

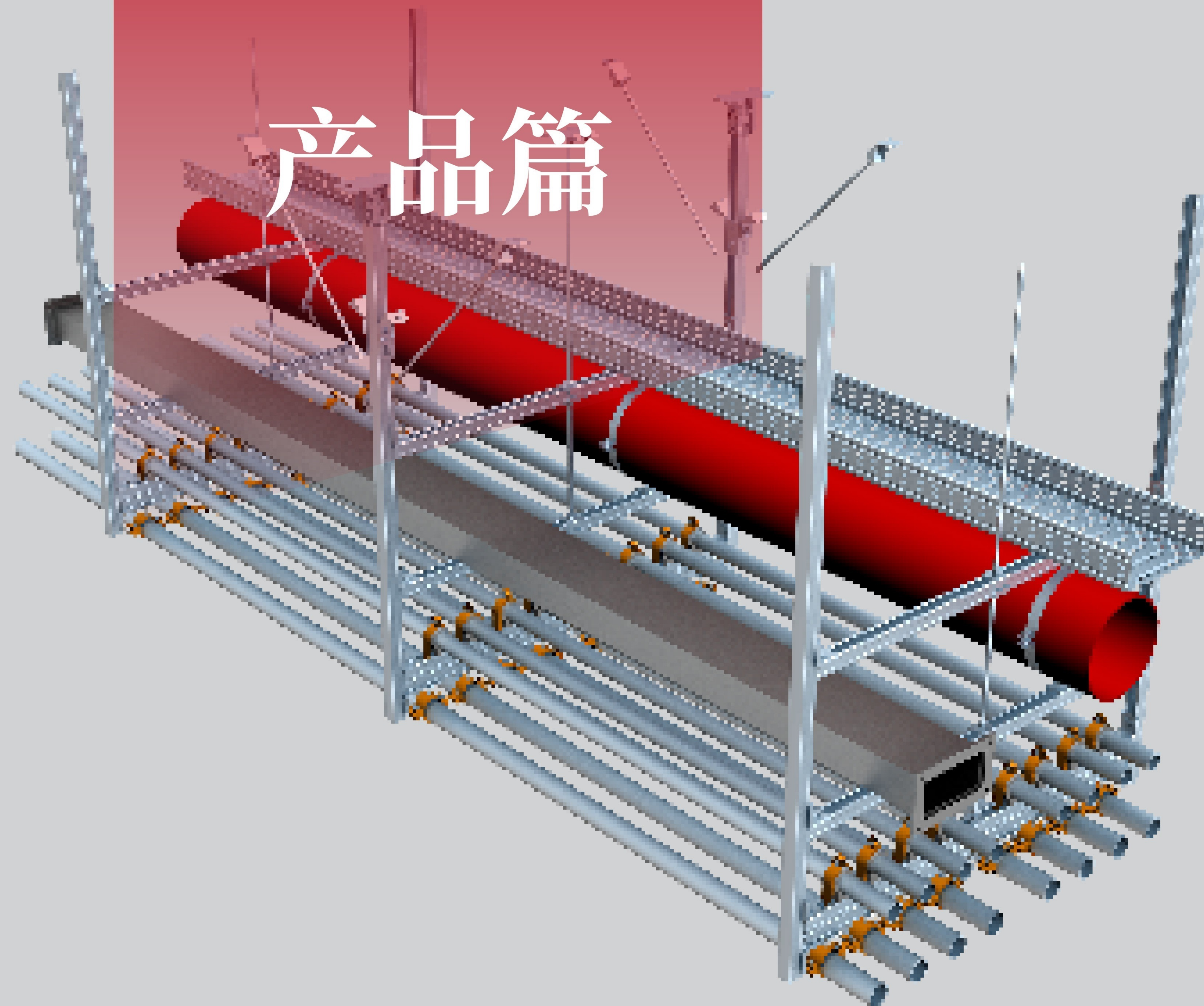
# 士林装配式管线支撑系统

COMPANY PROFILE

ABSORBED DEDICATED SPECIALITY

江苏士林电气集团  
江苏士林电气设备有限公司  
JIANGSU SHILIN ELECTRIC EQUIPMENT CO., LTD

# 产品篇



铝合金装配式管线支撑系统  
Aluminum alloy assembled pipeline support system

# 铝合金装配式管线支撑系统

## ALUMINUM ALLOY ASSEMBLED PIPELINE SUPPORT SYSTEM

铝合金装配式管线支撑系统是在工程建筑本体与所需配套设施之间建立的一个支撑系统平台，通过该平台，把工程中所需要的风、水、电等设施科学、合理的进行布置和可靠固定，实现整个工程的功能性要求。

铝合金装配式管线支撑系统由生根单元华龙铝合金槽道和支撑单元华安铝合金装配式支吊架两部分构成。

The aluminum alloy assembled pipeline support system is a reliable support system platform established between the engineering building body and the required wind, water, electricity, and other facilities. Through this platform, the wind, water, electricity, and other facilities needed in the project are scientifically and reasonably arranged and reliably fixed to achieve the functional requirements of the whole project.

The aluminum alloy assembled pipeline support system is composed of two parts: the rooting unit Hualong aluminum alloy channel system and the support unit Huaan aluminum alloy assembly support and hanger system.



## 生根单元：华龙铝合金槽道

Rooting unit: Hualong aluminum alloy channel

华龙铝合金槽道是一种预埋于钢筋混凝土中或后置于钢筋混凝土表面的槽型构件，通过 T 型螺栓将承托机电设备的支撑单元可靠的固定在槽道上。

华龙铝合金槽道适用于轨道交通、地下管廊、高层建筑、机场、水电站、高端装备等领域。

Hualong aluminum alloy channel is a kind of groove member which is pre-embedded in reinforced concrete or placed on the surface of reinforced concrete. The supporting device of supporting mechanical and electrical equipment is reliably fixed on the channel by T-shaped bolts.

Hualong aluminum alloy channel is suitable for rail transit, underground pipe corridor, high-rise building, airport, hydropower station, high-end equipment, and other fields.



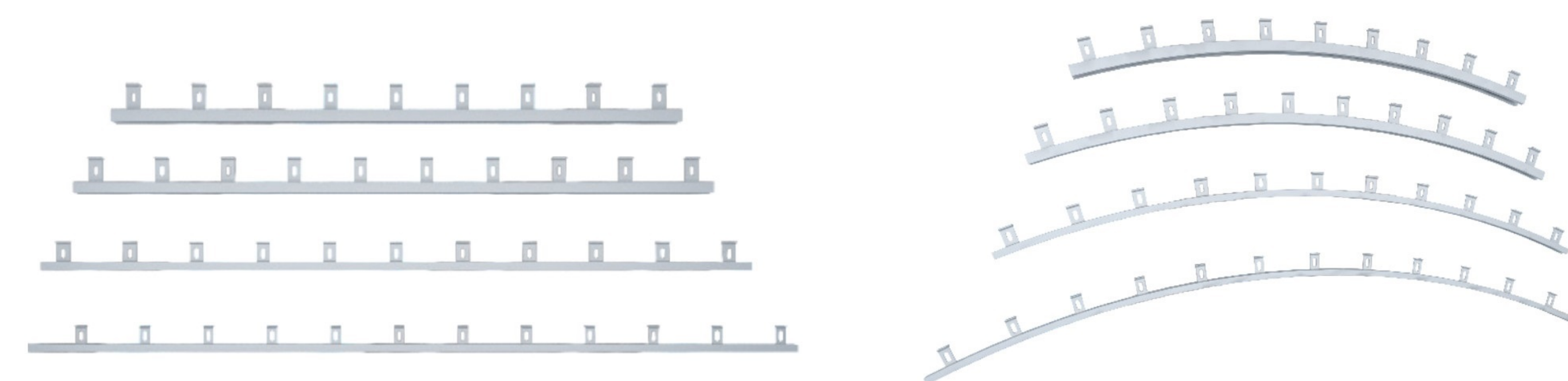
### 引用标准

HA 系列铝合金装配式支吊架完全符合国家及行业标准要求，依据以下标准：

- (1) GB50017-2014 《钢结构设计规范》
- (2) GB50429-2007 《铝合金结构设计规范》
- (3) GB50981-2014 《建筑机电工程抗震设计规范》
- (4) GB50838-2015 《城市综合管廊工程技术规范》
- (5) GB/T17116-1997 《管道支吊架》
- (6) GB50217—2007 《电力工程电缆设计规范》
- (7) DL/T5484—2013 《电力电缆隧道设计规程》
- (8) 《铝加工技术使用手册》

## 华龙铝合金槽道产品型式

HL LCD product type

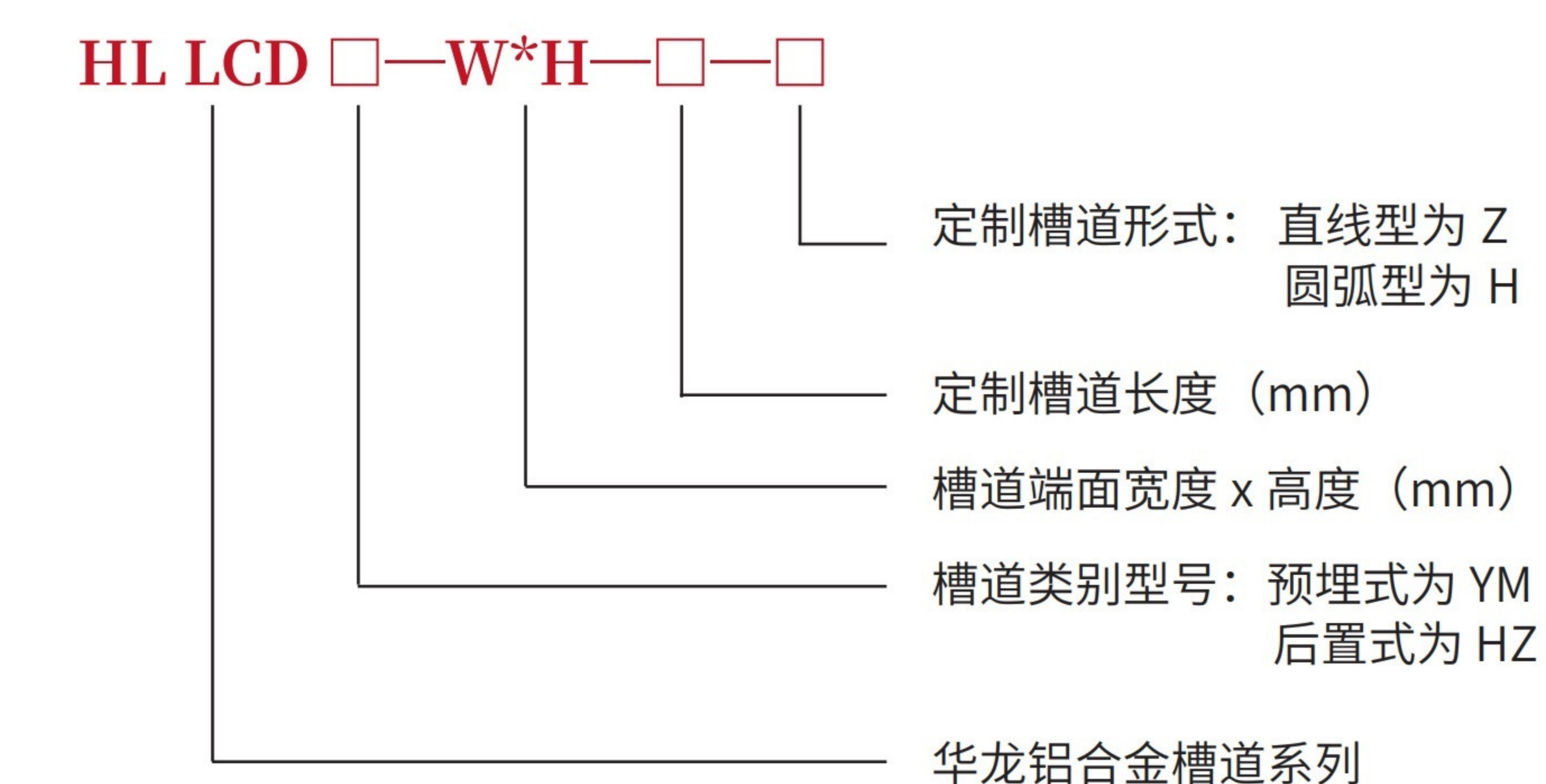


直线型 (Z) Linear

圆弧形 (H) Arc

## 华龙铝合金槽道表示方法

HL LCD representation method



**示例 1：**预埋式铝合金槽道，型号 YM-30\*20，长度为 3600mm，圆弧形槽道，标示为：HL LCD YM-30\*20-3600-H

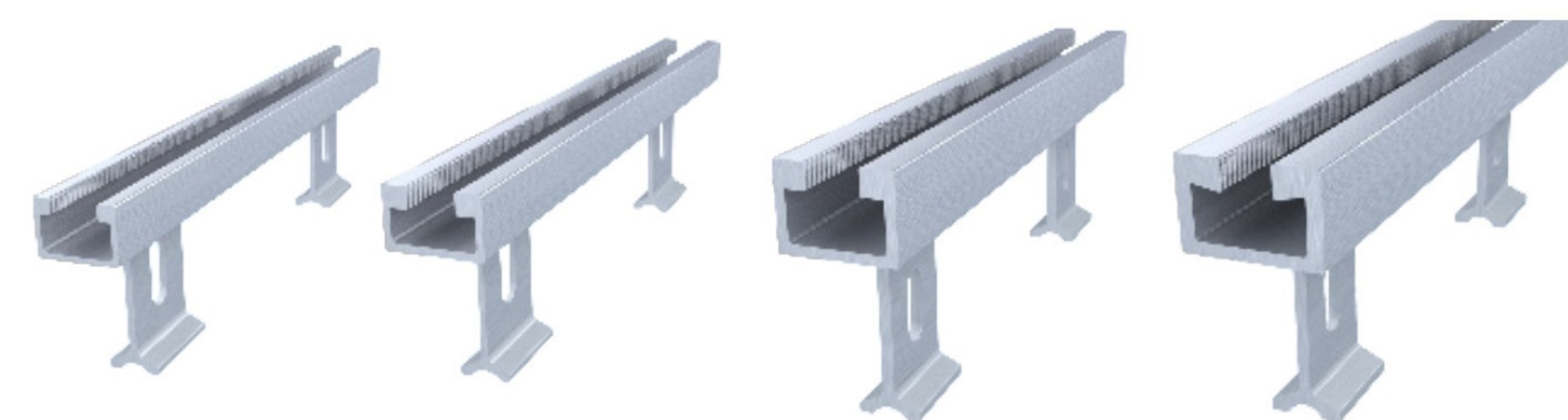
**示例 2：**后置式铝合金槽道，型号 HZ-55\*33，长度为 4200mm，直线型槽道，标示为：HL LCD HZ-55\*33-4200-Z

**Example1：** Pre-embedded aluminum alloy channel, model YM, The size of the end face is 30\*20, the length is 3600mm, arc channel marked: HL LCD YM-30\*20-3600-H.

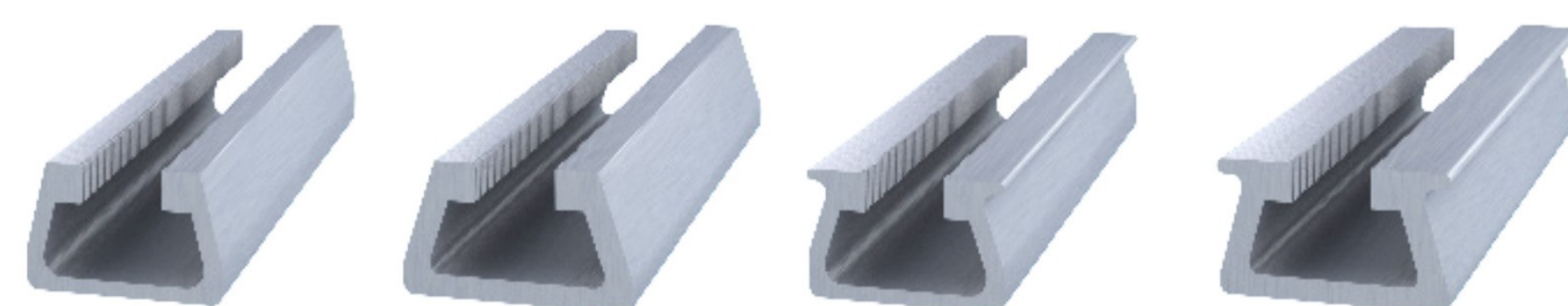
**Example2：** Rear type aluminum alloy channel, model HZ, end face size is 55\*33, the length is 4200mm, linear channel marked: HL LCD HZ-55\*33-4200-Z.

## 产品特点

### Product characteristics



HL LCDYM-30\*20 HL LCDYM-36\*23 HL LCDYM-44\*33 HL LCDYM-55\*36



HL LCDHZ-55\*33 HL LCDHZ-65\*35 HL LCDHZK-55\*33 HL LCDHZK-65\*35

- **材料：**  
材料机械性能优良，抗拉强度 400MP，屈服强度 310MP；
- **结构：**  
一体式结构，强度高，稳定性好，抗疲劳性能优良，避免了焊接或铆接造成的安全隐患；
- **寿命：**  
耐腐蚀性强，可适用于潮湿或盐雾环境；铝合金表面绝缘，不传导杂散电流，耐久性好，满足百年工程的寿命需求；
- **节能降耗：**  
高强铝合金在电场中无火花、无磁性、无毒性；高压输电工程中不会产生涡流；不产生杂散电流；也不传导杂散电流。
- **成本低：**  
质量轻、比强度高，转运及安装成本低；耐久性好，终身免维护。

- **Materials:** The channel material has excellent mechanical properties, tensile strength 400MP, yield strength 310MP.
- **Structure:** The channel is an integrated structure with high strength and good stability. Excellent anti-fatigue performance, avoiding safety risks caused by welding or riveting.
- **Life:** High strength aluminum alloy is non-sparking, non-magnetic, non-toxic in the electric field; No eddy current or stray current will be generated in the voltage transmission project.
- **Energy-saving and consumption reduction:** High strength aluminum alloy is non-sparking, non-magnetic and non-toxic in electric field; eddy current will not be generated in high-voltage transmission project; stray current will not be generated; stray current will not be conducted.
- **Low cost:** light-weight, high specific strength, low transfer, and installation costs, good durability, maintenance-free for life.

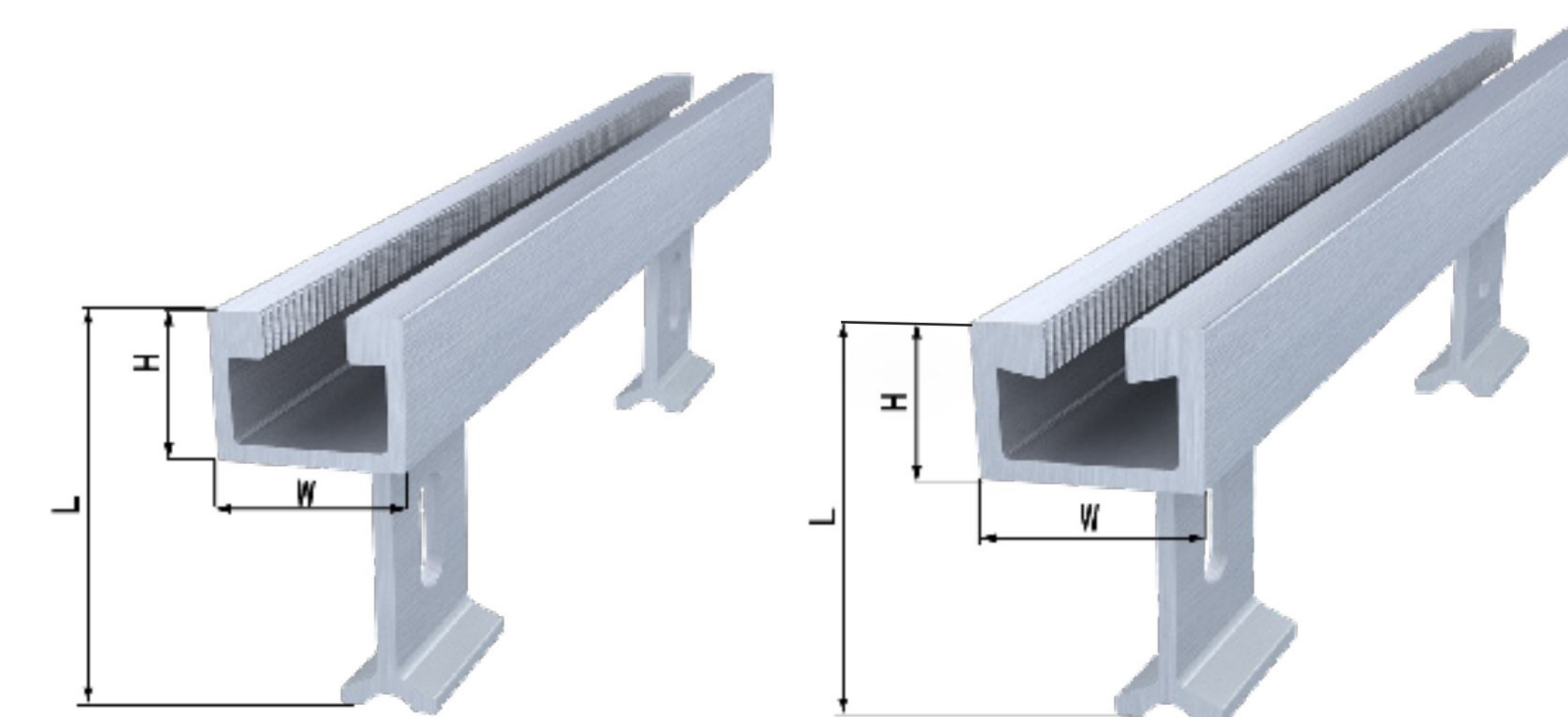
## 预埋式华龙铝合金槽道

### Embedded Hualong aluminum alloy channel

预埋式华龙铝合金槽道是预埋于钢筋混凝土中的生根构件，锚杆部分与混凝土牢固结合，通过 T 型螺栓将承载风、水、电等设备的支撑单元可靠的固定于槽道上。

The pre-embedded Hualong aluminum alloy channel is a rooting component embedded in reinforced concrete, and the anchor part is firmly combined with concrete, and The supporting devices of air, water, electricity, and other equipment are reliably fixed on the channel by T-shaped bolts.

