe Weight Capacity:</b>	160 lbs (72.5 kg)
<b>Maximum Overhang Length:</b>	12" (305 mm)
<b>Maximum Overhang Weight:</b>	160 lbs (72.5 kg)
<b>Net Weight:</b>	180 lbs (82 kg)
<b>Shipping Weight:</b>	280 lbs (127 kg)
<b>Shipping Dimensions:</b>	36" x 24" x 34" (915 mm x 610 mm x 864 mm)

## DIMENSIONS

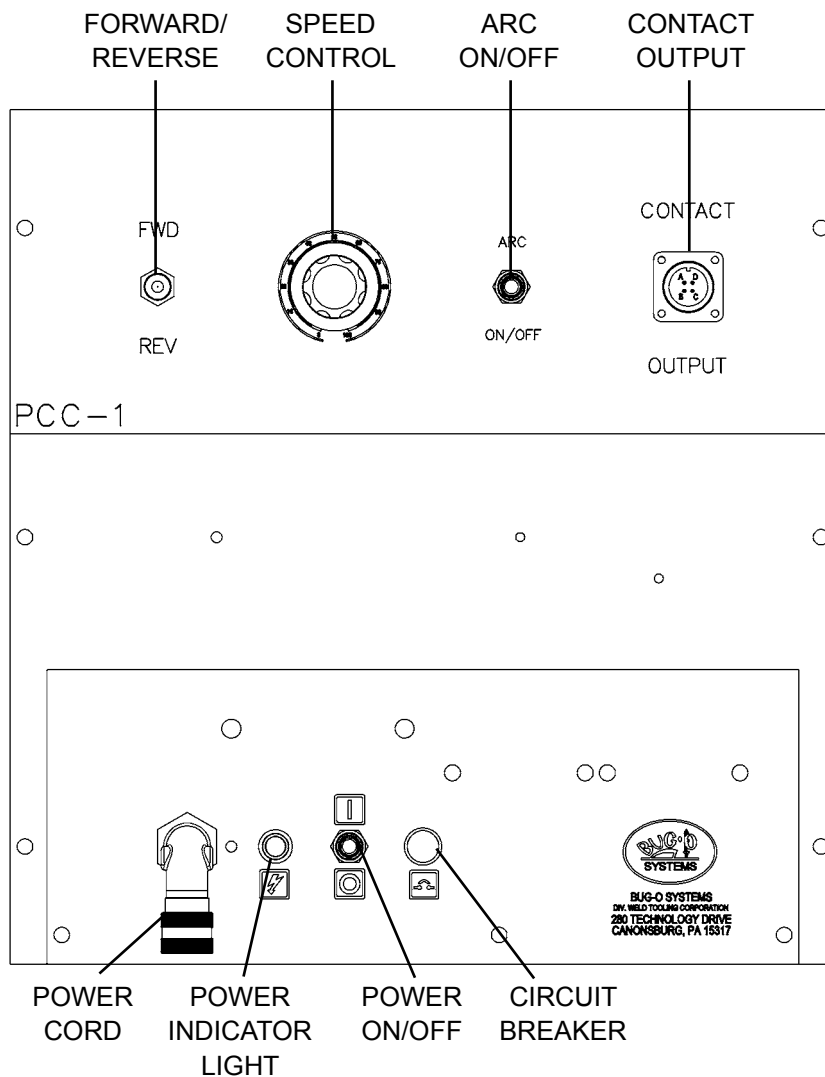


## SETUP

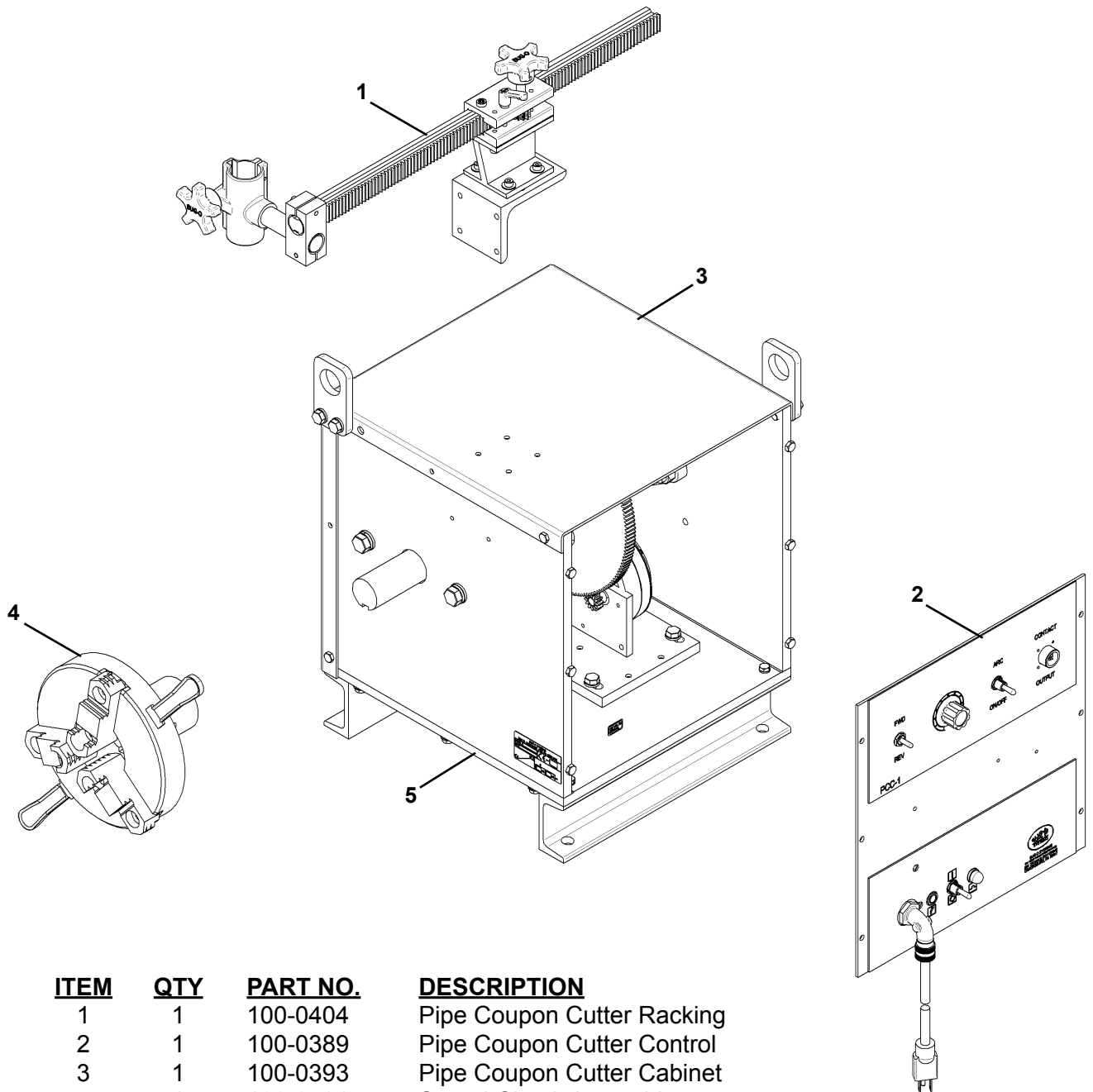
The machine is designed to be fixed to a worktable. The machine needs to be bolted to the table through the mounting holes located in the legs of the machine. The machine is to be operated from a separate power line; it can be supplied for voltage ratings of 120, 240, or 42 VAC. Verify which model you have prior to applying power. The torch arm should already be inserted into the rackholder located on the top of the machine. If it is not, insert the torch arm into the rackholder from the chuck end. Insert the cutting torch into the torch holder and position the torch so that is centered in line with the chuck axis.

The machine can be used with oxy-fuel or plasma torches. If the machine is set-up for plasma cutting, it will be equipped with a rotary ground, contact relay, and holding clamp for a plasma torch. Plug the contact relay into the contact output located on the control panel. Wire the trigger leads for the plasma machine to the supplied connector and plug into the contact relay box. Oxy-fuel cutting can be done with a 2-hose torch.

