



- SAFETY
- STABLE
- PRECISION
- ENERGY SAVING
- AUTOMATION

300-1600TONS

Performance Features

STN series is Straight Side Tie Rod Frame 2-Point & 4-Point Mechanical Eccentric Gear Press Machine.

This series presses are large stroke length, which are great for large stamping parts. Application such as appliances panels or automotive body panels parts are commonly stamped on these press machine. It can also be used on any type of application where long forming or drawing is required. It is common that in the production it would requires robotic system or 3-axis transfer systems devices to transfer parts between presses, so the long stroke also serve as time window for the parts handling systems. QIAOSEN STN Press is great for large progressive stamping, through the windows 3-axis transfer stamping, and press to press robotic integrated applications.

STN series presses are produced by Qiaosen machinery, which built to meet or exceed JIS Class 1 accuracy standards. Qiaosen adopt high strength steel frames and Quenching & Grinding Process for Slide-Guide, which can make the press machine have minimizing deflection and high accuracy and provide increased tool life.

Forged 42CrMo alloy material crankshaft, precision-machined gears and other drive train components are designed for smooth power transmission, quiet operation and long life.

Adopting "8-Points Slide Guiding", its makes the presses has the characteristics higher accuracy and stronger stability.

Can be option equipped with Die Doors, Quick Die Change System, and Moving Bolster to make production safer, more efficient, and more convenient.

- ◆ The press frame is composed of three parts (top seat, middle platform body, and base), and finally connected with a reinforcing rod to form a solid lock.
- ◆ The frame and slider have high rigidity (deformation) of 1/9000: small deformation and long accuracy retention time.
- ◆ Presses below 600 tons use pneumatic wet clutch brakes (unibody), while presses above 800 tons use dry clutch brakes (split-type).
- ◆ The slider adopts 8-points slide guiding, which can bear large eccentric loads, ensuring long-term and stable maintenance of stamping accuracy.
- ◆ The slide rail adopts the "high-frequency quenching" and "rail grinding process": low wear, high precision, long accuracy retention time, and improved mold service life.
- ◆ Adopting a forced thin oil circulation lubrication device: energy-saving, environmentally friendly, equipped with automatic alarm function, which can increase the stamping frequency by adjusting the oil volume.
- ◆ The crankshaft is made of high-strength alloy material 42CrMo, which is 1.3 times stronger than 45 steel and has a longer service life.
- ◆ The copper sleeve adopts tin phosphorus bronze ZQSn10-1, which has a strength 1.5 times higher than ordinary BC6 brass. It adopts a highly sensitive hydraulic overload protection device, which can effectively protect the service life of the punching machine and mold.
- ◆ Standard Japanese SMC pressure regulating valve, oil mist filter, and air filter.
- ◆ Standard configuration: German Siemens touch screen and Siemens motor.
- ◆ Optional die cushion.
- ◆ Optional Moving bolster

Standard Configuration

- > Hydraulic overload protection device
- > Electric slider adjusting device
- > Variable frequency variable speed motor (adjustable speed)
- > Electronic cam device
- > Digital die height indicator
- > Slider and stamping tools balance device
- > Rotating cam controller
- > Crankshaft angle indicator
- > Electromagnetic counter
- > Air source connector
- > Second degree falling protecting device
- > Forced Thin Re-Circulating Oil Lubrication System Device

- > Air blowing device
- > Mechanical shockproof feet
- > Mis-feeding detection device reserved interface
- > Maintenance tools and toolbox
- > Main motor reversing device
- > Light Curtain (Safety Guarding)
- > Wet Clutch
- > Electric grease lubrication device
- > Touch screen (pre-break, pre-load)
- > Mobile electric control cabinet and console
- > LED die lighting
- > 8-Points Slide Guiding

Optional Configuration

- > Customization Per Customer Requirement
- > Die Cushion
- > Quick Die Change System
- > Turnkey System with Coil Feedline and Automation System

- > Tonnage Monitor
- > Die Doors
- > Moving bolster
- > Anti-Vibration Isolator

Technical Parameters

| Name | Unit | STN-300 | STN-400 | STN-500 | STN-600 | STN-800 | STN-1000 | STN-1200 | STN-1600 |
|--------------------------|--------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Mode | | S-type | S-type | S-type | S-type | S-type | S-type | S-type | S-type |
| Press capacity | Ton | 300 | 400 | 500 | 600 | 800 | 1000 | 1200 | 1600 |
| Rated tonnage point | mm | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 |
| Slide stroke length | mm | 400 | 400 | 500 | 500 | 600 | 600 | 800 | 800 |
| Slide strokes per minute | S.P.M | 15~30 | 15~30 | 10~25 | 10~25 | 10~20 | 10~20 | 10~18 | 10~18 |
| Max die height | mm | 800 | 900 | 1000 | 1000 | 1100 | 1100 | 1200 | 1200 |
| Slide adjustment amount | mm | 300 | 300 | 400 | 400 | 400 | 400 | 500 | 500 |
| Platform size(optional) | 1 | 2500*1200 | 2800*1300 | 3200*1500 | 3200*1500 | 3200*1500 | 3500*1600 | 3500*1600 | 3500*1600 |
| | 2 | 2800*1300 | 3200*1400 | 3500*1500 | 3500*1500 | 3500*1600 | 4000*1600 | 4000*1600 | 4000*1600 |
| | 3 | 3200*1400 | 3600*1400 | 3800*1600 | 4000*1600 | 4000*1600 | 4500*1600 | 4500*1600 | 4500*1600 |
| Trolley Height | mm | 600 | 600 | 650 | 650 | 650 | 750 | 750 | 750 |
| Side opening | mm | 900*650 | 1100*700 | 1200*700 | 1200*750 | 1400*850 | 1600*950 | 1600*1050 | 1600*1050 |
| Main motor power | KW*P | 45*4 | 55*4 | 75*4 | 90*4 | 110*4 | 132*4 | 160*4 | 185*4 |
| Air pressure | kg*cm ² | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| Press accuracy grade | Grade | JIS 1 | JIS 1 | JIS 1 | JIS 1 | JIS 1 | JIS 1 | JIS 1 | JIS 1 |