Alpha Mac

上海爱中建材设备有限公司

AlphaMac Building Material & Machinery

Private in Annalis

First instime

First in price

First in services

# ROLL FORMING



## Alpha Mac Machinery

Using integrated CAD/CAM technology of Roll Forming, we are the leading company in China and specialize in Roll Forming Industry.

We have capabilties of designing and manufacturing roll forming tooling, roll forming equipment, we also provide roll formed metal parts, metal stamping, welding, assembly to meet different requirement for our customers.

Our unique capabilities allow us to give you a full service, and make the products with good quality, competitive price and prompt delivery.

With over 10 years experience in roll forming industry, our engineers have utilized software COPRA to design a various of roll forming toolings very successfully.

Simulating the forming process and optimizing of roll forming tool set by the software packages COPRA DTM/COPRA FEA RF. We can find the potential forming problems in advance, this will save cost for you.







CNC vertical machining centre All accurate parts are processed by this center in our company to guarantee good quality.



CNC vertical machining centre All accurate parts are processed by this center in our company to guarantee good quality.

Heavy Duty lathe machine





CNC gantry pentahedron machining center. This machining center can process 5 surfaces of parts with once fixing and guarantee tolerance of every surface. What's more, with CNC four axis linkage. It is ideal for tubing drilling boring, arch machining and so on.

High precision grinding machine for outside surface.

#### **Qualification Certificate**





























## 国际 INTFRNATIONAL 来访customer





Australian Customer 澳大利亚客户



UK Customer 英国客户



Greece Customer 希腊客户



Indian Customer 印度客户



Jordan Customer 约旦客户



Turkey Customer 土耳其客户



Singapore Customer 新加坡客户



UAE Customer 阿联酋客户



Russian Customer 俄罗斯客户



Iran Customer 伊朗客户

# 一目录 **Ontents**

- 01 槽式电缆桥架 Cable Tray
- 02 电缆桥架盖板 Cable Tray Cover
- 03 高速公路护栏板 Highway Guardrails
- 04 轻钢龙骨 Drywall Studs & Tracks
- 05 汽车防撞梁 Automobile Anti-collision Beam
- 06 车厢板 Carriage Board
- 07 阳极板 Positive Plate
- 08 涵洞波纹板 Corrugated Plate of Culvert
- 09 货架立柱横梁 Rack Studs
- 10 C/Z型钢快速更换 C/Z Fast Interchangable
- 11 C/U型钢快速更换 C/U Fast Interchangable
- 12 楼承板 Floor Deck
- 13 脚踏板 Pedals
- 14 防火阀 Fire Damper
- 15 卷帘门 Roll Shutter
- 16 钢板仓立柱 Steel Silo Column
- 17 双层屋顶板 Double Deck
- 18 水槽机 Gutter

## Cable Tray

#### 槽式电缆桥架成型生产线









#### 设备参数:

1.配置:放料台-冲孔-主机-成型剪(含刀)-电脑控制-收料台

2.压板厚度: 0.6-2.0mm, 板宽: ≤960mm,

强度: ≥350Map

3.电机总功率约: 38KW

#### Equipment parameter:

1.Work Flow: Decoiler- Punching Device- Main Machine- Cutter after Forming - PLC Control System- Product Rack

2.Material thickness: 0.6–2.0mm, Material width: ≤960mm, Strength: ≥ 350Map

3. Total Motor Power: 38KW



## Cable Tray Cover

### 电缆桥架盖板成型生产线







#### 设备参数:

1.配置: 放料台-成型剪(含刀)-主机-电脑控制-液压站-收料台

2.压板厚度: 0.6-2.0mm, 板宽: ≤650mm(可定制), 强度: ≥350Map

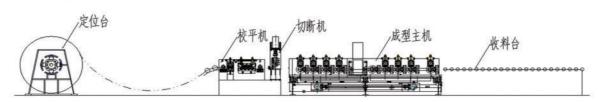
3.电机总功率约: 18KW

#### Equipment parameter:

1.Work Flow: Decoiler- Cutter after Forming- Main Machine- PLC Control System-Hydraulic Station- Product Rack

2.Material thickness: 0.6–2.0mm, Material width:  $\leq$  650mm, strength:  $\geq$  350Map

3.Total Motor Power: 18KW



## **Highway Guardrails**

#### 高速公路护栏板成型生产线



#### 设备参数:

1.配置: 放料台-冲孔-主机-成型剪(含刀)-电脑控制-收料台

2.压板厚度: 2.0-4.0mm, 强度: ≥350Map

3.电机总功率约: 68KW Equipment parameter:

1. Work Flow: Decoiler- Punching Device-Main Machine-Cutter after Forming- PLC

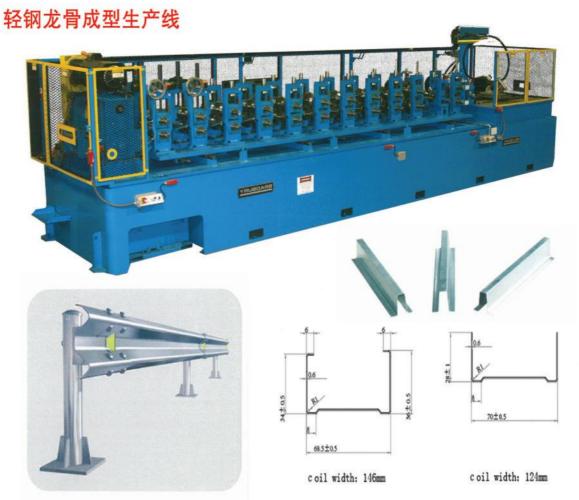
Control System- Product Rack

2.Material thickness: 2.0–4.0mm, Strength:  $\geq$  350Map

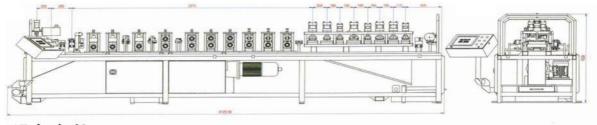
3. Total Motor Power: 68KW



## **Drywall Studs & Tracks**



#### 设备流程图



#### 设备参数:

- 1.配置:放料台-成型剪(含刀)-主机-电脑控制-液压站-收料台
- 2.压板厚度: 0.6-2.0mm, 板宽: ≤650mm(可定制), 强度: ≥350Map
- 3.电机总功率约: 18KW

#### Equipment parameter:

- 1.Work Flow: Decoiler- Cutter after Forming- Main Machine- PLC Control System-Hydraulic Station- Product Rack
- 2.Material thickness: 0.6–2.0mm, Material width: ≤ 650mm, strength: ≥ 350Map
- 3.Total Motor Power: 18KW

## Automobile Anti-collision Beam

#### 汽车防撞梁成型生产线



#### 设备参数:

- 1.配置: 放料台-成型剪(含刀)-主机-电脑控制-液压站-收料台
- 2.压板厚度: 0.6-2.0mm, 板宽: ≤650mm(可定制),强度: ≥350Map
- 3.电机总功率约: 18KW

#### Equipment parameter:

- 1.Work Flow: Decoiler- Cutter after Forming- Main Machine- PLC Control System-Hydraulic Station- Product Rack
- 2.Material thickness: 0.6–2.0mm, Material width: ≤ 650mm, strength: ≥ 350Map
- 3. Total Motor Power: 18KW

## Carriage Board

#### 车厢板成型生产线











#### 设备参数:

1.配置:放料台-主机-成型剪(含

刀)-电脑控制-收料台

2.压板厚度: 0.6-2.0, 强度: ≥

350Map

3.电机总功率约: 35.5KW

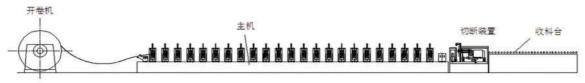
#### Equipment parameter:

1. Work Flow: Decoiler- Main Machine-Cutter after Forming- PLC Control System-

Product Rack

2.Material thickness: 0.6–2.0mm, Strength: ≥ 350Map

3.Total Motor Power: 35.5KW



## **Positive Plate**

#### 阳极板成型生产线













#### 设备参数:

1.配置: 放料台-主机-成型剪(含刀)-电脑控制-收料台

2.压板厚度: 0.-1.5mm, 强度: ≥350Map

3.电机总功率约: 33KW

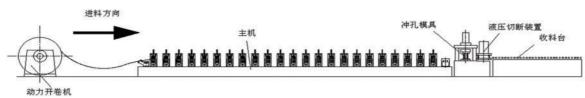
#### Equipment parameter:

1. Work Flow: Decoiler- Main Machine-Cutter after Forming- PLC Control System-

Product Rack

2.Material thickness: 0.-1.5mm, Strength: ≥ 350Map

3.Total Motor Power: 33KW



## Corrugated Plate of Culvert

#### 涵洞波纹板成型生产线



#### 设备参数:

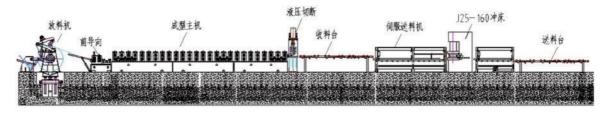
1.配置:放料台-主机-自动传输/定位系统-冲孔系统-电脑控制-收料台-打弯弧系统

2.压板厚度: 1.0-5.0mm, 强度: ≥350Map

#### Equipment parameter:

1.Work Flow: Decoiler- Main Machine- Automatic Transmission / Positioning System-Punching Device- PLC Control System- Product Rack-Bending arc System

2.Material thickness: 1.0–5.0mm, Strength:  $\geq$  350Map



## Rack Studs

#### 货架立柱横梁成型生产线



#### 设备流程图



#### 设备参数:

1.配置:放料台-冲孔-主机-成型剪(含刀)-收料台

2.压板厚度: 1.0-2.5, 涵洞波纹板

#### Equipment parameter:

1.Work Flow: Decoiler- Punching Device-Main Machine-Cutter after Forming- Product Rack

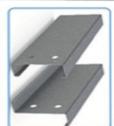
2.Material thickness: 1.0-2.5mm, Culvert Corrugated Plate

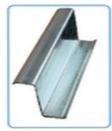
## C/Z Fast Interchangable

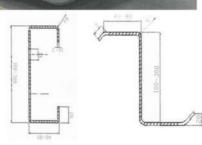
#### C/Z型钢快速更换成型生产线



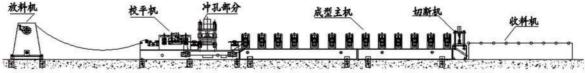








#### 设备流程图



#### 设备参数:

1.配置: 放料台-冲孔-主机-成型剪(含刀)-电脑控制-收料台

2.压板厚度: 1.0-3.0mm, 强度: ≥350Map

3. 总电机功率约: 38KW

4. 板宽、规格、速度可定制

#### Equipment parameter:

1.Work Flow: Decoiler- Punching Device-Main Machine-Cutter after Forming- PLC

Control System- Product Rack

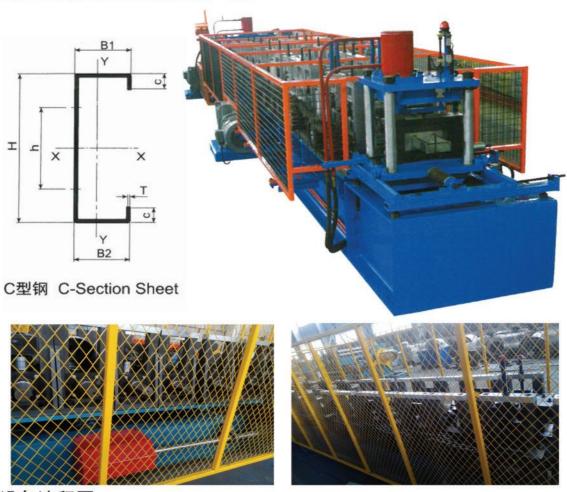
2.Material thickness: 1.0–3.0mm, Strength:  $\geq$  350Map

3. Total Motor Power: 38KW

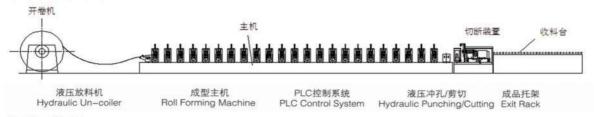
4. Plate width, Specification, Speed can be customized

## C/U Fast Interchangable

#### C/U型钢快速更换成型生产线



#### 设备流程图



#### 设备参数:

1.配置: 放料台-主机-成型剪(含刀)-电脑控制-收料台

2.压板厚度: 0.8-2.0mm, 强度: ≥350Map

3: 总电机功率约: 11KW

#### Equipment parameter:

1. Work Flow: Decoiler- Main Machine-Cutter after Forming- PLC Control System-

Product Rack

2.Material thickness: 0.8–2.0mm, Strength: ≥ 350Map

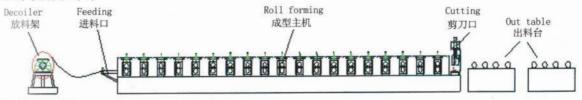
3. Total Motor Power: 11KW

## Floor Deck

#### 楼承板成型生产线



#### 设备流程图



#### 设备参数:

1.配置:液压前剪(含刀)-主机-成型剪(含刀)-电脑控制-液压站-收料台

2.压板厚度: 0.8-1.5mm, 板宽: 1219mm, 强度: ≥350Map

3.电机总功率约: 11KW

4.设备长\*宽\*高: 15X1.5X1.2

#### Equipment parameter:

1. Work Flow: Hydraulic Pre-Cutting Equipment- Main Machine-Cutter after Forming-PLC Control System-Hydraulic Station- Product Rack

