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# RAISED FLOOR SYSTEM

DIE CAST ALUMINUM FLOOR

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ONE WAY

# 鋁合金高架地板活動應用

## Application of Aluminum Raised Floor Panel

### 半導體工業

- 晶圓廠
- IC廠
- 精密洗淨裝置

### Semiconductor Industry

- Transistor Plant
- IC Plant
- Precision Cleansing Device

### 精密工業

- VTR特殊環境試驗
- 精密測定
- 精密機械

### Precision Industry

- VTR Special Environment Test
- Precision Tester
- Precision Machinery

### 醫療產業

- 檢查室
- 無菌手術室
- 斷層掃描X光室

### Medication Industry

- Inspection Room
- Sterilized Operation Room
- Tomography Scan X-ray Room

### 生物生產科技

- 藥品製造
- 食品製造
- 無塵無菌室

### Biological Science Technology Industry

- Medicine Manufacture
- Food Manufacture
- Dust-proof Sterilized Operation Room

### 科技工業

- 光學機器
- LCD液晶
- 捷運、高鐵

### Scientific Technology Industry

- Optical Machine
- LCD Liquid Crystal
- MRT、High Speed Rail



## 公司簡介 About of YENI



本公司成立於1978年，秉持著「創新、踏實、永續」的經營理念及優異的整體工程能力，塑造了系統化高架地板的不朽風範。2006年引進美國超大型3000 TON鋁、鎂合金壓鑄機、CNC加工設備及通過品質合格ISO9001：2008品管制度，創立了「西屋」、「延億」品牌，生產系統化高架活動地板，又於2013年通過綠建材標章認證資格產品，台灣製造生產一貫作業，並可提供客製化產品。

延億公司的鋁合金高架地板在無塵室潔淨室工程享有良好的品質及信譽，其有效管線穿梭管理及控制空調氣流的方向性，達到良好垂直層流的無塵環境，模組化產品能縮短興建工期，降低營建成本和舒適的工作環境。

用心改進與追求創新，使用科技壓鑄自動化設備提升架地板的使用性及經濟性，再研發生產LCD、PDP TV機殼解決散熱問題、汽車輪圈及零件組、3C產業外殼、無毒製成、無毒使用、高回收率及高再利用性符合WEEE & ROHS之環保趨勢，並秉持「信譽第一、品質第一」的宗旨，與業主用戶、承攬商及設計師攜手開創未來。

The YENI company was founded in 1978, the principle of "innovation, practical, sustainable" business philosophy and excellent overall engineering capabilities, create a systematic raised floor immortal style. 2006 introduction of the U.S. mega 3000 TON aluminum, magnesium alloy die-casting machine, CNC machining equipment and qualified through quality ISO9001: 2008 quality control system, the creation of the "Westinghouse", "Yan Yi" brand, producing systematic raised floor. In 2013, the die cast aluminum floor panel through the Green Building Material certification. It has been consistent production process in Taiwan, and we can provide customized products.

Aluminum raised floor in a clean room clean room engineering, YENI company enjoys a good quality and reputation, and its effective management and control of air-conditioning pipeline shuttle directional airflow to achieve good vertical laminar flow clean environment, modular products can shorten the construction period, lower construction costs and a comfortable working environment.

Through constant improvements and pursuit of innovation, YENI has adopted advanced pressure die casting automation facilities in order to enhance the utility and economy of raised flooring. Additional achievements in research & development include heat dissipating LCD & PDP TV casing, automobile wheel rims & parts and 3C product casings. We also comply with WEEE & ROHS environmental standards through our non-toxic manufacturing process, non-toxic operation, highly recyclable products and high re-use rates. Guided by our ideal of Integrity and Quality Comes First together with clients, users, contractors and designs to create new horizons.

