

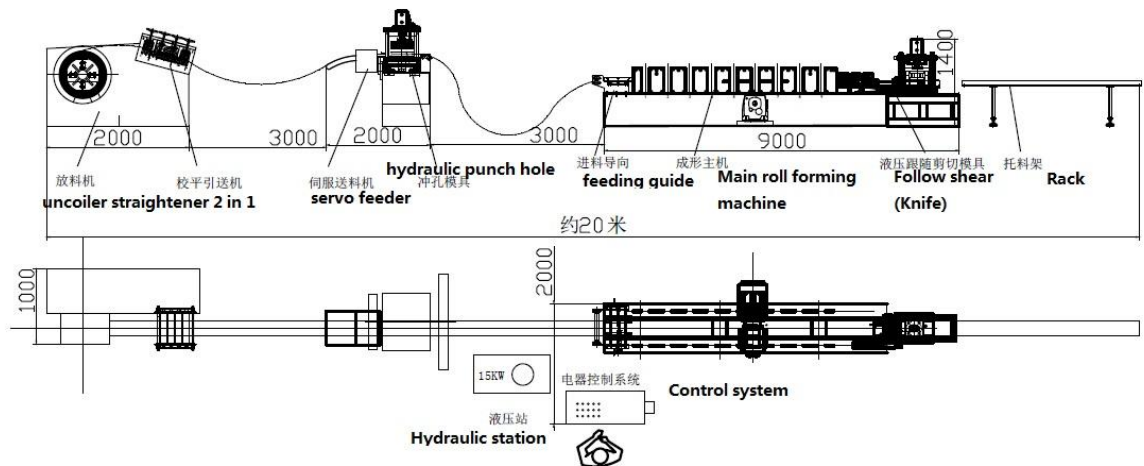
## Rack Forming machine project

### 一、technical parameters

No.	ITEM		PARAMETER	REMARK
1	MATERIAL	Type	Cold-rolled strip steel, galvanized sheet	
		T. (mm)	0.5mm	
		Yield Strength (Mpa)	Q235	
2	Forming speed (m/min)		5-8m	Including hole
3	Forming main power (KW)		5.5KW	FYR
4	Hydraulic power (KW)		15KW	FYR
5	Total Power		20.5 KW	FYR
6	Voltage		AC380V, 50Hz, 3Phase	