2.Material thickness: 0.8–1.5mm, Material width: 1219mm, Strength: ≥ 350Map

3. Total Motor Power: 11KW.

4. Equipment length \* width \* High: 15X1.5X1.2

## **Pedals**

#### 脚踏板成型生产线



#### 设备参数:

1.配置:放料台-冲孔-主机-成型剪(含刀)-收料台

2.压板厚度1.0-2.0mm, 强度: ≥350Map

#### Equipment parameter:

1.Work Flow: Decoiler- Punching Device- Main Machine-Cutter after Forming- Product Rack

2.Material thickness: 1.0–2.0mm, Strength:  $\geq$  350Map

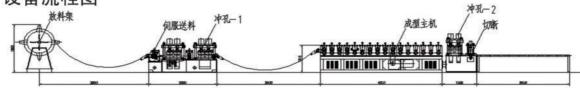


## Fire Damper

#### 防火阀成型生产线







#### 设备参数:

1.配置:放料台-冲孔-主机-成型剪(含刀)-电脑控制-收料台

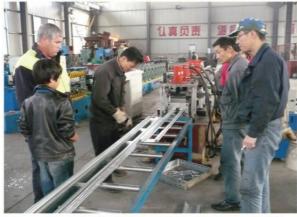
2.压板厚度: 0.6-1.5mm Equipment parameter:

1. Work Flow: Decoiler- Punching Device- Main Machine-Cutter after Forming- PLC

Control System–Product Rack 2.Material thickness: 0.6–1.5mm

## **Roll Shutter**

#### 卷帘门成型生产线









#### 设备参数:

1.配置:放料台-主机-冲孔-成型剪(含刀)-收料台

2.压板厚度: 0.6-2.0mm 3.电机总功率约: 23KW

4.生产速度:冲孔部分约4m/min、成型

部分为12m/min

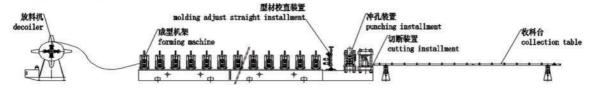
#### Equipment parameter:

1. Work Flow: Decoiler- Main Machine -Punching Device - -Cutter after Forming-

Product Rack

2.Material thickness: 0.6–2.0mm,3.Total Motor Power: 23KW,

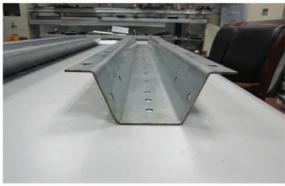
4. Produce speed: Part of Punching about 4m/min, forming about 12m/min



## Steel Silo Column

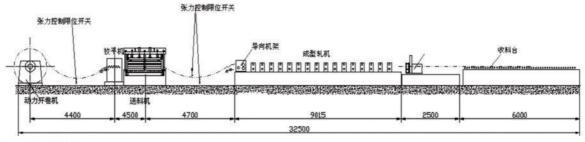
#### 钢板仓立柱成型生产线







#### 设备流程图



#### 设备参数:

1.配置: 放料台-主机-冲孔-成型剪(含刀)-收料台

2.压板厚度: 1.0-4.0mm Equipment parameter:

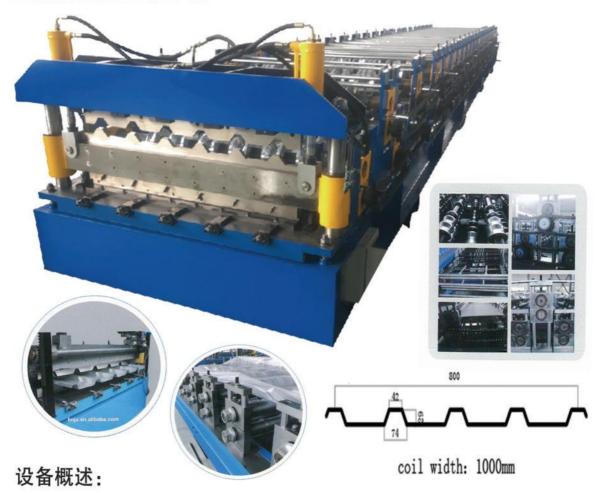
1. Work Flow: Decoiler- Main Machine -Punching Device - -Cutter after Forming-

