

**Ultibend**  
INDUSTRIES LTD

# WHAT MAKES A GREAT BEND?

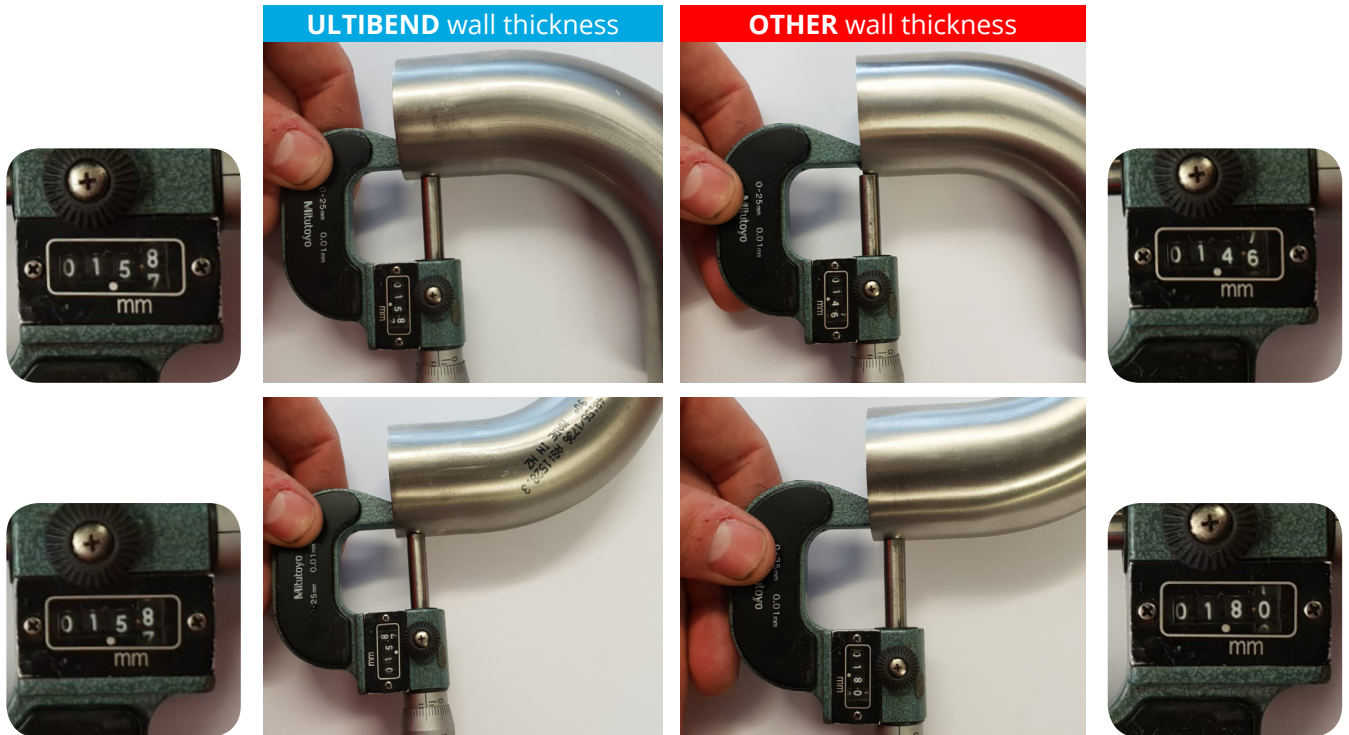


MEMBER OF THE SATIUS GROUP

**Satius**  
We do it better.

As an established supplier of tube fittings in the Australian and NZ markets for over 27 years now, Ultibend has become known as the benchmark for quality tube fittings. However not all fittings in the market reach that level, there can be several faults that significantly increase the difficulty and cost of install. We thought we should point out some of the key differences for you to look out for.

