In-saiL™ International with companies in:





力帆&山本（中国）运营中心

Precision Thread Inserts for Plastic Parts
塑胶专用螺母

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In-saiL™
力帆&山本（中国）运营中心
In-saiL &Sandum(china)Operation Center
深圳力帆精密五金有限公司
Shenzhen In-saiL Precision Parts Co., Ltd
深圳山本精密五金部件有限公司
Sandum Sandum Precision Parts Co., Ltd

In-saiL™



In-saiL™ Dreams Chinese Dream!
力帆，扬帆中国梦!

PROFILE
COMPANY公司简介

力帆&山本（中国）运营中心

力帆&山本（中国）运营中心隸屬於力山企業集團。集團自1982年於臺灣成立以來、一直堅持向客戶快速、準確地提供緊固系統零件、自動化零件、電子五金件、模具配件、機械加工工具等各種高質量的工業零部件。集團多年來致力於研發創新，以核心技術為中心，包括：環保製程技術、精密模具技術、數控加工技術、粉末冶金技術等。集團不僅具完善的研發管理制度，更在智權管理上努力耕耘，積極地以提升華人之國際競爭力為己任，並在企業社會責任與節能、減排、綠化、循環等環境保護方面全力推動與奉獻；

力山企業集團成立33年來，已經建立起5個產品製造中心，分佈於臺灣，新加坡，墨西哥，江蘇和廣東。購置了大量的高精密製造設備，如數控車床，數控銑床，數控磨床，精密壓機和注塑機等3600餘套，具備系統的工業零件製造能力。也組建獨立運營中心3個（臺灣運營中心，新加坡運營中心和深圳運營中心），負責全球客戶的商務合作和技術支持。

力帆五金&山本精工，以力山企業集團為依託，將與注重品質和交期的客戶攜手共進、為全球製造工業的發展貢獻我們的智慧和力量。

1、各式組裝系統零件（緊固件，焊接件等）
2、精密金屬加工零件與工程塑膠組件
3、汽車，醫療，3C產品用之機械精密零組件
4、自動化用各種精密零組件
5、塑膠和衝壓模具用精密配件
6、各式機械加工工具和量具

In-saiL™ &Sandum(China)Operation Center

In-saiL™ & Sandum (China) Operation Center is part of Leasan Enterprise Group. Group, since 1982 established in Taiwan, has always insisted quickly and accurately provided a variety of high-quality parts fastening systems, automation parts, electronic hardware, mold parts, machine tools and other parts to customers. Group has committed to R & D and innovation, the technology core as the center, including: environmental process technology, precision molds technology, CNC machining technology, powder metallurgy technology. Group is not only a sound R & D management system, but Management to work actively to enhance the international competitiveness of the Chinese mission, and corporate social responsibility in environmental protection and energy saving, emission reduction, green, recycling and other efforts to promote and dedicate;

Leasan Enterprise Group was established 33 years ago, it has established five manufacturing centers, located in Taiwan, Singapore, Mexico, Jiangsu and Guangdong. The purchase of a large number of high-precision manufacturing equipments, such as CNC lathes, CNC milling, CNC grinding machines, precision presses and injection molding machines more are than 3600 sets, with the system of industrial parts manufacturing capacity. Also set up 3 independent operations center (Taiwan operations center, operations center in Singapore and Shenzhen operations center), are responsible for worldwide customer's business cooperation and technical support.

In-saiL™ Hardware & Sandum Precision to force Leasan Enterprise Group as the basis, will focus on the quality and delivery of clients working together to contribute our wisdom and strength for the development of the global manufacturing industry.

1. All kinds of assembled parts system (fasteners, welding parts, etc.)
2. Precision metal machining parts and engineering plastic components
   Mechanical precision components
3. The automotive, medical, 3C products using
4. Automation of various precision components
5 .Plastic precision parts and stamping dies
6. Kinds of machining tools and gauges

Production Capability
制造能力



Automatic lathe/自动车床



Ultraprecision Machining/超精加工

自动车床加工：直径Φ0.5-20mm，
公差±0.01mm
数控车床加工：直径Φ0.5-250mm
公差±0.005mm
数控铣削加工：长800x宽600mm，
公差±0.05mm
外圆磨削加工：公差±0.002mm
螺丝加工：公制M0.8-M36，
英制#0-2"
冲压加工：1200吨位内



CNC lathe/数控车床



Screw machine/螺丝机

Auto-lathe turning:
ODΦ0.5-20mmTol.±0.01mm
CNC lathe turning:
ODΦ0.5-250mm, Tol.±0.005mm
CNC Milling:
800x600mm (LxW), Tol.±0.05mm
Grinding: Tol.±0.002mm
Screw heading & rolling:
Metric M0.8-M36,
Unified Imperial #0-2"
Stamping: 1200T max.



