



**LAROSA**  
Hardware & Equip. Co. L.L.C  
Machinery Consultant & Supplier Since 1996

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Industrial Area 2,  
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## FIRE DAMPER FRAME INTEGRATED DESIGN AUTOMATIC ROLL FORMING MACHINE

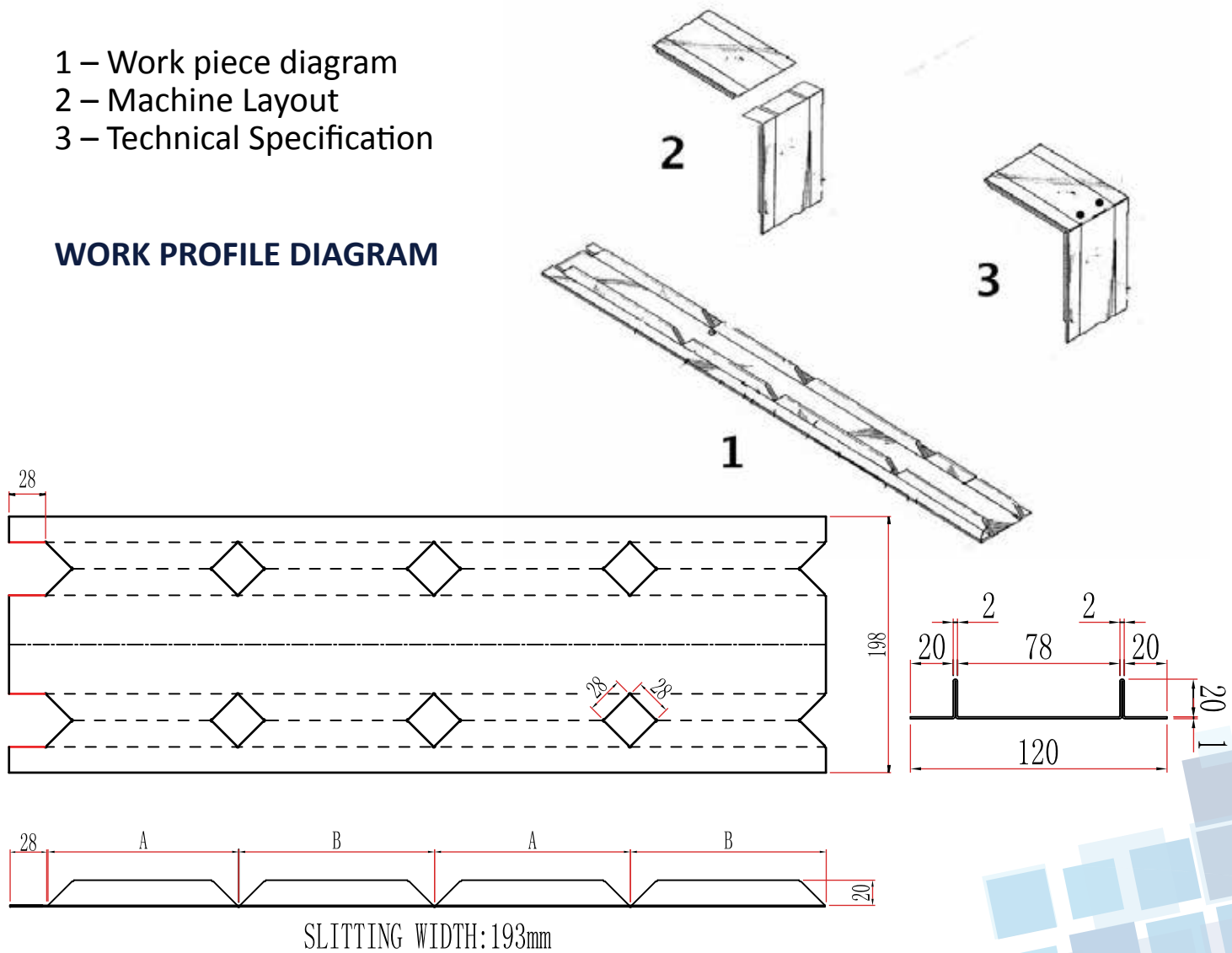
Model: FD-IF120



