

Pipe Preparation Tool Specifications



The distinguishing feature of the Victaulic grooved mechanical piping system is, as the name implies, a groove where the pipe and fitting engage to form a self-restraining joint. The position, depth and cross-section of this groove combine with the fitting housing in an optimal strength-to-weight relationship. The result is a permanent connection capable of withstanding thrust loads up to the maximum rated operating pressure.

Roll grooving is the method of choice for preparing pipe made of standard or light-wall carbon steel, stainless steel, aluminum, PVC, copper and other materials. Both roll and cut grooving meet the requirements of ANSI/AWWA C-606. Victaulic Company's first recommendation is that the pipe end be square cut. However, beveled end pipe may be used provided the wall thickness is standard or less, and the bevel meets ASME/ANSI B16.25 (37½°) or ASTM A-53 (30°). Square cut pipe must be used with FlushSeal® and EndSeal® gaskets.

Victaulic Vic-Easy® roll grooving tools are all designed to rotate the pipe or orbit the pipe as a male grooving roll is impressed into the pipe. The support roll, in addition to driving the pipe or tool, is the female die inside the pipe. For all but the VE12, VE26, VE46, VE106, and VE226 tools, Victaulic roll groovers use hydraulic pressure to force the grooving roll into the pipe to form the groove. Roll grooving removes no metal; the groove is cold formed into the pipe wall.

All Victaulic cut groovers are designed to be driven around a stationary pipe to machine away material, providing a groove. The design of the tool assures a groove which is concentric with the pipe O.D., even with out-of-round pipe. Cut grooving is basically designed for standard weight or heavier wall thicknesses of pipe. A square cut groove is used for steel and other metallic IPS pipe. This provides maximum coupling gripping efficiency and the fullest pipe movement capabilities.

JOB/OWNER	CONTRACTOR	ENGINEER
System No. _____	Submitted By _____	Spec Sect _____ Para _____
Location _____	Date _____	Approved _____
		Date _____

Pipe Preparation Tool Specifications

Roll Grooving Tools Field Portable



VE12

VE12 GROOVE IN-PLACE

- For manual grooving of Schedule 5, 10 and 40 steel; stainless steel; aluminum and PVC pipe
- Patented enhanced tracking rolls allow bi-directional grooving
- Roll grooves ¾ – 2" / 20 – 50 mm pipe †

Power Requirements: None

Weight: 17 lbs./8 kg

VE12 TOOL CAPACITY

Tool Model	Pipe Material	PIPE SIZE/SCHEDULE inches/mm				
		¾ 20	1 25	1¼ 32	1½ 40	2 50
VE12	Steel	5 – 10	5 – 40			
	Stainless		40S Only			
	Aluminum †	5 – 10	5 – 40			
	PVC Plastic		40			

† 6061-T4 or 6063-T4 Alloy must be used.



VE26

VE26 GROOVE IN-PLACE

- Repair and retrofit existing lightwall steel, Schedule 40 steel, stainless steel, PVC, and aluminum
- Patented enhanced tracking rolls allow bi-directional grooving
- Model VE26C handles copper tubing (CTS) Types K, L, M and DWV plus British, DIN, and Australian Standard copper
- Model VE26SS grooves Schedule 5 and 10 stainless steel
- Optional power drive adapter kit available to alternately groove pipe using a Ridgid* 300 power drive or VPD752
- Roll grooves 2 – 6" / 50 – 150 mm pipe †

Power Requirements: None

Weight: 22 lbs./10 kg

VE26 TOOL CAPACITY

Tool Model	Pipe Material	PIPE SIZE/SCHEDULE inches/mm						
		2 50	2½ 65	3 80	3½ 90	4 100	5 125	6 150
VE26S	Steel	5 – 40			5 – 10			
	Stainless	40S Only						
VE26C	Copper	K, L, M, & DWV*						
VE26P	Aluminum †	5 – 40			5 – 10			
	PVC Plastic				40			
VE26SS	Lt. Wall SS	55 – 10S						

† 6061-T4 or 6063-T4 Alloy must be used.

* Alternative units are available for European Standard (EN) 1057 and Australian standard copper.

Pipe Preparation Tool Specifications



VE46

VE46 GROOVE IN-PLACE

- Designed for manually roll grooving Schedule 40 steel, aluminum, stainless steel and PVC pipe and Schedule 80 PVC pipe
- Patented enhanced tracking rolls allow bi-directional grooving and helps to hold the tool on the pipe end during the roll grooving process
- Optional power drive adapter kit available to alternately groove pipe using a Ridgid* 300 power drive or VPD752
- Roll grooves 3 ½ – 6"/90 – 150mm pipe †

Power Requirements: None

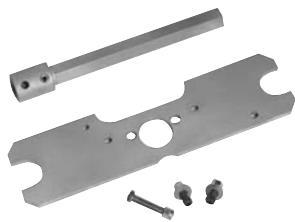
Weight: 28lbs./13 kg

VE46 TOOL CAPACITY

Tool Model	Pipe Material	PIPE SIZE/SCHEDULE Inches/mm				
		3 ½ 90	4 100	4 ½ 120	5 125	6 150
VE46	Steel	5 – 40				
	Stainless	40S Only				
VE46P	Aluminum †	5 – 40				
	PVC Plastic	40	40 – 80			

† 6061-T4 or 6063-T4 Alloy must be used.

VE26/46 Power Drive Kit



The VE26/46 power drive kit is available to allow both tools to be directly mounted to either a Victaulic VPD752 or Ridgid* 300 Power Drive.

Newer tools with serial numbers ending in "C" are compatible with the Power Drive Kit. Tools which do not contain the "C" suffix will require retrofit to accept the Power Drive Kit. Contact Victaulic for details.

Pipe Preparation Tool Specifications

Field Portable



VE226

VE226 PORTABLE GROOVER

- Mounts to a Victaulic VPD752 or Ridgid* 300 power drive
- Optional alternate bases available
- Tool is operated using a standard 3/8"/9.5 mm square ratchet drive (not included)
- Available in six models for steel (and other IPS) pipe, copper tubing and stainless steel
- Roll grooves 3/4 – 6"/20 – 150 mm pipe

Drive Requirements: Fits Victaulic VPD752 or Ridgid 300 power drives. Optional bases for Ridgid 535, 1224, 1822, and Oster 310 available.

