

RoHS



CE



**CRON**



**CRON HDI**

Digital  
Flexo Imager

The Beauty of High Definition Flexo Printing

# Leading The Printing Revolution

## ABOUT US

A thousand years ago in the early Song Dynasty, Bisheng invented man's first generation of the printing process, promoting man's heritage and development. Now, also in the same legendary place, CRON is taking on the task to further develop the printing culture. Its mission: to embark on the long journey of change and innovation in the printing industry.

Because of its mission, CRON has been committed to the optimization and innovation of traditional printing since 1992. CRON's mission is to bring sustained benefits to printing enterprises through creative engineering and excellent manufacturing processes.

Today, CRON employs a top-quality scientific research team with a high level of advanced technological experience in international applications and an ability for independent innovation. The team has obtained nearly one hundred patents.

With more than 20 years of innovation and development, CRON became the first company to draft the national standard for CTP in China. CRON is also the only certified CTP training center in China. Now a leader in the global CTP field, CRON has the largest CTP production base in the world with an annual capacity of more than 1000 units. To date, CRON has installed more than 6000 units around the world and supplied products and services to over one hundred countries.

CRON is committed to making scientific and technological innovation. Its driving force, valuing persistence and striving to make progress from the beginning to the end of every day. The company has consistently improved the technology in its four core products, namely offset CTP systems, HDI flexo CTP, Emerald environmentally friendly plate and the EZC intelligent printing system, created to exceed the requirements of the industry's fourth age.

From Germany to USA to Malaysia, CRON has opened branch offices around the world and at the same time, built its R&D and production base, parts centers and service base. CRON has earned praise from users worldwide and brings new power to the promotion of the printing industry because of its ability to innovate, its high quality and its comprehensive after-sales service.

CRON will stay true to its mission, maintain its belief, and move diligently ahead!



## GLOBALIZATION OF CRON



Hangzhou CRON Machinery & Electronics Co., Ltd. - CTP and other related equipment  
Jimu - eco-friendly CTP Plates | CRON intelligent technology - researching printing technology  
CRON Europe | CRON-ECRM | CRON Graphics (Malaysia)  
CRON Hong Kong | CRON Shenzhen | CRON Beijing

Excellent CRON HDI

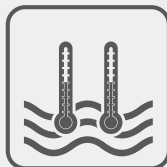


# CRON HDI - THE NEW FORCE IN FLEXO IMAGING

The new CRON HDI is derived from CRON's Offset CTP technology, a mature product used widely around the world. CRON has focused on the prepress industry for decades, and gained a number of national awards and intellectual property patents. At present, CRON has more than 6,000 CTP units installed, operating daily in many companies around the world. The CRON HDI encompasses the essence of CRON's CTP technology and has been especially developed and launched with the high-quality flexographic digital imaging market as its target.



Highly refined external drum



Constant temperature and dual-cooling system



V-shape guide



A state-of-the-art linear magnetic drive scanning system



Built-in dedusting system



Dynamic balancing system



Leak-proof drum vacuum channel system



Semi-conductor Multiple Fiber Array and Optical Imaging Technology

### State-of-the art linear magnetic drive scanning system

High speed, high accuracy, zero friction and maintenance-free operation guarantees reliable, stable laser output.

### Built-in dedusting system

Built-in design, high-efficiency dedusting - a powerful tool to resolve the difficult problem of ablation dust removal.

### Semi-conductor Multiple Fiber Array and Optical Imaging Technology

The laser system uses SMFO technology which helps to improve the resolution. Individual lasers can be changed or moved so that the cost of laser maintenance is greatly reduced.

### V-shape guide

The unique V-shape guide rail guarantees smooth and stable movement of the scanning platform increasing image quality.

### Precision external drum

Our class-leading external drum (surface flatness to within 5µm) lays a solid foundation for accurate laser focus and the sharpest possible dot reproduction.

### Constant temperature and dual-cooling system

The system ensures that the temperature of the lasers is maintained to within  $\pm 0.5^{\circ}\text{C}$ . As a result laser life is extended and output quality is maintained automatically.

### Leak-proof drum vacuum channel system

Vacuum pressure is stable for all sizes of plates. There is no need for zones or air valves, we make vacuum control simple and automatic.

### Dynamic balancing system

The drum will automatically balance for any thickness and size of plate.



## High Resolution Flexo Imaging



As the bright new force in digital flexo plate making, CRON brings its core strengths, its innovation and its product quality delivering high resolution flexo printing, bringing rich levels of color to printing and superb performance both in highlight and shadow areas. Results compare favorably to offset and gravure printing.

