



# LI CHUAN

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立川工業有限公司

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# 產品應用示意圖

## Product Applications



● 吊燈/Chandelier



● 鐵門窗/Iron Grill



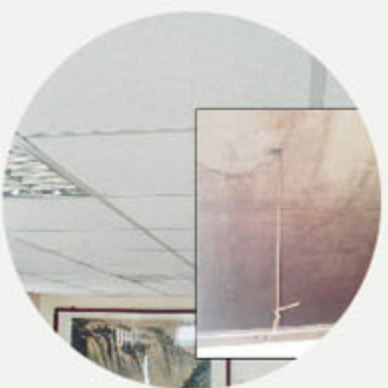
● 監視器/Monitor



● 冷氣機/Air-conditioner



● 採光罩/Lighting cover



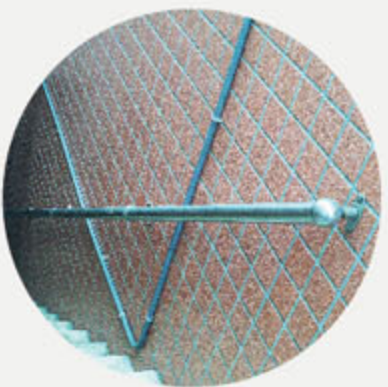
● 輕鋼架/Light steel hanger



● 電視/TV



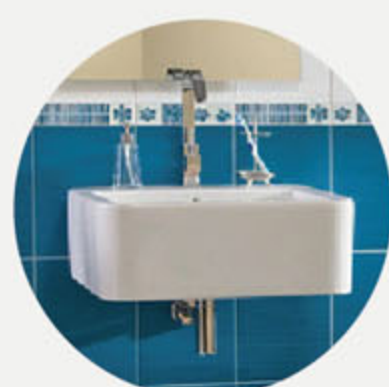
● 招牌/Fascia



● 樓梯扶手/Stair Handrail



● 風管/Ventilation pipe



● 洗手台/Sink

# 新式內牙型金屬膨脹錨栓

產品榮獲多國發明專利

## 產品特性

1. 適用性廣泛—功能性完整的單一母工件，只要公件螺紋尺寸符合，適合任何形式螺絲頭型
2. 施工法選擇—可依需求採定點預置，或於單一施工補行鑽孔再打(裝)入，其功能與成效完全一致
3. 高施工成功率—植入式內牙母工件，沒有配孔深度著附及鑽孔傾斜困擾，施工達成率100%的零件
4. 高抗拉設計—工件全牙式錐度擴張特殊倒掛勾設計，抗拉及荷重值優於傳統市售產品
5. 保證膨脹擴張—金屬板壓製產品，專利全牙式錐度擴張設計，抓扣能力強不空轉，不需專業性施工技巧
6. 鎖附防鬆功效—全牙式錐度擴張特殊設計，利用反向推力效應緊迫鎖入工件
7. 棄置無困擾—錯置或捨棄不用，只要退出螺絲公件，塗抹填補劑回復平面，無切除困擾及突出物碰擊危險
8. 完善設計思考—產品短簡精悍，適用搭配所用的市售制式螺絲，DIY及工事最如意的施工選配零件

## 產品主要規格

內牙規格		配孔規格		螺絲規格		內牙規格		配孔規格		螺絲規格	
稱呼(MM)	長度	孔徑	深度(Min.)	螺距規格	長度(Min.)	稱呼(INCH)	長度	孔徑	深度(Min.)	螺距規格	長度(Min.)
M5X20	20mm	φ 6.5mm	25mm	M5X0.8	20mm	3/16	20mm	φ 6.5mm	25mm	3/16-25	20mm
M6X25	25mm	φ 8.0mm	30mm	M6X1.0	25mm	1/4	25mm	φ 8.0mm	30mm	1/4-20	25mm
M6X30	30mm	φ 8.0mm	35mm	M6X1.0	30mm	1/4	30mm	φ 8.0mm	35mm	1/4-20	30mm
M8X30	30mm	φ 10mm	35mm	M8X1.25	30mm	5/16	30mm	φ 10mm	35mm	5/16-18	30mm
M8X35	35mm	φ 10mm	40mm	M8X1.25	35mm	5/16	35mm	φ 10mm	40mm	5/16-18	35mm
M10X40	40mm	φ 12mm	45mm	M10X1.5	40mm	3/8	40mm	φ 12mm	45mm	3/8-16	40mm
M10X50	50mm	φ 12mm	55mm	M10X1.5	50mm	3/8	50mm	φ 12mm	55mm	3/8-16	50mm
M12X50	50mm	φ 15mm	55mm	M12X1.75	50mm	1/2	50mm	φ 15mm	55mm	1/2-13	50mm
M12X60	60mm	φ 15mm	65mm	M12X1.75	60mm	1/2	60mm	φ 15mm	65mm	1/2-13	60mm