## MACHINE CONTROLS

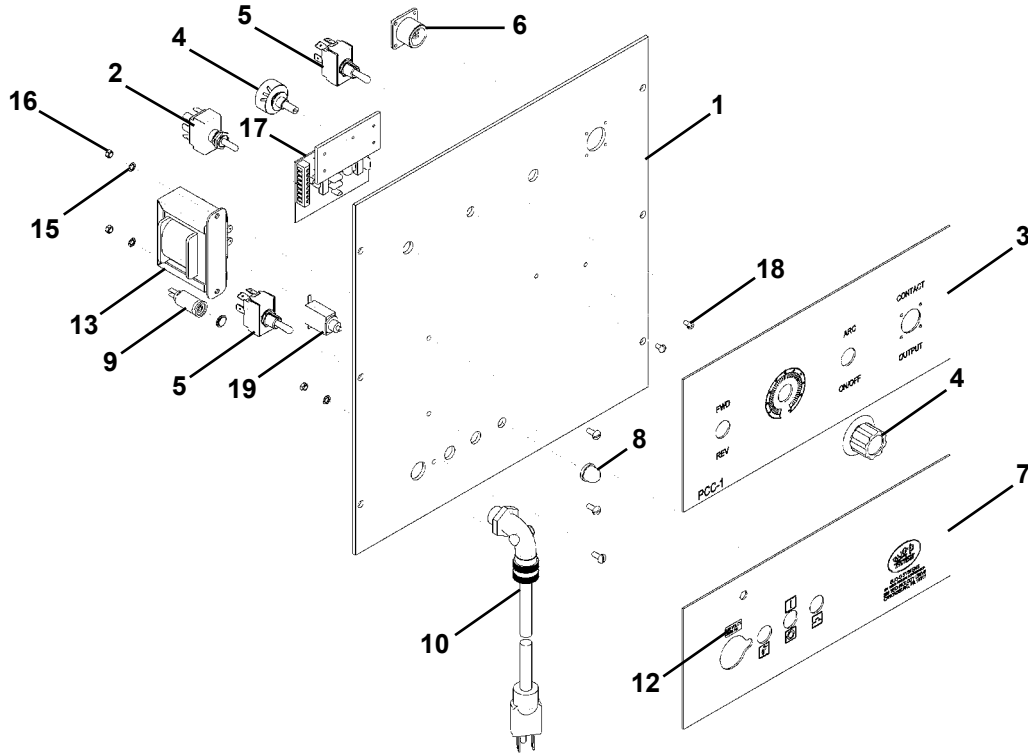


# 100-0388 PIPE COUPON CUTTING MACHINE / EXPLODED VIEW / PARTS LIST



<u>ITEM</u>	<u>QTY</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	100-0404	Pipe Coupon Cutter Racking
2	1	100-0389	Pipe Coupon Cutter Control
3	1	100-0393	Pipe Coupon Cutter Cabinet
4	1	100-0401	Speed Chuck Assembly
5	1	BUG-1338	Black Name Plate