- **材质：** 高强耐腐蚀铝合金材料
- **表面处理：** 阳极氧化
- **Material:** high strength and corrosion-resistant aluminum alloy
- **Surface treatment:** anodized



HL LCDYM-30\*20—HL LCDYM-44\*33

HL LCDYM-55\*36

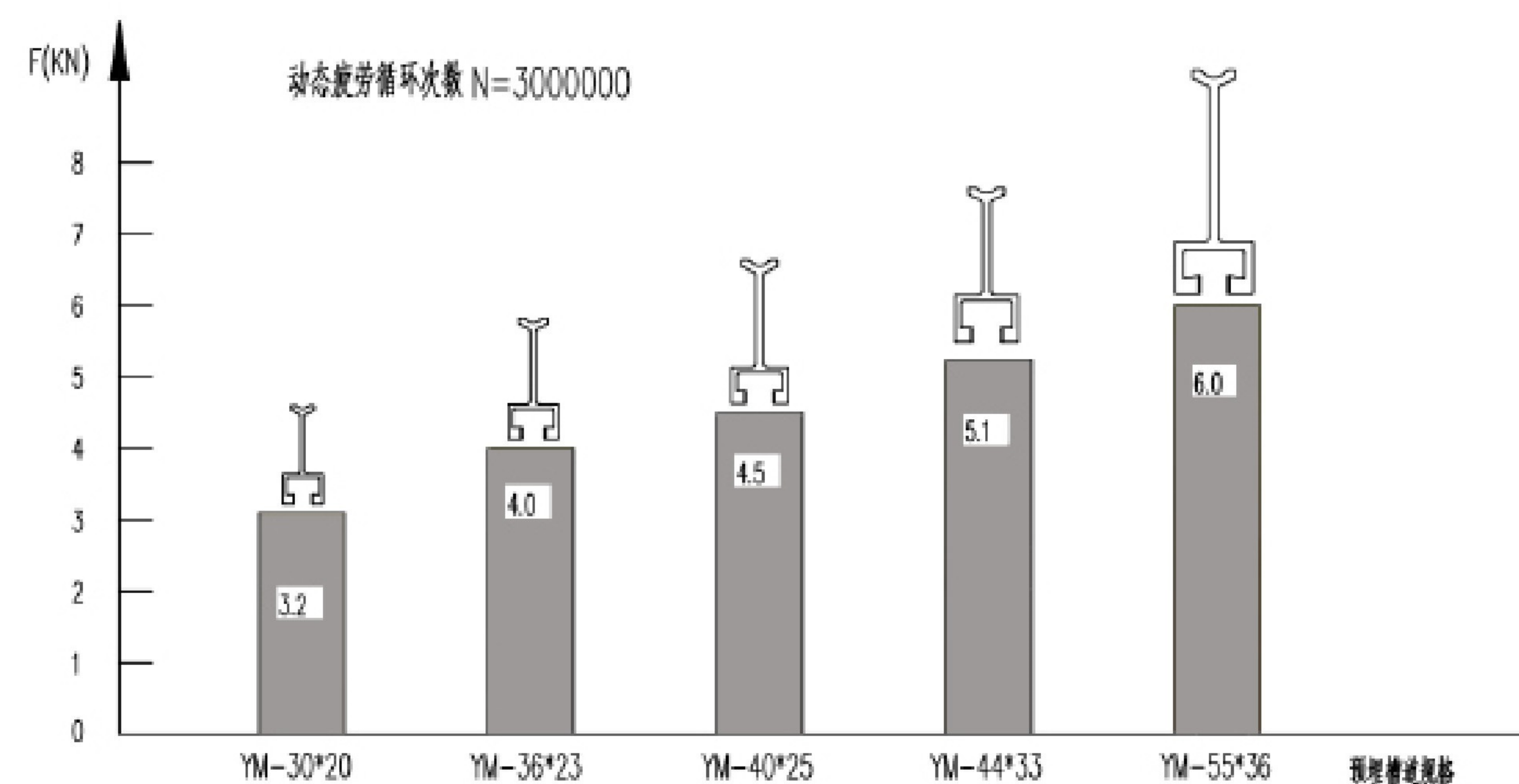
### 预埋式铝合金槽道主要技术参数 (表一)

HL LCD YM main technical parameters (Table 1)

型号 Type	尺寸 (mm) Size		
	W	H	L
YM	30	20	75
	36	23	83
	40	25	100
	44	33	108
	55	36	116

## 预埋式华龙铝合金槽道动态承载力、抗疲劳性能

Dynamic bearing capacity and fatigue resistance for HL LCD YM



表一中铝合金槽道

- 槽道齿牙为梯形，齿牙参数为：间距 3.0mm，齿牙深度 1.0mm；
- 通过了中国建筑科学院国家建筑工程质量监督检验中心的检测，适用于动态荷载，具有良好的抗疲劳性能。

Aluminum alloy grooves in Table 1 and Table 2.

- The groove teeth are trapezoidal, and the tooth parameters are as follows: the spacing is 3mm and the tooth depth is 1mm.
- It has passed the inspection of the National Construction Engineering Quality Supervision and Inspection Center of the Chinese Academy of Architectural Sciences, which is suitable for dynamic load and has good fatigue resistance.

## 预埋式华龙铝合金槽道在工程中的应用

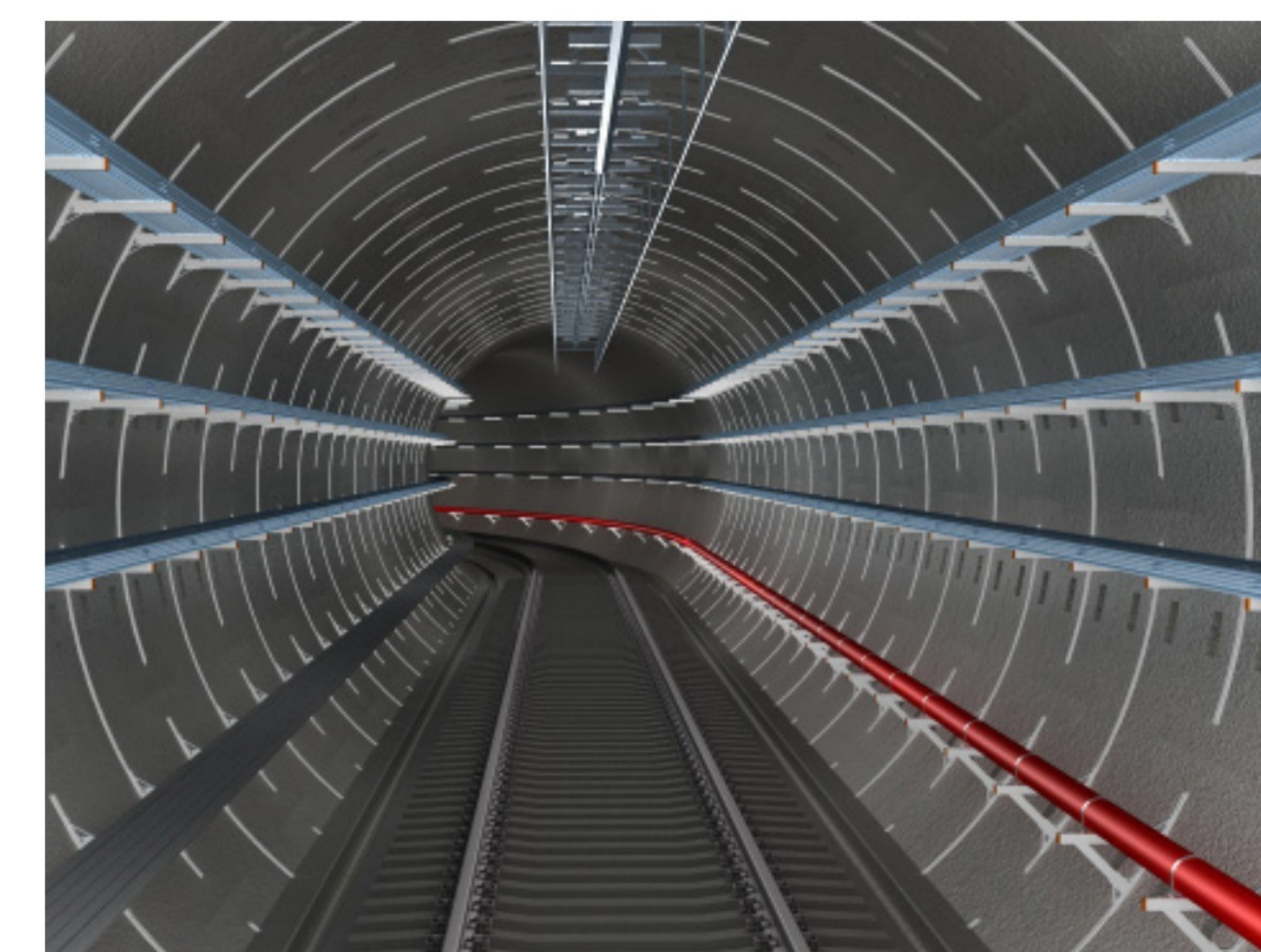
Application of HL LCD YM in engineering

### 1、在地铁工程中的应用

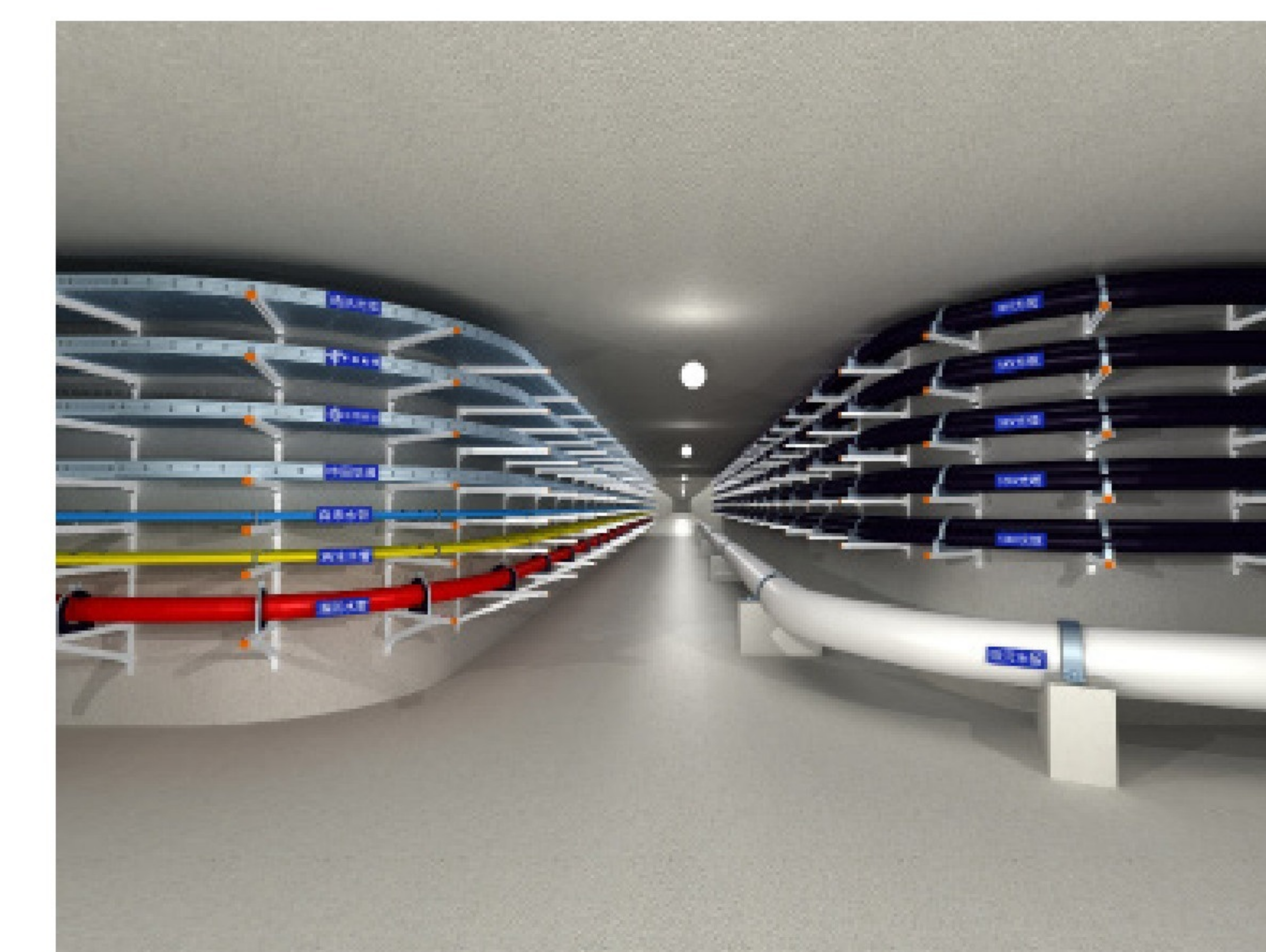
Application of YM in subway engineering

选型：根据地铁中所设计的电缆、水管、疏散平台等荷载，运行区间两侧圆弧部分预埋槽道一般间距 0.8—1.2 米，规格选用圆弧型 YM-36\*23 为宜；圆弧顶部固定接触网部分槽道规格选用圆弧形 YM-55\*36 为宜。

Type selection: according to the loads such as cable, water pipe and evacuation platform designed in the subway, The general spacing of the pre-buried channels on both sides of the operating interval is 0.8-1.2m, and the specification is arc YM-36\*23. The groove specification of the part of the fixed catenary at the top of the arc should choose the circular arc YM-55\*36.



在地铁工程中的应用



在综合管廊工程中的应用

### 2、在综合管廊工程中的应用

Application of YM in comprehensive pipe gallery Engineering

选型：在综合性管廊中，涵盖 10KV 以下电缆、通讯光缆、直径 ≤ 250mm 以下各类水管，预埋槽道一般间距 1.0—1.5 米，规格选用直线型 YM-36\*23 为宜。

Type selection: in the comprehensive pipe corridor, it covers all kinds of water pipes with diameters less than or less than 10KV, communication optical cables and diameter ≤ 250mm. The general spacing of embedded channel is 1.0-1.5m. The channel specification is linear YM-36\*23.

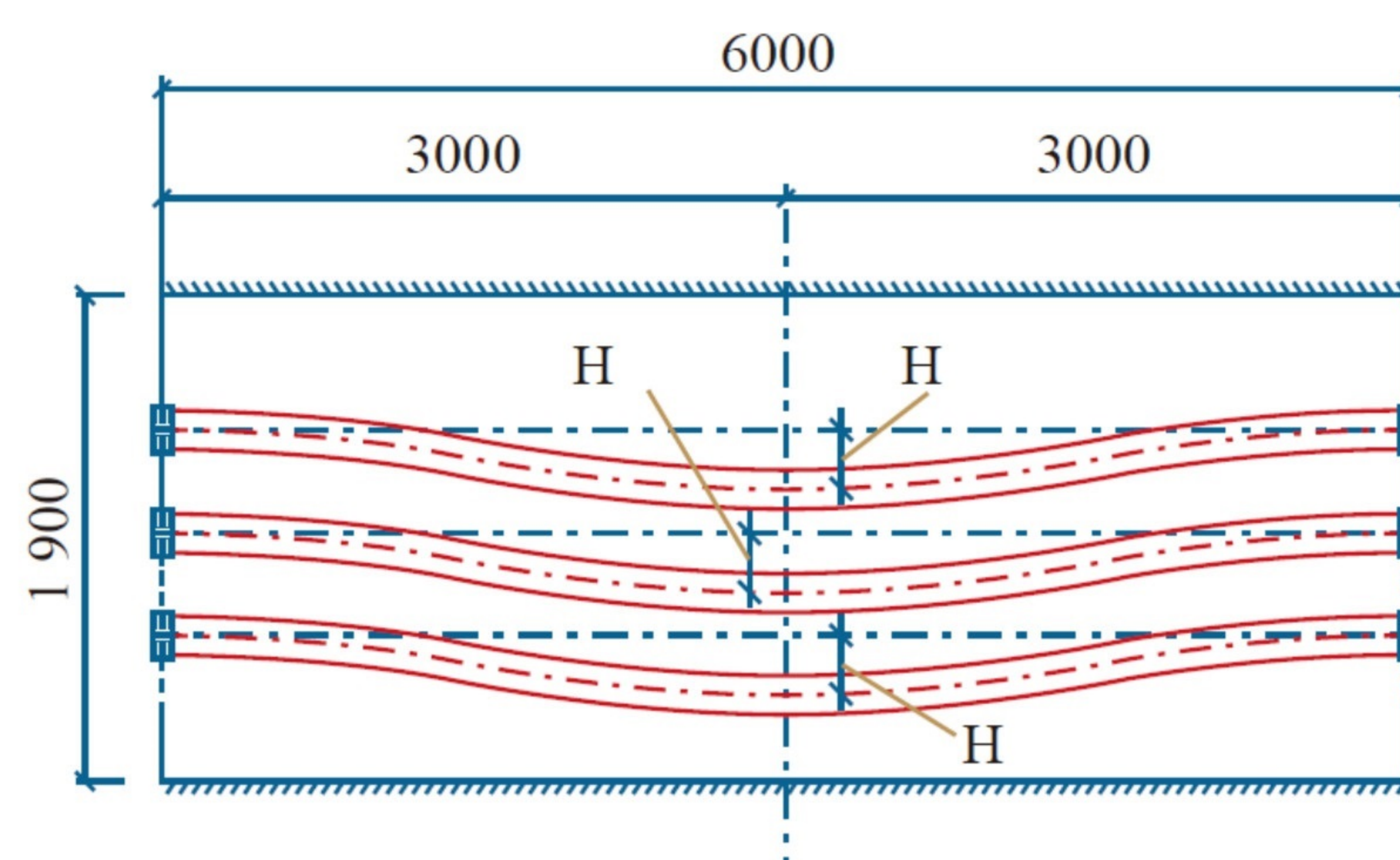
### 3、在高压电力管廊工程中的应用

#### Application in high voltage power pipe gallery project

设高压电缆（110-500KV）的管廊中，选用槽道时须考虑以下因素：

- (1) 高压电缆自身重量：110KV 电缆 22.4Kg/m，220KV 电缆 30Kg/m，330KV 电缆 39Kg/m，500KV 电缆 50Kg/m；同时应考虑电缆蛇形敷设时电缆长度增加的因素，计算时可选 1.1 ~ 1.3 系数。
- (2) 高压电缆多层敷设时，110KV 电缆层间距应  $\geq 350\text{mm}$ ，220KV 电缆层间距应  $\geq 450\text{mm}$ ，330KV 电缆层间距应  $\geq 1400\text{mm}$ （中间含接头层），550KV 电缆层不宜采用多层敷设。
- (3) 防涡流：应考虑电缆支架的涡流损耗影响，选择槽道应为无磁性的高强铝合金材质。
- (4) 防热伸缩滑移：应考虑电缆在支架上因热伸缩滑移现象产生的热机械力对槽道产生的影响，管廊内敷设电缆采用连续垂直蛇形敷设，弧幅（H）为电缆直径 D ~ 1.5D。
- (5) 应考虑在高压电力系统发生短路时，瞬间大电流产生的电动力。

综合以上因素，根据管廊端面形状，建议槽道规格选用直线型 YM-44\*33 为宜，项目应用可参照上述图表中的承载参数。



垂直蛇形敷设断面示意图 (单位: mm)

In the pipe gallery for laying high voltage cable (110-500KV), the following factors should be taken into account when choosing the channel:

- (1) Weight of high voltage cable: 110KV cable 22.4kg/m, 220KV cable 30kg/m, 330KV cable 39kg/m, 500KV cable 50kg/m, at the same time, the factor of increasing the length of the cable serpentine laying should be taken into account, and the coefficient of 1.1 to 1.3 can be selected in the calculation.
- (2) For multi-layer laying of high voltage cables, the 110KV cable layer spacing should be  $\geq 350\text{mm}$ , the 220KV cable layer spacing should be  $\geq 450\text{mm}$ , and the 330KV cable layer spacing should be  $\geq 1400\text{mm}$  (including the connection layer in the middle). 550KV cable layer is not suitable for multi-layer laying.
- (3) Anti-eddy current: The eddy current loss of the cable bracket should be considered, and the channel should be made of non-magnetic high-strength aluminum alloy.
- (4) Anti-thermal telescopic slip: The influence on the channel caused by the thermal-mechanical force caused by the thermal expansion and slip of the cable on the bracket should be taken into account. The continuous vertical serpentine laying of the cable is used in the pipe corridor, and the arc (H)  $D \sim 1.5D$  in the diameter of the cable.
- (5) The electromotive force generated by the instantaneous large current in the case of a short circuit in high voltage power system should be considered.

