

**Tailift**

Tailift CNC  
turret punch press



**CNC TURRET PUNCH PRESS**

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# Tailift Co., Ltd, Since 1973

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— 2013 —



MAX1250 MAX1250X  
HPS1250 HPS1250X HPS2500  
HP1250 HP1500 HP2500  
RM11 CP1500 CP2500

# TAILIFT CNC TURRET PUNCH PRESS MACHINE

Tailift – Taiwan's leading manufacturer of sheet metal working machines. We have built the reputation as one of Asia's top suppliers of industrial machinery and forklift trucks. By integrating advanced R&D, manufacturing technology and customer services, Tailift has become a major force on several fronts.

Tailift CNC turret punch presses are outstanding machines for punching and forming. Our company offers a comprehensive range of CNC Turret Punch Presses, namely the Mechanical CP model, Hydraulic HP model, Hydraulic Servo HPS model and the Complex Multi-Tools MAX model. Tailift punching presses are ideal for making a variety of products such as precision enclosures, control cabinets, and aerospace parts. It really is your best possible investment in production equipment.

Because of our outstanding design, Tailift CNC turret punch press has twice been honored as the National Leading Product by Taiwan's Industrial Bureau of Economic Affairs Department.

To assure maximum product quality and machinery safety the entire range is ISO 9001 compliant and with CE accreditation. In addition, there are several patents associated with our Tailift CNC punch press; this is evident in our industry leading design.

After years of promotion, our international sales have been increasing rapidly, now we have agents in more than 50 countries worldwide.

Aside from these global agents, we have set up direct sales channels in Taiwan and China, now we have over 30 branch and liaison offices in all major cities of China. Tailift is enjoying a very high reputation and becoming No. 1 in both markets.

Our head office in Taiwan has also established an international after-service department, staffed by the most professional experts, with complete industry experience to provide prompt and satisfactory response to client queries and requests, helping our clients to operate the equipment with swift ease. Its simple maintenance procedures and considerate warranty offers lead to a drastically increased machine lifetime and much lower overhead costs for clients.



Encouraging Aspirations, Commitment To Excellence

# PURSUIT OF INNOVATION OFFERING YOU THE BEST

Tailift is the only manufacturer of CNC Turret Punch Press Machine in Taiwan

## CNC TURRET PUNCH PRESS



# PUNCH PRESS HISTORY

- 1973: The first company, Taipin of Tailift group was established in Taichung
  - For conventional wood cutting, band saw and drilling machines
- 1991: Start of CNC turret punch department
- 1995: First honored as the National Leading product by Ministry of Economic Affairs for Tailift punching press machine
- 1997: Patent obtained for our outstanding design
- 1998: Second honored as the National Leading product
- 1999: ISO 9002 and CE certification
- 2001: Patent obtained for loading/ unloading system
- 2002: ISO 9001
- 2003: Mass production of HP1250
- 2005: Successful R&D of HPS1250, with Advanced Hydraulic Servo System, ASHS inside
- 2007: New Generation MAX1250, with Servo Hydraulic and Complex Multi-Tools Auto Index Technology (CMAIT)
- 2008: MAX1250X with Aesthetic design
- 2010: MAX1250X 30T with built in tapping machine
- 2011: MAX1250X Generation II and successful prototype of CO2 laser cutting machine TL4000
- 2012: RM11

[24-52 STATION]

# MAX1250X

MAX Series for

Complex Multi-Tools Auto Index Technology

## - HIGH PERFORMANCE

## - FLEXIBILITY IN MULTI-TOOLS

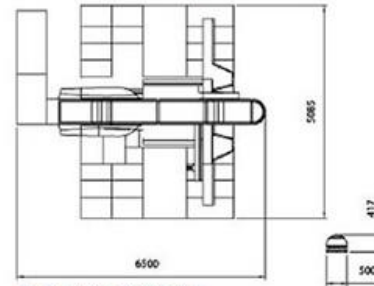
MAX Series Punch Press Machine is the newly developed Multi Index Tools Turret Punch Press equipped with advanced Servo Hydraulic System, introduced by Tailift's professional R&D and production teams who have been dedicated to machineries for decades.

