



# Product catalog

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ELECTRIC CONTROL EQUIPMENT

## About us

We always put customer satisfaction in the first place, accumulated years of rich experience, professional product R & D team, high-quality



### Company introduction

CHALLENGER GL as a professional provider in the field of fluid control, serves for petroleum, chemical, shipbuilding, automobile, aviation, marine, military etc. industries and related laboratories in universities and research institutes. CHALLENGER GL has all kinds of fluid conveying equipment and pressure test and control equipment.

We specialize in high-pressure system engineering consulting, design manufacture, installation, debugging and maintenance services. We adopt advanced pressurization technology in the world, with hydraulic pressure up to 640 MPa and pneumatic pressure up to 210 MPa.

### Service items



CHALLENGER GL company is the manufacturer of auto hose test machine. Its main products include: auto hose pulse test bench, hose flexibility test machine, hose burst test machine, hose pressure withstand test machine and other auto parts pressure test machines.

CHALLENGER GL oil-free lubrication gas boosters include air boosters, nitrogen booster, oxygen booster, helium booster, hydrogen booster, argon booster, etc.

According to customers' requirements, the following can be ordered: air tightness pressure test system, hydraulic pressure test system, hydraulic hoses, joints, valves, pipe fittings, cylinders, pressure vessels, sensors, instrument pressure test system, hydraulic hoses, joints, valves, pipe fittings, cylinders, pressure vessels, sensors, instrument pressure test system, pressure test and monitoring system and pressure data collecting and processing system.

brand image construction, and reasonable organizational structure are the reasons why customers choose us.



### Company advantages

- ① CHALLENGER GL company has always adhered to the concept of high-quality service, with an agile, efficient, experienced and dynamic team. Odimet people regard the quality of products as their life, and regard products as their own character, through continuous R & D and innovation, the product system is more mature and perfect.
- ② CHALLENGER GL company introduces foreign advanced product technology, combines with the current situation of China's pressure detection industry to improve products. Most of the equipment parts are imported products, It has established long-term cooperation with FESTO, IFM, Schneider and ASTON, these world leading famous brands provide high quality accessories for CHALLENGER GL, so that the company's products have a reliable quality assurance.
- ③ CHALLENGER GL company has been focusing on the cultivation and development of professionals, with a high-quality professional team, From product development, mechanical design, equipment testing, technical services are completed by professional and technical personnel, Established a complete after-sales service system, so that customers buy products, there is no worry.



## CNC Busbar Processing Machine



### Product description

This series CNC busbar processing machine has three units: punching, shearing and bending. It is easily to adjust each unit to shorten the processing time and improve the production efficiency.

The bending unit uses the imported PLC control system. which have stable system and high precision. it is used to process copper and aluminum busbars in different specification. By relative operation unit if can easily and quickly do all kinds of processing to copper and aluminem busbar, such as shearing, punching (circular hole and oblong hole), flat/honrizontal bending, vertical bending and knurling. Change different mold to do special processing to copper bar, such as flat press, embossing, cable connector process, and can do cutting, flat crushing, pushing, and bending.

### Technical parameter

Function	item	MX-303SK	MX-503SK
Punching	Max.strength (kn)	300	500
	Diameter range (mm)	φ 4.3~ φ 25	φ 4.3~ φ 34
	Max.thickness (mm)	12	16
	Max.width (mm)	150	250
Shearing	Max.shearing thickness (mm)	12	16
	Max.shearing width (mm)	150	250
Honrizontal bending	Max.strength (mm)	300	500
	Max.width (mm)	150	250
	Max.thickness (mm)	12	16
Vertical bending	Max.width (mm)	100	120
	Min.angle (degree)	90°	90°
Dimension (mm)	( mm )	1500*1300*1200	1800*1500*1300
Main motor power (Kw)	( kw )	3*4kw	3*5.5kw
Weight (kg)	( kg )	1250kg	1750kg
CNC precision	Bending precision	±1°	±1°
	Repeat Bending precision	± 0.3°	± 0.3°

## Main characteristics

### First point

The shearing unit uses sharp shearing, the incision interface is flat, no droop and burrs and waste, beautiful shape.

### Second point

The punching unit adopts the tooth shaped six die position integral turntable, which ensures the absolute alignment of the upper die and the lower die, improves the concentricity of the die and prolongs the service life of the die.

The rotary table adopts tooth structure, which has good sight and high strength. Workers do not need to change the mold frequently, the labor intensity is greatly reduced, the use is more convenient and fast, and the production efficiency is significantly higher than that of the traditional punching unit.

### Third point

The bending unit adopts an independent worktable, and the three processing units work at the same time without affecting each other.

