

CNC TURRET PUNCH

HPE



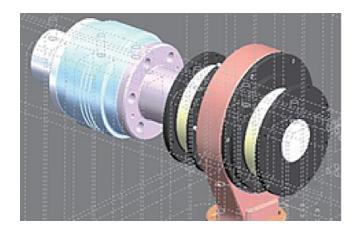


HPE SERIES CNC TURRET PUNCH

HPE-3048

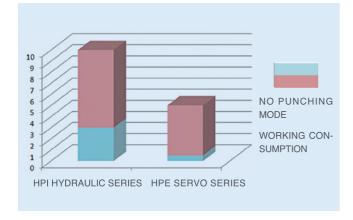
- Electric SERVO Control for fast ram punching performance with 30 ton capacity, marking frequency 1,500 hits/min
- Siemens CNC controller provides ultimate performance and reliability
- Precise ram positioning control, the BDC positioning accuracy is 0.01mm
- Proven direct drive, servo controlled Auto-index design, with higher re-positioning precision
- Efficient precision roll forming
- Energy saving, low power consumption with low noise

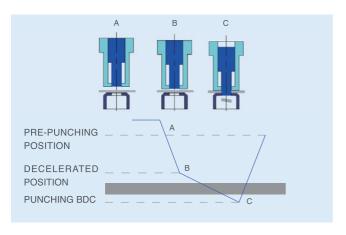
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SERVO RAM DESIGN

Ram design uses a single servo motor coupled directly to the crankshaft for highest punching performance and reliability. Simplified design enhances component life and ensures positioning accuracy using a closed loop servo control system





ENERGY EFFICIENCY

- Intelligent punching mode calculates punching force, stroke and speed providing maximum performance with reduced energy consumption with near zero energy usage in non punching mode. Additionally, energy generated during "braking" mode is recycled reducing overall energy usage
- Lower maintenance cost due to simplified design and elimination of older Hydraulic technology

HIGH SPEED, LOW NOISE

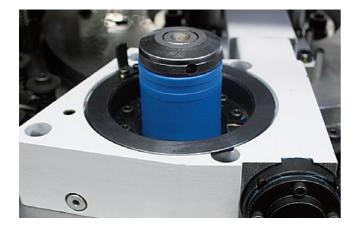
- Advanced punching technology provides full control of ram speeds, stroke and forming combined with low noise and energy consumption
- High-precision seamless mechnical structure, no internal abnormal sound or noise during high-speed movement





TURRET STRUCTURE

- Turret design incorporates high strength alloy casted steel machined by precision machining centers to ensure the tool alignment accuracy
- Guide bushing with precision machining, significantly increasing the tool life



TOOL AUTO-INDEX

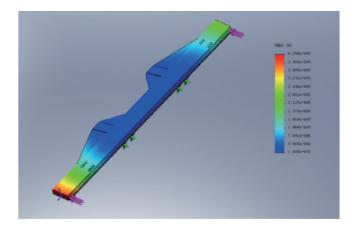
■ Direct drive design (Nisshinbo patent) eliminates secondary positioning errors, fastest index to index performance and provides for full tonnage punching due to robust design and oil lubrication of all indexing components, the repositioning precision within 0.03mm



LOWER DIE HOLDER, FAST CHANGE

Turret design provides for quick and easy die base removal, allows for simple die change, fast re-install and maintains tool alignment due to self-aligning design. Die tool holder uses a hard bushing for die support and can be easily replaced to maintain highest punched hole quality. Bases include material support brushes or balls to have reduce scratching and noise reduction

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HIGH STRENGTH X AXIS

X axis carriage design uses high strength alloy steel combined with precision welding and machining process. Carriage was created using a computer generated finite design to ensure maximum axis performance during punching and positioning with highest accuracy even with maximum sheet capacity

AXIS POSITIONING

- Precision ground lead screws using a dual ball nut design improves positioning and accuracy during high load periods, helps reduce noise and extends component life compared to single ball nut lead screws
- Standard pneumatic work clamps incorporate a pivoting design allowing work clamps to pass over dies holders, reducing material deformation. The passthru design increases punching performance and no punch zones are defined by sensors to provide minimum size of no punch zones based on tool size. Material sensors are utilized to ensure sheet gaging accuracy and monitor sheet pull out for increased part performance and safety. Material clamping spikes in lower clamp jaw are easily and quickly replaced to ensure maximum clamping force

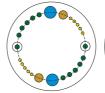
TURRET DRIVE

Proven turret drive design incorporates a single servo motor, closed loop system connected to a single drive shaft using chain drive for maximum positioning speed and accuracy. High precision shot pins are utilized to provide final turret position and to maintain tool station alignment during punching



STANDARD CONFIGURATION

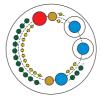
- Adopt Siemens controller
- Electric Servo ram designed by Yawei
- 38 station turret with 2 auto-index station (B sized)



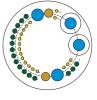
26 LA2 (2B)



38 LA2 (2B)



38 LA2 (2D)



40 LA2 (2D)

Equipped with tool hoisting device, automatic lubrication
for machine and sheet metal deformation sensors

Tool station	Symbol	26 LA2 (2B)		38LA2 (2B)		38 LA2 (2D)		40 LA2 (2D)		Dimension reserve	
category		NO	Al	NO	Al	NO	Al	NO	Al	Dimension range	
А	•	10		16		17		18		ø3.0~ø12.7mm	
В	•	10	2	16	2	15		16		ø12.7~ø31.75mm	
С	•	2		2		2		2		ø31.75~ø50.8mm	
D	•	2		2		1	2	2 2		ø50.8~ø88.9mm	
Е	•					1				ø114.3mm	

Parameters of HPE series CNC Turret Punch

Parameter			HPE-3044	HPE-3047	HPE-3048	HPE-3057	HPE-3058
Normal pressure			294	294	294	294	294
Max.processing sheet size			1250 × 2500	1250 × 4000	1250 × 5000	1500 × 4000	1500 × 5000
Max.processing shee thickness	carbon steel	mm	6.35	6.35	6.35	6.35	6.35
	stainless steel	mm	4	4	4	4	4
Max.punch diameter	mm	ø88.9	ø88.9	ø88.9	ø88.9	ø88.9	
Punch accuracy	mm	± 0.1	± 0.1	± 0.1	± 0.1	± 0.1	
Ram stroke rates	cpm	1500	1500	1500	1500	1500	
Punch frequency (1m	cpm	700	700	700	700	700	
Punch frequency (25	cpm	400	400	400	400	400	
maximum speed of the	m/min	102	102	102	102	102	
Turret speed	rpm	30	30	30	30	30	
CNC axis		5(X,Y,T,C,Z)	5(X,Y,T,C,Z)	5(X,Y,T,C,Z)	5(X,Y,T,C,Z)	5(X,Y,T,C,Z)	
Total power consumpti	kW	6.1	6.1	6.1	6.1	6.1	
Air resource	Мра	0.6	0.6	0.6	0.6	0.6	
	L	mm	5410	5410	5410	5910	5910
Overall dimension	W	mm	2300	4000	5000	4000	5000
	Н	mm	2260	2260	2260	2260	2260
Weight	kg	14000	15000	16000	18000	19000	

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