# Victaulic PGS-300 Cut Groove Specifications
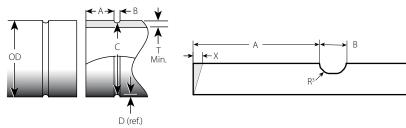
## 1.0   DIMENSIONS

**For Schedule 40 or Schedule 80 CPVC and PVC plastic pipe[1-2]**

*Exaggerated for Clarity*

| 1 | 2 | | | 3 | 4 | 5 | | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Size** | | | | **Dimensions** | | | | | | |
| | **Actual Outside Diameter** | | | | | **Groove Diameter C** | | | | |
| | | | | **Gasket Seat A ±0.015 ±0.38** | **Groove Width B ±0.005 ±0.13** | | | **Groove Depth D (ref)** | **Pipe End Chamfer X Maximum** | **Thickness T** |
| **Nominal inches DN** | **Basic inches mm** | **Maximum inches mm** | **Minimum inches mm** | **inches mm** | **inches mm** | **Maximum inches mm** | **Minimum inches mm** | **inches mm** | **inches mm** | **inches mm** |
| 2 DN50 | 2.375 60.3 | 2.381 60.48 | 2.369 60.17 | 0.875 22.23 | 0.188 4.76 | 2.235 56.77 | 2.220 56.39 | 0.07 1.8 | 0.094 2.39 | 0.154 3.91 |
| 2 ½ | 2.875 73.0 | 2.882 73.20 | 2.868 72.85 | 0.875 22.23 | 0.188 4.76 | 2.695 68.45 | 2.677 68.00 | 0.09 2.3 | 0.094 2.39 | 0.203 5.16 |
| 3 DN80 | 3.500 88.9 | 3.508 89.10 | 3.492 88.70 | 0.875 22.23 | 0.188 4.76 | 3.320 84.33 | 3.302 83.87 | 0.09 2.3 | 0.094 2.39 | 0.216 5.49 |
| 4 DN100 | 4.500 114.3 | 4.509 114.53 | 4.491 114.07 | 0.875 22.23 | 0.188 4.76 | 4.320 109.73 | 4.300 109.22 | 0.09 2.3 | 0.094 2.39 | 0.237 6.02 |
| 6 DN150 | 6.625 168.3 | 6.636 168.55 | 6.614 168.00 | 1.000 24.50 | 0.250 6.35 | 6.345 161.16 | 6.323 160.60 | 0.14 3.6 | 0.125 3.18 | 0.280 7.11 |
| 8 DN200 | 8.625 219.1 | 8.640 219.46 | 8.610 218.69 | 1.000 24.50 | 0.250 6.35 | 8.305 210.95 | 8.280 210.31 | 0.16 4.1 | 0.125 3.18 | 0.322 8.18 |
| 10 DN250 | 10.750 273.0 | 10.765 273.43 | 10.735 272.67 | 1.000 24.50 | 0.250 6.35 | 10.430 264.92 | 10.403 264.24 | 0.16 4.1 | 0.188 4.78 | 0.365 9.27 |
| 12 DN300 | 12.750 323.9 | 12.765 324.23 | 12.735 323.47 | 1.000 24.50 | 0.250 6.35 | 12.390 314.71 | 12.360 313.94 | 0.18 4.6 | 0.188 4.78 | 0.406 10.31 |

**NOTES**

COLUMN 1 – Nominal NPS pipe size.

COLUMN 2 – Outside diameter. The outside diameter of cut grooved pipe shall not vary more than the limits listed. The maximum allowable tolerance from square cut ends is 0.032"/0.8 mm.

COLUMN 3 – Gasket seat. The pipe surface shall be free from indentations and projections from the end of the pipe to the groove to provide a leaktight seat for the gasket. All loose paint, dirt, chips and grease must be removed.

COLUMN 4 – Groove width. Bottom of groove to be free of loose dirt and chips that may interfere with proper coupling assembly.

COLUMN 5 – Groove diameter. The groove must be uniform depth for the entire pipe circumference. Groove must be maintained within "C" diameter limits listed.

COLUMN 6 – Groove depth. For reference only. GROOVE MUST CONFORM TO "C" DIAMETER SHOWN.

COLUMN 7 – It is acceptable to groove and join pipe with chamfers. Pipe end chamfers greater than those listed are not recommended for use with Victaulic grooved mechanical couplings and must be removed prior to grooving the pipe.

COLUMN 8 – Minimum allowable wall thickness. The minimum nominal wall thickness which may be cut grooved.

[1]  Schedule 80 chlorinated polyvinyl chloride (CPVC) pipe per ASTM F441, 23447 minimum cell classification per ASTM D1784.

[2]  Polyvinyl chloride (PVC) pipe per ASTM D1785, 12454 minimum cell classification per ASTM D1784.

[3]  Groove radius "R". The radius necessary at the bottom of the groove.

| System No. | | Location | |
|---|---|---|---|
| Submitted By | | Date | |

| Spec Section | | Paragraph | |
|---|---|---|---|
| Approved | | Date | |

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## 2.0   GROOVING

**Pipe Size and Wall Thickness Capacity for the CG100 Cut Grooving Tool**

| Model | Pipe Material | Pipe Size inches DN | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | 2 50 | 2½ | 3 80 | 4 100 | 6 150 | 8 200 | 10 250 | 12 300 |
| CG1100 | CPVC/PVC | Schedule 40 – 80 | | | | | | | |

## 3.0   REFERENCE MATERIALS

24.01: Victaulic Pipe Preparation Tools

24.09: Victaulic CG1100 Cut Grooving Tool for CPVC Pipe

33.03: Victaulic CPVC Fittings

33.06: Victaulic Transition Coupling Style 356

33.07: Victaulic Rigid Coupling Style 357

33.08: Victaulic Reducing Coupling Style 358

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