RG1200 Roll Grooving Tool



OGS-200

WARNING



Failure to follow instructions and warnings could result in death or serious personal injury, property damage, and product damage.

- Before operating or servicing any pipe preparation tools, read all instructions in the operating and maintenance manual and all warning labels on the tool.
- Wear safety glasses, hardhat, foot protection, and hearing protection while working around pipe preparation tools.
- · Save the operating and maintenance manual in a place accessible to all operators of the tool.

If you need additional copies of any literature, or if you have questions concerning the safe and proper operation of any pipe preparation tools, contact Victaulic, P.O. Box 31, Easton, PA 18044-0031, Phone: 1-800-PICK VIC, E-Mail: pickvic@victaulic.com

Original Instructions



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HAZARD IDENTIFICATION

Definitions for identifying the various hazard levels are provided below.



This safety alert symbol indicates important safety messages. When you see this symbol, be alert to the possibility of personal injury.

Carefully read and fully understand the message that follows.

A DANGER

 The use of the word "DANGER" identifies an immediate hazard with a likelihood of death or serious personal injury if instructions, including recommended precautions, are not followed.

WARNING

• The use of the word "WARNING" identifies the presence of hazards or unsafe practices that could result in death or serious personal injury if instructions, including recommended precautions, are not followed.

 The use of the word "CAUTION" identifies possible hazards or unsafe practices that could result in personal injury and product or property damage if instructions, including recommended precautions, are not followed.

NOTICE

• The use of the word "NOTICE" identifies special instructions that are important but not related to hazards.

OPERATOR SAFETY INSTRUCTIONS

The RG1200 Roll Grooving Tool is designed for the sole purpose of grooving pipe. These instructions must be read and understood by each operator PRIOR to working with the grooving tool. These instructions describe safe operation of the tool, including set up and maintenance. Each operator must become familiar with the tool's operations, applications, and limitations. Particular care should be given to reading and understanding the dangers, warnings, and cautions described throughout these operating instructions.

Operators shall follow all appropriate OSHA guidelines and training. Use of this tool requires dexterity and mechanical skills, as well as sound safety habits. Although this tool is designed and manufactured for safe, dependable operation, it is difficult to anticipate all combinations of circumstances that could result in an accident. The following instructions are recommended for safe operation of this tool. The operator is cautioned to always practice "safety first" during each phase of use, including set up and maintenance. It is the responsibility of the lessee or user of this tool to ensure that all operators read this manual and fully understand the operation of this tool.

Make this manual readily available in a clean, dry area. Additional copies are available upon request through Victaulic, or can be downloaded at victaulic.com.



DANGER

1. Avoid using the tool in potentially dangerous environments. Do not expose the tool to rain, and do not use the tool in damp or wet locations. Keep the work area well lit. Allow sufficient space to operate the tool properly.

WARNING

- 1. **Prevent back injury.** Always follow OSHA guidelines for safe lifting techniques when handling tool components.
- Wear proper apparel. Do not wear loose clothing, jewelry, or anything that can become entangled in moving parts.
- Wear protective items when working with tools. Always wear safety glasses, hardhat, foot protection, and hearing protection.
- 4. Keep hands and tools away from power drive chuck during grooving operation. Rotation of the power drive can pinch or entangle fingers and hands.
- Do not reach inside pipe ends during tool operation. Pipe edges can be sharp and can snag hands and shirt sleeves.
- 7. Do not over-reach. Maintain proper balance at all times. Verify that all controls are easily accessible to the operator.
- 8. Do not make any modifications to the tool. Do not remove any safety guarding or any components that would affect tool performance.

