

# BosScrew™

The **ONLY** screw specifically designed **NOT** to loosen in plastic applications

The BosScrew is an engineered fastener that is designed with unique features on the pressure flank. These features create an “uphill battle” for loosening even during vibration and temperature change. This ensures the joint *simply stays tight.*

## BosScrew™ BENEFITS

### SERVICEABILITY

*Removable* by hand with standard tooling with excellent *reusability*. The BosScrew works with standard clearance holes.

### SECURITY

Temperature change and vibration increase the torque required to remove the BosScrew. Through the natural creep characteristics of plastics the BosScrew locks into place with its many pressure wells.

### ENGINEERED

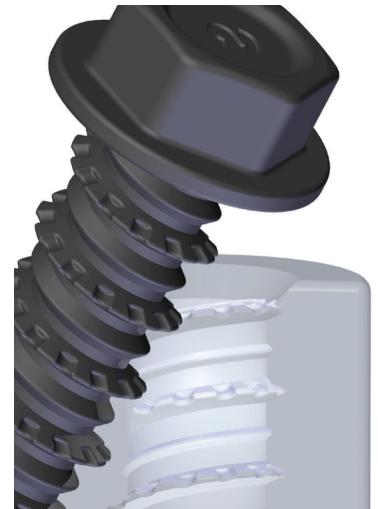
The pressure flanks absorb torque during installation and are most effective in final seating of the fastener and joint. This results in a very large Drive-Strip window.

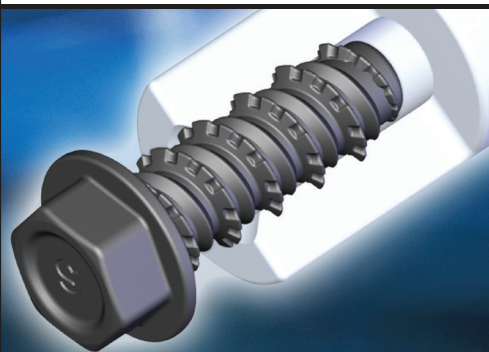
### COST-SAVINGS

Eliminates the need for molded Brass Inserts. The high performance of the BosScrew allows for shorter shank length's, resulting in lower material costs.

### ENVIRONMENTAL

No secondary operations/add-ons. ROHS per plating. Can recycle plastics without the worry of metal inserts.





**Pressure flank features of the BosScrew interlock with the plastic**

### PROBLEM

*“Plastic fasteners loosen and strip easily in application”*

### SOLUTION BosScrew™

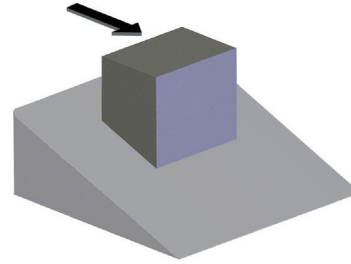
- 1** Eliminates the need to add filler to increase stiffness in plastic
- 2** Permits design of shorter bosses
- 3** Resistant to temperature and vibration loosening



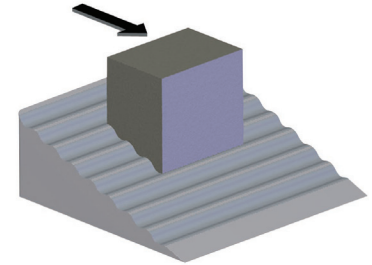
WERCSTOOLING is a trademark of WERCSTOOLING, a division of Illinois Tool Works Inc. ITW WERCSTOOLING Technology has revolutionized the design and manufacturing of threaded products. This technology allows for the formation of unique geometries on the thread.



