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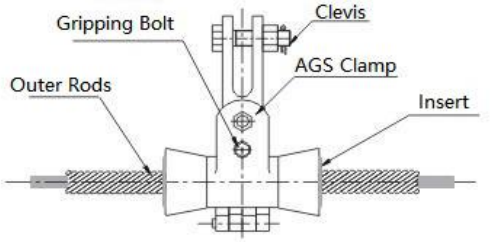
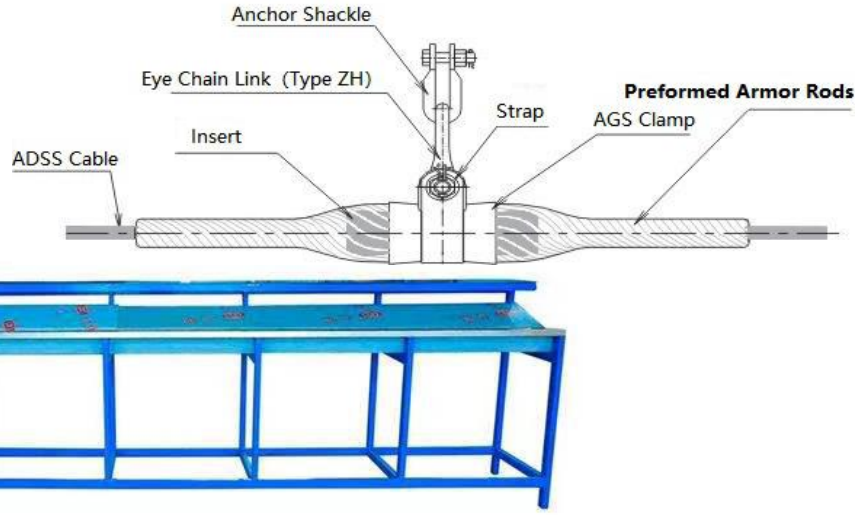
Preformed Armor rods Application for Overhead Transmission Line、Distribution Line

About Artisan MACHINERY:





We, Artisan industry trading (Nantong) CO.,LTD. is one of very few professional Company that engaged in Preformed Armor rods Manufacturing Production Line、Preformed tension clamp Machines、Preformed ADSS & OPGW Cable Accessories manufacturing equipments supplier, our customers purchase our machines to produce Preformed Products for Transmission & Distribution and Electrified Railway Fittings.

High efficiency machines and Production lines help our customers win more and more tenders in their country electric power industry, Strong productivity ensures the quality and delivery time of their products.

Main customers worldwide: AFL、PLP、SICAME.
your can find our production lines in their manufacturing workshop.

XGJH-1 Preformed Armor rods Automatic Stranding Machines（Specification）

1. Electrical parameters

1; The rated voltage of this machine is AC380V3p+PE. 2; The rated power of this machine is 5.5KW.
3; The rated current of this machine is 11A. 4; The rated frequency of this machine is 50HZ.

2. Electrical configuration

1; This machine uses Mitsubishi FX series PLC. 2; The touch screen adopts WEINVIEW TK series 7-inch screen.
3; The encoder adopts Omron series high-precision incremental encoder. 4; The main shaft rotation adopts Hyde brand high-power servo driver and servo drive motor.

3, security configuration and human-computer interaction

1. In order to ensure the safety of operation, the machine is set to a dual-button start mode. When starting the machine, the operator needs to press the start button with both hands, so as to prevent the operator from accidentally starting the machine when the operator does not pay attention to putting his hands on the fixture.
2; An emergency stop button is set beside the start button, which can quickly stop the machine when the machine is abnormal.
3; A manual operation interface is set on the touch screen to facilitate the operator to debug the machine.
4; Process parameters can be modified and set at any time on the touch screen.
5; Stranding speed 0-1r/s, wire diameter 1.78-5.18mm (galvanized and aluminum clad steel wire), 1.78-9.27mm (aluminum alloy wire). The longest stranded section is 2 meters long.

4, the mechanical part

1. The large-axis seamless steel pipe adopts high-quality 45# steel. 2. The fuselage steel plate adopts high quality Q235 (Maanshan Steel).
3. The frame square tube adopts Wuxi 6 dragons. 4. HT250 is used for mold mounting chuck. 5. Other mechanical parts adopt 40cr quenching and tempering treatment.

5, standard parts

1. All screws adopt 8.8 grade. 2. All bearings adopt NSK SKF NTN THK IKO brand bearings.
3. The seal is made in Taiwan. 4. The customized cylinder adopts Wuxi Dachuan.