ACAUTION

- 1. The RG1200 tool is designed ONLY for grooving pipe sizes, materials, and wall thicknesses as designated.
- 2. Inspect the equipment. Before using the tool, check moveable parts for obstructions. Ensure that tool components are installed and adjusted in accordance with setup instructions.
- **3. Stay alert.** Do not operate the tool if you are drowsy from medication or fatigue.
- 4. Keep visitors, trainees, and observers away from the work area. All visitors should be kept a safe distance from equipment at all times, and should be offered the opportunity to review this manual.
- Keep work areas clean. Keep the work area around the tool clear of any obstructions that could limit movement of the operator. Clean up any spills.
- Secure the work, machine, and accessories. Verify that the tool is stable. Refer to the "Tool Setup" section.
- 7. **Support the work.** Support pipe lengths with a pipe stand or vise.
- 8. Do not force the tool. Do not force the tool or accessories to perform any functions beyond the capabilities described in these instructions. Do not overload the tool.
- **9.** Maintain tool with care. Keep the tool clean to ensure proper and safe performance. Follow the instructions for matching and lubricating tool components, if applicable.
- **10.** Use only Victaulic replacement parts and accessories. Use of any other parts may result in a voided warranty, improper operation, and hazardous situations. Refer to the "Parts Ordering Information" section.
- 11. Do not remove any labels from the tool. Replace any damaged or worn labels.



INTRODUCTION

NOTICE

- Drawings and/or pictures in this manual may be exaggerated for clarity.
- The tool, along with this operating and maintenance instructions manual, contains trademarks, copyrights, and/or patented features that are the exclusive property of Victaulic.

The Victaulic RG1200 Roll Grooving Tool is a portable tool that can be used in conjunction with a power drive for grooving pipe to be compatible with Victaulic grooved piping products. The standard RG1200 tool is equipped to groove 2–6 inch/60.3–168.3 mm Schedule 40 and 2–3 inch/60.3–88.9 mm Schedule 80 carbon steel pipe to Victaulic's proprietary OGS-200 groove specifications. DO NOT use the RG1200 on stainless steel pipe.

- This tool must be used ONLY for grooving pipe with specifications that fall within the designated parameters.
- Verify that the upper and lower grooving rolls are a matched set.

Failure to follow these instructions could damage the tool and cause product failure, resulting in property damage or personal injury.

RECEIVING THE TOOL

RG1200 tools are packed individually in canvas tool bags. Save the original packaging for return shipment of rental tools.

Upon receipt of the tool, ensure that all necessary parts are included. If any parts are missing, contact Victaulic.

CONTAINER CONTENTS



Qty.	Description
1	RG1200 Roll Grooving Tool
1	Adjustable Ratchet with Swivel Handle
1	27 mm Deep Socket
1	Roll Set for 2–3 inch/60.3–88.9 mm pipe
1	Roll Set for 4–6 inch/114.3–168.3 mm pipe
1	Power Drive Adapter
2	Support Arm
2	Hex Key (3 mm and 8 mm)
1	Go/No-Go Groove Diameter Tape
1	Groove Confirmation Gauge Set
10	Shear Pin
1	Shear Pin Punch
2	Operating and Maintenance Instructions Manual

RETURNING THE TOOL

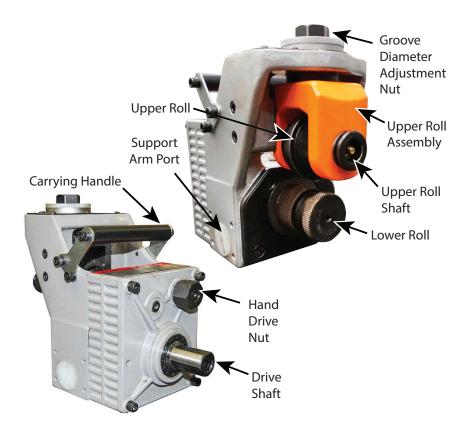
Prepare tool for shipment as received. Contact Victaulic with questions.



