

Japanese Industrial Standard Pipe Groove Dimensions

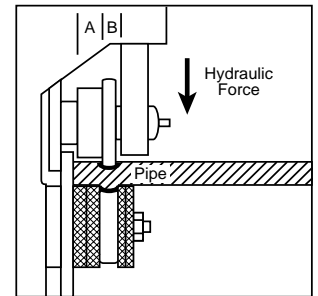
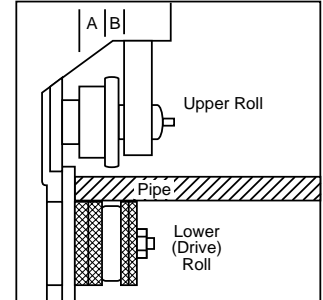
ROLL GROOVING



- Roll grooving removes no metal from pipe
- Vic-Easy® tools permit roll grooving of standard wall thickness Japanese Industrial Standard pipe
- Shop production, fabrication and portable job-site tools available
- Roll grooving is fast and easy – no chips or oil

Victaulic Vic-Easy roll grooving tools are all designed to rotate the pipe as an upper roll is pressed into the pipe. The lower roll, in addition to driving the pipe, is the female die inside the pipe. Victaulic roll groovers use mechanical or hydraulic pressure to force the upper roll into the pipe to form the groove. Groove depth is controlled by an adjustable stop. The configuration of the rolls provides the proper "A" (pipe end to edge of groove) and "B" (groove width) dimensions.

Roll grooving removes no metal, displacing metal to form the groove. Since the groove is cold formed, the groove profile has rounded edges which somewhat reduce the available pipe movement within the coupling. Standard roll grooved pipe will provide one-half the expansion/contraction or deflection of the same size standard cut groove pipe. Roll grooving is applicable for steel, stainless steel, aluminum (Type 6061-T4) and similar metallic pipe. Schedule 40 and 80 PVC plastic pipe can be roll grooved.



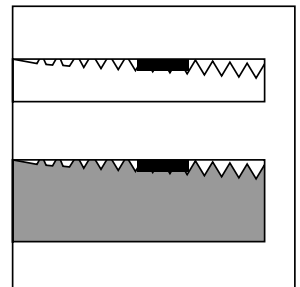
CUT GROOVING



- Grooves concentric with pipe O.D.
- Built-in end stops and depth stop assure proper groove dimensions
- Spring loaded tool bit speeds and eases grooving
- Operates with most available drive sources
- Portable for fab-shop or job-site use

Victaulic provides a variety of tools for cut grooving nominal 200A, 250A and 300A Japanese Industrial Standard pipe including steel, stainless steel, aluminum, PVC plastic pipe and bare or lined pipe to receive Style 707-IJ coupling.

Victaulic cut groovers are driven around a stationary pipe to machine away material, providing a groove. The design of the tools assures a groove which is concentric with the pipe O.D., and of uniform depth. An integral pipe stop is adjustable to provide proper groove depth. Stops in the tool provide the proper dimension from the pipe end to the groove ("A" dimension). The tool bit provides proper groove width ("B" dimension).



Illustrations exaggerated for clarity

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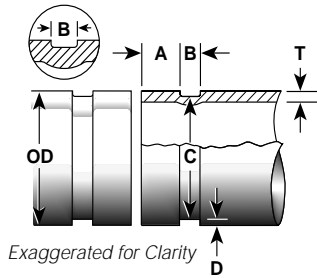
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STANDARD ROLL GROOVE SPECIFICATIONS

Japanese Industrial Standard Pipe



| 1 Nom. Size JIS mm inches | 2 Pipe Outside Diameter O.D. – mm/inches | | | 3 Gasket Seat A ±0.76 ±0.03 | 4 Groove Width B ±0.76 ±0.03 | 5 Groove Dia. C | | 6 Groove Depth (ref.) | 7 Min. Allow. Wall Thick. T | 8 Max. Allow. Flare Dia. |
|---------------------------------------|--|-----------------|-----------------|--|---|--------------------|-------------------------|--------------------------------|--|--------------------------------------|
| | Basic | Tolerance | | | | Basic | Tol. +0.00 +0.000 | | | |
| | | | | | | | | | | |
| 200A 8 | 216,3 8.516 | +1,60 +0.063 | -0,79 -0.031 | 19,05 0.750 | 0,469 11.91 | 211,6 8.331 | -0,64 -0.025 | 2,34 0.092 | 5,10 0.201 | 220,7 8.69 |
| 250A 10 | 267,4 10.528 | +1,60 +0.063 | -0,79 -0.031 | 19,05 0.750 | 0,469 11.91 | 262,6 10.340 | -0,69 -0.027 | 2,39 0.094 | 5,80 0.228 | 271,8 10.70 |
| 300A 12 | 318,5 12.539 | +1,60 +0.063 | -0,79 -0.031 | 19,05 0.750 | 0,469 11.91 | 312,9 12.321 | -0,76 -0.030 | 2,77 0.109 | 6,00 0.236 | 322,8 12.71 |

† On roll grooved pipe, Allowable Pipe End Separation and Deflection from Centerline will be one-half values listed for cut grooved pipe.