CNC machined/加工中心



Stamping Equipment/冲压设备



Precision Grinding/精密磨削

In-saiL™ & Sandum is your best choice!

力帆&山本是您的最佳选择！

Quality
品质控制



Pull Tester 拉力计



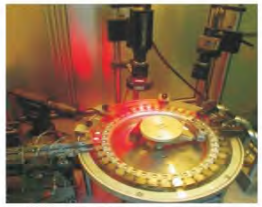
Projector 投影仪



Durometer 硬度计

We set up total management quality systems following ISO 9001:2008, from the IQC to IPQC to OQC, strictly execute customer quality requirement, to achieve quality target.

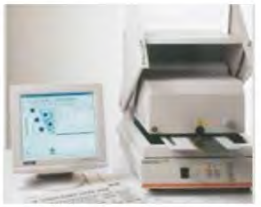
依照ISO 9001：2008建立完整的品质系统，从IQC到IPQC到OQC，严格管制，全员参与。严格按照客户要求，达成品质目标。



Automatic Optic Inspector
全自动品检机

In-saiL™ owns advanced quality control and inspection facilities, is capable to perform mechanical property, diemension & contour and corrosion-resistance test at the incoming, in-process, and outgoing stages.

力帆有先进的品质控制和检测设备，能够在来料、制程和成品检查各阶段实施诸如机械性能检测、尺寸和轮廓检测及耐蚀性能验证等。



Coating Analyzer镀层分析仪



CMM 三次元



Salt Spray Tester 盐雾测试机



Tensile Machine拉伸试验机

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In-saiL™

Ultrasonic / Heat staking threaded inserts series
超声波/热熔埋植系列

	Quik-Tek	8	The most popular inserts for thermoplastics which can be installed by heat or ultrasonic method. It features opposite angled helical knurls to achieve optimal balance of hightorque and pull-out resistance.	热熔或超声波快速埋植于热塑性塑胶，反向滚花带，提高拉力和扭力。
	Soni-Tek	9	Characteristics of symmetrical outline, reverse roll is taken, increase tension and torsion.	特色的对称的轮廓,反向滚花带，提高拉力和扭力。
	Mini-Tek	10	Specially designed for small screws, this mini-version of Ultra-Tek inserts is widely used in small plastic housings of cell phone, PMP, PS and other small electronic devices.	特别设计的小螺母,这让Ultra-Tek插入广泛用于小塑料外壳的手机、PMP、PS等小型电子设备。
	AT	11	Features of symmetrical outline, reverse roll is taken, increase tension and torsion，Undercuts provide tensile strength.	特色的对称的轮廓,反向滚花带，提高拉力和扭力，凹槽设计提供抗拉强度。
	Em-Tek	12	A fluted insert for heat or ultrasonic installation,Stepped vanes ensures high pull-out resistance.	热熔或超声波安装槽插入,加强叶片确保较高的抗拔力。
	OT	13	Provided positive seal between insert and parent material for using in pressure applications utilizing high temperature O-ring.	配有耐高温O形密封圈，保证埋植密封性。
	HT	14	A-Blind ended threaded insert is designed for installing by ultrasonics, heat or mold-in.	盲孔设计,超声、热熔、注塑成型埋植。
	Taper-Set	15	A taper insert designed for tapered plastic hole. Easy to align and install using heat and ultrasonic method, the opposite knurls and inverse vane(s) ensures high torque and pull-out performance.	锥形孔插入设计，热熔或超声波快速埋植,相反滚花和逆叶片设计确保高扭矩和抗拔性能。
	Spi-Tek	16	Similar to Taper-Set but with a straight knurl band on one end, this insert is used in 8° hole. It is available of short and long version for different holes of depth and pull-out performances.	拥有直滚花、斜滚花和逆叶片，一个锥形孔插入设计，热熔或超声波快速埋植。
	Bol-Tek	17	A taper insert designed for tapered plastic hole. A large area of diamond knurling ensures high torque and pull-out performance.	锥形孔插入设计，大面积的钻石滚花确保高扭矩和抗拔性能。

