

DUDEK & **BOCK**

Spring Manufacturing Company

Springs, wireforms and stampings controlling energy and motion



DUDEK & BOCK

Leading Manufacturer of Springs • Wireforms • Stampings • Welded Rings • Welded Assemblies

ISO 14001 • ISO/TS 16949 • ISO 9001



Business Overview

- Major Products -Springs, wireforms, light and progressive stampings, lap welded rings, welded wire assemblies, including robotically welded assemblies
- Locations - Chicago (headquarters), Saltillo, Mexico and Shanghai, China
- Top 5 – North American player in industry with Global capability. \$60M in global sales.
- Markets - Automotive and Appliance industries, Building and Construction, Industrial Electric and Lighting, Consumer products and Telecommunications
- Privately-held- Fiscally stable and growth-oriented
- Equipment Profile - Broad and deep capabilities across product lines able to accommodate your expanding business

Quality and Performance Overview

- All facilities IATF 16949 and ISO 9001 certified
- Performance tracking metrics include PPMs (internal and external), Cost of Quality, On-Time Deliver (approximately 97%), Customer Returns, Inventory Turns
- Manufacturing metrics tracked, including labor efficiencies, utilization and scrap
- Continuous Improvement focus
- APQP process in play from estimating to shipment stage
- Capacity and capability planning well defined

Customer Relationships

- History of long-standing relationships with top customers in all markets served by manufacturers
- Current customer base in appliance and automotive products includes a strong presence at all levels of the business Tier I, Tier II and OEM:

Ada Tech	Fuji Components	Nexteer	Volkswagen
Adient	Fujikiko	NIS	Whirlpool
Air Boss	GM	Otscon	Woodridge
Borg Warner	HB Performance	TBA	YFJCI
Bridgestone	Hitachi	TRW	Zanini
Douglas Auto	Isringhausen	Tachi-s	
Electrolux	Kohler	Topy	
Faurecia	Magna	Toyo	
Fuji Autotech	NAL	TS Tech	

Overview of Product Lines



Wire Size Range

Springs and Wireforms: .008" to 1/2"

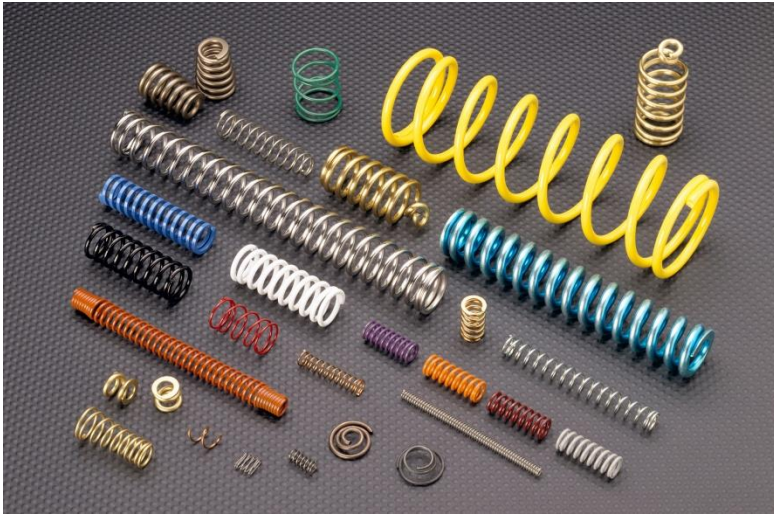
Flatstock Range

Platforms, Progressive Stampings and Welded Rings: Up to .220"