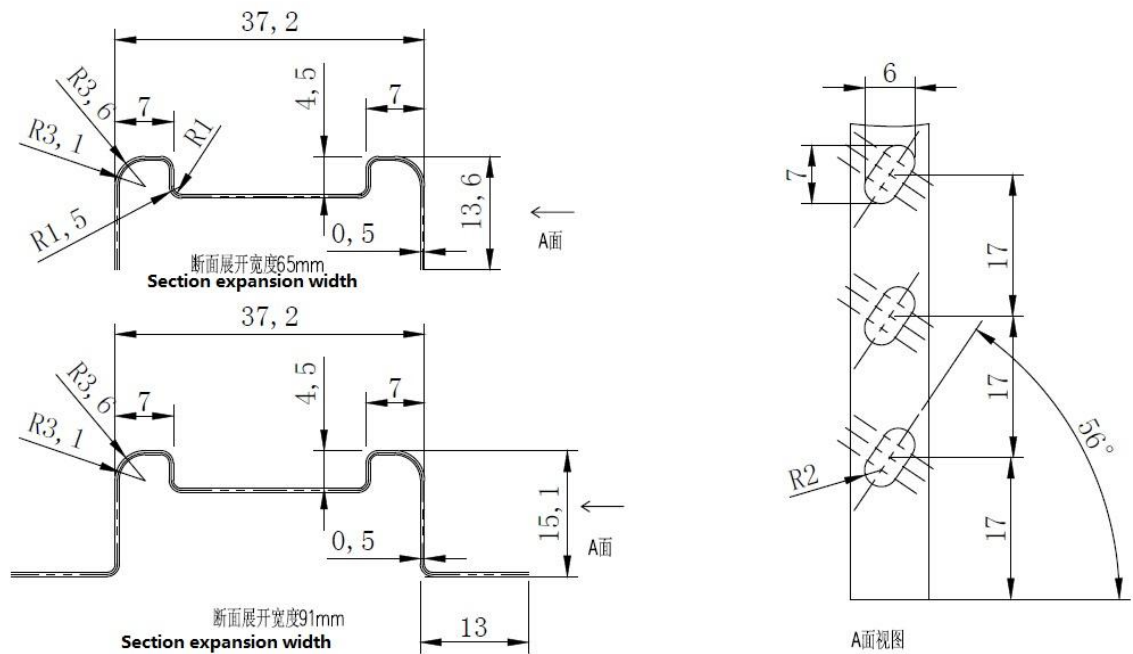
### 二、process

2 in 1 Uncoiler Straightening-servo feeder → Hydraulic press hole device  
 → Guide device → roll forming machine → hydraulic shear device  
 (including knife) → finished product rack



### 三、Plate drawing as below:

## Metal part Drawing:



## 四, Machines List

### 一) 2 in 1 Uncoiler straightener

1、 Type: Manual Expansion

2、 Parameter

1) Passive discharge

2) Coil weight: < 2T

3) Coil inner D. :  $\phi 450\text{mm} - \phi 530\text{mm}$

4) Max. Width. 200mm

5) Thickness .0.4-1.6mm

6) Power. 0.75kw



### 二) , Servo Feeder

3.1 Max. feeding width: 200mm

3.2 Feeding thickness: 0.4-1.6mm

3.3 Motor , 0.85 K W (Yaskawa)

Photo just for reference



三), Hydraulic hole punching system

3.1 Function: Hydraulic punch hole (Mould 1 set)

3.2 Structure: set the length, automatic length measurement, automatic positioning reaches the set distance stop action , hydraulic cylinder driven punching die, stamping automatic shutdown.

3.3 Hydraulic system working pressure: 16MPa

3.4 Hydraulic station: 15KW ( Hydraulic punch hole/shear use same station)

四) Guide device

五) Main Forming machines (for panel 37.2mm & 63.2mm )

6.1 Forming Rack: 12 Pairs, and add Rub-roll, To make sure the surface profile no scratches.

6.2 Side Panel: T.18mm ,A3 steel Heavy duty .

6.3 Rolling speeding: 5-8 m/min.

6.4 Roller material: overall quenching, hardness HRC50-55 °C.

6.6 Motor power: 5.5KW.

6.6 Main Roller :  $\varnothing$  65mm, 45#.

6.7 Equipment base: 30 # H type using welded steel plate.

6.8 Transmission: chain drive.

6.9 Security: across the board with emergency stop buttons, easy to handle emergencies, to ensure that equipment and operator safety. And other gear in the chain and the staff could easily lead to injury transmission section covered with protective cover, to ensure the safety of workers.

Below photo just for reference



六) 、 Follow shear

7.1 Cut style:Hydraulic cut(Non blanking), Machine non-stop can cut product.

7.2 Knife material: Cr12, quenching hardness of up to HRC56-58 degrees.

七) 、 Collect rack

八) 、 electrical control system

The entire line imported PLC control, LCD touch screen, man-machine interface. People interact with the PLC. Operator setting the program to run automatically (programmable control) and control process monitoring, production line operator control and modify the control parameters, and real-time monitoring the equipment status & parameters and fault indication. Workpiece length digital setting, adjustable length can be adjustable as well. Real-time monitoring of equipment operating status and fault indication.

Operation manual / automatic two styles. With manual and automatic switching function: In the manual mode, can be stand-alone operation, easy maintenance; In automatic mode, carry out full production run, in order to start; across the board with emergency stop buttons, easy to handle emergencies, to ensure that equipment and operating personnel Safety.

\*\* The main components of the brand:

PLC control system: Siemens

Inverter: Siemens

Encoder: Omron

Touch screen: Siemens

Some of components are Schneider brand devices.

**Devices:**

No.	Machine name	QTY	REMARK
1	2 in 1 uncoiler straightener	1	
2	Servo Feeder	1	
3	Hydraulic machine	1	With 1 mould
4	Guide device	1	
5	Forming machine	1	
6	Follow Shear	1	With 1 knife
7	Collect rack	1	
8	Control system	1	

**Remark:**

- 1, Superda offer the testing material in China
- 2, Superda will send the produced metal sample to client confirm.
- 3, If buyer need China supplier to Poland install the machine, The round trip airfare and room & board fee should be borned by user.