Interior Screw  
Concrete Anchor



# The Newest Type of Interior Screw Concrete Anchor

Many Patents Accredited

## Retailer Wanted

### Production Features

- Broad Application:** As long as the size of male fastener is conformed to the single female fastener, it will work, and it is applicable to any kind of bolt head.
- The Choice of Approach:** Pinpoint preload is adopted by demands, or it can be installed after drilling a hole. The function and effectiveness are completely unanimous.
- High Success Rate:** Inserting interior screw workpieces has no problem in recess fill and sloping while drilling, and the successful drive-in rate is 100%.
- High Tensile Resistant Design:** The tensile strength and loading of full screws and special taper expansion undercut design are better than those traditional products in the market.
- Guaranteed Expansion:** Metal plate-made product, patented design of full-thread cone shaped expansion with excellent capacity of grabbing concrete walls. No idle running will occur, and it is easy-to-use for everyone.
- Locking Performance:** Special design of full-thread cone shaped expansion, utilizing the reverse thrust effect to lock the workpiece tightly.
- Can be Abandoned Easily:** If it is misplaced or considered useless, try to remove the male bolting part and use make-up solution to smooth the surface, which will not result in any danger of cutting or protrusion.
- Complete Design:** The product is shorter and more precise than the same product as compared with other companies. Used with the commonly seen fasteners in the market. It is the best choice and easy-to-use part for "DIY work".

### Product Specifications

Internal Thread Diameter		Hole Specification		Screw Specification	
Size (MM)	Length	Length Diameter	Length (Min.)	Pitch	Length (Min.)
M5X20	20mm	φ 6.5mm	25mm	M5X0.8	20mm
M6X25	25mm	φ 8.0mm	30mm	M6X1.0	25mm
M6X30	30mm	φ 8.0mm	35mm	M6X1.0	30mm
M8X30	30mm	φ 10mm	35mm	M8X1.25	30mm
M8X35	35mm	φ 10mm	40mm	M8X1.25	35mm
M10X40	40mm	φ 12mm	45mm	M10X1.5	40mm
M10X50	50mm	φ 12mm	55mm	M10X1.5	50mm
M12X50	50mm	φ 15mm	55mm	M12X1.75	50mm
M12X60	60mm	φ 15mm	65mm	M12X1.75	60mm

Internal Thread Diameter		Hole Specification		Screw Specification	
Size (Inch)	Length	Length Diameter	Length (Min.)	Pitch	Length (Min.)
3/16	20mm	φ 6.5mm	25mm	3/16-25	20mm
1/4	25mm	φ 8.0mm	30mm	1/4-20	25mm
1/4	30mm	φ 8.0mm	35mm	1/4-20	30mm
5/16	30mm	φ 10mm	35mm	5/16-18	30mm
5/16	35mm	φ 10mm	40mm	5/16-18	35mm
3/8	40mm	φ 12mm	45mm	3/8-16	40mm
3/8	50mm	φ 12mm	55mm	3/8-16	50mm
1/2	50mm	φ 15mm	55mm	1/2-13	50mm
1/2	60mm	φ 15mm	65mm	1/2-13	60mm

