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PRESS RELEASE

Built to Handle the Heat: Vibrant Performance 321 Stainless Steel

 Vibrant Performances lineup of 321 Stainless Steel Mandrel Bends are engineered for fabricators building in extreme heat environments, where reliability matters most.





Purpose and Benefits

From endurance racing and turbo manifolds to rotary headers and high-performance fabrication, elevated EGT's push materials to their limits. Our 321 Stainless Steel lineup was built to answer that challenge with increased strength, improved durability, and superior resistance to heat-related stress fractures compared to traditional 304 Stainless Steel.

321 Stainless Steel delivers improved ductility and high-temperature stability, allowing fabricators to reduce overall manifold and header weight without sacrificing strength.

The result is a material that is easier to work with, more reliable under sustained heat, and built for applications where failure is not an option.

A New Standard for High-Temperature Fabrication

When exhaust temperatures climb, material selection becomes critical. Unlike 304 Stainless Steel, which is susceptible to heat stress cracking and fatigue over time, 321 Stainless Steel maintains its structural integrity at temperatures exceeding 1400°F (760°C).

Designed for builders who demand confidence under extreme conditions, Vibrant Performance 321 Stainless Steel Mandrel Bends are ideal for:

- Turbo manifolds
- Endurance racing applications
- Rotary headers
- High-performance exhaust fabrication
- Supported turbo systems



PRESS CONTACT

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Our 321 Stainless Steel lineup is available in:

- 180° U-Bends
- 90° U-Bends
- Straight Tubing Sections

Available in both 16-gauge and 18-gauge wall thickness options across a wide range of tubing diameters.

With increased tensile strength, excellent corrosion resistance, and outstanding thermal stability, these bends are engineered to deliver long-term reliability in demanding motorsport and fabrication environments.



Fabrication and Welding Compatibility

- 321 Stainless Steel can be welded to 304 Stainless Steel using 308L filler or 347 filler rod
- Always use a 347 filler rod when welding directly to 321 Stainless Steel
- 321 Stainless Steel cannot be welded to Titanium
- Refer to the Vibrant Performance catalog for available filler rod options



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Built for Your Application

18 Gauge (0.049")

Recommended for lightweight, non-load bearing applications including:

- Naturally aspirated rotary headers
- Supported turbo systems

16 Gauge (0.065")

Recommended for applications operating between 1400°F (760°C) and 1800°F (982°C), including:

- Turbo manifolds
- Endurance racing applications
- High-stress fabrication environments

Available in 180° bends, 90° bends, and straight tubing sections ranging from 1-1/2" to 3.0" O.D.

Refer to the Vibrant Performance catalog for complete sizing and specification details.

Vibrant Performance 321 Stainless Steel Mandrel Bends are available through authorized Vibrant Performance warehouse distributors and online retailers worldwide.



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