

A TRADITION OF WORLD CLASS PERFORMANCE



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Certified to
TS 16949 and ISO 14001.

**OVER
175 YEARS**
of Fastener Experience

MSD Stamping, LLC
FASTENERS FOR INDUSTRY



M S D S T A M P I N G

MSD Innovative Solutions

- Increased Assembly Efficiency
- Reduced Assembly Line Tooling
- Improved Joint Consistency
- Lessens Operator Fatigue

Stamping, Fasteners and Assemblies

MSD Stamping specializes in metal stamping, nut insertion clips, wireforming, fasteners, and staking of automotive grade assemblies. Our engineering expertise in the design of components such as specialty nut clips, anti-rotation (self-wrenching nut or bolt) devices and door/hood striker assemblies is unparalleled in the industry. This experience allows us the opportunity to be your technical partner in developing new parts. By being response-oriented, we can get your product to market fast!

TS 16949 Quality System

MSD is backed by a robust TS 16949 Quality System ensuring PPM's well below industry standards for fastener/assembly manufacturers. Our engineering staff can evaluate your application on-site or internally in our lab facilities. MSD is ISO 14001 certified, and EDI and JIT capable.

Stamping Capabilities:

- 35 to 300 ton presses
- 72" L-R and 48" F-B die maximum
- Progressive die nut insertion and die tapping capabilities

Materials:

- Low and medium carbon steel – 1010 – 1074 (stampings)
- Medium carbon alloy wire – 4037 (wireforming)

Wireforming:

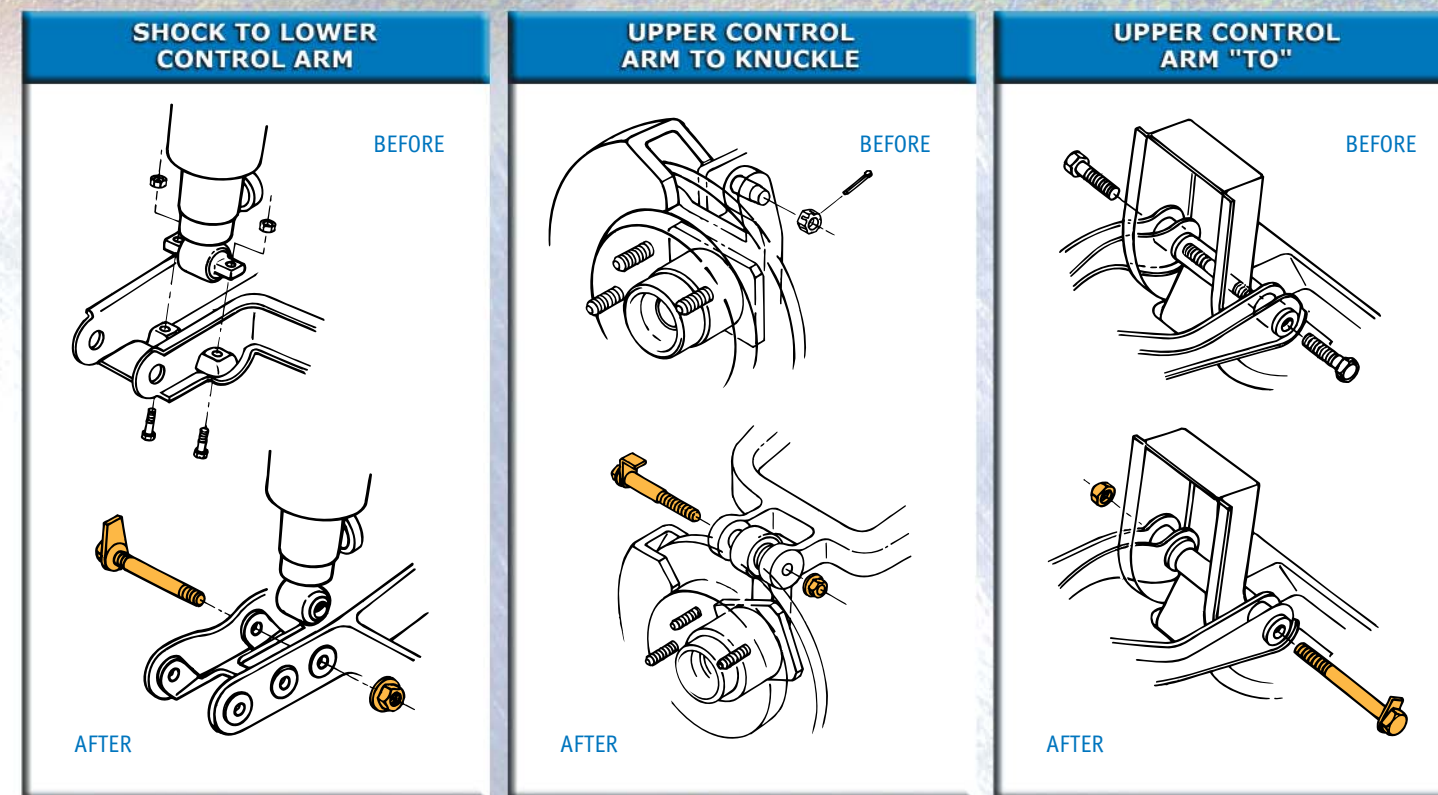
- Twin OMCG wireforming machines

Staking Capabilities:

- 15 – 60 ton open bed incline presses
- Nut and bolt staking
- Wireform staking
- Rotary table staking

Certified to TS 16949 and ISO 14001.

MSD Self Wrenching Fasteners and Assemblies will Dramatically Reduce Assembly Time



	BEFORE	AFTER	SAVINGS
Parts	14	8	6
ASM Time	116	48	68
ASM Cost	1.34	.56	.78

Fastener configuration on original design made for difficult build.

Nuts were difficult to hold with backing wrench.

Design used excessive parts.

DFMA design uses self-aligning bolt to replace multiple fasteners.

Requires fasteners.

Requires no backing wrench with anti-rotation tab.

	BEFORE	AFTER	SAVINGS
Parts	8	8	0
ASM Time	224	52	172
ASM Cost	2.60	.62	1.98

Original design required expensive welding or stud.

Strength of design was questioned.

Cost of castle nut was high and exact alignment was required to insert cotter pin.

New design uses high-strength bolt with anti-rotation tab and standard nut.

Assembly time is drastically reduced.

	BEFORE	AFTER	SAVINGS
Parts	6	6	0
ASM Time	96	62	36
ASM Cost	1.14	.72	.42

Original design called for threaded fasteners to run into each side of control arm.

Proper alignment was difficult.

Threaded sleeve added machining expense.

DFMA design specifies single bolt with anti-rotation tab.

Unit is easier to align, doesn't require backing wrench.

Automotive Industries published these impressive results of how self wrenching fasteners and assemblies were designed into Cadillac's assembly line...boosting profits dramatically.

Anti-rotation tabs were used throughout the design to eliminate the use of backing wrenches during assembly. Increased complexity part cost is more than offset by savings resulting from faster assembly time.