		固定用膨脹螺(錨)栓					
產品分類說明	立川專利產品		市售產品				
產品	名稱	內迫膨脹錨栓	拉迫擴張錨栓	尼龍塑膠錨栓	套管膨脹錨栓	頂爆膨脹錨栓	直通型錨栓
	規格	M8 × 35	M8 × 65	M10 × 50	M8 × 50	M8 × 65	M8 × 70
螺絲	材質	鐵	鐵	尼龍 & 塑膠	鐵	鐵	鐵
	類別	普通螺絲	普通螺絲	自攻牙螺絲	專用迫式螺絲	專用迫式螺絲	專用迫式螺絲
	規格	M8	M8	M10	M8	M8	M8
工作孔	長度	35 mm 以上	70 mm 以上	50 mm 以上	50 mm 以上	65 mm 以上	70 mm 以上
	鑽孔直徑	φ 10 mm	φ 14mm	φ 10 mm	φ 10 mm	φ 8 mm	φ 8 mm
	孔鑽深度	40mm 以上	50mm 以上	50mm 以上	40mm 以上	45mm 以下	50mm 以下
	埋置深度	任意 / 無要求	任意 / 無要求	任意 / 無要求	依有效螺紋限制	依有效螺紋限制	依有效螺紋限制
	允許偏差	孔徑 ≤ 20% 深度 無限制	孔徑 ≤ 20% 深度 無限制	孔徑 ≤ 10% 深度 無限制	孔徑 ≤ 10% 深度 無限制	孔徑 ≤ 10% 深度 ≤ 5mm	孔徑 ≤ 10% 深度 無限制
安裝	質地要求	無	無	無	堅硬密實	堅硬密實	堅硬密實
	產品結構	單一母件	單一母件	單一母件	一體套件	一體套件	一體套件
	施工配套	公件型式無限制 螺絲頭型無限制 裝置鎖定無干涉	公件型式無限制 螺絲頭型無限制 裝置鎖定無干涉	公件型式無限制 裝置鎖定無干涉	功能限定 單一選擇	功能限定 單一選擇	功能限定 單一選擇
	施工良率	施工法簡易 無作業失敗風險	施工法簡易 無作業失敗風險	施工法簡易 無作業失敗風險	埋置孔失效報廢 螺紋失效報廢	埋置孔失效報廢 螺紋失效報廢	埋置孔失效報廢 螺紋失效報廢
	使用工具	電動 / 氣動工具 六角 / 活動扳手 梅花扳手	電動 / 氣動工具 六角 / 活動扳手 梅花扳手	電動 / 氣動工具 六角 / 活動扳手 梅花扳手	六角 / 活動扳手 梅花扳手	六角 / 活動扳手 梅花扳手	六角 / 活動扳手 梅花扳手
安全性能比較	抗拉強度混凝土 25N/mm <sup>2</sup>	≥ 800kg 孔 10.5mm 深 40mm	≥ 800kg 孔 14.7mm 深 50mm	≥ 15kg 孔 10.5mm 深 50mm	≥ 600kg 孔 10.5mm 深 40mm	≥ 450kg 孔 8.5mm 深 40mm	≥ 600kg 孔 8.5mm 深 40mm
	靜垂直荷重 800小時/測試	≤ 500kg 位移 ≤ 1mm	≤ 500kg 位移 ≤ 1mm	≤ 5kg 位移 ≤ 1mm	≤ 200kg 位移 ≤ 1mm	≤ 150kg 位移 ≤ 1mm	≤ 200kg 位移 ≤ 1mm
	變形擴張	全錐度膨脹擴張 鑲嵌深度 ≥ 3mm	尾段膨脹 擴張變形 ≥ 2mm	全錐度膨脹擴張	尾段膨脹 擴張變形 ≥ 1mm	尾段膨脹 擴張變形 ≥ 1mm	尾段膨脹 擴張變形 ≥ 1mm
	功能持續	永久性埋置 掛勾鑲嵌防鬆脫 反向推力追緊	永久性埋置	永久性埋置	一次性埋置 螺紋失效報廢	一次性埋置 螺紋失效報廢	一次性埋置 螺紋失效報廢
	反覆操作	無限制	無限制	低抗拉強度 材料失效報廢	螺帽調整扭力 螺紋失效報廢	螺帽調整扭力 螺紋失效報廢	螺帽調整扭力 螺紋失效報廢
選用建議	碰撞風險	螺絲頭部凸出 可選配安全螺絲	螺絲頭部凸出 可選配安全螺絲	螺絲頭部凸出 可選配安全螺絲	鎖緊後螺絲凸出 管控不易	鎖緊後螺絲凸出 管控不易	鎖緊後螺絲凸出 管控不易
	捨棄作業	容易 退出螺絲 / 填補	容易 退出螺絲 / 填補	容易 退出螺絲 / 填補	施工切除	施工切除	施工切除
	空間配置	鎖附佔用空間少 適用性普遍	鎖附佔用空間少 適用性普遍	鎖附佔用空間少 適用性普遍	依施工專業性	依施工專業性	依施工專業性
	產品比較	一體成型母件 配選螺絲公件	組合式母件 配選螺絲公件	一體成型母件 配選螺絲公件	整體組合式套件	整體組合式套件	整體組合式套件
	價格對比	中等	高	低	中等	一般	中等
適用類別	照明燈飾 受力器物鎖固 監控支架吊掛固定 建築裝修工事 土木工程支撐 機械設備定位	受力器物鎖固 支架吊掛固定 建築裝修工事 土木工程支撐 機械設備定位 重型工事安裝	低抗拉強度需求 無支撐要求工事	照明燈飾 監控支架吊掛固定 建築裝修工事 土木工程支撐 機械設備定位	支架吊掛固定 建築裝修工事 土木工程支撐 機械設備定位	照明燈飾 監控支架吊掛固定 建築裝修工事 土木工程支撐 機械設備定位	