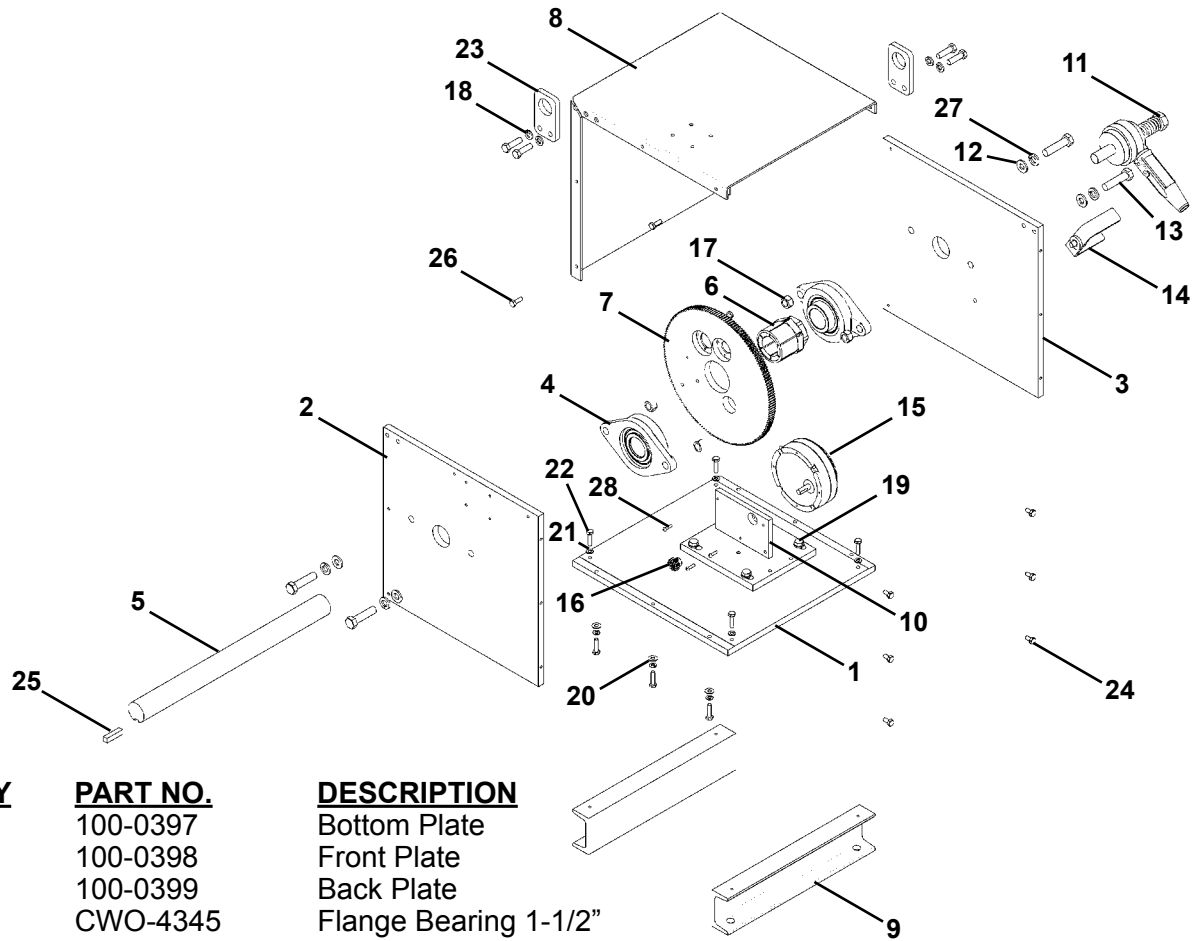
# 100-0389 PIPE COUPON CUTTER CONTROL / EXPLODED VIEW / PARTS LIST



<u>ITEM</u>	<u>QTY</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	100-0392	Panel
2	1	BUG-2255	Toggle Switch
3	1	100-0390	Top Legend Plate
4	1	BUG-9686	Potentiometer Control
5	2	ARM-2279	Toggle Switch
6	1	BUG-1034	Panel Connector, 4-T, M
7	1	100-0391	Bottom Legend Plate
8	1	BUG-2924	Reset Seal, Transparent
9	1	BUG-1415	Pilot Light, 125VAC
10	1	BUG-9103	Cord Connector
11	1	BUG-9445	Power Cord, 18" x .410" Max
12	1	BUG-9234	Label, 120V
13	1	BUG-9675	Transformer 120V Primary
14	3	FAS-0124	8-32 x 3/8 Pan Hd
15	3	WAS-0221	#8 Internal Star
16	3	FAS-1320	Hex Nut 8-32
17	1	BUG-1725	Precision Speed Control
18	2	FAS-0112	Pan Hd Slit 6-32 x 1/4
19	1	BUG-2923	.7 Amp Circuit Breaker
*	1	BUG-1035	Cable Connector, 4-T, F
*	1	BUG-1393	Volt Trap
*	1	BUG-1435	STA-KON B 14-10
*	1	BUG-5210-WG	Cover Wiring Group
*	2	GOF-3036	QD Female Fully Insulated
*	1	BUG-1415-A	Speed Nut
*	10	BUG-9692	Cable Tie 142mm
*	1	CSR-3057-6A	Cord Strain Relief, Size 14



