

ANIXTER[®]

Component Solutions

your source for

PEM[®] brand


fasteners and equipment




PEMSERTER[®]




FLOATING FASTENERS

	TYPES	GENERAL INFORMATION
	AS, AC	Floating action compensates for mating hole misalignment. Thread sizes #4 to 1/4" and M3 to M6.


FLOATING SELF-LOCKING FASTENERS

	TYPES	GENERAL INFORMATION
	LAS, LAC	Floating action with locking threads compensates for mating hole misalignment. Thread sizes #4 to 1/4" and M3 to M6.


BLIND FASTENERS

	TYPES	GENERAL INFORMATION
	B, BS	Used for applications requiring closed thread ends. Blind end limits screw penetration and excludes foreign matter. Thread sizes #4 to 1/4" and M3 to M6.


CONCEALED-HEAD STUDS

	TYPES	GENERAL INFORMATION
	CHC, CHA, CFHC, CFHA	Installed into a blind milled hole where surface opposite stud must remain unmarred. Thread sizes #4 to #10 and M3 to M5.


CONCEALED-HEAD STANDOFFS

	TYPES	GENERAL INFORMATION
	CSS, CSOS	Installed into a blind milled hole where surface opposite standoff must remain unmarred. Thread sizes #4 to 1/4" and M3 to M6.


SELF-CLINCHING NUTS

	TYPES	GENERAL INFORMATION
	S, SS, H, HN, HNL, CLS, CLSS, CLA	Strong internal threads in sheets as thin as .030" / 0.8 mm. Thread sizes #2 to 1/2" and M2 to M10.


NUTS FOR STAINLESS STEEL SHEETS

	TYPES	GENERAL INFORMATION
	SP	Installs into stainless steel sheets as thin as .030" / 0.8 mm. Thread sizes #4 to 1/4" and M3 to M6.


TRI-DENT® SELF-CLINCHING LOCKNUTS

	TYPES	GENERAL INFORMATION
	SL	Locknuts designed with a unique and economical TRI-DENT® locking feature, which meets demanding locking performance requirements.


THIN SHEET SELF-CLINCHING NUTS

	TYPES	GENERAL INFORMATION
	SMPS	Nuts that feature a lower profile and can be mounted closer to the edge of a sheet than standard self-clinching nuts.


PEMSERT® FLUSH FASTENERS

	TYPES	GENERAL INFORMATION
	F	Fastener remains flush with both sides in sheets as thin as .060" / 1.5 mm. Thread sizes #2 to 1/4" and M2 to M6.

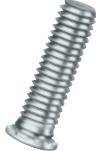
MINIATURE FASTENERS

	TYPES	GENERAL INFORMATION
	U, UL, FE, FEO, FEX, FEOX	Strong threads in a minimum of space. Available with locking or non-locking threads. Can be installed into sheets as thin as .020" / 0.76 mm. Thread sizes #0 to 1/4" and M2 to M6.


SELF-CLINCHING FLUSH-HEAD STUDS


	TYPES	GENERAL INFORMATION
	FH, FHS, FHA, FH4	Flush-head studs for sheet thickness of .040" / 1 mm and greater.


SELF-CLINCHING NON-FLUSH STUDS


	TYPES	GENERAL INFORMATION
	TFH, TFHS	Non-flush studs for sheets as thin as .020" / 0.51 mm. Stud head will project above the sheet surface approximately .025" / 0.64 mm.


SELF-CLINCHING HIGH-STRENGTH STUDS


	TYPES	GENERAL INFORMATION
	HFH, HFHS, HFHB	For high-strength applications in sheets as thin as .050" / 1.3 mm. Type HFHB is used for superior electrical/mechanical attachment in copper bus bars.


LOW DISPLACEMENT HEAD STUDS		
	TYPES	GENERAL INFORMATION
	FHL, FHLS	Installs closer to the edge of a sheet than standard studs without causing that edge to bulge. Flush-head for sheets thickness .040" / 1 mm and greater.


BROACHING TYPE PANEL FASTENERS		
	TYPES	GENERAL INFORMATION
	PFK	Panel fasteners with spring-loaded captive screws for mounting on P.C. boards. Thread sizes #4, #6, and M3.


STUDS FOR STAINLESS STEEL SHEETS		
	TYPES	GENERAL INFORMATION
	FH4	Installs into stainless steel sheets as thin as .040" / 1 mm. For use in sheet hardness of 92 or less on the Rockwell "B" scale.


