

INSERTS FOR PLASTICS

塑膠專用螺母

Wherever you are...

we have the solution!

ADVANTAGES

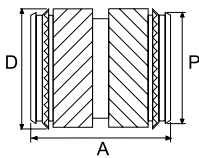
- Double ended - assists automatic feeding
- Increased pull out and torque performance
- Self-aligning - assists installation
- Permits thin boss walls allowing compact boss design
- Choice of lengths available

特點

- 外型無方向性，方便自動進料加工。
- 四段壓花增加高扭拉性能。
- 容許使用於肉厚較薄之設計上。
- 可選擇不同長度的利用及安裝。

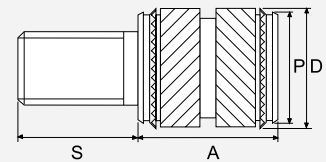
SELECTION OF INSERT OR STUD

INSERTS



PRODUCT CODE [TEC]
型號

STUDS



PRODUCT CODE [TCTS]
型號

ISO METRIC (公制)

Unit: Millimetres

Product Code 型	Thread Size 螺牙	Insert Length A 標準長度	Preferred Shorter Length A* 特殊長度		Stud Lengths (For TCTS only) S 公件長度										Insert \varnothing D 外徑	Pilot End \varnothing P 圓頭	Rec.Hole Size -0.00 +0.10 孔直徑	Min. Wall Thickness 最少肉厚		
					5	6	8	10	12	14	16	18	20	25						
TEC-B TCTS-B	2	4.0	3.0	-	-	5	6	8	10	12	14	16	18	20	25	3.5	3.1	3.2	1.3	
	2.5	5.7	4.0	-	-	5	6	8	10	12	14	16	18	20	25	4.4	3.9	4.0	1.6	
	3	5.7	4.0	4.8	-	-	5	6	8	10	12	14	16	18	20	25	4.4	3.9	4.0	1.6
	3.5	7.1	5.0	-	-	5	6	8	10	12	14	16	18	20	25	5.2	4.7	4.8	1.8	
	4	8.1	4.0	4.8	5.8	5	6	8	10	12	14	16	18	20	25	6.1	5.5	5.6	2.1	
	5	9.5	5.8	-	-	5	6	8	10	12	14	16	18	20	25	6.8	6.3	6.4	2.6	
	6	12.7	6.8	9.5	-	5	6	8	10	12	14	16	18	20	25	8.5	7.9	8.0	3.3	
	8	12.7	-	-	-	5	6	8	10	12	14	16	18	20	25	10.0	9.5	9.6	4.5	
	10	12.7	-	-	-	5	6	8	10	12	14	16	18	20	25	12.3	11.8	11.9	6.0	
	12	15.9	-	-	-	5	6	8	10	12	14	16	18	20	25	16.3	15.8	16.0	8.0	

Other lengths possible on quotation. 其它長度也可估價。

UNIFIED (英制)

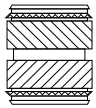
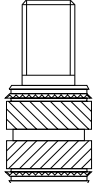
Unit: Inches

Product Code 型	Thread Size 螺牙	Insert Length A 標準長度	Preferred Other Length A* 特殊長度		Stud Lengths (For TCTS only) S 公件長度										Insert \varnothing D 外徑	Pilot End \varnothing P 圓頭	Rec.Hole Size -0.000 +0.004 孔直徑	Min. Wall Thickness 最少肉厚	
					3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4	7/8	1					
TEC-B TCTS-B	2-56	.155	.118	-	-	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4	7/8	1	.137	.123	.125	.051
	4-40	.224	.157	.188	-	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4	7/8	1	.174	.154	.157	.063
	6-32	.279	.197	-	-	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4	7/8	1	.205	.185	.189	.071
	8-32	.319	.157	.188	.228	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4	7/8	1	.239	.218	.220	.083
	10-24	.373	.228	-	-	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4	7/8	1	.269	.249	.252	.102
	10-32	.373	.228	-	-	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4	7/8	1	.269	.249	.252	.102
	1/4-20	.498	.269	.374	-	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4	7/8	1	.333	.312	.315	.130
	1/4-28	.498	.269	.374	-	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4	7/8	1	.333	.312	.315	.130
	5/16-18	.498	-	-	-	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4	7/8	1	.394	.374	.378	.177
	5/16-24	.498	-	-	-	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4	7/8	1	.394	.374	.378	.177
	3/8-16	.498	-	-	-	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4	7/8	1	.485	.465	.469	.236
	3/8-24	.498	-	-	-	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4	7/8	1	.485	.465	.469	.236
	1/2	.626	-	-	-	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4	7/8	1	.643	.622	.630	.315