TOOL NOMENCLATURE

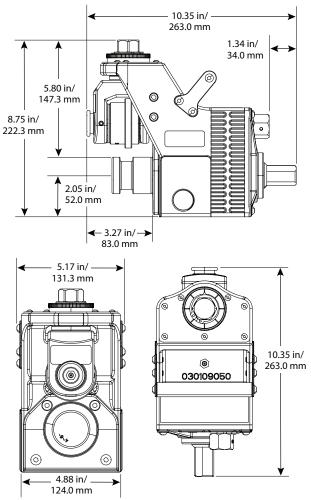
NOTICE

- Drawings and/or pictures in this manual may be exaggerated for clarity.
- The tool, along with this operating and maintenance instructions manual, contains trademarks, copyrights, and/or patented features that are the exclusive property of Victaulic.





TOOL DIMENSIONS AND SPECIFICATIONS



Tool weight is 27.7 pounds/12.6 kilograms. Tool weight includes the tool housing only.

Tool sound pressure for manual use is below 70 dB(A). Tool sound pressure for powered use is 93 dB(A), while tool sound power is 99 dB(A). Sound measurements are taken with a Ridgid[™] Model 300 power drive.

NOTE: Noise measurements are dependent on the power drive, and will vary based on configuration. Always check the power drive manufacturer's documentation for details.

TM Ridgid is a registered trademark of Ridgid Tool Company



PRE-OPERATION CHECKS AND ADJUSTMENTS

Every Victaulic roll grooving tool is checked, adjusted, and tested at the factory prior to shipment. However, before operating the tool, the following checks and adjustments should be made to verify proper tool operation. In addition, the tool should be inspected for any damage that may have occurred during shipping and handling.

A DANGER



 Before making any tool adjustments, disconnect the power cord from the electrical source.

Accidental startup of the tool could result in serious personal injury.

GROOVING ROLLS

Verify that the proper roll set is installed on the tool for the pipe size to be grooved. Roll sets are marked with the pipe size and part number. If the proper roll set is not installed on the tool, refer to the "Roll Changing" section.

ACAUTION

• Verify that the upper and lower grooving rolls are a matched set.

Failure to follow these instructions could damage the tool and cause product failure, resulting in property damage or personal injury.

PIPE PREPARATION

For proper tool operation and production of grooves that are within Victaulic specifications, the following guidelines must be followed.

1. Victaulic recommends square-cut pipe with grooved-end pipe products. Roll grooving beveled-end pipe may result in unacceptable flare, leaks, or joint failure.

2. Raised internal and external weld beads, seams, and burrs must be ground flush with the pipe surface, 2 inches/50 mm back from the pipe ends.

3. All coarse scale, dirt, and other foreign material must be removed from the interior and exterior surfaces of the pipe ends.

• For maximum grooving roll life, remove foreign material from the interior and exterior surfaces of the pipe ends.

Foreign material may interfere with or damage grooving rolls, resulting in leaks and property damage.



TOOL SETUP

RG1200 tools can be used to groove pipe that is supported by several different methods. Refer to the setup instructions listed in this section for different grooving options.

PIPE VISE SETUP

1. When grooving pipe that is supported with a pipe vise, select a location for the tool and pipe vise by taking into consideration the following factors:

- a. Adequate space to handle pipe lengths
- $\boldsymbol{b}.$ A firm and level surface for the pipe vise
- c. Anchoring requirements for the pipe vise

2. Mount a chain-type pipe vise onto a stand or workbench. The pipe vise should be mounted flush with, or slightly overhanging, the edge of the stand or workbench. When the tool is mounted on the pipe, the tool must be able to rotate freely around the pipe without being obstructed by the stand or workbench.



3. Secure a length of pipe in the pipe vise. Pipe position and pipe vise anchoring must be capable of handling the weight of the tool (27.7 pounds/12.6 kilograms), plus the manual effort required to operate the tool (approximately 75 ft-lbs/101.7 N•m of torque).

Position the pipe to overhang the pipe vise by approximately 8 inches/203.2 mm, so that the tool can rotate freely.



4. Mount the tool on the pipe, then turn the groove diameter adjustment nut clockwise to lower the upper roll until the tool rests snugly on the pipe.

