

SI® Lead-free Inserts For Plastics

Aluminum and stainless steel inserts for plastics offer lead-free alternative to brass

- Lead-free aluminum and stainless steel inserts offer alternative to brass to address environmental active use and end-of-life recycling concerns.
- **NEW aluminum inserts** are approximately 70% lighter than brass equivalents and are made from lead-free aluminum.
- Stainless steel inserts are typically stronger than brass and may offer better protection from certain types of corrosive agents.
- All inserts are available for press-in, molded-in or ultrasonic/heat installation.



ULTRASONIC / HEAT STAKING INSERTS

- Ultrasonic - Installed by pressing the insert into the mounting hole with ultrasonic insertion equipment while simultaneously applying a high frequency vibration. Frictional heat caused by the vibration melts the plastic surrounding the insert allowing easy insertion. When the vibration ceases, the plastic solidifies, locking the insert permanently in place.
- Heat Staking - Installed by pressing the insert into the mounting hole with a thermal press to melt the plastic surrounding the insert.
- Styles include:
 - Tapered, through threaded inserts
 - Straight wall, through threaded inserts
 - Symmetrical, through threaded inserts

MOLDED-IN INSERTS

- Installed during the molding process, the inserts are located in the mold cavity by core pins. When the mold opens, the core pins are withdrawn leaving the inserts permanently encapsulated in the plastic section with only the threads exposed.
- Installing the inserts during the molding process eliminates the need for secondary steps or installation equipment.
- Styles include:
 - Blind threaded inserts
 - Self-locking blind threaded inserts (stainless steel only)
 - Through threaded inserts
 - Knurled spacers

PRESS-IN INSERTS

- Installed by simply pressing the inserts into pre-molded or drilled holes. Installation is accomplished using any standard press at any time during the production process.
- Eliminates the need for molding-in inserts.
- Eliminates the need for heat or ultrasonic equipment.
- Styles include:
 - Hexagonal, press-in inserts
 - Through threaded inserts
 - Flange-head inserts
 - Straight knurl inserts

For complete specifications and performance data, see [PEM® Bulletin Si](#).

PennEngineering®



North America: Danboro, PA USA • E-mail: info@pemnet.com • Tel: +1-215-766-8853 • Fax: +1-215-766-0143 • 800-237-4736 (USA Only)

Europe: Galway, Ireland • E-mail: europe@pemnet.com • Tel: +353-91-751714 • Fax: +353-91-753541

Asia/Pacific: Singapore • E-mail: singapore@pemnet.com • Tel: +65-6-745-0660 • Fax: +65-6-745-2400

Shanghai, China • E-mail: china@pemnet.com • Tel: +86-21-5868-3688 • Fax: +86-21-5868-3988

Visit our PEMNET™ Resource Center at www.pemnet.com

Technical support e-mail: techsupport@pemnet.com

© 2016 PennEngineering.