

VE416FS and VE416FSD Roll Grooving Tools



VE416FSD Shown Above

PARTS ORDERING INFORMATION

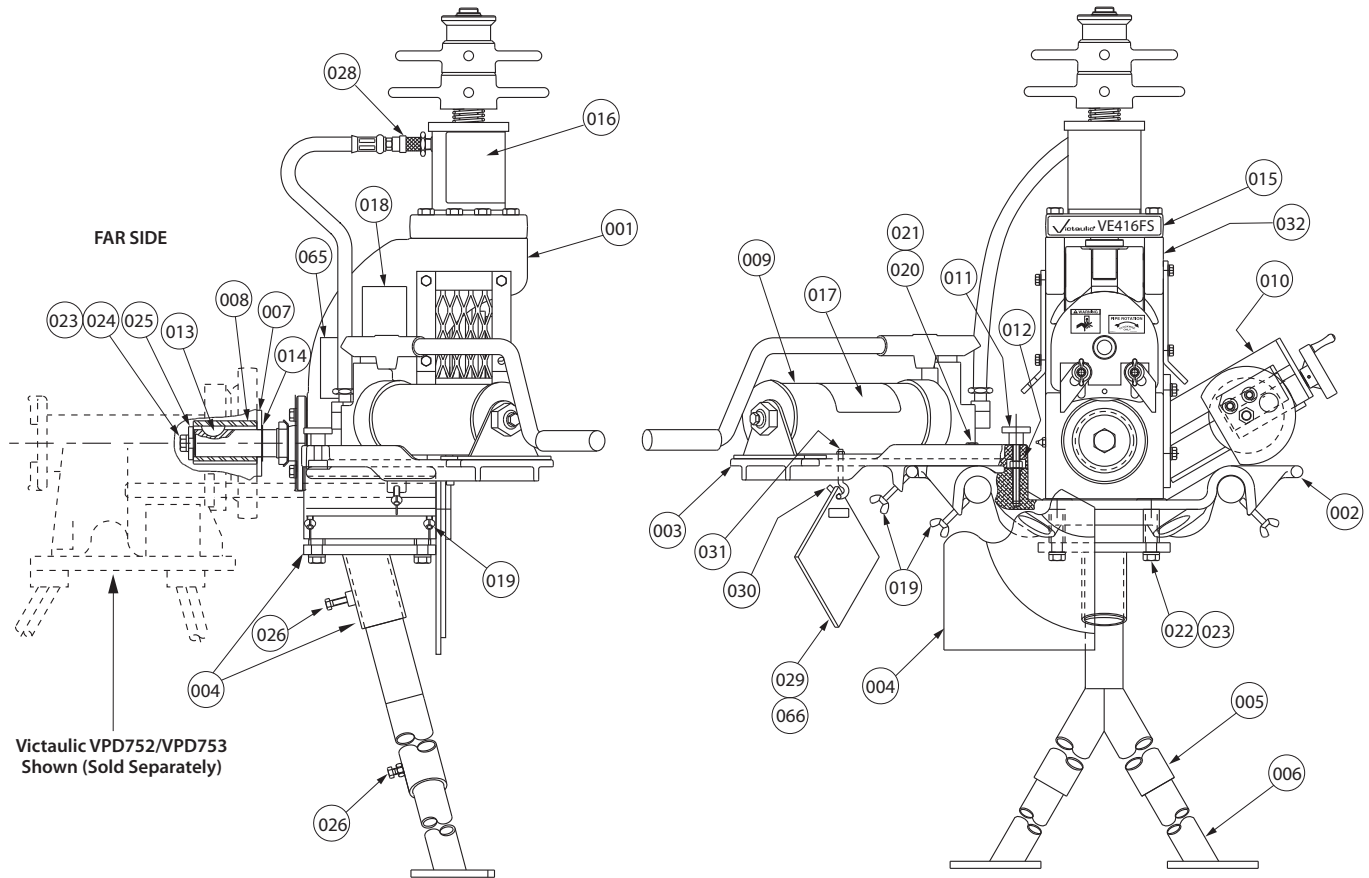
When ordering parts, the following information is necessary for Victaulic to process the order promptly:

1. Tool Model Number – VE416FS or VE416FSD
2. Tool Serial Number – The Serial Number can be found on the side of the tool.
3. Quantity, Item Number, Part Number, Description
4. Where to send the part(s) – Company Name and Address
5. To whose attention to send the part(s)
6. Purchase Order Number

Parts may be ordered from the nearest Victaulic Sales Office listed on the last page.

