

# JSZW1000 bidirectional intelligent folding machine Technical plan

No: JZ/202312



浙江精工智能建材机械有限公司

Zhejiang Jingong Intelligent Building Material Equipment Co., Ltd.

## JSZW1000 bidirectional intelligent folding machine technical plan



### 1. Equipment Overview

The JSZW1000 bidirectional intelligent folding machine is a special equipment designed for the sheet metal processing industry. This equipment is suitable for edge wrapping of roof ridges, eaves, door openings, windows, platforms, as well as bending and processing of various edge trimming and corner wrapping components in steel structure buildings. It can also be used for folding sheet metal in other industries. This machine has the following characteristics:

- A. Adopt upper and lower dual station bending mode.
- B. The clamp and the upper and lower sliding table are driven by hydraulic cylinder and the mechanical synchronous shaft mechanism to improve the synchronization accuracy.
- C. Double pump variable frequency hydraulic system, with pressure compensation, load induction hydraulic system. The whole machine is energy-saving and efficient, and the machine power is less than 1KW.
- D. It can automatically complete the working cycle of positioning, clamping, folding,

relaxing, etc., and can also work manually.

E. The rear clamping adopts flexible multi-servo clamping mechanism, it can fold parallel workpiece and unequal width shaped workpiece. It has the unique rear stop clamping hinge mechanism and can realize three kinds of technology, such as push, clamp and over-range clamp.

F. Using self-developed special control software, the operation interface is simple and easy to operate, and can realize man-machine dialogue programming, work monitoring, production planning control and other functions.

G. It is equipped with high power longitudinal cutting head, and it can slit the sheet of any width, and the slitting mode allows fast programming and execute batch slitter requirements.

H. The position of the upper jaw can be automatically adjusted according to the thin and thick plate and folding Angle.

I. It adopts double hinge folding and turning mechanism, and increases the folding mechanism stiffness to adapt to the folding of thick plate.

J. The folding plate sliding mechanism adopts automatic lubrication system.

K. Replaceable clamp cutter plate, support customer customization.

L. Separate clamping arm deflection forward and backward adjustment.

M. Detachable folding reinforcement beam for folding thick plates.

N. With "step" and "continuous" mode selection.

O. 2 operator foot pedals with key selection.

P. Equipped with multi-directional high-sensitive safety protection measures, the standard

three-direction light curtain and anti-pinch laser protection.

## 2. Technical parameter

### 1.1. Equipment parameter:

| No. | Name                        | Parameter                              | Remark   |
|-----|-----------------------------|--|--|
| 1.  | Folding length              | 10 m                                   |  |
| 2.  | Throat depth                | 1220 mm                                |  |
| 3.  | Folding unit                | 8 pieces                               |  |
| 4.  | Rear clamping unit          | 11 pieces                              |  |
| 5.  | Equipment power             | 33 kW                                  |  |
| 6.  | Hydraulic pressure          | 2×15 kW                                |  |
| 7.  | Power source                | AC380V/50Hz                            |  |
| 8.  | Working temperature         | +5℃ ~+45℃                              |  |
| 9.  | Maximum hydraulic pressure  | 14 MPa                                 |  |
| 10. | Clamping hydraulic pressure | Light load: 8MPa<br>Heavy load: 12 MPa |  |
| 11. | Maximum turning Angle       | 150°                                   |  |
| 12. | Maximum support distance    | 1220 mm                                |  |
| 13. | Minimum support distance    | 10 mm                                  |  |
| 14. | Minimum rear clamp distance | Clamp:15 mm<br>Push:10 mm              |  |
| 15. | Rear clamp speed            | Max. 200 mm/s                          |  |
| 16. | Air source pressure         | 0.6 MPa                                |  |
| 17. | Folding speed               | 6 s                                    | From 0 degrees to 150 degrees, then back to 0 degrees, 1 cycle |

|     |                                |                   |                                      |
|-----|--------------------------------|-------------------|--------------------------------------|
| 18. | Clamp speed                    | 150 mm/s          |                                      |
| 19. | Slit speed                     | 17 s              | 10m board length (1 round trip time) |
| 20. | Slitter fixture offset         | 48 mm             |                                      |
| 21. | Equipment weight               | About 23 T        |                                      |
| 22. | Overall dimensions (L × W × H) | 11700×2120×1975mm |                                      |

## 1.2. Panel thickness parameter

| No. | Raw material                    | Folding (with stiffening beam) | Folding (without stiffening beam) | Slitting |
|-----|---------------------------------|--------------------------------|-----------------------------------|----------|
| 1.  | Low-carbon steel sheet (300Mpa) | 1.6 mm                         | 1.0 mm                            | 1.6 mm   |
| 2.  | Stainless steel sheet           | 1.2 mm                         | 1.0mm                             | 1.2 mm   |
| 3.  | Aluminum sheet                  | 2.0 mm                         | 2.0 mm                            | 2.0 mm   |