

INTEGRATED TUBULAR CHASSIS & SUSPENSION COMPONENTS

QA1



FROM PRECISION BENDING TO COMPLETE ASSEMBLIES

Custom Sway Bars • Panhard Bars • Torsion Bars • Control Arms

MUCH MORE THAN TUBE BENDING

Many suppliers can bend tube. Few can deliver complete suspension components engineered around your application requirements. QA1 combines precision tube forming, machining, welding, and assembly expertise to provide ready-to-install systems for mobile equipment OEMs.

Capability Pillars



ENGINEERING/DESIGN PARTNERSHIP

- Collaborative design support
- Finite Element Analysis (FEA)
- Strength & durability analysis
- Prototype development & optimization

BENEFIT: Move from concept to production faster.



PRECISION FORMING

- Tube or bar stock
- Straight and complex geometries
- From large radius to tight bends
- CNC-controlled repeatability

BENEFIT: Predictable geometry and repeatable performance.



FABRICATION & WELDING

- Cosmetic and structural welds
- Bushing cans & brackets
- Reinforcement features

BENEFIT: Production-ready components — not piece parts.



HIGH-PERFORMANCE FINISHES

- Powder-coat & E-coat
- Custom colors
- Private label branding

BENEFIT: Finished for durability long-term performance.



CONNECTION INTEGRATION

- Rubber, poly or composite bushings
- Rod ends, spherical bearings & ball joints
- Custom interfaces

BENEFIT: Reduced complexity and supplier count.

APPLICATIONS SERVED



ATV/UTV



Off-Road Vehicle Upgrades



Specialty Vehicle



Automotive/Truck Upfitters



Outdoor Power Equipment

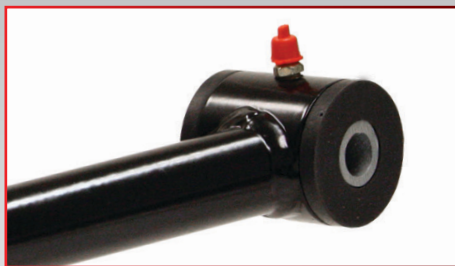


Agriculture



Construction & Mining

ENGINEERED CONNECTIONS



RUBBER BUSHINGS

Noise/vibration/harshness (NVH) isolation and compliance



POLY BUSHINGS

Increased stiffness/durability



COMPOSITE BUSHINGS

Free movement, minimal misalignment



BALL JOINTS

Compact rotational articulation



ROD ENDS & SPHERICAL BEARINGS

Maximum articulation, precision and adjustability



CUSTOM INTERFACES

Application-specific solutions

BUILT CORRECTLY. NOT CONVENIENTLY.

Stronger connections. Better Durability.



TYPICAL SUPPLIER

Crimped tube ends

Limited assembly

Build-to-print only

Standard bushings

QA1 APPROACH

Machined + welded ends

Full system integration

Engineering optimization

Custom-designed interfaces

WHY IT MATTERS

 Increased strength

 Improved fatigue resistance

 Better appearance

 Consistent quality

Why OEMs Choose QA1

- ✓ CNC Tube Bending
- ✓ Machining
- ✓ Welding & Fabrication
- ✓ Bearings, Bushings, Rod Ends & Ball Joints
- ✓ Complete Assemblies
- ✓ Engineering Support
- ✓ Prototype-to-Production Scalability
- ✓ Domestic or Global Manufacturing

**Ready to Develop
Your Next Program?**



TALK TO AN ENGINEER



REQUEST A QUOTE

 QA1.NET/OEM-INDUSTRIAL

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