Considering the above factors, according to the shape of the end face of the pipe corridor, it is suggested that the channel specification should be linear YM-44\*33, For project application, please refer to the bearing parameters in the above chart.

### 预埋式华龙槽道现场浇筑快速安装和拆卸装置

#### Quick installation and disassembly device of YM for on-site pouring

针对现场浇筑预埋槽道工程的需要，公司发明了一套专利产品——华龙槽道快速安装和拆卸装置，该装置操作方便快捷，固定准确可靠，解决了槽道传统预埋方式所出现的槽道扭曲、倾斜、模板难以拆卸等施工中的一系列难题。

华龙铝合金槽道快速安装和拆卸装置由模板、定位块、和旋转锁紧把手组成，该装置操作程序如下：

- (1) 将旋转锁紧把手插销松开，向上旋转（状态 1）；
- (2) 将旋转锁紧把手从状态 1 顺时针水平旋转  $90^\circ$ （状态 2）；
- (3) 将旋转锁紧把手从状态 2 逆时针水平旋转  $90^\circ$ ，插入插销中（状态 3），将预埋槽道扣入定位块，调整好上下位置；
- (4) 将旋转锁紧把手从状态 3 顺时针水平旋转  $90^\circ$ （状态 4）；
- (5) 将旋转锁紧把手从状态 4 逆时针水平旋转  $90^\circ$ （状态 5）；
- (6) 将旋转锁紧把手从状态 5 向下旋转  $90^\circ$ （状态 6），压紧后插入插销完成槽道与模板的可靠固定。

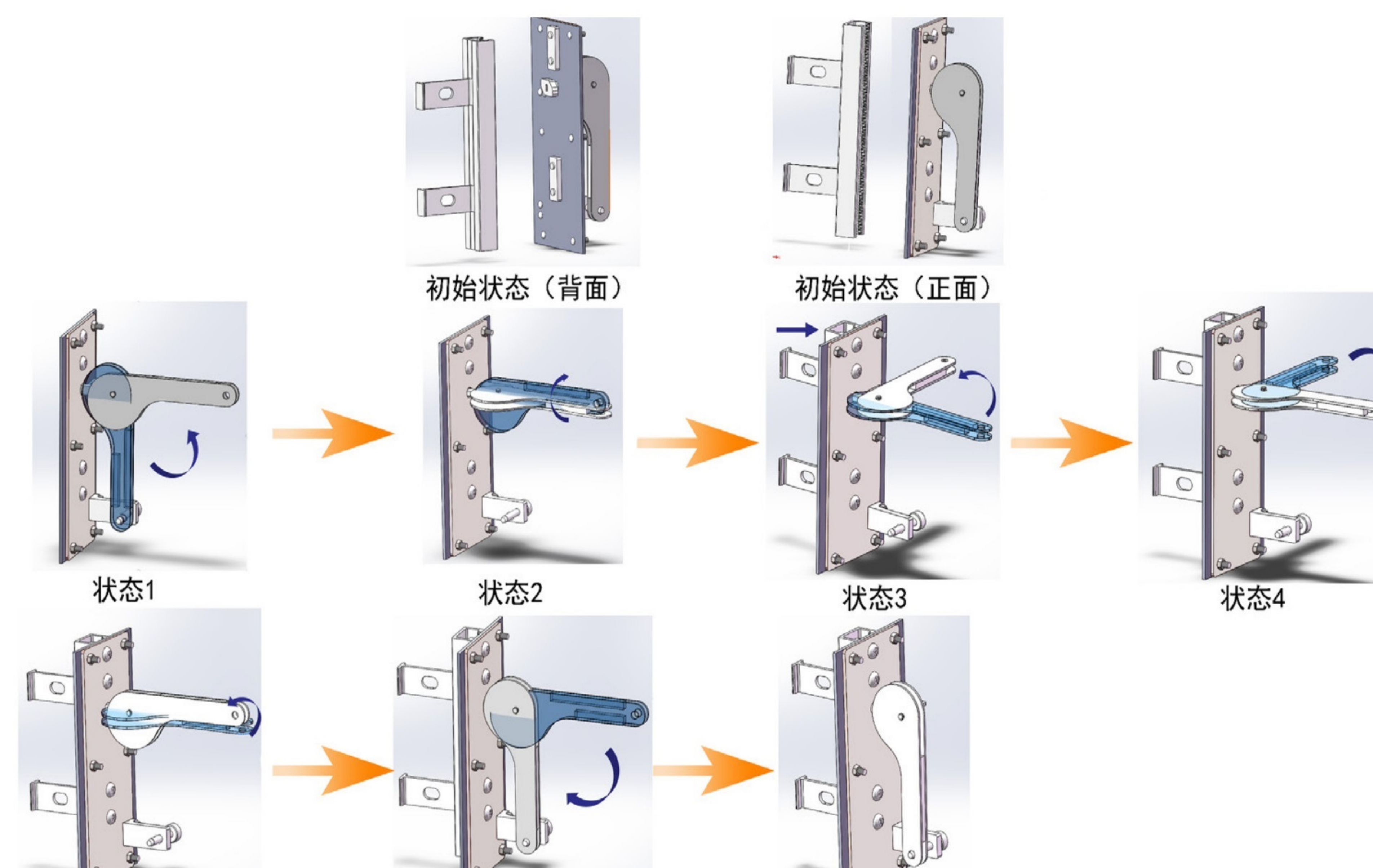
待商砼凝固后拆卸模板，按上述（1）、（2）、（3）步操作程序完成后，即可将模板与槽道分离，进入下个浇筑循环。

In order to meet the needs of the on-site pouring pre-buried channel project, the company invented a set of patented product—Hualong channel rapid installation and disassembly device, which is convenient and fast to operate, fixed and accurate and reliable. it solves a series of problems encountered in the construction of the traditional pre-embedded channel, such as channel distortion, inclination, formwork difficult to disassemble, and so on.

The quick installation and disassembly device of the Hualong aluminum alloy channel is composed of a template, a positioning block, and a rotary locking handle. The operating procedure of the device is as follows:

- (1) state 1: Loosen the pin of the rotary locking handle and rotate it upward;
- (2) state 2: Rotate the rotary locking handle horizontally  $90^\circ$  clockwise from state 1;
- (3) state 3: Rotate the rotary locking handle  $90^\circ$  horizontally from state 2 counterclockwise, insert it into the bolt, buckle the embedded channel into the positioning block, and adjust the up and down positions;
- (4) state 4: Rotate the rotary locking handle horizontally  $90^\circ$  clockwise from state 3;
- (5) state 5: Rotate the rotary locking handle  $90^\circ$  horizontally from state 4 counterclockwise;
- (6) state 6: Rotate the rotary locking handle down  $90^\circ$  from state 5, and insert the pin after pressing to complete the reliable fixation of the channel and the template.

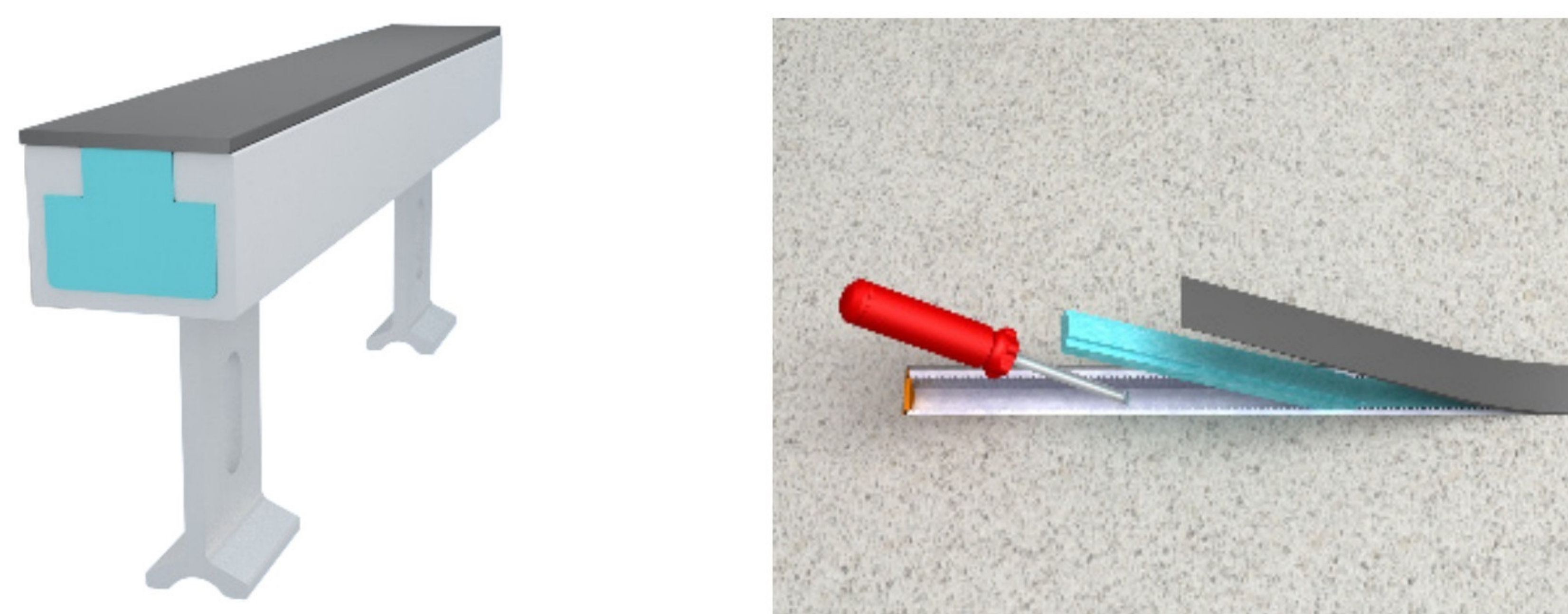
After the commercial concrete is solidified, the formwork shall be removed. After the operation procedures of (1), (2) and (3) above are completed, the formwork and channel can be separated to enter the next pouring cycle.



槽道锁紧装置操作流程示意图

## 预埋式华龙铝合金槽道填充物及使用方法

### HL LCD YM fillers and their usage



预埋式华龙铝合金槽道内部采用聚乙烯条进行填充，正面粘贴粘度适中的黑色胶条。

混凝土凝固后，先将槽道正面粘贴的黑色胶条去除，再用一字型螺丝刀将填充条从槽道一端撬出，沿槽道方向用手拉出即可。

After the surface treatment of the pre-embedded Hualong aluminum alloy channel, the interior is filled with polyethylene strip, and the black tape with moderate viscosity is pasted on the front.

After the concrete is solidified, remove the black tape pasted on the front of the channel, then pry the filling strip out of one end of the channel with a screwdriver and pull it out by hand along the direction of the channel.

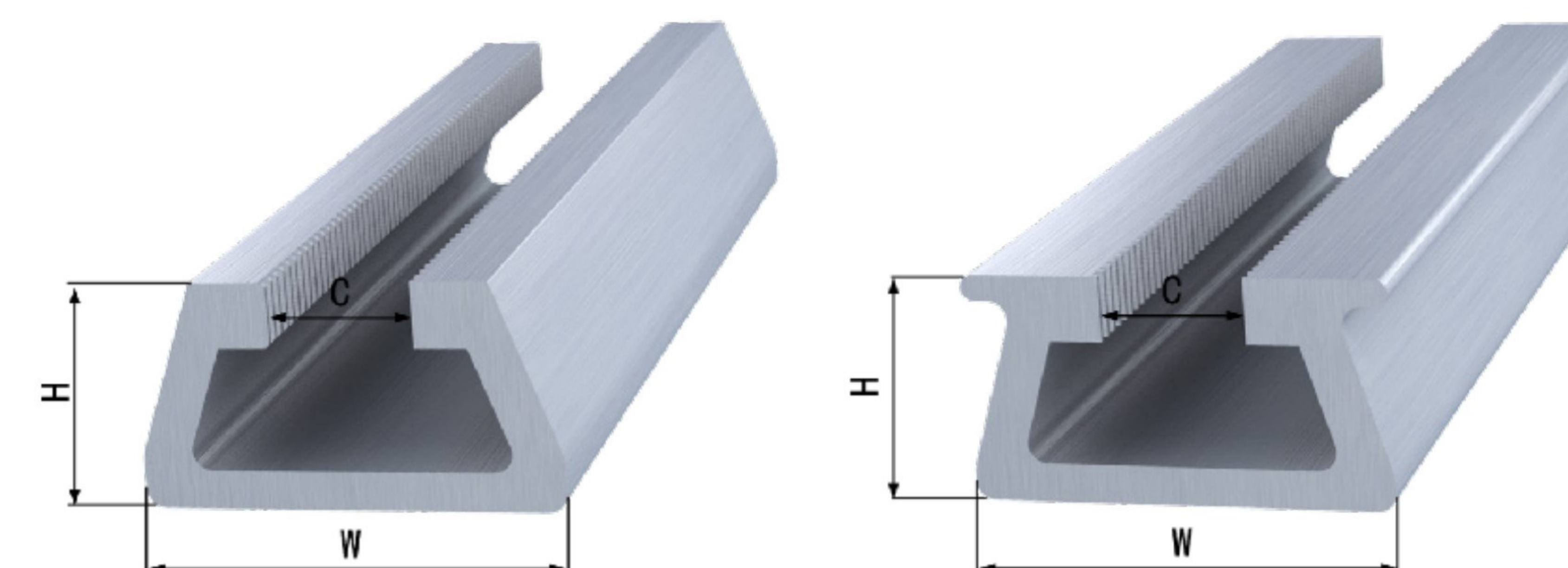
## 后置式华龙铝合金槽道

### Rear Hualong aluminum alloy channel

后置式华龙铝合金槽道是由预埋锚杆或其它方式将槽道固定于钢筋混凝土外表面的生根构件，通过T型螺栓将承载风、水、电等设备的支撑单元可靠的固定于槽道上。

The rear Hualong aluminum alloy channel is a rooting component that is fixed on the outer surface by pre-embedded anchors or other ways, and the supporting devices of wind, water, electricity, and other equipment are reliably fixed on the channel by T-bolts.

- 材质：高强度耐腐蚀铝合金材料
- 表面处理：阳极氧化
- Material: high strength and corrosion-resistant aluminum alloy
- Surface treatment: anodized



HL LCDHZ-55\*33—HL LCDHZ-65\*35      HL LCDHZK-55\*33—HL LCDHZK-65\*35

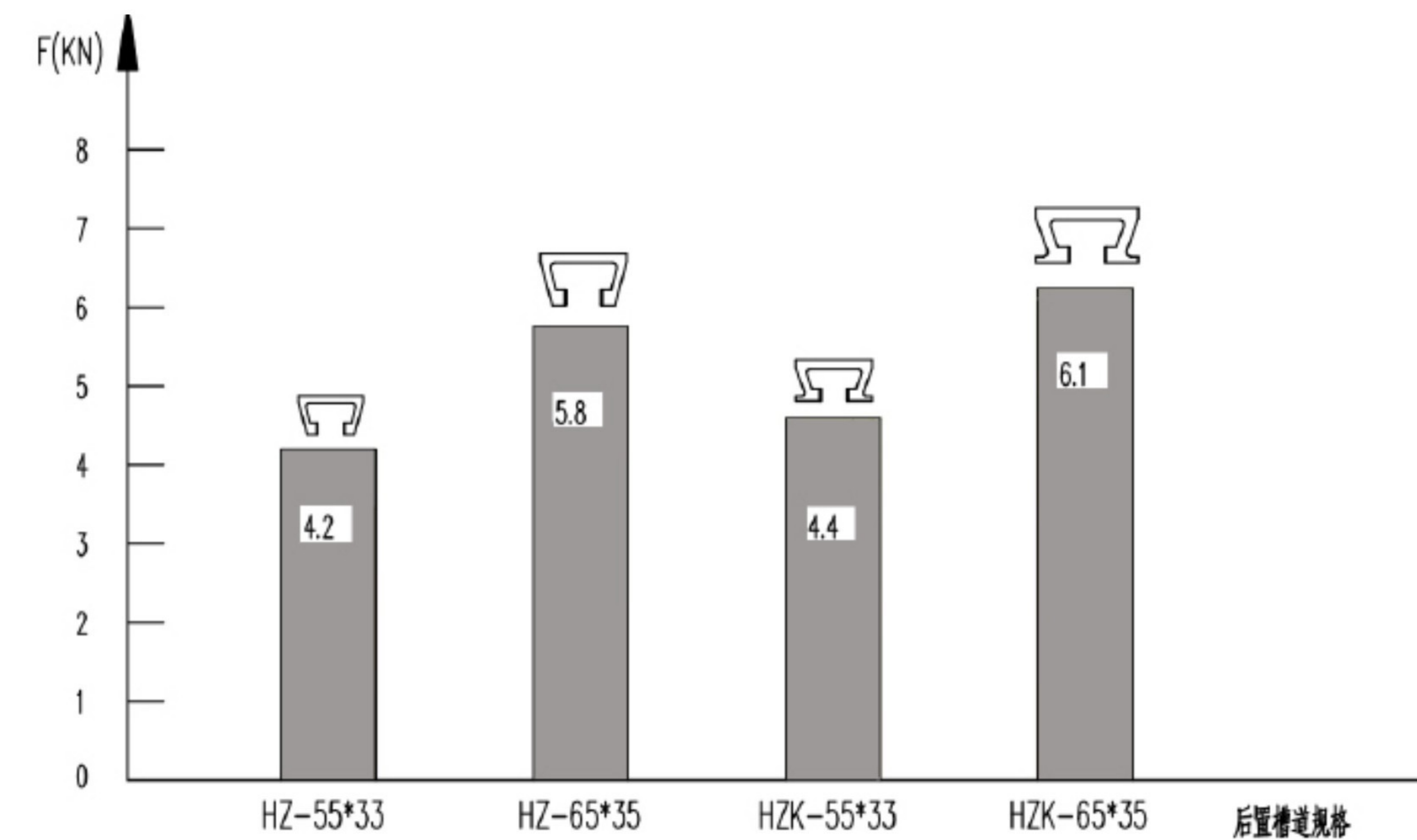
### 后置式铝合金槽道主要技术参数 (表二)

HL LCD HZ main technical parameters (Table 2)

型号 Type	尺寸 (mm) Size		
	W	H	C
HZ	55	33	22
	65	35	22
HZK	55	33	22
	65	35	22

## 后置式华龙铝合金槽道承载力

Bearing capacity for HL LCD HZ



### 表二中铝合金槽道

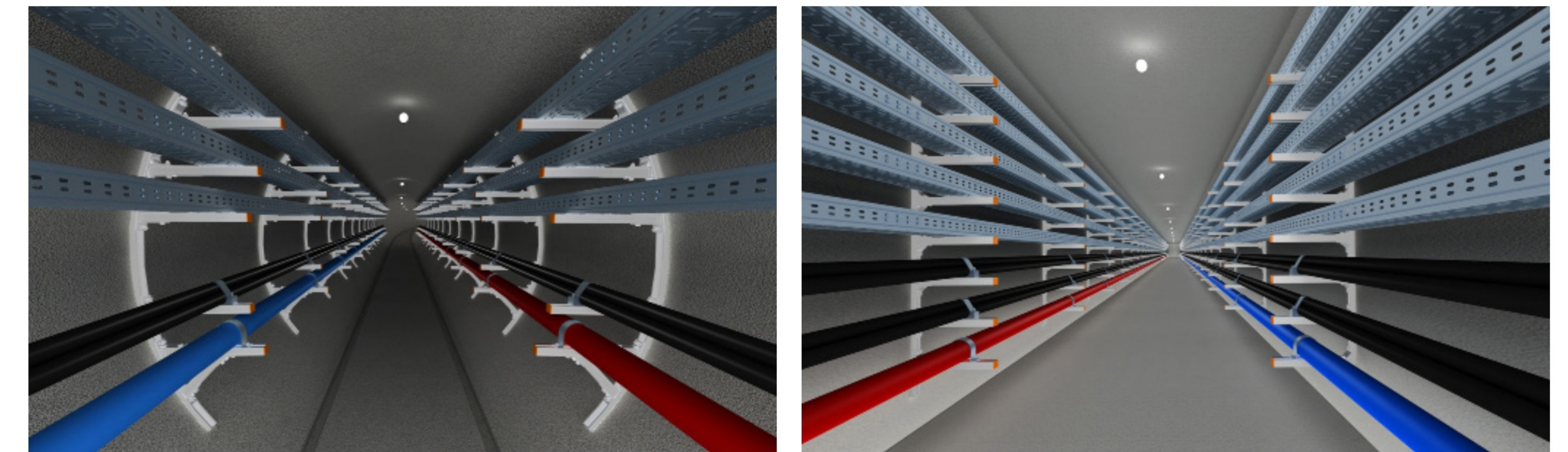
- 槽道齿牙为梯形，齿牙参数为：间距 3.0mm，齿牙深度 1.0mm；
- 通过了中国建筑科学院国家建筑工程质量监督检验中心的检测，适用于动态荷载，具有良好的抗疲劳性能。

Aluminum alloy grooves in Table 1 and Table 2.

