Volume

1.1

# **OPERATIONAL MANUAL**

MODEL: RGM915/6 ROLL GROOVING MACHINE



# by BLUEROCK ® Tools

#### UNPACKING THE ITEM

Caution: This machine is packed together with items that may be sharp, oily and overly heavy objects. Remove the machine from the packaging in a safe manner. Check to ensure all accessories are included with the item while unpacking. If any parts are found to be missing, contact the retailer as soon as possible. Do not throw away the packaging until the item is out of the guarantee period. Dispose of the packaging in an environmentally responsible manner. Recycle if possible. Keep all plastic bags away from children due to risk of suffocation.

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# Chapter

# Safety

#### DO NOT USE THIS MACHINE UNLESS YOU HAVE READ THE OPERATING INSTRUCTIONS!



Safety glasses must be worn at all times in work areas. Use a full face mask whenever possible.



Long and loose hair must be contained.



Appropriate footwear must be worn.



Close fitting/protective clothing must be worn.



Safety gloves should be worn at all times and jewelry must not be worn.



Hearing protection should be worn when using this machine.



Read operational manual prior to use.

#### PRE-OPERATIONAL SAFETY CHECKS

- > Examine the body of the machine and inspect for damage or defects.
- Examine the grooving dies to insure they are operable.

#### **OPERATIONAL SAFETY CHECKS**

- > ONLY to be operated by qualified personal who have read instructions.
  - NOTE: Failure to read and follow instructions could result in electrical shock, fire, property damage and/or serious injury!
- > DO ensure all non-essential people are clear of the immediate work area.
- DO keep body parts, clothing & power cords clear of turning pieces. Stay alert and use common since when using this tool.
- DO only use this device on a machine with a properly grounded circuit in accordance with all local and national standards. DO NOT remove the grounding plug. If in doubt that this machine is properly grounded, consult an electrician.
- > DO always use relevant safety measures when working electrical machinery. Make sure to use GFCI's when necessary and personal protection devices like insulated gloves, shoes and insulated standing pads.
- > DO guard against electric shock by preventing body contact with grounded surfaces such as pipes, radiators, ranges, refrigerators, etc.

- > DO keep the working area clean and brightly illuminated for optimum operational safety.
- DO keep the device balanced and stable at all times.
- > DO NOT make adjustments to device while the device is running.
- > DO NOT leave the device running when not in use.
- > DO NOT hold pipe by hand or using the body. Always mechanically clamp or secure work pieces that are not fixed.
- > DO NOT operate device outside of specifications.
- > DO NOT touch moving parts while the device is running as death or dismemberment could occur.
- > DO NOT allow children or untrained personal to operate machine.
- > DO NOT use this device in the rain or a wet environment. If using outdoors, make sure the machine is clean and dry.
- > DO NOT operate in the presence of explosive materials as power tools create sparks which may ignite dust or fumes.
- > DO NOT use on a pipe that may contain a live electrical wire/circuit.
- > DO NOT operate this machine on the same work surface where welding is being performed. This could result in severe damage to the machine or personal injury to the user.

# **Specifications**

MECHANICAL DATA	
Pipe Grooving Capacity (with rolls that are included)	1-1/4" to 6" Diameter Schedule 40 Pipe
Total Pipe Grooving Capacity	1-1/4" to 12" Diameter Schedule 40 Pipe (8" to 12" Rolls Available)
Mounting Brackets Size	Fit RIDGID® 300 Power Drive Pipe Bars
Manual In-Place Pipe Capacity	1-1/4" to 6" Capacity
Power Drive Capacity	1-1/4" to 12"
Required Clearance for Travel Around Pipe	3-1/2"
Minimum Size of Exposed Pipe for Grooving	2-3/4"
**Provided rolls do not groove stainless steel	

# **Included Accessories**

DESCRIPTION	QTY
Instruction Manual	1
Handle	7

# **Additional Available Accessories**

Additional accessories for this machine can be found in BLUEROCK ® Tools online shop at <a href="https://www.bluerocktools.com">www.bluerocktools.com</a> or from your local retailer.

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# Chapter 2

# **Operations**

#### Note

#### THOROUGHLY READ THROUGH THE ENTIRE MANUAL BEFORE OPERATING THIS MACHINE!

#### **PURPOSE**

The purpose of the RGM915/6 is for roll grooving pipe. This is a heavy-duty professional use machine allowing a single user to easily groove pipe.