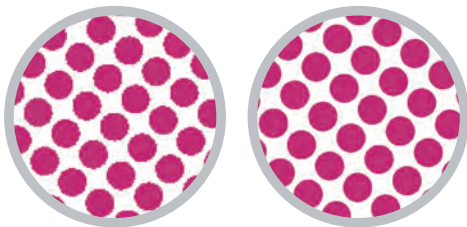
CRON HDI helps flexo printers to enhance their printing quality, improve customer satisfaction and at the same time improve their competitive advantage.

## High resolution is the foundation of high quality plate making.

CRON HDI brings the latest technology to flexo, featuring a resolution-set from starting at 2540dpi up to 4000, 4800, 5080 and 9600 dpi.

The high resolutions achieved have solved the common problems associated with lower resolutions (for instance jagged edges and curves), and significantly improved the printing quality of fine lines. It can also create smooth gradations, with no hard or sudden changes in tonal values.

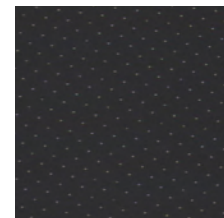
- (1) Makes printed colors richer;
- (2) Enhances the precision of security printing;
- (3) Solves the sawtooth noise problem of PCB circuit printing.



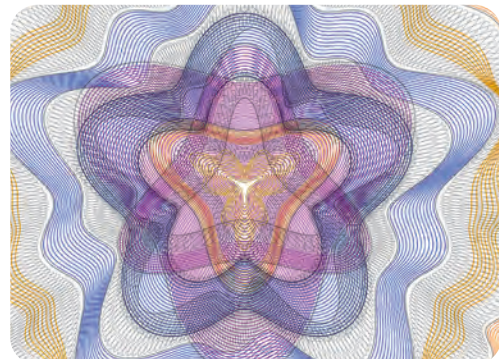
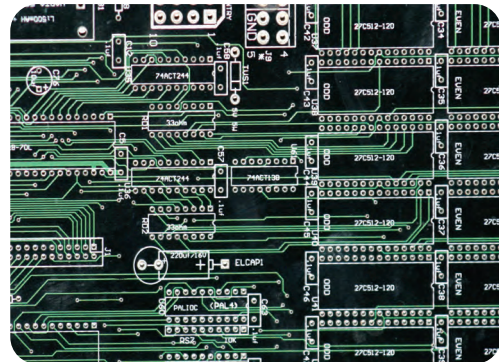
Dot reproduction: 4000 dpi vs 9600 dpi