The flat bending and vertical bending can be finished by changing the die. The bending angle is controlled by imported PLC. The thickness and angle of copper bar can be input directly on the CNC touch screen. The height and side length can also be input to directly process the required work (such as z-bend). The bending accuracy is ± 1 ° and the repetition accuracy is ± 3 ° . The user can input the processing data in advance, and the system can call out the data for processing according to the input information; the processed workpiece field data can be stored in the system at any time, and can be called out for reuse.

### Fourth point

The machine is equipped with four casters, which can be easily moved to the required place. There are two operation modes of manual button and foot switch, the operation is simple, and the workers can use and operate it easily.

According to customer requirements, different molds or fixtures can be configured to complete special shape processing.





Turret Double Table Busbar Processing Machine



Product description

This series CNC busbar processing machine has three units: punching, shearing and bending. It is easily to adjust each unit to shorten the processing time and improve the production efficiency.It is used to process copper and aluminum busbars in different specification. By relative operation unit if can easily and quickly do all kinds of processing to copper and aluminem busbar, such as shearing, punching (circular hole and oblong hole), flat/honrizontal bending, vertical bending and knurling. Change different mold to do special processing to copper bar, such as flat press, embossing, cable connector process, and can do cutting, flat crushing, pushing, and bending.

Technical parameter

Function	item	MX-303E	MX-503E
Punching	Max.strength (kn)	300	500
	Diameter range (mm)	φ 4.3~ φ 25	φ 4.3~ φ 34
	Max.thickness (mm)	12	16
	Max.width (mm)	150	250
Shearing	Max.shearing thickness (mm)	12	16
	Max.shearing width (mm)	150	250
	Max.strength (mm)	300	500
Horizontal bending	Max.width (mm)	150	250
	Max.thickness (mm)	12	16
	Max.width (mm)	100	120
Vertical bending	Min.angle (degree)	90°	90°
	Dimension (mm)	( mm ) 1750*1350*1260	1850*1500*1400
Main motor power (Kw)	( kw )	3*4kw	3*5.5kw
Weight (kg)	( kg )	1400kg	1950kg

Main characteristics



First point

The shearing unit uses sharp shearing, the incision interface is flat, no droop and burrs and waste, beautiful shape.



Second point

The punching unit adopts the tooth shaped six die position integral turntable, which ensures the absolute alignment of the upper die and the lower die, improves the concentricity of the die and prolongs the service life of the die.  
The rotary table adopts tooth structure, which has good sight and high strength. Workers do not need to change the mold frequently, the labor intensity is greatly reduced, the use is more convenient and fast, and the production efficiency is significantly higher than that of the traditional punching unit.



Third point

The bending unit adopts an independent worktable, so that the three working positions can work at the same time without affecting each other. The whole unit adopts closed frame structure, which makes it more uniform in flat bending and embossing, greatly improves the repeated positioning accuracy in mass production, and extends the service life.

Fourth point

There are two operation modes of manual button and foot switch, the operation is simple, and the workers can use and operate it easily. According to customer requirements, different molds or fixtures can be configured to complete special shape processing.

## CNC Open Busbar Processing Machine



### Product description

This series CNC busbar processing machine has three units: punching, shearing and bending. It is easily to adjust each unit to shorten the processing time and improve the production efficiency.The bending unit uses the imported PLC control system. which have stable system and high precision. it is used to process copper and aluminum busbars in different specification. By relative operation unit if can easily and quickly do all kinds of processing to copper and aluminem busbar, such as shearing, punching (circular hole and oblong hole), flat/honrizontal bending, vertical bending and knurling. Change different mold to do special processing to copper bar, such as flat press, embossing, cable connector process, and can do cutting, flat crushing, pushing, and bending.

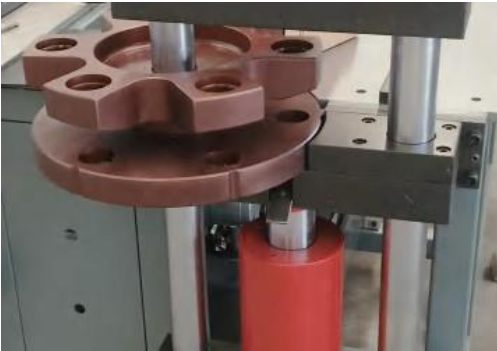
### Technical parameter

Function	item	MX-303SK	MX-503SK
Punching	Max.strength (kn)	300	500
	Diameter range (mm)	φ 4.3~ φ 25	φ 4.3~ φ 34
	Max.thickness (mm)	12	16
	Max.width (mm)	150	250
Shearing	Max.shearing thickness (mm)	12	16
	Max.shearing width (mm)	150	250
Honrizontal bending	Max.strength (mm)	300	500
	Max.width (mm)	150	250
	Max.thickness (mm)	12	16
Vertical bending	Max.width (mm)	100	120
	Min.angle (degree)	90°	90°
Dimension (mm)	( mm )	1500*1300*1200	1800*1500*1300
Main motor power (Kw)	( kw )	3*4kw	3*5.5kw
Weight (kg)	( kg )	1250kg	1750kg
CNC precision	Bending precision	±1°	±1°
	Repeat Bending precision	± 0.3°	± 0.3°