Our MAX Series machines provides the fastest, flexible and reliable punch press satisfying your expectation of fast and precise sheet metal works!

### 1. Advanced Servo Hydraulic System (ASHS inside)

- Advanced German made Schneider Hydraulic Servo system with pressure valve to precisely control the speed, volume and pressure of oil flow
- To control the RAM stroke distance on both ends, hence the height and depth of each punch becomes programmable with 0.1mm accuracy
- Uniquely designed Machine structure ensures less preventive maintenance

### MAX1250X plan

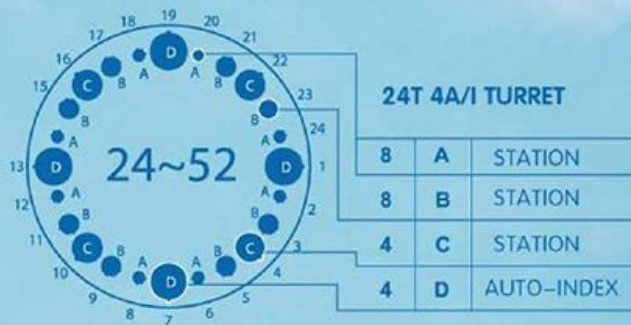


Max.Height 2080m

### 2. Complex Multi-Tools Auto Index Technology (CMAIT)

- Synchronized dual servo motors for controlling the auto index functions
- 4 D Auto Index stations for Multi Tools, either 3 B or 8 A
- Capable of indexing each individual tool within the 3B and 8A Multi Tool set
- 24 various size stations including 4 Auto Index stations Multi Tools. Therefore, a total of 24 to 52 tools can be employed
- Capable of running wheel, marking, grooving and forming Tooling



[24-52 STATION]

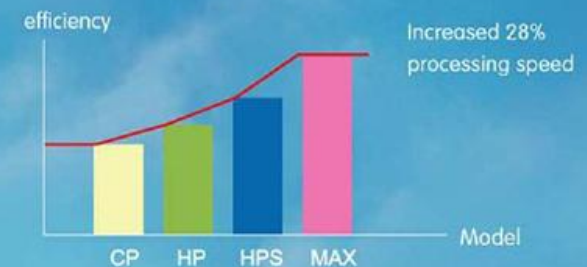
# MAX1250

### 3. Features of the Multi Index Tools IMT3B & IMT8A

- Fully indexable: achieves any desired angle on the workpiece
- 3 B or 8 A Multi Tools in any shape
- Ultra IMT's integral punch length adjustment
- Easy identification of the active station: Clearly viewable "Zero Mark" and station ID window that indicate the start/home position, reducing the chance of error
- Innovative Ultra IMT holder: each tool is individually activated so inactive punches are prevented from moving.



Performance comparison chart



[34/40 STATION]

# HPS1250/1250X

HPS Series for Hydraulic Servo

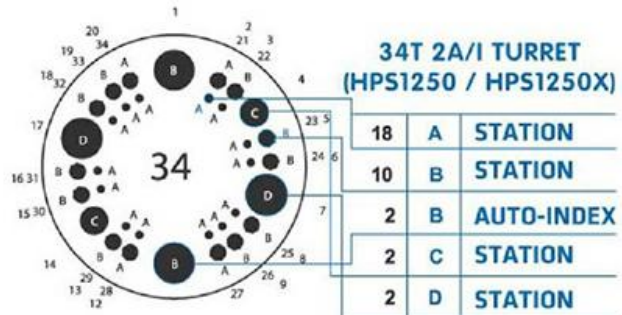
- PRECISION AND SPEED EFFICIENCY
- PROGRAMMABLE PUNCH/ RAM STROKE DISTANCE

■ Advanced German made Schneider Hydraulic Servo system with pressure valve to precisely control the speed, volume and pressure of oil flow.