6, Machines surface Treatment（paint）

1. The paint adopts automobile paint (eagle paint). 2. The equipment is light blue and yellow.

XGPS-1 Preformed Armor rods Sand Spreading Machines

1. Electrical parameters

1; The rated voltage of this machine is AC380V, 3P+PE. 2; The rated power of this machine is 400W.
3; The rated motor of this machine is 1.5A. 4; The rated frequency of this machine is 50HZ.

2. Electrical configuration

1; This machine adopts Mitsubishi fx series PLC. 2; The touch screen adopts WEINVIEW TK series 7-inch screen. 3; The remaining auxiliary electrical appliances use Schneider or Siemens.

3. security configuration and human-computer interaction

1; A manual operation interface is set on the touch screen to facilitate the operator to debug the machine.
2; Process parameters can be modified and set at any time on the touch screen.
3; Equipped with a double-stroke switch to prevent glue spraying in a wireless state.
4; The speed of glue spraying and sanding is about 1M/S, which can be used for sanding various products (different materials, different sizes, and different directions of rotation), and randomly matching sand discs, guide molds, etc.

4, the mechanical part

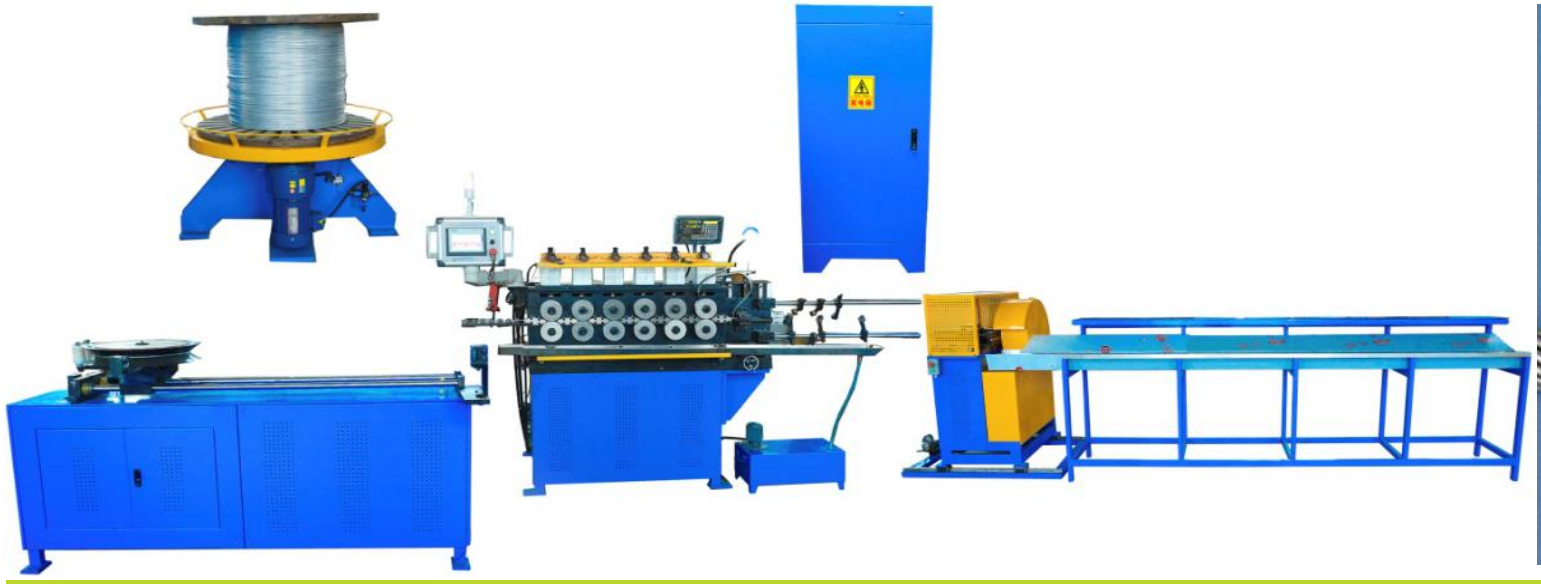
1. The fuselage steel plate adopts high quality Q235 (Maanshan Steel). 2. The frame square tube adopts Wuxi 6 dragons.
3. Other mechanical parts adopt 40cr quenching and tempering treatment.