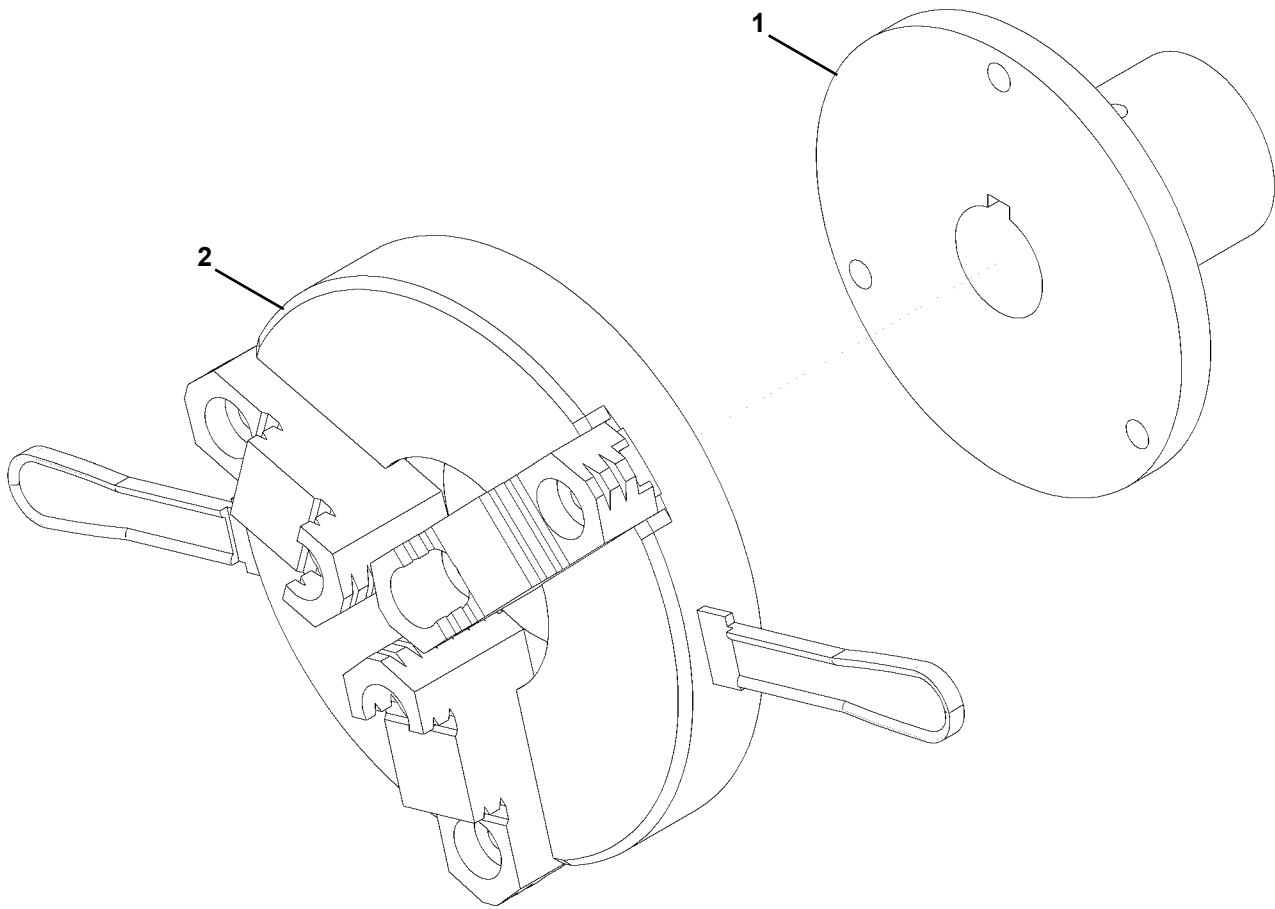
# 100-0393 PIPE COUPON CUTTER CABINET / EXPLODED VIEW / PARTS LIST



<u>ITEM</u>	<u>QTY</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	100-0397	Bottom Plate
2	1	100-0398	Front Plate
3	1	100-0399	Back Plate
4	2	CWO-4345	Flange Bearing 1-1/2"
5	1	100-0396	Coupon Cutter Shaft
6	1	CWO-5074	1-1/2" I.D. Trantorque
7	1	CWO-5735	10" Dia Aluminum Gear
8	1	100-0400	Cover For Coupon Cutter
9	2	100-0394	Channel Support Leg
10	1	100-0395	Motor Mount Plate
11	1	CWO-9216	Rotary Ground
12	4	WAS-0280	1/2" SAE Flat
13	4	FAS-0305	Hex Hd Cap Scr 1/2-13 x 2"
14	1	CWO-3875	Rotary Gnd Bracket Assembly
15	1	BUG-1600	Gear Motor 50:1