- The groove teeth are trapezoidal, and the tooth parameters are as follows: the spacing is 3mm and the tooth depth is 1mm.
- It has passed the inspection of the National Construction Engineering Quality Supervision and Inspection Center of the Chinese Academy of Architectural Sciences, which is suitable for dynamic load and has good fatigue resistance.

## 后置式华龙铝合金槽道在综合管廊工程中的应用

Application of HL LCD HZ in engineering



选型：在综合管廊中，涵盖 10KV 以下电缆、通讯光缆、直径 ≤ 250mm 以下各类水管，后置式槽道规格选用 HZ-55\*33 为宜，项目应用可参照上述图表中的承载参数。

Type selection: in the comprehensive pipe corridor, it covers all kinds of water pipes with diameters less than or less than 10KV, communication optical cables and diameter ≤ 250mm. The channel specification is linear HZ-55\*33. For project application, please refer to the bearing parameters in the above chart.

## 铝合金槽道与钢制槽道比较表

Comparison table between aluminum alloy channel and steel channel

分类 Classification	华安铝合金支吊架	钢制 (Q235B) 支吊架
材料机械性能	抗拉强度 400MPa, 屈服强度 310MPa, 剪切强度 210MPa	抗拉强度 370MPa, 屈服强度 235MPa, 剪切强度 125MPa
结构方式	槽道本体与锚杆为一体式结构	槽道本体与锚杆采用焊接或铆接式结构
抗疲劳性能	300 万次	200 万次
耐腐蚀性	阳极氧化中性盐雾试验 2000 小时	热镀锌中性盐雾试验 1000 小时
使用寿命	铝合金表面绝缘，不传导杂散电流，满足百年工程需要	镀锌钢是导体，受杂散电流影响，寿命更短，25-30 年
施工成本	质量轻 50% 以上，运输、安装效率高	质量较重，运输、安装效率较低
节约电能	无磁性，不产生涡流，也不产生杂散电流	有磁性，产生涡流，并产生相应杂散电流
运维成本	免维护，运维成本低	不定期维护、更换，运维成本高
绿色环保	制造工艺绿色环保，回收率高达 98%	制造工艺污染环境，镀锌件回收率仅为 30%

## T 型螺栓

T-bolt

### T 型螺栓材质、性能及齿牙参数

Material, performance, and tooth parameters of T-shaped bolts

T 型螺栓材质采用 304-70 不锈钢、超高强铝合金两种材料。

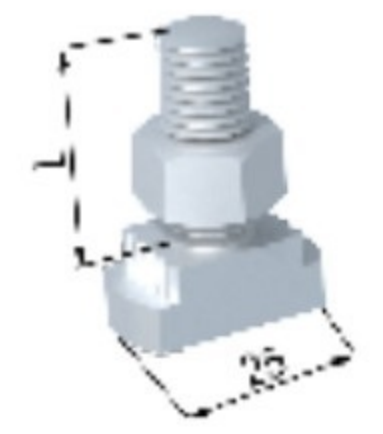
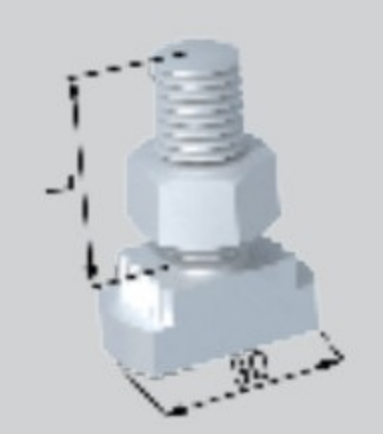
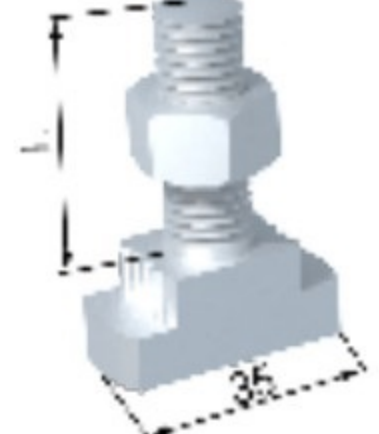
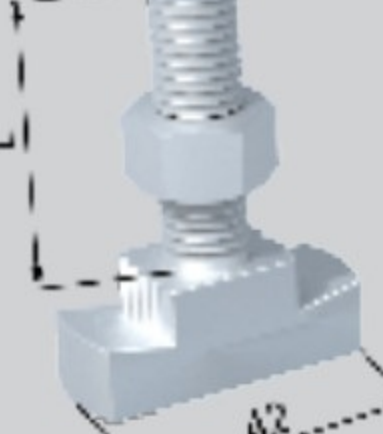
- 不锈钢 (牌号 304-70) T 型螺栓, 性能等级为 6.8 级, 螺母材质为不锈钢 (牌号 304), 性能等级为 4.8 级。
- 超高强耐腐蚀铝合金 T 型螺栓, 性能等级为 6.8 级, 螺母材质与螺栓相同, 抗拉强度达到 710MP。
- T 型螺栓齿牙为梯形, 齿牙参数为: 间距 3.0mm, 齿牙深度 1.0mm。

The T-bolt is made of 304-70 stainless steel and ultra-high strength aluminum alloy.

- Stainless steel T-bolt (brand 304-70), the performance grade is 6.8, nut material stainless steel (brand 304), performance grade 4.8.
- Aluminum alloy T-shaped bolt, the performance grade is 6.8, the nut is made of aluminum alloy, and the tensile strength reaches 710MP.
- The teeth engaged by T-bolts and grooves are trapezoidal, and the tooth parameters are as follows: spacing 3.0mm, tooth depth 1.0mm.

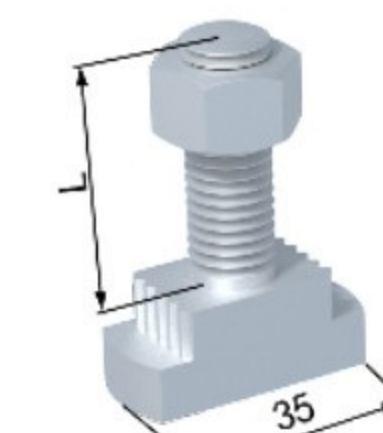
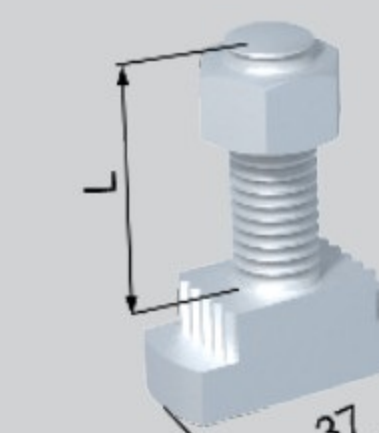
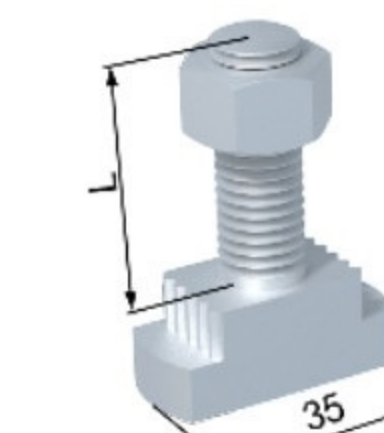
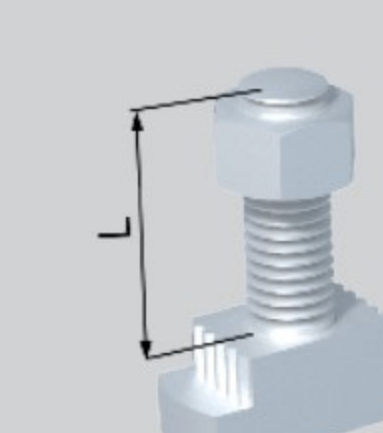
适用预埋式铝合金槽道 T 型螺栓选用表

Selection table for YM T-bolts

适用槽道 端面尺寸	YM-30*20	YM-36*23	YM-44*33	YM-55*35
螺栓型号	TS1	TS2	TS3	TSV
螺栓尺寸				
螺栓规格	M12 M16	M12 M16	M12 M16	M12 M16

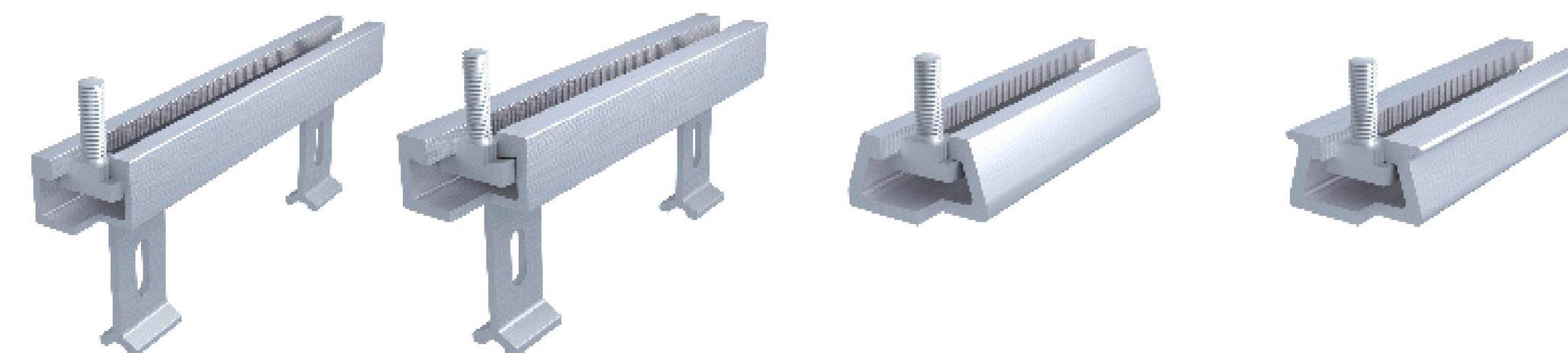
适用后置式铝合金槽道 T 型螺栓选用表

Selection table for HZ T-bolts

适用槽道 端面尺寸	HZ-55*33	HZ-65*25	HZK-55*33	HZK-65*35
螺栓型号	HTS1	HTS2	HTS1	HTS2
螺栓尺寸				
螺栓规格	M12 M16	M12 M16	M12 M16	M12 M16

### T 型螺栓与铝合金槽道装配方式

T-bolt and HL LCD assembly method



说明: 上表中 T 型螺栓长度 L 系列为: 40mm、50mm、60mm, 用户可根据需要定制。

- 示例 1: 适用预埋式华龙铝合金槽道 YM-30\*20, T 型螺栓型号 TS1, 规格为 M12, 长度为 50mm, 标示为: TS1-M12-50
- 示例 2: 适用后置式华龙铝合金槽道 HZ-55\*33, T 型螺栓型号 HTS1, 规格为 M16, 长度为 60mm, 标示为: HTS1-M16-60

Description: The T-bolt length L series in the above table is: 40mm, 50mm, 60mm, users can be customized according to their needs.

- Example 1: Suitable for embedded Hualong aluminum alloy channel YM-30\*20, T bolt model TS1, specification is M12, length is 50mm, marked: TS1-M12-50.
- Example 2: Suitable for rear Hualong aluminum alloy channel HZ-55\*33, T bolt model HTS1, specification is M16, length is 60mm, marked: HTS1-M16-60.

## 支撑单元：华安铝合金装配式支吊架

Support unit: Huaan aluminum alloy assembly support and hanger

华安铝合金装配式支吊架是由华安铝合金型材、底座、连接件等装配而成，其作用是工程中各种机电设施建立起统一的支撑平台。可支、可吊、可架，具有良好的扩展性、兼容性；整体结构稳定可靠，安装方便，节省人力，空间利用率高，满足百年工程的寿命需求。

华安铝合金装配式支吊架适用于轨道交通、地下管廊、高层建筑、机场、水电站、高端装备等领域。

Huaan aluminum alloy assembly support and a hanger are assembled by Huaan aluminum alloy profiles, bases, connectors, etc., and its function is to establish a unified support platform for various mechanical and electrical facilities in the project. Can be supported, can be suspended, can be racked, with good expansibility and compatibility; the overall structure is stable and reliable, easy to install, save manpower, high space utilization, and meet the life requirements of the century-old project.

Huaan aluminum alloy assembly supports and hangers are suitable for subways, underground pipe corridors, airports, all kinds of power stations, high-end equipment, and other fields.

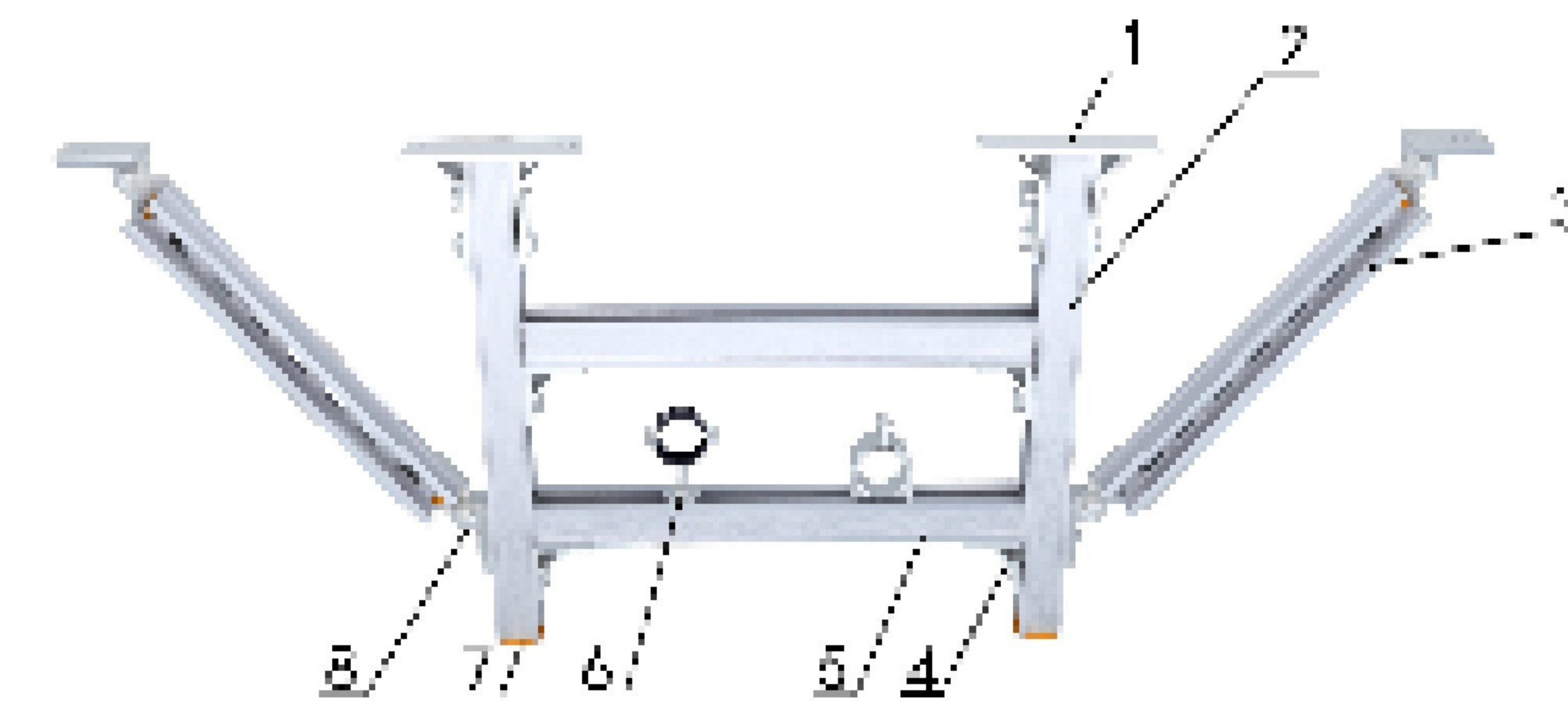
### 引用标准

HA 系列铝合金装配式支吊架完全符合国家及行业标准要求，依据以下标准：

- (1) GB50017-2014 《钢结构设计规范》
- (2) GB50429-2007 《铝合金结构设计规范》
- (3) GB50981-2014 《建筑机电工程抗震设计规范》
- (4) GB50838-2015 《城市综合管廊工程技术规范》
- (5) GB/T17116-1997 《管道支吊架》
- (6) GB50217—2007 《电力工程电缆设计规范》
- (7) DL/T5484—2013 《电力电缆隧道设计规程》
- (8) 《铝加工技术使用手册》

## 华安铝合金装配式支吊架组成

HA LXC hanger component unit



- |        |       |        |         |
|--------|-------|--------|---------|
| 1- 底座  | 2- 立柱 | 3- 斜撑杆 | 4- 角连接  |
| 5- 横托杆 | 6- 管夹 | 7- 封盖  | 8- 抗震组件 |

● 材质：高强耐腐蚀铝合金材料

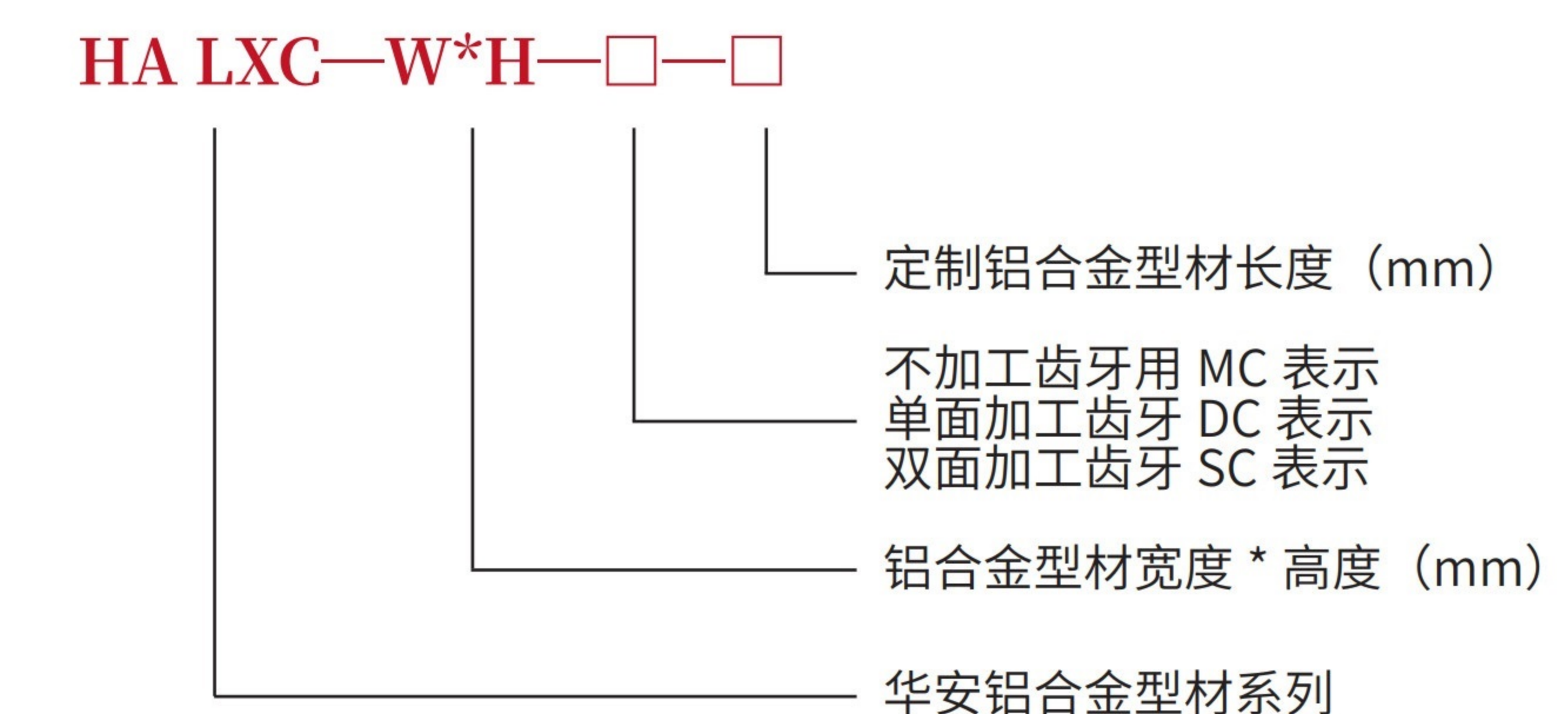
● 表面处理：阳极氧化

● Material: high strength and corrosion-resistant aluminum alloy

● Surface treatment: anodized

## 华安铝合金型材表示方法

HA LXC representation method



**示例 1:** HA LXC 华安铝合金型材，宽度 44mm，高度 44mm，不加工齿牙，长度 4000mm，标示为：HA LXC-44\*44-MC-4000

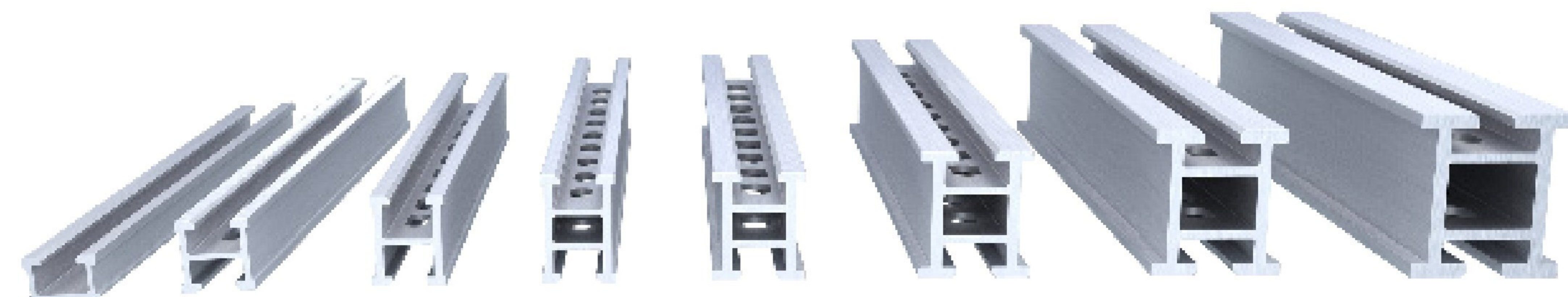
**示例 2:** HA LXC 华安铝合金型材，宽度 44mm，高度 44mm，单面加工齿牙，长度 4000mm，标示为：HA LXC-44\*44-DC-4000

**Example1:** HA LXC Hua an aluminum alloy profile, width 44mm, height 44mm, unmachined teeth, length 4000mm, marked: HA LXC-44\*44-MC-4000.

