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JINLV METAL | profession manufacture of aluminum profile customize and processing service

上海锦铝金属制品有限公司

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2021

锦铝®

锦铝金属

Industrial stepping stair and
walking platform system

**INDUSTRIAL STEPPING
STAIR AND WALKING
PLATFORM SYSTEM**

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Industrial Stepping & Walking System

Industrial stepping stair and walking platform system it mainly refers to two parts of escalator and bridge.

It is widely used In the industrial field, such as mechanical processing plant with large machine tools and logistics warehouse workshop with high altitude operation. The application of escalator and cross-bridge not only facilitates the field operation of workers, but also ensures the personal safety of workers. profession manufacture of aluminum profile customize and processing service.





Industrial step customization

Safety standards

Accessories of Stairs/platform system meet all current standards and regulations of the German accident Insurance and Prevention Agency. Therefore, Stairs/platform system makes it easy for users to build structures that meet all the safety requirements and rules applicable to staircase design.

Accessories

Stairs/platform system base on few accessories, those accessories can use flexible. let those accessories easier reuse. Uniform light structure principles and wider pillar space help to minimize raw material consumption while ensuring safety.

Fully compatible

Staircase with different slope and variable length profile assembly, can be customized according to demand. Compatible with fences, panels, doors, machine accessories and installation accessories, installation and expansion of various auxiliary equipment. According to the available space, the required working height and the related weight too build the optimal solution.

Optimized surface

Stairs/platform system can create a complete surface to avoid dirt. Pillars, handrails and kneepads reduce the risk of injury. the highly sturdy aluminum profiles are anodized to enable them to prevent scratching and corrosion for a long time.

Easy to assemble

All parts are bolted to the profile. Because of the multi-function fastener, there is no need for oblique cutting of guardrail or connection joint. Therefore, the stairs can be modified or expanded if necessary.



CONTENTS

Industrial stepping stair and walking platform system introduce **01**

Stepping stair profile& accesories& side panel **04**

Step pipe connector assembly **05**

Product sample diagram **06**

technical parameters **07**

Stepping stair profile **08**

Stepping stair pipe connector **09**

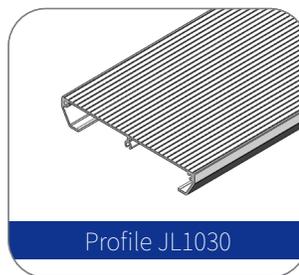
● 踏步型材



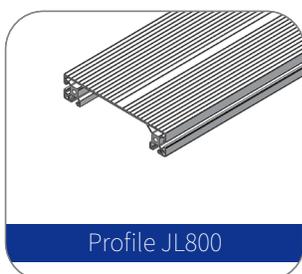
Tube D40*3



Aluminum profile JL1020



Profile JL1030



Profile JL800



Profile JL-8-4080

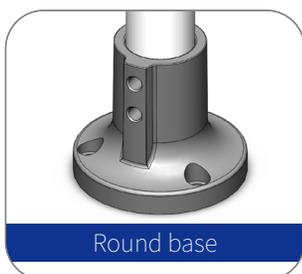


Profile JL-8-40120EE

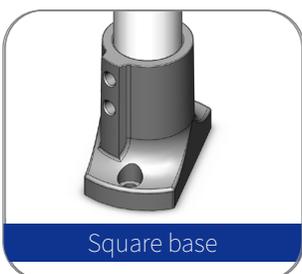


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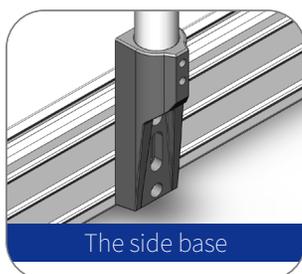
● 踏步附件



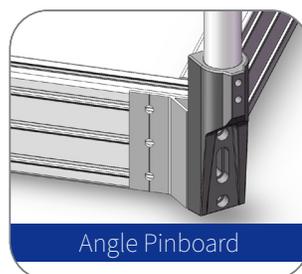
Round base



Square base



The side base



Angle Pinboard

● 踏步侧板



JL1030 Side panle



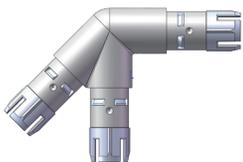
JL1030 Side panle



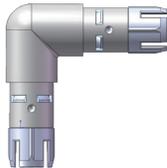
JL1030 Side panle



● **Stair and platform pipe connector Industrial stepping stair and walking platform system**