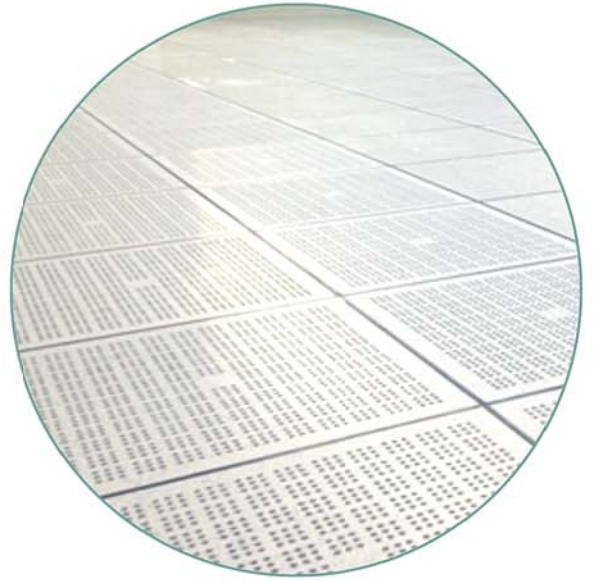


## 鋁合金高架活動地板

### Die Cast Aluminum Floor Panel

#### ■功能性鋁地板"特點"

- 1.各種開孔率回風板,用於空調組合垂直層流。
- 2.地板構建標準化,尺寸精準度高,易施工及互換性。
- 3.高負載結構設計,完成高度可依需求供應。
- 4.特殊高度,鋼構地床及支撐方向設計。
- 5.面材色澤、材質,功能性可依需求選配。
- 6.防潮、防鏽、防火、耐用,可循環重複地材。
- 7.綠色環保建材可資源回收地板。
- 8.全台唯一超大型3000 TON 壓鑄設備製造高密度鋁地板。



#### ■Functional Aluminum Flooring Features

- 1.Return air grilles in a variety of open ratios for creating vertical laminar flow with the air conditioning.
- 2.Standardized flooring components manufactured to exacting tolerances,making them easily to assemble and highly interchangeable.
- 3.Designed for high loading with customizable height.
- 4.Can be designed to meet special height, steel mounting and support method requirements.
- 5.Facing texture, material and functionality can be selected as needed.
- 6.Flooring materials are resistant to damp, rust, fire wear and can be reused.
- 7.Environmentally friendly building material enables flooring to be recycled.
- 8.High density aluminum flooring panels manufactured by Taiwan's only ultra-large 3000 TON high pressure die casting machine.



#### ■綠色環保鋁地板"可回收"

鋁高架地板係鋁合金錠經精密高壓壓鑄一體成,再以CNC加工製成各系列地板,地板採用高負載結構設計及大型設備 3000TON 壓鑄機製造,具有輕質高負載強度及機密構件組成,易安裝,再循環使用及回收資源綠色環保地板。

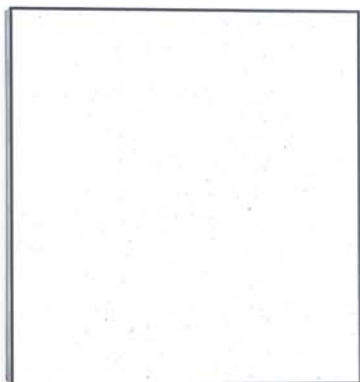
#### ■Environmentally Friendly Aluminum Flooring Can be Recycled.

The aluminum raised flooring are formed from alloy ingots using the precise high pressure die casting machine then subjected to CNC machining to become the various types of flooring. The flooring is designed for high loads and manufactured using a large 3000 ton die casting machine, making it light and strong with exacting tolerances. The result is environmentally friendly flooring that can be reused or recycled.

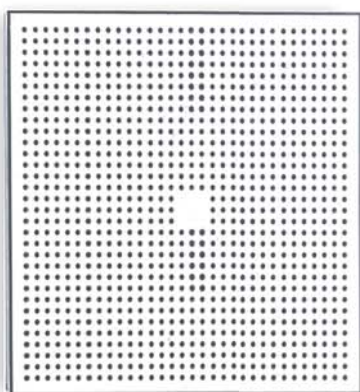


# 鋁合金地板規格表

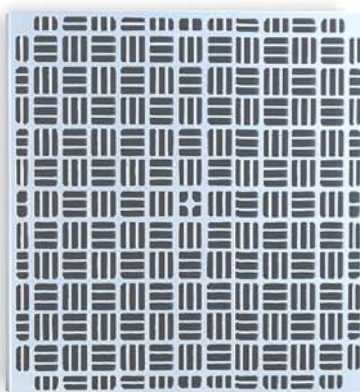
## Aluminum Floor Panel Specification



盲板 Solid Panel		※面材可選用: HPL、導電地磚、PVC、不鏽鋼板、Epoxy、NiCr等...			
編號	型號	尺寸	中心點集中荷重	中心點破壞強度	
Y60-S3	300	600×600×50mm	300kgf <2mm	> 900kgf	
Y60-S5	500	600×600×50mm	500kgf <2mm	>1500kgf	
Y60-S6	600	600×600×55mm	600kgf <2mm	>1800kgf	
Y60-S7	700	600×600×55mm	700kgf <2mm	>2100kgf	
Y60-S10	1000	600×600×55mm	1000kgf <2mm	>2000kgf	
Y60-S12	1200	600×600×55mm	1200kgf <2mm	>2400kgf	