Counterbalance Springs

.025" to .170" thick and .075" to .650" wide

Spring Products



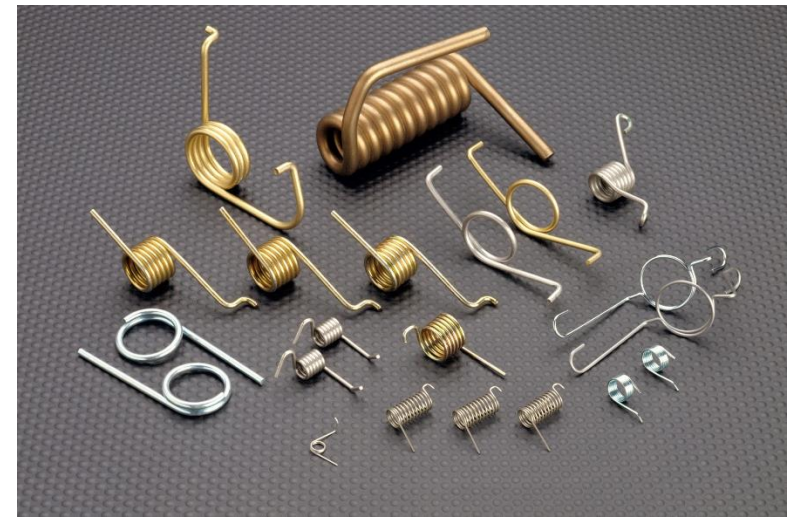
Compression Springs



Extension Springs



Counter Balance Springs



Torsion & Double Torsion Springs

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Chicago, Illinois Facility

Chicago

- Founded in Chicago in 1946 by Joseph Dudek
- Family-owned and operated
- IATF 16949 and Ford Q1 Certified
- ISO 9001
- 225k manufacturing square feet

Dudek & Bock Core Competencies

- Part design support for performance, conformance and manufacturability
- Elimination of labor-intensive post-forming operations
- New Parts (Launch Support)
- Program management and redesign (Value Engineering)
- Leader in fourslide and coiling combination machines

Equipment Capabilities & Profile

- Over 500 primary forming machines
- Significant CNC department, including AIM, Pave, Robomac and TBE forming machines
- Machines transferred among all plant facilities in accordance with customer needs
- In-house maintenance department
 - PMP monitored
- In-house toolmaking capabilities

Additional Capabilities

- Welding
- Riveting
- Painting
- In-Line Tapping and Extrusion
- Drilling
- Swedging
- Grinding
- Tapping
- Deburring
- Stress Relieving
- Threading
- Shot Peening
- Packaging
- Degreasing

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S. DE R.L. DE C.V.



Saltillo, Mexico Facility

Saltillo, Mexico Operation

- Established in June 2000
- 100,000 sq. ft.
- 220 employees
- IATF 16949 certified
- Full product line to serve all Markets
- In-house tooling, maintenance department
- Stamping capabilities up to 4 mm (.210") 300 ton
- Bilingual customer focused staff

Dudek & Bock – Saltillo Operations





**SHANGHAI
DUDEK
& BOCK**



Shanghai, China Facility

China Joint Venture Partnership with China Spring Company

Subsidiary Co. of SAIC (Shanghai Auto Industrial Co.)

China Spring is the largest spring company in China

Market leader in:

- Coil/Suspension Springs
- Stabilizer Bars
- Valve Springs



Joint Venture Focus: Automotive customers with need for Wireforms and Counterbalance Springs