### CONTAINS

- 1 – Work piece diagram
- 2 – Machine Layout
- 3 – Technical Specification

### WORK PROFILE DIAGRAM



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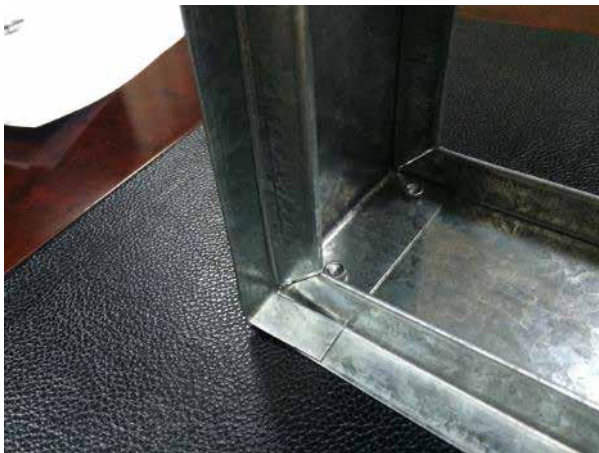


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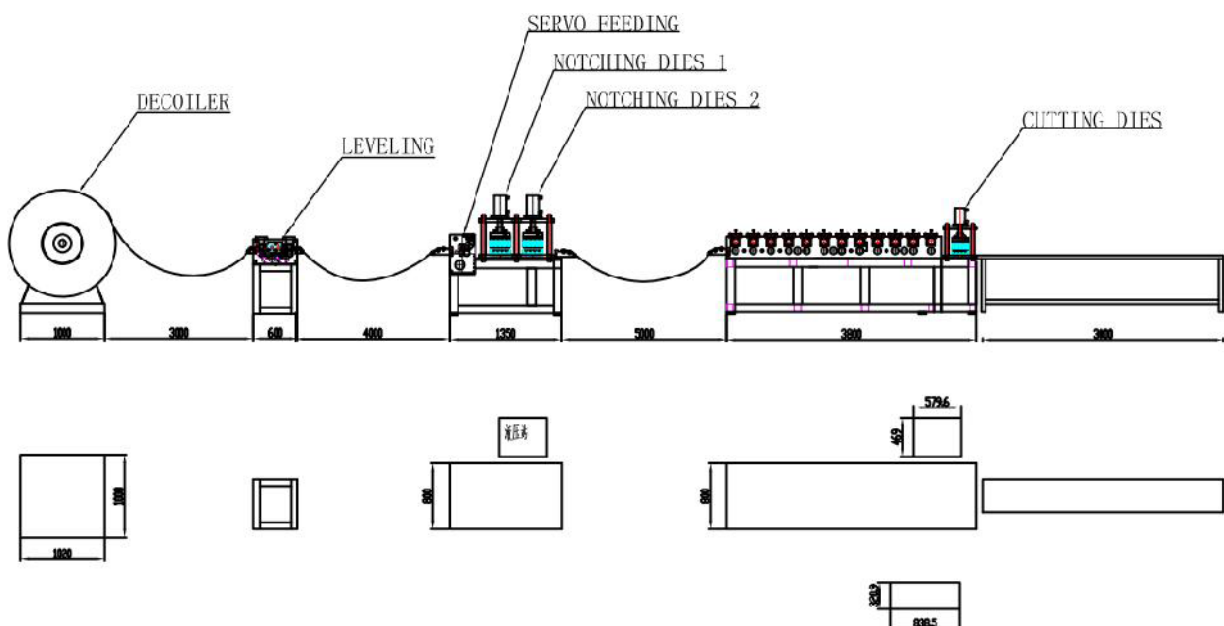
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## WORK PROFILE SAMPLE