FLARE-MOUNTED STANDOFFS		
	TYPES	GENERAL INFORMATION
	KFB3	For spacing or stacking P.C. boards. Special shank is flared to increase pushout resistance. Thread sizes #4, #6 and M3, M4.


FLUSH-MOUNTED PILOT PINS		
	TYPES	GENERAL INFORMATION
	TPS	Self-clinching pilot pins satisfy a wide range of positioning, pivot, and alignment applications. The chamfered end makes mating hole location easy.


FOILGARD® FASTENERS		
	TYPES	GENERAL INFORMATION
	KPS6	Used in plated thru-holes in multi-layer P.C. boards. The self-expanding shank ensures positive contact with plated thru-holes. Thread sizes #4 to #10 and M3 to M5.


HIGH-STRENGTH STUDS FOR THIN SHEETS		
	TYPES	GENERAL INFORMATION
	HFE	Self-clinching studs with an enlarged head diameter that provide high-strength in sheets as thin as .040" / 1 mm.


GROUNDING STANDOFFS		
	TYPES	GENERAL INFORMATION
	SOAG, SOSG	Used to ground P.C. boards to steel or aluminum chassis. Annular projecting teeth eliminate the need for serrated or starwashers to make good electrical contact with the circuit foil. Thread sizes #4, #6 and M3, M4.


BROACHING TYPE STANDOFFS		
	TYPES	GENERAL INFORMATION
	KFE, KFSE	Standoffs available with or without threads for mounting on P.C. boards, for spacing or stacking. Thread sizes #4, #6 and M3.


BROACHING SNAP-TOP® STANDOFFS		
	TYPES	GENERAL INFORMATION
	KSSB	All-metal standoffs with a spring action to hold a PC board securely without screws or other threaded hardware.


BROACHING TYPE NUTS		
	TYPES	GENERAL INFORMATION
	KF2, KFS2	Internally threaded fasteners for mounting on P.C. boards. Thread sizes #2 to #10 and M2 to M5.


PEMFLEX® SELF-LOCKING FASTENERS		
	TYPES	GENERAL INFORMATION
	LK, LKS, LKA	The PEMFLEX® design provides NASM25027 locking performance without damaging mating threads. Thread sizes #2 to #10 and M2.5 to M5.


BROACHING TYPE STUDS		
	TYPES	GENERAL INFORMATION
	KFH	Studs for mounting into P.C. boards which can be used as solderable connectors as well as threaded fasteners. Thread sizes #4 to #10 and M3 to M5.


PANEL FASTENER ASSEMBLIES		
	TYPES	GENERAL INFORMATION
	PFHV	Low cost panel fasteners with a small, compact design for limited space applications. Thread sizes #4 & #6 and M3 to M4.


FLUSH-MOUNTED PANEL SCREWS		
	TYPES	GENERAL INFORMATION
	PR10, PS10, N10, F10	Captive screws with self-clinching retainers can be flush mounted into sheets as thin as .125" / 3.2 mm. Thread sizes #4 to #10 and M3 to M5.


PANEL FASTENER ASSEMBLIES		
	TYPES	GENERAL INFORMATION
	PF13, PF13M, PF14, PF14M	Universal slot/Phillips recess. Type PF13 (knurled cap) meets UL 508 "operator access area" requirements. Type PF14 (smooth cap) meets UL 1950 "service access area" requirements.


HYBRID™ PANEL FASTENERS		
	TYPES	GENERAL INFORMATION
	PPF	Self-clinching panel fastener assemblies with a standard black ABS knob with a steel retainer and screw. Non-stocked standard colors and custom colors are available.


SPRING-LOADED, PLUNGER ASSEMBLY		
	TYPES	GENERAL INFORMATION
	PTL2	Used as a retractable drawer-guide stop, indexing pins and latch detents. Can be locked in retracted position. Plunger diameter .250" / 6.4 mm.


HYBRID™ PANEL THUMBSCREWS		
	TYPES	GENERAL INFORMATION
	PFT	Thumbscrews with a standard hand or tool actuated black ABS knob. Non-stocked standard colors and custom colors are available.


HYBRID™ FLOATING PANEL FASTENERS		
	TYPES	GENERAL INFORMATION
	PFF	Floating panel fasteners that can be installed into any panel material with tool or finger operation, and can compensate for up to .060" / 1.52mm mating hole misalignment.