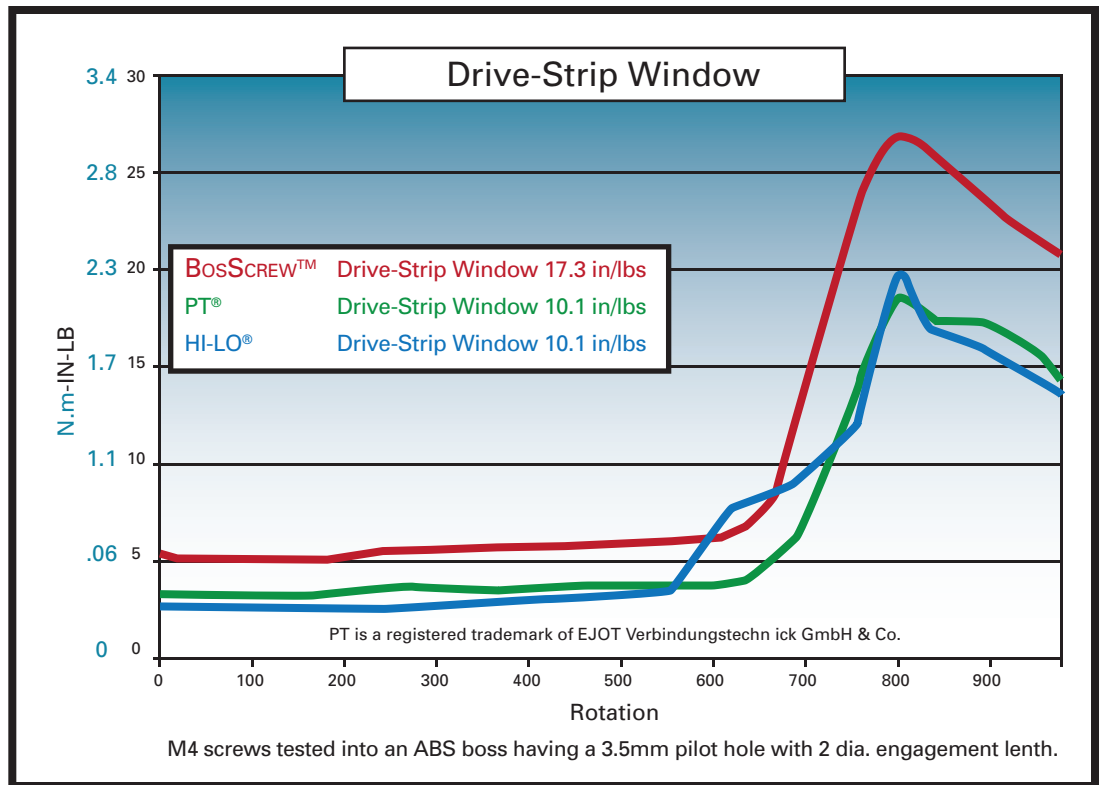
Screw Size	Typical Mean Pilot Hole (in)			
	Acetal	Nylon	ABS	PBT
#4		0.090		
M3		0.093		
#6		0.122		
M3.5		0.122		
#8		0.132		
#10		0.154		
M4		0.132		
M5		0.154		
M5.7		0.170		
M6		0.186		
1/4		0.209		
M6.3		0.209		
M8		0.248		
5/16		0.265		
3/8		0.286		



Standard Screw Technology



The BosSCREW™ Advantage



Please contact the Shakeproof Group for all your design, pricing and delivery questions.  
815.654.1510 • [info@shakeproofgroup.com](mailto:info@shakeproofgroup.com) • [www.shakeproofgroup.com](http://www.shakeproofgroup.com)

# GripTide™ Insert

A low cost steel insert for plastics that *surpasses* brass inserts in quality, cost and performance.

The GripTide insert utilizes cold forming and rolling to give the unique feature to the outside of the insert that ensures the joint *simply stays tight*.



This cold rolled insert has a unique feature that creates a permanent mechanical interference in plastic.

## PROBLEM

"Brass inserts are high in cost and low in performance."

## SOLUTION GripTide™ Inserts

- 1 Steel material and manufacturing cost is much lower than brass
- 2 The unique cold rolled feature creates increased pull out force of the insert and allows for less thread engagement to achieve necessary joint strength.

## GripTide™ Insert Benefits

### ENGINEERED

The GripTide insert's revolutionary pattern integrates with all common installation methods (induction press, conductive, heat staking, insert molding, ultrasonic insertion, and cold press) eliminating the need for multiple designs.

### COST SAVINGS

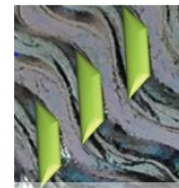
The GripTide inserts are cold formed, allowing maximum design freedom for flange diameter/bearing surface without the scrap cost associated with typical machined inserts. Custom lengths and GripTide stud versions can be manufactured to suit all applications.

### SECURITY

The GripTide insert's multidirectional pattern provides industry leading anti-rotation and pullout performance. In addition, the pattern acts as a stabilizer in the mating material, minimizing "hot float" and improving installation accuracy.

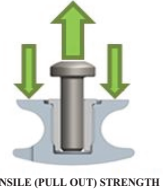
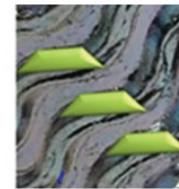
### ENVIRONMENTAL

The GripTide insert has been optimized for use on induction equipment. During induction, steel heats more efficiently than brass, leading to decreased cycle times, lower capital equipment costs, and reduced energy consumption through the use of smaller units.



ROTATIONAL TORQUE

## ANTI-ROTATION



TENSILE (PULL OUT) STRENGTH

## HIGH PULLOUT



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