Product Rack

2.Material thickness: 1.0-4.0mm,

## **Double Deck**

#### 双层屋顶板成型生产线



此机器应用于简易房,钢结构厂房等墙面板生产,速度最高可达到45米每分钟,大大的提高了生产效率,一台设备可以生产两种不同的版型,大大减少成本和节约了生产空间。

This kind of machine used in simple houses, steel plants and other wall board production. The maximum speed can be 45m/min that greatly improves the production efficiency. One machine can produce two different kinds of profiles for reducing cost and factory working space.

#### 设备参数:

压制厚度:0.3-0.8mm

生产速度:10m-30m/min

成型道数:18道

电机总功率:约7.5KW

液压站功率:4KW

控制系统:日本松下PLC

Equipment parameter:

Material Thickness: 0.3-0. 8mm

Speed: 10m-30m/min Roll Station: 18 stations

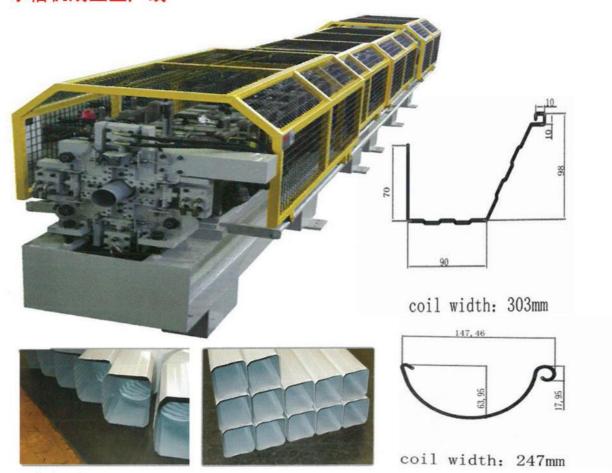
Main motor power: about 7.5KW

Hydraulic power: 4kw

Controlling system: PLC(Panasonic)

## Gutter

#### 水槽机成型生产线



#### 设备概述:

设备采用自动控制软件,实现生产信息化管理。止水槽设备还具有操作简单,容易维护,保养以及机械的调试,模具更换容易等优点。整个设备自动化控制系统采用高集成的网络,使自动化系统能更优越。

Machine adopt automatic control software, rrealize production information management. Gutter roll forming machine also operate easily, maintain, preserve and adjust easily. The automatic control system of whole set of machine adopts high integration of network, can make the automatic system more supenor.

#### 设备参数:

轧制厚度:0.4-0.8mm

成型速度:10-15m/分钟(不包括剪切)

成型组数:12道 主电机功率:4kw 液压站功率:5.5kW

剪切材料:cr12

#### Equipment parameter:

Rolling thickness: 0. 4-0.8mm

Forming speed: 10-15m/min(Does not

include shear)

