



INSERTS FOR PLASTICS

塑膠專用螺母

Wherever you are...

we have the solution!

ADVANTAGES

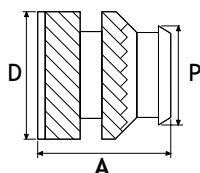
- Designed for use in an 8° tapered hole
- High pull out performance
- High torque resistance
- Flange prevents escape of plastic
- Can be installed by heat or ultrasonics
- Self-aligning

特點

- 專為脫模斜度較大(8度J)的塑膠孔徑而設計。
- 高扭拉力的性能。
- 上端圓頭之設計，使埋植過程不易產生溢膠。
- 可使用熱熔或超音波埋植。
- 可用於自動埋植設備。

SELECTION OF INSERT

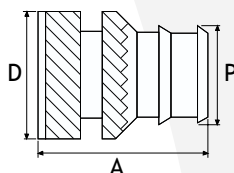
SINGLE VANE INSERTS



PRODUCT CODE [TX] (SHORT)

型號

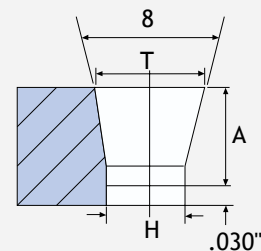
DOUBLE VANE INSERTS



PRODUCT CODE [TX] (LONG)

型號

HOLE CONFIGURATION



"SINGLE VANE" METRIC (公制)

Unit: Millimetres

Product Code 型	Thread Size 螺牙	Insert Length A 標準長度	Insert Ø D 外徑	Pilot End Ø P 圓頭	Rec.Hole Size + / - 0.025 孔直徑		Min. Wall Thickness 最少肉厚
TX-B	M1	2.9	3.45	3.10	3.12	3.00	2.0
	M2	2.9	4.37	3.10	3.12	3.00	2.0
	M2.5	3.4	4.37	3.98	4.03	3.88	2.4
	M3	3.8	5.58	5.15	5.23	5.05	3.0
	M3.5	3.8	5.58	5.15	5.23	5.05	3.0
	M4	4.7	6.35	5.84	5.94	5.74	3.4
	M5	6.7	8.33	7.82	8.00	7.69	4.4
	M6	7.6	9.53	8.99	9.22	8.86	4.9
	M8	8.5	11.9	11.15	11.38	10.95	6.2
	M10	9.5	14.3	13.46	13.71	13.28	7.5

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

"SINGLE VANE" UNIFIED (英制)

Unit: Inches

Product Code 型	Thread Size 螺牙	Insert Length A 標準長度	Insert Ø D 外徑	Pilot End Ø P 圓頭	Rec.Hole Size + / - .001 孔直徑		Min. Wall Thickness 最少肉厚
TX-B	0-80	.115	.136	.122	.123	.118	.080
	2-56	.115	.136	.122	.123	.118	.080
	4-40	.135	.172	.157	.159	.153	.093
	6-32	.150	.220	.203	.206	.199	.116
	8-32	.185	.250	.230	.234	.226	.133
	10-24	.225	.296	.272	.277	.267	.159
	10-32	.225	.296	.272	.277	.267	.159
	1/4-20	.300	.375	.354	.363	.349	.194
	1/4-28	.300	.375	.354	.363	.349	.194
	5/16-18	.335	.469	.439	.448	.431	.245
	5/16-24	.335	.469	.439	.448	.431	.245
	3/8-16	.375	.563	.530	.540	.523	.293
	3/8-24	.375	.563	.530	.540	.523	.293

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

"DOUBLE VANE" METRIC (公制)