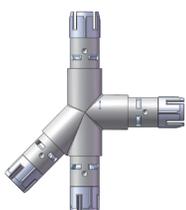
45 degree three links



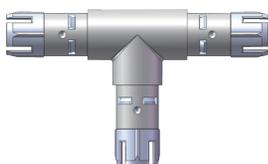
90 degree Angle head



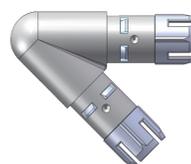
135 degree 2 way links



45 degree four links



T type three links



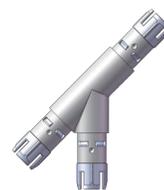
45 degree two links



X type four links



Y type three links



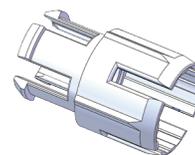
135 degree three links



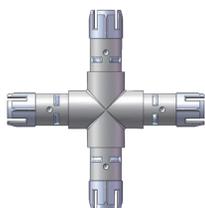
right angle tee



Right angle four-way



Plastic tube connectors



CROSS 4 WAY CONNECOTRS

links >>>

Learn More About Jinlv

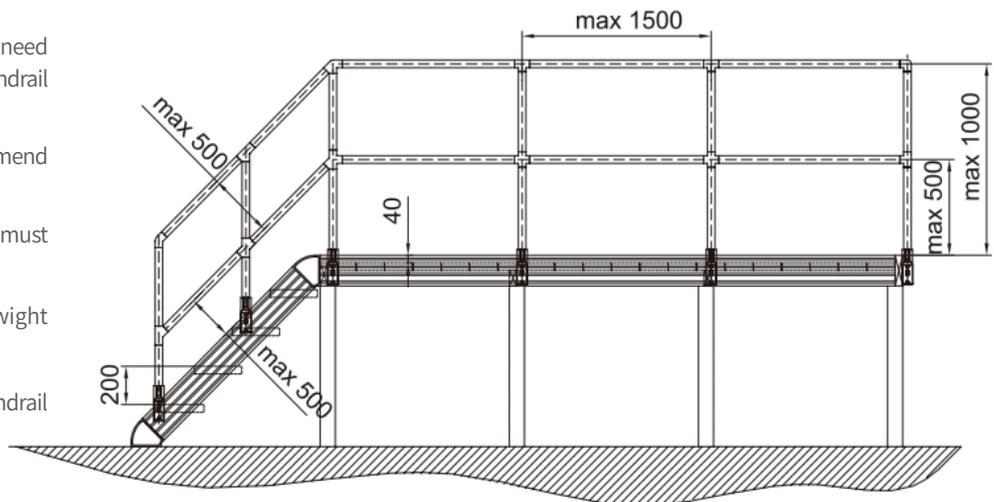
Industrial Stepping & Walking System

Optimized surface

Stairs/platform system can create a complete surface to avoid dirt. Pillars, handrails and kneepads reduce the risk of injury. the highly sturdy aluminum profiles are anodized to enable them to prevent scratching and corrosion for a long time.



- The stair and platform system at least need one side handrail, will need two side handrail if the platform width is above 1200mm;
- The height of stair and platform recommend 200mm;
- 1200mm width platform total loading must under 350kg;
- 1200mm width single step loading wight must under 150kg;
- The two column distance between handrail and guard bar must under 1500mm;



● Safety standards

Technical Parameter

Al Mg Si alloy hot extruded profile, Carry out GB/T6892-2000 standard, Alloy is 6063-T5, The mechanical performance indexes are as follows:

strength of extension Rm:	Min.160 N/mm ²
yield strength RP02:	Min.110 N/mm ²
Modulus of Elasticity	7.0x10 ⁴ N/mm ²
Brinell hardness:	HB75
Elongation:	8%(T<3.2mm)
strength of extension Rm:	10%(T>3.2mm)
Oxidation thickness:	Min.10 um

● Calculation formula of deformation

Deformation calculation formula

Calculation method of strength and deformation:

According to the mechanical properties of the profiles, the strength, stiffness and stability of the modular assembly system can be checked by using the formula in the table.

F = deformation mm

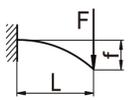
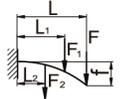
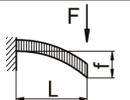
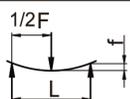
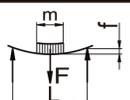
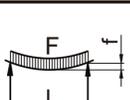
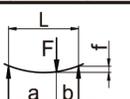
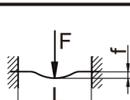
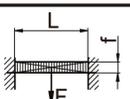
L = section length mm

E = modulus of elasticity N/mm²(7.0x10⁴N/mm²)

F = N load

J = Moment of inertia of profiles CM4 each profile is attached with moment of inertia

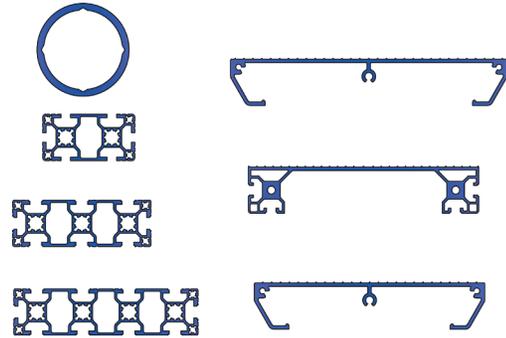
see section of standard frame profiles for details

1		$f = \frac{F \cdot L^3}{3E \cdot J \cdot 10^4}$
2		$f = \frac{F \cdot L^3 + F_1 \cdot L_1^2 \cdot L + F_2 \cdot L_2^2 \cdot L}{3E \cdot J \cdot 10^4}$
3		$f = \frac{F \cdot L^3}{8E \cdot J \cdot 10^4}$
4		$f = \frac{F \cdot L^3}{48E \cdot J \cdot 10^4}$
5		$f = \frac{F \cdot L^3}{\left(48 + \frac{29m}{L}\right) \cdot E \cdot J \cdot 10^4}$
6		$f = \frac{5F \cdot L^3}{384E \cdot J \cdot 10^4}$
7		$f = \frac{F \cdot a^2 \cdot b^2}{3E \cdot J \cdot 10^4 \cdot L}$
8		$f = \frac{F \cdot L^3}{192E \cdot J \cdot 10^4}$
9		$f = \frac{F \cdot L^3}{384E \cdot J \cdot 10^4}$

● Stepping stair profile

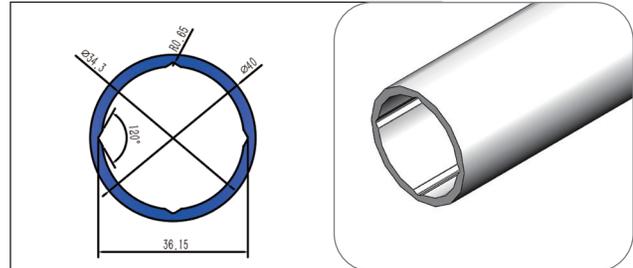
Step profile

Material	6063-T5
Surface treatment	Anodic oxidation
Colour	SILVER
Maximum length	L=6000mm
The cutting surface was not anodized	



