

# TECHNICAIL INFORMATION OF MANUAL BUSBAR MACHINE

PART 1: BASIC INFORMATION		
	Model No.	MOTI-30-3M
	Working Units	
	Bending Unit, Punching Unit,	
	Cutting Unit	
	Processing Materials	
	Copper/Brass Busbar, Aluminum,	
	Steel sheet	
	Control System	Manual Control
		System
	Warranty Time	One Year
	Working Voltage:	
	We can customize it for you for	
-	free, according to your local working	
	voltage.	

#### Main Purpose:

The main function of this machine is to process copper and aluminum busbars of different specifications.

Simply use the corresponding processing unit to cut and punch copper and aluminum rows conveniently and quickly (round holes, long round holes), flattening, bending, embossing and other processing.

By changing the mold, it can also complete the flattening, twisting, pressing the cable joint, and cutting, flattening, punching, bending and other special processing of the copper rod.





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#### PART 2: Introduction of Working Units

#### **1. BENDING UNIT**

# 1. Adopts a double-layer workbench, which can realize the three-station work at the same time without mutual interference.

A. Up to 40MM thickness stainless steel was used.

B. Milling and Drilling 6 Round Holes to install the Horizontal Bending Molds.

C . The table top is treated by Electroplating Process and Flange Technology Process

to ensure long-term use without rust.

















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#### # 2. Adopts angle reference representation Balance bending



The bending unit is a **closed bend** with a height of 160/200/250mm. High precision, uniform force during processing, and the same vertical and downward angle after bending.





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#### **Vertical Bending**

A . Bending for thin (Narrow) copper / aluminum



B. Bending for WIDE copper / aluminum



















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### **Horizontal Bending**



**U** Shaped Bending



















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### Z Shaped Bending



Embossing











R

Α







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#### **Twisting Bending (No-Standard Accessories)**



Changing different bending molds can achieve the different bending shaped.





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# **PUNCHING UNIT**

#### #1. Toothed Six-mode Monolithic Turntable

A. It won't loosen and the line of sight is good. The absolute alignment of the upper and lower molds is ensured, the concentricity of the mold is improved, and the service life is prolonged.

B. 2. Six-mold position (four Round Holes, two Oval Holes), no need to change the mold frequently.

















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#2. Three kinds of **Punching Positioning Methods**: positioning by the ruler (Stopper), positioning of the positioning needle, and positioning of the light projection. A. **Positioning by the ruler (Stopper)** 

By added punching position, the machine can **locate x axis and y axis** mechanical double direction location. that makes workers need not to cross lines and make punching marks, then improving the operating efficiency and accuracy of punching.

B . After adjusting the position of the punching block, batch processing saves time and effort and improves work efficiency.







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#### **B**. Positioning of the positioning needle



#### #3 . Punching Molds

A . Punching mold / Shearing mold material: Cr12MoV (chromium 12 molybdenum vanadium)

Compared with Cr12 steel, Cr12MoV has two elements of molybdenum and vanadium, which improves the toughness and wear resistance of steel.

When making metal cold stamping dies, the molybdenum vanadium steel is used to make high-strength cutting edges and stretching, which is longer than the mold life.

















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B. Busbar Machine with standard punching dies

There are 8 sets of punching dies are included in the machine purchase price.

The size of punching dies:

Round hole of punching die:  $\Phi7$ ,  $\Phi9$ ,  $\Phi11$ ,  $\Phi13$ ,  $\Phi15$ ,  $\Phi17$ ,  $\Phi19$ ,  $\Phi21$  (mm) Oval hole of punching die: 7\*11(mm), 9\*13(mm), 11\*15(mm), 13\*18(mm), 17\*21 (mm)

Please select 8 sets of them.

In addition, we also can customise the punching dies' size for you. Such as,round,oval,square or alien.

















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# **CUTTING UNIT**

#1. Using Frustration Shearing, the workpiece is flat after cutting, no corners, no waste, no burrs.



#2. The pair of shearing knives (Tools) is equal to two pairs. The knives have blades on both sides and can be used for changing faces. The adjustment margin is large, and the blade can be used after grinding on the grinding machine to reduce the cost of the later tool change.

