NEW!

microPEM® Inserts For Plastics

The new microPEM® Type MSIB™ thru-threaded inserts for plastic are designed for use in straight or tapered holes. The symmetrical design eliminates the need for orientation. They are installed by pressing them into the mounting hole with ultrasonic insertion equipment. 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. Type MSIB inserts can also be installed by pressing the insert into the mounting hole with a thermal press to melt the plastic surrounding the insert.

TYPE MSIB™ microPEM® Inserts For Plastics

Features and Benefits

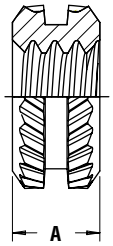
- *Threads as small as M1.*
- *Designed for use in straight or tapered holes.*
- *Symmetrical design eliminates the need for orientation.*
- *Provides excellent performance in wide range of plastics.*

Part Number Designation

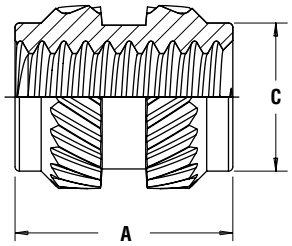
MSI B – M1 – 100

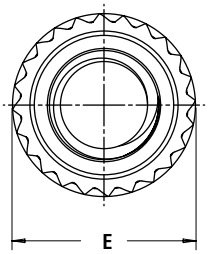
Type	Material	Thread Size Code	Length Code

Style #1



Style #2





After Knurl

All dimensions are in millimeters.

	Thread Size x Pitch	Type	Thread Code	Length Code	A ±0.1	E ± 0.1	C Max.	Mounting Hole in Material: Min. Wall Thickness (6)	Mounting Hole in Material: Hole Depth Min.	Mounting Hole in Material: Hole Diameter +0.05
METRIC	M1 x 0.25(3)	MSIB	M1	100(1)	1	2.1	—	0.7	1.77	1.75
				250(2)	2.5		1.75		3.27	
	M1.2 x 0.25(3)	MSIB	M1.2	100(1)	1	2.1	—	0.7	1.77	1.75
				250(2)	2.5		1.75		3.27	
	M1.4 x 0.3(4)	MSIB	M1.4	150(2)	1.5	2.5	2.15	0.8	2.27	2.15
				300(2)	3				3.77	
	M1.6 x 0.35(5)	MSIB	M1.6	150(2)	1.5	2.5	2.15	0.8	2.27	2.15
				300(2)	3				3.77	

(1) Style #1 - length codes less than 150
(2) Style #2 - length codes 150 and greater
(3) Metric ISO 68-1, 5H
(4) Metric ISO 68-1, 6H
(5) Metric ASME B1.13M, 6H
(6) Refers to wall diameter of boss as tested in ABS and polycarbonate.

Insert Material: *Free-machining, leaded brass, plain finish*

microPEM® FASTENERS

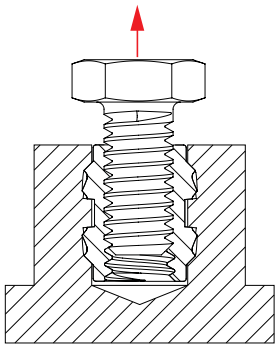
PERFORMANCE DATA(1)

	Type	Thread Code	Length Code	Test Sheet Material			
				ABS		Polycarbonate	
				Pullout (N)	Torque-out (N•cm) (2)	Pullout (N)	Torque-out (N•cm) (2)
METRIC	MSIB	M1	100	50	3.5	50	4.5
			250	150	10	200	12
	MSIB	M1.2	100	50	3.5	50	4.5
			250	150	10	200	12
	MSIB	M1.4	150	100	15	140	15
			300	330	30	400	30
	MSIB	M1.6	150	100	15	140	15
			300	330	30	400	30

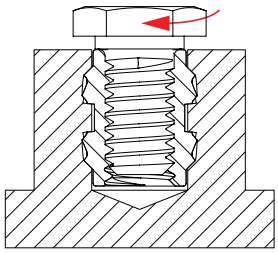
(1) The values reported are averages when all installation specifications and procedures are followed. Variations in mounting hole size, sheet material and installation force will affect results. Performance testing of this product in your application is recommended. We will be happy to provide samples for this purpose.

(2) Torque-out performance will depend on the strength and type of screw being used. In most cases, the screw threads will fail before the insert threads.

For testing purposes, inserts were installed using heat stake equipment into a flat sheet.



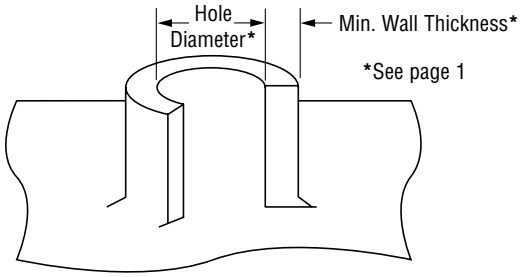
***Pullout** is the force required to pull the insert from the sheet.*



***Torque-out** is the torque required to turn the fastener in the parent material after installation without inducing clamp load on the fastener.*

HOLE PREPARATION GUIDELINES

Thinner walls and bosses may be used but will affect performance.



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Regulatory compliance information is available in Technical Support section of our website.

Specifications subject to change without notice.
See our website for the most current version of this bulletin.

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