16	1	GOF-3014	Drive Pinion with Key Set Scr
17	4	FAS-1301	Hex Nut 1/2-13
18	8	WAS-0262	Washer
19	8	FAS-2391	Hex Hd Cap Scr 3/8-16 x 1-1/4
20	6	WAS-0240	1/4 SAE Flat
21	10	WAS-0243	1/4" Split Lock Washer
22	10	FAS-0359	Hex Hd Cap Scr 1/4-20 x 1"
23	2	CWO-4946	Lifting Eye
24	6	FAS-0355	Hex Hd Cap Scr 1/4-20 x 1/2
25	0.25	500-11-001	Key Stock
26	4	FAS-0357	Hex Hd Cap Scr 1/4-20 x 3/4
27	4	WAS-0281	1/2" Split Lockwasher
28	3	FAS-0226	Rnd Hd Scr 8-32 x 5/8
*	4	SEO-3513	Leveling Shim

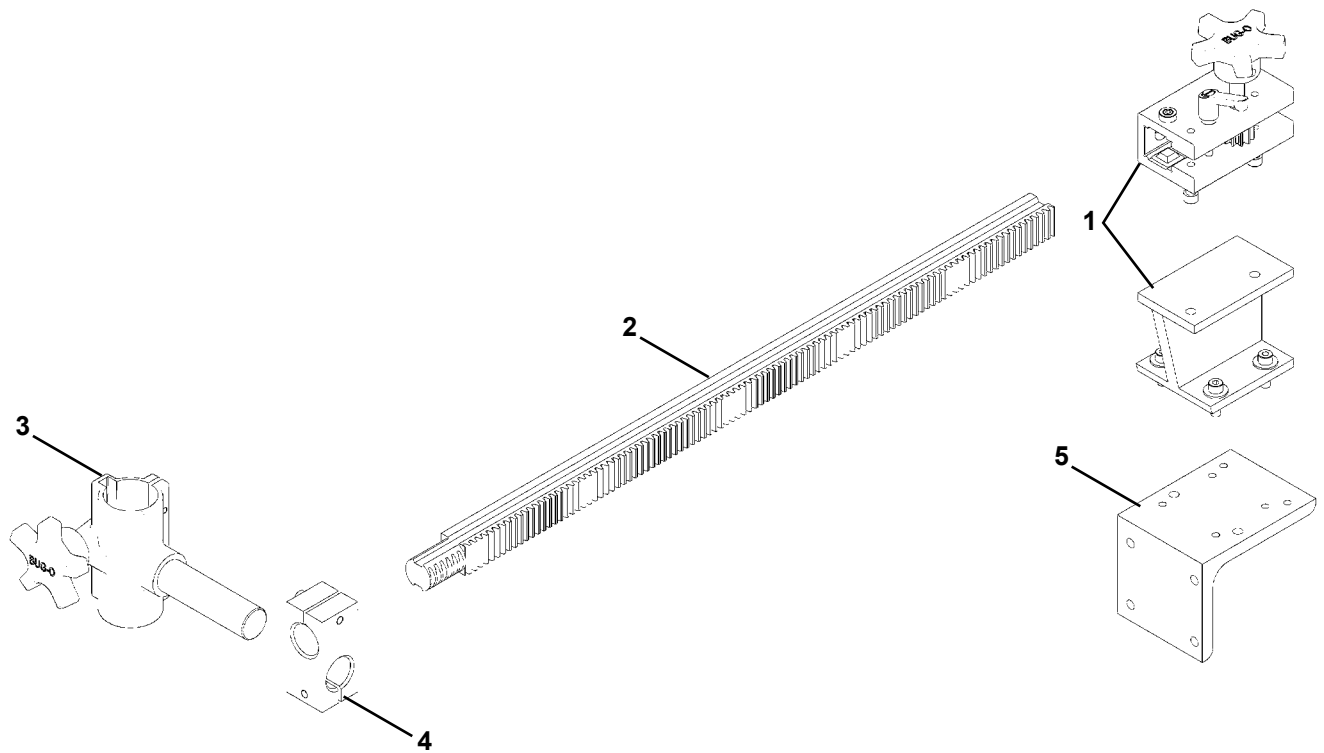
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# 100-0401 SPEED CHUCK ASSEMBLY / EXPLODED VIEW / PARTS LIST