VE416FS and VE416FSD Roll Grooving Tools

VE416FS MAIN ASSEMBLY



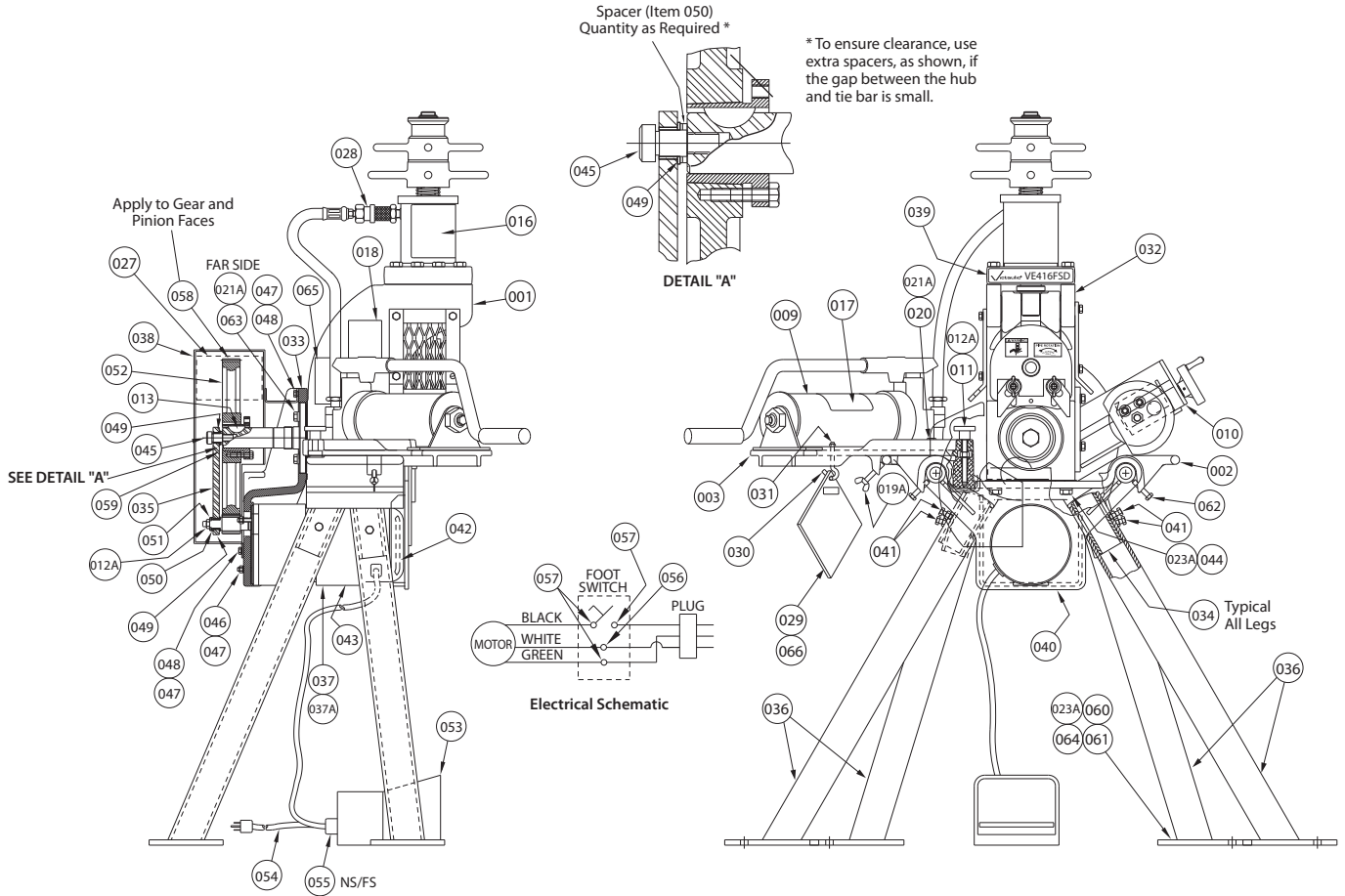
Item#	Part #	Qty.	Description
001	R-100-416-VE0	1	Tool Head Assembly
002	R-001-416-MAC	1	Table
003	R-002-416-MAC	1	Pump Support
004	R-028-416-WLD	1	Guard/Mounting Weldment
005	R-006-272-0FS	1	"Y" Upper Leg Support
006	R-007-272-0FS	2	Leg
007	R-007-416-PLT	1	Drive Lug Flange
008	R-008-416-PLT	1	Drive Lug
009	R-201-261-0FS	1	Hydraulic Hand Pump Assembly
010	R-400-416-VE0	1	Stabilizer Assembly
011	N-M04-000-004	1	Steel Hand Knob
012	N-N05-060-000	1	3/8 - 16 UNC Elastic Locknut, Thin
012A	N-N05-060-000	2	3/8 - 16 UNC Elastic Locknut, Thin
013	N-K01-121-000	1	Woodruff Key
014	N-T54-000-143	1	Retaining Ring
015	R-016-416-LAB	1	Identification Label#
016	R-010-414-LBL	1	Instruction Label#
017	R-062-260-LBL	1	Hydraulic Hand Pump Label#
018	R-009-424-VE0	1	"C" Diameter Label#

Item#	Part #	Qty.	Description
019	R-010-260-0FS	5	Wing Set Screw
019A	R-010-260-0FS	1	Wing Set Screw
020	N-S01-060-012	2	3/8 - 16 UNC x .75 Lg. Hex Head Cap Screw, Pltd.
021	N-W03-060-000	2	3/8 Lockwasher, Pltd.
021A	N-W03-060-000	6	3/8 Lockwasher, Pltd.
022	N-S01-800-400	4	1/2 - 13 UNC x 4.00 Lg. Hex Head Cap Screw, Pltd.
023	N-W03-080-000	5	1/2 Lockwasher, Pltd.
023A	N-W03-080-000	8	1/2 Lockwasher, Pltd.
024	N-S01-080-104	1	1/2 - 13 UNC x 1.25 Lg. Hex Head Cap Screw, Pltd.
025	R-026-416-PLT	1	Drive Lug Retainer
026	N-S01-050-012	3	3/8 - 18 UNC x .75 Lg. Grd. 5 Hex Hd. Cap Screw, Pltd.
027	R-010-416-LAB	1	Standard Pipe Wall Thickness Label#
028	N-H50-000-018	1	Female Connection
029	R-039-272-0FS	1	Guard Setting Pad Assembly
030	N-S40-040-000	1	1/4 - 20 x 2.63 Lg. Hook Bolt
031	N-N01-040-000	1	1/4 - 20 UNC Hex Nut, Pltd.
032	R-070-260-VE0	1	Copper Groove Label#