Fixing Expansion (anchor) bolts							
		Patented Products		Marketed Products			
Product Illustration Category Description							
Products	Name	The force-type expansion anchorage	Pull forced expansion anchorage	Nylon Plastic anchorage	Sleeve expansion bolt	Top explosive bolt	Through bolt
	Specifications	M8 × 35	M8 × 65	M10 × 50	M8 × 50	M8 × 65	M8 × 70
Screw	Material	Iron	Iron	Nylon & Plastic	Iron	Iron	Iron
	Category	Common Screws	Common Screws	Self-tapping screws	Special force bolt	Special force bolt	Special force bolt
	Specifications	M8	M8	M10	M8	M8	M8
Working hole	Length	above 35 mm	above 70 mm	above 50 mm	above 50 mm	above 65 mm	above 70 mm
	Hole drilling	φ 10 mm	φ 14mm	φ 10 mm	φ 10 mm	φ 8 mm	φ 8 mm
	Hole drilling depth	above 40mm	above 50mm	above 50mm	above 40mm	under 45mm	under 50mm
	Buried depth	Any / None required	Any / None required	Any / None required	Limited by the effective thread	Limited by the effective thread	Limited by the effective thread
	Tolerance	Aperture ≤ 20% Depth no limit	Aperture ≤ 20% Depth no limit	Aperture ≤ 10% Depth no limit	Aperture ≤ 10% Depth no limit	Aperture ≤ 10% Depth ≤ 5mm	Aperture ≤ 10% Depth no limit
Installation	Texture requirements	none	none	none	Hard dense	Hard dense	Hard dense
	Product structure	a single nut	a single nut	a single nut	Entire Set	Entire Set	Entire Set
	Construction Support	Tap shape not limited Screw head shape not limited. Device lock without interference	Tap shape not limited Screw head shape not limited. Device lock without interference	Tap shape not limited Device lock without interference	Function limited single choice	Function limited single choice	Function limited single choice
	Construction failure-free probability	Simple construction method No Failure Risk operation	Simple construction method No Failure Risk operation	Simple construction method No Failure Risk operation	Buried holes Failure Scrapped Thread Failure Scrapped	Buried holes Failure Scrapped Thread Failure Scrapped	Buried holes Failure Scrapped Thread Failure Scrapped
Comparison of safety performance	Tools	power tool / air tool Hex Wrenches / Adjustable Wrenches Spline End Wrenches	power tool / air tool Hex Wrenches / Adjustable Wrenches Spline End Wrenches	power tool / air tool screw driver	Hex Wrenches / Adjustable Wrenches Spline End Wrenches	Hex Wrenches / Adjustable Wrenches Spline End Wrenches	Hex Wrenches / Adjustable Wrenches Spline End Wrenches
	Tensile strength Concrete 25N/mm²	≥ 800Kg Aperture 10.5mm Depth 40mm	≥ 800Kg Aperture 14.7mm Depth 50mm	≥ 15Kg Aperture 10.5mm Depth 50mm	≥ 600Kg Aperture 10.5mm Depth 40mm	≥ 450Kg Aperture 8.5mm Depth 40mm	≥ 600Kg Aperture 8.5mm Depth 40mm
	Static vertical loading 800 hours / test	≤ 500Kg displacement ≤ 1 mm	≤ 500Kg displacement ≤ 1 mm	≤ 5Kg displacement ≤ 1 mm	≤ 200Kg displacement ≤ 1 mm	≤ 150Kg displacement ≤ 1 mm	≤ 200Kg displacement ≤ 1 mm
	Deformation of expansion	Expansion of the whole taper expansion Embedded depth ≥ 3mm	Endian Expansion Expansion deformation ≥ 2mm	Expansion of the whole taper expansion	Endian Expansion Expansion deformation ≥ 1mm	Endian Expansion Expansion deformation ≥ 1mm	Endian Expansion Expansion deformation ≥ 1mm