To control RAM stroke distance on both ends, hence the height and depth of each punch becomes programmable with 0.1mm accuracy

Faster punching speed.

HPS1250X is with 2490 ± 10mm X-Axis.



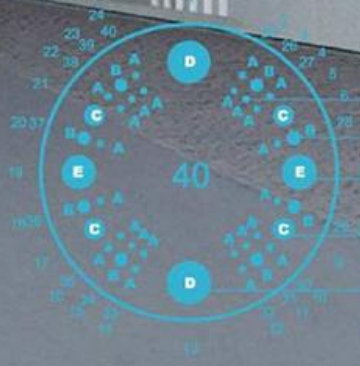




[34/40 STATION]

# HPS2500

HPS Series for Hydraulic Servo



40T-2A/I TURRET  
(HPS2500)

24	A	STATION
8	B	STATION
6	C	STATION
2	D	AUTO-INDEX
2	E	STATION

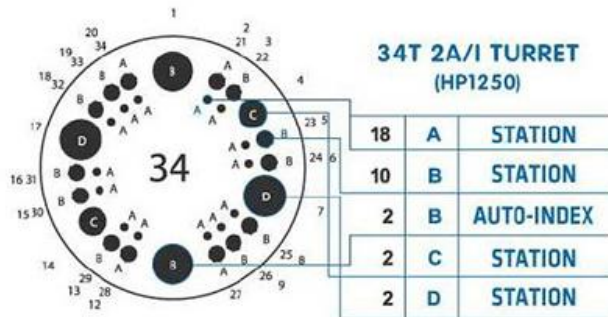
[34/40 STATION]

# HP1250

HP Series for Hydraulic

- STABLE AND DURABLE WITH SIMPLE OPERATION
- PROGRAMMABLE RAM TOP POSITION

■ Advanced German made H + L Hydraulic system provides fast punching and high durability. Programmable top position of RAM to increase punching speed and reduce noise. Forming tools are applicable.

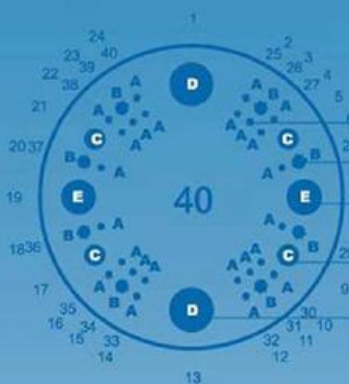


# Tailift

[34/40 STATION]

## HP1500/2500

HP Series for Hydraulic



40T 2A/I TURRET  
(HP1500/HP2500)

24	A	STATION
8	B	STATION
4	C	STATION
2	D	AUTO-INDEX
2	E	STATION



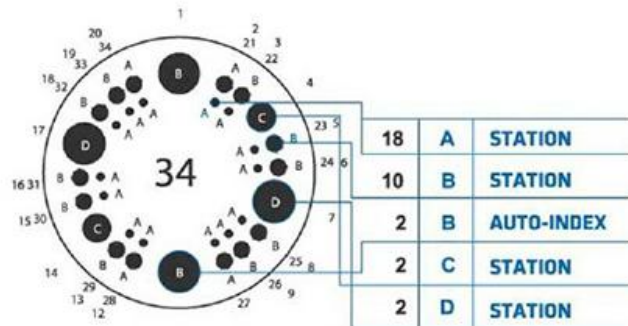
[34/40 STATION]

# RM11

CP/RM Series for Mechanical

- HIGH COST/ PERFORMANCE RATIO
- YOUR IDEAL INVESTMENT IN LOW COST MONEY GENERATING ASSETS

Low-cost compact designed Fly Wheel and Crank Shaft punching system.