## Main characteristics

### First point

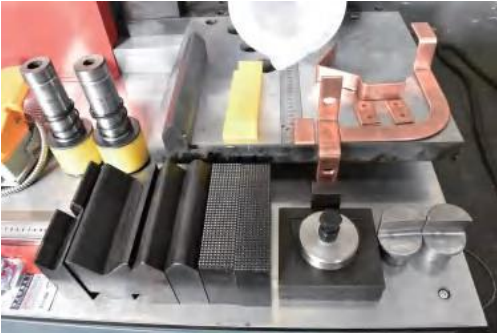
The shearing unit uses sharp shearing, the incision interface is flat, no droop and burrs and waste, beautiful shape.



### Second point

The punching unit adopts the tooth shaped six die position integral turntable, which ensures the absolute alignment of the upper die and the lower die, improves the concentricity of the die and prolongs the service life of the die.

The rotary table adopts tooth structure, which has good sight and high strength. Workers do not need to change the mold frequently, the labor intensity is greatly reduced, the use is more convenient and fast, and the production efficiency is significantly higher than that of the traditional punching unit.



### Third point

The bending unit adopts an independent worktable, and the three processing units work at the same time without affecting each other. The flat bending and vertical bending can be finished by changing the die.

The bending angle is controlled by imported PLC. The thickness and angle of copper bar can be input directly on the CNC touch screen. The height and side length can also be input to directly process the required work (such as z-bend). The bending accuracy is  $\pm 1^\circ$  and the repetition accuracy is  $\pm 3^\circ$ . The user can input the processing data in advance, and the system can call out the data for processing according to the input information; the processed workpiece field data can be stored in the system at any time, and can be called out for reuse.



### Fourth point

There are two operation modes of manual button and foot switch, the operation is simple, and the workers can use and operate it easily. According to customer requirements, different molds or fixtures can be configured to complete special shape processing.



## Multi-station Busbar Processing Machine



### Product description

This series of bus processing machine has three units: punching, shearing and folding. The working stroke of each processing unit can be easily adjusted to shorten the processing time and improve the production efficiency. The main function is to process different specifications of copper and aluminum bus bar. With the corresponding processing unit, it is convenient and fast to cut, punch (round hole, long round hole), fold flat bending, vertical bending, embossing and other processing of copper and aluminum bar. By changing the die, it can also complete the special processing of flattening, twisting twist, pressing cable joint, cutting, flattening, punching, bending and so on.

### Technical parameter

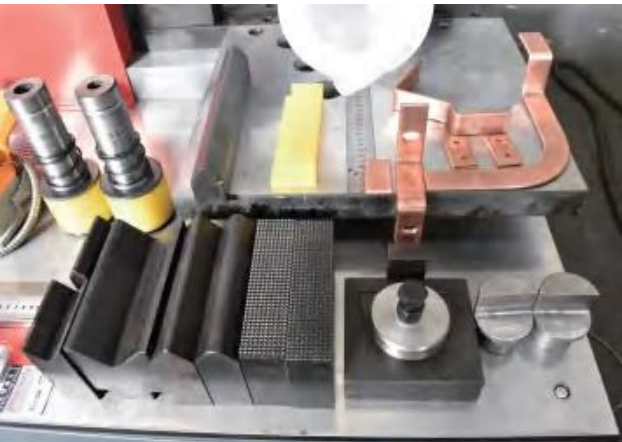
Function	item	MX-303D	MX-303S	MX-503S
Punching	Max.strength (kn)	300	300	500
	Diameter range (mm)	φ 4.3~ φ 25	φ 4.3~ φ 25	φ 4.3~ φ 34
	Max.thickness (mm)	12	12	16
	Max.width (mm)	150	150	250
Shearing	Max.shearing thickness (mm)	12	12	16
	Max.shearing width (mm)	150	150	250
Honrizontal bending	Max.strength (mm)	300	300	500
	Max.width (mm)	150	150	250
	Max.thickness (mm)	12	12	16
Vertical bending	Max.width (mm)	100	100	120
	Min.angle (degree)	90°	90°	90°
Dimension (mm)	(mm)	1500*1300*1200	1500*1300*1200	1800*1500*1300
Main motor power (Kw)	(kw)	1*4kw	3*4kw	3*5.5kw
Weight (kg)	(kg)	1050kg	1200kg	1750kg

## Main characteristics



### First point

The shearing unit uses sharp shearing, the incision interface is flat, no droop and burrs and waste, beautiful shape.