PANEL FASTENER ASSEMBLIES		
	TYPES	GENERAL INFORMATION
	PFC2, PFS2	Completely pre-assembled spring-loaded panel fasteners that meet UL 508 "operator access area" requirements. Thread sizes #4 to 1/4" and M3 to M6.


LOW-PROFILE PANEL FASTENERS		
	TYPES	GENERAL INFORMATION
	PF50, PF60	Low-profile panel fasteners with a large head and Phillips recess for tool or finger operation. Available with smooth cap (Type PF60) for limited access.


PHILLIPS DRIVE PANEL FASTENERS		
	TYPES	GENERAL INFORMATION
	PFC2P	Panel fasteners that are tool-only to meet UL 1950 "service area access" requirements. Thread sizes #4 to 1/4" and M3 to M6.

ACCESS HARDWARE FOR STAINLESS		
	TYPES	GENERAL INFORMATION
	PFC4	Specially hardened stainless steel access hardware for use in stainless steel sheets.

LOW-PROFILE PANEL FASTENERS		
	TYPES	GENERAL INFORMATION
	PF30, PF31, PF32	Panel fasteners with a low-profile design with a large knurled head that can be tool or hand actuated. Thread sizes #4 to 1/4" and M3 to M6.


PEMHEX® SELF-LOCKING FASTENERS		
	TYPES	GENERAL INFORMATION
	PL, PLC	Trademarked blue nylon locking element (for unified fasteners) prevents thread galling. Locking performance meets NASM25027. Thread sizes #4 to #10 and M3 to M5.

PANEL FASTENER ASSEMBLIES		
	TYPES	GENERAL INFORMATION
	PF11, PF11M, PF12, PF12M	Universal slot/Phillips recess. Type PF11 (knurled cap) meets UL 508 "operator access area" requirements. Type PF12 (smooth cap) meets UL 1950 "service access area" requirements.


NYLON INSERT SELF-LOCKING NUTS		
	TYPES	GENERAL INFORMATION
	CFN	Broaching nuts for use in thinner sheet, close-to-edge applications. The locking element provides prevailing torque to eliminate loosening of mating threaded hardware.

PEM® Brand Fasteners


R'ANGLE® RIGHT ANGLE CLINCH FASTENER

	TYPES	GENERAL INFORMATION
	RAA	Provide strong right angle attachment points in aluminum sheets. Attachment is easily made using thread forming screws.


R'ANGLE® RIGHT ANGLE CLINCH FASTENER

	TYPES	GENERAL INFORMATION
	RAS	Provide strong right angle attachment points in steel sheets. Type RAS fasteners are threaded and attachment is simply made using a standard screw. Thread sizes #4 to #8, M3 and M4.


KEYHOLE® STANDOFFS

	TYPES	GENERAL INFORMATION
	SKC	Designed so that a P.C. board or component can be quickly slipped into place and then removed by sliding the board sideways and lifting it off.


THRU-HOLE, THREADED STANDOFFS

	TYPES	GENERAL INFORMATION
	SO, SOS, SOA, SO4	Self-clinching standoffs with thru-hole threads. Thread sizes #4 to #10 and M3 to M5. Also available unthreaded on special order.


BLIND, THREADED STANDOFFS

	TYPES	GENERAL INFORMATION
	BSO, BSOS, BSOA, BSO4	Self-clinching standoffs with blind threads. Thread sizes #4 to #10 and M3 to M5.


STANDOFFS FOR STAINLESS STEEL

	TYPES	GENERAL INFORMATION
	SO4, BSO4	Installs into stainless steel sheets as thin as .040" / 1 mm. For use in sheet hardness of 88 or less on the Rockwell "B" scale.


STANDOFFS FOR ULTRA-THIN SHEETS

	TYPES	GENERAL INFORMATION
	TSO, TSOS, TSOA	These self-clinching standoffs provide permanent threads in sheets as thin as .025" / 0.63 mm.


THREADED STANDOFFS

	TYPES	GENERAL INFORMATION
	DSO, DSOS	Self-clinching, threaded standoffs for use in close-to-edge applications.


FASTENERS FOR STAINLESS SHEETS

	TYPES	GENERAL INFORMATION
	PFC4, SP, SO4, BSO4, FH4	Specially hardened stainless steel fasteners for use in stainless steel sheets.


