



LOCK HARDWARE - KNOB CATCH

APD STORY SEVEN

Through the use of an integrated spring, the Knob Catch provides a quick way to install and un-install door handle levers. The original design required three components that were laser-welded together. This complexity created quality issues, capacity constraints, and a high cost product.

Our value engineered solution utilized one-half of the material thickness by folding the shaped feature on itself. We then developed a unique process that utilized an in-die wire feeding system in a two-out progressive die. The result significantly improved product quality and reliability, and more importantly, yielded cost savings in excess of 50% for our customer.

QUALITY/DELIVERY IMPROVEMENT, COST REDUCTION

Trans-Matic is a highly developed metal stampings company that uses deep draw stamping methods to create world-class metal stampings. At Trans-Matic we utilize our capabilities to produce deep draw metal stampings to serve the automotive industry in braking, oxygen sensor, fuel delivery, air bag, bayonet socket, and sensor markets. Our non-automotive deep draw metal stampings capabilities serve the lock hardware, compressor, appliance, fire prevention, pharmaceutical, HVAC, and plumbing markets.

Value Engineering is ingrained into Trans-Matic's ongoing quest to help our customers reduce cost, improve quality, and increase performance. In the late 90's, we realized that many of the components we produce were being used in long-standing product lines with only incremental change. It was at that point where we began to focus on our customers' end product to ensure that the designs were streamlined for cost efficiency, with improved performance. In 1999, we instituted a separate VA-VE department to focus specifically on our customers' products. Since that time, we have become very product development savvy by engaging our technical team to dissect the functional elements of those products. The result, and continuing objective, is the creation of solutions that optimize the design intent of the product and the development of new products.

Reverse Engineering

Trans-Matic APD activities have focused on the redesign of costly screw machine parts into lower cost deep drawn stampings. Trans-Matic VA/VE activities have redesigned multiple piece assemblies into complex, one-piece deep drawn stampings. Our reverse engineering efforts have reduced or eliminated components within an assembly many times creating a more reliable metal structure.

Trans-Matic produces automotive deep drawn metal stampings:

- Using cold rolled steels (1006 to 1050), pre-coated steels, stainless steels (300 & 400 series), Inconel, brass, bronze, copper, and aluminum (1100, 3003, & 5052).
- With overall length up to seven inches.
- With thickness ranging from .005" (0.127mm) to .150" (3.81mm).
- With in-press capability to produce stampings with both coarse and fine threading, wall ironing, multiple side piercing, knurling, embossing, rectangular shapes, coining and marking, extruding and many other required features.
- To serve automotive markets including braking, oxygen sensor, fuel delivery, air bag, bayonet socket, and sensor markets.
- To serve non-automotive markets such as lock hardware, compressor, appliance, fire prevention, pharmaceutical, HVAC, and plumbing.
- In compliance with quality standards ISO/TS 16949
- In compliance with environmental standards TS 14001

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Additional PDF Examples and Information on Lock Hardware Stampings:

| Lock Hardware– Drive-In Casing | Lock Hardware – Threaded Hub | Lock Hardware – Dead Bolt Lock Bar |
| Lock Hardware – Spring Cage Assembly | Lock Hardware– Spring Return Mechanism | Lock Hardware – CAM |

More information on Lock Hardware Stampings | **Knob Catch**