蜂巢板 Perforated Panel		※面材可選用: HPL、導電地磚、PVC、不鏽鋼板、Epoxy、NiCr等... ※開孔率17%及8.5%(客製化)			
編號	型號	尺寸	中心點集中荷重	中心點破壞強度	
Y60-P3	300	600×600×50mm	270kgf <2mm	> 810kgf	
Y60-P5	500	600×600×50mm	450kgf <2mm	> 1350kgf	
Y60-P6	600	600×600×55mm	540kgf <2mm	>1620kgf	
Y60-P7	700	600×600×55mm	630kgf <2mm	>1890kgf	
Y60-P10	1000	600×600×55mm	900kgf <2mm	>1800kgf	
Y60-P12	1200	600×600×55mm	1080kgf <2mm	>2160kgf	



格柵板 Grate Panel		※表面處理可選用: 鍍鎳鉻、Epoxy塗裝等... ※開孔率50%			
編號	型號	尺寸	中心點集中荷重	中心點破壞強度	
Y60-G5	500	600×600×50mm	400kgf <2mm	> 800kgf	
Y60-G10	1000	600×600×55mm	800kgf <2mm	>1600kgf	
Y60-G12	1200	600×600×55mm	960kgf <2mm	>1920kgf	



視窗板 Window Panel		※四格型: 鋁地板面貼HPL、導電地磚、嵌透明壓克力或安全玻璃 ※全透型: 鋼製框架嵌安全玻璃			
編號	型號	尺寸	中心點集中荷重	中心點破壞強度	
Y60-W5	500	600×600×50mm	—	—	
Y60-W10	1000	600×600×55mm	—	—	
Y60-W12	1200	600×600×55mm	—	—	

※鋁合金地板：標準化為方型鋁地板 → 高架型  
 客製化為圓型鋁地板 → RC樓板型  
 ※鋁合金地板厚度可客製化再次銑削

## 面材選擇

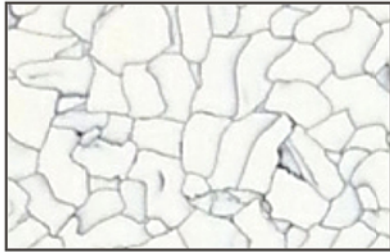
### Floor Covering

**導電地磚**使用於潔淨室廠房，一般表面電阻係數範圍從 $2.5 \times 10^4$ 至 $1 \times 10^6$ 歐姆。  
(依據美國靜電防護協會ADV35.1規範建議理想表面阻抗質)

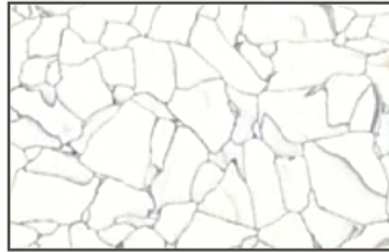
導電地磚利用塑料粒子界面間形成的導靜電網路,其具有永久性防靜電功能,外觀表面酷似大理石花紋,具有較好的裝飾效果.適用於電信電子電力/微電子/醫學等行業的程控機房計算機房/電力調度室/潔淨淨化廠房等要求淨化及防靜電場.

**Conductive Tile** is used in clean rooms, with a standard surface resistance ranging from  $2.5 \times 10^4 \sim 1 \times 10^6$  Ohms. ( The optimal surface resistance value as specified by the ADV53.1 Standards of the U.S. Electrostatic Discharge Association )

The Conductive Tile uses a polymer particle interface to create a static conductive network so it provides permanent anti-static protection. Externally it appears to resemble the patterns of marble, giving it a more decorative effect. Suitable applications include telecommunications, electronics, power, micro-electric and industries' control centers, computing rooms, electrical distribution rooms and clean/purification rooms that require a clean and static free environment.



