



Engineering

Capabilities



Technologies

Value Through SolutionsSM



About Semblex

Semblex focuses on market specific fastener solutions across many industries including Automotive, Consumer Electronics, Motorcycle, Heavy Truck, Agriculture, Lawn & Garden, and Power Sports.

HISTORY

Since Semblex was founded in 1968, our journey has taken us from our humble beginnings as a manufacturer of standard small diameter fasteners to our current state focusing on specialty threaded fastening solutions, complex cold formed special components and small assemblies. In 2014 Semblex was acquired by JINHAP Co. Ltd. of Korea and remains privately held, which has allowed us to continue to invest in quality, equipment and creative minds. We continue to focus on bringing the most cost effective fastening and component solutions to our customers across many markets.



From automobiles to consumer goods, today's designers are driven to find ways to reduce weight to improve performance and user experience. The use of new alternate materials by today's manufacturers, and overcoming the challenges of fastening them is our goal. We remain committed to offering a wide variety of the latest technologies that will meet these new challenges.

MANUFACTURING CAPABILITIES



Our broad cold forming process capabilities include from M0.6 to M18 diameter, with lengths from 1.5mm to 200mm (diameter dependent). Thread rolling, trimming, drilling, tapping, machining and pointing add additional value to our cold formed parts. We create parts from many materials including low carbon and alloy steels, stainless steel and other specialty materials such as aluminum, copper and brass. We rely on industry leading supplier partners for approved heat treatment, platings, coatings and specialty processes to compliment our core processes.

Whatever your fastening or specialty component needs are, Semblex has a solution to address your assembly challenges.



Product Lines

Flow Drilling Fastenings for Thin Metal Sheets

“Innovative single-sided fastening solution for lightweight sheet joining”

- No part preparation required
- Forms chipless female threads

Thread Rolling Screws for Metals

“High performance fasteners which roll form mating threads in metal”

- Elimination of tapping and associated costs
- Provide superior resistance to vibrational loosening
- Compatible with equivalent machine screw threads

Thread Forming Screws for Light Metals

“Specialty fasteners that form mating threads in magnesium, aluminum and other light metals”

- Improved performance over traditional thread rolling designs
- Elimination of tapping and associated costs

Thread Forming Screws for Plastics

“Unique fasteners which form mating threads in thermoplastic and thermoset materials”

- Elimination of inserts
- Improved performance over tapping screws

SEMS Assemblies

“Products with captivated washers, sleeves, stampings or other components”

- Eliminates hand assembly
- Ensures proper washer and fasteners compatibility
- Part consolidation reductions

Clinch Products

“Fasteners designed to be staked into receiving component material”

- Replaces welded equivalents and associated costs
- Ease of installation

Brake Components

“Combining conventional forging and precision machining to create complex, high quality components for specific brake assemblies”

- Solenoid valve components
- Hose fittings
- Guide rod and pins
- BIR piston assembly
- EPB nut and screw assembly
- AI piston
- Bleeder bolts/Banjo bolts

Cold Formed Specialty Component Solutions

“Complex shapes to fulfill demanding requirements”

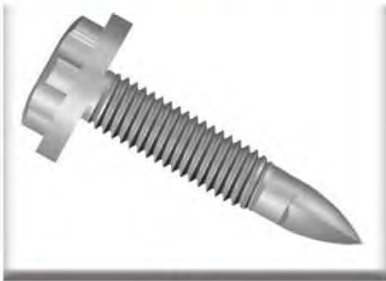
- Screw machine conversions with significant scrap reduction
- Improved product strength with cold forming process
- Combine multiple components into one
- Simplifies assembly process and reduces cycle time

Secondary Machining

“Investment in secondary machining equipment continues”

- Rolling
- Drilling and tapping
- Slotting
- Turning
- Re-heading
- Trimming





FDS®

Flow drilling screw technology

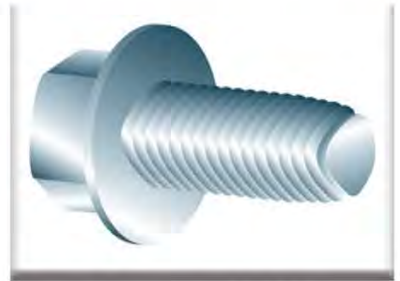
- Installation into aluminum or steel sheets without the need for pre-punched or drilled holes
- Chipless thread forming
- High shear and peel resistance



FLOWpoint Delta PT®

New thread/point technology for CFRP

- No pilot hole required
- Forms strong female thread in CFRP
- Combines unique point feature with optimized Delta PT® thread



Taptite 2000®

TRILOBULAR™ high performance thread rolling fasteners

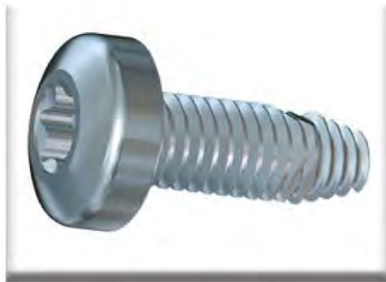
- Innovative Radius Profile® thread
- Stabilizing lead-in point
- Excellent thread forming performance



