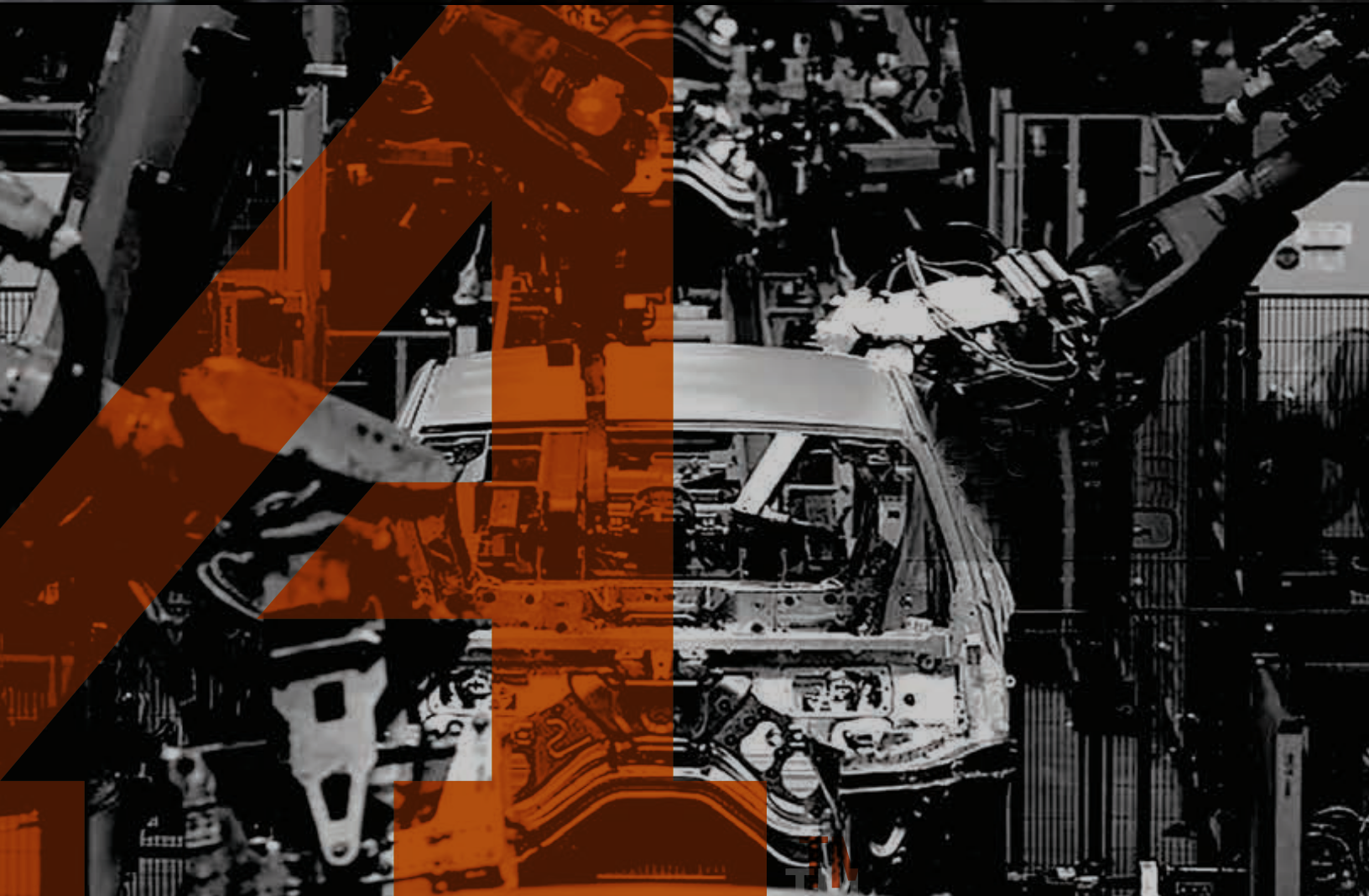




APEX[®]

ASSEMBLY & FABRICATION TOOLS

**CUSTOM
FASTENING SOLUTIONS**



INNOVATIVE CUSTOM SOLUTIONS

APEX SOLUTIONS TAILORED TO YOUR NEEDS

Let APEX's in-house prototype department, backed by a state-of-the-art manufacturing plant, partner with you to develop a custom fastener drive tool designed to optimize your operations and ensure that your assembly line runs smoothly.

Since 1933, manufacturers around the world have relied on APEX to solve their critical fastening problems.

As the world-renowned specialist in developing screwdriver bits and impact sockets, we create innovative custom solutions for industrial assembly plants around the world.