#### **MACHINE SET-UP**

- > The machine is designed pre-assembled. The user must only take the item out of the shipping crate.
- Make certain the work area is dry.
  - o DO NOT place the device in water.
- > Use barriers to keep non-essential personal away from rotating or other moving parts.
- Place machine away from passageways and make certain the operator is able to see all parts of the workpiece.
- > DO NOT set-up or modify the machine in a manner that is not intended.
- > DO use a user provided functioning GFCI circuit when using this device with a power drive.
- > ALWAYS properly support the pipe to be grooved using appropriate pipe stands.
  - CAUTION: improperly supported pipe can cause tipping or damage to user or equipment.

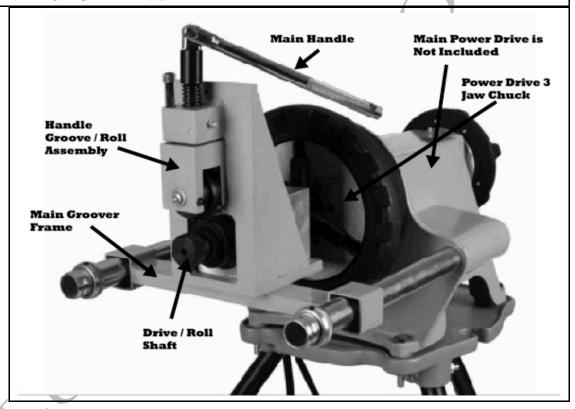
#### SET-UP WITH A MODEL 300 POWER DRIVE

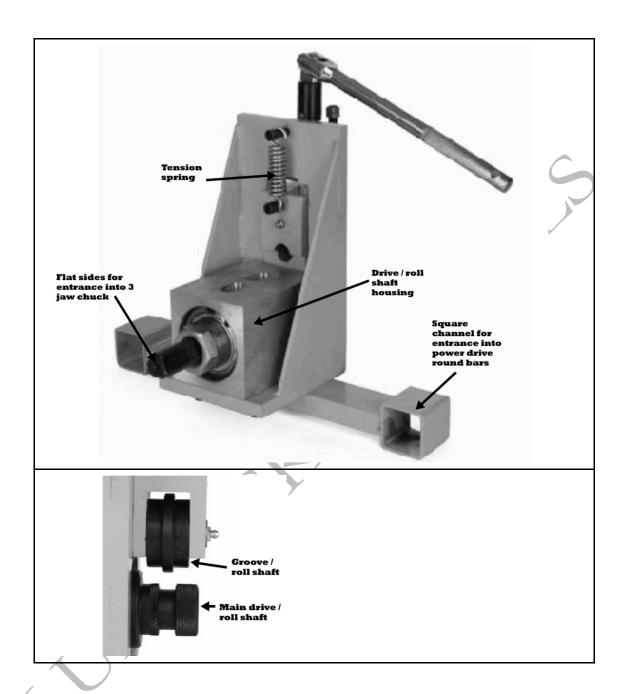
- Remove any carriages or other attachments from the power drive.
- Open the jaw chuck on the power drive.
- > Slide the square channels of the roll groover over the round support arms of the power drive.
- > Align the flat sides of the roll groover drive shaft with the jaws of the chuck on the power drive.
- > Close the chuck on the power drive so the power drive shaft is tight.
  - CAUTION: ONLY use this device with a power drive that has a foot pedal on/off switch. Make sure that switch is positioned in a way the user has easy access.

- o Be certain the operator is facing the rolls.
- Use the foot pedal with operators left foot.
- o Make certain the operator has access to the groover handle without reaching across the machine.

#### **MACHINE COMPONENTS**

- > The main components of the RGM915/6 are drive/roll shaft housing, mainframe, handle/grove roll assembly (see figure below). If using a power drive (not included), the motor drives the main drive/roll shaft rotationally and acts as the main drive component of the machine.
  - These components must be not be removed except by a qualified technician. Power must be disconnected prior to any service.
- > The main handle drives the up/down function of the grove roll, which pushes down on the drive/roll shaft creating the groove in the pipe.





