# H-FRAME STRAIGHT SIDE DOUBLE CRANK PRESSES





#### **Performance Features**

STF series is Straight Side Tie Rod Frame Double Crank Presses (H-Frame Trisection-type Double Crank Mechanical Press Machine).

The tonnage capacity starts from 300 ton up to 1200 ton. The press is constructed with welded heavy boxed type frames, and it is pressurized with tie rods to 150% of press capacity for better deflection rating. Our center drive design maximizes the transmission performance and reduce inertias, which increase the service life of the press. STF series presses is great for large progressive stamping, through the windows 3-axis transfer stamping, and press to press robotic integrated applications.

STF series presses are produced by Qiaosen company, 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. Presses below 600 tons use pneumatic wet clutch brakes (unibody), while presses above 800 tons use dry clutch brakes (splittype). 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 dutch brakes (unibody), while presses above 800 tons use dry dutch 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	STF-300		STF-400		STF-500		STF-600		STF-800		STF-1000		STF-1200	
Mode		S-type	H-type												
Press capacity	Ton	300		400		500		600		800		1000		1200	
Rated tonnage point	mm	8	4	8	4	9	5	10	5	12	6	13	7	13	7
Slide strokes per minute	S.P.M	20~40	30~60	20~40	30~60	20~40	30~60	20~40	30~60	15~30	25~50	10~25	20~40	10~25	20~40
Slide stroke length	mm	300	150	300	150	300	150	300	150	350	150	400	200	400	200
Max die height	mm	600	500	650	550	650	550	700	600	800	650	900	700	1000	800
Slide adjustment amount	mm	150		150		150		200		200		250		250	
Platform size(optional)	1	2500*1200		2800*1300		3200*1500		3200*1500		3200*1500		3500*1600		3500*1600	
	2	2800*1300		3200*1400		3500*1500		3500*1500		3500*1600		4000*1600		4000*1600	
	3	3200*1400		3600*1400		3800*1600		4000*1600		4000*1600		4500*1600		4500*1600	
Side opening	mm	900*650		1100*700		1200*700		1200*750		1400*850		1600*950		1600*1050	
Main motor power	KW*P	37*4		45*4		55*4		75*4		90*4		110*4		132*4	
Air pressure	kg*cm²	6		6		6		6		6		6		6	
Press accuracy grade	Grade	JIS 1													