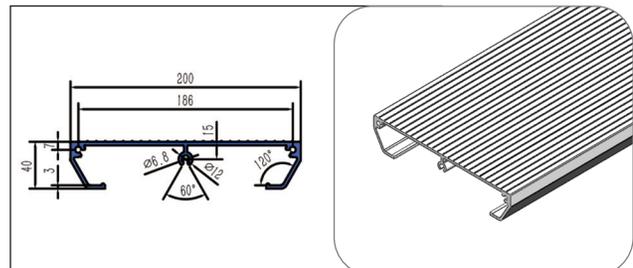
Aluminum tube : $\phi 40 \times 3$ Can customize yellow colour

moment of inertia $I_x(\text{CM}^4)$	5.65
moment of inertia $I_y(\text{CM}^4)$	5.65
moment of inertia $I_z(\text{CM}^4)$	2.82
moment of inertia $I_w(\text{CM}^4)$	2.82
weight (kg/m)	0.978



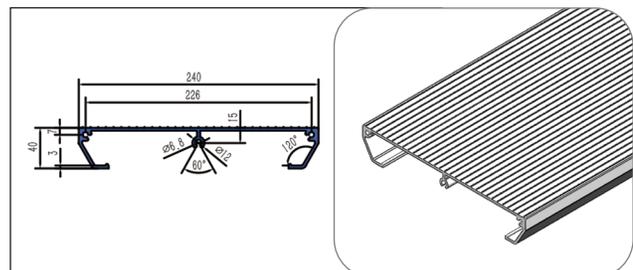
Aluminum profile JL1020

moment of inertia $I_x(\text{CM}^4)$	17.94
moment of inertia $I_y(\text{CM}^4)$	563.99
moment of inertia $I_z(\text{CM}^4)$	8.97
moment of inertia $I_w(\text{CM}^4)$	56.39
weight (kg/m)	3.42



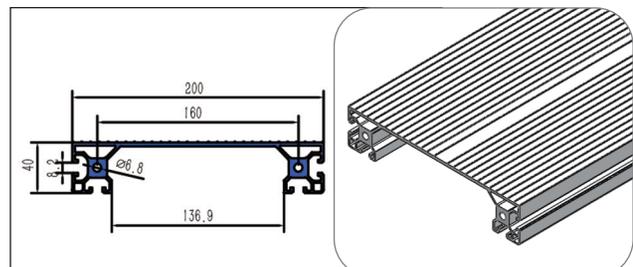
Aluminum profile JL1030

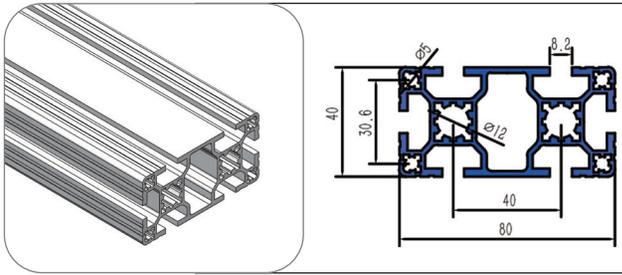
moment of inertia $I_x(\text{CM}^4)$	18.76
moment of inertia $I_y(\text{CM}^4)$	889.42
moment of inertia $I_z(\text{CM}^4)$	9.38
moment of inertia $I_w(\text{CM}^4)$	74.11
weight (kg/m)	3.79



Aluminum profile JL800

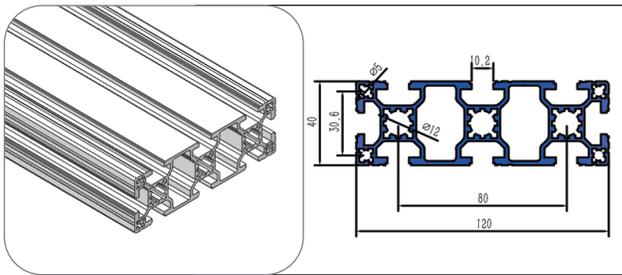
moment of inertia $I_x(\text{CM}^4)$	23.67
moment of inertia $I_y(\text{CM}^4)$	779.63
moment of inertia $I_z(\text{CM}^4)$	11.83
moment of inertia $I_w(\text{CM}^4)$	77.9
weight (kg/m)	4.3





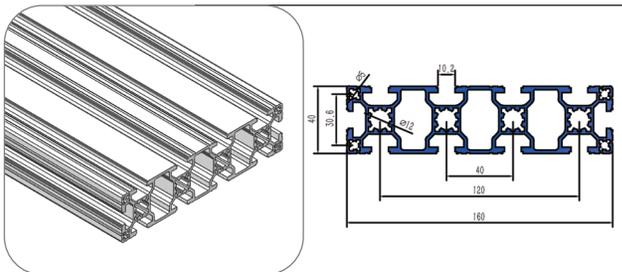
ALuminium tube / JL-8-4080EE

moment of inertia (CM^4)	16.14
moment of inertia (CM^4)	59.00
moment of inertia (CM^4)	8.07
moment of inertia (CM^4)	14.75
weight (kg/m)	2.69



ALuminium tube / JL-10-40120EE

moment of inertia (CM^4)	23.16
moment of inertia (CM^4)	180.59
moment of inertia (CM^4)	11.58
moment of inertia (CM^4)	30.09
weight (kg/m)	3.80

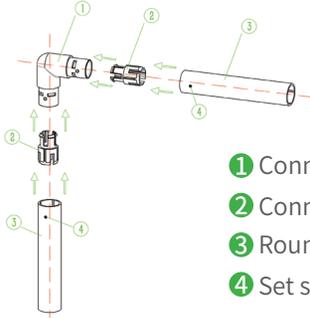


ALuminium tube / JL-40160EE

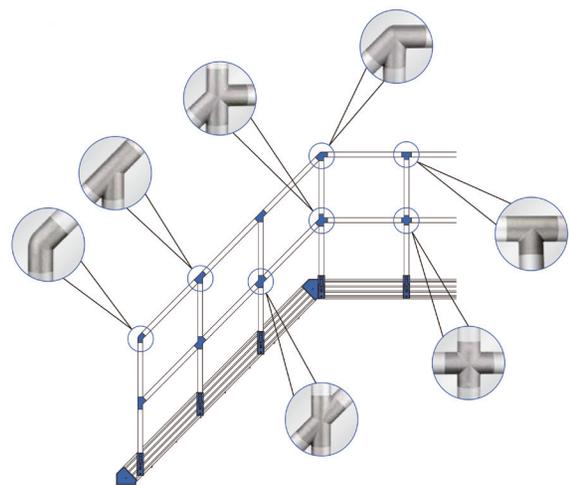
moment of inertia (CM^4)	30.34
moment of inertia (CM^4)	403.50
moment of inertia (CM^4)	15.17
moment of inertia (CM^4)	50.43
weight (kg/m)	4.92