# MACHINE FRAME

# BALL SCREW SET

## FRAME

### OPTIMUM DYNAMIC CHARACTERISTICS

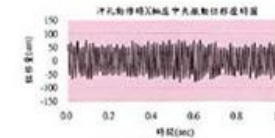
- The heart of the Tailift turret Punch Press is its solid and closed “O” frame structure design. The whole frame is fabricated from premium steel, then through applying ANSYS and other advanced techniques to analyze the internal stress, to minimize such internal and vibration stress from heat treatment. Consequently, distortions resulting from the punching process are greatly reduced, ensuring a consistent die clearance and long tool life.



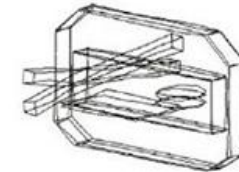
Transient state analysis



static analysis



Model analysis



Vibansient state analysis

## BALL SCREW SET

- German made Start ball screw with double L.M. guides to ensure fast, precise, smooth and stable movements of X and Y axes with high durability.



## PARTS INTRODUCTION



### Hydraulic System

Advanced German made H+L Hydraulic System provides fast punching and high durability. For HP series



### Hydraulic Servo System

Advanced German made Schneider Hydraulic Servo System with pressure valve to precisely control the speed, volume and pressure of oil flow. For HPS, MAX series



### Clutch/ Brake Set

Main source of power for the punching process, use German made hydraulic clutch and lining disc to ensure sufficient punching force and long durability.



### Anti-vibration Foot Mounts

To reduce vibration, noise and simplify installation.



### Tandem Type Pneumatic Clamp

New patented linear floating clamp design, increased processing precision during worksheet movement.



### Reposition Cylinder

To hold the metal sheet in place during the reposition process.



### Movable RAM

For Inner Track and Outer Track of the Turret Punching.



### High Efficiency Cooling System

Powerful cooling system for all types of tough working environment.

# TURRET

## AUTO-INDEX DRIVE SHAFT

### TURRET

- Large turret design, with two concentric circle tool stations, available with 34 stations with 2 B Auto-Index or 40 stations with 2 D Auto-Index. All the standard thick turret tools from Mate, Wilson, or Amada compatible are applicable. Quick and easy tool exchange.
- Two transmission shafts increases machine durability.



### Station Bushing

- Hardened steel bushings for all tool stations for high precision and durability. Easily replaceable when tool station is damaged.



High Precision Die Holder



Auto-Index Drive Shaft



Transmission Gear for Auto-Index

## PARTS INTRODUCTION



**Supporting Ball Set**

Rising balls to support sheet loading.



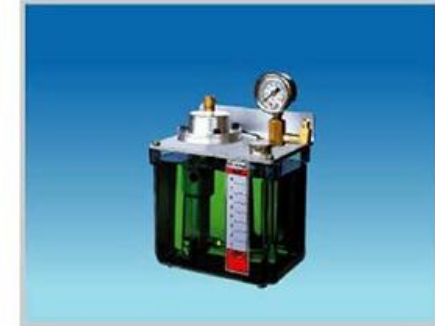
**Distortion Sensor**

To detect the sheet distortion, shut down the machine to protect the turret and tools from the damage caused by distorted sheet.



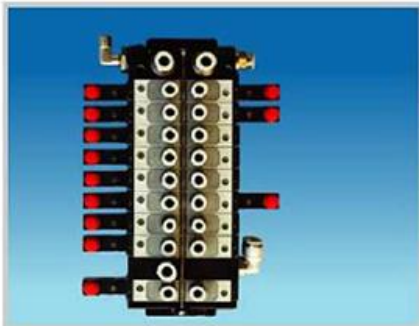
**Clamp Sensor**

To detect fall off metal sheet, only available for big machines.



**Air Blow System**

Provide lubrication for tools to extend tool life.



**Solenoid Valve**

German made "Bosch" pneumatic solenoid valve to ensure the precise execution of all commands.