**Example2:** HA LXC Hua an aluminum alloy profile, width 44mm, height 44mm, one-sided machined teeth, length 4000mm, marked: HA LXC-44\*44-DC-4000.

## 产品特点

### Product characteristics



HA LXC-44\*27 HA LXC-44\*44 HA LXC-44\*55 HA LXC-44\*66 HA LXC-55\*66 HA LXC-66\*77 HA LXC-77\*88 HA LXC-88\*99

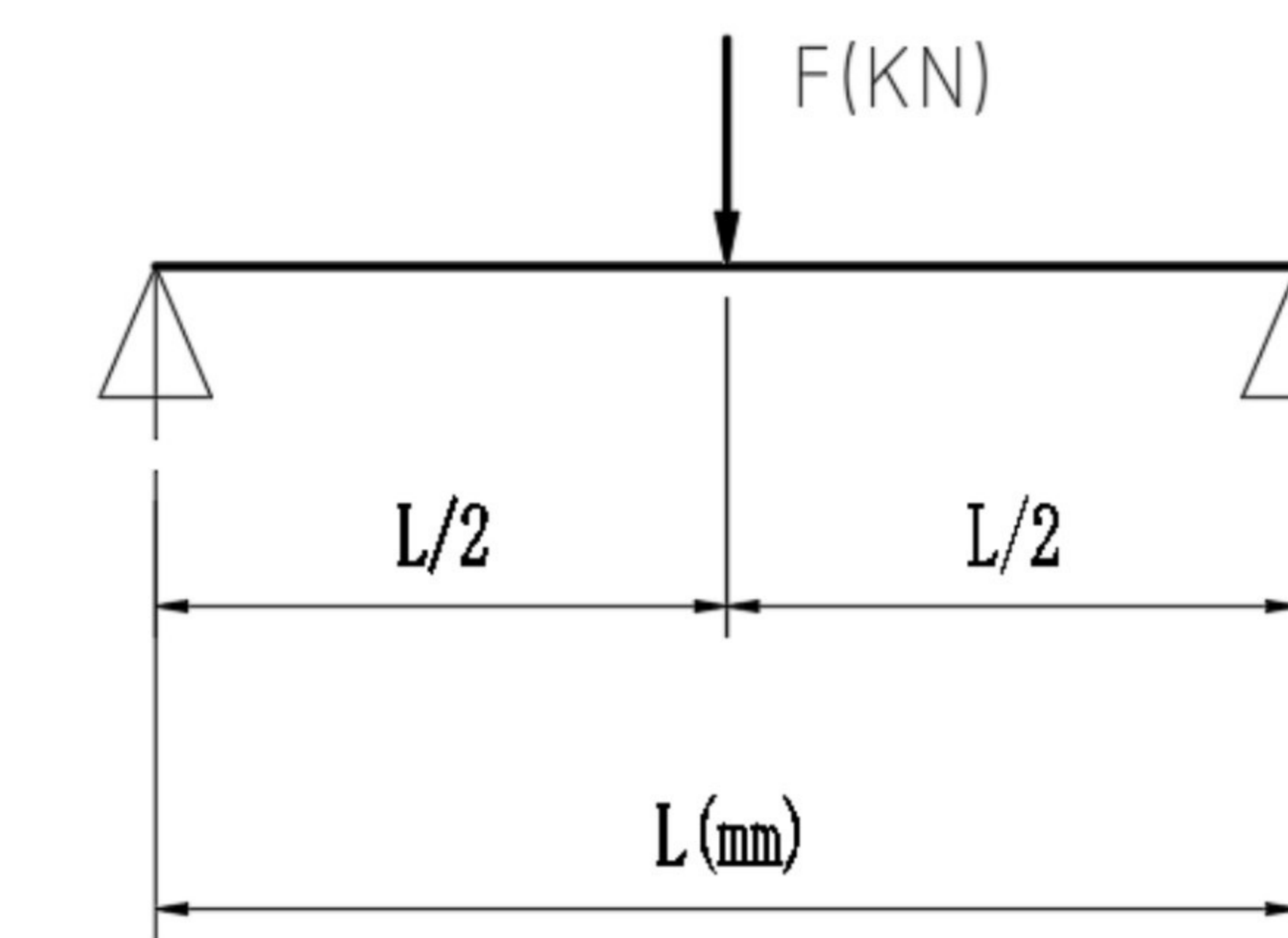
- **材料:**  
华安装配式支吊架型材及配件材料, 机械性能优良, 抗拉强度 400MP, 屈服强度 310MP;
  - **结构:**  
(1) 主材、连接组件均为一体式结构, 强度高, 稳定性好, 避免了焊接或铆接造成的安全隐患;  
(2) 连接件与主材之间采用齿牙啮合, 齿牙为梯形, 齿牙间距 3.0mm, 齿牙深度 1.5mm, 整体承载和稳定性好。
  - **寿命:**  
耐腐蚀性强, 可适用于潮湿或盐雾环境; 铝合金表面绝缘, 不传导杂散电流, 耐久性好, 满足百年工程的寿命需求;
  - **节能降耗:**  
高强铝合金在电场中无火花、无磁性、无毒性, 高压输电工程中不会产生涡流也不产生杂散电流;
  - **成本低:**  
质量轻、比强度高, 转运及安装成本低; 耐久性好, 终身免维护。
- **Materials:** The profiles and accessories are all high-strength aluminum alloy materials, with excellent mechanical properties, tensile strength 400MP, yield strength 310MP;
  - **Structure:** (1) The main material and connecting components are all integrated structure, with high strength and good stability, avoiding the safety hazards caused by welding or riveting;  
(2) The tooth meshing is adopted between the connector and the main material, the tooth is a trapezoid, the tooth spacing is 3.0mm, and the tooth depth is 1.5mm, which can improve the overall bearing capacity and stability.
  - **Life:** Strong corrosion resistance, suitable for wet or salt spray environment; aluminum alloy surface is insulated, does not conduct stray current, has good durability, and meets the life needs of a hundred-year project;
  - **Energy-saving and consumption reduction:** High strength aluminum alloy is non-sparking, non-magnetic, non-toxic in the electric field; No eddy current or stray current will be generated in the voltage transmission project;
  - **Low cost:** Light-weight, high specific strength, low transfer, and installation costs, good durability, maintenance-free for life.

## 华安铝合金型材（简支梁）系列选用表

### The selection table of HA LXC (Simply supported beams) series

简支梁受力状态选用原则：在承载最大荷载下，铝合金型材挠度不大于支点距离的 1/200。

The principle for selecting the stress state of simply supported beams: under the maximum load, the deflection of aluminum alloy profiles is not greater than 1/200 of the fulcrum.



华安铝合金型材简支梁受力简图

### 华安槽铝合金型材简支梁承载选用表

Load-bearing selection table of HA LXC simple support beam

单位: kg

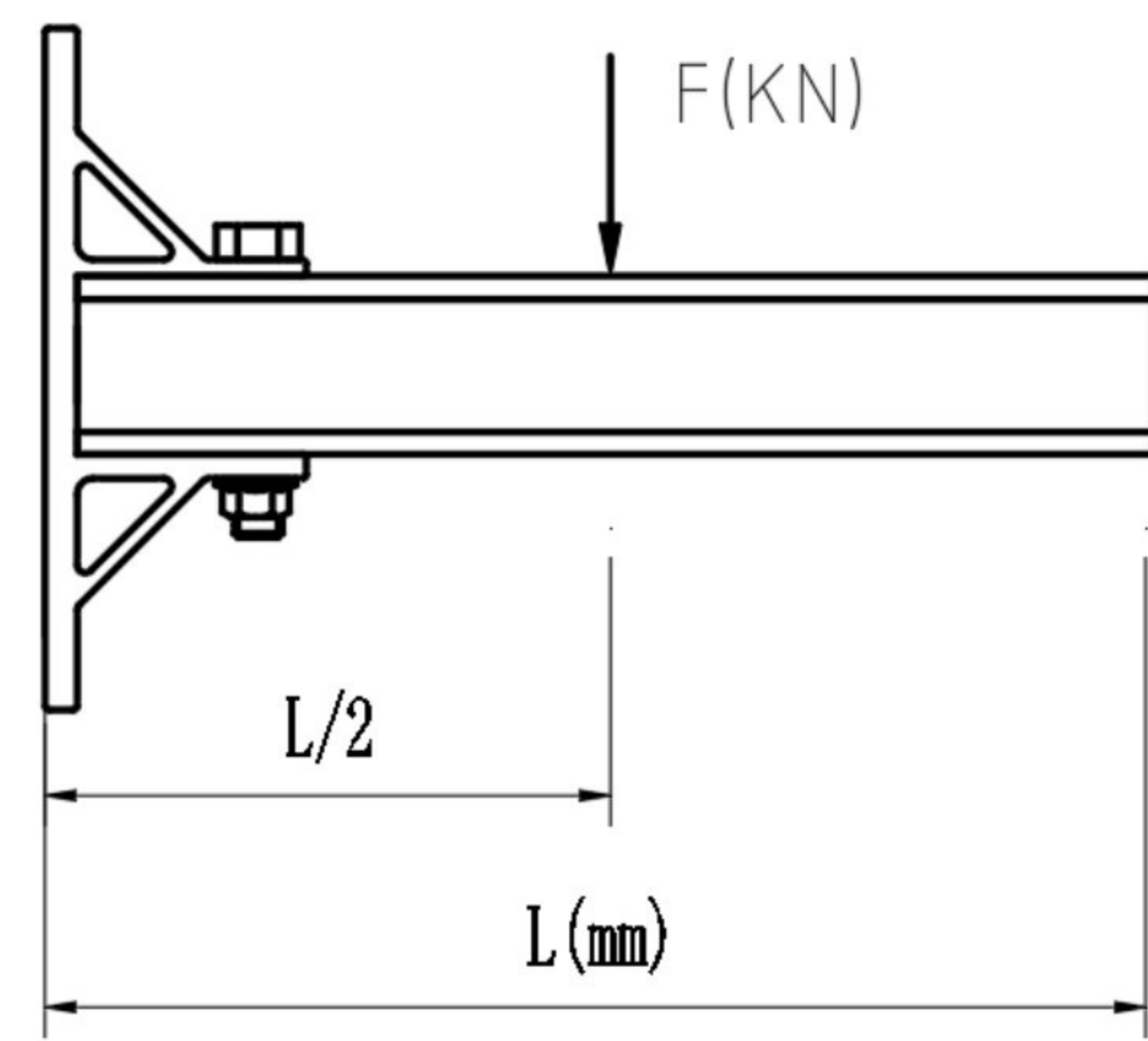
规格 Specification	跨距 (mm) Span	300	400	500	600	700	800	900	1000	1250	1500
44*27		1440	810	540	430	300	/	/	/	/	/
44*44		3300	2400	1650	1200	840	720	570	/	/	/
44*55		3900	3000	2520	2430	1740	1380	1110	/	/	/
44*66		5100	4170	3450	2880	2520	2220	2010	/	/	/
55*66		/	/	4260	3900	3360	2940	2460	2070	1260	960
66*77		/	/	5700	5310	5070	4740	4350	4050	2850	1950
77*88		/	/	7200	6600	5970	5670	5160	4650	4290	3450
88*99		/	/	8400	8100	7500	7110	6810	5880	5100	4590

## 华安铝合金型材（悬臂梁）系列选用表

The selection table of HA LXC (The cantilever) series

悬臂受力状态选用原则：在承载最大荷载下，铝合金型材挠度不大于支点距离的 1/150。

The principle for selecting the stress state of the cantilever: under the maximum load, the deflection of the aluminum alloy profile is not greater than 1/150 of the fulcrum distance.



华安铝合金型材悬臂梁受力简图



SDZ-HS-L

### 华安槽铝合金型材悬臂梁承载选用表

Load-bearing selection table of HA LXC cantilever beam

单位: kg

规格 Specification	500	600	700	750	800	950
44*27	310	220	180	150	/	/
44*44	610	420	360	310	/	/
44*55	690	520	410	370	/	/
44*66	770	660	530	480	/	/
55*66	/	1380	910	870	830	630
66*77	/	1900	1550	1440	1330	1080
77*88	/	2300	1950	1800	1650	1460
88*99	/	3270	2850	2650	2450	2020

## 华安铝合金装配式支吊架附件

Accessories of HA LXC



垂直安装底座 (CDZ)

### 垂直安装底座 (CDZ)

规格: 与 44\*44 华安槽配合使用

标注: CDZ- 44\*44

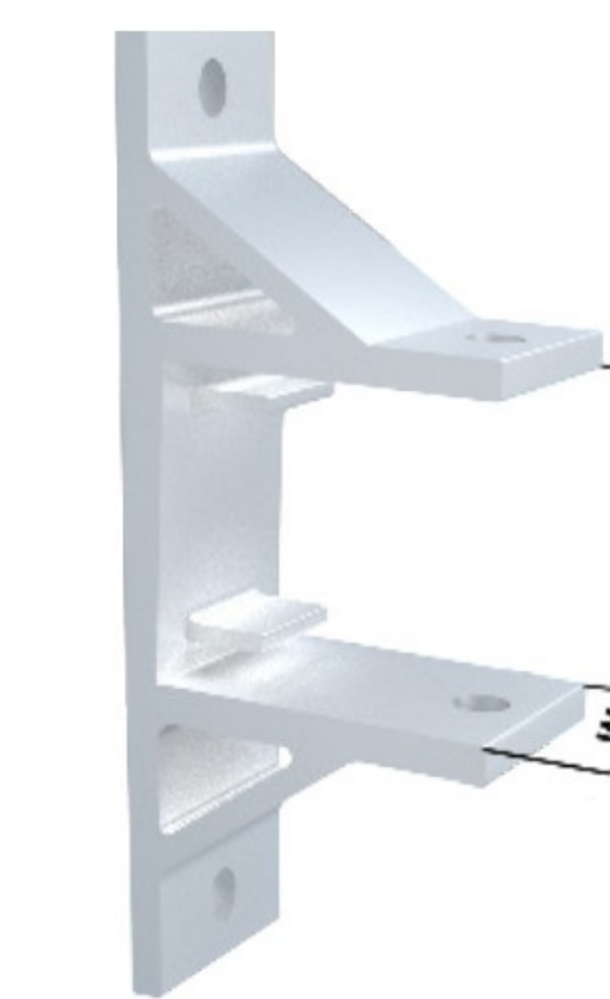
### Vertical mounting base (CDZ)

Specification: vertical angle base for use with 44\*44 HA LXC.

Callout: CDZ- 44\*44

### 水平安装底座 (SDZ)

Horizontal mounting base (SDZ)



单孔水平底座



双孔水平底座

铝型材规格 (W*H)	对应配套底座 开口尺寸 H (MM)	单孔固定底座型号 (W*H)	双孔固定底座型号 (W*H)
44*27	H=27	SDZ-27	/
44*44	H=44	SDZ-44	/
44*55	H=55	SDZ-55	SDZ-55S
44*66	H=66	/	SDZ-66S
55*66	H=66	/	SDZ-66AS
66*77	H=77	/	SDZ-77S
77*88	H=88	/	SDZ-88S
88*99	H=99	/	SDZ-99S



可调角度底座 (TJDZ)

### 可调角度底座 (TJDZ)

规格：与 44\*44 华安槽配合使用的可调角度底座  
标注：TJDZ-44\*44

### Adjustable angle base (TJDZ)

Specification: adjustable angle base for use with 44\*44 HA LXC.  
Callout: TJDZ-44\*44

### 圆弧面安装底座 (YDZ)

Arc surface mounting base (YDZ)



单孔圆弧底座



双孔圆弧底座

圆弧面安装底座 (YDZ) 是根据建筑端面的实际参数确定，样册中不再对圆弧面安装底座的规格、型号进行分类，根据每一个工程的具体情况选型。

The arc surface installation base (YDZ) is determined according to the actual parameters of the building end face. The specifications and types of the arc surface installation base are no longer classified in the sample book and the model is selected according to the specific conditions of each project.



### 铝合金连接件 (LJ)

材质：高强耐腐蚀铝合金材料  
表面处理：阳极氧化

### Aluminum alloy connector (LJ)

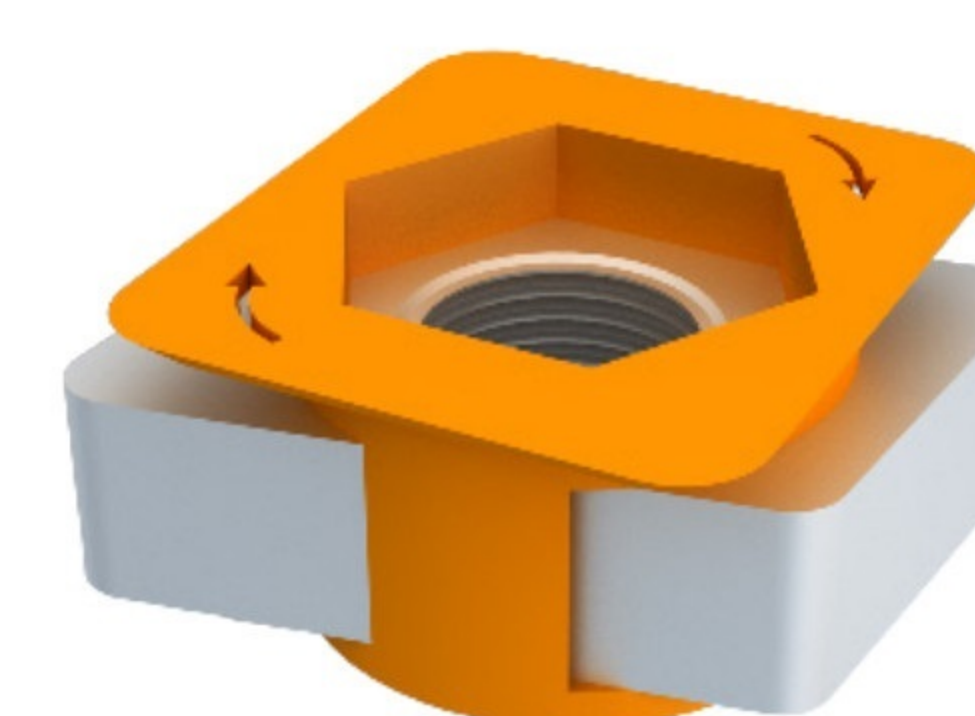
Material: high strength and corrosion-resistant aluminum alloy  
Surface treatment: anodized

### 铝合金锁紧螺母 (SJLM)

材质：高强耐腐蚀铝合金材料  
表面处理：阳极氧化

使用方法：

- 将锁紧螺母按图示放入华安铝合金槽内；
- 用旋转扳手插入锁紧螺母套六方开孔内，向下压入到螺母上平面低于华安铝合金槽内侧平面时，顺时针旋转 90°即可完成。
- 锁紧螺母在华安铝合金槽内侧沿长度方向可任意滑动，调节精度达毫米级。



### Aluminum alloy lock nut (SJLM)

Material: high strength and corrosion-resistant aluminum alloy  
Surface treatment: anodized

Usage:

- Put the locking nut into the Hua'an aluminum alloy slot as shown.
- Insert the locking nut with a rotary wrench and press it down to the upper plane of the nut below the inner plane of the Hua'an aluminum alloy groove, it can be completed by rotating 90° clockwise.
- The lock nut can slide arbitrarily along the length direction on the inside of Hua'an aluminum alloy groove, and the adjusting precision is up to the millimeter level.

