

APSS

Designation	Specifications		
Warehouse	Sheet Size	1250X2500mm	
	Sheet Height	125mm	
	Floor stations	36(6floorX6column)	
	Sheet weight	3000kg	
Transit Speed	X	4-63m/min	
	Y	6-16m/min	
	Z	2-15m/min	
Robot	Sheet Size	1250X2500mm	
	Sheet Thickness	5mm	
	Sheet weight	125kg	
	Aclicnic Speed	60m/min	
	Vertical Speed	60m/min	
Punch	Nominal Pressure	300KN	
	Tool Stations	24	
	Auto Index	2	
	Max. diameter	φ88.9mm	
	Max. Sheet Thickness	AL:5mm Fe:4mm stainless:3mm	
	Feed Speed	X	96m/min
		Y	75m/min
	Turret Speed	30rpm	
Auto index rotation	40rpm		
Max. Hit Rate	1000rpm		
Shear	Nominal Pressure	250KN	
	Max. Sheet Thickness	AL:5mm Fe:4mm stainless:3mm	
	Min. Sheet Thickness	0.8mm	
Blade Clearance	Auto adjust		
	Max. Size	X:800mm	
Min. Size		Y:1500mm	
	Transit Speed	X:20mm	
Switch Time		Y:20mm	
	60m/min		
1-4s			

The APSS CNC punching-shearing flexible production line manufactured by Jiangsu Jinfangyuan CNC Machine Company Limited is an integrated plate processing equipment combining computer control technology, micro-electronic technology, remote monitoring technology and precision manufacturing technology. By combining the CNC punching machine and right angle shearing, the position and processing accuracy is greatly enhanced and logistic time is reduced while the material utilization rate is improved. The combination of comprehensive warehouse and automatic loading and unloading system can reduce the work load, realizing 24 hour un-manned operation., to improve the work efficiency and equipment up time. The internationally advanced automatic programming software can transform the graphic files into the processing procedures for automatic cutting of materials, automatic optimization of processing routes and automatic management of dies. This equipment can be widely used in sheet metal processing for electric switch, computer, textile machinery, instrument, telecommunication cabinet and elevator.





Warehouse Storage with Vehicle connecting to Loading Staging Area.

Eight columns of 6,600 lbs. load weight for 50" x 100" sheets. Warehouse column can be added to suit customer's requirements. The bottom table of the column can be used as a loading table.



Loading robot with air suction for sheet separation and loading of punch unit.

System includes sheet separating mechanism, thickness measuring equipment, & squaring.



CNC Hydraulic Right Angle Shear.

The CNC right angle shear is used to separate parts and chop scrap. Shear is guillotine style for less deformation. The clearance adjustment mechanism handles different sheet thickness. An angular blade prevents early wear of blade edges. Travel is 60" in Y and 31.4" in X axes.



Carriage & three hydraulic clamps.

The three intelligent clamps automatically move their position based on eliminating "dead" zones. Clamps can float according to sheet, and machine alarms when sheet is out of clamps.

CNC Turret Punch features: 24 stations turret, 2 auto-index stations, 1,000 hpm hyd. ram & brush table.



O-type closed steel welded frame. Machine is equipped with waste drop mechanism, combination ball and brush table, matched set machining for upper & lower turret plates.

Sorting Equipment

After shearing, parts are dropped into one of four drop bins with rotating conveyor belts and pneumatic actuator in open position for dropping of parts.



Slug conveyor

Area for drop bins or pallets and conveyor for slugs & skeleton scrap.





Hydraulic Punching Unit.

Machine's hydraulic system is numerical proportionate servo valve. Full loop control, good dynamic and static response characteristics. High resolution, low hysteresis without middle dead zone. 1,000 HPM.



Auto Indexing Unit.

The auto-indexing unit adopts high precision wormwheel and worm mechanism. Maximum die diameter is 88.9mm (3.5") and the auto-index stations can be expanded to 4 or 5 units. Accepts Wilson tooling.

Highly accurate ballscrew & guideway.

Large lead ballscrew & linear guideway from Bosch-Rexroth, THK, NSK, & INA.



Centralized lubrication.

Improves service life with concentrated mechanism to lubricate parts subject to wear and friction.



Bushed and keyed 24 station turret with gear drive.

Indexing performed by gears and locking done by shot pins.



Siemens 840D CNC controller.

The APSS FMS uses the Siemens 840D to control punch and shear as well as the warehouse. They are connected by MPTI network to allow data sharing and online control. It features self diagnosis, clamp auto protection, and remote function.



Precision ground, matched set turret plates and shot pin holes.

Coaxiality of turret plates extends tool life.

Offline programming system . (Option)

Very user friendly interface, featuring specialized punching shearing modules that automatically generated processing codes. Includes: automatic sampling, repositioning, clamp intelligent evasion, auto micro-connection setting, and sorting functions. System's simulation tool conducts punching-shearing simulation with safety check features for clamping & stroke.