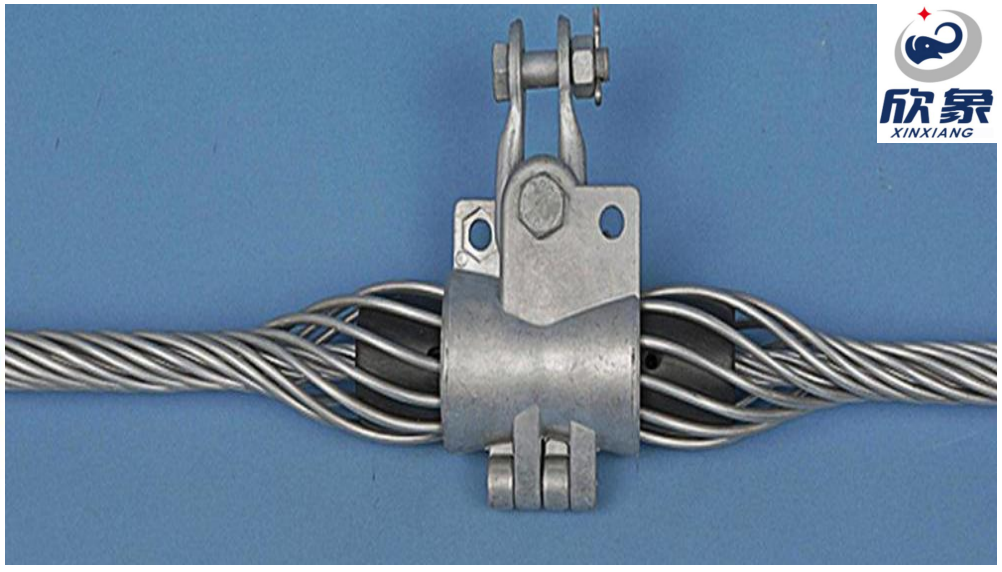
5, standard parts

1. All screws adopt 8.8 grade. 2. All bearings adopt Harbin shaft. 3. The seal is made in Taiwan. 4. The customized cylinder adopts Wuxi Dachuan. 5. Customized wire feed wheel adopts polyurethane material.

6, Machines surface Treatment（paint）

1. The paint adopts automobile paint (eagle paint). 2. The equipment is light blue and yellow.





Preformed Armor rods Automatic Molding Production Line-6A

Production line equipments, structural features and main performance：
This production line is composed of conveyor (including tensioning reel), forming machine (including high-speed integrated cutting machine) equipment. Power supply: three-phase 380V 50Hz
Color: The main body is painted with blue paint, and the equipment cover plates are all white spray plastic parts. The rotating warning part is red paint.

1. Forming machine (including high-speed integrated cutting machine)
1.1. The wire feeding part of the main machine adopts six sets (12pcs) of wire pressing wheels (with stable wire output), and each set of pressing wheels has three or four wire grooves. The equipment can meet the requirements of φ2.2mm, φ2.5mm, φ3.0mm, φ3.5mm, φ4.0mm, φ4.2mm, φ4.6mm, φ4.8mm, φ5.2mm, φ6.0mm, φ6.3mm, φ7.8mm , Forming production of steel wire, aluminum-clad steel wire, galvanized steel wire and aluminum alloy wire with 13 kinds of wire diameters of φ9.2mm. All pressure rollers have permanent markings of applicable wire diameters. Remarks: This machine is equipped with 13 wire diameters of pressing wheels, straightening wheels, and guide molds. The forming mold is equipped with two specifications of φ6.3mm and φ3.5mm.

1.2. Power adopts 11KW frequency conversion motor, frequency converter brand (Delta), wire feeding speed 0-100m/min, adjustable speed and LCD display, wire feeding capacity (ie wire diameter): aluminum alloy wire up to 9.5mm , Galvanized steel wire is up to 5.8mm. The control system is safe and reliable. It can be linked with the wire feeder or reversely controlled, with functions such as point movement, normally open, and emergency shutdown.

1.3. The strength of the twelve wheel shafts and other drive shafts can meet actual production requirements, with reliable strength, quenching and tempering heat treatment, high-quality steel for steel, and adjustable bearings. The inlet and outlet guide blocks are made of high-quality die steel, high-frequency hardened, and the hardness is 60-62 degrees (Rockwell).

