

JTM 38CNC-2A-1S

Technical parameters of automatic high speed pipe bending machine

一 Equipment description

High performance automatic pipe bending machine, the use of man-machine dialogue function control, multi-group program, multi-angle setting, so that your operation and program setting more simple. The machine has the characteristics of easy operation, stable performance, high efficiency, high safety factor, is the ideal equipment for pipe fitting processing industry.

二 Product structure overview

JTM 38CNC-2A-2S Tube bending machine is servo feeding, servo stereo Angle and hydraulic bending drive, bending Angle, feeding precision, rotating precision, hydraulic control clamping, guiding, mandlet and other independent control points, when bending the pipe arm, under the control of the hydraulic system, clamping, guiding, mandlet and bending parts coordinate. To achieve high quality bending, it is an economical and practical universal equipment.

The equipment can bend the metal pipe fittings with or without core. The machine has the function of moving and linkage, which is easy to use and maintain. Widely used in shipbuilding, boiler, chemical industry, automobile manufacturing and other industries.

三 The structural characteristics of the product

1、 the structure of the machine: 1) bed part 2) feeding part 3) tube part 4) die changing part 5) main transmission part 6) clamping part 7) guide part 8) mandrel mechanism 9) hydraulic system 10) electrical system

11) die part 12) foundation part

2、Bed part: bed part for bending welding structure, is the carrier of other parts, the structure of force balance, make the whole machine appearance beautiful and generous

3、The feeding part: the feeding part is any linear distance between the first bend and the second bend 0.1-3000mm in length. The feeding is set at will, and the accuracy is repeated to 0.1mm.

4、Rotary part: the rotary part of the three-dimensional space Angle 0.1-360 ° arbitrary setting, accuracy can be repeated up to $\pm 0.1^\circ$.

5、The main drive part: the main drive part is driven by hydraulic cylinder to realize the rotation of the bending arm and bend the pipe. At the same time, the slow bending Angle of the bending pipe is controlled by the fast and slow bending flow of the hydraulic belt of the bending arm. (The Angle of fast and slow bending can be adjusted freely in the control screen).

6、Clamping part: The clamping mechanism adopts floating clamping up and down, so as to feed pipe fittings. Bending arm bends without interference, and the clamping force is large, the pipe fittings are not easy to slip. The clamping pipe rotates with the spindle, so that the mold and pipe fittings rotate the bending pipe at the same time.

7、Guiding part: guiding mechanism holds the straight part of the pipe in the process of bending the pipe. In the process of bending the pipe, the pipe moves forward together with the guiding mold and can be used for repeated forward auxiliary pushing the pipe. The clamping action of the clamping guide mechanism is realized by a connecting rod mechanism driven by the hydraulic cylinder, and the throttle valve can adjust the flow of the cylinder to synchronize with the bending pipe.

8、Mandrel mechanism: The mandrel mechanism is located at the back of the bed, the mandrel mechanism can be adjusted by the screw drive, the

mandrel movement is realized by the mandrel cylinder, and the lead distance of the mandrel can be adjusted by an adjusting nut, and the mandrel support device is installed on the bed to support the mandrel and pipe fittings, such as the mandrel without bending, the mandrel will be removed.

9、Hydraulic system: The main control components of the hydraulic system of the machine adopt advanced hydraulic components, the hydraulic system adopts the integrated channel block structure, the hydraulic pipeline activity connection with high pressure hose, and the use of U-shaped quick fitting joint, so as to eliminate the leakage phenomenon of the system, improve the stability of the hydraulic system.

10、Electrical system: The electrical system of the pipe bender is powered by 50Hz and 380V three-phase AC power supply, and the control line is powered by 380/110V control transformer, which is used to control the contactors, intermediate relays and solenoid valves. The main electrical components are manufactured by internationally famous manufacturers, and all the control button switches are installed on the portable operating platform. Through the buttons on the operating platform can be realized in time to bend the pipe core rod, guiding, clamping, bending and other mechanisms of the point and single action, convenient for machine debugging and maintenance.

11、Mold part: The mold of the machine is composed of bending die, moving clamp, guiding pressure die, core and so on. Wrinkle proof plate and soft core head can also be added according to the needs of users and actual bending pipe to improve the bending quality of the pipe.

12、Safety protection: The machine is equipped with emergency stop button all-round 3 places, to ensure the safety of operators.



四 Technical parameter

NO.	Name	unit	JTM 38CNC-2A-1S	remarks
1	Maximum bending pipe diameter	mm	MILD STEEL $\Phi 38 \times 3$ TITANIUM OD 30X1, 2	
2	Maximum bending radius	mm	R250	customizable
3	Minimum bending radius	mm	According to pipe diameter	
4	Maximum bending Angle	Degree	190	
5	Control system		Microcomputer control	
6	Standard core length	mm	4500	

7	Number of bends per pipe fitting	Pcs	20	
8	Hydraulic motor horsepower	Kw	3,75	
9	Feed servo motor	Kw	1.0	
10	Feed reducer	#	120	
11	Angle servo motor	Kw	0.75	
12	Angle reducer	#	90	
13	Maximum feeding length at one time	mm	3000	
14	Maximum pressure	MPa	15	adjustable
15	Hydraulic system control		Electromagnetic directional valve	
16	Tank capacity	L	200	
17	机器重量	Kg	2500	
18	Machine size (length, width and height)	mm	3550×1060×1265	

五 Configuration table

NO.	Name	brand
1	Electromagnetic directional valve	Seven ocean (Taiwan)
2	Overflow valve	Seven ocean (Taiwan)
3	Regulating valve	Seven ocean (Taiwan)
4	inductor	Omron (Japan)
5	seal	dingzing (Taiwan)
6	Proximity switch	Tend (Taiwan)
7	Microcomputer control system	MITSUBISHI JAPAN
8	Machine tool control transformer	Kukawa Group
9	Ac contactor	TECO (Taiwan)
10	Thermal overload relay	TECO (Taiwan)
11	fuse	Schneider
12	motor	Wuxi taihu
13	Feed servo motor	Mitsubishi(Japan)
14	Angle servo motor	Mitsubishi(Japan)
15	Feed reducer	Hubei planet
16	Angle reducer	Hubei planet
17	Feed guide	TBF (台湾)
19	Feed rack	M2.5#

六 Delivery list

No.	Name	quantity	remarks
1	Machine	1	
2	Operating instruction	1	
3	Hexagon wrench	1	
4	Oil can	1	

5	Adjustable wrench	1	
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