● PIPE CONNECTOR
Step profile

The pipe connectors in the industrial step and platform system adopt the special locking mechanism of inner type. The locking mechanism between the pipe and the pipe connector can be realized only by rotating the setting screw. The aluminum tube only needs to be cut to a fixed length without other processing, so the connection is convenient and fast.



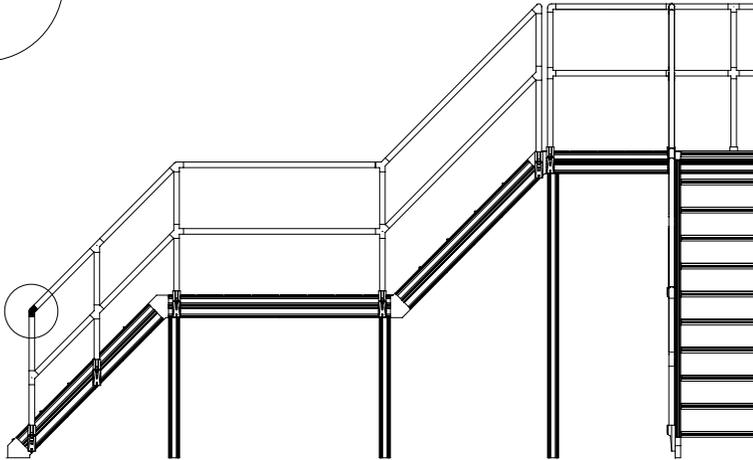
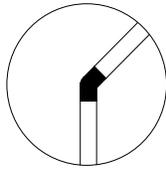
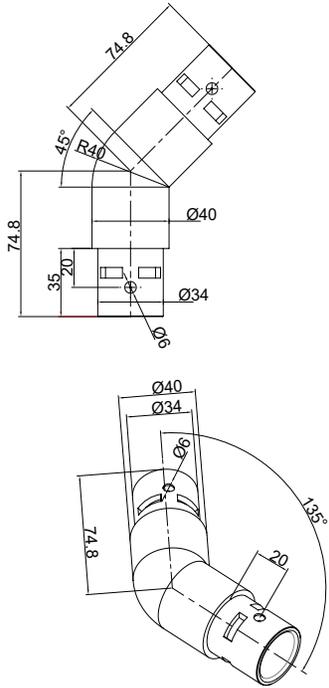
- ① Connector body
- ② Connector plastic body
- ③ Round tube
- ④ Set screw



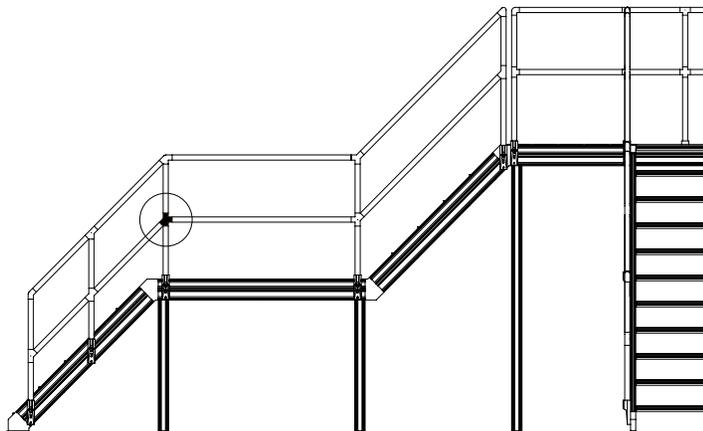
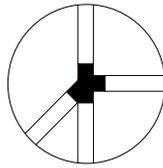
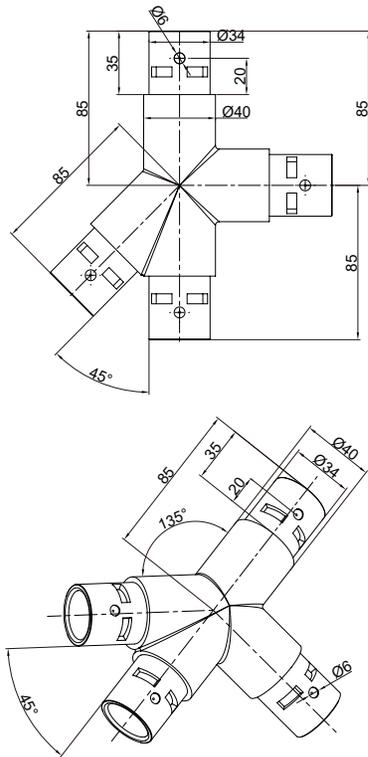
- ▼ Put the plastic body into the connector
- ▼ Insert tube to plastic body till pipe connector
- ▼ Use set screw tight the round tube and connector