Weight: 37 lbs./17 kg

VE226 TOOL CAPACITIES

Tool Model	Pipe Material	PIPE SIZE/SCHEDULE inches/mm										
		3/4 20	1 25	1 1/4 32	1 1/2 40	2 50	2 1/2 65	3 80	3 1/2 90	4 100	4 1/2 120	5 125
VE226S	Steel	5 – 40				5 – 10						
	Stainless	40S Only										
VE226B	Steel	5 – 40										
	Stainless	40S Only										
	Aluminum †	5 – 40										
	PVC Plastic	40	40 – 80									
VE226M	Steel					5 – 40				5 – 10		
	Stainless					40S Only						
VE226C	Copper					K, L, M, & DWV						
VE226MSS	LT. Wall SS					5S – 10S						
VE226P	Aluminum †					5 – 40				5 – 10		
	PVC Plastic					40 – 80				40		

† 6061-T4 or 6063-T4 Alloy must be used.

NOTE: When ordering tools that require a power drive, you must determine the type of drive to be used. For proper operation, a power drive and pipe stand are required. See page 11 for details.

Power Drive Kit

VE226



- Kit for connecting a VE226 roll grooving tool to a Ridgid* 700 power drive

Capacity: See appropriate tool

Weight: 75 lbs./34 kg

*Ridgid is a registered trademark of the Ridge Tool Company.

Pipe Preparation Tool Specifications

Field Fabrication



VE106/VE107

VE106/VE107 GROOVE-N-GO

- Mobile light-duty roll grooving tool with an integral motor/drive unit mounted to portable hand truck
- 3/8"/9.5mm square ratchet drive for operation (standard)
- Patented enhanced tracking rolls help to keep the pipe on the tool during the roll grooving process.
- Completely self-contained unit with an integral motor, safety foot switch and power plug
- Roll grooves 1 1/4 – 6"/32 – 150mm pipe

Power Requirements: VE106 is provided with 110volt, 15amp power. VE107 is provided with 220volt, 6amp power.

Weight: 140lbs./64 kg

Optional Accessories: Additional rolls/shafts are available for copper, lightwall stainless steel, and EndSeal (ES) grooving.

VE106/VE107 TOOL CAPACITIES

Tool Model	Pipe Material	PIPE SIZE/SCHEDULE inches/mm									
		1 1/4 32	1 1/2 40	2 50	2 1/2 65	3 80	3 1/2 90	4 100	5 125	6 150	
VE106 (Groove-N-Go)	Steel	5 – 40 Std. Rolls									
	Stainless	40S Std. Rolls									
	Lt. Wall SS	5S – 10S RX Rolls *									
	Copper	K, L, M, & DWV Copper Rolls									

* RX Rolls – “RX” is the Victaulic part code designator for grooving roll sets specifically designed for roll grooving lightwall stainless steel pipe.

Pipe Preparation Tool Specifications

Field Fabrication



VE272SFS

VE272SFS

- Portable roll groover mounts easily to the Victaulic VPD752 or Ridgid 300 power drive
- Hand pump operation with a unique pivot arm design reduces handle effort
- Patented enhanced tracking rolls help to keep the pipe on the tool during the roll grooving process
- Roll grooves ¾ – 12"/20 – 300mm pipe (Supplied with 2 – 12"/50 – 300mm roll sets)

Power Requirements: Victaulic VPD752 or Ridgid 300 power drive

Weight: 184 lbs./84 kg

Optional Rolls: Optional rolls are available for copper pipe; Schedule 5S, 10S, and 10 stainless steel pipe; ¾ – 1 ½"/20 – 40 mm steel pipe, and EndSeal (ES) grooving.

Optional Accessories: An optional pipe stabilizer for 8 – 12"/200 – 300mm pipe is available.

VE272SFS TOOL CAPACITIES

Tool Model	Pipe Material	PIPE SIZE/SCHEDULE Inches/mm													
		¾ 20	1 25	1 ¼ 32	1 ½ 40	2 50	2 ½ 65	3 80	3 ½ 90	4 100	5 125	6 150	8 200	10 250	12 300
VE272SFS	Steel	5 – 40 Std. Rolls												5 – 20 Std. Rolls	
	Stainless	40S Std. Rolls													
	LT. Wall SS	5S – 10S RX Rolls													
	Aluminum †*					5 – 40 RP Rolls								5 – 20 RP Rolls	
	PVC Plastic*					40 *§		40 – 80 RP Rolls						40 *	
	Copper	K, L, M, & DWV Copper Rolls													

* Use RP Rolls.

† 6061-T4 or 6063-T4 must be used. RP Rolls must be used.

§ A special lower roll exclusively for grooving 2" Sch. 80 PVC is available.

Pipe Preparation Tool Specifications



VE270FSD/VE271FSD

VE270FSD/VE271FSD

- Completely self-contained unit with integral gear motor, safety guards, safety foot switch and power cord/plug
- Equipped with a unique pivot arm design, making roll changing quick and easy, without removing shafts
- Patented enhanced tracking rolls help to keep the pipe on the tool during the roll grooving process
- Roll grooves ¾ – 12"/20 – 300mm pipe (Supplied with 2 – 12"/50 – 300mm roll sets)

Drive Requirements: Self-contained

Power Requirements: VE270FSD is provided with 110volt, 15amp power. VE271FSD is provided with 220volt, 6amp power .

Weight: 340lbs./154kg

Optional Rolls: Carbon steel Schedules 5, 10, 20, and 40; copper rolls for type K, L, M and DWV, stainless steel Rx rolls for Schedules 5S-10-10S, and ¾ – 1 ½"/20 – 40mm steel pipe.

Optional Accessories: An optional pipe stabilizer for 8 – 12"/200 – 300mm pipe is available.

VE270FSD/VE271FSD TOOL CAPACITIES

Tool Model	Pipe Material	PIPE SIZE/SCHEDULE inches/mm												
		¾ 20	1 25	1 ¼ 32	1 ½ 40	2 50	2 ½ 65	3 80	3 ½ 90	4 100	5 125	6 150	8 200	10 250
VE270FSD	Steel	5 – 40 Std. Rolls											5 – 20 Std. Rolls	
	Stainless	40S Std. Rolls												
	Lt. Wall SS	5S – 10S RX Rolls												
	Aluminum †*	5 – 40 RP Rolls											5 – 20 RP Rolls	
	PVC Plastic *					40 *§	40 – 80 RP Rolls					40 *		
	Copper	K, L, M, & DWV Copper Rolls												

* Use RP Rolls.