	Continuous function	permanently buried anti-loose mounted hook Reverse thrust force compels tightly	permanently buried	permanently buried	One-time embedded Thread Failure Scrapped	One-time embedded Thread Failure Scrapped	One-time embedded Thread Failure Scrapped
	Repeated operations	no limit	no limit	Low tensile strength materials failure scrap	Cap nut adjust the torsion Thread Failure Scrapped	Cap nut adjust the torsion Thread Failure Scrapped	Cap nut adjust the torsion Thread Failure Scrapped
	Collision risk	The screw forehead protrudes security screws are optional	The screw forehead protrudes security screws are optional	The screw forehead protrudes security screws are optional	After locking, the screw protrudes not easy to control	After locking, the screw protrudes not easy to control	After locking, the screw protrudes not easy to control
Selection recommendations	Discard operation	Easy Exit screw / fill	Easy Exit screw / fill	Easy Exit screw / fill	Execute the excision	Execute the excision	Execute the excision
	Space allocation	Take up less space General applicability	Take up less space General applicability	Take up less space General applicability	according to construction professional judgement	according to construction professional judgement	according to construction professional judgement
	Product Comparison	One-batch forming nut optional tap shape	Assembling nut optional tap shape	One-batch forming nut optional tap shape	Overall combined package	Overall combined package	Overall combined package
	Price contrast	Medium	High	Low	Medium	Normal	Medium
Applicable category	locking of forced items Lighting, Monitoring Fixed hanging bracket Construction and fitting fortifications Civil Engineering Support Mechanical device localization	locking of forced items Fixed hanging bracket Construction and fitting fortifications Civil Engineering Support Mechanical device localization Installation of heavy fortifications	Low tensile strength demand No support fortifications required	Lighting, Monitoring Fixed hanging bracket Construction and fitting fortifications Civil Engineering Support Mechanical device localization	Fixed hanging bracket Construction and fitting fortifications Civil Engineering Support Mechanical device localization	Lighting, Monitoring Fixed hanging bracket Construction and fitting fortifications Civil Engineering Support Mechanical device localization	



臺灣/Taiwan



印尼/Indonesia



新加坡/Singapore



菲律賓/Philippines



韓國/Korea



澳大利亞/Australia



加拿大/Canada



中國大陸/China



俄羅斯/Russia



馬來西亞/Malaysia

Taiwan	No. I 274111	台灣	No. I 274111
Korea	No. 10-0875776	韓國	No. 10-0875776
Russia	No. 2334580	俄羅斯	No. 2334580
Australia	No. 2006203045	澳大利亞	No. 2006203045
Philippines	No. 1-2006 000458	菲律賓	No. 1-2006 000458
Singapore	P-No. 141278	新加坡	P-No. 141278
Indonesia	ID P 0025012	印尼	ID P 0025012
Canada	2, 555, 118	加拿大	2, 555, 118
China	ZL 2008 2 0302652. 0	中國	ZL 2008 2 0302652. 0
Malaysia	MY-142133-A	馬來西亞	MY-142133-A

Patent Pending:  
Thailand, India, EU

申請專利中:  
泰國, 印度, 歐盟