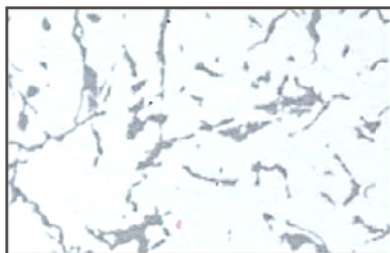
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色號C6101

**高壓積層板(HPL)** 採用多種專用紙張經酚醛、三聚氰胺、樹脂處理、高溫高壓而成的熱固性樹脂裝飾積層板。它不僅色澤鮮艷、光亮平整、且具有耐磨、耐熱、耐汙染、可清洗及永久性裝飾的功能。標準厚度有1.2mm、1.6mm、2.0mm，其厚度可根據客戶需求訂製。

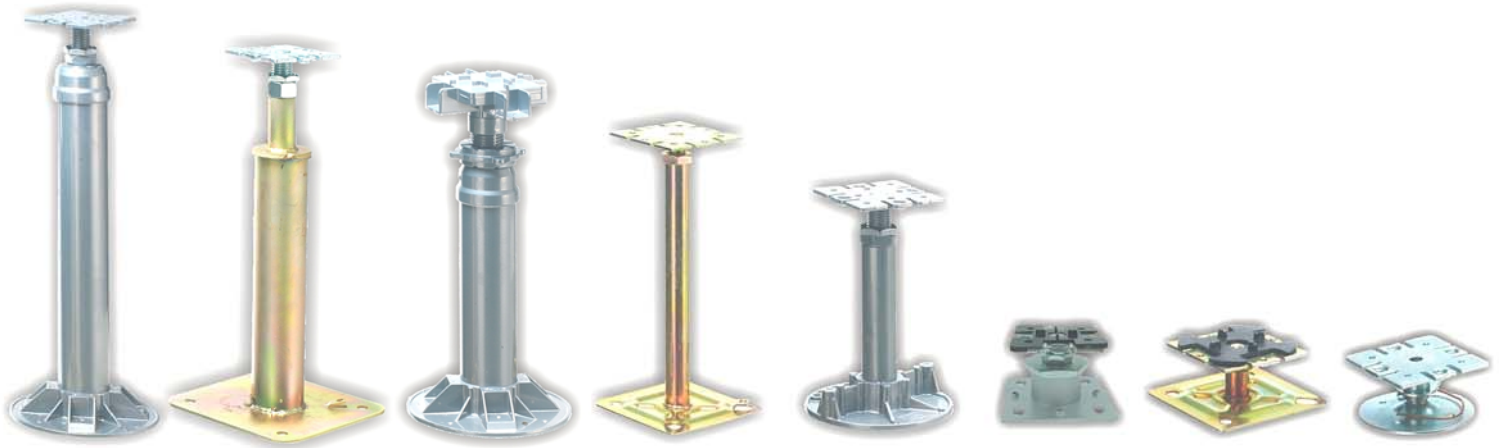
**High Pressure Laminate( HPL )** is manufactured from several kinds of special papers that have been treated with phenol formaldehyde, melamine and resins then subjected to high heat and pressure to become thermosetting based decorative laminated sheets. It is not only colorful, smooth and glossy, it is also resistant to wear, heat and contamination. It can be cleaned and used for permanent decoration. Standard thicknesses are 1.2mm, 1.6mm and 2.0mm, though custom thicknesses can be made to order.



色號8191

## 基座·桁樑

Pedestal·Stringer



1. 基座組由上、下基座、墊片及固定螺絲所組成，依照使用場地的不同，可選擇不同承載及特殊處理〈例如：粉體塗裝、熱浸鍍鋅〉。
2. 用於特殊場所亦可提供下行樑或防震結構的選擇，以符合各種不同耐震之需求。
3. 若裝設超高基座組，可於底盤選用膨脹螺絲或擊釘固定，增加其穩定性。
4. 本公司所採用之基座組均可選購接地系統，達到靜電排除之目的。
5. 如有耐震之需求可另行搭配本公司專利抗舉基座。

1. The pedestal sets usually composed by up and down base seat headset spacers and screws for bending, according to uses the different location, it may choose the different load bearing and the coating way ( ex: powder body coating, hot dip galvanized).
2. When it uses in the special place, it also can provides down-stringer or quakeproof structure to fit any different kinds needing of bearing shakes.
3. Installation of high base group can be selected at the expansion chassis screws or nails fixed strike, increasing its stability
4. Our company adopted the pedestal sets all can selects and purchases grounding system to achieve the purpose of static dissipative.
5. If the demand for seismic can be additional use our patent of the anti-lift pedestal.