† 6061-T4 or 6063-T4 must be used. RP Rolls must be used.

§ A special lower roll exclusively for grooving 2" Sch. 80 PVC is available.

Pipe Preparation Tool Specifications

Field Fabrication



VE416FS

VE416FS

- For field roll grooving of 2" – 16"/50 – 400mm standard wall pipe, lightwall steel pipe, as well as aluminum, stainless and PVC plastic pipe
- Groove depth adjuster allows for easy adjustment for initial groove diameter
- Roll grooves 2 – 16"/50 – 400mm pipe (Supplied with 2 – 12"/50 – 300mm original rolls and 14 – 16"/350 – 400mm AGS rolls).
- Equipped with a pipe stabilizer for 6" – 16"/150 – 400mm pipe sizes to control pipe sway

Power Requirements: Victaulic VPD752 or Ridgid 300 power drive

Weight: 240lbs./109kg

Optional Rolls: Optional rolls are available for Schedule 5S and 10S stainless steel pipe, PVC and aluminum pipe, and type K, L, M and DWV copper tubing.

AGS roll sets for 14 – 16"/350 – 400mm std. wall carbon steel pipe are now standard.

Tools sold prior to October, 2005, are equipped with the original groove rolls that cannot be used to groove AGS profile. AGS roll sets can be ordered separately. Contact Victaulic for pricing and availability.

For 14 – 16"/350 – 400mm product applications requiring the original groove roll sets, please contact Victaulic for ordering information.

VE416FS TOOL CAPACITIES

Tool Model	Pipe Material	PIPE SIZE/SCHEDULE inches/mm											
		2 50	2 ½ 65	3 80	4 100	5 125	6 150	8 200	10 250	12 300	14 350	16 400	
VE416FS	Steel	5 – 40 Std. Rolls								10 – Std. Wall Original Groove Only			
	Std. Wall Stainless										Sch. 10 & Std. Wall RW:AGS		
	Lt. Wall SS	5S – 10S RX Rolls											
	AGS Lt. Wall SS										10S RWX Rolls #		
	Aluminum †*	5 – 40 RP Rolls								5 – Std. Wall *			
	PVC Plastic *	40 – 80 RP Rolls						40 *					
	Copper	K, L, M, & DWV Copper Rolls											

* Use RP Rolls.

† 6061-T4 or 6063-T4 must be used. RP Rolls must be used.

Special RWX rolls for grooving true sch. 10 (0.250 – 6.4mm) are available.

Pipe Preparation Tool Specifications



VE416FSD/VE417FSD

VE416FSD/VE417FSD

- For field roll grooving of 2" – 16"/50 – 400mm standard wall pipe, lightwall steel pipe, as well as aluminum, stainless and PVC plastic pipe
- Groove depth adjuster allows for easy adjustment for initial groove diameter
- Completely self-contained units with integral gear motors, safety foot switch and power cord/plug
- Roll grooves 2 – 16"/50 – 400mm pipe
- Equipped with a pipe stabilizer for 6" – 16"/150 – 400mm pipe sizes to control pipe sway

Power Requirements: VE416FSD is provided with 110 volt, 15 amp for integral gear motor
VE417FSD is provided with 220volt, 8amp service

Weight: 340lbs./154kg

Optional Rolls: Optional rolls are available for Schedule 5S and 10S stainless steel pipe, PVC and aluminum pipe, and type K, L, M and DWV copper tubing.

AGS roll sets for 14 – 16"/350 – 400mm std. wall carbon steel pipe are now standard.

Tools sold prior to October, 2005, are equipped with the original groove rolls that cannot be used to groove AGS profile. AGS roll sets can be ordered separately. Contact Victaulic for pricing and availability.

For 14 – 16"/350 – 400mm product applications requiring the original groove roll sets, please contact Victaulic for ordering information.

VE416FSD/VE417FSD TOOL CAPACITIES

Tool Model	Pipe Material	PIPE SIZE/SCHEDULE inches/mm											
		2 50	2½ 65	3 80	4 100	5 125	6 150	8 200	10 250	12 300	14 350	16 400	
VE416FSD/ VE417FSD	Steel	5 – 40 Std. Rolls								10 – Std. Wall Original Groove Only			
	Std. Wall Stainless									Sch. 10 & Std. Wall RW-AGS			
	Lt. Wall SS	5S – 10S RX Rolls											
	AGS Lt. Wall SS											10S RWX Rolls #	
	Aluminum †*	5 – 40 RP Rolls								5 – Std. Wall *			
	PVC Plastic *	40 – 80 RP Rolls						40 *					
	Copper	K, L, M, & DWV Copper Rolls											

* Use RP Rolls.

† 6061-T4 or 6063-T4 must be used. RP Rolls must be used.

Special RWX rolls for grooving true sch. 10 (0.250 – 6.4 mm) are available.

Pipe Preparation Tool Specifications

Field Fabrication



VE450FSD

VE450FSD

- Designed for field roll grooving of 4 – 24"/100 – 600mm pipe
- Tool is supplied with roll sets for grooving 4 – 12"/100 – 300mm original groove and 14 – 24"/350 – 600mm AGS groove on carbon steel pipe
- Patented enhanced tracking rolls help to keep the pipe on the tool during the roll grooving process, and quick change upper roll design
- Features:
 - Lifting point to move the tool using a crane
 - Frame can accept most fork lifts
 - On board storage for tool accessories

Power Requirements: VE450FSD is a self-contained unit with two 220 volt, single phase 50/60hz, 20amp integral gear motors to handle heavier loads, safety foot switch and power cord/plug

Weight: 825 lbs./374 kg

Optional Rolls: Optional rolls are available for 14 – 24/350 – 600mm carbon steel original groove; 4 – 12/100 – 400mm lightwall stainless steel original groove; 14 – 24/350 – 600mm lightwall stainless steel AGS groove; and 4 – 12/100 – 400mm EndSeal (ES) groove.