JINLV 135° TWO WAY LINKS
ORDER NO.: JL-F-135-2T

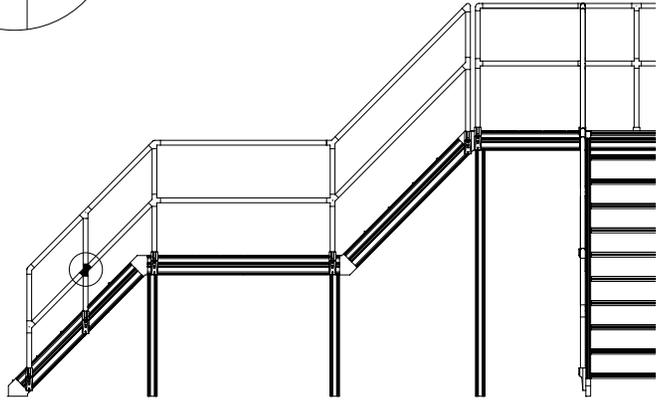
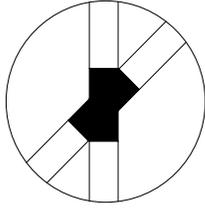
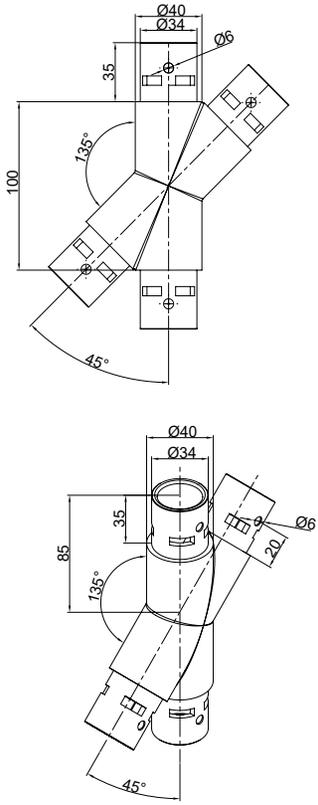


JINLV 45° FOUR WAY LINKS
ORDER NO.: JL-F-45-4T

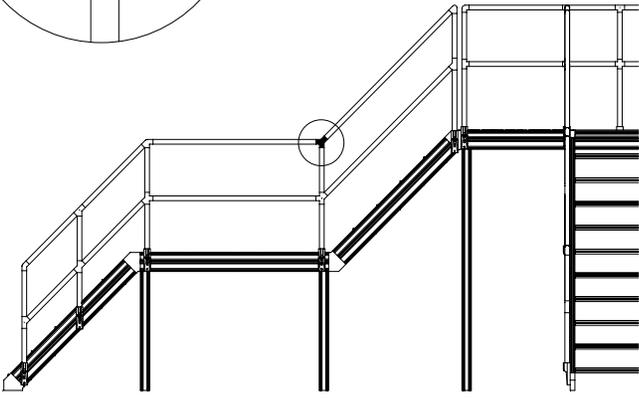
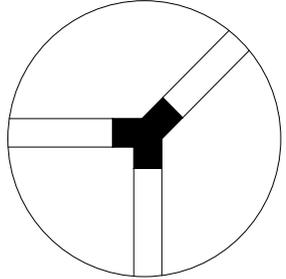
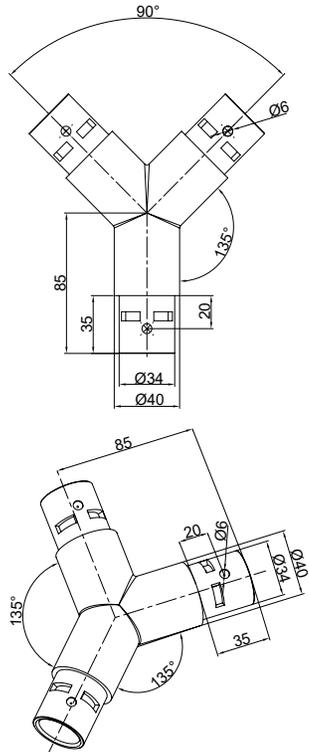




JINLV X TYPE 4 WAY LINKS
ORDER NO.: JL-F-45-X



JINLV Y TYPE THREE WAY LINKS
ORDER NO.: JL-F-135-Y

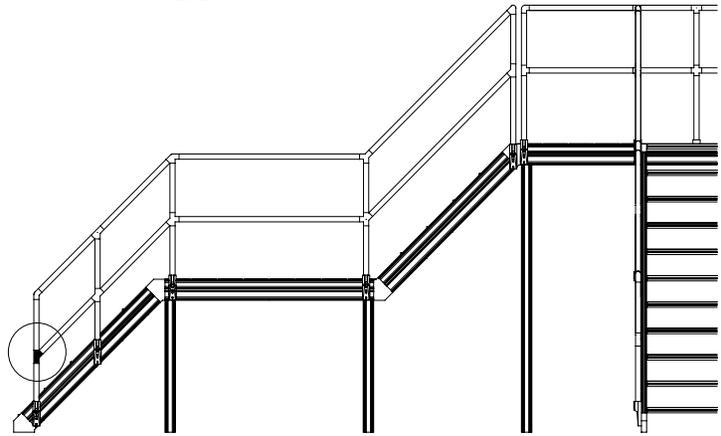
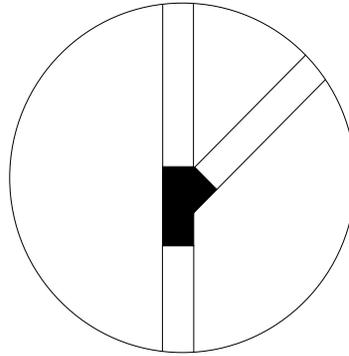
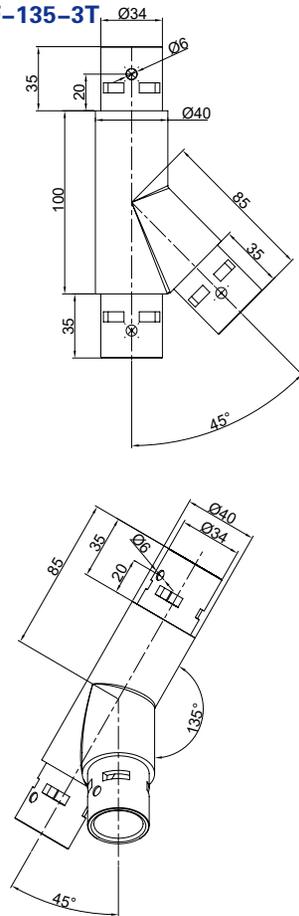