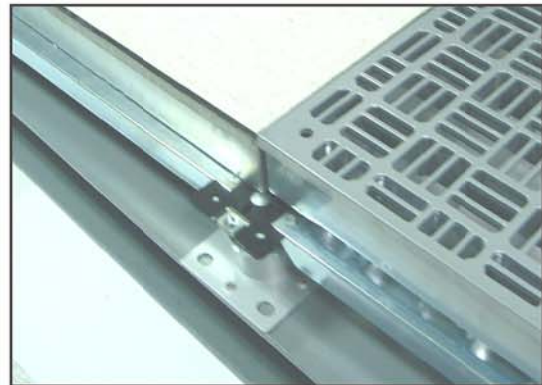
## 無塵室潔淨廠 Cleaning Room

“科技廠房”裝設鋁高架地板在潔淨室中，因人員步行而搬運、裝移設備、器材等作業，容易磨耗和帶靜電產生微細塵埃，為防止灰塵和細微塵埃滯留潔淨室中，所以高科技產業應用鋁高架活動地板最廣泛，例如：半導體晶圓廠、NMR掃描、IC測試區、光電光罩實驗室、LCD、TFT、機密儀器、生物科技產業。潔淨室為有效控制空調氣流的方向性，減少局部亂流，再利用地板下方空間作為回風及管線架之通道、在面板構造上有沖孔板、格柵板、平面板。

### Associated Engineering

"Technology plant" installation of aluminum raised floor in the clean room, because people walking and moving, loading moving equipment, tools and other operations, easy to wear and fine dust with static electricity, to prevent dust and fine dust retention clean room, so high application technology industry's most widely aluminum raised floor, for example: a semiconductor fab, NMR scanning, IC testing area, optical mask lab, LCD, TFT, confidential instruments, bio-technology industry.

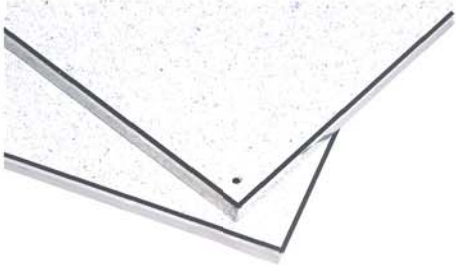
Cleaning room for the effective control of air flow direction, reduce local turbulence, and then use the space below the floor as the frame of the return air and pipeline access, the panel constructed with perforated panel, grate panel, solid panel.