VE450 FSD TOOL CAPACITIES

Pipe Material	PIPE SIZE/SCHEDULE inches/mm											
	4 100	5 125	6 150	8 200	10 250	12 300	14 350	16 400	18 450	20 500	22 550	24 600
Steel‡	5 – 40					Sch. 5 – Std. Wall Original Groove Only						
	Sch. 10 & Std. Wall RW-AGS											
Stainless	40S Std. Rolls					Std. Wall, Std. Rolls						
	Std. Wall, RW-AGS											
Lt. Wall SS	5S – 10S RX Rolls@					5S/10S/10 RX Rolls						
AGS Lt. Wall SS	10S RWX Rolls #											
Aluminum *†	5 – 40 RP Rolls											
PVC Plastic*	40 – 80			40								

‡ EndSeal (ES) rolls are available. Contact Victaulic for details.

@ These rolls are not interchangeable with rolls sets from other tool models. Contact Victaulic for ordering information.

* Use RP Rolls.

† 6061-T4 or 6063-T4 must be used. RP Rolls must be used.

Special RWX rolls for grooving true sch. 10 (0.250 – 6.4mm) are available.

Pipe Preparation Tool Specifications

Plant/Shop Fabrication



VE268

VE268

- Designed for fabrication shop roll grooving
- The fully-motorized, semi-automatic, electrohydraulic tool comes complete with safety guards and safety foot switch
- Equipped with a unique pivot arm design, making roll changes quick and easy, without removing shafts
- Patented enhanced tracking rolls help to keep the pipe on the tool during the roll grooving process
- Roll grooves ¾ – 12"/20 – 300mm pipe (¾ – 1 ½"/20 – 32 mm rolls are optional)

Drive Requirements: Self-contained

Power Requirements: The tool can also be supplied in various voltages; contact Victaulic for details.

Weight: 735 lbs./333 kg

Optional Rolls: Optional rolls are available for carbon steel Schedules 5, 10, and 40; copper rolls for type K, L, M and DWV, stainless steel Rx rolls for Schedules 5S, 10, and 10S, and ¾ – 1 ½"/20 – 40mm steel pipe.

Optional Accessories: An optional pipe stabilizer for 8 – 12"/200 – 300mm pipe is available and is suggested for grooving 8"/206.4mm copper tubing.

VE268 TOOL CAPACITIES

Tool Model	Pipe Material	PIPE SIZE/SCHEDULE inches/mm											
		¾ 20	1 25	1 ¼ 32	1 ½ 40	2 50	2 ½ 65	3 80	3 ½ 90	4 100	5 125	6 150	8 200
VE268	Steel	5 – 40 Std. Rolls											5 – 20 Std. Rolls
	Stainless	40S Std. Rolls											
	Lt. Wall SS	5S – 10S RX Rolls											
	Aluminum †*	5 – 40 RP Rolls											5 – 20 RP Rolls
	PVC Plastic *					40 *§	40 – 80 RP Rolls					40 RP Rolls	
	Copper	K, L, M, & DWV Copper Rolls											

* Use RP Rolls.

† 6061-T4 or 6063-T4 must be used. RP Rolls must be used.

§ A special lower roll exclusively for grooving 2" Sch. 80 PVC is available.

Pipe Preparation Tool Specifications

Plant/Shop Fabrication



VE414MC

VE414MC

- Designed for fabrication shop roll grooving Schedule 5, 10, and standard wall carbon steel pipe, standard wall stainless steel pipe, Schedule 40, 80 PVC pipe, and standard wall aluminum pipe
- Unique roll design, making roll changing quick and easy, without removing main shafts
- Patented enhanced tracking rolls help to keep the pipe on the tool during the roll grooving process
- The tool comes equipped with pipe stabilizers to provide smooth grooving operation
- Roll grooves 2 – 16"/50 – 400mm pipe (Supplied with 2 – 12"/50 – 300mm original rolls and 14 – 16"/350 – 400mm AGS rolls)

Drive Requirements: Self-contained

Power Requirements: 220 volt, 3 phase, 60 hertz standard. The tool can also be supplied in various voltages, contact Victaulic for details.

Weight: 735 lbs./333 kg

Optional Rolls: Optional rolls are available for Schedule 10S stainless steel pipe, PVC and aluminum pipe, and type K, L, M and DWV copper tubing.

AGS roll sets for 14 – 16"/350 – 400mm Schedule 10 through .500"/12.7mm wall carbon steel pipe are now standard.

Tools sold prior to October, 2005, are equipped with the original groove rolls that cannot be used to groove AGS profile. AGS roll sets can be ordered separately. Contact Victaulic for pricing and availability.

For 14 – 16"/350 – 400mm product applications requiring the original groove roll sets, please contact Victaulic for ordering information.

VE414MC TOOL CAPACITIES

Tool Model	Pipe Material	PIPE SIZE/SCHEDULE inches/mm											
		2 50	2½ 65	3 80	4 100	5 125	6 150	8 200	10 250	12 300	14 350	16 400	
VE414MC	Steel	5 – 40 Std. Rolls								10 – Std. Wall Original Groove Only			
	Std. Wall Stainless									Sch. 10 & Std. Wall RW-AGS			
	Lt. Wall SS	5S – 10S RX Rolls								10S RWX-AGS			
	AGS Lt Wall SS									10S RWX Rolls #			
	Aluminum †*	5 – 40 RP Rolls								5 – Std. Wall *			
	PVC Plastic *	40 – 80 RP Rolls						40 *					
	Copper	K, L, M, & DWV Copper Rolls											

* Use RP Rolls.

† 6061-T4 or 6063-T4 must be used. RP Rolls must be used.

Special RWX rolls for grooving true sch. 10 (0.250 – 6.4 mm) are available.

Pipe Preparation Tool Specifications

Plant/Shop Fabrication



VE436MC

VE436MC

- Fully automated shop tool for roll grooving carbon steel pipe and other alloys (see chart below)
- The fully-motorized, semi-automatic, electro-hydraulic tool comes complete with safety guards and safety foot switch
- Patented enhanced tracking rolls help to keep the pipe on the tool during the grooving process
- Roll grooves 4 – 36"/100 – 900 mm pipe (26 – 36"/650 – 950 mm roll kit optional)

Power Requirements: 220/440 volt, 3 phase, 60 hertz (shipped wired for 220 volt unless otherwise specified). Contact Victaulic for details.