**Control Cabinet**

Module assembly. Fully automated equipments inspection. Not easily broken. Highly durable.



**FANUC controller**

The most sophisticated and advanced CNC controller in the world. With worldwide branches to provide fast and complete after sales services.

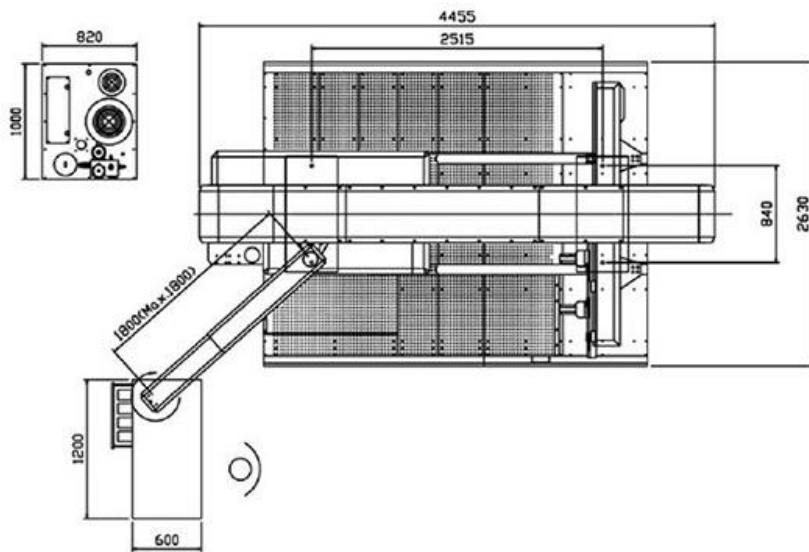
**Metalix CAD/ CAM software**

Supporting the entire design to production cycle. Advanced technology combines design, processing, graphic simulation and communication in one single module. Create efficient CNC programs with precision and ease.