Refer to pages 8 - 10 for images of product labels

VE416FS and VE416FSD Roll Grooving Tools

VE416FSD MAIN ASSEMBLY



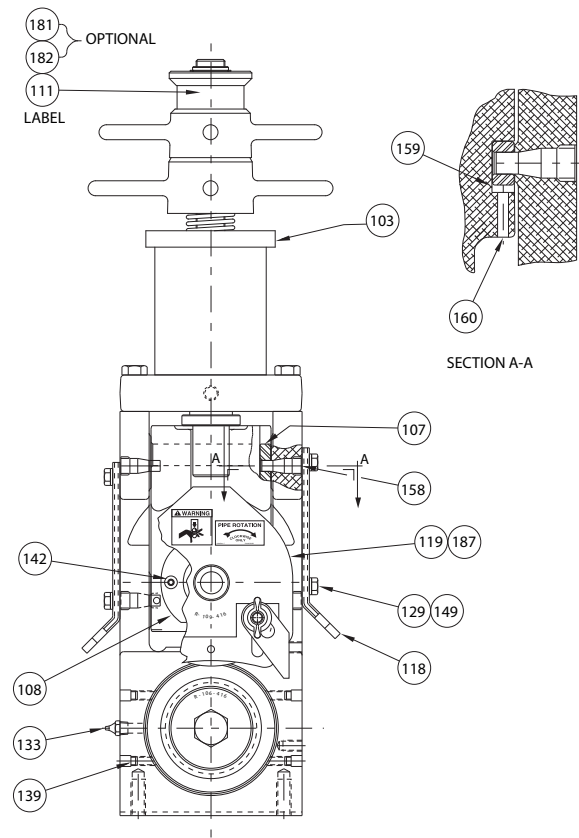
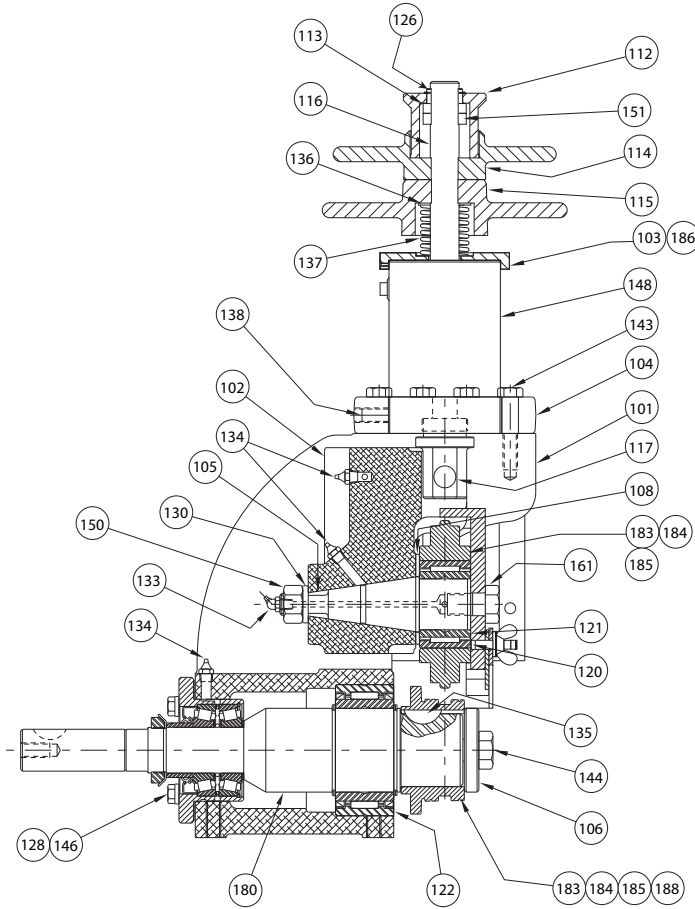
Item#	Part #	Qty.	Description
033	R-012-417-MAC	1	Motor Mounting Bracket
034	R-003-416-PLT	4	Upper Leg
035	R-014-417-PLT	1	Tie Bar
036	R-013-417-PLT	4	Lower Leg
037	R-019-417-FSD	1	Gear Motor, 120VAC, 1 Phase
037A	R-19A-416-FSD	1	Gear Motor, 220VAC, 1 Phase
038	R-015-417-PNT	1	Gear Guard
039	R-021-417-LAB	1	Identification Label#
040	R-023-417-PNT	1	Motor Guard
041	N-502-050-012	4	5/16 - 18 UNC x .75 Lg. Hex Head Cap Screw, Pltd.
042	R-020-417-FSD	1	Gear Motor Filter
043	R-022-417-LAB	1	Gear Motor Label - 120 Volt#
043A	R-22E-416-FSD	1	Gear Motor Label - 220 Volt#
044	N-S01-080-112	4	1/2 - 13 UNC x 1.75 Lg. Hex Head Cap Screw, Pltd.
045	N-S05-100-012	1	.625 x .75 Lg. Shoulder Bolt, Blk. Ox.
046	N-N02-040-000	4	1/4 - 28 UNF Hex Nut, Pltd.
047	N-W03-040-000	8	1/4 Lockwasher, Pltd.
048	N-S01-040-010	4	1/4 - 20 UNC x .63 Lg. Hex Head Cap Screw, Pltd.
049	N-B21-062-001	2	Flange Bushing

Item#	Part #	Qty.	Description
050	N-B22-062-001	1	Thrust Bushing
051	N-B40-048-001	1	Tongued Washer
052	R-037-417-MAC	1	Roll Groover Spur Gear
053	N-E03-000-002	1	Footswitch
054	N-E04-000-011	1	Line Cord (20-foot Length)
055	N-E06-000-001	2	Connector
056	-	1	Wire Nut
057	-	4	Wire Terminal
058	-	As Req.	Lubriplate Gear Shield, Heavy (Spray)
059	N-M38-000-001	1	Bushing
060	N-N01-080-000	4	1/2 - 13 Standard Hex Nut, Pltd.
061	N-W06-080-000	4	1/2 SAE Flat Washer, Pltd.
062	N-S01-050-108	4	5/16 - 18 UNC x 1.50 Lg. Hex Head Cap Screw, Pltd.
063	N-S01-060-104	4	3/8 - 16 UNC x 1.25 Lg. Hex Head Cap Screw, Pltd.
064	N-S01-080-204	4	1/2 - 13 UNC x 2.25 Lg. Grd. 5 Hex Hd. Cap Screw, Pltd.
065	R-011-424-LBL	1	"C" Diameter Label (AGS)#
066	R-077-416-ASY	1	Guard Setting Pad Assembly (AGS)
067	R-207-267-LBL	1	Groove Profile Information Label (Not Shown)#