### 抗震组件 (KZ)

材质：高强耐腐蚀铝合金材料  
表面处理：阳极氧化  
组成：底座、连接件、紧固螺栓  
标注：KZ-44



### Aseismatic component (KZ)

Material: high strength and corrosion-resistant aluminum alloy  
Surface treatment: anodized  
Composition: base, connector, fastening bolt  
Annotations: KZ-44

## 华安铝合金抗震支吊架

### Huaan aluminum alloy anti-seismic support hanger

依据《建筑机电工程抗震设计规范》GB50981-2014 国家标准，华安铝合金抗震支吊架适用于以下抗震条件：

1. 悬挂管道中重力大于 1.8KN 的设备；
2. DN65 以上的生活给水、消防管道系统；
3. 矩形截面面积大于等于 0.38m<sup>2</sup> 和圆形直径大于等于 0.7m 的风管系统；
4. 对于内径大于等于 60mm 的电气配管及重力大于等于 150N/m 的电缆梯架、电缆槽盒、母线槽。

华安铝合金抗震支吊架分为刚性和柔性两种形式。

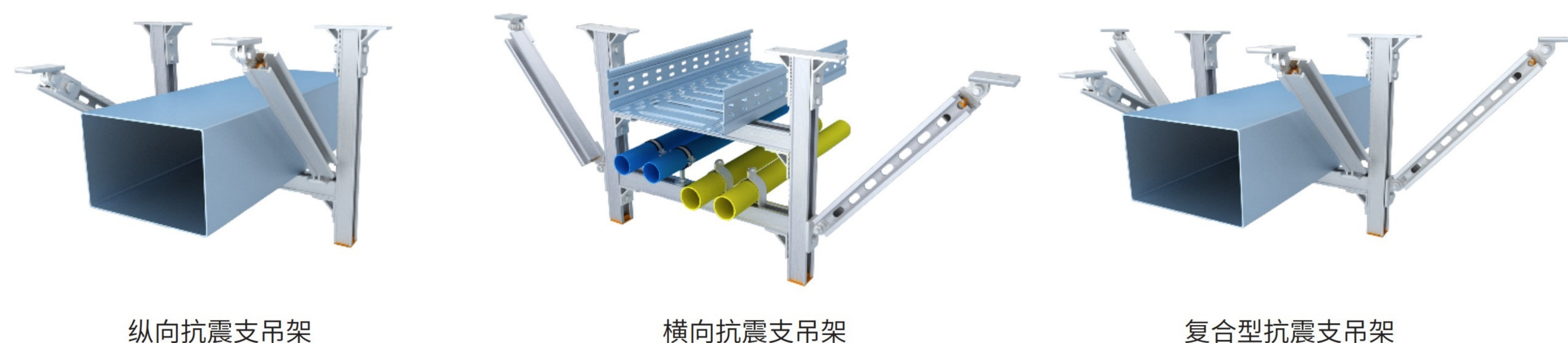
According to the national standard GB50981-2014 of Code for Seismic Design of Building Mechanical and Electrical Engineering, Huaan aluminum alloy seismic support hanger is suitable for the following seismic conditions:

1. Equipment with gravity greater than 1.8KN in suspension pipe;
2. Domestic water supply and fire protection piping system above DN65;
3. Duct systems with rectangular cross-sectional area greater than or equal to 0.38m<sup>2</sup> and circular diameter greater than or equal to 0.7m;
4. For electrical piping with inner diameter greater than or equal to 60mm and cable ladder frame, cable slot box and bus slot with gravity greater than or equal to 150N/m.

Huaan aluminum alloy seismic support hanger is divided into two forms: rigid and flexible.

## 华安铝合金刚性抗震支吊架

### HA LXC rigid seismic support hange



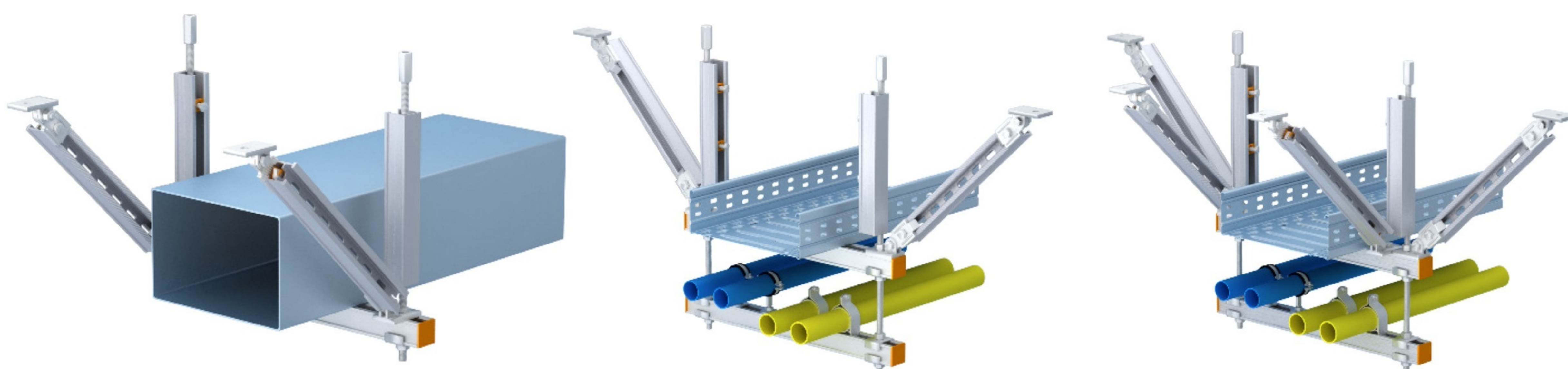
纵向抗震支吊架

横向抗震支吊架

复合型抗震支吊架

## 华安铝合金柔性抗震支吊架

### HA LXC flexible seismic support hanger



纵向抗震支吊架

横向抗震支吊架

复合型抗震支吊架

## 管类铝合金柔性抗震支吊架

### HA LXC flexible seismic support and hanger for pipes



单立柱横向抗震支吊架

单立柱纵向抗震支吊架

单立柱复合型抗震支吊架

双立柱横向抗震支吊架

双立柱复合型抗震支吊架

### 抗震支吊架的最大间距

Maximum spacing of earthquake-resistant supports and hangers

管道类别	抗震支吊架最大间距 (M)	抗震支吊架最大间距 (M)	
		侧向	纵向
给水、热水及消防管道	新建工程刚性连接金属管道	12.0	24.0
	新建工程柔性连接金属管道 非金属管道及复合管道	6.0	12.0
燃气热力管道	新建燃油、燃气、医用气体、真空管、 压缩空气管、蒸汽管、高温热水管 及其他有害气体管道	6.0	12.0
通风及排烟管道	新建工程普通刚性材质风管	9.0	18.0
	新建工程普通非金属材质风管	4.5	9.0
电线套管及电缆梯架、电缆托盘和电缆槽盒	新建工程刚性材质电线套管、 电缆梯架、电缆托盘 和电缆槽盒	12.0	24.0
	新建工程非金属材质电线套管、 电缆梯架、电缆托盘 和电缆槽盒	6.0	12.0

注：改建工程最大抗震加固间距为上表数值的一半

## 铝合金管夹系列

### Aluminum alloy pipe clamp series

铝合金管夹系列产品，配套适用于冶金、石油、化工、船舶、电力等机械液压系统中的油、水、气为介质的中压、低压管道固定。易于安装，适用性强，与管道之间无焊接，满足各种条件要求，耐高温、耐低温、防震、抗压、抗磁等，可配绝缘防震衬垫。

材质：高强耐腐蚀铝合金材料

表面处理：阳极氧化

Aluminum alloy pipe clamp series products are suitable for fixing medium and low-pressure pipes of oil, water, and gas in mechanical hydraulic systems such as metallurgy, petroleum, chemical industry, ship, electric power and so on. Easy to install, strong applicability, no welding with the pipe, meet various conditions, high temperature, low temperature, shockproof, pressure resistance, anti-magnetic, etc., can be equipped with insulated shockproof gasket.

Material: high strength and corrosion-resistant aluminum alloy

Surface treatment: anodized



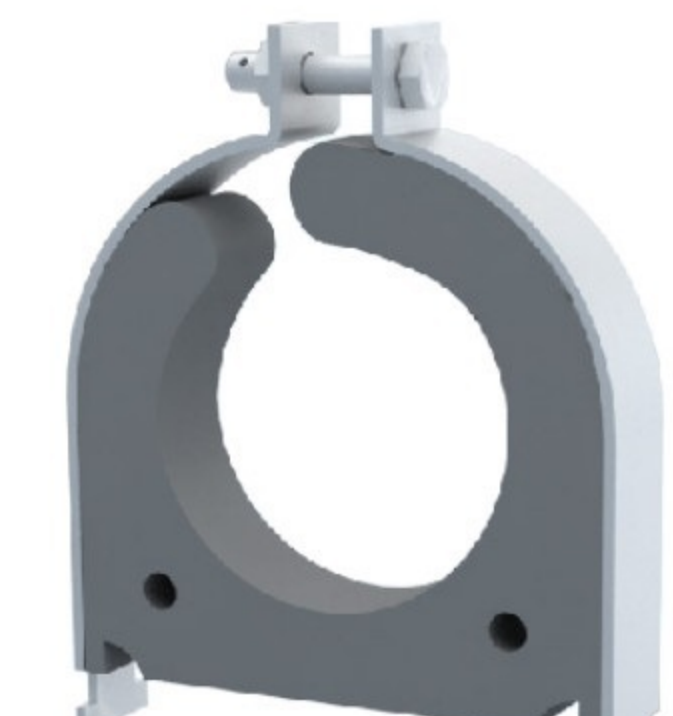
单立管夹 (LGJ-1)  
Single vertical pipe bracket



悬吊式管夹 (LGJ-2)  
Hanging pipe bracket



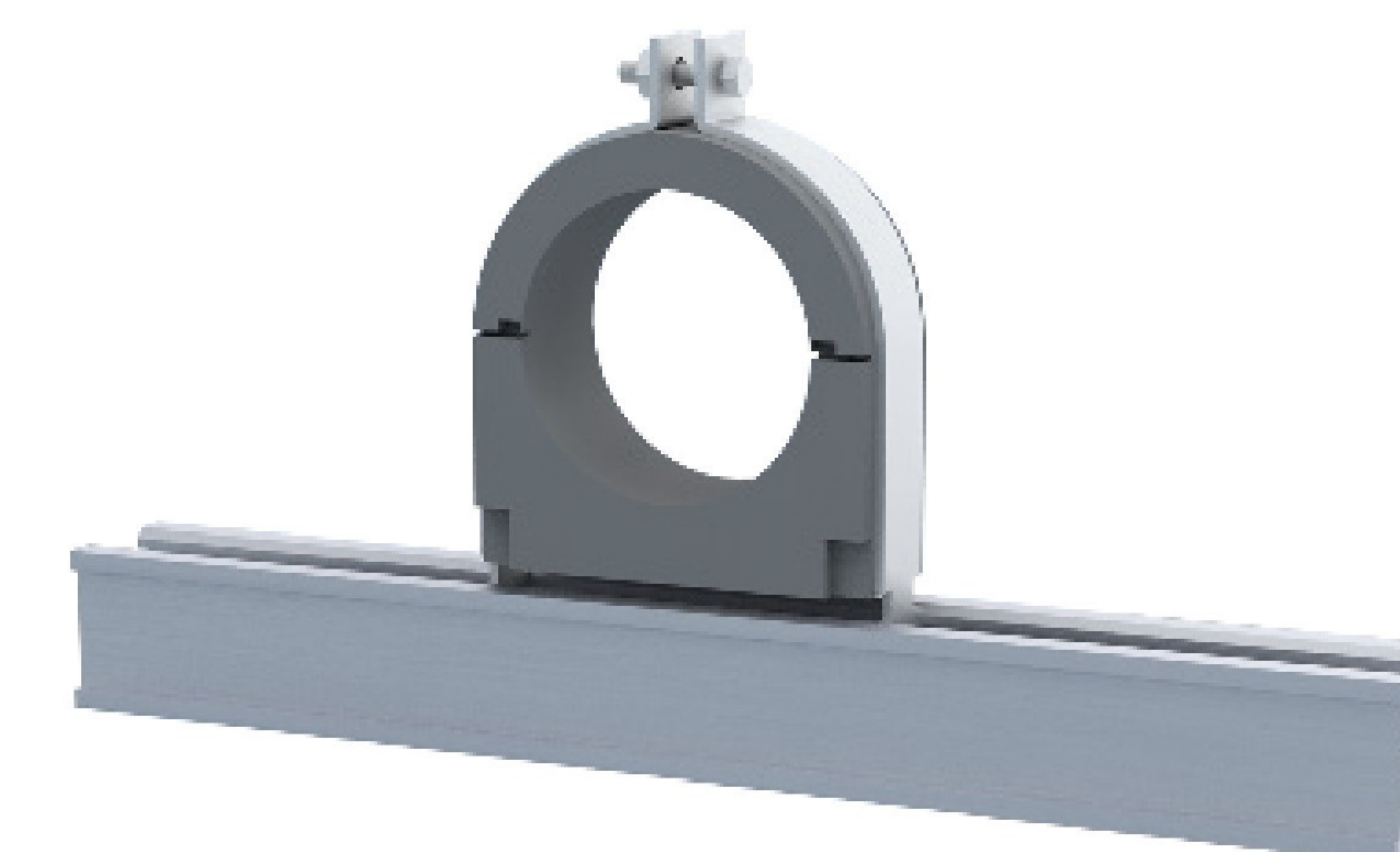
P 型管夹 (LGJ-3)  
P shaped pipe bracket



绝缘防震防护管夹 (LGJ-4)  
Insulation vibration absorptive pipe bracket

型号 Type	规格 Specification	管外径 Applied outer pipe diameter	型号 Type	规格 Specification	管外径 Applied outer pipe diameter	型号 Type	规格 Specification	管外径 Applied outer pipe diameter	型号 Type	规格 Specification	管外径 Applied outer pipe diameter
LGJ-1-15	DN-15	19.1	LGJ-2-15	DN-15	19.1	LGJ-3-15	DN-15	19.1	LGJ-4-15	DN-15	19.1
LGJ-1-15	DN-15	21.7	LGJ-2-15	DN-15	21.7	LGJ-3-15	DN-15	21.7	LGJ-4-15	DN-15	21.7
LGJ-1-20	DN-20	25	LGJ-2-20	DN-20	25	LGJ-3-20	DN-20	25	LGJ-4-20	DN-20	25
LGJ-1-20	DN-20	27.2	LGJ-2-20	DN-20	27.2	LGJ-3-20	DN-20	27.2	LGJ-4-20	DN-20	27.2
LGJ-1-25	DN-25	34	LGJ-2-25	DN-25	34	LGJ-3-25	DN-25	34	LGJ-4-25	DN-25	34
LGJ-1-32	DN-32	42.7	LGJ-2-32	DN-32	42.7	LGJ-3-32	DN-32	42.7	LGJ-4-32	DN-32	42.7
LGJ-1-40	DN-40	48.6	LGJ-2-40	DN-40	48.6	LGJ-3-40	DN-40	48.6	LGJ-4-40	DN-40	48.6
LGJ-1-50	DN-50	60.5	LGJ-2-50	DN-50	60.5	LGJ-3-50	DN-50	60.5	LGJ-4-50	DN-50	60.5
LGJ-1-65	DN-65	76.3	LGJ-2-65	DN-65	76.3	LGJ-3-65	DN-65	76.3	LGJ-4-65	DN-65	76.3
LGJ-1-80	DN-80	89.1	LGJ-2-80	DN-80	89.1	LGJ-3-80	DN-80	89.1	LGJ-4-80	DN-80	89.1
LGJ-1-100	DN-100	108	LGJ-2-100	DN-100	108	LGJ-3-100	DN-100	108	LGJ-4-100	DN-100	108
LGJ-1-100	DN-100	114.3	LGJ-2-100	DN-100	114.3	LGJ-3-100	DN-100	114.3	LGJ-4-100	DN-100	114.3
LGJ-1-125	DN-125	133	LGJ-2-125	DN-125	133	LGJ-3-125	DN-125	133	LGJ-4-125	DN-125	133
LGJ-1-125	DN-125	139.8	LGJ-2-125	DN-125	139.8	LGJ-3-125	DN-125	139.8	LGJ-4-125	DN-125	139.8
LGJ-1-150	DN-150	159	LGJ-2-150	DN-150	159	LGJ-3-150	DN-150	159	LGJ-4-150	DN-150	159
LGJ-1-150	DN-150	165.2	LGJ-2-150	DN-150	165.2	LGJ-3-150	DN-150	165.2	LGJ-4-150	DN-150	165.2
LGJ-1-200	DN-200	216.3	LGJ-2-200	DN-200	216.3	LGJ-3-200	DN-200	216.3			
LGJ-1-200	DN-200	219	LGJ-2-200	DN-200	219	LGJ-3-200	DN-200	219			
LGJ-1-250	DN-250	267.4	LGJ-2-250	DN-250	267.4	LGJ-3-250	DN-250	267.4			
LGJ-1-250	DN-250	273	LGJ-2-250	DN-250	273	LGJ-3-250	DN-250	273			
LGJ-1-300	DN-300	325	LGJ-2-300	DN-300	325	LGJ-3-300	DN-300	325			

备注：带 PVC 衬套



座式聚氨酯保温管托 (LGJ-5)

PU heat-keeping pipe support with base

型号 Type	管外径 Applied outer pipe diameter	厚度 (MM) Thickness	型号 Type	管外径 Applied outer pipe diameter	厚度 (MM) Thickness	型号 Type	管外径 Applied outer pipe diameter	厚度 (MM) Thickness
LGJ-5-15A	22	t=25	LGJ-5-15C	22	t=40	LGJ-5-15D	22	t=50
LGJ-5-20A	27	t=25	LGJ-5-20C	27	t=40	LGJ-5-20D	27	t=50
LGJ-5-25A	34	t=25	LGJ-5-25C	34	t=40	LGJ-5-25D	34	t=50
LGJ-5-32A	42	t=25	LGJ-5-32C	42	t=40	LGJ-5-32D	42	t=50
LGJ-5-40A	48	t=25	LGJ-5-40C	48	t=40	LGJ-5-40D	48	t=50
LGJ-5-50A	57	t=25	LGJ-5-50C	57	t=40	LGJ-5-50D	57	t=50
LGJ-5-50A	60	t=25	LGJ-5-50C	60	t=40	LGJ-5-50D	60	t=50
LGJ-5-65A	76	t=25	LGJ-5-65C	76	t=40	LGJ-5-65D	76	t=50
LGJ-5-15B	25	t=30	LGJ-5-80C	89	t=40	LGJ-5-80D	89	t=50
LGJ-5-20B	27	t=30	LGJ-5-100C	108	t=40	LGJ-5-100D	108	t=50
LGJ-5-25B	34	t=30	LGJ-5-100C	114	t=40	LGJ-5-100D	114	t=50
LGJ-5-32B	42	t=30	LGJ-5-125C	133	t=40	LGJ-5-125D	133	t=50
LGJ-5-40B	48	t=30	LGJ-5-125C	140	t=40	LGJ-5-125D	140	t=50
LGJ-5-50B	57	t=30	LGJ-5-150C	159	t=40	LGJ-5-150D	159	t=50
LGJ-5-50B	60	t=30	LGJ-5-150C	165	t=40	LGJ-5-150D	165	t=50
LGJ-5-65B	76	t=30				LGJ-5-200D	219	t=50
LGJ-5-80B	89	t=30				LGJ-5-250D	273	t=50
LGJ-5-100B	108	t=30				LGJ-5-300D	325	t=50
LGJ-5-100B	114	t=30						
LGJ-5-125B	133	t=30						
LGJ-5-125B	140	t=30						
LGJ-5-150B	159	t=30						
LGJ-5-150B	165	t=30						



