

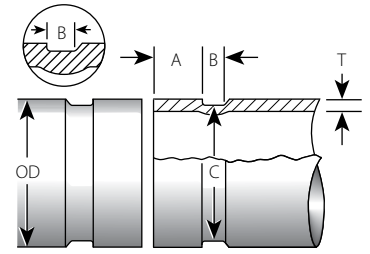
AGS (Advanced Groove System) Roll Groove Specifications

Roll grooving removes no metal, cold forming a groove by the action of an upper male roll being forced into pipe as it is rotated by a lower female drive roll.

IMPORTANT – Depending on pipe material strength and hardness, AGS grooves produce pipe growth that typically is 1/8"/3.2 mm per AGS groove. This typical growth may vary and should be estimated based on your specific material conditions. For a pipe length with an AGS roll groove at each end, the pipe length will grow approximately 1/4" (0.250"/6.4 mm) total. Therefore, the cut length should be adjusted to accommodate this growth. **EXAMPLE:** If you need a 24"/610 mm length of pipe that will contain an AGS roll groove at each end, cut the pipe to a length of approximately 23 3/4"/603 mm to allow for this growth.

NOTE: Coatings applied to the interior surfaces, including bolt pad mating surfaces, of our grooved end couplings should not exceed 0.010"/0.25 mm. Also, the coating thickness applied to the gasket seating surface and within the groove on the pipe exterior should not exceed 0.010"/0.25 mm.

NOTE: AGS roll sets for use on both lightwall and standard wall carbon steel pipe, as well as standard wall stainless steel pipe, are distinguished by a black appearance with a yellow band. AGS roll sets for standard wall only are distinguished by a black appearance with an orange band. AGS roll sets for light wall stainless steel are distinguished by a silver appearance with a black band.



Exaggerated for Clarity

WARNING

- Do not use non-AGS couplings on pipe grooved to the dimensions shown on this page.



WARNING

WARNING

- Victaulic AGS products use a patent-pending groove profile that requires the use of special AGS rolls. AGS products must not be used on pipe that has been grooved using standard grooving rolls.
- Failure to use AGS products on AGS grooved pipe could result in serious personal injury, property damage, joint leakage or joint separation.

JOB/OWNER

System No. _____
Location _____

CONTRACTOR

Submitted By _____
Date _____

ENGINEER

Spec Sect _____ Para _____
Approved _____
Date _____

AGS (Advanced Groove System) Roll Groove Specifications

**AGS (ADVANCED GROOVE SYSTEM)
ROLL GROOVE SPECIFICATIONS –
CARBON STEEL AND STAINLESS STEEL**

1	2		3			4	5	6	7		8
Nominal Pipe Size Inches mm	Dimensions – Inches/millimeters										
	Pipe Outside Diameter O.D. Carbon Steel and Stainless Steel		Min. Nominal Wall Thickness – T			Maximum Nominal Wall Thickness – T Extra Heavy Wall * Carbon Steel	Gasket Seat - A +0.031/-0.063 +0.79/-1.60	Grv. Width - B (Ref.)	Groove Dia. – C		Max. Allow. Flare Dia.
	Maximum	Minimum	Standard Wall *	Light Wall Carbon Steel †	Light Wall Stainless Steel Sch. 10S ‡				Maximum	Minimum	
14	14.094	23.969	0.375	0.220	0.188	0.500	1.500	0.455	13.500	13.455	14.23
355.6	358.0	354.8	9.5	5.6	4.8	12.7	38.1	11.6	342.9	341.8	361.4
16	16.094	15.969	0.375	0.250	0.188	0.500	1.500	0.455	15.500	15.455	16.23
406.4	408.8	405.6	9.5	6.3	4.8	12.7	38.1	11.6	393.7	392.6	412.2
18	18.094	17.969	0.375	0.250	0.188	0.500	1.500	0.455	17.500	17.455	18.23
457.0	459.6	456.4	9.5	6.3	4.8	12.7	38.1	11.6	444.5	443.4	463.0
20	20.094	19.969	0.375	0.250	0.188	0.500	1.500	0.455	19.500	19.455	20.23
508.0	510.4	507.2	9.5	6.3	4.8	12.7	38.1	11.6	495.3	494.2	513.8
24	24.094	23.969	0.375	0.250	0.188	0.500	1.500	0.455	23.500	23.455	24.23
610.0	612.0	608.8	9.5	6.3	4.8	12.7	38.1	11.6	596.9	595.8	615.4
26	26.094	25.969	0.375	–	–	0.500	1.750	0.535	25.430	25.370	26.30
660.0	662.8	659.6	9.5	–	–	12.7	44.5	13.6	645.9	644.4	668.0
28	28.094	27.969	0.375	–	–	0.500	1.750	0.535	27.430	27.370	28.30
711.0	713.6	710.4	9.5	–	–	12.7	44.5	13.6	696.7	695.2	718.8
30	30.094	29.969	0.375	–	–	0.500	1.750	0.535	29.430	29.370	30.30
762.0	764.4	761.2	9.5	–	–	12.7	44.5	13.6	747.5	746.0	769.6
32	32.094	31.969	0.375	–	–	0.500	1.750	0.535	31.430	31.370	32.30
813.0	815.2	812.0	9.5	–	–	12.7	44.5	13.6	798.3	796.8	820.4
36	36.094	35.969	0.375	–	–	0.500	1.750	0.535	35.430	35.370	36.30
914.0	916.8	913.6	9.5	–	–	12.7	44.5	13.6	899.9	898.4	922.0
40	40.094	39.969	0.375	–	–	0.500	2.00	0.562	39.375	39.315	40.30
1016.0	1018.4	1015.2	9.5	–	–	12.7	50.8	14.3	1000.1	998.6	1023.6
42	42.094	41.969	0.375	–	–	0.500	2.00	0.562	41.375	41.315	42.30
1067.0	1069.2	1066.0	9.5	–	–	12.7	50.8	14.3	1050.9	1049.4	1074.4
46	46.094	45.969	0.375	–	–	0.500	2.00	0.562	45.375	45.315	46.30
1168.0	1170.8	1167.6	9.5	–	–	12.7	50.8	14.3	1152.5	1151.0	1176.0
48	48.094	47.969	0.375	–	–	0.500	2.00	0.562	47.375	47.315	48.30
1219.0	1221.6	1218.4	9.5	–	–	12.7	50.8	14.3	1203.3	1201.8	1226.8
54	54.094	53.969	0.375	–	–	0.500	2.500	0.562	53.500	53.400	54.30
1372.0	1374.0	1370.8	9.5	–	–	12.7	63.5	14.3	1358.9	1357.4	1379.2
56	56.094	55.969	0.375	–	–	0.500	2.500	0.562	55.500	55.440	56.30
1422.0	1424.8	1421.6	9.5	–	–	12.7	63.5	14.3	1409.7	1408.2	1430.0
60	60.094	59.969	0.375	–	–	0.500	2.500	0.562	59.500	59.440	60.30
1524.0	1526.4	1523.2	9.5	–	–	12.7	63.5	14.3	1511.3	1509.8	1531.6