GROOVE-IN-PLACE SETUP

\Lambda DANGER

7

- Depressurize and drain the piping system before attempting to adjust or disassemble any Victaulic piping products.
- Pipe hangers must be capable of handling the weight of the tool and the manual effort required to operate the tool.

Failure to follow these instructions could result in death or serious personal injury and property damage.

Previously installed pipe may be grooved with a RG1200 tool, provided that the pipe is supported securely and that the system is completely depressurized and drained. Pipe hangers must be capable of handling the weight of the tool (27.7 pounds/12.6 kilograms), plus the manual effort required to operate the tool (approximately 75 ft-lbs/101.7 N•m of torque).

1. Ensure that there is adequate clearance around the pipe to permit proper tool rotation during the grooving process. Refer to the "Tool Dimensions and Specifications" section.

2. Mount the tool on the pipe, then turn the groove diameter adjustment nut clockwise to lower the upper roll until the tool rests snugly on the pipe.



POWER DRIVE SETUP

A DANGER		
	 DO NOT connect electrical power until instructed otherwise. 	
1	Failure to follow this instruction could result in serious personal injury.	

The RG1200 tool can be attached to a power drive using the provided drive shaft adapter. If necessary, contact Victaulic for more information on the optional power drive height adjustment bracket.

1. Remove all components from the packaging, and ensure that all necessary items are included. Refer to the "Receiving the Tool" section.

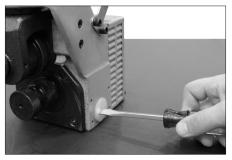
2. Select a location for the power drive and tool by taking into consideration the following factors:

a. The required power supply (refer to the power drive manufacturer's instructions)

b. Adequate space to handle pipe lengths

 $\ensuremath{\textbf{c}}\xspace$ A firm and level surface for the power drive

d. Adequate clearance around the tool for adjustment and maintenance



3. Using a flat-head screwdriver, remove the caps on the support arm ports.



4. Screw the support arms into the ports until hand-tight. Do not overtighten.

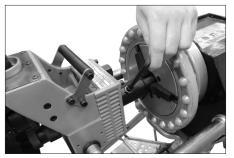


5. Insert the power drive adapter into the power drive until the adapter collar meets the drive collet.



6. Insert the tool drive shaft into the power drive adapter until the tool body meets the adapter.





7. Using the hex key provided, tighten the shoulder bolt until hand-tight. Do not overtighten.



8. Tighten the shoulder nut until hand-tight. Do not overtighten.



9. Ensure that the tool is stable and is centered on the power drive support arms.

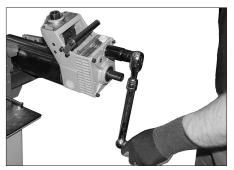
GROOVING OPERATION

Before proceeding, verify that all instructions in the previous sections of this manual have been followed.

MANUAL GROOVING

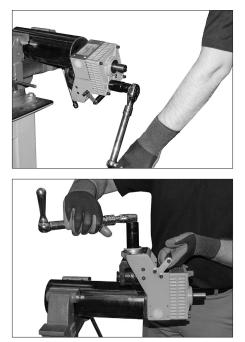


1. Each rotation line around the groove diameter adjustment nut signifies 0.016 inches/0.4 mm of groove diameter adjustment.



2. Using the provided handle, turn the hand drive nut to begin grooving.





3. Alternate turning the groove diameter adjustment nut with turning the hand drive nut. Do NOT turn the groove diameter adjustment nut more than 0.016 inches/0.4 mm (one line) at once.

NOTICE

• Do NOT turn the groove diameter adjustment nut more than 0.016 inches/0.4 mm (one line) at once.

Failure to follow this instruction could overload the tool, resulting in reduced tool life or tool damage. **4.** To check the groove diameter during grooving, use the groove confirmation gauge set provided. Place the tab of the gauge lengthwise into the groove. If there is space between the long edge of the gauge and the pipe length when the tab meets the bottom of the groove, continue grooving. If there is no space, stop grooving and measure with the provided Go/No-Go Groove Diameter Tape.