Press-in threaded inserts series
冷压埋植系列

	Fin-Set	18	The Fin-set insert features many inverse fins to provide high pull-out resistance for most of the thermoplastics while the straight knurls response to high torque performance.	大量的逆叶片和直纹滚花提供高抗拔力和扭力。
	SP	19	Low bursting stress allows the use of thinner wall bosses reducing the risk marks, Designed for use in hard and brittle thermosetting plastic.	适用于较薄壁厚，降低破裂风险特别适合热固性塑胶。
	GT	20	Straight knurling and agnail, strong pulling force and torque in order to achieve,suitable for rapid pressure.	直滚花和倒刺，以达到强拉力和扭力,冷压埋植。
	EZ-Loc	21	Parallel fins and slots provides high level of torque and pull-out performance. The slot brings a screw -locking feature to the soft and less hard plastics.	大量的逆叶片和滚花带，以达到强拉力和扭力,槽用于扩张自锁。
	Exp-Loc	22	It is a press-in insert used for hard thermosetting plastics. The diamond knurls offers maximum friction surface and minimum depth of penetration.	用于热固性塑胶。钻石滚花面提供最大摩擦表面和最小插入深度。
	BL	23	Hexagon agnail design ensures high torque and pulling force.	六角倒刺设计保证了高扭力和拉力。
	CL	24	Straight knurling and agnail, in order to achieve strong tension and torsion, self-locking slot for expansion.	直滚花和倒刺，以达到强拉力和扭力，槽用于扩张自锁。
	DL	25	Diamond knurl provides maximum surface friction, self-locking slot for expansion.	钻石滚花提供了最大表面摩擦力，槽用于扩张自锁。
	Multi-Barb	26	Inverse vanes together with the unique barbs provide high pull-out and torque performance.	逆叶片连同独特的倒钩提供高抗拉和扭矩。

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Self-tapping inserts series
自攻埋植系列

	DG	27	Tapping preparetions, internal and external thread design.	自攻埋植，内外螺纹设计。
	Tap-Tek	28	The insert is designed and manufactured with three cutting flutes which provides self-tapping function and the storage of swarf.	导向设计，提供自攻和切削功能。
	AG	29	Internally and externally threaded with two slots which provide cutting edges similar to a tap，Automatic tapping installation.	自攻埋植，尾部带切屑槽。
	BG	30	Internally and externally threaded with two slots which provide cutting edges similar to a tap，Automatic tapping installation.	尾部带切屑槽，自攻埋植。
	CG	31	Making simple, improve the efficiency.	制作简单，有效提高效率。

Molded-in threaded inserts series
注塑埋植系列

	Inmold-Tek	32	A blind-end inserts used for in-molding technology. With one end closed, the resin intrusion can be avoid，Diamond knurl provides maximum surface friction.	盲孔设计，钻石滚花提供了最大表面摩擦力。
	ST-Knurl	33	This insert features with very simple structure thus the manufacturing cost is low. It is an ideal choice molding for its good performance-price.	结构简单，低成本，良好的性价比。
	AZ	34	Blind design to prevent plastic injecting and limit screw position.	盲孔设计,防止塑胶灌入和限制螺钉位置。
	BZ	35	Insert a thin wall thickness, groove shape design, enhanced ability to resist pulling.	允许较薄壁厚，外形凹槽设计，增强了抗拔能力。
	CZ	36	Hexagonal shape design, easy processing, good tension and torsion resistance.	外形六角设计，加工简单，具有良好的抗拔和抗扭力。
	DZ	37	Head with taper, the blind design, prevent the plastic injection and restrictions on the screw position.	头部带锥度，盲孔设计,防止塑胶灌入和限制螺钉位置。
	EZ	38	The surface of the straight knurl，blind design to prevent plastic injecting and limit screw position.	表面直滚花,盲孔设计,防止塑胶灌入和限制螺钉位置。
	FZ	39	Longer version, continuous surface knurling, blind design to prevent plastic injection and limit the position of the screw.	加长版本，连续的表面滚花,盲目设计防塑胶灌入和限制螺钉的位置。

Quik-Tek Inserts



特征
- 反向滚花带,提高拉力和扭力
- 热熔或超声波快速埋植
- 适用于热塑性塑胶(PPS、ABS、PP等)

Features
- Opposite helical knurl bands provide balanced hightorque and high pull-out performance
- Ultrasonic / Heat staking threaded inserts
- Designed For use in thermoplastic plastic(PPS、ABS、PP etc.)