## MACHINE LAY OUT



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Machine Name		Explain	Quantity	Motor(KW)
De-coiler		Manual Expanding	1 Set	Manual
Leveling System		9 Rollers	1 Set	2.2
Punching Sytem	Servo Feeding		1 Set	1.3
	Punching - 1	The Middle of punching flanging part	1 Set	5.5
	Punching - 2	Punching head of the flanging part	1 Set	
Main Roll Forming Machine			1 Set	5.5
Hydraulic Cutting System			1 Set	4

## TECHNICAL SPECIFICATION

### 1. EQUIPMENT TECHNIQUE REQUIREMENT

#### 1.1 Equipment technique requirement

1.1.1 Equipment floor space: 23×3.0×2.5 (L×W×H) meter.

1.1.2 Equipment feeding material the orientation: The left side enter and right leave.

1.1.3 Voltage: 380V, 50Hz, 3phase.

1.1.4 Hydraulic oil : NO: .46#.

1.1.5 Gear oil: 18# Hypoid dear oil.

#### 1.2 Equipment main technical parameters

1.2.1 Raw material width: around 196 mm

1.2.2 Material thickness: G.I=0.7~1.0mm, SS=0.8(Maximum)

1.2.3 Material: Galvanized and stainless sheet

1.2.4 Production speed: around 6M/min

1.2.4 Production length: ≥3000mm

1.2.5 Equipment total installed capacity: Around 20KW

### 2. ROLL FORMING PRODUCTION SCOPE

2.1 This rollforming machine can be make the thickness from 0.8mm to 1.2mm

### PARAMETERS OF MAIN EQUIPMENT

#### 1 - DE-COILER

Material width : ≤250 mm, Material thickness≤2.0mm;

Inner diameter : ϕ480-520 mm;

Outer diameter : ϕ1200mm;

Max. Load capacity : ≤2T

#### 2 - LEVELING SYSTEM

Use 9 roller leveling,

Power 2.2 kW,

Speed: 10M/min



### 3 - SERVO FEEDING SYSTEM

#### BNC-30TECHNICAL PARAMETERS

BNC - 300	
The feed shaft diameter	φ60mm
Measuring diameter of shaft	φ60mm
Maximum feed plate of width	≤300mm
Maximum feed plate of thickness	≤2.5mm
Maximum feed speed	≤40m/min
Feeding and blanking step length tolerance	±0.20mm
Feed products overall length tolerance	±0.25mm
Servo motor power/brand	1.3KW/Japan Yaskawa
TransmissionSynchronous	wheel / gear
Length measuring encoder	ROUNDSS 2500P

### 4- NOTCHING, PUNCHING HOLE AND CUTTING

Structure	:	hydraulic punching structure, the welded steel frame, has good inflexibility
First notching dies	:	2 sets
First punching die	:	1 set
After forming notching dies	:	2 sets
After forming cutting die	:	1set

### 5 - MAIN ROLLFORMING MACHINE

Forming steps: 14 group  
Forming framework: use the wall type side plategear drive.  
Side wall thickness: 25mm  
Max material width: ≤196 mm  
Min material thickness: 0.7 mm  
The roll shaft diameter: φ48 mm  
Roller material: Cr12MoV, the quenching hardness, HRC58-62°  
Use of double bearing design, bearing type 6208  
The main drive motor uses 5.5kw frequency conversion motor.

### 6 - CUTTING SYSTEM

- ModalityHydraulic cutting
- Design featureafter cutting system design in the forming machine, the cutting Length can be set.



## 7 - RUN-OUT TABLE

Framework: platform typewithout power

## 8 - ELECTRICAL CONTROL SYSTEM

1-The whole line adopts PLC control, LCD touch screen display and man-machine interface software. (Interaction between workers and PLC.)

The operator can do the following

- The setting program (PLC)
- Monitoring the control process,
- Modify the control parameters,
- The length of the workpiece digital setting,
- The length of the workpiece adjusting.
- Running state real-time monitoring equipment and fault indication.

2- Mode of operation: manual / auto two. With manual, automatic switching function: in the manual mode, can be stand-alone operation, convenient repair; in the automatic mode, all production and operation, the start up sequence; along with the emergency stop button, easy to handle emergencies, to ensure the safety of equipment and personnel.