Weight: 1500 lbs./680 kg

Optional Rolls: Optional rolls are available for Schedule 5S and 10S stainless steel pipe, PVC and aluminum pipe, and type K, L, M and DWV copper tubing.

AGS roll sets for 14 – 16"/350 – 400 mm Schedule 10 through .500"/12.7 mm wall carbon steel pipe are now standard.

Tools sold prior to October, 2005, are equipped with the original groove rolls that cannot be used to groove AGS profile. AGS roll sets can be ordered separately. Contact Victaulic for pricing and availability.

For 14 – 24"/350 – 600 mm product applications requiring the original groove roll sets, please contact Victaulic for ordering information.

VE436MC TOOL CAPACITIES

Pipe Material	PIPE SIZE/SCHEDULE																
	inches/mm																
VE436MC	4	5	6	8	10	12	14	16	18	20	22	24	26	28	30	32	36
	100	125	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850
Steel@	5 – 40						Sch. 5 – Std. – Extra Strong (0.500 inch) Original Groove Only										
							Sch. 10 & Std. Wall RW-AGS										
Stainless	40S Std. Rolls						Std. Wall, Std. Rolls										
							RW-AGS										
Lt. Wall SS	5S – 10S RX Rolls						5S/10S/10 RX Rolls										
AGS Lt. Wall SS							5S – 10S RWX Rolls #										
Aluminum *†	5 – 40 RP Rolls																
PVC Plastic*	40 – 80			40													

@ Extra strong rolls (RS) available for use with extra strong pipe. Contact Victaulic for details.

* Use RP Rolls.

† 6061-T4 or 6063-T4 must be used. RP Rolls must be used.

Special RWX rolls for grooving true sch. 10 (0.250 – 6.4 mm) are available.

Pipe Preparation Tool Specifications

Cut Grooving Tools Field Manual



VG28GD

VG28GD VIC-ADJUSTABLE™

- Designed for cut grooving various pipe materials.
- A modified version (MRL) is available to groove and machine for rubber lining
- Cut grooves ¾ – 8"/20 – 200mm pipe

Drive Requirements: External drive, minimum 1 ½ hp

Drive Speed: 38rpm max.

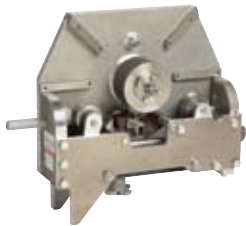
Shipped Set For: Standard groove 4 – 6"/100 – 150mm steel pipe. Contact Victaulic for ductile iron, MRL, and double groove requirements.

Weight: 37 lbs./17 kg

VG28GD TOOL CAPACITIES

Tool Model	Pipe Material	PIPE SIZE/SCHEDULE inches/mm							
		2 50	2½ 65	3 80	3½ 90	4 100	5 125	6 150	8 200
VG28GD Adjustable Groover	Steel	40 – 80 *							
	Stainless	40 – 80 *							
	Aluminum	40 – 80 *							
	Ductile Iron	Class 53							

* 6"/150 mm Schedule 8



VG824

VG824 VIC-ADJUSTABLE™

- Designed for cut grooving various pipe materials
- The tool must be driven through its own integral gear box by an external power source at a maximum speed of 38rpm
- Ideal for job site, fab shop or production cut grooving
- Cut grooves 8 – 24"/200 – 600mm pipe

Drive Requirements: External drive, min. 1 ½ hp

Drive Speed: 38rpm max.

Shipped Set For: Standard groove, 8 – 12"/200 – 300mm steel pipe

Weight: 82 lbs./37.2 kg

Options: Contact Victaulic for ductile iron, MRL, and double groove requirements.

VG824 TOOL CAPACITIES

Tool Model	Pipe Material	PIPE SIZE/SCHEDULE inches/mm								
		8 200	10 250	12 300	14 350	16 400	18 450	20 500	22 550	24 600
VG824 Adjustable Groover	Steel	40 – 80				30 – Std. Wall				
	Stainless	30 – Std. Wall								
	Aluminum	30 – Std. Wall								
	Ductile Iron	Class 53								

Pipe Preparation Tool Specifications

Field Motorized



VG1

VG1 VIC-GROOVER

- Designed for manual or power cut grooving of a single size on steel, ductile, stainless steel, aluminum and PVC pipe
- Tools are supplied with a ratchet handle for manual operation
- Tools 2"/50mm and larger are supplied with a power yoke
- Cut grooves ¾ – 8"/20 – 200mm pipe

Drive Requirements: Manual or external drive, min. ½hp./0.37 kw

Drive Speed: 40rpm max.

Shipped Set For: Standard groove, IPS of size indicated or Ridgid/flexible for ductile/cast pipe

Weight: 28lbs./13 kg

VIC-GROOVER TOOL CAPACITIES

Tool Model	Pipe Material	PIPE SIZE/SCHEDULE inches/mm											
		¾ 20	1 25	1 ¼ 32	1 ½ 40	2 50	2 ½ 65	3 80	3 ½ 90	4 100	5 125	6 150	8 200
Vic-Groover Individual	Steel	40 – 80											
	Stainless	40 – 80											
	Aluminum	40 – 80											
	PVC	40 – 80											
Vic-Groover Adjustable	Steel									40 – 80			
	Stainless									40 – 80			
	Aluminum									40 – 80			
Vic-Groover	Ductile Iron									Class 53		Class 53	



VG412

VG412 ORBITAL MACHINING TOOL

- Complete modular pipe end preparation system providing quick, accurate cutting and grooving of ductile iron pipe to meet AWWA and other industry specifications for mechanical couplings
- External mounting and drive action is particularly suited to cement lined ductile iron pipe grooving
- The hinged frame design allows cutting at any point along the pipeline
- Blade setting and replacement is fast and easy
- Cut grooves 4 – 12"/100 – 300mm pipe
- Safety foot switch