FASTITE® 2000™

Fasteners for thin sheet metal

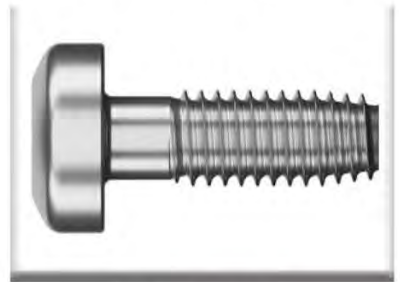
- CA point design provides easy entry and self-extruding action
- Twin helix design prevents off angle assembly
- Excellent drive to strip ratios



SHEETtracs®

Fasteners for thin sheet metal

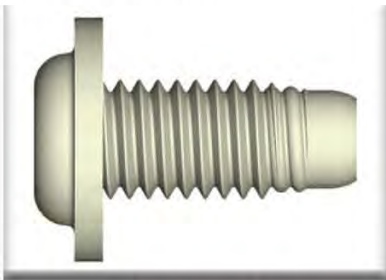
- Unique thread produces high quality thread and sizeable extrusion resulting in high strip out resistance in thin sheet metal
- Serviceable with metric machine screw



ALtracs® Xt

Thread rolling into light alloys

- Unique thread flank design
- Lower installation torque
- Xt CALC simulation software



MATHread®

Anti-Cross Thread Technology

- Eliminates cross threading
- Facilitates component alignment
- Reduces scrap, rework and safety related costs



POWERLOK® II™

TRILOBULAR™ metal locking thread fasteners

- Dual-Angle™ thread provides live action locking in tapped holes
- Deflection of thread tip creates stored energy
- Prevents vibrational loosening



EJOT SpringHead®

Screw with integrated spring element

- Spring/Compression washer alternative
- High clamp-load retention
- Pre-calculated clamp load ranges



Semblex provides some of the most globally recognized specialty fastening technologies available in the world.

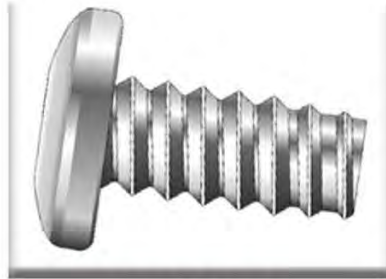
Licensed Products



ROLOK®

High performance spiral feature thread rolling screws

- Improved performance in C-channels over traditional thread rolling screws
- Resists vibrational loosening



MAG-FORM®

Thread forming fasteners for magnesium

- Forms strong mating threads
- Eliminates tapping costs
- Minimal debris generation



Delta PT®

High performance thin thread technology for thermoplastics

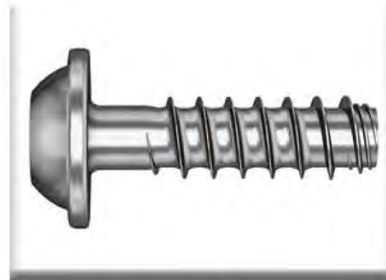
- Thinner boss designs possible
- Increased torsional and tensile strength compared to original PT® design



STRUX®

Powerful clinching studs

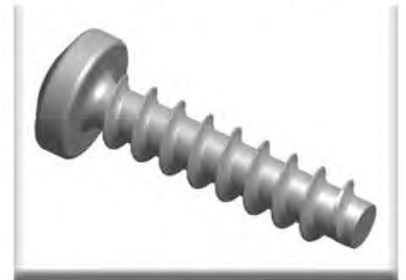
- Easy to install-offline or during stamping process
- High resistance to torsional and axial forces
- Eliminates welding operations
- Eliminates material compatibility concerns



EVO PT®

The evolution of direct fastening into thermoplastics

- Larger drive to strip window
- Self-aligning point
- EVO CALC® simulation software



REMFORM® II™

Unique Radius Flank™ asymmetrical thread

- Unique radius flank
- Asymmetrical thread with thin angled tip
- High resistance to stripping and pull-out



TORX PLUS®

Enhanced productivity and tool life

- Elliptically based geometry
- 25% average increase in bit strength over Torx®
- 100% average improvement in drive tool life



MORTORQ® Super

Spiral Drive System

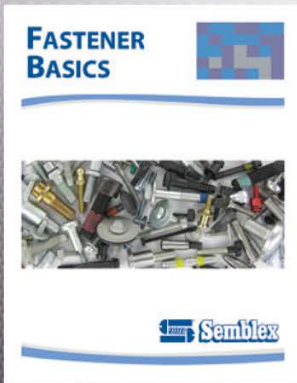
- High torque transfer
- Lower profile heads reduce fastener weight
- High bit strength



PHILLIPS Square-Drive®

Multifaceted drive system

- Stick fit possible
- Lower end-load required
- Field serviceability with multiple system tools



Engineering Services

- Design and Technical Assistance
- VA/VE Project Support
- Application Testing
- Product Teardowns
- Training Programs
- On-Site "Fastener Technology Days"



Certifications & Accreditations



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