### Second point

The bending unit adopts closed integral frame structure, which makes it more uniform in flat bending and embossing, greatly improves the repeated positioning accuracy in mass production, and extends the service life. The bending unit adopts horizontal processing, which is more safe and convenient in processing.

### Third point

S-type can work with three people at the same time without affecting each other, and the work efficiency is significantly improved; D-type can only work with one person in sequence.

### Fourth point

There are two operation modes of manual button and foot switch, the operation is simple, and the workers can use and operate it easily. According to customer requirements, different molds or fixtures can be configured to complete special shape processing.



### Fifth point

The punching unit is a square integral structure with good sight and high strength. The die and die frame adopt double guide positioning to ensure the absolute alignment of the upper die and the lower die, improve the concentricity of the die and prolong the service life of the die.

## Combined Busbar Processing Machine



### Product description

This machine is designed and manufactured with reference to foreign advanced products and combined with the actual situation in China in order to improve work efficiency and save working time. It is suitable for the workshop and the field construction of power transmission and distribution work, as well as the use of power distribution cabinet and switch cabinet and other electrical equipment manufacturers. The machine has the functions of cutting, punching and bending.



Technical parameter

Input voltage	Individual 50Hz,220V	
The amount of work pressure	630Kn	
Cutting capacity	Copper bar / aluminum bar	150mm*10mm
Punching capacity	Copper bar / aluminum bar	150mm*10mm
Bending capacity	Copper bar / aluminum bar	150mm*10mm
Vertical bending range	Copper bar / aluminum bar	125mm*10mm
Flow table size	700mm(L)*700mm(W)*1000mm(H)	
Standard punching mold	φ 10.5   φ 13.8   φ 17   φ 20.5	
Machine weight	170kg	

## Hydraulic Cutting Machine

### Product description

It is a specialized machine for cutting copper and aluminium busbar, cutting speed fast, flat and non-deforming cutting interface, on wasteafter side cutting, it is used to cut copper and aluminium busbar at field operation or factory, Hand pump, foot pump and electric motor are all optional.

Model	Plate thickness(mm)	Output (T)	Deep throat (mm)	Weight (kg)	Mold configuration
CH-60	10	31	95	13.5	φ 10.5   φ 13.8   φ 17   φ 20.5
CH-70	12	35	115	28	φ 10.5   φ 13.8   φ 17   φ 20.5



## Hydraulic Punching Machine

### Product description

It is a specialized machine for punching busbar and used for working aloft, cutting speed fast, no burr, precise location, no deviation in punching precision. Hand pump, foot pump and electric motor are alloptional.

Model	Output (T)	Width (mm)	thickness (mm)	thickness (mm)	thickness (mm)
CWC-150	15	150	10	410*275*180	26
CWC-200	20	200	12	430*340*200	35



## Hydraulic Bending Machine

### Product description

It is a specialized machine for horizontal/level bending the copper and aluminium busbar, CB-150D is a flip-open type. When bend copper busbar to N or L shape, location pin can be pullet out and the mold is open up, it is easy to get out of the shaped busbar.

Model	Board width (T)	Plate thickness (mm)	Output (T)	Weight (kg)
CB-150D	150	10	16	17.5
CB-200A	200	12	20	24



RX Series of Small Transformer Winding Machine



Transformer coil winding machine

Product description

This machine is suitable for the power transformer coil and coil winding equipment.

Main characteristics

- >> Brake motor is used to save energy and electricity
- >> High torque at low speed and automatic braking when power is off
- >> Variable frequency speed regulation + manual shift
- >> Six digit digital display of electronic counting (automatic memory in case of power failure, automatic judgment and counting in case of positive and negative rotation)
- >> High torque at low speed and automatic braking when power is off



Technical parameter

Model	RX-200
Capacity (KVA)	10-630
Center height (mm)	850
Faceplate diameter (mm)	200
The main (mm)	700
Spindle speed (r/min)	0-260
Maximum load (Kg)	200
Motor power (kw)	1.5
Dimensions (mm)	1300*600*1500

Automatic transformer coil winding machine



Model	RX-1 (0.5T)	RX-2 (1T)	RX-3 (2T)	RX-03	RX-05
Center height (mm)	1000	1000	1000	1200	1200
Faceplate diameter (mm)	200	260	300	300	400
The main (mm)	1100	1100	1300	1300	1300
Spindle speed (r/min)	0-180	0-100	0-80	0-50	0-30
Line length (mm)	1000	1200	1250	1300	1300
Maximum load (kg)	500	1000	2000	3000	5000
Motor power (kw)	3	4	5.5	5.5	7.5
Dimensions (mm)	2500*600*1400	2800*600*1400	2800*600*1400	3600*690*1500	4000*700*1600
Power supply	Three phase four wire 380V				
Speed control mode	Frequency control				
Counting mode	Six digit display (positive and negative automatic judgment counting)				
The weight of the equipment (kg)	350	500	800	1200	1500