* Must use orange RW or yellow RW striped AGS grooving rolls.

† Must use yellow RW striped AGS grooving rolls only.

‡ Must use silver RWX rolls with black identifying band.

COLUMN 1: **Nominal NPS Pipe size** (ANSI B36.10); **Basic Metric pipe size** (ISO 4200)

COLUMN 2: **Outside Diameter.** The average outside diameter of roll grooved pipe shall not vary more than the limits listed (API 5L end tolerance). Maximum allowable pipe ovality should not vary by more than 1%. The maximum allowable tolerance from square cut ends is 0.063 /1.6mm measured from a true square line.

COLUMN 3: **Minimum nominal wall thickness.** This is the minimum nominal wall thickness which may be roll grooved.

COLUMN 4: **Maximum nominal wall thickness.** This is the maximum nominal wall thickness which may be roll grooved. Carbon steel pipe must meet ASTM A53 or equivalent and have a Brinnell hardness of 150 or less. Pipe must be roll grooved using a VE436 Victaulic roll grooving tool with orange RW or yellow RW striped AGS grooving rolls.

COLUMN 5: **Gasket Seat.** The pipe surface shall be free from indentations, roll marks, and projections from the end of the pipe to the groove, to provide a leaktight seat for the gasket. All loose paint, scale, dirt, chips, grease, and rust must be removed. Beveled steel pipe may be used and needs to meet ASTM A53 and/or API 5L (30° +5°/-0°). Gasket seat A is measured from the end of the pipe.

COLUMN 6: **Groove width.** Bottom of groove must be free of loose dirt, chips, rust and scale that may interfere with proper coupling assembly. Corners at bottom of groove must be radiused R .09 (R 2.3). Only Victaulic roll grooving tools may be used to groove pipe. Groove width and corner radii will be attained with properly maintained Victaulic tools.

COLUMN 7: **Groove Diameter.** The groove must be of uniform depth for the entire pipe circumference. Average groove diameter must be maintained within the C diameter limits listed. All standard weight carbon steel and standard weight stainless steel pipe shall be prepared with Victaulic RW rolls, with either an orange or yellow identifying band. Light wall carbon steel pipe shall be prepared with RW rolls with a yellow identifying band. Schedules 10S and 10 stainless steel pipe shall be prepared with Victaulic RWX rolls, which are silver with an black identifying band.

COLUMN 8: **Maximum allowable pipe end flare diameter.** Dimension measured at the most extreme pipe end diameter, square cut or beveled.

AGS (Advanced Groove System) Roll Groove Specifications

WARRANTY

Refer to the Warranty section of the current Price List or contact Victaulic for details.

NOTE

This product shall be manufactured by Victaulic or to Victaulic specifications. All products to be installed in accordance with current Victaulic installation/assembly instructions. Victaulic reserves the right to change product specifications, designs and standard equipment without notice and without incurring obligations.

For complete contact information, visit www.victaulic.com

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