Shanghai, China Operation

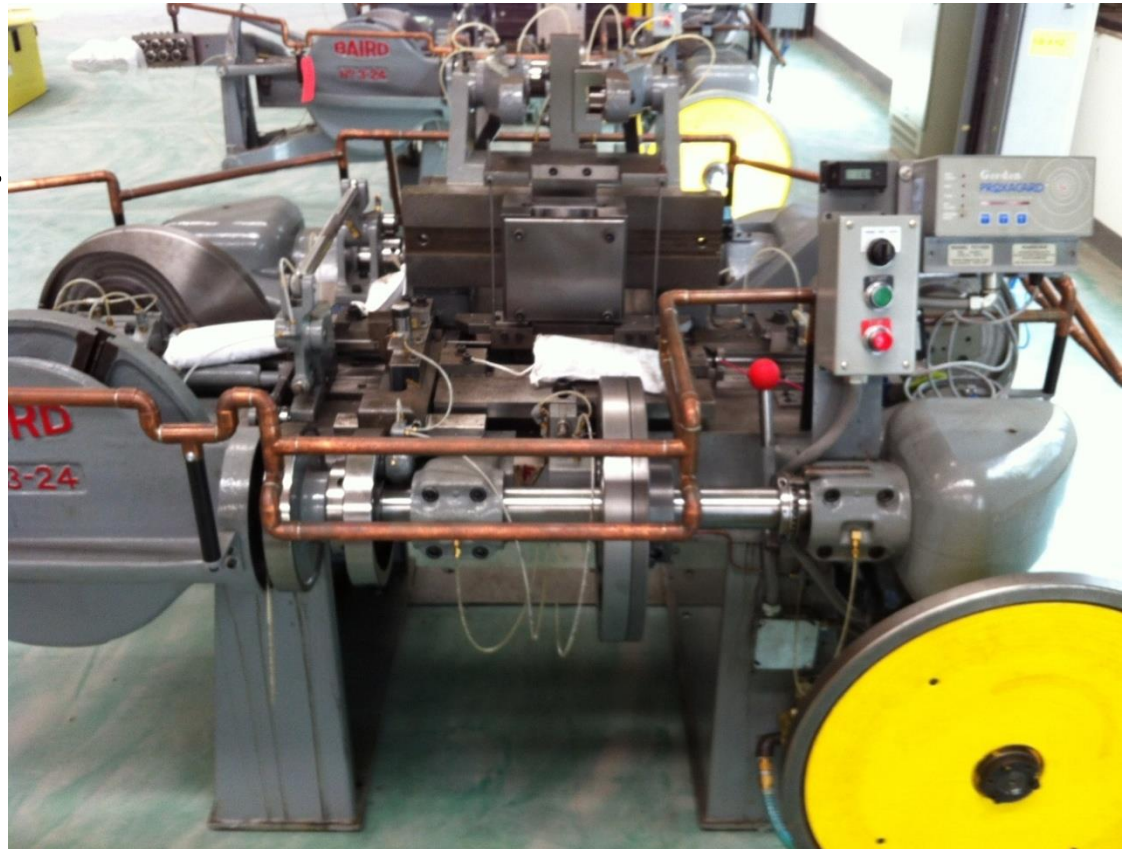
- Established in June 2012
- 50,000 sq. ft.
- 45 employees
- IATF 16949 certified
- Full product line to serve all Markets both locally and globally
- In-house tooling, maintenance department

Shanghai Core Competencies

Design assistance on wireforms created on cam-driven fourslide machines

Advantages of fourslide:

- *Production Run Rate* over more costly CNC machines.
- *Quality* enabling precision fit with welding fixtures
- *Repeatability* ensures consistency in production parts – critical for safety components