Refer to pages 8 - 10 for images of product labels

VE416FS and VE416FSD Roll Grooving Tools

VE416FS AND VE416FSD HEAD ASSEMBLY



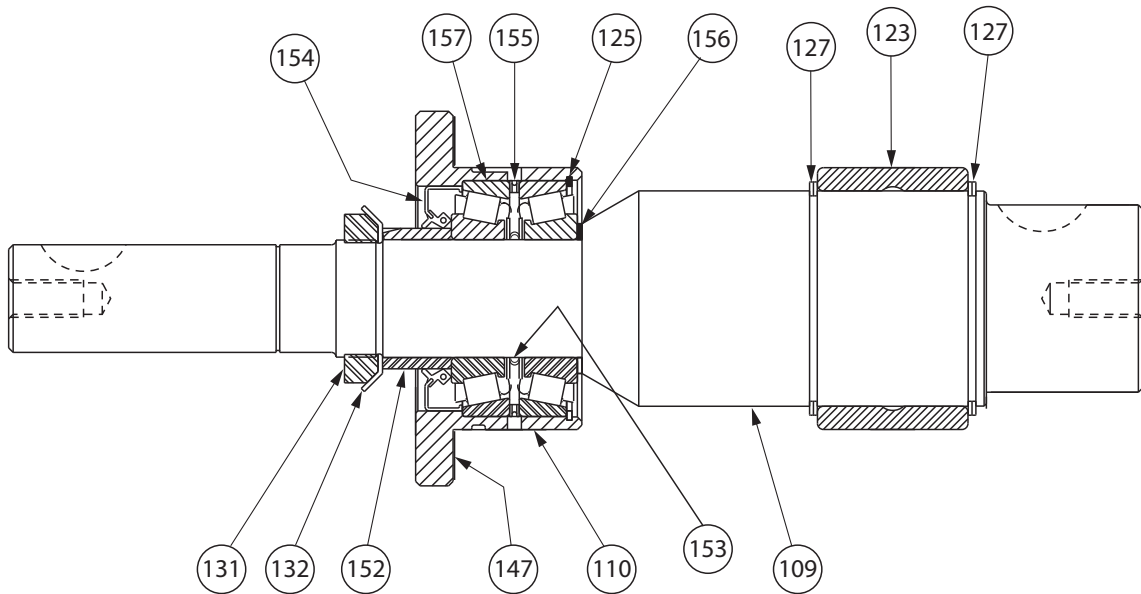
Item#	Part #	Qty.	Description
101	R-601-416-MCH	1	Tool Head Housing
102	R-602-416-MCH	1	Slide
103	R-130-416-PLT	1	Return Spring Seat *
104	R-604-416-MCH	1	Cylinder Mounting Block
105	R-105-416-MAC	1	Upper Shaft
106	R-106-416-MAC	1	Lower Roll Washer
107	R-607-416-MCH	2	Gib
108	R-108-416-MAC	1	Upper Roll Thrust Washer
111	R-111-414-LBL	1	Pipe Size Indicator Label#
112	R-112-416-PLT	1	Depth Adjuster Barrel
113	R-113-416-PLT	1	Depth Calibration Nut
114	R-114-416-PLT	1	Depth Adjuster
115	R-616-414-MCH	1	Depth Adjuster Lock *
116	R-611-414-PLT	1	Cylinder Ram *
117	R-117-416-MAC	1	Ram to Slide Pin
118	R-148-416-PNT	2	Roll Guard
119	R-035-416-0FS	1	Roll Guard Assembly (4 - 16")
120	N-B02-250-001	Ref.	Roller Bearing (Supplied with Upper Roll)
121	N-B04-175-001	1	Bearing Race
122	N-B02-350-001	1	Roller Bearing
126	N-T52-000-125	1	Retaining Ring
128	N-W03-060-000	4	3/8 Lockwasher, Pltd.
129	N-W03-050-000	6	5/16 Lockwasher, Pltd.
130	N-W03-120-000	1	3/4 Lockwasher, Pltd.
133	N-M01-000-001	2	Lubrication Fitting
134	N-M01-000-002	3	Lubrication Fitting
135	N-K01-080-900	1	Woodruff Key
136	R-615-414-PNT	1	Spring Washer *

Item#	Part #	Qty.	Description
137	N-M03-000-006	1	Compression Spring *
138	N-S80-080-100	1	1/2 - 13 UNC x 1.00 Lg. Brass Tip Set Screw
139	N-S81-050-012	4	5/16 - 18 UNC x .75 Lg. Cup Point Set Screw
142	N-S09-010-008	2	10 - 24 UNC x .50 Lg. Flat Head Socket Cap Screw, Blk. Ox.
143	N-S01-080-204	8	1/2 - 13 UNC x 2.25 Lg. Grd. 5 Hex Hd. Cap Screw, Pltd.
144	N-S02-120-104	1	3/4 - 10 UNC x 1.25 Lg. Grd. 8 Hex Hd. Cap Screw, Pltd.
145	N-M02-000-001	As Req.	Lubriplate
146	N-S01-060-104	4	3/8 - 16 UNC x 1.25 Lg. Hex Hd. Cap Screw, Pltd.
148	R-162-416-VE0	1	Cylinder
149	N-S01-050-012	6	5/16 - 18 UNC x .75 Lg. Hex Head Cap Screw, Pltd.
150	N-N01-120-000	1	3/4 - 10 UNC Hex Nut, Pltd.
151	R-151-416-PLT	1	Depth Calibration Locknut
158	R-658-416-MCH	4	Gib Screw
159	R-159-416-MAC	2	Gib Wear Plate
160	N-P01-003-100	4	.187 Dia. x 1.00 Lg. Roll Pin
161	R-030-272-0FS	1	Upper Roll Guard Cover Screw
180	R-180-416-VE0	1	Main Shaft Assembly
181	R-181-414-LBL	1	JIS and British Pipe Size Indicator Label#
182	R-182-414-LBL	1	DIN Pipe Size Indicator Label#
183	R-902-416-003	1	Standard Roll Set (2 - 3 1/2")
184	R-904-416-006	1	Standard Roll Set (4 - 6")
185	R-908-416-012	1	Standard Roll Set (8 - 12")
186	N-S81-006-006	3	#6 - 32 UNC x .38 Lg. Cup Point Set Screw *
187	R-W01-416-ASY	1	Upper Roll Assembly (AGS)
188	R-W01-416-L16	1	Lower Roll Assembly (AGS)

* Items noted with an asterisk are new components installed on VE416FS/VE416FSD tools as of January 2005.
Refer to pages 8 - 10 for images of product labels