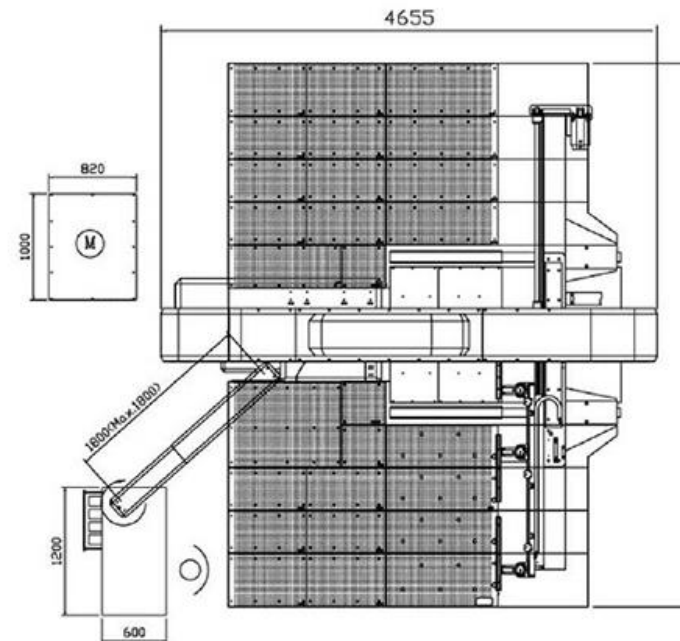
# MAX1250/HPS1250X Layout

## MAX1250 Layout



Max.Height 2100mm

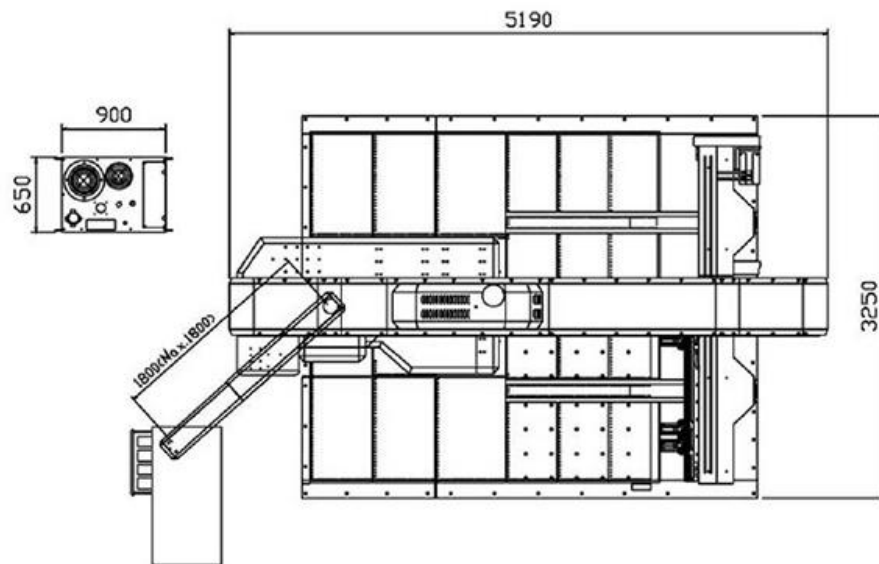
## HPS1250X Layout



Max.Height 2100mm

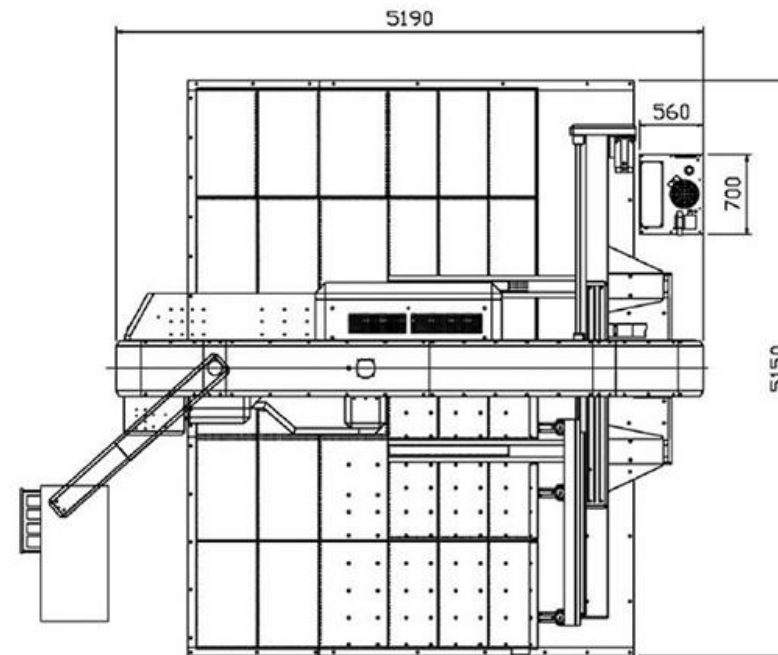
# HP1500/CP2500 Layout

HP1500 Layout



Max..Height 2550mm

CP2500 Layout



Max..Height 2200mm

# COMPLEX MULTI TOOL SERIES/SERVO HYDRAULIC SERIES

## Complex Multi Tool Series

## Servo Hydraulic Series

Item	Unit	MAX1250	MAX1250X	HPS1250	HPS1250X	HPS2500
Punching Capacity <sup>(1)</sup>	Ton	20	20/30	20	20	30
X Traverse Length	mm	1250 ± 10	2490 ± 10	1250 ± 10	2490 ± 10	2490 ± 10
Y Traverse Length	mm	1250 ± 10	1250 ± 10	1250 ± 10	1250 ± 10	1525 ± 10
Max Sheet Size	mm	1250x2500	1250x4980	1250x2500	1250x4980	1525x4980
Max Sheet Thickness	mm	6.35	6.35	6.35	6.35	6.35
Max Mass of Material <sup>(3)</sup>	kg	110	110	110	110	110
X Axis Traverse Speed	m/min	75	80	75	80	80
Y Axis Traverse Speed	m/min	60	70	60	70	70
Max Traverse Speed	m/min	96	105	96	105	105
Punching Speed at 25mm pitch <sup>(4)</sup>	hits/min	360	360	360	360	360
Nibbling Speed <sup>(5)</sup>	hits/min	600	600	600	600	600
Tool Type		Thick turret	Thick turret	Thick turret	Thick turret	Thick turret
Max Punching Diameter	mm	88.9	88.9	88.9	88.9	114.3
Number of Tool Stations		24~52 <sup>(7)</sup>	24~52 <sup>(7)</sup>	34	34	40
Number of Auto Index Stations	number/ type	4/(D Type)	4/(D Type)	2/(B Type)	2/(B Type)	2/(D Type)
Turret Rotating Speed	rpm	40	40	40	40	40
Auto Index Rotating Speed	rpm	50	50	50	50	50
Ram Stroke Distance	mm	0~31	0~31	0~31	0~31	0~31
Working Table		Brush	Brush <sup>(8)</sup>	Brush	Brush <sup>(8)</sup>	Brush