Stepping stair pipe connector

Step pipe connector

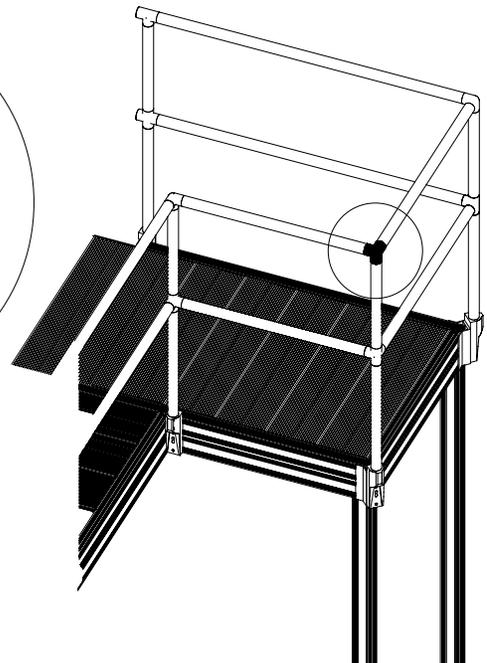
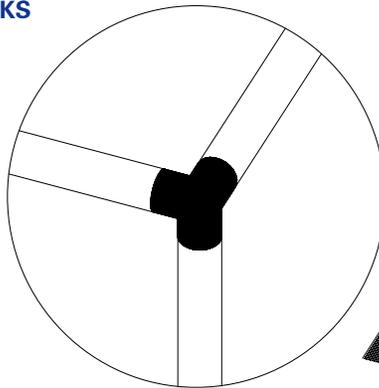
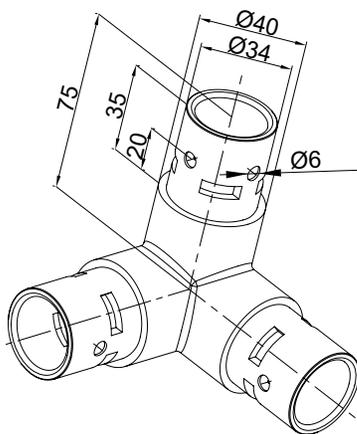
JINLV 135 DEGREE THREE WAY LINKS