VE416FS and VE416FSD Roll Grooving Tools

VE416FS AND VE416FSD MAIN SHAFT



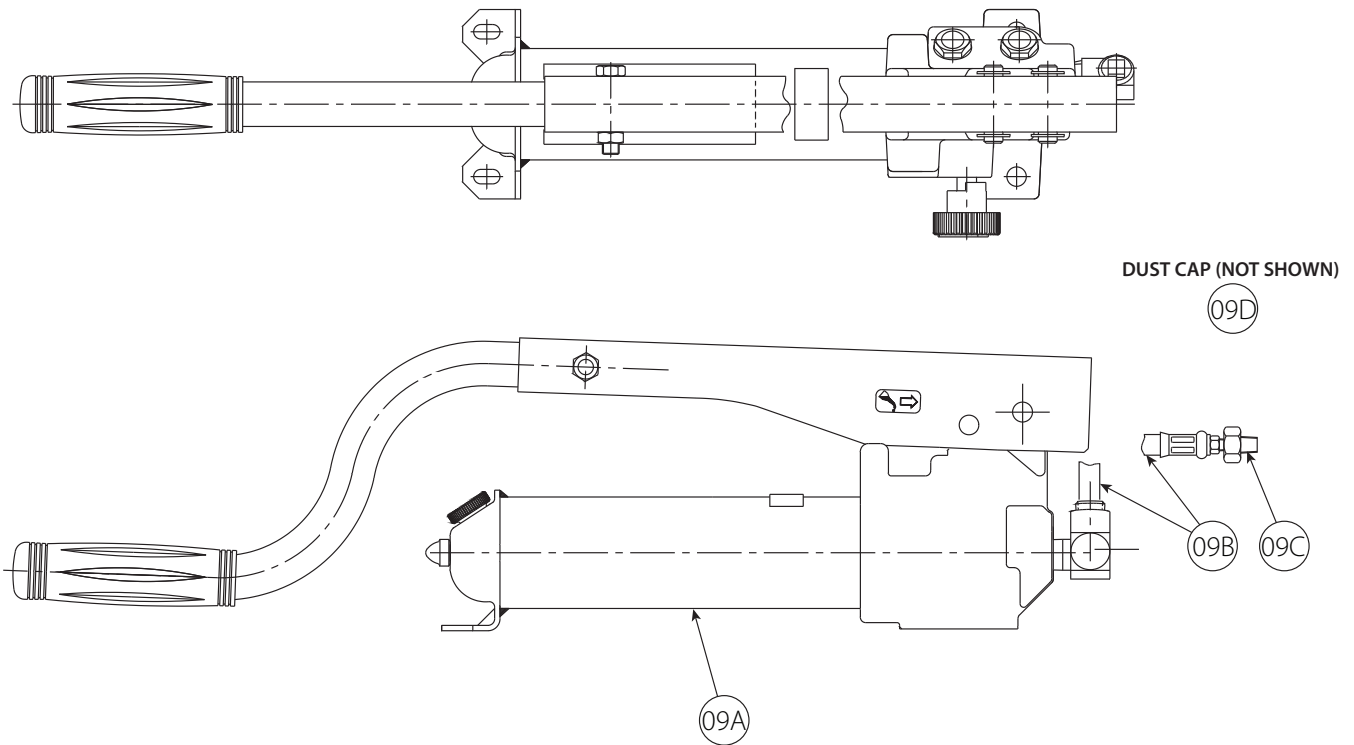
Item#	Part #	Qty.	Description
109	R-103-416-MAC	1	Main Shaft
110	R-110-416-MAC	1	Rear Bearing Housing
123	N-B04-287-001	1	Bearing Race
125	N-T53-000-314	1	Retaining Ring
127	N-T56-000-287	2	Retaining Ring
131	N-B63-000-008	1	Locknut
132	N-B61-000-108	1	Lockwasher
147**	N-B70-000-006	1	.020 Shim
	N-B70-000-005	1	.007 Shim
	N-B70-000-004	1	.005 Shim

Item#	Part #	Qty.	Description
152	R-152-416-MAC	1	Spacer
153	N-M41-000-001	1	Adjustable Spacer
154	N-M27-000-004	1	Oil Seal
155	R-155-416-MAC	1	Bearing Spacer
156	R-156-416-MAC	1	Main Shaft Spacer
157	N-B09-157-001	2	Tapered Roller Bearing

** Quantity of shims will vary depending on each unit.

VE416FS and VE416FSD Roll Grooving Tools

VE416FS AND VE416FSD HYDRAULIC HAND PUMP ASSEMBLY

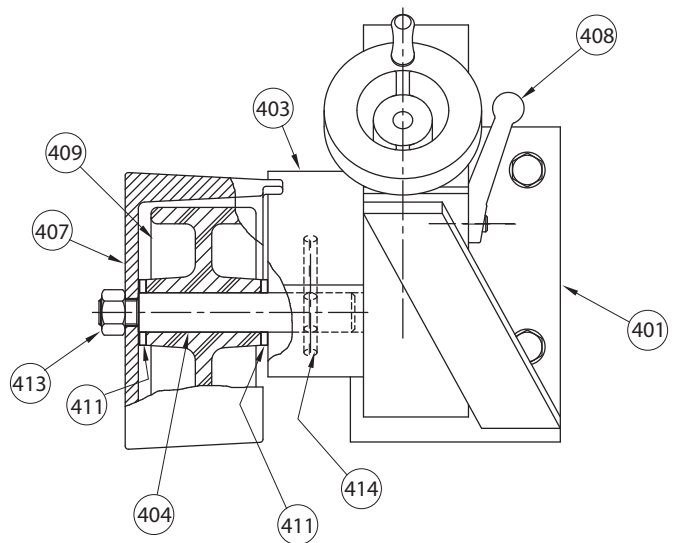
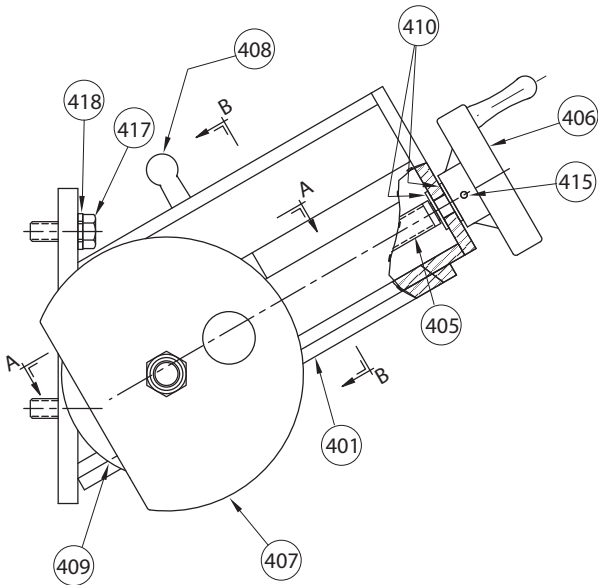
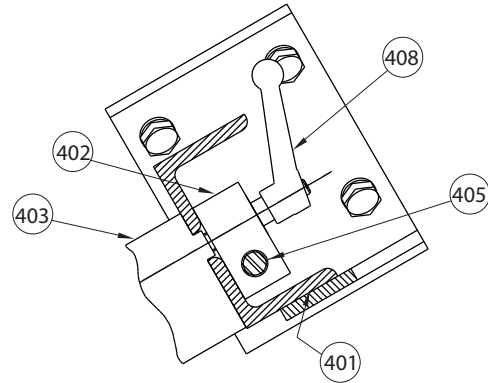
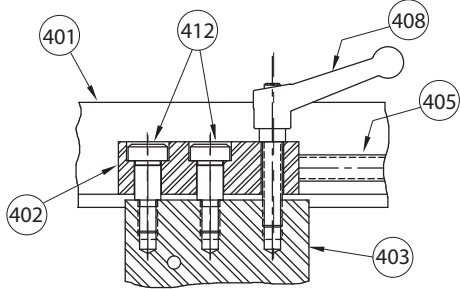