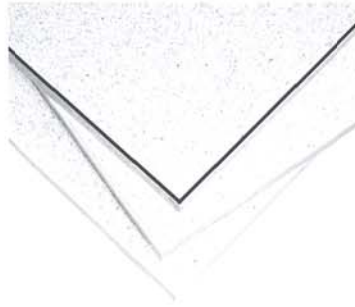


選購項目  
Option

地板Panel



四角鎖固  
Corner-Lock



四邊壓條  
Edgings



視窗地板  
Window Panel

基座Pedestal



斜支撐  
Pedestal Bracing



下防震橫樑  
Lower Stringers



膨脹螺絲  
Expansion Bolts

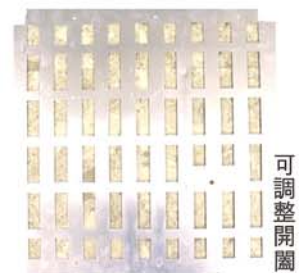
配件Accessory



階梯  
Ladder



斜坡  
Ramp



調風葉片  
Damper



出線盒  
Outlet Box

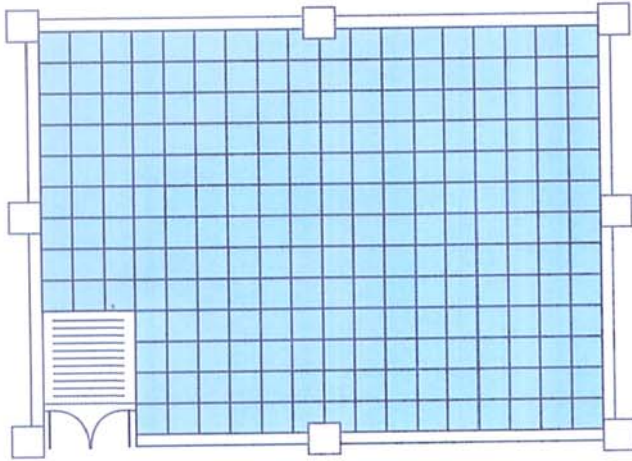


吸取工具  
Panel Lifter



接地處理  
Ground Wire

施工步驟  
Construction Step

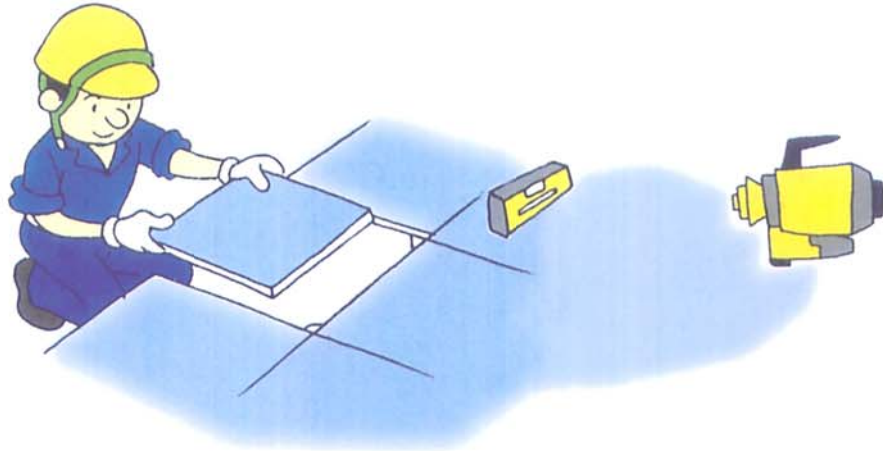


平面圖Plane

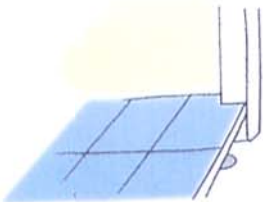
設計確認  
Design confirmation



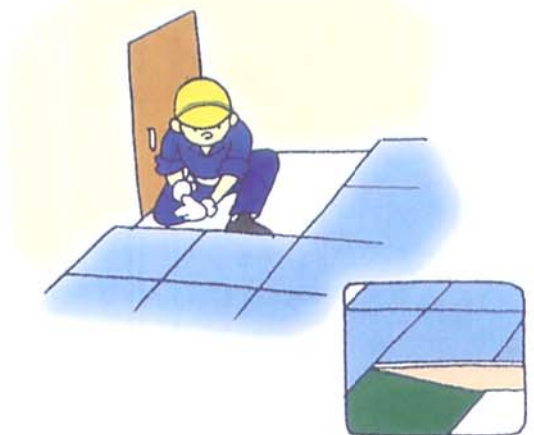
地板鋪設  
Floor panel pavement



牆柱收邊  
Edge of wall/column

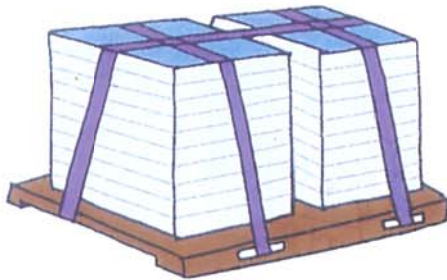


斜坡踏步  
Step of slant slope



材料進場

Material in site



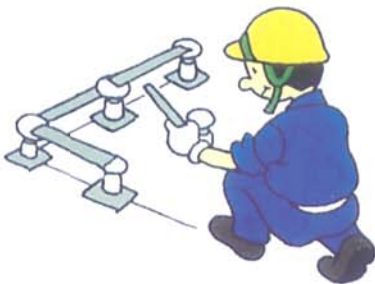
放樣

Sitting out



桁樑固定

Stabilization of girder



基座接著

Base seat fitting



出線孔製作

Manufacture of outlet hole



清潔與檢查

Cleaning and inspection





Y  
E  
N  
I

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