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Products and Applications

Wireform Products

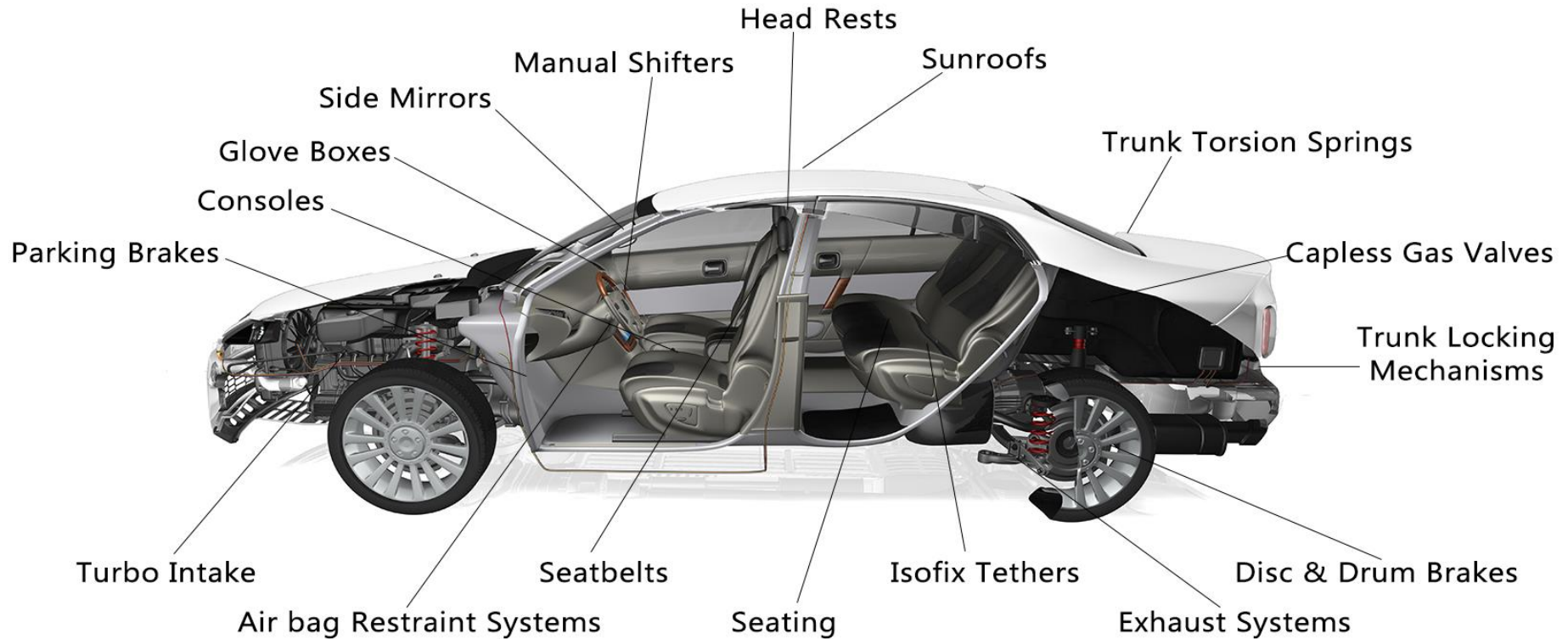
High carbon spring wireforming ability for latches and clips requiring spring action. Low carbon wireforms for stability and strength applications