标准管夹 (LGJ-6)  
Standard pipe bracket



U型螺栓 (LGJ-7)  
U-shaped bolt

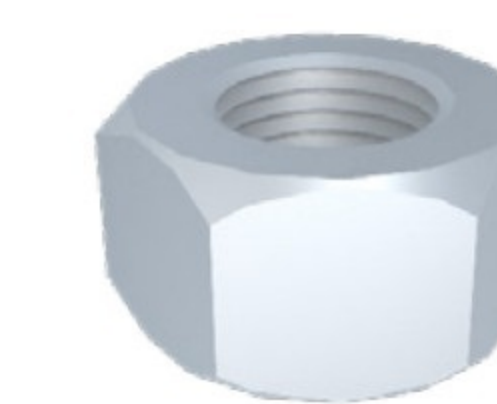
型号 Type	规格 Specification	管外径 Applied outer pipe diameter	型号 Type	规格 Specification	管外径 Applied outer pipe diameter
LGJ-6-8-11	8/11	8-11	LGJ-7-15	DN15	19.1
LGJ-6-12-16	1/4"	12-16	LGJ-7-15	DN15	21.7
LGJ-6-17-20	3/8"	17-20	LGJ-7-20	DN20	25
LGJ-6-21-24	1/2"	21-24	LGJ-7-20	DN20	27.2
LGJ-6-25-28	3/4"	25-28	LGJ-7-25	DN25	34
LGJ-6-29-32	29/32	29-32	LGJ-7-32	DN32	42.7
LGJ-6-33-37	1"	33-37	LGJ-7-40	DN40	48.6
LGJ-6-37-41	37/41	37-41	LGJ-7-50	DN50	60.5
LGJ-6-42-46	1 <sup>1</sup> / <sub>4</sub> "	42-46	LGJ-7-65	DN65	76.3
LGJ-6-47-51	1 <sup>1</sup> / <sub>2</sub> "	47-51	LGJ-7-80	DN80	89.1
LGJ-6-52-58	52/56	52-58	LGJ-7-100	DN100	108
LGJ-6-57-61	2"	57-61	LGJ-7-100	DN100	114.3
LGJ-6-60-66	60/66	60-66	LGJ-7-125	DN125	133
LGJ-6-67-71	67/71	67-71	LGJ-7-125	DN125	139.8
LGJ-6-72-77	2 <sup>1</sup> / <sub>2</sub> "	72-77	LGJ-7-150	DN150	159
LGJ-6-78-84	78/84	78-84	LGJ-7-150	DN150	165.2
LGJ-6-87-93	3"	87-93	LGJ-7-200	DN200	216.3
LGJ-6-99-104	101.6	99-104	LGJ-7-200	DN200	219
LGJ-6-108-112	110	108-112	LGJ-7-250	DN250	267.4
LGJ-6-114-118	4"	114-118	LGJ-7-250	DN250	273
LGJ-6-123-128	125	123-128	LGJ-7-300	DN300	325
LGJ-6-131-137	133	131-137			
LGJ-6-138-144	5"	138-144			
LGJ-6-157-163	160	157-163			
LGJ-6-164-170	6"	164-170			

## 配件系列

Accessories series



外六角螺栓



螺母



抗震压紧装置

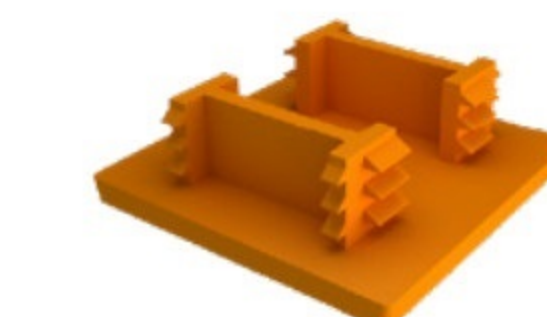


扣板

型号 Type	规格 Specification	型号 Type	规格 Specification
	M12	CKM-1	M12
	M16	CKM-2	M16
		FG-1	44*27
	M12	FG-2	44*44
	M16	FG-3	44*55
		FG-4	44*66
		FG-5	55*66
		FG-6	66*77
		FG-7	77*88
		FG-8	88*99
KZYJ-1	M10		
KB-44			M12
KB-55			M16
KB-66			
KB-77			
KB-88			



加长螺母



华安槽封盖



通丝螺杆

**常用管道公称直径与钢管外径表**

Table of common pipe diameters and outer diameters of steel pipes

公称直径 Pipe diameter		钢管外径 outer diameter of steel pipes			
DN	IN	A	B	C	D
	1/8		10.3		
	1/4		13.7		
10	3/8		17.1	14	
15	1/2	21.7	21.3	18	19.1
20	3/4	27.2	26.7	25	25.4
25	1	34	33.4	32	31.8
32	1-1/4	42.7	42.2	38	38.1
40	1-1/2	48.6	48.3	45	50.8
50	2	60.5	60.3	57	63.5
65	2-1/2	76.3	73	75	76.2
80	3	89.1	88.9	89	
90	3-1/2		101.6	102	
100	4	114.3	114.3	108	
125	5	139.8	141.3	133	
150	6	165.2	168.3	159	
200	8	216.3	219.1	219	
250	10	267.4	273	273	
300	12	318.5	323.8	325	
350	14		355.6	377	
400	16		406.4	426	
450	18		457	480	
500	20		508	530	
550	22		559		
600	24		610	630	

 A-JIS 标准钢管系列  
 B-ASME B36.10M (英制管)  
 C- 国内沿用系列  
 D- 薄弱电线管

 A - JIS series of standard pipes  
 B - ASME B36.10M(Imperial unit)  
 C - Domestically used  
 D - Lean wire pipe

**华安铝合金支吊架与钢制支吊架比较表**

Comparison table between HA LXC and steel channel

分类 Classification	华安铝合金支吊架	钢制 (Q235B) 支吊架
材料机械性能	抗拉强度 400MPa, 屈服强度 310MPa, 剪切强度 210MPa	抗拉强度 370MPa, 屈服强度 235MPa, 剪切强度 125MPa
结构方式	铝合金支吊架组件均为一体式结构	钢制支吊架组件部分采用焊接式结构
耐腐蚀性	阳极氧化 - 中性盐雾试验 2000 小时	热镀锌 - 中性盐雾试验 1000 小时
使用寿命	铝合金表面绝缘, 不传导杂散电流, 满足百年工程需要	镀锌钢是导体, 受杂散电流影响, 寿命更短, 25-30 年
施工成本	质量轻 50% 以上, 运输、安装效率高	质量较重, 运输、安装效率较低
节约电能	无磁性, 不产生涡流, 也不产生杂散电流	有磁性, 产生涡流, 并产生相应杂散电流
运维成本	免维护, 运维成本低	不定期维护、更换, 运维成本高
绿色环保	制造工艺绿色环保, 回收率高达 98%	制造工艺污染环境, 镀锌件回收率仅为 30%

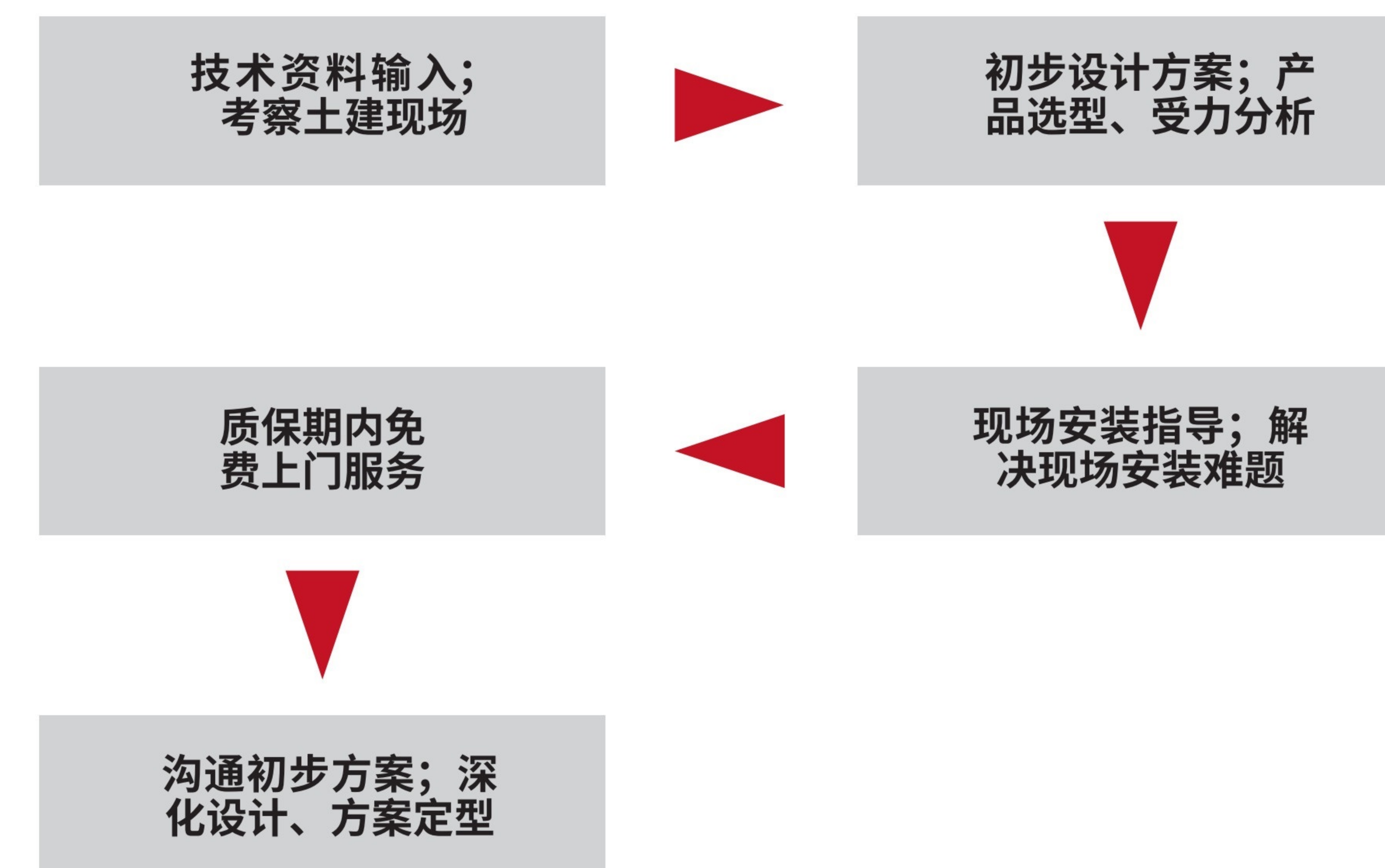
## 铝合金支吊架方案优化原则

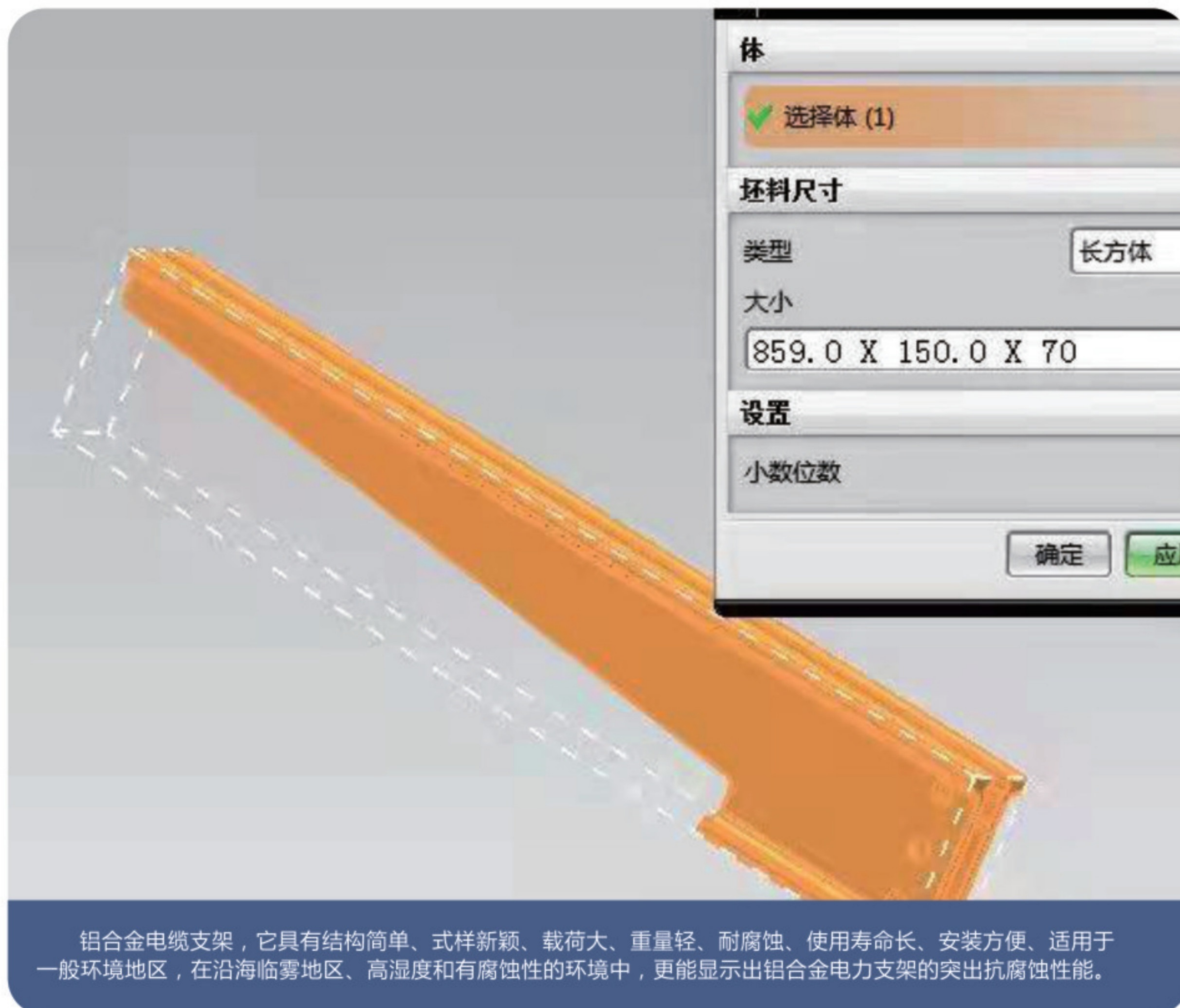
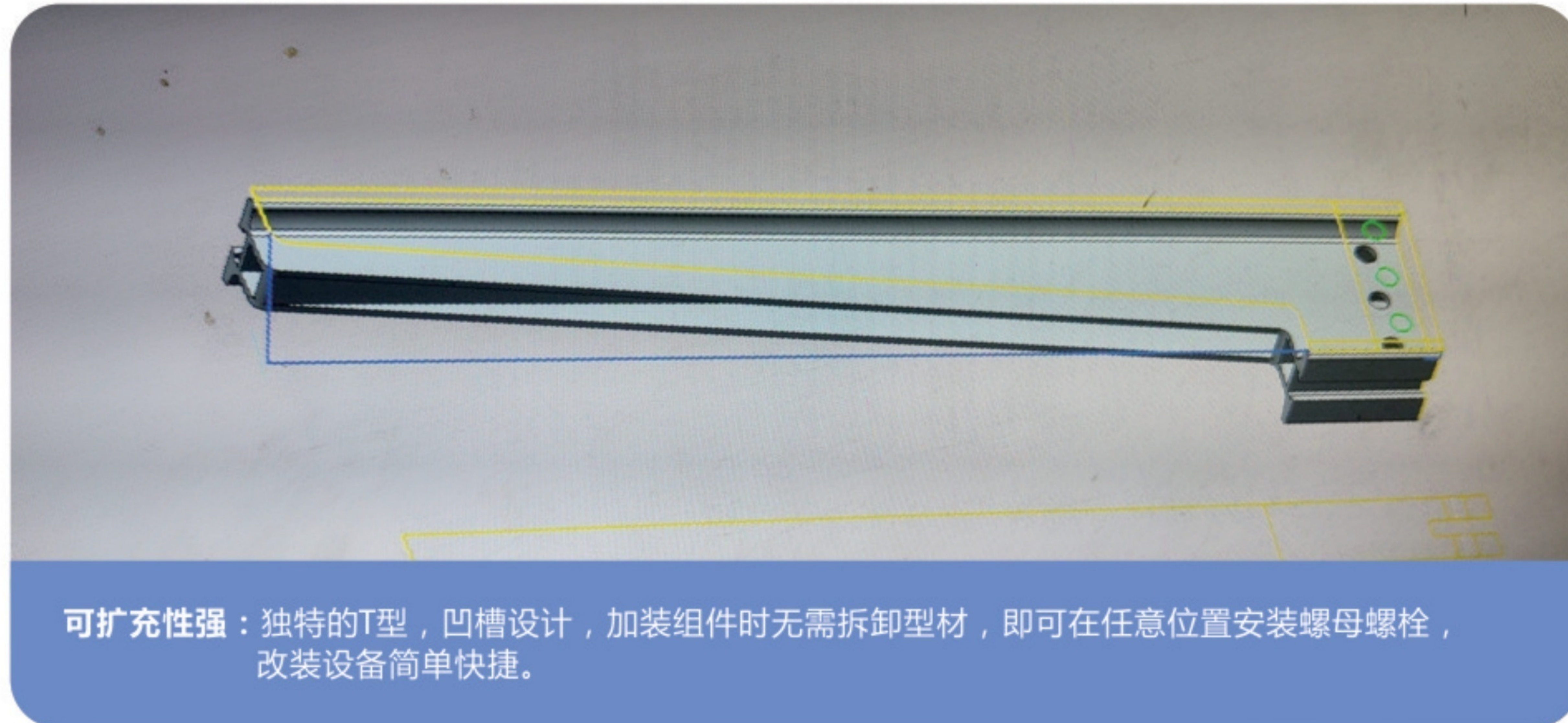
### Optimization principle of aluminum alloy support hanger scheme

- 在铝合金支吊架上安装的各类桥架、风管、水管应遵循“电上、风中、水下”的总原则。
- 各类管线空间布置, 应遵循“小管让大管、有压管让无压管、易弯曲的管让不易弯曲的管、不用经常检修的管让需经常检修的管”的原则。
- 电路安装布置, 应遵循“弱电让强电”原则。
- All kinds of bridges, air ducts and water pipes installed on the aluminum alloy hanger shall follow the general principle of "electricity, wind, and water".
- The spatial layout of all kinds of pipelines should follow the principle of "small pipes to large pipes, pressure pipes to non-pressure pipes, flexible pipes to pipes that are not easy to bend, and pipes that need not be overhauled frequently".
- The installation and arrangement of the electric circuit should follow the principle of "weak electricity gives way to strong electricity".

