

9 FAQ's about Linetec's stretch forming services

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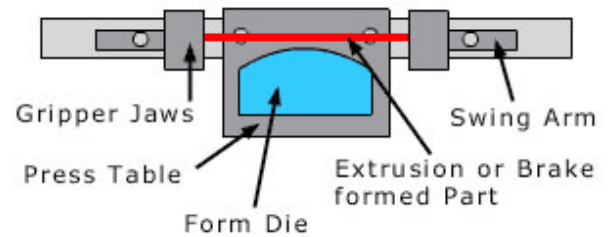
Choosing a single partner to curve and finish your architectural aluminum products provides you with an efficient process and a high-quality result. At Linetec, you can select from paint and anodize finishing options, as well as thermal improvement, in combination with our stretch forming services. Not only does this allow you to enjoy a single point of contact, it saves time and costs, and ensures a full warranty on the finished, curved material.

What is stretch forming?

Stretch forming shapes aluminum sheets and extrusion profiles into simple or complex contoured curves with tensile and bending forces. The material is kept under constant tension, while wrapping it around a form, or die, to produce the desired arc. This method of curving eliminates several conventional fabrication and welding steps. Originally developed for the aerospace industry, [stretch forming](#) maintains precise dimensions throughout a curve and produces perfectly contoured products, while limiting – or even eliminating – wrinkling inside the arc.

What shapes can be created using stretch forming?

The shapes and cross sections that can be stretch formed for your projects are almost unlimited. Half circles (180 degrees) and eyebrow curves (usually 135 degrees) are the most popular requests that Linetec receives. These curves may be coupled with straight legs to create a larger opening, such as a window or door frame. Gothic arches also are common, especially for historic retrofit projects. Custom ellipses and arches can be created as well. Window systems, skylights, storefronts, signs, flashings, curtainwalls, walkway enclosures and hand railings can be accurately and precisely formed to your desired shapes.



What measurements are needed to determine a quote?

The chord, rise and straight legs (if needed) are the essential measurements to determine the arc length and to provide you with a quote.

- The chord is the distance, or width, between the points where the curve begins and ends.
- The rise is the distance, or height, from the exact center of the chord to the top of the arc.

Please review our [stretch form guidelines](#) to ensure the proper measurements.



Can thermal improvements be added to stretch-formed material?

Linetec proudly offers thermal improvement radius-material - thermal-strut services on curved metal. You have a choice of either a fully crimped, insulating, thermal, polyamide strut system or a three-step, pour-and-debridge process. Both options separate the inside and outside aluminum framing members of a window, door, skylight, storefront or curtainwall system to reduce the amount of heat transfer, thereby saving energy and increasing occupant comfort. Installing the thermal barrier in the aluminum extrusion after it has been curved helps minimize stress on the thermal barrier and ensures performance as specified.

Choosing the thermal strut system provides the additional design flexibility of dual finishing, where the interior and exterior surfaces may be finished in different colors and formulations.



What are the benefits of stretch forming with Linetec?

Linetec's stretch forming capabilities include full annealing and tempering and custom die/tooling for aluminum extrusions, as well as brake metal. You also can choose to have us finish your curved aluminum in liquid paint, anodize or one of Linetec's specialty finishes. Finishing the curved material as part of your overall order helps ensure color consistency throughout your project.

What limitations should be considered with stretch forming?

A template is needed for compound curves (having more than one radius), and will likely require a custom die. Also, please keep in mind that the standard cut-length of 24 feet is assumed unless you tell us otherwise. The maximum arc length that can be stretch formed by Linetec is 260 inches. Larger lengths are reviewed on an individual basis. Curved shapes can be up to 10 inches in width.



Can Linetec provide a warranty on finished, stretch-formed material?

Nearly all manufacturer and applicator warranties require that the aluminum sheets and extrusions are finished after curving. Linetec performs all the services in the proper sequence and in the same place to help you retain the full finish warranty.

Is stretch forming with Linetec a cost-effective process?

Our quality-controlled process and project management helps you save time and money. Combining curving, finishing and thermal improvement services on one campus eliminates the freight costs between facilities. This also minimizes handling and ensures a delivery of damage-free material to the jobsite using a Linetec route truck.

How does Linetec provide its stretch forming?

Linetec has teamed with [Southern Stretch Forming](#) to deliver you a single-source solution for stretch forming services. Southern Stretch Forming draws from more than 25 years of experience and provides a full scope of bending, annealing and tempering capabilities on Linetec's campus in Wausau, Wisconsin.

For personalized assistance with your stretch forming and finishing needs, please contact your [local representative](#) or email sales@linetec.com.



www.linetec.com

7500 Stewart Ave
Wausau, WI 54401