## WALL THICKNESS - AS1528.3 , +/-10% = 0.16MM ON 1.6MM TUBE



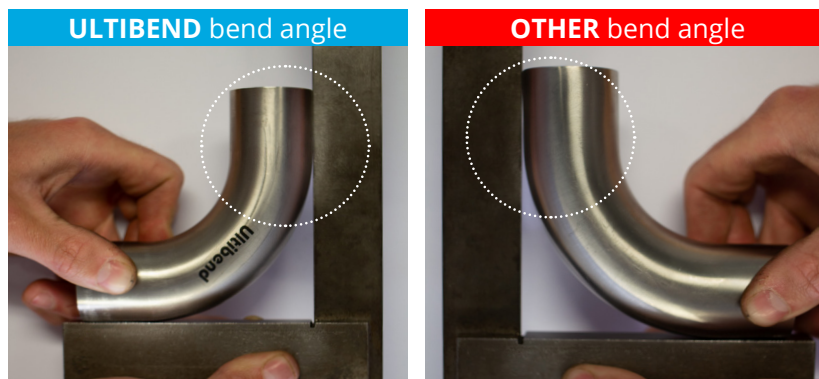
**Ultibend** uses AS1528.1 tube to produce fittings. Our bespoke high quality tooling manufactures bend fittings free of internal scratching, eliminating the need to internal polish. This in turn, minimises wall thickness variations on the weld face.

**Other** bends are typically bent using heavier wall tube and then polished back, resulting in variable wall thickness. This internal polishing can also hide defects on the inside of the bends.

### How this affects installing?

A consistent wall thickness makes welding a lot easier as weld penetration remains the same, matchup is more straight forward and install times are faster. Also, orbital welders will work much better when using bends with a consistent wall thickness.

## BEND ANGLE



**Ultibend's** highly accurate and fully servo-controlled benders, ensure a consistent bend angle is maintained.

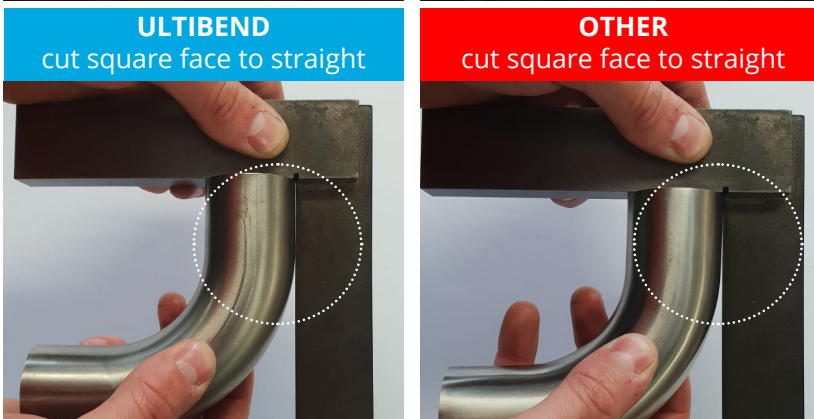
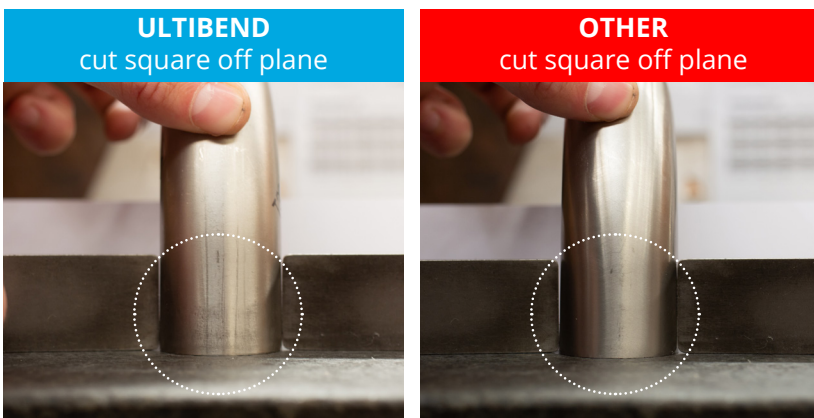
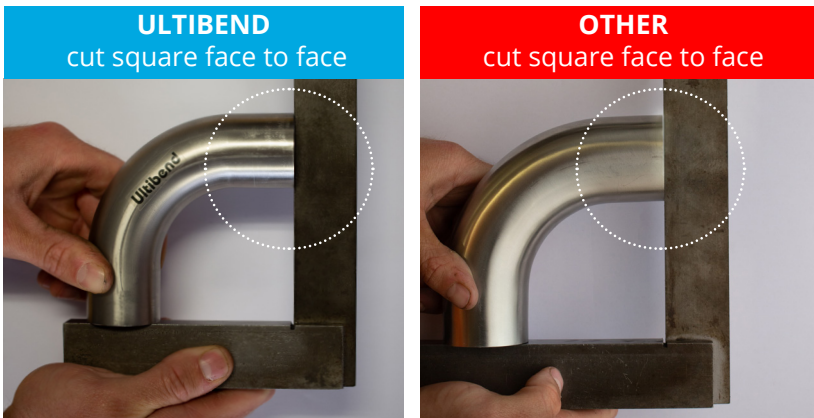
**Other** bends vary widely and are often not bent true to 45, 90 or 180 degrees.