GLOBAL INDUSTRY LEADER

- The industry expert in developing customized, "hard-to-design" bits, bit holders, sockets, and universal wrenches
- Unparalleled experience: Thousands of custom products designed for our global customers

SUPERIOR PRODUCT QUALITY

- Superior quality due to advanced engineering capabilities, proprietary raw materials, and consistent manufacturing process
- Value-oriented custom designs that provide the greatest strength and longevity in the industry
- Lower total cost of ownership, as Apex tools significantly outlast competitive tools

ADVANCED TECHNOLOGY

- Latest solid-modeling and FEA tools used in product design
- 3D-printed ABS Thermoplastic prototypes can be ordered to confirm dimensions and fit
- Flexible machining processes allow for optimum handling of both small and large orders

SUPPORT WHEN YOU NEED IT

- Dedicated applications specialists to ensure fast turnaround times on Custom Solution inquiries
- 24/7 production capability to respond in real time and support you in preventing downtime
- Expedited prototype delivery option available

THE GLOBAL LEADER IN MANUFACTURING CUSTOM-BUILT FASTENER DRIVE TOOLS FOR INDUSTRIAL APPLICATIONS

AUTOMOTIVE CASE STUDIES

AXLE AND CHASSIS SOLUTIONS: BEVEL PINION CONNECTOR NUT

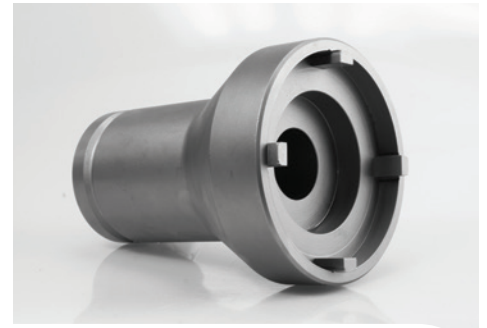
PROBLEM: Competitive socket had frequent breakage issues at the weld point.

APEX SOLUTION:

- Specially designed milled tangs mate with the connector nut

BENEFIT:

- Milled tangs provide greater strength and longer life than the welded option previously used



DOOR AND WINDOW LINE ASSEMBLY AND INSTALLATION SOLUTIONS

PROBLEM: Productivity issues due to excessive bit breakage.

APEX SOLUTION:

- Developed a covered tool that reduced tolerance stack-up and ensured superior bit engagement with the fastener

BENEFIT:

- Improved productivity due to significant increase in bit life; increased safety due to addition of a free-spinning cover



AUTOMATED APPLICATIONS

PROBLEM: Client had situations where the driver couldn't travel with the fastener as the fastener was run down.

APEX SOLUTION:

- Developed a collapsible spring-loaded socket that changes length during socket operation

BENEFIT:

- Great for multi-spindle situations where all fasteners may not have the same travel distance to complete tightening



SOLUTION HIGHLIGHTS



Plunger Style sockets

For retaining non-ferrous fasteners where magnets will not work



Thermoplastic sockets

For pre-torque applications while protecting adjacent surface, eliminating marring, with a free-spinning cover

*Cover Tool



Delrin covers

Cover almost any tool in orange Delrin, to provide anti-marring properties and an added level of safety



Slotted Electric Harness sockets

For applications where external wiring or other protrusions cannot be contained in a standard socket



Prototype delivery

If you can't wait for standard delivery, we provide Prototype Delivery. Please contact us at 1-866-569-9449, by email at SpecialQuote@apex-tools.com, or contact your local APEX BRAND SALES REPRESENTATIVE for obtaining a Custom Solution or Prototype quote.

BECAUSE THERE'S A LOT ON THE LINE.™



BIT | BIT HOLDER CAPABILITIES

- Longer lengths
- Special body diameters
- Special drive styles
- Special turn lengths

SOCKET CAPABILITIES

- Specific lengths
- Special body diameters
- Different shapes + sizes
- Different magnetic styles
- All square drive sizes + styles
- All magnetic sockets come with rare earth magnets for greater magnetism

UNIVERSAL WRENCH CAPABILITIES

- Different shank styles
- Different socket styles + lengths
- Different wrench ball sizes to solve clearance problems
- Tension or non-tension types

3-D PRINTED PROTOTYPE PARTS

APEX offers the option of ordering 3-D printed prototype parts, in thermoplastic material, to help you evaluate the design and confirm the fit to the fastener. Once you are satisfied, we can then manufacture the metal part for you.



OBTAINING A CUSTOM SOLUTION QUOTE

Please contact an Application Specialist or your local APEX representative to obtain a quote:

- **Email:** SpecialQuote@apex-tools.com
- **Phone:** 1-866-569-9449 | 1-803-808-6745
- **Online:** <http://www.apex-tools.com/tools/custom-solutions>

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