Drive Requirements: 120volt/11.5 amp

Shipped Set For: Ridgid Radius Groove, 4 – 12"/100 – 300mm ductile iron pipe

Weight: 151 lbs./69 kg

Options: 4 – 12"/100 – 300mm IPS steel kit; flexible groove profile components

VG412 TOOL CAPACITIES

Tool Model	Pipe Material	PIPE SIZE/SCHEDULE inches/mm					
		4 100	4 ½ 120	5 125	6 150	8 200	10 250
VG412 Adjustable Groover	Steel	40 – 80					
	Ductile Iron	Class 53					

Pipe Preparation Tool Specifications

Plastic Groovers



VPG26

VPG26 AND VPG824

- PVC plastic pipe requires a radius groove to reduce any point of stress concentration in this notch sensitive material
- Tools feature a high speed, router-type tool bit which cuts a radiused groove, to full depth, in one manual rotation of the tool around the pipe

VPG26

- Grooves 2 – 6"/50 – 150 mm pipe

Power Requirements: 110 volt, 1 phase, 60Hz, 7 amps

Rotation Drive: Manual (clockwise)

Weight: 41 lbs./19 kg

Shipped Set For: VPG26 for 2 – 3½"/50 – 90 mm



VPG824

VPG824

- Grooves 8 – 16"/200 – 400 mm pipe

Power Requirements: 110 volt, 1 phase, 60Hz, 7 amps

Rotation Drive: Manual (Clockwise)

Weight: 47 lbs./21 kg

Shipped Set For: VPG824 for 8 – 12"/200 – 300 mm

Pipe Preparation Tool Specifications

Hole Cutting Tools



HCT908

HCT908

- One-piece hole cutting tool designed to cut holes up to 4 1/2"/120mm in carbon and stainless steel pipe
- Allows for use of Mechanical-T, Vic-Let, and Vic-O-Well outlets

Capacity: 1 – 4 1/2"/25 – 120 mm holes for 1/2 – 4"/15 – 100 mm Mechanical-T, and Vic-Let connections

Power Requirements: 110volt, 1 phase, 60Hz, 7.0amp

Weight: 23 lbs./10 kg



VHCT900

VHCT900

- Three-piece hole cutting tool designed to cut holes up to 3 1/2"/90 mm in diameter for Mechanical-T, Vic-Let, and Vic-O-Well outlets
- Base unit clamps quickly onto the pipe in vertical, horizontal or overhead positions
- Heavy-duty drill mounts to the alignment guides and a manual feed assembly provides uniform pressure on the saw for maximum cutting efficiency

Capacity: 1 – 3 1/2"/25 – 90 mm holes for 1/2 – 3"/15 – 80 mm Mechanical-T, Vic-Let connections

Power Requirements: grounded 120volt, 1 phase, 60 Hz, 10 amp electrical supply. (220volt, 1 phase, 60Hz, 5 amp available on request)

Weight: 36 lbs./16 kg

Accessories: Extended chain for 10 – 24"/250 – 600 mm pipe



VIC-TAP II

VIC-TAP II

- Hole cutting tool designed for use with Style 931 Vic-Tap II Mechanical-T unit for tapping into steel pipe systems under pressures up to 500 psi/3450 kPa

Capacity: Vic-Tap II 4 – 8"/100 – 200 mm Run x 2 1/2"/65 mm (IPS) Outlet

Power Requirements: 115volt, 1 phase, 60Hz, 7.5amp

Weight:

(A) Drill guide base 15 lbs./6.8 kg

(B) Drill motor and feed assembly, total wgt. 16 lbs./7.3 kg

(C) Style 931/Valve unit, 12 lb./5.4 kg – 15 lb./6.8 kg, depending upon size (4, 5, 6 and 8"/100, 125, 150 200 mm available)

Hole Size: 2 3/8"/60.5 mm

Pipe Preparation Tool Specifications

Pressfit Tools



PFT505



PFT505

- The Pressfit System requires a Pressfit tool designed for securing Pressfit products onto pipe
- Jaws are available separately for rental (with rental tool) or purchase
- Pressfit tool is designed for industrial and trade use only

Capacity: ½ – 2" / 15 – 50mm IPS Schedule 5 steel and stainless steel pipe

Power Requirements: 110 volt, 60cycle, 6.5amp

Accessories: Pressing jaws in ½"/15mm, ¾"/20mm, 1"/25mm, 1 ½"/40mm and 2"/50mm sizes

Note: PFT505 and PFT509 components are not interchangeable



PFT509

PFT509

- The Pressfit System requires a Pressfit tool designed for securing Pressfit products onto pipe
- Tool packages include the actual pressing tool, two (2) batteries and a charger, carrying case, and ½, ¾, 1, and 1 ½" press jaws
- Jaws are available separately for purchase
- Pressfit tool is designed for industrial and trade use only
- Pressfit tool is battery powered and requires a 12V battery charger

Capacity: ½ – 1" and 1 ½" / 15 – 25mm and 40mm IPS Schedule 5 steel and stainless steel pipe

Power Requirements: 110volt/60cycle/6.5amp

Note: PFT505 and PFT509 components are not interchangeable

Pipe Preparation Tool Specifications

Pipe Cutting Tools



VCT1

VCT1 MANUAL

- Lightweight and portable pipe cut-off tool handles 4 – 24"/100 – 600mm pipe, up to 0.500/12.7mm thick
- Worm gear drive crank handle provides smooth, manual travel, easy control and accurate cutting

Capacity: 4 – 24"/100 – 600mm

Wall Thickness: 0.065 – 0.500"/1.65 – 12.7mm (with tips supplied)

Tips: Acetylene – 1 ea. #00, #0, #1

Weight: 22 lbs./10 kg



VCT2

VCT2 AUTOMATIC

- Rotation is powered by a small 120VAC motor with SCR remote control
- Unique distributor design has stainless steel insert which extends tip life, eases cleaning and reduces backfire

Capacity: 6 – 24"/150 – 600mm

Wall Thickness: 0.065 – 0.500"/1.65 – 12.7mm (with tips supplied)

Tips: Acetylene – 1 ea. #00, #0, #1

Speed Control: SCR

Power Required: 120volt, 1 phase, 60Hz, 15amp

Motor Rating: 15W 10,000rpm

Weight: 33 lbs./15 kg

Accessories: Guide rail is sold separately. Recommended for pipe 12"/300mm and above. Order Guide Rail D-600 for up to 24"/600mm pipe (others available).