Rising Ball		Optional	Standard	Optional	Standard	Standard
Number of Sheet Clamps		2	3	2	3	3
Power Supply	KVA	25	25/35	25	30	35
Air Supply	NL/min	250	250	250	250	250
Oil Tank Volume	Litre	350	350	350	350	350
Air Pressure	bar	5	5	5	5	5
Machine dimensions	mm	4455x2630x2100	4830x5100x2286 <sup>(9)</sup>	4535x2630x2380	4605x5102x2380	5190x5150x2360
Net Weight (approx.)	kg	13,500	14,000/14,500	13,500	14,000	14,500
Size of Control Cabinet	mm	1200x600x1900	1520x700x2080	1200x600x1900	1200x600x1900	1200x600x1900
Size of Independent Station	mm	400x320x940	500x415x1577	400x320x940	400x320x940	400x320x940
CNC Controller		FANUC 0i-PD	FANUC 0i-PD	FANUC 0i-PD	FANUC 0i-PD	FANUC 0i-PD
Number of Controllable Axes		5+1	5+1	4+1	4+1	4+1
Memory <sup>(10)</sup>	KB	512	512	512	512	512
Serial Interface		RS232	RS232	RS232	RS232	RS232
Punching Precision	mm	± 0.1	± 0.1	± 0.1	± 0.1	± 0.1

\* Above specifications are only for your reference and subject to modifications without prior notice \* Please refer to the actual machine for the exact specification

(1). Sheet thickness at 4.52mm (2). Sheet thickness at 3.2mm (3). Acceleration/ deceleration rate of X- and Y- axes are dependent on mass of material (4). Punch speed is dependent on processing conditions, stroke length, acceleration/ deceleration rate of axes speeds (5). Stroke length 4mm, pitch=1mm (6). At full stroke length 32mm, pitch <= 6mm (7). MAX D Type Tool station can in combination with Multi-tool be turned into a 8A Auto Index Station or 3B Auto Index Station (8). Working Table can be changed (9). 5420x5085x2169 for 30 Tons MAX1250X (10). Basic storage unit size is 512kb, can optionally package up to 2MB.