Unit: Millimetres

Product Code	Thread Size	Insert Length A	Insert Ø D	Pilot End Ø P	Rec.Hole Size + / - 0.025		Min. Wall Thickness
型	螺牙	標準長度	外徑	圓頭	T	H	最少肉厚
TX-B	M1	4.8	3.45	2.92	3.12	2.72	2.0
	M2	4.8	3.45	2.92	3.12	2.75	2.0
	M2.5	5.6	4.37	3.66	4.04	3.58	2.4
	M3	6.4	5.59	4.82	5.23	4.70	3.0
	M3.5	6.4	5.59	4.82	5.23	4.70	3.0
	M4	7.9	6.35	5.38	5.94	5.28	3.4
	M5	11.1	8.33	7.19	8.00	7.06	4.4
	M6	12.7	9.53	8.43	9.22	8.15	4.9
	M8	14.3	11.9	10.31	11.38	10.18	6.2
	M10	15.9	14.3	12.52	13.71	12.39	7.5

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

"DOUBLE VANE" UNIFIED (英制)

Unit: Inches

Product Code	Thread Size	Insert Length A	Insert Ø D	Pilot End Ø P	Rec.Hole Size + / - .001		Min. Wall Thickness
型	螺牙	標準長度	外徑	圓頭	T	H	最少肉厚
TX-B	0-80	.188	.136	.115	.123	.107	.080
	2-56	.188	.136	.115	.123	.107	.080
	4-40	.219	.172	.144	.159	.141	.093
	6-32	.250	.220	.190	.206	.185	.116
	8-32	.312	.250	.212	.234	.208	.133
	10-24	.375	.297	.251	.277	.246	.159
	10-32	.375	.297	.251	.277	.246	.159
	1/4-20	.500	.375	.332	.363	.321	.194
	1/4-28	.500	.375	.332	.363	.321	.194
	5/16-18	.562	.469	.406	.448	.401	.245
	5/16-24	.562	.469	.406	.448	.401	.245
	3/8-16	.625	.563	.493	.540	.488	.293
	3/8-24	.625	.563	.493	.540	.488	.293

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

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

SPECIFYING AN INSERT

INSERTS (METRIC)					
	TX	-	B	-	M3 X 3.8
	PRODUCT CODE		MATERIAL		THREAD SIZE
	型號		材質		螺牙
	TX	-	B	-	632 X .150
					PREFERRED OTHER LENGTH
					特殊長度
INSERTS (INCHES)					

BOSS DESIGN SPECIFICATION

HOLE PREPARATION

The taper on the hole should be 8° inclusive. The insert is tapered for approximately 1/3 of its length and is parallel for the remainder. Note: Blind Holes - hole depth should be a minimum of 1 mm or 0.039 inches greater than the length of the insert to be installed.

1. 各規格螺母之塑膠建議孔徑，請參考規格表。
2. 塑膠孔徑內之脫模斜度應為 8 度，且斜度之長度需占總長度之 1/3。
3. 塑膠內孔徑深度需高於螺母高度 1mm~0.039 inches。

塑膠孔徑之設計

SELECTION OF INSERT TYPE

Depending on the depth of the hole, the holding power can be increased significantly by selecting the double vane version.

特殊外徑之設計

如需較高之拉力，可選用螺母下方有 2 個倒勾圓頭之外型。

INSTALLATION

The fastener may be installed using either a pre-heating process or using heat generated by ultrasonic vibrations. Where preheating is used 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 could have a detrimental effect on performance. Insert must be installed flush to provide maximum performance.

1. 可使用熱熔或超音波埋入。
2. 熱熔溫度不可超過塑膠材質之熔點，應低於熔點 10-20 度。
3. 使用熱熔及超音波埋入螺母時，所設定之壓力、時間、速度，需視所使用之螺母規格及塑膠材料種類來調整理想值。
4. 射出成型中埋入時，請特別注意模具上所使用的套筒之尺寸，須配合螺母之內孔徑公差範圍，切勿大於公差之下限值，請於開模前洽詢 P.S.M 技術人員，以取得建議值。

裝置

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.

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。

PERFORMANCE DATA

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

測試數據

1. 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。
2. 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拉力的測試參考數據。