NOTICE

• The groove confirmation gauge is provided for convenience during the grooving process. The final groove must still be checked with the provided groove diameter tape to ensure that it meets Victaulic specifications.



5. While supporting the tool, loosen the groove diameter adjustment nut and remove the tool from the pipe.



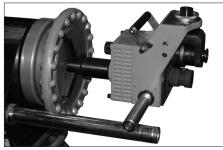
6. Carefully check the groove diameter of the pipe ("C" dimension) with the provided Go/No-Go Groove Diameter Tape.



POWERED GROOVING



1. Each rotation line around the groove diameter adjustment nut signifies 0.016 inches/0.4 mm of groove diameter adjustment.



2. Ensure that the tool is properly secured to the power drive, as explained in the "Power Drive Setup" section.



3. Plug the power drive cord into the provided safety foot switch, as shown above. Refer to the power drive manufacturer's operating manual for additional information.

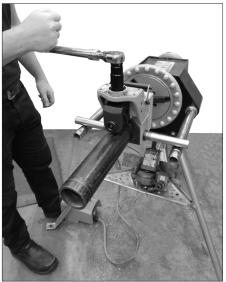
Place the safety foot switch on the same side of the tool as the power drive switch, with adequate clearance for ease of use and to avoid a tripping hazard.



• The power drive must be operated with a safety foot switch. If the power drive is not supplied with a safety foot switch, contact Victaulic.

Operating the tool without a safety foot switch could result in serious personal injury.

4. Turn the switch on the side of the power drive to FWD (forward).



5. Alternate turning the groove diameter adjustment nut with pressing the safety foot switch. Do NOT turn the groove diameter adjustment nut more than 0.016 inches/0.4 mm (one line) at once.

NOTICE

• Do NOT turn the groove diameter adjustment nut more than 0.016 inch/ 0.4 mm (one line) at once.

Failure to follow this instruction could overload the tool, resulting in reduced tool life or tool damage.



6. To check the groove diameter during grooving, use the groove confirmation gauge set provided. Disconnect power, then place the tab of the gauge lengthwise into the groove. If there is space between the long edge of the gauge and the pipe length when the tab meets the bottom of the groove, continue grooving. If there is no space, stop grooving and measure with the provided Go/No-Go Groove Diameter Tape.

NOTICE

• The groove confirmation gauge is provided for convenience during the grooving process. The final groove must still be checked with the provided groove diameter tape to ensure that it meets Victaulic specifications.



7. While supporting the tool, loosen the groove diameter adjustment nut and remove the tool from the pipe.



8. Carefully check the groove diameter of the pipe ("C" dimension) with the provided Go/No-Go Groove Diameter Tape.

ROLL CHANGING

The RG1200 Roll Grooving Tool is designed with rolls to accommodate several pipe sizes, eliminating the need for frequent roll changes.

When moving between 2–3 inch/60.3–88.9 mm pipe and 4–6 inch/114.3–168.3 mm pipe, the upper and lower rolls must be changed.

A DANGER

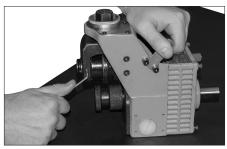
• Always disconnect the tool from the electrical source before changing rolls.

Failure to follow this instruction could result in serious personal injury.

UPPER ROLL CHANGING

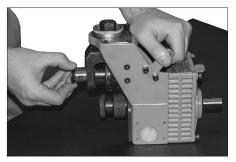


1. Verify the appropriate roll size by checking the marking on the edge of the roll.



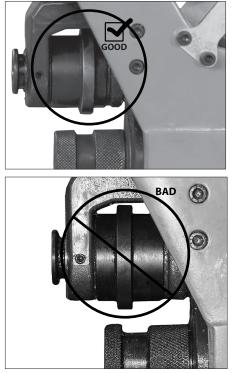
2. Using the 3 mm hex key provided, loosen the set screw on the side of the upper roll assembly.