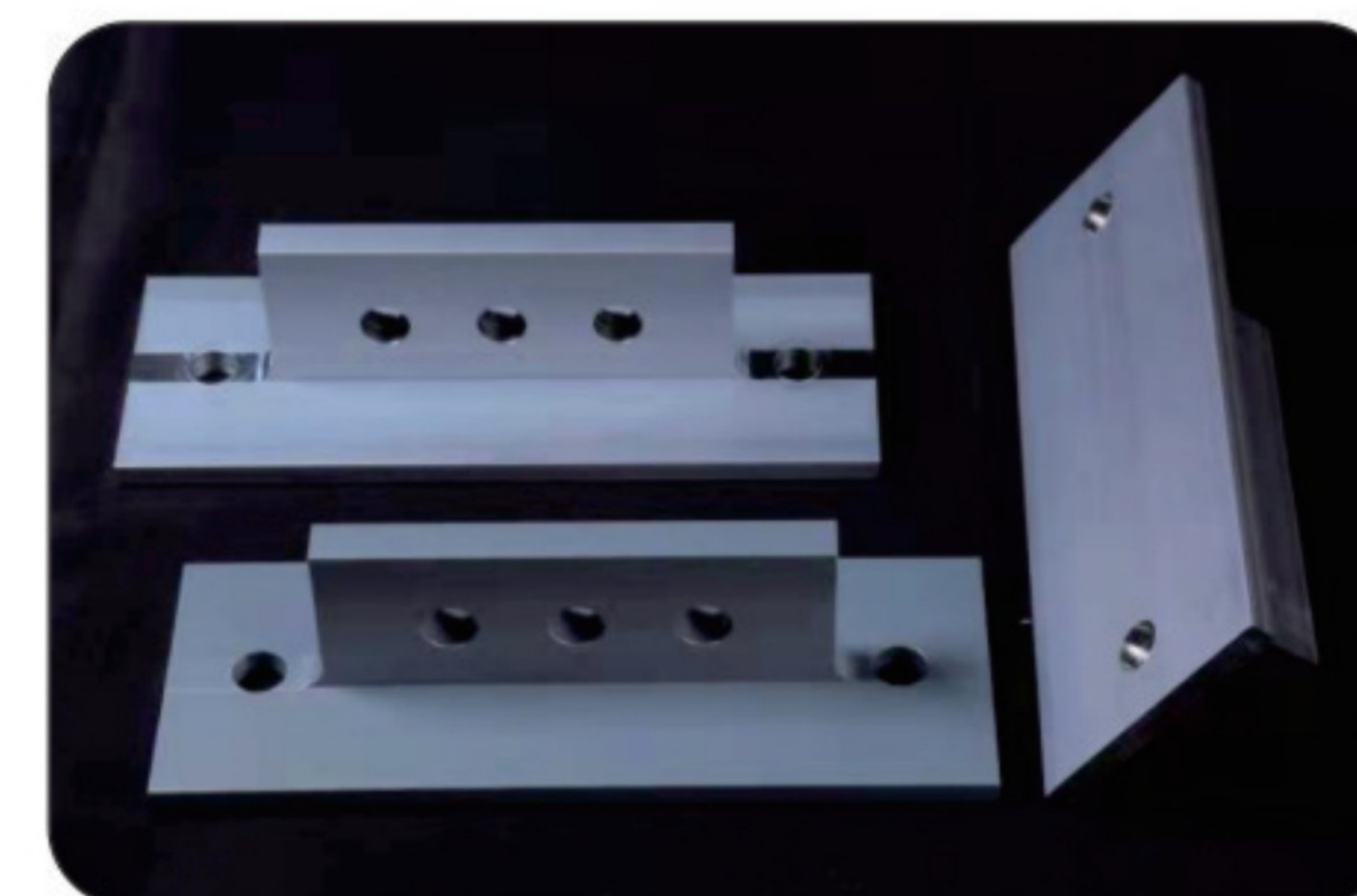
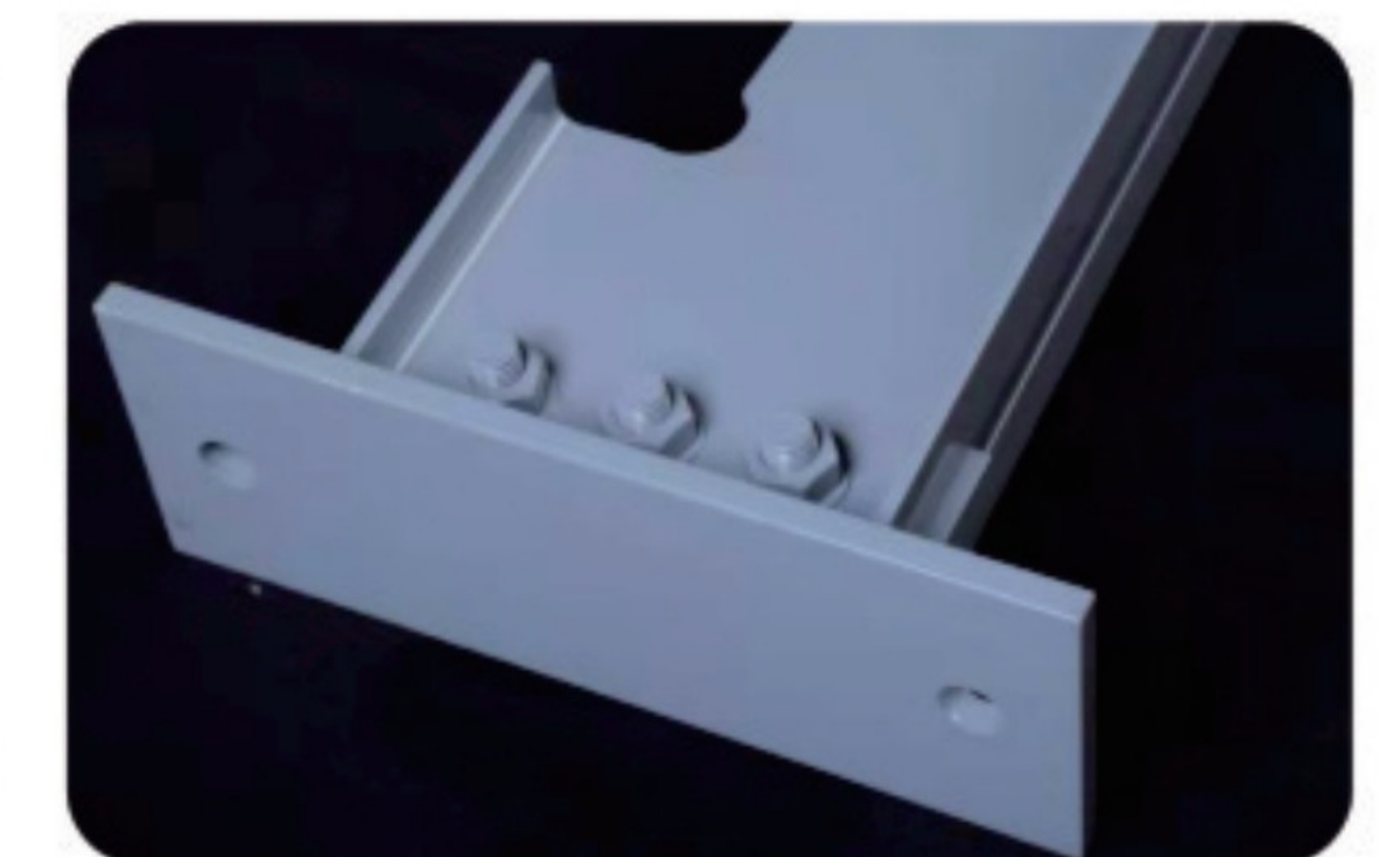
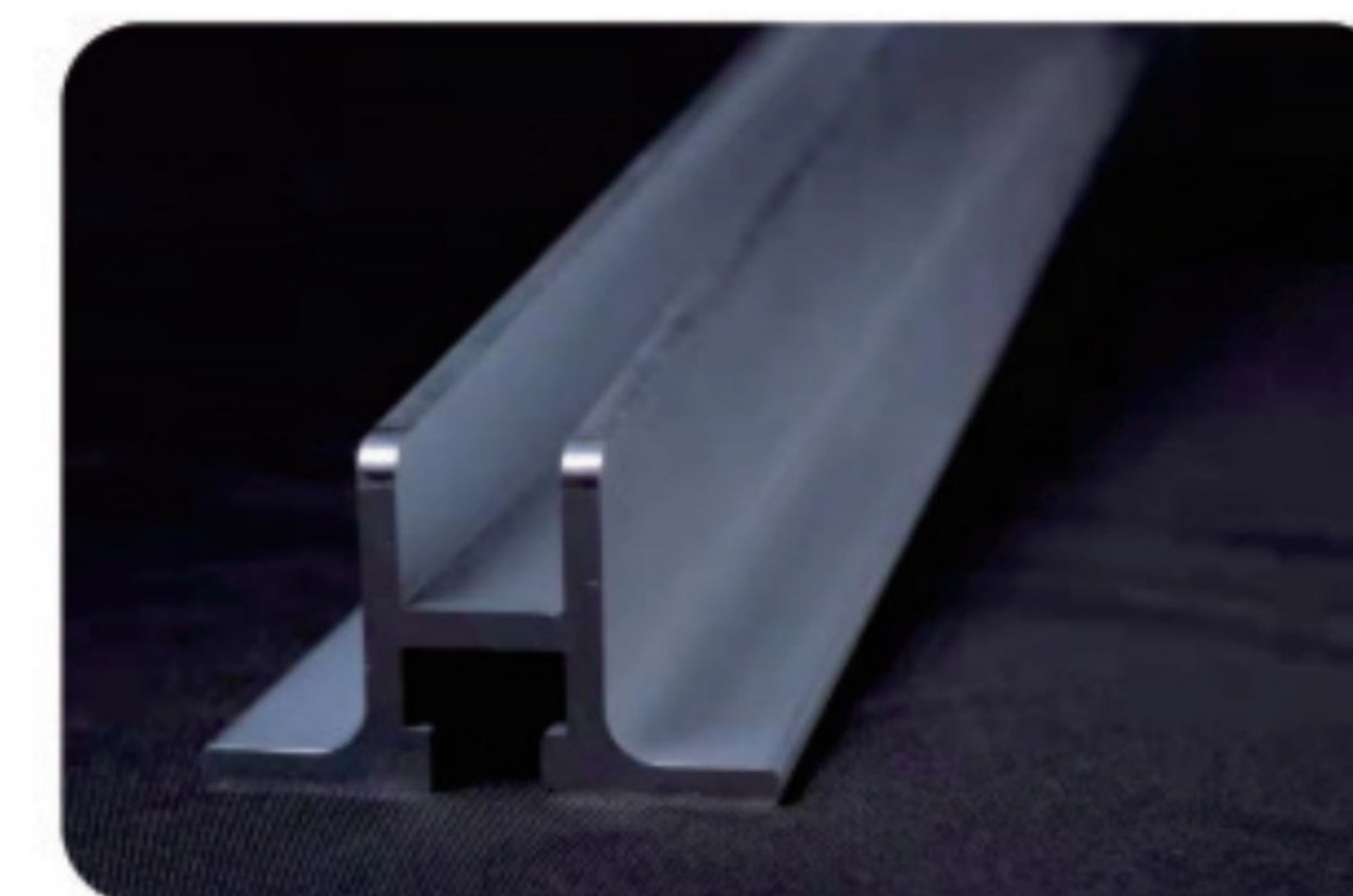
## 服务流程

### Service process





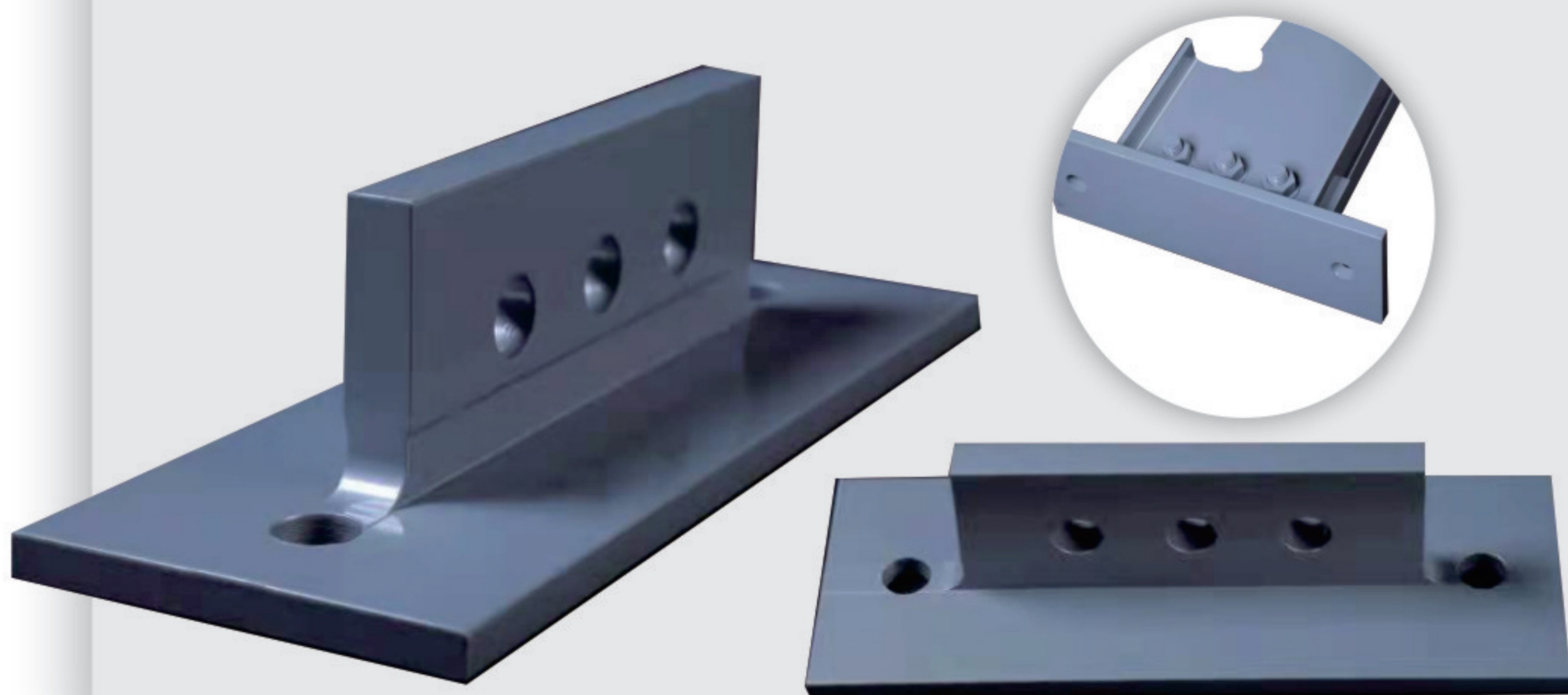
颜色：水泥灰 型号：6061-T6  
膜厚：50-60um 光泽：~52°  
固化：200°C/10min  
多种颜色可定制



造型美观实用：质轻而刚度高，简洁美观的外表无需油漆。



施工方便：具有模组化和多功能化，无需复杂的设计和加工，就可以快速地构架安装，严丝合缝。



01  
STEP  
询单

02  
STEP  
报价

03  
STEP  
图纸优化

04  
STEP  
免费打样

05  
STEP  
客户认可

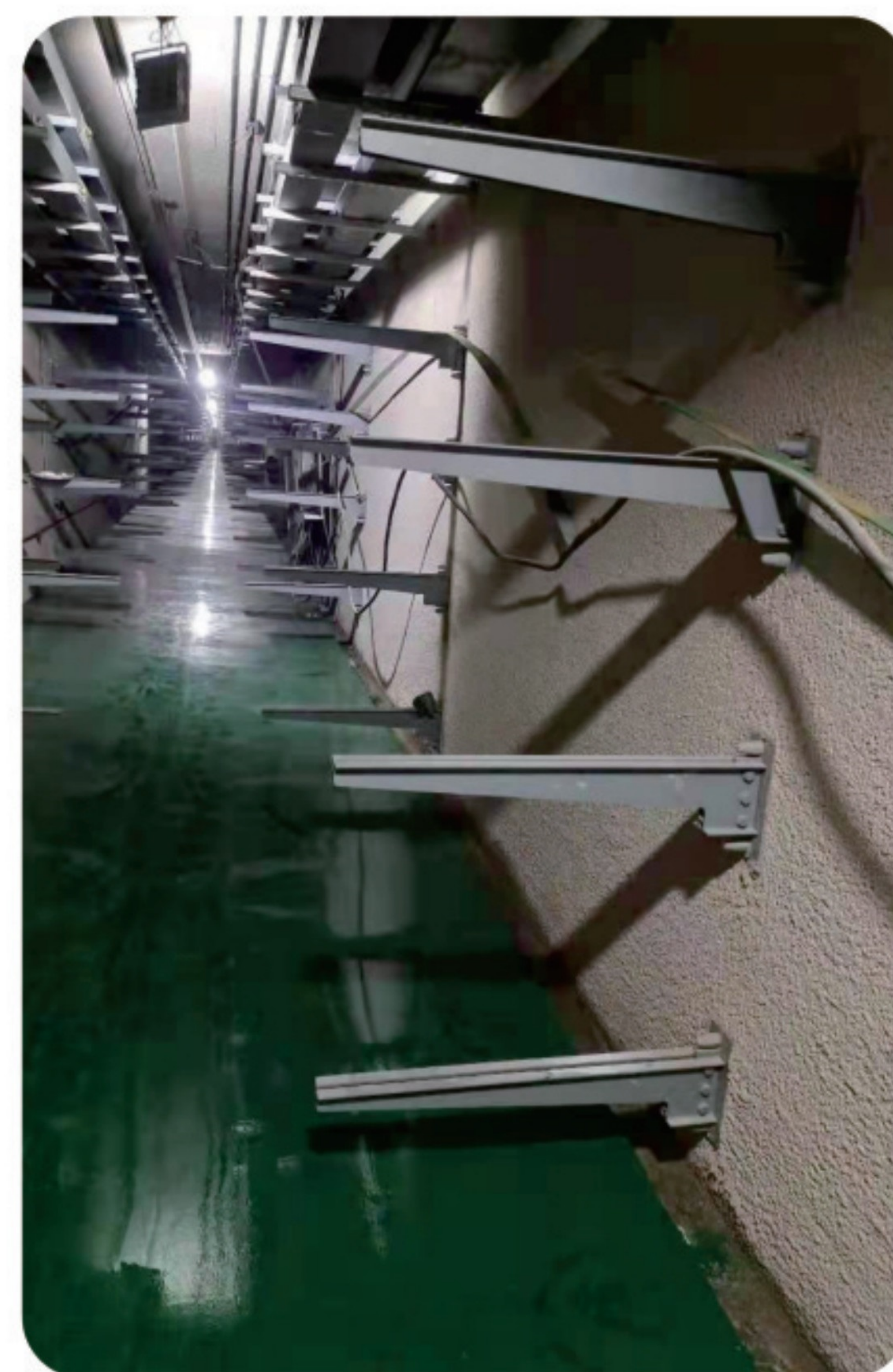
06  
STEP  
封样

06  
STEP  
量产

与设计院共同设计开发在浙江地区以开展5年多的隧道管廊铝合金电力支架，效果非常显著，整个浙江都在大力推广这种承载式铝合金支架。



安装实景展示



高压电力舱铝合金  
电力支架单套式  
安装实景



高压电力舱铝合金  
电力支架单套式  
安装实景



弧形管廊铝合金  
电力支架  
安装实景



高压电力舱铝合金电力支架一拖三安装实景



高压电力舱铝合金  
电力支架一拖三  
安装实景

▶ 精选  
优质铝材



▶ 与电力设计院  
共同设计开发的  
铝合金支架  
模具



▶ 打捆筒包



▶ 打磨清洗  
喷涂  
高温固色



▶ 铝合金  
电力支架  
生产线



▶ 德国超高速  
精铣机



▶ 高温  
固色出炉



▶ 精包装



▶ 精包装



## 技术团队与中铁二十二局现场数据沟通

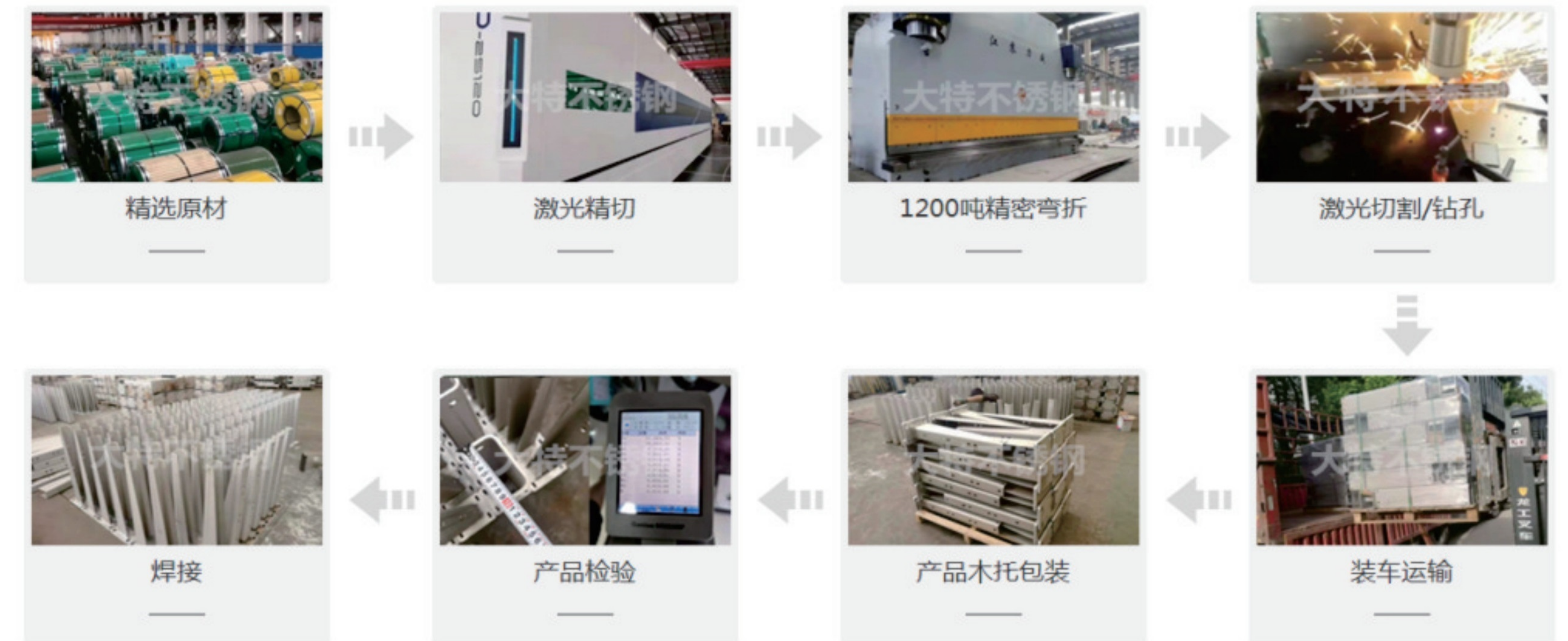


本公司从事的不锈钢和铝合金支架、成品支架、地下管廊支架、地下综合管廊预埋槽道等产品的生产与制造。我们有15年以上的生产经验。拥有一支多年从事设计开发和具有丰富制造经验的技术队伍,并且拥有行业内领先的生产设备做后盾。生产的产品具有高精度、高品质、低加工损耗等特点,并具有极佳的性能价比。



## 电力支架工艺流程

从源头到成品 不放过每个细节





**江苏士林电气集团**  
**江苏士林电气设备有限公司**

JIANGSU SHILIN ELECTRIC EQUIPMENT CO., LTD.

地址：江苏省扬中市新坝镇江城路28号

电话：0511-88412340

传真：0511-88400316

邮编：212211

Add: No.28 Jiangcheng Road, Xinba Town,  
Yangzhong City, Jiangsu Province

Tel: 0511-88412340 13805291816

Fax: 0511-88400316

P.C.: 212211

E-mail: tx12340@126.com

Http://www.cnshihlin.com