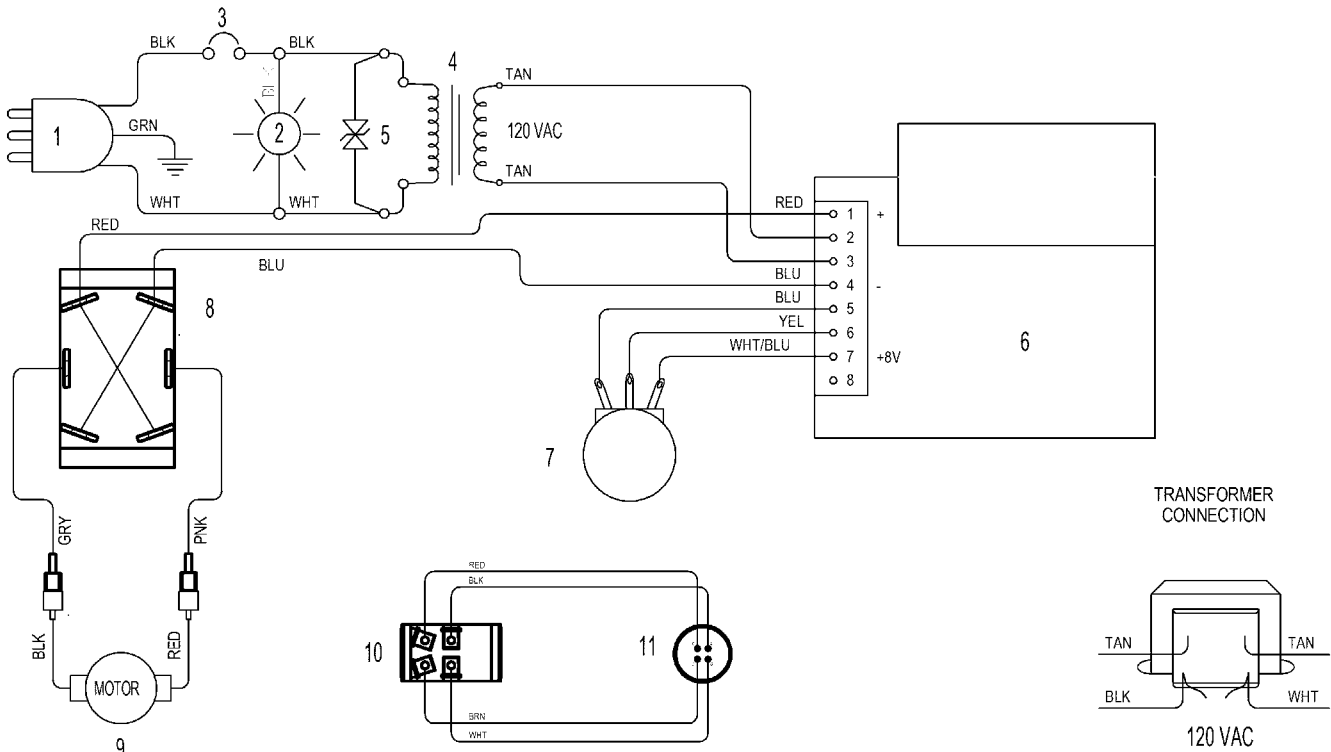
<u>ITEM</u>	<u>QTY</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	100-0403	Chuck Plate Assembly
2	1	100-0402	Speed Chuck, 0-12

# 100-0404 PIPE COUPON CUTTER RACKING / EXPLODED VIEW / PARTS LIST



<u>ITEM</u>	<u>QTY</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	HOB-2255	Rackholder Assembly
2	1	BUG-2597-22	Machined Rack 22"
3	1	BUG-5188	Torch Holder Assembly
4	1	BUG-5462	Rod Clamp
5	1	BUG-1891	Double Racker Mounting Angle