ORDER NO.: JL-F-135-3T

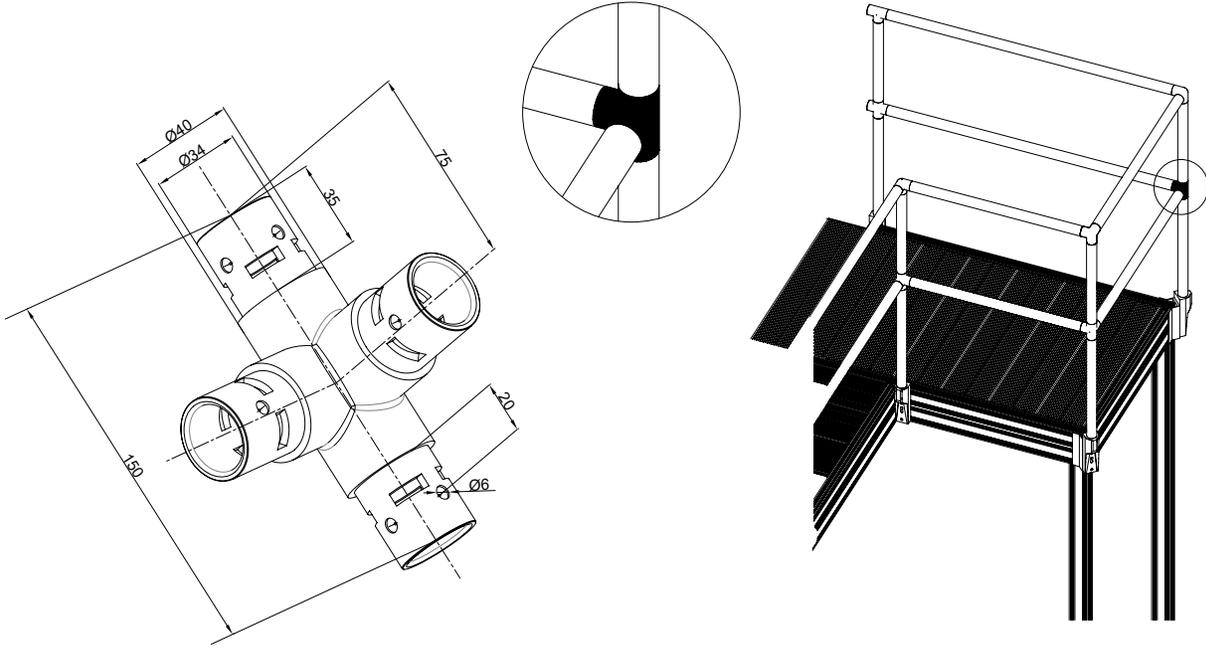


JINLV RIGHT ANGLE THREE WAY LINKS

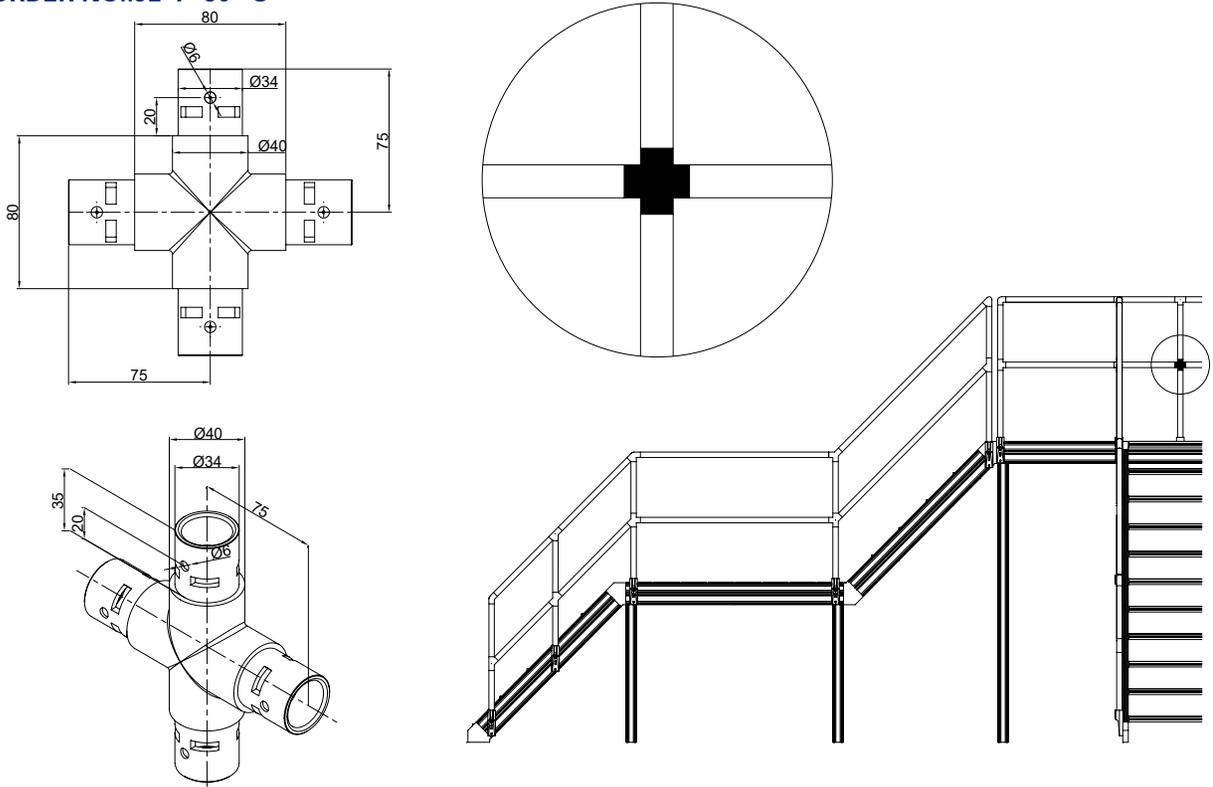
ORDER NO.: JL-F-90-3W



JINLV RIGHT ANGLE FOUR LINKS
ORDER NO.:JL-F-90-4W



JINLV CROSS TYPE FOUR WAY LINKS
ORDER NO.:JL-F-90- S



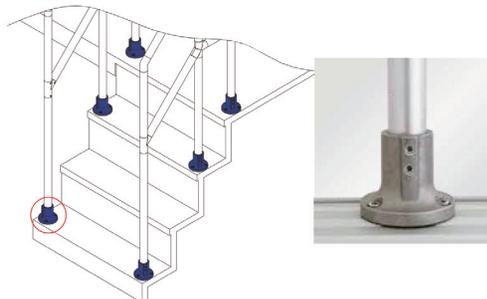
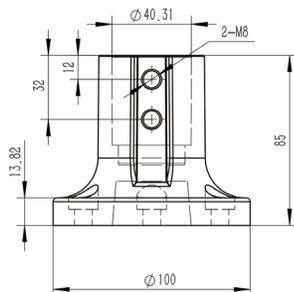
● **Stepping stair accessories**

Step accessories

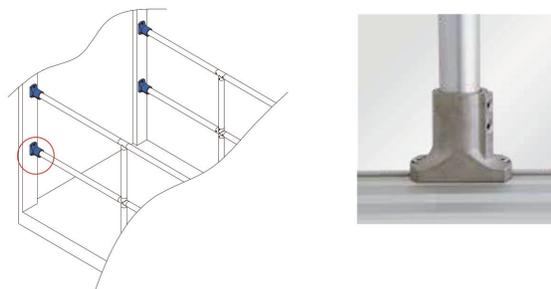
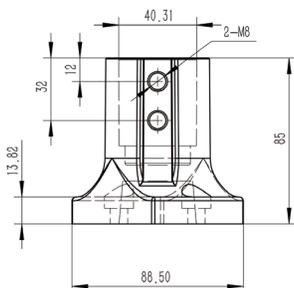
BASE

Application: Used for platform or steel plate plane connection material and surface treatment: die cast aluminum alloy finish.

ROUND BASE
ORDER NO.:JL-F-YD40



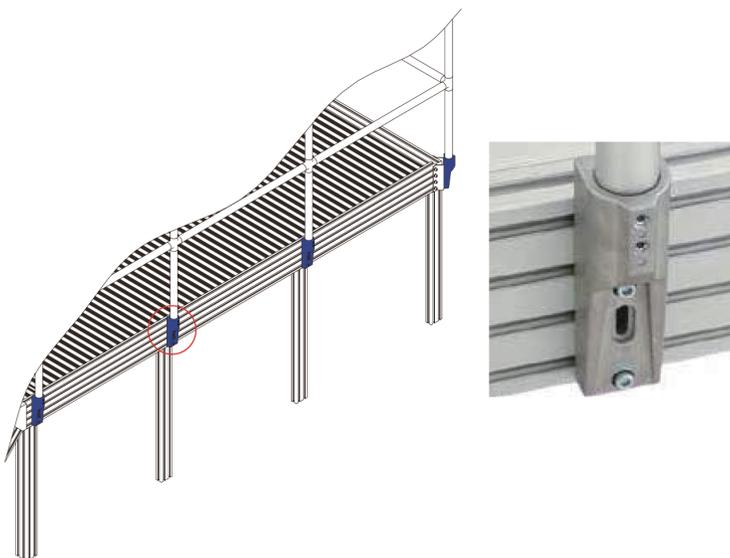
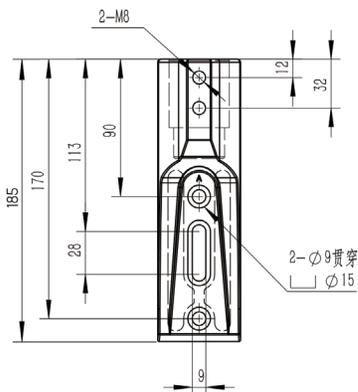
JINLV SQUARE BASE
ORDER NO.:JL-F-FD40