Pipe Preparation Tool Specifications

Accessories

Power Drive

VPD752



VPD752

- Can be used as the power drive unit for the VE226, VE26, VE46, VE416FS and VE272SFS roll grooving tools, provided the tool is equipped with the correct base plate and the VG1, VG28GD, and VG824 cut grooving tools with universal drive shaft

- Operated with a safety foot switch

Capacity: See appropriate tool

Power Requirements: 115 volts, 15 amp, 50/60 Hz (220 volt, 6 amp, 50/60 cycle optional)

Weight: 140 lbs./634 kg

Optional: Universal drive shaft

Power Mule



MULE II

- Ideal drive for Victaulic individual Vic-Groover tools, VG28GD and VG824
- Heavy-duty, two-wheeled unit drives Victaulic cut grooving tools at the speed and power necessary for accurate grooving
- Rotating head for horizontal and vertical applications
- Power Mule is equipped with a Forward-Off-Reverse control and integral foot switch

Capacity: Victaulic individual Vic-Groover tools, VG28GD, VG26GD/MRL, VG824, VG824/MRL

Power Requirements: 115 volts, 15 amp 50/60 cycle

Full Load Speed: 35 rpm

Weight: 190 lbs./86 kg

Adjustable Pipe Stand

VAPS112



VAPS112

- Designed for supporting pipe to be roll grooved
- Four adjustable legged portable self-standing unit
- Turnstile design allows pipe to be spun around for grooving of both pipe ends without dismounting pipe from stand
- Unique trough design allows for rotational and forward/traverse movement

Capacity: ¾ – 12"/20 – 300 mm IPS pipe

Load Rating: 1075 lbs./490 kg

Vertical Stroke: 14 ½"/368 mm for adjusting rod, 8 ½"/216 mm leg adjustment, 23"/584 mm

Minimum Pipe Height from Floor:

23"/584 mm on 12"/300 mm pipe

21"/533 mm on 1"/25 mm pipe

Weight: 190 lbs./86 kg

Handle Effort Required to Raise 1075 lbs./490 kg Load: 50 lbs./23 kg maximum

Pipe Preparation Tool Specifications

Adjustable Pipe Stand

VAPS224



VAPS224

- Designed specifically for supporting pipe to be roll grooved
- Self-standing heavy-duty unit permits free pipe rotation and traversing on ball transfers
- Ball transfers are mounted in a manner permitting use of pipe slings
- Turnstile design allows pipe to be spun around for grooving of both pipe ends without dismounting pipe from stand

Capacity: 2 – 24"/50 – 600mm IPS pipe

Load Rating: 1800lbs./816kg

Vertical Stroke: 23"/584mm

Minimum Pipe Height from Floor: 13"/325mm on 24"/600mm IPS pipe

Maximum Pipe Height from Floor: 38"/965mm on 2"/50mm IPS pipe

Weight: 260lbs./118kg

Handle Effort Required to Raise 1800lbs./817kg Load: 50lbs./23kg maximum

Pipe Diameter Tape

PT100A



PT100A

- AGS/Go-No-Go pocket-sized steel tapes are available for taking circumferential measurements.
- Tape contains Go/No-Go markings on one side for use with $\frac{3}{4}$ – 24"/20 – 600mm pipe in ANSI B36.19 and many ISO-4200 sizes and is marked in 1/100th of an inch increments on the other side.
- The Go/No-Go side can be used to check cut or roll grooved pipe conformance to Victaulic original and Machined for Rubber Lining (MRL) ($\frac{3}{4}$ – 12"/20 – 300mm) and Advanced Groove System (AGS) (14 – 24"/350 – 600mm) groove diameter specifications.
- Tapes are notched on the lead end to allow proper overlap within the groove for more accurate measurement.
- The Go/No-Go side of the tape is not intended for use on sizes 76.1; 139.7; 165.1; 165.2; 216.3; 267.4; and 318.5mm steel or stainless steel pipe sizes. For cast or ductile iron pipe sizes (up to 20"/500mm), copper tube sizes, and the steel and stainless steel pipe sizes listed above, use the side of the tape marked in 0.01" increments.
- The Go/No-Go pipe tape is a quick reference guide only. To ensure proper grooving dimensions, always refer to the I-100 Victaulic Field Installation Handbook or to the latest groove specifications publications located on www.victaulic.com.
- Metric versions also available.

Pipe Preparation Tool Specifications

Grooving Times

Time for pipe preparation obviously depends on widely varied factors including productivity, location, type, hardness, and wall thickness of pipe. As a gauge for typical grooving times, the following chart was prepared to include grooving time with pipe in position and tool properly set for the size and depth of groove. Times will be extended when going from one size to another for roll changes, depth stop setting, trial grooving and other minor adjustments incidental to changing pipe sizes or initial set-up time prior to the first production groove.

APPROXIMATE GROOVING TIME IN MINUTES – STEEL PIPE*

Nominal Size	Roll Groovers – Powered							Cut Groovers				
	Inches	VE226	VE272SFS	VE270FSD	VE268	VE416FSD	VE414MC	VE436MC	Vic-Groover		Vic-Adjustable	
									Power	Hand	VG28GD	VG824 Power
¾	0.5 #	—	0.2	0.2	—	—	—	0.5	1.5	—	—	
1	0.6 #	—	0.2	0.2	—	—	—	0.5	1.5	—	—	
1¼	0.7 #@	—	0.2	0.2	—	—	—	0.7	2.0	—	—	
1½	0.8 #@	—	0.2	0.2	—	—	—	0.7	2.5	—	—	
2	1.0 @≠	0.3	0.3	0.3	0.3	0.2	—	1.0	3.0	1.0	—	
2½	1.3 @≠	0.3	0.3	0.3	0.3	0.2	—	1.2	3.8	1.3	—	
3	1.4 @≠	0.4	0.4	0.4	0.4	0.2	—	1.4	4.5	1.5	—	
3½	1.4 @≠	0.4	0.4	0.4	0.4	0.2	—	1.7	5.5	2.0	—	
4	1.5 @≠	0.5	0.4	0.5	0.5	0.2	0.2	1.9	7.0	2.5	—	
4½	1.5 @≠	0.8	0.6	0.6	0.6	0.2	0.2	2.3	8.0	2.8	—	
5	1.6 @≠	1.0	0.8	0.8	0.8	0.2	0.3	2.5	9.0	3.5	—	
6	1.8 @≠	1.5	1.2	0.8	1.0	0.3	0.5	3.0	10.0	4.5	—	
8	—	1.7	1.5	0.9	1.7	0.4	0.8	4.0	15.0	5.0	5.0	
10	—	2.0	1.8	1.5	2.5	0.6	1.1	—	—	—	8.0	
12	—	2.5	2.3	1.8	3.5	0.7	1.4	—	—	—	10.0	
14	—	—	—	—	7.4 †	3.6 †	3.6 †	—	—	—	12.0	
16	—	—	—	—	8.0 †	4.0 †	4.0 †	—	—	—	16.0	
18	—	—	—	—	—	—	4.6 †	—	—	—	20.0	
20	—	—	—	—	—	—	5.0 †	—	—	—	23.0	
22	—	—	—	—	—	—	2.8	—	—	—	27.0	
24	—	—	—	—	—	—	6.0 †	—	—	—	30.0	
30	—	—	—	—	—	—	3.8	—	—	—	—	
36	—	—	—	—	—	—	4.5	—	—	—	—	