SNAP-TOP® STANDOFFS

	TYPES	GENERAL INFORMATION
	SSA, SSS, SSC, KSSB	Accurately space a P.C. board or panel from a metal chassis simply by snapping board on standoff.


TY-D® CABLE-TIE MOUNT HARDWARE

	TYPES	GENERAL INFORMATION
	TD	Self-clinching to permanently mount in enclosure. Replaces plastic or loose hardware devices. Tie slides easily through "eye" of fastener for fast cable mounting.

SELF-CLINCHING CABLE-TIE HOOKS

	TYPES	GENERAL INFORMATION
	TDO	Allows for easy removal and return of tie-bundled wires from their mounting points without cutting or damaging the cable ties.

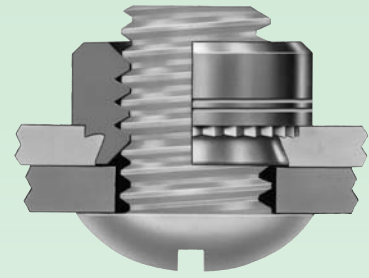
PROJECTION WELD NUTS

	TYPES	GENERAL INFORMATION
	WN, WNS	Unique PEM design prevents burnouts and eliminates the need for indexing and retapping to remove weld spatter. Thread sizes #4 to 1/4" and M3 to M6.

Self-clinching Fastener Installation Do's And Don'ts

“Do's”

- Do** provide mounting hole of specified size for each fastener.
- Do** make certain that shank (or pilot) is within hole before applying installation force.
- Do** apply squeezing force between parallel surfaces.
- Do** apply sufficient force to totally embed clinching ring around entire circumference and to bring shoulder squarely in contact with sheet. For some fasteners, installation will be complete when the head is flush with the panel surface.




“Don'ts”


- Don't** install steel or stainless steel fasteners in aluminum panels before anodizing or finishing.
- Don't** deburr mounting holes on either side of sheet before installing fasteners – deburring will remove metal required for clinching fastener into sheet.
- Don't** install fastener closer to edge of sheet than minimum edge distance indicated by manufacturer – unless a special fixture is used to restrict bulging of sheet edge.
- Don't** over-squeeze. It will crush the head, distort threads, and buckle the sheet. Be certain to determine optimum installation force by test prior to production runs.
- Don't** attempt to insert fastener with a hammer blow – under any circumstances. A hammer blow won't permit the sheet metal to flow and develop an interlock with the fastener's contour.
- Don't** install screw in the head side of fastener. Install from opposite side so that the fastener load is toward sheet. The clinching force is designed only to hold the fastener during handling and to resist torque during assembly.
- Don't** install fastener on pre-painted side of panel.


PEM® Fasteners Prototype Kits


The PEM prototype kit contains a wide variety of PEM self-clinching fasteners for your prototype needs. The kit contains over 1,000 different nuts, studs, standoffs, and panel fasteners of various types and sizes, so you can choose the one which will best suit your specific design requirements. The kit is available with unified or metric parts.





ULTRASONIC/HEAT STAKING INSERTS		
	TYPES	GENERAL INFORMATION
	IUB, IUC	Tapered, thru-threaded inserts designed for use in tapered holes. Taper allows for rapid and accurate alignment prior to installation.


PRESS-IN THREADED INSERTS		
	TYPES	GENERAL INFORMATION
	NFPA, NFPC	Hexagonal inserts that provide strong, reusable threads. Hexagonal "barbed" configuration ensures high torque-out and pullout values.


ULTRASONIC/HEAT STAKING INSERTS		
	TYPES	GENERAL INFORMATION
	IUTB, IUTC	Straight wall, thru-threaded inserts designed for use in straight holes. Self-aligning lead-in provides for accurate alignment prior to installation.


PRESS-IN THREADED INSERTS		
	TYPES	GENERAL INFORMATION
	PPB	Thru-threaded, slotted inserts with strong, reusable threads. The slot compresses allowing easy access into the mounting hole.

ULTRASONIC/HEAT STAKING INSERTS		
	TYPES	GENERAL INFORMATION
	ISB, ISC	Symmetrical, thru-threaded inserts designed for use in straight or tapered holes. Symmetrical design eliminates the need for orientation.


PRESS-IN THREADED INSERTS		
	TYPES	GENERAL INFORMATION
	PFLB	Flange-head, slotted inserts with strong, reusable threads. Flange-head eliminates direct contact of plastic with mating parts.