Item#	Part #	Qty.	Description
09A	R-201-261-0FS	1	Hand Pump
09B	N-H02-006-002	1	Hydraulic Hose (25-inch Length with 3/8 NPT Ends)

Item#	Part #	Qty.	Description
09C	N-H50-000-017	1	Male Hose Half Coupler
09D	N-H50-000-015	2	Dust Cap

VE416FS and VE416FSD Roll Grooving Tools

VE416FS AND VE416FSD STABILIZER ASSEMBLY




Item#	Part #	Qty.	Description
401	R-401-416-PNT	1	Stabilizer Body
402	R-402-416-PLT	1	Stabilizer Guide Nut
403	R-403-416-PLT	1	Stabilizer Guide
404	R-404-416-MAC	1	Stabilizer Roller Shaft
405	R-405-416-MAC	1	Stabilizer Adjusting Screw
406	R-406-416-MAC	1	Stabilizer Hand Wheel
407	R-407-416-PNT	1	Stabilizer Wheel Guard
408	N-M04-000-002	1	Stabilizer Locking Handle Assembly
409	N-M05-000-004	1	4 Dia. x 2 Polyurethane Wheel

Item#	Part #	Qty.	Description
410	N-B05-037-002	2	Thrust Washer
411	N-B05-075-004	2	Thrust Washer
412	N-S05-080-012	2	.50 Dia. x .75 Lg. Socket Hd. Shoulder Bolt, Blk. Ox.
413	N-N02-080-000	1	½ - 20 UNF Hex Nut, Pltd.
414	N-P01-004-208	1	.25 Dia x 2.50 Lg. Roll Pin
415	N-P01-002-102	1	.125 Dia. x 1.125 Lg. Roll Pin
417	N-S02-060-100	4	¾ - 16 x 1.00 Lg. Hex Head Cap Screw, Pltd.
418	N-W03-060-000	4	¾ Lockwasher, Pltd.

VE416FS and VE416FSD Roll Grooving Tools

IMAGES OF THE LABELS ON PAGES 8 - 10 ARE NOT TO SCALE.


R-010-414-LBL



← INCREASE DECREASE →

GROOVE DIAMETER

⚠ WARNING




Grooving rolls can crush or cut fingers and hands.

- Always disconnect the tool from the power source or switch tool off before making any tool adjustments.
- Make sure the guard is adjusted properly before grooving pipe.
- Loading/unloading pipe will place your hands close to the rollers. Keep hands away from the grooving rolls and the roller on the pipe stabilizer during operation.

- Never reach inside the pipe ends or across the tool or pipe during operation.
- Always groove pipe in a **CLOCKWISE** direction.
- Never groove pipe that is shorter than the recommended lengths listed in the operating and maintenance manual.
- Never wear loose clothing, loose gloves, or anything that can become entangled in moving parts.

⚠ WARNING



Failure to follow instructions and warnings could result in serious personal injury.

- Before operating or servicing this tool, read all instructions in the operating and maintenance manual and all labels on the tool.
- Wear safety glasses, hardhat, foot protection, and hearing protection.

If you have questions concerning the safe and proper operation of this tool, contact Victaulic, P.O. Box 31, Easton, PA 18044-0031, Phone: 1-800-PICK VIC, E-Mail: pickvic@victaulic.com.

2271 Rev. C R010414LBL

R-111-414-LBL

<p>COPPER</p> <p>2^{DW} 2M, 3-4^{DW} 2½-3M 5-6^{DW} 4M 5-6M 8M-8^{DW}</p>	<p>SCH. 5S</p> <p>4 5-8 10-12</p>	<p>SCH. 10S</p> <p>2-3½ 4 5-8 10-12</p>	<p>SCH. 40</p> <p>2½-3½ 2 4-6 8 10-12 10</p>	<p>STD.</p> <p>4-6 8 10-12</p>	<p>SCH. 80 PVC</p> <p>2 2½ 3-3½ 4 5 6</p>	<p>AGS™ C.S.</p> <p>14" - 16" 355,6mm - 406,4mm 5,6mm Sch. 10/6,3mm Sch. 20/8,0mm 8,8mm STD. WT./9,5mm</p>	<p>AGS™ S.S.</p> <p>14" - 16" 355,6mm - 406,4mm Sch. 5S Sch. 10S Sch. 10</p>	<p>COPPER</p> <p>2L 2K 2½ L-K, 3L 3K-4L 4K, 5-6L 5K 6K 8L 8K</p>
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4932 Rev. G R111414LBL

R-181-414-LBL

<p>BRITISH MEDIUM</p> <p>60.8x3.65 89.5x4.05 114.9x4.5</p>	<p>BRITISH HEAVY</p> <p>60.8x4.5 89.5x4.85 139.7x5.0 165.1x5.0</p>	<p>JIS</p> <p>114.3x4.9 139.8x5.1 165.2x5.0 165.2x5.5 216.3x5.8</p>	<p>76.3x4.5 89.1x4.2 114.3x4.5 139.8x4.5</p> <p>76.3x4.5 89.1x4.5 216.3x6.4 267.4x6.4 267.4x6.6 318.5x6.9</p> <p>318.5x6.4 355.6x7.9 406.4x7.9</p>
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4933 Rev. C R181414LBL

R-182-414-LBL

<p>DIN 2448</p> <p>60.3 X 2.9 88.9 X 3.2 114.3 X 3.6</p> <p>76.1 X 2.9 139.7 X 4.0 406.4 X 8.8</p> <p>219.1 X 6.3 273.0 X 6.3 355.6 X 8.0</p> <p>168.3 X 4.5 323.9 X 7.1</p>	<p>DIN 2458</p> <p>60.3 X 2.3 76.1 X 2.6 88.9 X 2.9</p> <p>114.3 X 3.2 219.1 X 4.5</p> <p>139.7 X 3.6 273.0 X 5.0 323.9 X 5.6 355.6 X 5.6</p> <p>168.3 X 4.0 406.4 X 6.3</p>	<p>DIN 1.4571</p> <p>60.3 X 2.0 76.1 X 2.0 88.9 X 2.0</p> <p>108.0 X 2.0 114.3 X 2.0</p> <p>133.0 X 3.0 139.7 X 3.0 159.0 X 3.0 168.3 X 3.0 219.1 X 4.0</p>
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4934 Rev. D R182414LBL

