

Custom Roll Forming machine

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一、Technical parameters

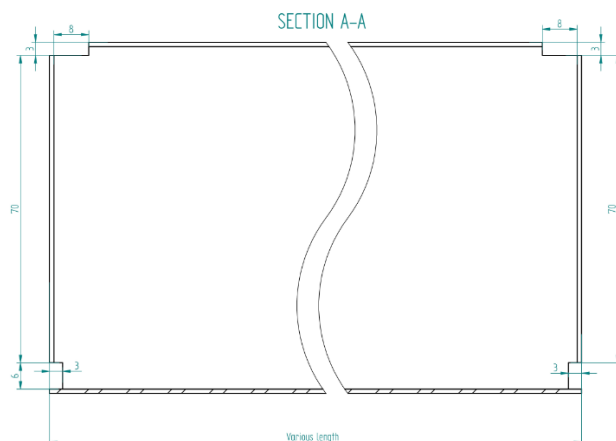
No.	ITEM	PARAMETER	REMARK
1	MATERIAL	Type	
		T. (mm)	1.0mm
		Yield Strength (Mpa)	G300
2	Forming product Width	80mm	
3	Forming speed (m/min)	3-5m/m	
4	Forming main power (KW)	5.5 KW	FYR
5	Hydraulic power (KW)	7.5 KW	FYR
6	Voltage	AC415V, 50Hz, 3P	

二、process

2 in 1 Uncoiler Straightening → servo feeder → Hydraulic press breach device → Guide device → roll forming machine → shear device (including bend) → finished product rack

三、Plate drawing as below:

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. : ϕ 450mm- ϕ 530mm

4) Max. Width. 200mm

5) Thickness .0.4-1.6mm

6) Straightener roller :7 pcs

8) Power. 1.5kw



Photo just for reference

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 breach (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: 7.5KW (Hydraulic punch hole/shear use same station)

四) Guide device

五) Main Forming machines

6.1 Forming Roller: 10 stations, 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: 3-5 m/min。

6.4 Roller material: #45, overall quenching, hardness HRC55-60 °C.

6.5 Motor power: 5.5KW。

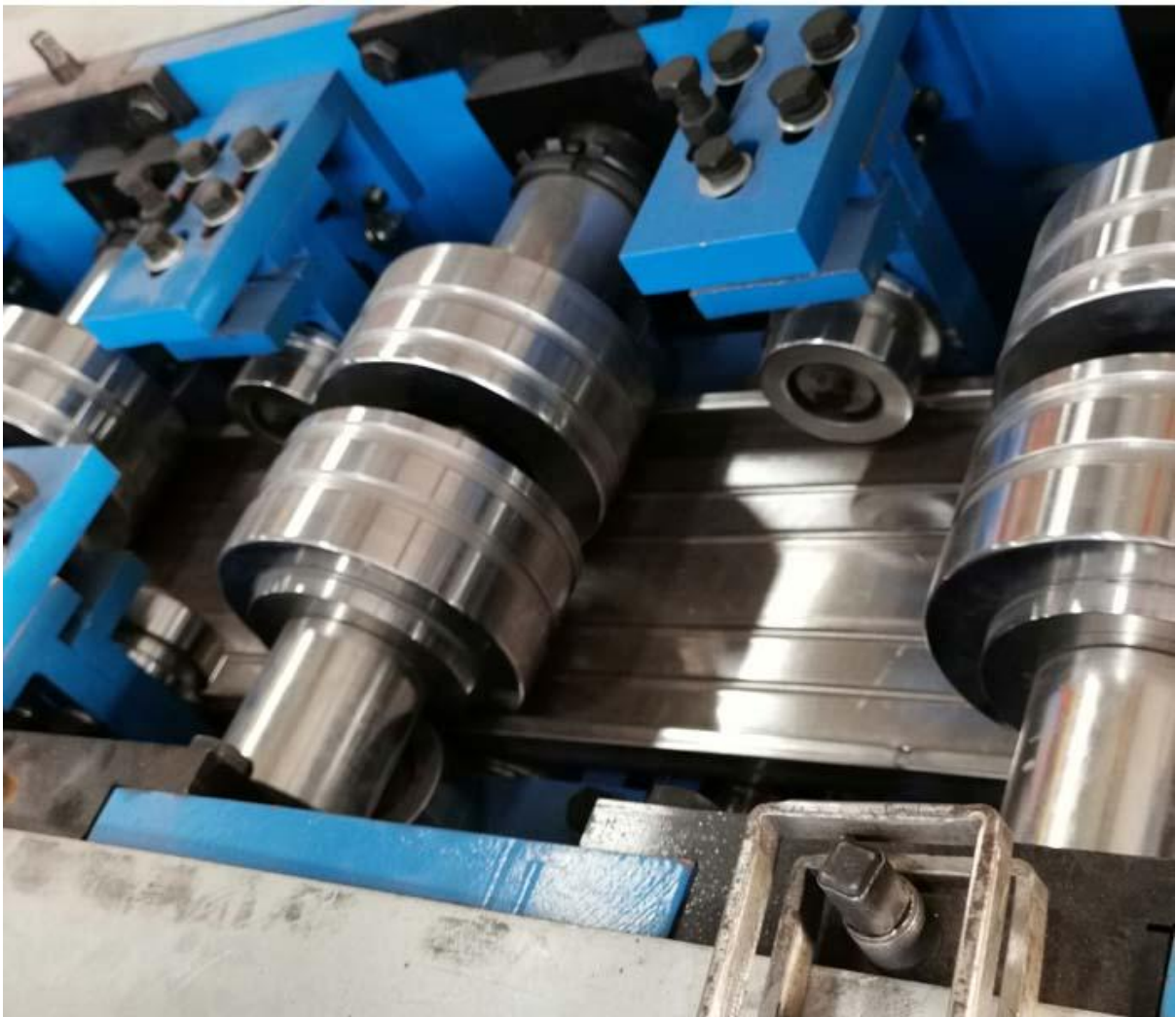
6.6 Main Roller : \varnothing 65mm, 45 #。

6.7 Equipment base: 400 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.

Photo just for reference



六)、Hydraulic Follow shear

Follow shear

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

八)、Flat collect rack

十) 、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: Delta

Encoder: Omron

Touch screen: Weinview

Some components are Schneider brand devices.

Devices:

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

Brand

No.	Name	manufacturer
1	Motor & Reducer	Domestic brands
2	The main key bearing	Domestic brands
4	PLC Systems	Delta
5	Low-voltage electrical	Schneider
6	Encoder	Omron
7	touch screen	Veinview
8	Hydraulic system	Domestic brands

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