MOLDED-IN THREADED INSERTS		
	TYPES	GENERAL INFORMATION
	IBB, IBC	Inserts with a blind end to protect the threads from plastic intrusion.

PRESS-IN THREADED INSERTS		
	TYPES	GENERAL INFORMATION
	PKB	Straight knurl, slotted inserts with strong, reusable threads. Straight knurling at the top end of the insert offers higher torsional resistance.

MOLDED-IN THREADED INSERTS		
	TYPES	GENERAL INFORMATION
	IBLC	Self-locking, blind threaded inserts with deformed threads to lock screw in place to resist vibration. Blind end protects the threads from plastic intrusion.

- Strong, durable threads in plastic
- Ultrasonic/heat stake, molded-in, and press-in installation types
- Available in brass, aluminum, and stainless steel




MOLDED-IN THREADED INSERTS		
	TYPES	GENERAL INFORMATION
	ITB, ITC	Thru-threaded inserts with a pilot diameter and undercut to allow plastic to flow into grooves providing high pullout resistance.

SI® Inserts Prototype Kits

The SI prototype kit contains a wide variety of SI threaded inserts for plastics for your prototype needs. The kit contains over 1,000 ultrasonic/heat staking, molded-in, and press-in inserts in various types and sizes, so you can choose the one which will best suit your specific design requirements. The kit contains both unified and metric parts. Part # PKS1-100.

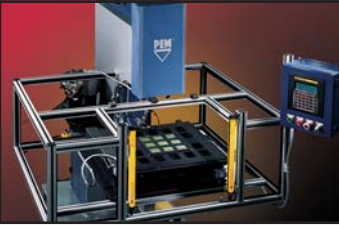


MOLDED-IN THREADED INSERTS		
	TYPES	GENERAL INFORMATION
	STKB, STKC	Thru-threaded inserts with a uniform knurl diameter to reduce the risk of sink marks. Available in varying lengths for injection molding assemblies.



PEMSERTER® IN-DIE FASTENER FEEDING SYSTEM

The In-die system allows you to install fasteners during the stamping process so that no secondary insertion operations are required, thus reducing overall labor costs, improving part quality, and dramatically improving product through-put.



PEMSERTER® TRU-MOTION™ PRESSES

TRU-MOTION™ presses are custom integrated systems that combine PEMSERTER automatic fastener installation presses with automated workpiece handling. Available integrated systems include X/Y positioning tables, rotary indexers, and multi-axis robotics. These systems can also be directly integrated into your production line, working as a station and providing feedback to your master control system.



PEMSERTER® SERIES 2000° PRESS

The Series 2000 press is a 71.2 kN / 16,000 lbs. automatic press system, that utilizes a programmable logic controller and a menu driven touch screen, operator interfacing system, which is available in nine different languages. Touch screen allows for quick-run-set-up, easy operator training, and precise fastener installation setups.

The Series 2000 press has a unique LIGHTSTREAM® Operator Safety System (patent applied for). It is a wireless, fail-safe system which utilizes a pair of infrared light beams to improve worker and workpiece safety.



PEMSERTER® SERIES 4° PRESS

The Series 4 press is a 53.3 kN / 12,000 lbs. manual press, equipped with an adjustable stroke length, and a 45.7 cm / 18" throat depth which provides a generous work area for a variety of chassis configurations. It is designed to install self-clinching fasteners in sizes M2 thru M10 / #0 thru 3/8" in steel, and sizes up to M12 / 1/2" in aluminum or circuit boards.




PEMSERTER® SERIES LT/4™ PRESS

The Series LT/4 press is a 26.7 kN / 6,000 lbs manual press designed to install unified or metric self-clinching nuts, studs, and standoffs requiring three tons of insertion force or less. It has an internal point-of-operation safety and a unique removable anvil base to accept future applications.


Stand available.

New PEM® Brand Fasteners


ATCA® FACEPLATE FASTENING SOLUTIONS

	TYPES	GENERAL INFORMATION
	TPXS™	PEM® Type TPXS pin meets the TCA PICMG 3.0 specification for a 3mm alignment pin. The 15° tapered point makes mating hole location easy.