### How this affects installing?

Under/Overbent fittings can cause the pipeline to wander off square when welded in. If working to a pre-drawn design, the actual fittings may not match the drawings. This can lead to quality assurance issues, increased project costs and time delays.

## CUT FACE SQUARENESS

Cut face squareness can be measured in up to 3 different ways:



**Ultibend's** unique trimming and bending process gives a square cut face in all 3 measures. Ongoing investment in machinery development and tooling maintenance ensures that the fitting is consistently trimmed accurately.

**Other** bends can have significant variance in cut face squareness of one or more of the 3 measures noted.

### How this affects installing?

Using fittings that are not cut square causes gaps between the weld face during fit up - these will need to be filled when welding. This will result in a longer, more complicated and expensive install.



*Ultibends allow you to map out your tubing runs with confidence.*



*The quality of Ultibends stands the test of time.*

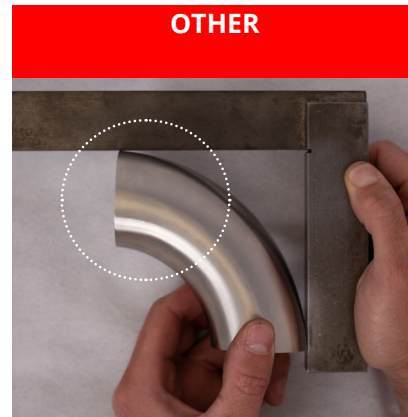




## SHORT RADIUS BENDS



Ultibend's Zetan™ are produced using our proprietary bending process. This allows us to bend them to a tighter bend radius with short straight sections.



Other short radius bends are typically produced using the pressing method which means the bends are not able to be made with any straight sections.

### How this affects installing?

Not only is an Ultibend Zetan™ more aesthetically pleasing to look at than a press bent S/R bend, it makes using an orbital welder much more straight forward, reducing downtime, while having the confidence in a superior product.

### ULTIBEND GUARANTEE

If an Ultibend fitting does not meet your fair expectations for dimensional accuracy, we will replace it free of charge.



*I can honestly say I have never had any problems when welding Ultibends and have had many tested on-site, with excellent results.*



### MATERIAL TEST CERTIFICATES

All our products are fully traceable, and standard batch test certificates are compliant with EN10204:2004 type 3.1. Giving you confidence that your workmanship is supported with proven quality materials.

### DIMENSIONAL ACCURACY

The perfect bend?

As well as excelling in all of the angle and square standards, Ultibend's fittings consistently meet the AS1528.3 specified height dimensions. Ultibend's have leg lengths that closely match each other so no matter what way you install them – they always measure up.



*"This gives everyone, from the design and drawing through to the on site fabrication teams the confidence to trust Ultibend's calculations every time and has been proven to speed up the fabrication process. It also provides the opportunity for a lot more off site pre-spooling prior to installation, creating a safer working environment."*

All quotes in this brochure are from:

Mike Cook, Contract Fitter Welder and Robbie Wright, Fabrication Contractor | New Zealand

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