VE416FS and VE416FSD Roll Grooving Tools

R-009-424-LBL

ROLL GROOVE DIAMETER SPECIFICATION

SIZE	O.D.		Ø "C"	
	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM
3/4 [26.9]	1.060 [26.9]	1.040 [26.4]	.938 [23.8]	.923 [23.4]
1 [33.7]	1.328 [33.7]	1.302 [33.1]	1.190 [30.2]	1.175 [29.9]
1 1/4 [42.4]	1.676 [42.6]	1.644 [41.8]	1.535 [39.0]	1.520 [38.6]
1 1/2 [48.3]	1.919 [48.7]	1.881 [47.8]	1.775 [45.1]	1.760 [44.7]
2 [60.3]	2.399 [60.9]	2.351 [59.7]	2.250 [57.2]	2.235 [56.8]
2 1/2 [73]	2.904 [73.8]	2.846 [72.3]	2.720 [69.1]	2.702 [68.6]
3 [88.9]	3.535 [89.8]	3.469 [88.1]	3.344 [84.9]	3.326 [84.5]
3 1/2 [101.6]	4.040 [102.6]	3.969 [100.8]	3.834 [97.4]	3.814 [96.9]
4 [114.3]	4.545 [115.4]	4.469 [113.5]	4.334 [110.1]	4.314 [109.6]
4 1/2 [127]	5.050 [128.3]	4.969 [126.2]	4.834 [122.8]	4.814 [122.3]
5 [141.3]	5.619 [142.7]	5.532 [140.5]	5.395 [137.0]	5.373 [136.5]
6 [168.3]	6.688 [169.9]	6.594 [167.5]	6.455 [164.0]	6.433 [163.4]
8 [219.1]	8.688 [220.7]	8.594 [218.3]	8.441 [214.4]	8.416 [213.8]
10 [273]	10.663 [273.6]	10.569 [271.2]	10.416 [267.3]	10.391 [266.7]
12 [323.9]	12.813 [325.5]	12.719 [323.1]	12.561 [319.2]	12.536 [318.6]
14 O.D. [355.6]	14.063 [357.2]	13.969 [354.8]	13.811 [350.3]	13.786 [349.7]
15 O.D. [382.6]	15.063 [382.6]	14.969 [380.2]	14.811 [375.7]	14.786 [375.1]
16 O.D. [406.4]	16.063 [406.4]	15.969 [404.0]	15.811 [400.1]	15.786 [399.5]
18 O.D. [457]	18.063 [458.8]	17.969 [456.4]	17.811 [451.6]	17.786 [451.0]
20 O.D. [508]	20.063 [509.6]	19.969 [507.2]	19.811 [502.4]	19.786 [501.8]
22 O.D. [559]	22.063 [560.4]	21.969 [558.0]	21.811 [553.2]	21.786 [552.6]
24 O.D. [610]	24.063 [611.2]	23.969 [608.8]	23.811 [603.6]	23.786 [603.0]
26 O.D. [660]	26.093 [662.8]	25.969 [659.6]	25.811 [654.4]	25.786 [653.8]
28 O.D. [711]	28.093 [713.6]	27.969 [710.4]	27.811 [705.2]	27.786 [704.6]
30 O.D. [762]	30.093 [764.4]	29.969 [761.2]	29.811 [756.0]	29.786 [755.4]
32 O.D. [813]	32.093 [815.2]	31.969 [812.0]	31.811 [806.8]	31.786 [806.2]
36 O.D. [914]	36.093 [916.8]	35.969 [913.6]	35.811 [908.4]	35.786 [907.8]
42 O.D. [1067]	42.093 [1069.2]	41.969 [1066.0]	41.811 [1060.8]	41.786 [1060.2]
48 O.D. [1219]	48.093 [1221.6]	47.969 [1218.4]	47.811 [1212.8]	47.786 [1212.2]

R-070-260-VEO

COPPER ROLL GROOVE DIAMETER SPECIFICATION

SIZE	O.D.		Ø "C"	
	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM
2 [54.0]	2.127 [54.0]	2.123 [53.9]	2.029 [51.5]	2.009 [51.0]
2 1/2 [66.7]	2.627 [66.7]	2.623 [66.6]	2.525 [64.1]	2.505 [63.6]
3 [79.4]	3.127 [79.4]	3.123 [79.3]	3.025 [76.8]	3.005 [76.3]
4 [104.8]	4.127 [104.8]	4.123 [104.7]	4.019 [102.1]	3.999 [101.6]
5 [130.2]	5.127 [130.2]	5.123 [130.1]	4.999 [127.0]	4.979 [126.5]
6 [155.6]	6.127 [155.6]	6.123 [155.5]	5.999 [152.3]	5.979 [151.9]
8 [206.4]	8.127 [206.4]	8.121 [206.3]	7.959 [202.2]	7.939 [201.7]

-IMPORTANT-

USE ONLY VICTAULIC GROOVING ROLLS DESIGNED FOR COPPER TUBING (COLOR CODED COPPER)

GROOVE COPPER TUBING AT A MODERATE RATE BY UNIFORMLY FORMING GROOVES IN 5 TO 10 TUBE ROTATIONS. FORMING GROOVES AT FASTER RATES CAN RESULT IN POOR GROOVE SHARPNESS AND JOINT FAILURE.

R-207-264-LBL

Pipe and groove features, noted below, must be measured to verify they are within current Victaulic specifications. Victaulic submittal publications can be downloaded at www.victaulic.com.

