

# 6 EASY STEPS ROUNDING DI PIPE BY JACKING INTERNALLY



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## DO IT RIGHT IN THE FIELD

**EQUIPMENT NEEDED:** Hydraulic or Port-a-Power Jack, 2 Wooden Blocks, 2 Steel Shims (roughly 1/4" x 5" x 12")

This tip sheet provides simple instructions to change the shape of your Ductile iron pipe – from the inside, during assembly. By jacking large diameter pipe internally, you can return the pipe to round to continue with an efficient installation.



### MEASURE PIPE

Always measure the Outside Diameter of the pipe prior to cutting. Only cut pipe that measure within AWWA acceptable standard tolerances. This procedure will “round” the shape of the barrel – not the size. **REMINDER: Measure twice / Cut once!**



### CUT PIPE

Use a pipe saw with a carbide abrasive or diamond-tipped blade to safely cut the pipe at the location previously confirmed with the OD tape. See our helpful blog on how to cut DI pipe in the field at [McWaneDuctile.com/blog](http://McWaneDuctile.com/blog).



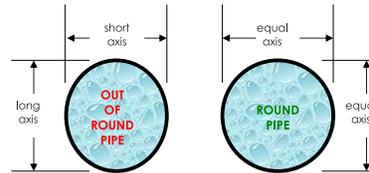
### BEVEL SPIGOT

Use a metal file or rotary angle grinder to apply chamfered relief to the spigot end. Square or sharp edges may cause damage or displace a gasket during assembly.



### ALIGN JACK WITH MINOR AXIS

Position the pipe so the minor axis (minimum diameter) is at the 12 o'clock to 6 o'clock positions. Place the jack in line with the minimum diameter.



See our helpful blog with video on [How To Round Pipe by Jacking Internally at McWaneDuctile.com/blog](http://McWaneDuctile.com/blog).



### BEGIN JACKING

Position shims, jack, and wood 4 inches inside the spigot. Insert steel shims between jack and wood. Begin jacking. Measure the pipe as you gradually apply pressure until proper roundness is obtained.



### CHECK ROUNDNESS

To ensure the cut piece of pipe is round, a Mechanical Joint Gland can serve as a field ring to gauge the roundness.

Suitable Pipe Diameters for Field Cuts and Restrained Joint Field Fabrication

Nominal Pipe Size in Inches	Min. Pipe Diameter in Inches	Max. Pipe Diameter in Inches	Min. Pipe Circumference in Inches	Max. Pipe Circumference in Inches
4	4.74	4.86	14 29/32	15 9/32
6	6.84	6.96	21 1/2	21 7/8
8	8.99	9.11	28 1/4	28 5/8
10	11.04	11.16	34 11/16	35 1/16
12	13.14	13.26	41 9/32	41 21/32
14	15.22	15.35	47 13/16	48 7/32
16	17.32	17.45	54 13/32	54 13/16
18	19.42	19.55	61	61 13/32
20	21.52	21.65	67 19/32	68
24	25.72	25.85	80 13/16	81 7/32
30	31.94	32.08	100 11/32	100 25/32
36	38.24	38.38	120 1/8	120 9/16
42	44.44	44.58	139 5/8	140 1/16
48	50.74	50.88	159 13/32	159 27/32
54	57.46	57.60	180 17/32	180 31/32
60	61.51	61.65	193	193 11/16
64	65.57	65.71	206	206 7/16

Above Table based on ANSI/AWWA C151/A21.51 guidelines for push-on joints