ISO METRIC /unit:mm

Thread Size	Insert Length L				Stud Lengths S										Head Height T	Head D2	Insert D1	Pilot End P	Rec. Hole Size H-0.00/+0.10	Min. Wall Thickness W
M2	4.0	2.5	3.0	–	5	6	8	10	12	14	16	18	20	25	0.53	4.8	3.6	3.1	3.2	1.3
M2.5	5.7	4.0	–	–	5	6	8	10	12	14	16	18	20	25	0.61	5.5	4.6	3.9	4.0	1.6
M3	5.7	4.0	4.8	–	5	6	8	10	12	14	16	18	20	25	0.61	5.5	4.6	3.9	4.0	1.6
M3.5	7.1	5.0	–	–	5	6	8	10	12	14	16	18	20	25	0.76	6.4	5.4	4.7	4.8	1.8
M4	8.1	4.0	4.8	5.8	5	6	8	10	12	14	16	18	20	25	0.91	7.1	6.3	5.5	5.6	2.1
M5	9.5	5.8	–	–	5	6	8	10	12	14	16	18	20	25	1.09	7.9	7.1	6.3	6.4	2.6
M6	12.7	6.8	9.5	–	5	6	8	10	12	14	16	18	20	25	1.35	9.5	8.7	7.9	8.0	3.3
M8	12.7	–	–	–	5	6	8	10	12	14	16	18	20	25	1.35	11.1	10.2	9.5	9.6	4.5
M10	12.7	–	–	–	5	6	8	10	12	14	16	18	20	25	1.60	14.0	12.6	11.8	11.9	6.0
M12	15.9	–	–	–	5	6	8	10	12	14	16	18	20	25	2.00	19.0	16.7	15.8	16.0	8.0

UNFIED /unit:Inch

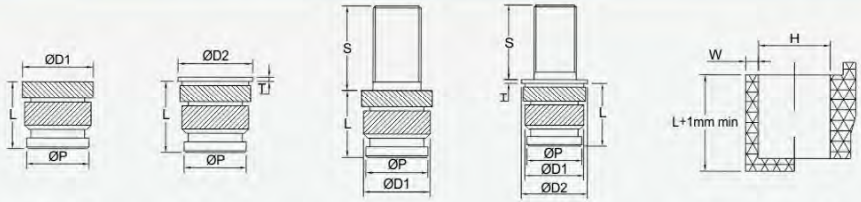
Thread Size	Insert Length L				Stud Lengths S									Head Height T	Head D2	Insert D1	Pilot End P	Rec. Hole Size H-0.00/+.004	Min. Wall Thickness W
0-80	.125	–	–	–	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4	7/8	1	–	–	.116	.095	.100	.051
2-56	.157	.100	.130	–	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4	7/8	1	.021	.190	.141	.123	.126	.051
4-40	.226	.100	.140	.170	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4	7/8	1	.024	.220	.181	.154	.157	.063
6-32	.281	.150	.230	.250	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4	7/8	1	.030	.250	.214	.185	.189	.071
8-32	.321	.190	.250	–	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4	7/8	1	.036	.280	.248	.218	.220	.083
10-24	.375	.250	–	–	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4	7/8	1	.043	.310	.278	.249	.252	.102
10-32	.375	.230	.250	–	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4	7/8	1	.043	.310	.278	.249	.252	.102
1/4-20	.500	.250	–	–	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4	7/8	1	.053	.380	.341	.312	.315	.130
1/4-28	.500	–	–	–	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4	7/8	1	.053	.380	.341	.312	.315	.130
5/16-18	.500	–	–	–	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4	7/8	1	.053	.440	.403	.374	.378	.177
5/16-24	.500	–	–	–	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4	7/8	1	.053	.440	.403	.374	.378	.177
3/8-16	.500	–	–	–	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4	7/8	1	.063	.550	.494	.465	.469	.236
3/8-24	.500	–	–	–	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4	7/8	1	.063	.550	.494	.465	.469	.236
1/8-NPT	.625	–	–	–	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4	7/8	1	–	–	.479	.450	.453	.236
1/2	.625	–	–	–	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4	7/8	1	.079	.750	.657	.622	.630	.315

Standard Material: Brass JIS 3604, Stainless steel or Aluminum available upon request.

P/N Scheme

Model Code-Thread size x Insert Length-(Stud Length)-Material

QT-M2.5x5.7-B	Quik-Tek Insert, M2.5x5.7mm, Brass
QTH-M2.5x5.7-B	Quik-Tek Insert with Head, M2.5x5.7mm, Brass
QTS-M2.5x5.7-5.0-B	Quik-Tek Insert with 5.0mm Stud, M2.5x5.7mm, Brass
QTHS-M2.5x5.7-5.0-B	Quik-Tek Insert with Head and 5.0mm Stud, M2.5x5.7mm, Brass



Model: QT　Model:QTH　Model: QTS　Model: QTHS　Thru or Blind Hole,Taper<1°