OD= Average Pipe Outside Diameter
 T = Pipe Wall Thickness
 A = Distance from Pipe End to Groove
 B = Groove Width
 C = Average Diameter at Base of Groove
 D = Groove Depth
 F = Pipe-End Flare

R-062-260-LBL

HYDRAULIC OIL FILL
 Refer to operating instructions for checking and filling procedures

VIC-EASY® ROLL GROOVING TOOL
 HYDRAULIC HAND PUMP


R-011-424-LBL

Victaulic AGS™
 ROLL GROOVE DIAMETER SPECIFICATION

SIZE	O.D.		Ø "C"	
	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM
14 [355.6]	14.094 [358.0]	13.969 [354.8]	13.500 [342.9]	13.455 [341.8]
16 [406.4]	16.094 [408.8]	15.969 [405.6]	15.500 [393.7]	15.455 [392.6]
18 [457]	18.094 [459.6]	17.969 [456.4]	17.500 [444.5]	17.455 [443.4]
20 [508]	20.094 [510.4]	19.969 [507.2]	19.500 [495.3]	19.455 [494.2]
22 [559]	22.094 [561.2]	21.969 [558.0]	21.500 [546.1]	21.455 [545.0]
24 [610]	24.094 [612.0]	23.969 [608.8]	23.500 [596.9]	23.455 [595.8]
26 [660]	26.094 [662.8]	25.969 [659.6]	25.430 [645.9]	25.370 [644.4]
28 [711]	28.094 [713.6]	27.969 [710.4]	27.430 [696.7]	27.370 [695.2]
30 [762]	30.094 [764.4]	29.969 [761.2]	29.430 [747.5]	29.370 [746.0]
32 [813]	32.094 [815.2]	31.969 [812.0]	31.430 [798.3]	31.370 [796.8]
36 [914]	36.094 [916.8]	35.969 [913.6]	35.430 [899.9]	35.370 [898.4]
38 [965.2]	38.094 [967.6]	37.969 [964.4]	37.430 [950.7]	37.370 [949.2]
40 [1016.0]	40.094 [1018.4]	39.969 [1015.2]	39.375 [1000.1]	39.315 [998.6]
42 [1067.0]	42.094 [1069.2]	41.969 [1066.0]	41.375 [1050.9]	41.315 [1049.4]
44 [1117.6]	44.094 [1120.0]	43.969 [1116.8]	43.375 [1101.7]	43.315 [1100.2]
46 [1168.4]	46.094 [1170.8]	45.969 [1167.6]	45.375 [1152.5]	45.315 [1151.0]
48 [1219.0]	48.094 [1221.6]	47.969 [1218.4]	47.375 [1203.3]	47.315 [1201.8]
52 [1320.8]	52.094 [1323.2]	51.969 [1320.0]	51.375 [1304.9]	51.315 [1303.4]
54 [1372.0]	54.094 [1374.0]	53.969 [1370.8]	53.375 [1355.7]	53.315 [1354.2]
56 [1422.0]	56.094 [1424.8]	55.969 [1421.6]	55.375 [1406.5]	55.315 [1404.0]
60 [1524.0]	60.094 [1526.4]	59.969 [1523.2]	59.375 [1508.1]	59.315 [1506.6]
72 [1828.8]	72.094 [1831.2]	71.969 [1828.0]	71.375 [1812.9]	71.315 [1811.4]

VE416FS and VE416FSD Roll Grooving Tools

R-010-416-LAB

 STANDARD PIPE WALL THICKNESS																			
PIPE SIZE	O.D.	SCHEDULE								PIPE SIZE	O.D.	SCHEDULE							
		5	10	20	30	40	STD	80	XStrg.			5	10	20	30	40	STD	80	XStrg.
¾	1.050	.065	.083	-	-	.113	.113	.154	.154	26	26.000	-	.312	.500	-	-	.375	-	.500
1	1.315	.065	.109	-	-	.133	.133	.179	.179	28	28.000	-	.312	.500	.625	-	.375	-	.500
1¼	1.660	.065	.109	-	-	.140	.140	.191	.191	30	30.000	-	.312	.500	.625	-	.375	-	.500
1½	1.900	.065	.109	-	-	.145	.145	.200	.200	32	32.000	-	.312	.500	.625	.688	.375	-	.500
2	2.375	.065	.109	-	-	.154	.154	.218	.218	36	36.000	-	.312	.500	.625	.750	.375	-	.500
2½	2.875	.083	.120	-	-	.203	.203	.267	.276	38	38.000	-	-	-	-	-	.375	-	.500
3	3.500	.083	.120	-	-	.216	.216	.300	.300	40	40.000	-	-	-	-	-	.375	-	.500
3½	4.000	.083	.120	-	-	.226	.226	.318	.318	42	42.000	-	-	-	-	-	.375	-	.500
4	4.500	.083	.120	-	-	.237	.237	.337	.337	44	44.000	-	-	-	-	-	.375	-	.500
5	5.563	.109	.134	-	-	.258	.258	.375	.375	46	46.000	-	-	-	-	-	.375	-	.500
6	6.625	.109	.134	-	-	.280	.280	.432	.432	48	48.000	-	-	-	-	-	.375	-	.500
8	8.625	.109	.148	.250	.277	.322	.322	.500	.500	52	52.000	-	-	-	-	-	.375	-	.500
10	10.750	.134	.165	.250	.307	.365	.365	.593	.500	54	54.000	-	-	-	-	-	.375	-	.500
12	12.750	.165	.180	.250	.330	.406	.375	.687	.500	56	56.000	-	-	-	-	-	.375	-	.500
14	14.000	-	.250	.312	.375	.437	.375	.750	.500	60	60.000	-	-	-	-	-	.375	-	.500
16	16.000	-	.250	.312	.375	.500	.375	.843	.500	64	64.000	-	-	-	-	-	.375	-	.500
18	18.000	-	.250	.312	.437	.562	.375	.937	.500	68	68.000	-	-	-	-	-	.375	-	.500
20	20.000	-	.250	.375	.500	.593	.375	1.031	.500	72	72.000	-	-	-	-	-	.375	-	.500
24	24.000	-	.250	.375	.562	.687	.375	1.281	.500	4920 Rev. D								R010416LAB	

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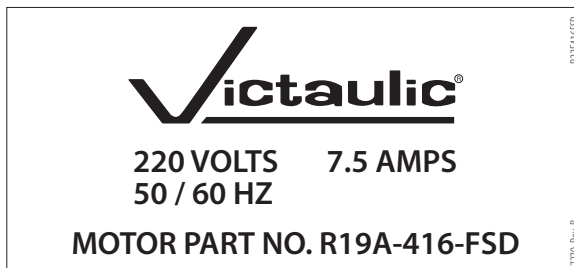
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R-022-417-LAB



R-22E-416-FSD



VE416FS and VE416FSD Roll Grooving Tools

For complete contact information, visit www.victaulic.com

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