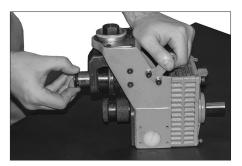


3a. Remove the upper roll shaft by drawing it out from the upper roll assembly.

3b. Remove the upper roll from the tool body.

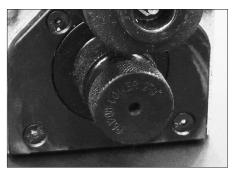


4. Place the alternate upper roll into the tool body. Note the orientation of the upper roll. The longer end of the upper roll, which contains the size markings, shall face out (away) from the tool body, as shown above.

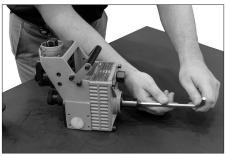


5. Replace the upper roll shaft into the upper roll assembly and re-tighten the set screw until hand-tight.

LOWER ROLL CHANGING



1. Verify the appropriate roll size by checking the marking on the front of the roll.

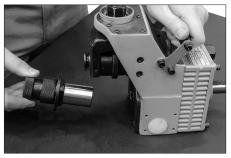


2. Using the 8 mm hex key provided, loosen the set screw on the back of the drive shaft.





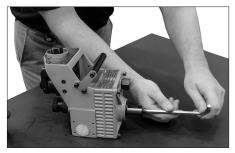
3. Grasp the drive shaft with one hand, then use the other hand to pull the lower roll straight off of the tool.



4. Replace the lower roll with the alternate size provided.



5. Grasp the tool with one hand, then use the other hand to push the lower roll into the tool.

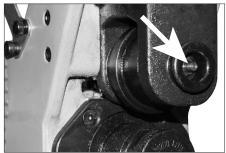


6. Using the 8 mm hex key provided, tighten the set screw on the back of the drive shaft to hand-tight.

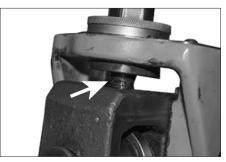
MAINTENANCE

This section provides information about keeping the tool in proper operating condition.

LUBRICATION



1. After every 8 hours of operation, lubricate the two grease fittings on the tool with a No. 2EP lithium-based grease.



2. Once per week, apply a light oil to the threads where the groove diameter adjustment screw passes through the tool housing.



SHEAR PIN REPLACEMENT

If the tool will not travel around the pipe, the shear pin in the hand drive nut must be replaced.





Remove the shear pin using the shear pin punch and replace with an intact shear pin. If all provided shear pins have been used, contact Victaulic to order replacements.

TROUBLESHOOTING

PARTS ORDERING

When ordering parts, the following information is required for Victaulic to process the order and send the correct part(s). Parts can be ordered by calling 1-800-PICK VIC.

- 1. Tool Model Number
- 2. Tool Serial Number
- 3. Quantity, Item Number, Part Number, and Description
- 4. Where to send the part(s) Company Name and Address
- To whose attention to send the part(s) Person's Name
- 6. Purchase Order Number
- 7. Billing Address

PRO	BLEM	POSSIBLE CAUSE	SOLUTION		
Tool does not t pipe when tur drive nut.		A shear pin on the manual drive nut is broken.	Remove the damaged shear pin from the drive nut and replace with a new shear pin. Refer to the "Shear Pin Replacement" section. The amount of travel is too great for the groove diameter adjustment. To prevent further breakage, lessen the input force and amount of groove diameter adjustment.		
"A" dimension specification.	is out of	Tool is not fully pushed onto the pipe.	Cut off the pipe end. Regroove the pipe with the tool pushed all the way onto the pipe end.		

Incorrect roll set used for grooving. Verify that the roll set is the appropriate size for the pipe to be grooved. Install the correct roll set for the pipe to be grooved.

In the event of tool malfunction outside the scope of the troubleshooting section, contact Victaulic for assistance.