VE226B @VE226S ≠VE226M

* For roll groovers the times apply to the thickest pipe wall for which the tool is rated. See tool capacities. For cut groovers, the times apply to standard wall steel pipe. For other materials and thicknesses contact Victaulic for details.

† For AGS roll grooves

Pipe Preparation Tool Specifications

Standard Pipe Wall Thickness

(ANSI B 36.10 & B 36.19 for Stainless Steel Pipe)

Size		Pipe Schedule/Wall Thickness – Inches/millimeters								
Nominal Size Inches/mm	Actual Outside Diameter Inches/mm	5S	5	10S	10	20	30	40	STD.	80
¾ 20	1.050 26.9	0.065 1.65	0.065 1.65	0.083 2.11	—	—	—	0.113 2.87	0.113 2.87	0.154 3.91
1 25	1.315 33.7	0.065 1.65	0.065 1.65	0.109 2.77	—	—	—	0.133 3.38	0.133 3.38	0.179 4.55
1 ¼ 32	1.660 42.4	0.065 1.65	0.065 1.65	0.109 2.77	—	—	—	0.140 3.56	0.140 3.56	0.191 4.85
1 ½ 40	1.900 48.3	0.065 1.65	0.065 1.65	0.109 2.77	—	—	—	0.145 3.68	0.145 3.68	0.200 5.08
2 50	2.375 60.3	0.065 1.65	0.065 1.65	0.109 2.77	—	—	—	0.154 3.91	0.154 3.91	0.218 5.54
2 ½ 65	2.875 73.0	0.083 2.11	0.083 2.11	0.120 3.05	—	—	—	0.203 5.16	0.203 5.16	0.276 7.01
3 80	3.500 88.9	0.083 2.11	0.083 2.11	0.120 3.05	—	—	—	0.216 5.49	0.216 5.49	0.300 7.62
3 ½ 90	4.000 101.6	0.083 2.11	0.083 2.11	0.120 3.05	—	—	—	0.226 5.74	0.226 5.74	0.318 8.08
4 100	4.500 114.3	0.083 2.11	0.083 2.11	0.120 3.05	—	—	—	0.237 6.02	0.237 6.02	0.337 8.56
5 125	5.563 141.3	0.109 2.77	0.109 2.77	0.134 3.40	—	—	—	0.258 6.55	0.258 6.55	0.375 9.53
6 150	6.625 168.3	0.109 2.77	0.109 2.77	0.134 3.40	—	—	—	0.280 7.11	0.280 7.11	0.432 10.97
8 200	8.625 219.1	0.109 2.77	0.109 2.77	0.148 3.76	—	0.250 6.35	0.277 7.04	0.322 8.18	0.322 8.18	0.500 12.70
10 250	10.750 273.0	0.134 3.40	0.134 3.40	0.165 4.19	—	0.250 6.35	0.307 7.80	0.365 9.27	0.365 9.27	0.594 15.09
12 300	12.750 323.8	0.156 3.96	0.156 3.96	0.180 4.57	—	0.250 6.35	0.330 8.38	0.406 10.31	0.375 9.53	0.688 17.48
14 350	14.000 355.6	0.156 3.96	—	0.188 4.78	0.250 6.35	0.312 7.92	0.375 9.53	0.438 11.13	0.375 9.53	0.750 19.05
16 400	16.000 406.4	0.165 4.19	—	0.188 4.78	0.250 6.35	0.312 7.92	0.375 9.53	0.500 12.70	0.375 9.53	0.844 21.44
18 450	18.000 457.0	0.165 4.19	—	0.188 4.78	0.250 6.35	0.312 7.92	0.438 11.13	0.562 14.27	0.375 9.53	0.938 23.83
20 500	20.000 508.0	0.188 4.78	—	0.218 5.54	0.250 6.35	0.375 9.53	0.500 12.70	0.594 15.09	0.375 9.53	1.031 26.19
24 600	24.000 610.0	0.218 5.54	—	0.250 6.35	0.250 6.35	0.375 9.53	0.562 14.27	0.688 17.48	0.375 9.53	1.219 30.96
26 650	26.000 660.4	—	—	—	0.312 7.92	0.500 12.70	—	—	0.375 9.53	—
28 700	28.000 711.0	—	—	—	0.312 7.92	0.500 12.70	0.625 15.88	—	0.375 9.53	—
30 750	30.000 762.0	0.250 6.35	—	0.312 7.92	0.312 7.92	0.500 12.70	0.625 15.88	—	0.375 9.53	—
32 800	32.000 813.0	—	—	—	0.312 7.92	0.500 12.70	0.625 15.88	0.688 17.48	0.375 9.53	—
36 900	36.000 914.0	—	—	—	0.312 7.92	0.500 12.70	0.625 15.88	0.750 19.05	0.375 9.53	—
42 1050	42.000 1067.0	—	—	—	—	—	—	—	0.375 9.53	—

Pipe Preparation Tool Specifications



WCAS-7A4S3M

For complete contact information, visit www.victaulic.com

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