# HYDRAULIC SERIES/MECHANICAL SERIES

## Hydraulic Series

## Mechanical Series

Item	Unit	HP1250	HP1500	HP2500	RM11	CP1500	CP2500
Punching Capacity <sup>(1)</sup>	Ton	30	30	30	20 <sup>(2)</sup>	30	30
X Traverse Length	mm	1250 ± 10	1525 ± 10	2490 ± 10	1250 ± 10	1525 ± 10	2490 ± 10
Y Traverse Length	mm	1250 ± 10	1525 ± 10	1525 ± 10	1250 ± 10	1525 ± 10	1525 ± 10
Max Sheet Size	mm	1250x2500	1525x3050	1525x4980	1250x2500	1525x3050	1525x4980
Max Sheet Thickness	mm	6.35	6.35	6.35	6.35	6.35	6.35
Max Mass of Material <sup>(3)</sup>	kg	110	110	110	110	110	110
X Axis Traverse Speed	m/min	75	80	80	70	80	80
Y Axis Traverse Speed	m/min	60	70	70	60	70	70
Max Traverse Speed	m/min	96	105	105	92	105	105
Punching Speed at 25mm pitch <sup>(4)</sup>	hits/min	280	280	280	210	210	210
Nibbling Speed <sup>(5)</sup>	hits/min	600	600	600	350 <sup>(6)</sup>	350	350
Tool Type		Thick turret	Thick turret	Thick turret	Thick turret	Thick turret	Thick turret
Max Punching Diameter	mm	88.9	114.3	114.3	88.9	114.3	114.3
Number of Tool Stations		34	40	40	34	40	40
Number of Auto Index Stations	number/ type	2/(B Type)	2/(D Type)	2/(D Type)	2/(B Type)	2/(D Type)	2/(D Type)
Turret Rotating Speed	rpm	40	40	40	32	40	40
Auto Index Rotating Speed	rpm	50	50	50	50	50	50
Ram Stroke Distance	mm	0~31	0~31	0~31	32	32	32
Working Table		Brush	Brush	Brush	Brush	Brush	Brush
Rising Ball		Optional	Standard	Standard	Optional	Standard	Standard
Number of Sheet Clamps		2	2	3	2	2	3
Power Supply	KVA	25	30	30	15	20	20
Air Supply	NL/min	250	250	250	250	250	250
Oil Tank Volume	Litre	250	250	250	85	120	120
Air Pressure	bar	5	5	5	5	5	5
Machine dimensions	mm	4535x2630x2530	5190x3250x2550	5190x5150x2550	4495x2640x2005	5190x3250x2200	5190x5150x2200
Net Weight (approx.)	kg	13,500	14,000	14,500	12,000	14,000	14,500
Size of Control Cabinet	mm	1200x600x1900	1200x600x1900	1200x600x1900	700x525x1880	1200x600x1900	1200x600x1900
Size of Independent Station	mm	400x320x940	400x320x940	400x320x940	N/A	400x320x940	400x320x940
CNC Controller		FANUC 0i-PD	FANUC 0i-PD	FANUC 0i-PD	FANUC 0i-PD	FANUC 0i-PD	FANUC 0i-PD
Number of Controllable Axes		4	4	4	4	4	4
Memory <sup>(10)</sup>	KB	512	512	512	512	512	512
Serial Interface		RS232	RS232	RS232	RS232	RS232	RS232
Punching Precision	mm	± 0.1	± 0.1	± 0.1	± 0.1	± 0.1	± 0.1

\* Above specifications are only for your reference and subject to modifications without prior notice \* Please refer to the actual machine for the exact specification

(1). Sheet thickness at 4.52mm (2). Sheet thickness at 3.2mm (3). Acceleration/ deceleration rate of X- and Y- axes are dependent on mass of material (4). Punch speed is dependent on processing conditions, stroke length, acceleration/ deceleration rate of axes speeds (5). Stroke length 4mm, pitch=1mm (6). At full stroke length 32mm, pitch <= 6mm (7). MAX D Type Tool station can in combination with Multi-tool be turned into a 8A Auto Index Station or 3B Auto Index Station (8). Working Table can be changed (9). 5420x5085x2169 for 30 Tons MAX1250X (10). Basic storage unit size is 512kb, can optionally package up to 2MB.



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