COLUMN 1 – Nominal JIS pipe size.

COLUMN 2 – Metric (JIS) outside diameter. The outside diameter of roll grooved pipe shall not vary more than the tolerance listed. For (JIS) metric pipe, the maximum allowable tolerance from square cut ends is 1.52 mm for sizes 200 mm and above, measured from the true square line.

COLUMN 3 – 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 leak-tight seal for the gasket. All loose paint, scale, dirt, chips, grease and rust must be removed. It continues to be Victaulic's first recommendation that pipe be square cut. When using beveled pipe contact Victaulic for details. Gasket seat "A" is measured from the end of the pipe. IMPORTANT: roll grooving of beveled end pipe may result in unacceptable pipe end flare. See column 8.

COLUMN 4 – Groove width: bottom of groove to be free of loose dirt, chips, rust and scale that may interfere with proper coupling assembly. Corners at bottom of groove must be radiused. For (JIS) metric pipe, 1.3R mm for 200 mm and up.

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

COLUMN 6 – Groove depth: for reference only. Groove must conform to the groove diameter "C" listed.

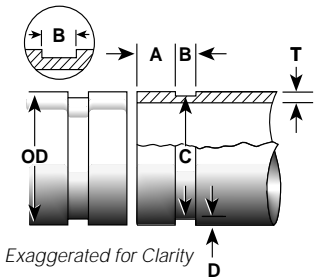
COLUMN 7 – Minimum allowable wall thickness: this is the minimum wall thickness which may be roll or cut grooved.

COLUMN 8 – (Roll groove only) Maximum allowable pipe end flare diameter. Measured at the most extreme pipe end diameter square cut or beveled.

NOTE: Only the above sizes are provided as shown. Other JIS sizes are similar to ANSI, DIN, etc.

STANDARD CUT GROOVE SPECIFICATIONS

Japanese Industrial Standard Pipe



| 1 Nom. Size JIS mm inches | 2 Pipe Outside Diameter O.D. – mm/inches | | | 3 Gasket Seat A ±0.76 ±0.03 | 4 Groove Width B ±0.76 ±0.03 | 5 Groove Dia. C | | 6 Groove Depth (ref.) | 7 Min. Allow. Wall Thick. T |
|---------------------------------------|--|-----------------|-----------------|--|---|--------------------|-------------------------|--------------------------------|--|
| | Basic | Tolerance | | | | Basic | Tol. +0.00 +0.000 | | |
| | | | | | | | | | |
| 200A 8 | 216,3 8.516 | +1,60 +0.063 | -0,79 -0.031 | 19,05 0.750 | 11,13 0.438 | 211,61 8.331 | -0,64 -0.025 | 2,34 0.092 | 6,05 0.238 |
| 250A 10 | 267,4 10.528 | +1,60 +0.063 | -0,79 -0.031 | 19,05 0.750 | 12,70 0.500 | 262,64 10.340 | -0,69 -0.027 | 2,39 0.094 | 6,35 0.250 |
| 300A 12 | 318,5 12.539 | +1,60 +0.063 | -0,79 -0.031 | 19,05 0.750 | 12,70 0.500 | 312,90 12.321 | -0,76 -0.030 | 2,77 0.109 | 7,09 0.279 |

COLUMN 1 – Nominal JIS pipe size.

COLUMN 2 – Metric (JIS) outside diameter. The outside diameter of roll grooved pipe shall not vary more than the tolerance listed. For (JIS) metric pipe, the maximum allowable tolerance from square cut ends is 1.52 mm for sizes 200 mm and above, measured from the true square line.

COLUMN 3 – 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 leak-tight seal for the gasket. All loose paint, scale, dirt, chips, grease and rust must be removed. It continues to be Victaulic's first recommendation that pipe be square cut. When using beveled pipe contact Victaulic for details. Gasket seat "A" is measured from the end of the pipe. IMPORTANT: roll grooving of beveled end pipe may result in unacceptable pipe end flare. See column 8.

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