Other lengths possible on quotation. 其它長度也可估價。

STANDARD MATERIAL: BRASS (B)
Other materials possible on quotation 標準材質: 黃銅 (B)
其它長度也可估價。

SPECIFYING AN INSERT & STUD

INSERTS (METRIC)						STUDS (METRIC)									
TEC	-	B	-	M3	×	4.0	TCTS	-	B	-	M3	×	4.0	-	5.0
	PRODUCT CODE	MATERIAL	THREAD SIZE	PREFERRED OTHER LENGTH			PRODUCT CODE	MATERIAL	THREAD SIZE	PREFERRED OTHER LENGTH	STUD LENGTH				
型號	材質	螺牙	特殊長度			型號	材質	螺牙	特殊長度	公件長度					
TEC	-	B	-	632	×	.157	TCTS	-	B	-	632	×	.157	-	3/16
INSERTS (INCHES)						STUDS (INCHES)									

BOSS DESIGN SPECIFICATION

HOLE PREPARATION

Moulded holes are recommended wherever possible. The taper on a moulded hole should be 0.5° inclusive and the hole diameter recommended should apply at the point reached by the bottom of the insert. The top of the hole should not be chamfered or counterbored and care must be taken to avoid bell mouching. Hole diameter tolerance: -0.00 +0.10mm.

INSTALLATION

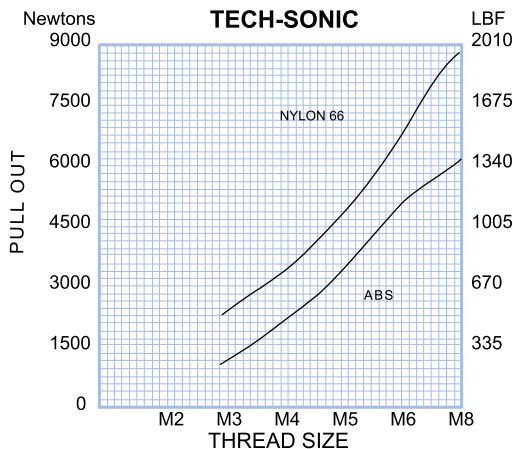
The Fastener has been designed for installation using a pre-heating process. Care must be exercised to ensure that the Fastener softens but does not melt the plastic. This will avoid any tendency to generate unsightly Flash around the top of the insert and ensure optimum performance. Excessive pressure should be avoided since this may result in the insert being Forced into the hole without allowing the plastic to soften and Flow around the surface profile.

WALL THICKNESS

A general guide to minimum wall thickness is given in the data table but this will vary depending upon the nature of the plastic. Where thinner walls are required these can often be accommodated, but consultation with the P.S.M Technology Centre or Local Sales Office and pre-production testing is strongly advised.

PERFORMANCE DATA

The complexity of materials and variations in service conditions make it impossible to detail fastener performance for specific applications. The chart below give a general guide and show the relative performance of the inserts in the range.



塑膠孔徑之設計

1. 螺母規格之塑膠孔徑建議值，請參考規格表。
2. 塑膠成型后，內孔徑之脫模斜度應於 0.5 度以內。
3. 塑膠內孔徑公差值請設於 0.00+0.10mm 的範圍。
4. 塑膠內孔上方，可不必設計導角。

裝置

1. 適用於射出成型或熱熔加工。
2. 射出成型埋入時，請特別注意模具中套筒尺寸，以方便螺母置入模具中。
3. 套筒尺寸公差值請參閱建議值或洽 P.S.M 技術人員。
4. 熱熔加工時，溫度須低母材熔點 10-20 度。
5. 熱熔加工所須之壓力、時間及速度、須視塑膠材質及螺母大小而調整。

塑膠孔肉厚

1. 建議肉厚，請參考規格表。
2. 肉厚可視不同塑膠材質，而略作調整，但請先與 P.S.M 技術人員聯系，必要時我們將協助測試及作最適當之建議。

測試數據

1. P.S.M 使用各種精密之測試儀器，針對常用之塑膠材料作出各類型螺母可承受之扭力，拉力的測試請參考以下的數據。
2. P.S.M 為服務客戶，非常歡迎客戶委托代作測試，我們將提供完整及詳盡之測試報告及必要之建議。