Progressive Stampings

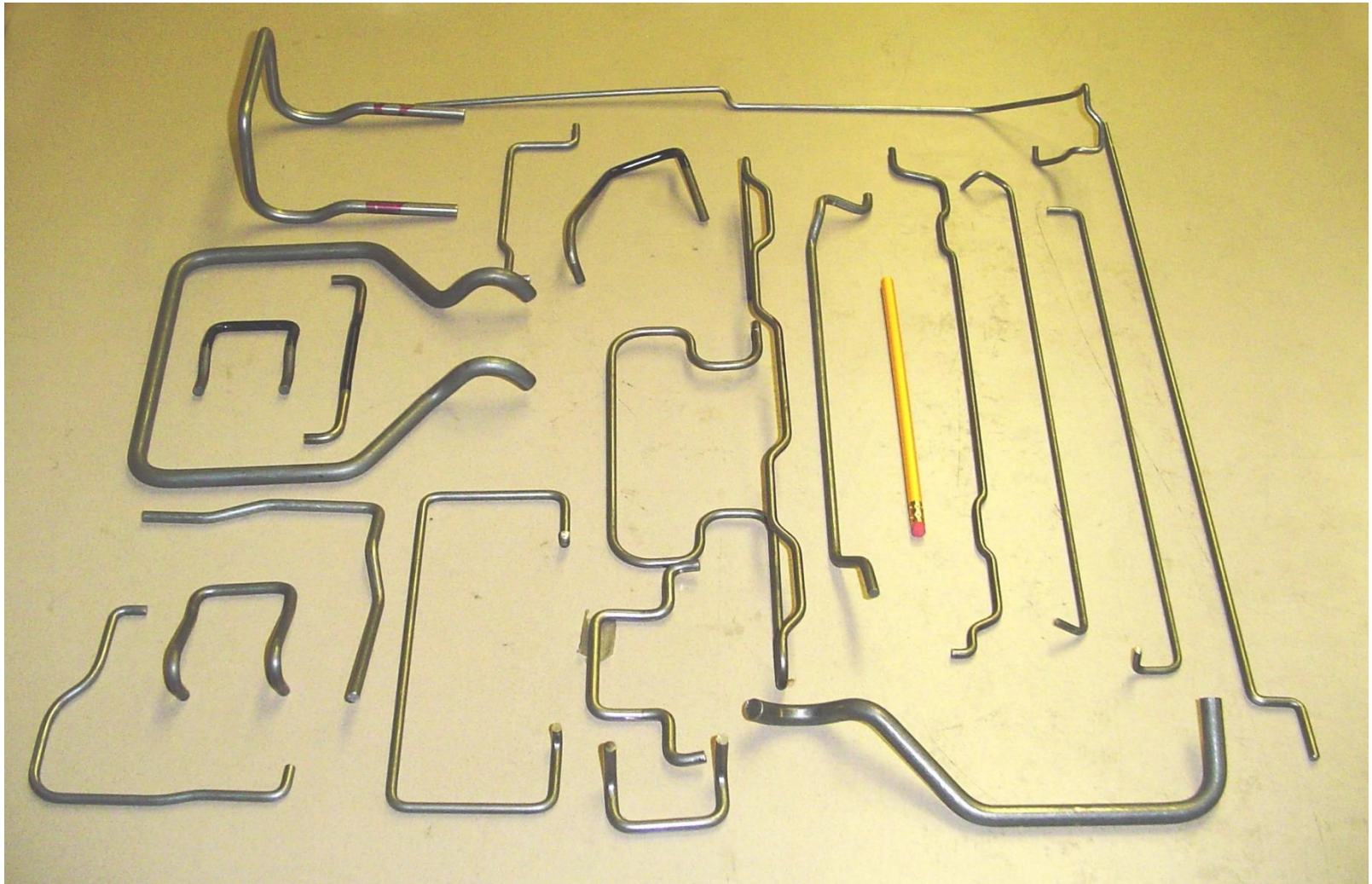


Automotive Systems

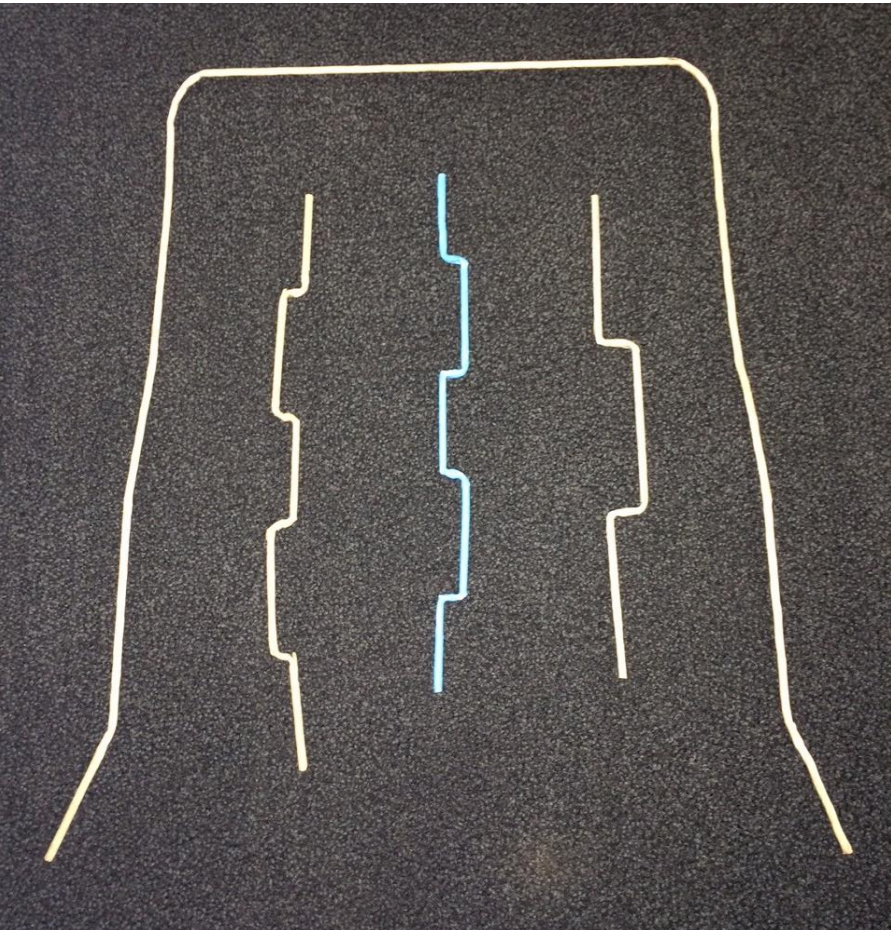


Dudek & Bock can produce parts for all automotive systems

Automotive Seating Wireforms



Automotive Seating Wireforms



Paper-Covered Wires for Seating



Wire Belt Guides



Seat Bolster Wires

Insert Molded Cushion Pan Spring Fourslide Machines



Wireform Head Rest Assembly and ISO-Fix Wireforms

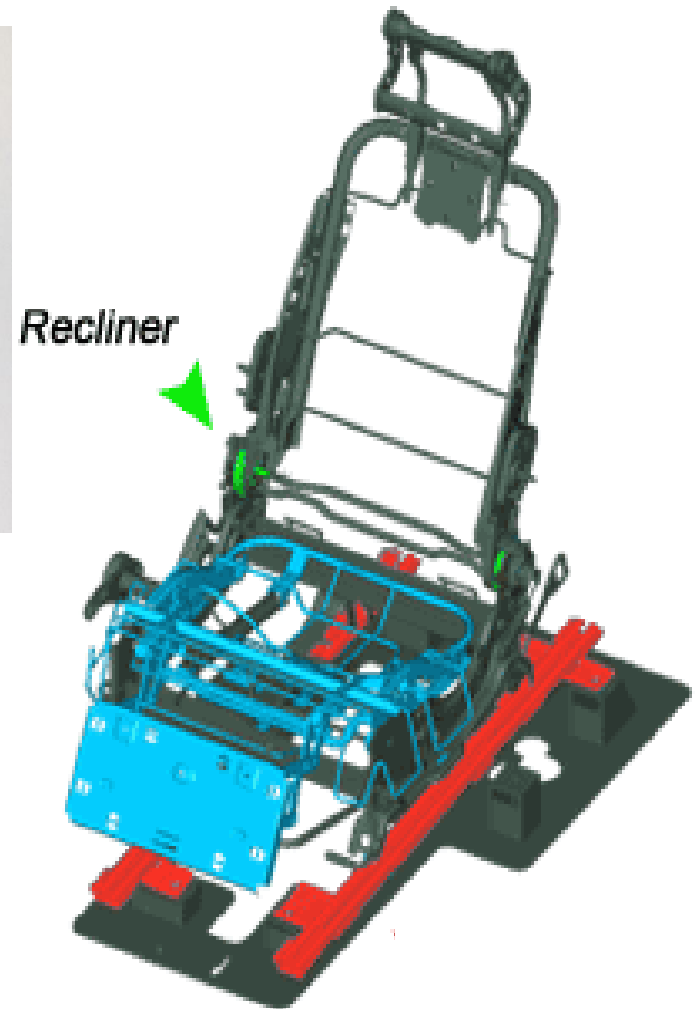
Wireform Head Rest
Safety-critical application
Welded to Tubular Frame



Iso-Fix Wireform
For Child Seat Attachment



Headrest Support

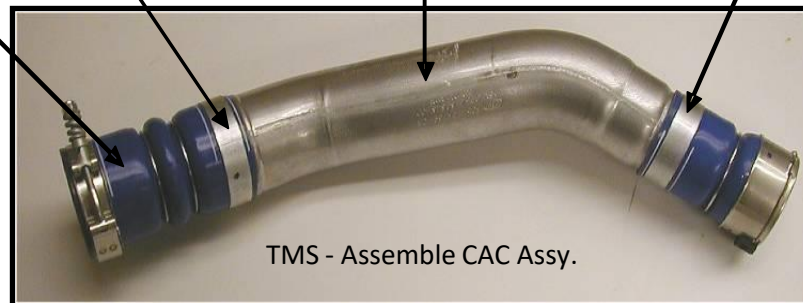


Headrest Welded Assemblies



Applications for Welded Rings

Turbocharger – Both Intake and Exhaust
Hot Side Charge Air Cooler Tube Separation



Airbag Wireform: Single Operation Production



Counterbalance Springs / Seat Reclining Mechanisms



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