# 100-0388 PIPE COUPON CUTTING MACHINE / WIRING DIAGRAM / PARTS LIST



<u>ITEM</u>	<u>QTY</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	BUG-9445	Power Cord
2	1	BUG-1415	Pilot Light
3	1	BUG-2923	Circuit Breaker
4	1	BUG-9675	Transformer
5	1	BUG-1393	Volt Trap
6	1	BUG-1725	Precision Speed Control
7	1	BUG-9686	Potentiometer Control
8	1	BUG-2255	Toggle Switch
9	1	BUG-1600	Gear Motor (50:1)
10	1	ARM-2279	Toggle Switch
11	1	BUG-1034	Panel Connector, 4-T, M

## TROUBLESHOOTING GUIDE

PROBLEM	CAUSE	REMEDY
Does not run, indicator light off.	No power to machine.	Check power line supply voltage. Plug in line cord firmly.
Does not run, indicator light off.	Wiring shorts.  Circuit breaker tripped.  Shorted motor.  Faulty speed control board.  Burned out transformer.	Disconnect machine and examine internally; rewire at fault.  If none found, throw direction switch to "OFF", reset breaker and plug in:  If breaker does not trip, replace drive unit.  If breaker trips again, replace control board.  (OR)  Replace transformer.
Does not run, indicator light on.	Bad connection.  Faulty speed control board.	Check wiring connections, 12 VAC should appear across secondary of transformer.  Tighten terminal screws on speed control board.  If DC Volts = 0 across leads to motor; replace control board.
Unit runs, but no control over speed.	Faulty speed control board.	Replace control board. (Check connection first).

**NOTE:** Make sure unit is plugged into correct voltage, (120 VAC, 240 VAC, 42 VAC) corresponding to Model No. rating.

## WARRANTY

### Limited 3-Year Warranty

Model \_\_\_\_\_  
Serial No. \_\_\_\_\_  
Date Purchased: \_\_\_\_\_  
Where Purchased: \_\_\_\_\_

For a period ending one (1) year from the date of invoice, Manufacturer warrants that any new machine or part is free from defects in materials and workmanship and Manufacturer agrees to repair or replace at its option, any defective part or machine. HOWEVER, if the invoiced customer registers the Product Warranty by returning the Warranty Registration Card supplied with the product within 90 days of the invoice date, or by registering on-line at [www.bugo.com](http://www.bugo.com), Manufacturer will extend the warranty period an additional two (2) years which will provide three (3) total years from the date of original invoice to customer. This warranty does not apply to machines which, after Manufacturer's inspection are determined by Manufacturer to have been damaged due to neglect, abuse, overloading, accident or improper usage. All shipping and handling charges will be paid by the customer.

The foregoing express warranty is exclusive and Manufacturer makes no representation or warranty (either express or implied) other than as set forth expressly in the preceding sentence. Specifically, Manufacturer makes no express or implied warranty of merchantability or fitness for any particular purpose with respect to any goods. Manufacturer shall not be subject to any other obligations or liabilities whatsoever with respect to machines or parts furnished by Manufacturer.

Manufacturer shall not in any event be liable to Distributor or any customer for any loss of profits, incidental or consequential damages or special damages of any kind. Distributor's or customer's sole and exclusive remedy against Manufacturer for any breach of warranty, negligence, strict liability or any other claim relating to goods delivered pursuant hereto shall be for repair or replacement (at Manufacturer's option) of the machines or parts affected by such breach.

#### **Distributor's Warranty:**

In no event shall Manufacturer be liable to Distributor or to any customer thereof for any warranties, representations or promises, express or implied, extended by Distributor without the advance written consent of Manufacturer, including but not limited to any and all warranties of merchantability or fitness for a particular purpose and all warranties, representations or promises which exceed or are different from the express limited warranty set forth above. Distributor agrees to indemnify and hold Manufacturer harmless from any claim by a customer based upon any express or implied warranty by Distributor which exceeds or differs from Manufacturer's express limited warranty set forth above.

#### **HOW TO OBTAIN SERVICE:**

***If you think this machine is not operating properly, re-read the instruction manual carefully, then call your Authorized BUG-O dealer/distributor. If they cannot give you the necessary service, write or phone us to tell us exactly what difficulty you have experienced. BE SURE to mention the MODEL and SERIAL numbers.***