Roll station: 12 stations

Main power: 4kw Hydraulic power: 5.5k Shear material: cr12

### 可选成型主机 Optional roll forming machine

#### 可选放料装置 Optional de-coiling device



齿轮箱+万向节传动 Gearbox+Universal Joint

齿轮箱传动+牌坊机架 Gearbox+Wall Frame

快换式机架-机座 2Exchangeable Rack +Machine Bed Frame



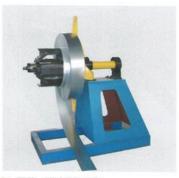
悬臂、自动式放料架 Cantilever auto De-coiler



快换式机架-机座 Exchangeable Rack-Machine Base



快换式机架 Exchangeable Forming Frame



悬臂、被动式放料架 Cantilever Passive De-coiler



墙板式机架+链条传动 Wall Frame+Chain Driven



双悬臂式机架 Double Cantivelr Frame



铸钢悬臂式机架 Cast-iron cantiveler frame



悬臂、液压自动式放料架 Cantilever hydraulic automatic De-coiler



简易放料机 Simple De-coiler



宽幅、悬臂、自动式放料架 Auto De-coiler



双头式放料架 Double-headed De-coiler



▶ 双锥式放料架 Double Cone De-coiler

#### 可选校平装置 Optional leveler

7辊校平机 Seven Rollers Leveler



9辊校平机带送料 Nine Rollers with feeding material



可选送料装置

**Optional de-coiler** 

▶ 送料裝置 feeder



9辊校平机 Nine Rollers Leveler



9辊校平机 Nine Rollers Levele



▶ 送料装置 feeder



9 辊校平机 Seven Rollers Leveler



5辊校平机带送带冲切 Five Rollers Leveler with puching&cuttir



伺服送料 servo feeder



▶ 送料装置 feeder

#### 可选冲孔装置 Optional punching device

#### 可选切断装置 Optional cutting device



60Ton冲床 160Ton punching press



液压冲孔装置 Four column hydraulic punching devic



跟踪飞锯切 Tracking flying sawing



跟踪无毛刺飞锯切 No burr tracking flying saw



液压冲孔装置 Four column hydraulic punching device



液压冲孔装置 Four column hydraulic punching device



45°斜切 45°beveling



无毛刺锯切 Circular saw cutting



液压切断 Hydraulic cutting with waste



跟踪液压切 Tracking hydraulic saw

#### 经典型材 Popular Profiles



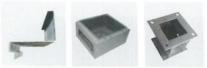
#### 矫平剪切线 Straightening cut to length line





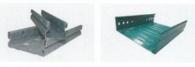
















该生产线是将冷轧钢卷板、不锈钢卷板、镀锌钢板及彩钢板等开卷校平剪切成各种规格的定尺板材。 标准配配置: 上料小车、开卷机、托板压料装置、校平主机、储料仓、限位装置、伺服定尺机、覆膜装置、

剪板机、输送工作台、气动排料架、液压升降台、卸料工作台、液压系统、电气控制系统等组成。

该生产线液压系统主要元件采用台湾高精度组件,定尺系统采用日本安川或德国伦茨公司全定位伺服系统进行控制,电气控制采用进口PLC程序控制器和触摸屏进行全线控制。具有自动化程度高、校平质量好、剪切精度高、生产效率高、性能稳定可靠、操作维护方便等特点。

The production line just makes cold-rolled steel coil plates, stainless steels, galvanized steel plate color steel plate and etc into all specifications of length-gauged plate, via uncoil level and cut to length. The standard configuration is composed of loading cars, uncoilers, pallet pressure devices, leveling mainframe, storagesilos, limited device, servo length-gauged machines, peritoneal devices, shearing machines, transmission platforms, pneumatic nesting rack, hydraulic lifting stations, unloading platforms, hydraulic systems, electrical control systems and etc.

Main components of the production line's hydraulic system adopt Taiwan high-precision components,length-gauged system adpots overall position-fixed servo control system form Japan Yasukawa or Germany Lenze to control. Electrical control adopts controller with imported PLC and touch screen to achieve fully controlling. It has many characteristics, just like, high degree of automation, high quality of leveling, high precision, high efficiency, steady and reliable performance, simply operation, easy maintenance and etc.

#### 主要组成部件 Main components of the line



#### 主要技术参数 Main technical parameters

项目 Project	单位 Unit	可选择范围 Ranges
加工板厚 Thickness	mm	0.2~1.5、0.5~3
标准板宽 Standard board's width	mm	1250、1500、1900
开卷机承重 Uncoiler bearing	t	12. 20
矫平精度 Leveling precision	mm/m2	≤1.5(Standard)
定尺精度 Length accuracy	mm	≤±0.50
机组最高线速度 Max line-speed	m/min	0~60、100
机组总功率 Total power	kw	~65、~95

## Five advantages of AlphaMac Rollformers

#### High speed

• Professional build quality equipment, guarantee the stability of various functions, so as to achieve the highest production efficiency.

### Running stability

• Enterprise software with advanced CNC numerical control lathe equipment professional r &d and production for clients roll accessories, quality assurance.

### High yield

 All kinds of professional equipment for installation and debugging, make sure every product for customer satisfaction

### Easy to operate

· All PLC programmable control, one operator.

#### Low power consumption

 Across the computer intelligent control, to ensure that equipment operation to achieve the lowest energy consumption.



Web: www.AlphaMac.cn

E-mail: sales@Alphamac.cn

Mobile / Whatsapp No.: +86 13485063298

Office Add: Room 2009, No. 28, Maji Road East Finance Building

Waigaoqiao Free Trade Zone (200131), Shanghai,

Factory: Qianqiao Town, Wuxi