SPOTFAST™ FASTENERS

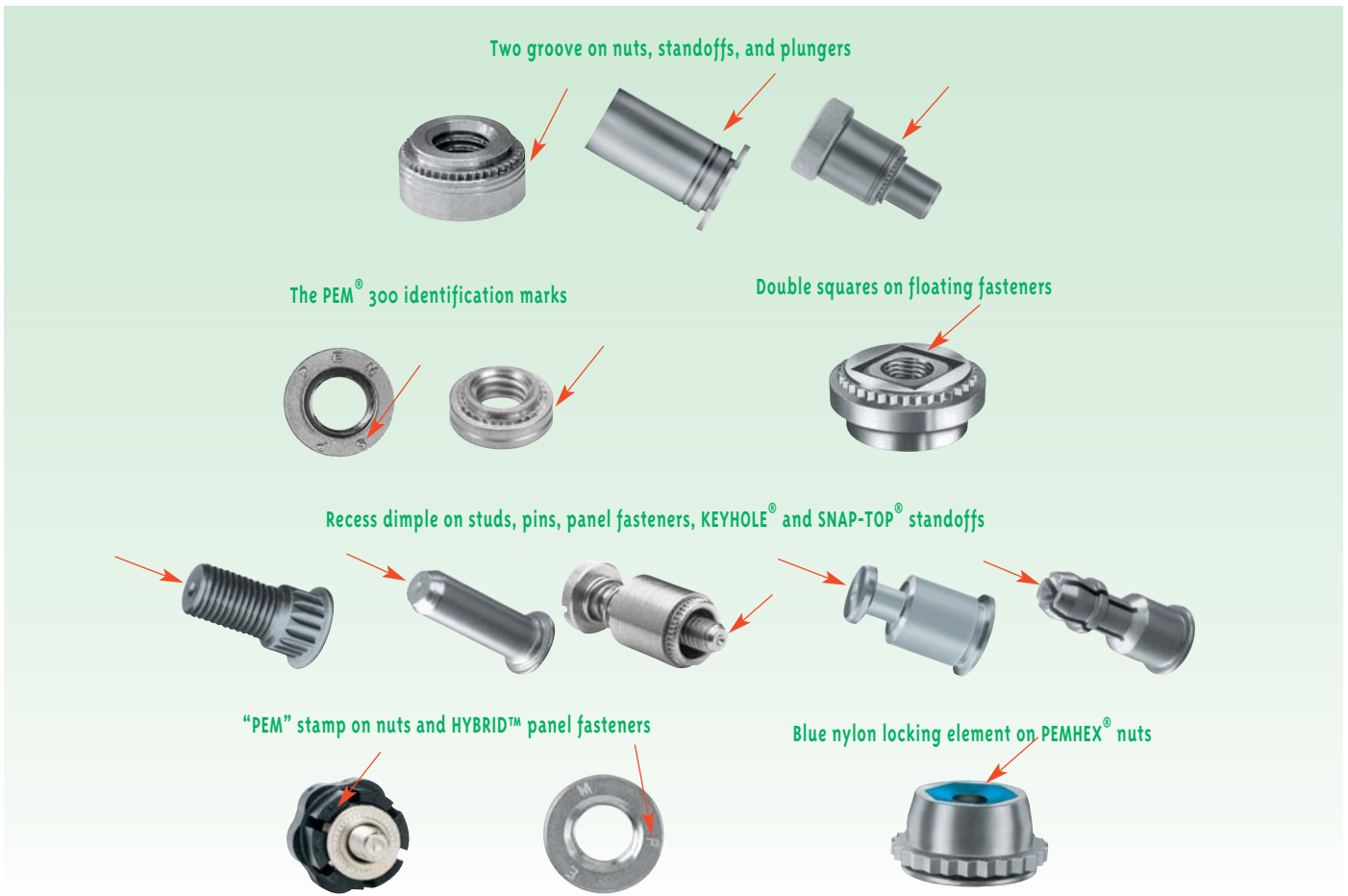
	TYPES	GENERAL INFORMATION
	SF™	Allows permanent joining of two metal sections. The fastener installs smooth with the top sheet, and flush or sub-flush with the bottom sheet.

SURFACE MOUNT FASTENERS

	TYPES	GENERAL INFORMATION
	SMTPR SMTSO SMTRA	ReelFast® SMT surface mount fasteners are mounted on printed circuit boards in the same manner as other surface mount components.

Fastener Identification Marks

To help you identify genuine PEM® brand fasteners, most are marked by one of our registered trademarks. Genuine PEM® brand fasteners can only be purchased from authorised worldwide distributors.



To find out more about Self-Clinching fasteners or other PEM® products, please call us on +44 (0)1202 865222