1.4. The diameter of the wire pressing wheel is 127mm and the thickness is 34mm. Generally, it has four wire grooves. The material is domestic high-quality die steel H13 or the die steel of the same grade. It is high-frequency quenched and has a hardness of 60-62 degrees (Rockwell). The flatness deviation between the six pairs of wire pressing wheels is not more than 0.10mm, and the flatness deviation of each pair of wheel discs is not more than 0.05mm. The pressure of the cylinder acting on the upper wheel disc to the lower wheel disc can ensure the realization of the maximum wire feeding capacity. The pressure is elastic pressure and manually adjusted. The six pairs of wire press wheels should run smoothly, with low noise and easy assembly and disassembly.

Preformed Armor rods Automatic Molding Production Line-6A

1.5. Mold installation and fixed adjustment mechanism (with digital display function in XY direction): the adjustment range is 100mm left and right, up and down (Infinite), the maximum longitudinal adjustment range of the mold base is 130mm (with poles), the base of the mold base has two layers, one is replaceable, and the other is non-replaceable. The outer diameter of the mold is classified as 30mm, 40mm, 49mm, 60mm .
The adjustment of the whole mechanism should be flexible and reliable, and the strength should reach the wire pushing at the maximum wire feeding capacity of the roulette.
The mechanism (that is, when the wire fails to enter the mold hole) will not loosen, deform, or be damaged under special circumstances. The setting frame should be adjusted flexibly and reliably. The small runner material should be high-quality mold steel, indicating that it is quenched and the hardness is Around 56 degrees. Because the roulette is often loaded and unloaded, the dimensions of the roulette hole and shaft are required, and the size of the key and keyway may be larger. To make it durable, the power transmission shaft, gears, toothed belts, belts and other transmission systems are made of high-quality materials to ensure working strength, safety and reliability, stable operation, and no obvious abnormal noise.
The guide hole of the forming mold base and the center position of the straightening wheel and the position of the conveying wheel groove must be flexibly adjustable and easy to operate.
The forming mold frame must meet the installation of Party A's existing forming mold.

1.6. The lubrication system is safe and reliable, easy to operate, and no obvious oil leakage. There is an oil receiving device under the forming mold and preferably a pair of wheels. The mold lubrication system mainly includes: oil pump, oil tank, circulation pipeline, adjustment switch, oil receiving tank, filtering device, etc.

1.7. The processing efficiency of the forming machine, the wire feeding speed per minute is 0-100m (infinitely adjustable), and the forming pre-twisted wire can meet the product design requirements.

1.8. The main motor of the molding machine adopts remote control wireless operation (easy to operate), and the operation of the molding machine press roller adopts a photoelectric safety protection device.

Cutting machine:
1.9. Program control, power: power adopts 3KW variable frequency decelerating motor (50HZ), frequency converter brand (Delta), cutting speed 0-78cut/min (infinite), adjustable speed and LCD display, maximum cutting capacity (Namely wire diameter): aluminum alloy wire up to 9.3mm, galvanized steel wire up to 5.2mm. The longest cut length of monofilament is 0-30 meters. The control system is safe and reliable, and the operation is sensitive.

1.10. The cutting machine has a longitudinal adjustment function, and the adjustment range is 300mm. Manual adjustment, safe adjustment, stable and reliable, install an emergency stop button.

1.11 The cutter is made of high quality materials.Strong and reliable, reasonable design, durable, easy to replace.
Receiving rack design is reasonable, safe and reliable, easy to adjust, the adjustment range is 200mm.

1.12. The measuring mechanism is reasonably designed and easy to operate. It can meet the measurement accuracy requirements. The outer diameter measurement is a dial indicator. The upper and lower adjustable range is 0-20mm, the length of the steel ruler is 3000mm, the millimeter scale, the measuring plate=3000mm, the plate is straight, the measuring block (total of ten), the diameter is 22mm, the thickness is 5mm, 10mm, 15mm, 20mm, 25mm, 30mm, 35mm, 40mm, 45mm, 50mm, the thickness accuracy is ± 0.005mm.

1.13. The allowable error of the cutting length of the pre-twisted wire: ± 4mm. The error range can be within ± 5mm due to other reasons.

2. Conveyor (including tensioning reel)
2.1. Vertical active pay-off. Power: adopt 2.2KW frequency modulation decelerating motor, frequency converter brand (Delta), wire feeding speed is 0-60m/min, speed is displayed, maximum load capacity is 1000kg, control system is safe and reliable, and can change with the tension of the wire (Aluminum alloy wire up to 9.3mm, galvanized steel wire up to 5.8mm) and automatic stepless speed regulation, linkage with the forming machine, interactive control, point movement, normal open, emergency braking and other functions.