NOTICE

 The "Maximum Pipe Size and Wall Thickness Capacity" table below is accurate as of the date printed on the back cover of this manual. For the most up-to-date information, reference Victaulic publication 24.01, which can be viewed/downloaded by scanning the mobile QR code link to the right, or by clicking on this desktop link: https://www.victaulic.com/assets/uploads/literature/24.01.pdf



RG1200 RATINGS - MAXIMUM PIPE SIZE AND WALL THICKNESS CAPACITY (OGS-200)

		Pipe Size (inches/mm)				
		2	21/2	3	4	6
Model	Pipe Material	50		80	100	150
RG1200	Carbon Steel	Sch. 40 – 80 Sch. 40		. 40		
(OGS-200)		3.9 – 7.6 mm		6.0 – 7.1 mm		

OGS-200 GROOVE SPECIFICATIONS

For the most up-to-date information regarding OGS-200 roll groove specifications, reference the current revision of Victaulic publication 25.12, which can be viewed/ downloaded by scanning the mobile QR code link to the right, or by clicking on this desktop link:

https://www.victaulic.com/assets/uploads/literature/25.12.pdf





EC DECLARATION OF INCORPORATION

In Accordance with the Machinery Directive 2006/42/EC

Victaulic Company, headquartered at 4901 Kesslersville Road, Easton, PA 18040, USA, hereby declares that the machinery listed below complies with the essential safety requirements of the Machinery Directive, 2006/42/EC.

Product Model:	RG1200
Serial No. :	Refer to Machinery Nameplate
Product Description:	Portable roll grooving tool
Conformity Assessment:	2006/42/EC, Annex I
Technical Documentation:	The relevant technical documentation prepared in accordance with Annex VII (B) of the Machinery Directive 2006/42/EC, will be made available upon request to the governing authorities.
Compatible Power Drives:	When installed with the following power drive unit, having an appropriate EC Declaration of Conformity in accordance with Annex II (A) of the Directive 2006/42/EC, the RG1200 model listed above may be commissioned for the full intended purpose: Ridgid 300
Authorized Representative:	Victaulic Company c/o Victaulic Europe BVBA Prijkelstraat 36 9810, Nazareth

Belgium

Signed for and on behalf of Victaulic Company,

R. Al

Mr. Len R. Swantek Director – Global Regulatory Compliance Machinery Manufacturer Representative

Place of Issue: Easton, Pennsylvania, USA Date of Issue: September 25, 2017

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UK DECLARATION OF INCORPORATION

In Accordance with The Supply of Machinery (Safety) Regulations 2008 No. 1597

Victaulic Company, headquartered at 4901 Kesslersville Road, Easton, PA 18040, USA, hereby declares that the machinery listed below complies with the essential safety requirements of The Supply of Machinery (Safety) Regulations 2008 No. 1597.

Product Models:	RG1200, RG1210
Serial No. :	Refer to Machinery Nameplate
Product Description:	Portable Pipe Roll Grooving Tool
Conformity Assessment:	2008 No. 1597, Annex I
Technical Documentation:	The relevant technical documentation prepared in accordance with Annex VII (A) of The Supply of Machinery (Safety) Regulations 2008 No. 1597, will be made available upon request to the governing authorities.
Compatible Power Drives:	When installed with any of the following power drive units, each having an appropriate UK Declaration of Conformity in accordance with The Supply of Machinery (Safety) Regulations 2008 No. 1597, the RG1200 and RG1210 may be commissioned for its full intended purpose: Ridgid 300
Authorized Representative:	Victaulic Company c/o Victaulic Europe BVBA Units B1 & B2 Cockerell Close off Gunnels Wood Road Stevenage, Hertfordshire SG1 2NB, United Kingdom

Signed for and on behalf of Victaulic Company,

La R. Al

Mr. Len R. Swantek Director – Global Regulatory Compliance Machinery Manufacturer Representative

Place of Issue: Easton, Pennsylvania, USA Date of Issue: May 17, 2021

ictaulic

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RG1200 Roll Grooving Tool

