



### Recessed Single Bead Liner

Ideal Tridon engineering solution a win for automotive industry

### Customer Profile

An American automaker serving customers globally with transportation needs for over a century.

### Website

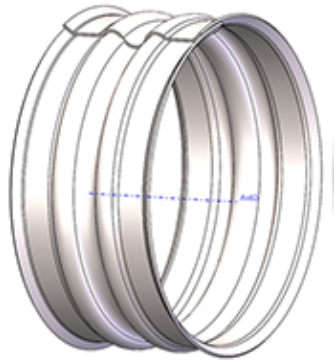
[www.idealtridon.com](http://www.idealtridon.com)

### Industry

Automotive

### Engineering & Quality

Ideal Tridon's superior quality, environmental responsibility, and process integrity has earned certifications for IATF16949 in addition to ISO 9001 and 14001. Ideal's global facilities use only the finest quality certified steel and the best practice manufacturing processes to craft clamp products.



### About Us

Ideal Tridon Group builds strategic partnerships and engineers growth by designing stainless steel and specialty clamps; pipe, hose, conduit support; and fastening solutions. Headquartered in Smyrna, Tennessee, Ideal Tridon Group manufactures and distributes globally from facilities in North America, Europe, and Asia. For more information, visit [www.idealtridongroup.com](http://www.idealtridongroup.com).

## Discovery

In the automotive industry, spring clamps more commonly known as constant tension clamps had always proved a good fit for heater hoses as a reliable method to prevent leaks.

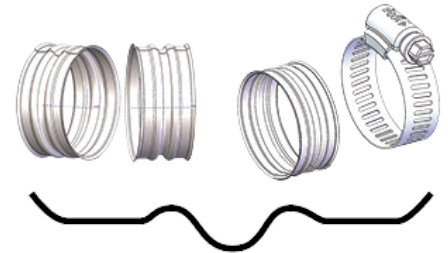
That is until smaller engines built with more horsepower promoted a noticeable rise in both pressure and temperature within automotive cooling systems.

## Challenge

The industry needed something different. Ideal Tridon engineers successfully introduced a new patented clamp using hybrid technology to self-adjust to changing thermal environments and maintain a constant, steady 360 degrees around the connection.

However, attempts to make the liners small enough for heater hoses proved untenable. Rolling the liner led to buckling and loss of load capacity.

Not until engineers centralized the neutral axis of the liner with the recessed technology, were they ready to manufacture a product to solve this industry challenge. Ideal's engineering team created a liner that could bend, compress, and stretch simultaneously.



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## Solution

Ideal's Recessed Single Bead Liner spawned from their patented liner technology improved clamp roundness and eliminated leak paths at the housing juncture. This technology allowed engineers to enter the market with a solution to steady cooling and heater hoses.

With its compact design and lower profile, the Recessed Single Bead Liner provides an optimal heavy-duty constant tension clamp without all the bulk. This product handed Ideal the opportunity to secure new business in automotive heating and cooling systems.

## Results

Ideal Tridon's patented technology commands the road ahead for cars and trucks built by this American automotive giant, presenting growing evidence of Ideal's innovative design and problem-solving capabilities.

For more information on how Ideal Tridon can custom engineer a product for your specific application, please call 800-251-3220.