Preformed Armor rods Automatic Molding Production Line-6A

2.2. There are two mechanisms for installing and fixing the spool. The first one is a central column, and the wooden wheel is fixed. The diameter of the central column is 60mm. The second type is a central column that fixes the wire steel frame. The diameter of the central column is 60mm. There are locking devices at four right-angle points at the bottom of the wire steel frame. All fixing devices are safe, reliable and easy to use.

2.3. Sensing device and braking device should be sensitive and reliable, and the overall frame is safe and reliable to ensure its strength, rigidity and stability.

3. Electrical Performance Configuration

All equipment is controlled by Siemens PLC and Siemens touch screen, the proximity switch brand is AUTONICS, and the electrical installation conforms to international standard. The main electrical components adopt Schneider brand. Reserve data acquisition interface, and provide PLC program ladder diagram and I/O address table to facilitate data acquisition.

XGZW-1 Pre-Twisted Automatic Bending Machine

1. Electrical parameters
1; The rated voltage of this machine is AC380V, 3P+PE.
2; The rated power of this machine is 3KW.
3; The rated current of this machine is 5.5A.
4; The rated frequency of this machine is 50HZ.

2. Electrical configuration
1; This machine adopts Mitsubishi fx series plc.
2; The touch screen adopts Weiluntong TK series 7-inch screen.
3; The remaining auxiliary electrical appliances use Schneider or Siemens.
4; The main rotation adopts Hyde brand high-power servo driver and servo drive motor.

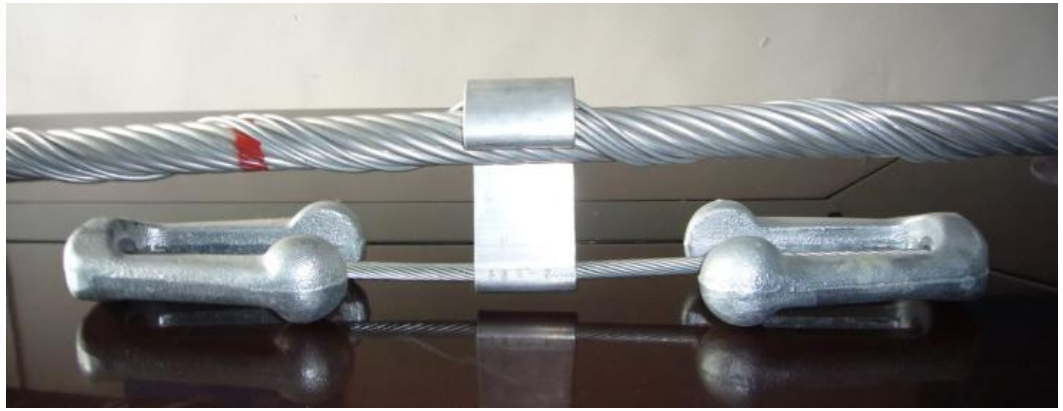
3, security configuration and human-computer interaction
1; A manual operation interface is set on the touch screen to facilitate the operator to debug the machine.
2; Process parameters can be modified and set at any time on the touch screen.
3; Bending speed: 0-2000 sets/shift products, (take GDE-35 as an example), capable of manufacturing bending wire diameter 1.78-5.18mm (galvanized steel wire and aluminum clad steel wire), 1.78-9.27 aluminum alloy wire.

4, the mechanical part
1. The fuselage steel plate adopts high quality Q235 (Maanshan Steel).
2. The frame square tube adopts Wuxi 6 dragons.
3. The gear adopts 40cr quenching and tempering treatment, the tooth surface is high-frequency quenched, and the surface is blackened and anti-rust treatment.
4. Other mechanical parts adopt 40cr quenching and tempering treatment.

5, standard parts
1. All screws adopt 8.8 grade. 2. All bearings adopt Harbin shaft.
3. The seal is made in Taiwan. 4. The customized cylinder adopts Wuxi Dachuan.
5. Customized wire feed wheel adopts polyurethane material.

6, Machines surface Treatment（paint）
1. The paint adopts automobile paint (eagle paint).
2. The equipment is light blue and yellow.

For Vibration dampers Manufacturing-
Steel strand Fully Automaic Cutting Production Line



Preformed Armor rods Automatic Duckbilled Forming Machines