#### **RUNNING THE MACHINE**

- Do all pre-operational and operational safety checks from Chapter 1.
- Consider your security and stability as well as the orientation of the machine in the work area.
  - Consider the work surface material, condition, strength, density and rigidity. These factors directly affect the tools operation and user safety.
- > Ensure the machine handle is free of grease or oil.
- > Use appropriate rolls for the job being performed.
- > Ensure the drive roll and groove roll are operational and undamaged.

- o CAUTION: Worn or damaged rolls can be cause imperfect grooves or pipe slippage.
- WARNING: KEEP HANDS AWAY FROM GROOVING PARTS AND ROLLS! DO NOT WEAR LOOSE FITTING GLOVES OR CLOTHING WITH OPERATING!
- > Set up pipe to be grooved in pipe stands and up against the drive roller flange.
  - CAUTION: Failure to properly support pipe with pipe stands could result in pipe tipping and/or personal injury.
  - o Ensure the pipe end is cut squarely.
  - Ensure all welds, or seam beads are ground down at least 2" back from the end of the pipe.
    - NOTE: Do not cut flat pieces on gasket seating areas.
    - Ensure the safe pipe lengths are used (see table below).
      - CAUTION: Do not groove smaller than 8" pipe. This increases the risk of fingers being crushed in the grooving rolls.

Groovable Using 2 Pi		ths (Inches)			\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
Nom.	Min	Max	Nom.	Min.	Max
Size	Length	Length	Size	Length	Length
1"	8	36	4"	8	36
1-1/4"	8	36	4-1/2"	8	32
1-1/2"	8	36	5"	8	32
2"	8	36	6" O.D.	10	30
2-1/2"	8	36	8"	10	28
3"	8	36	10"	10	24
3-1/2"	8	36	12"	10	24

- > Plug the machine into power source.
- > Make sure to put on safety equipment.
- > If using the power drive, turn the main machine switch to the "on" position (forward position).
- > Briefly depress the foot pedal to ensure the rotation of the groove roll is counterclockwise.
  - o If it is not, check to make sure the switch is in the correct position.
  - Also, check to make sure all moving parts are rotating properly and at the proper speed (generally slower than 58RPM).
- Depress the foot switch
- > Engage the handle.
  - o If pipe "walks off" the drive roll, stop the grooving immediately. The operator may have to apply pressure to the outside of the pipe while running to prevent walking.
  - CAUTION: Do not reach inside pipe end while grooving. This could lead to serious injury.
- When depth has been reached, release the handle and foot pedal.
  - It is a good idea to always do a test piece to ensure the groove depth is to the users requirements.
    - Groove diameter should be measured using a depth tape or caliper. Periodically check grooves to ensure correct requirements.
- > Turn off machine. Disconnect Power. Remove pipe.

Chapter 3

# **Troubleshooting**

#### **Note**

#### SERVICING SHOULD ONLY BE DONE BY A QUALIFIED TECHNICIAN.

#### **DON'T FORGET TO UNPLUG POWER TO UNIT PRIOR TO SERVICE!**

PROBLEM	CAUSE	CORRECTION	
The power drive	Machine unplugged	Plug into power source	
motor does not start	Fuse blown	Replace the fuse	
Start	Capacitor blown	Replace capacitor	
	Bad on/off switch	Replace switch	
The rolls will not Roll / groove is dull		Replace rolls	
groove	Handle is damaged	Replace handle	
	Too much force being applied	Groove slower	
Drive is not turning	Main channel is rusted	Take apart and remove rust	
	Power Drive chuck is worn down	Replace chuck	
Pipe tends to walk	Pipe un-level	Raise pipe end to level with roll groover	
Short length of pipe walks	May require slight pressure	Increase pressure to maintain ½ degree offset dimensions	
Pipe end flare is excessive	Pipe too high	Lower pipe end level with roll groover	

### **General Maintenance**

- > Inspect electrical cords and electrical connections on power drive if using one.
- > Keep grooving device clean and free of debris.
- > Check for misalignment, binding and breakage of all moving parts. If damaged, repair tool before use.
- Check the tolls for wear or damage.
- > After each use coat all moving parts with corrosion resistant oil.

# **Occasional Maintenance**

Grease main bearings thru grease fitting