Side base

Texture and surface treatment:Die casting aluminum alloy finish

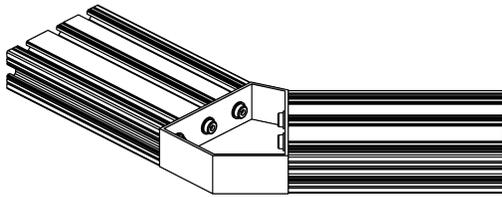
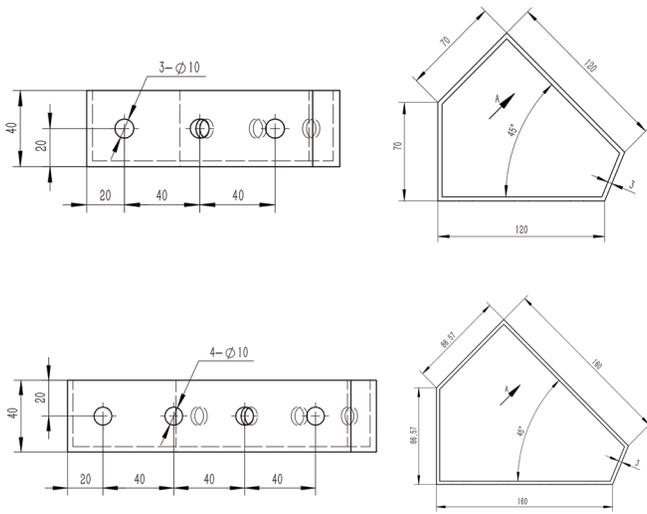
JINLV 185 SIDE BASE
ORDER NO.:JL-CB-185



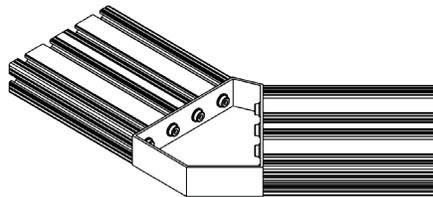
● **Angle Bracket(45°)**

Angle connector (45°)

Texture and surface treatment: Sheet metal spraying.



JINLV 120-45 DEGREE ANGLE BRACKET
ORDER NO.:JL-F-120-45X



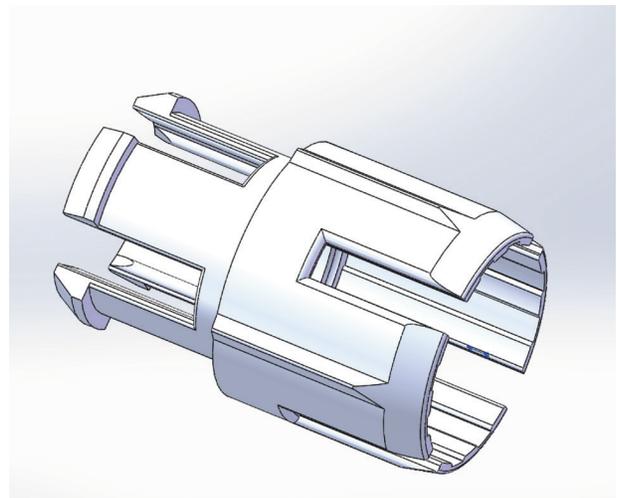
JINLV 160-45° angle bracket
Order No.JL-f-160-45X

● **NOZZLE PLASTIC PARTS**

Nozzle plastic parts

JINLV NOZZLE PLASTIC PARTS
ORDER NO.:JL-F-SLJ40

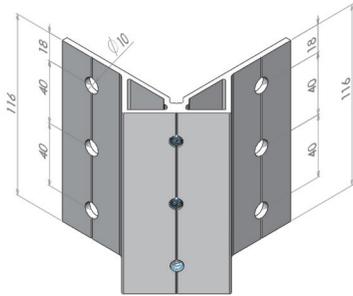
APPLICATION: Use for aluminum tube and tube connection:Neylon+ Glass fiber.



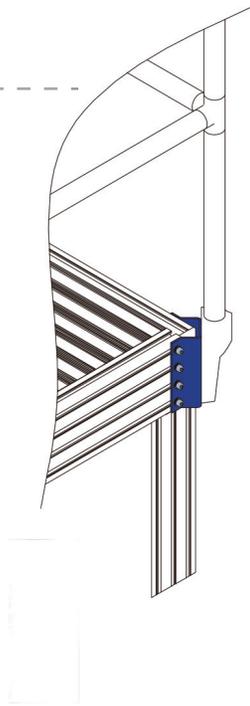
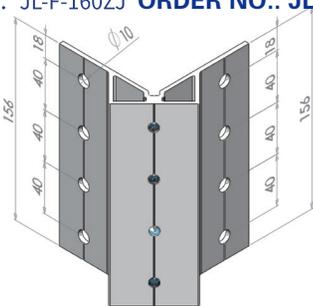
● 转角板 Stepping stair pipe connector

Corner adapter plate

锦铝 120 转角板 **JINLV 120 adapter plate**
 订货名称: JL-F-120ZJ **ORDER NO.: JL-F-120ZJ**



锦铝 160 转角板 **JINLV 160 adapter plate**
 订货名称: JL-F-160ZJ **ORDER NO.: JL-F-160ZJ**



40120



40160

● Stepping stair side plate

Step side plate

material: aluminum

JINLV 800 stepping stair side plate
 Order No.: JL-F-JL800CB

JJINLV 1020 stepping stair side plate
 ORDER NO.: JL-F-JL1020CB

JINLV 1030 stepping stair side plate
 ORDER NO.: JL-F-JL1030CB