0.01 mm positive line and negative line



1% dot



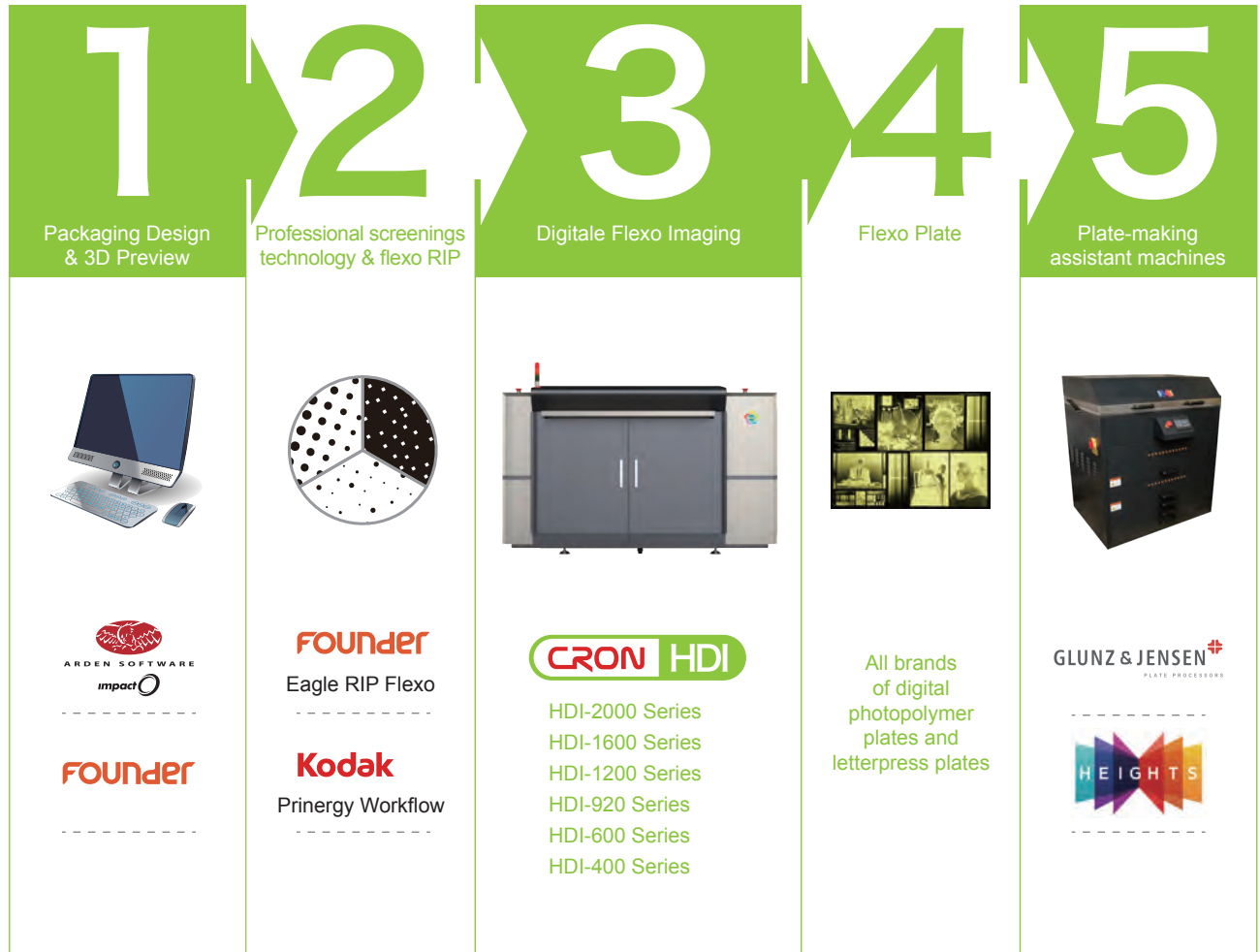
# Complete Flexo Plate Making Solution

CRON is dedicated to providing a cost-effective complete flexo plate-making solution - higher efficiency, lower investment and easier maintenance.

The packaging design and 3-D preview software from Arden in the UK, coupled with RIP and workflow software from Founder, Kodak Prinergy or other providers, leads to outstanding package design results. The digital flexo plates from Toyobo, Flint, MacDermid, DuPont, Toray, Huaguang and others have excellent performance when imaged on CRON HDI. Popular brands like G&J, Heights offer different levels of plate-processing equipment compatible with most brands of plates.

A perfect and reliable solution is the guarantee for making the best quality plates.

High-resolution plate imaging is the foundation of perfect printing.





CRON HDI in cooperation with professional workflow software can take full advantage of CRON HDI flexo capabilities and achieve a small, fine dot.

Working with strategic partners, CRON offers powerful workflow software such as Founder Eagle flexo RIP, Kodak Prinergy EVO, XITRON etc. Professional software meets high quality production requirements and offers high-resolution, specialized screening technology for flexo.

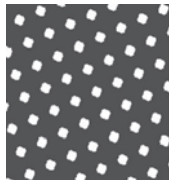
Working with CRON HDI it is possible to obtain the highest quality, high-resolution flexo printing.



**Optimized flexo screening**



Normal dot shape 85%



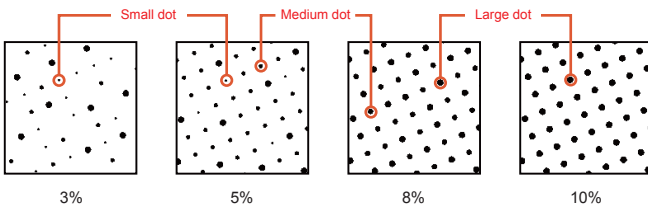
Flexo Round dot shape 85%

**Ganging software**



**Flexo Round Balance Screening**

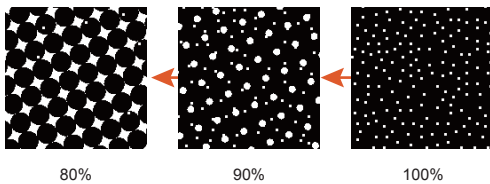
Achieve perfect gradients in highlight



**Miracle Cell technology**

Increase solid ink density

Miracle cell type sets to gradient, density of extract tiny dots is variable

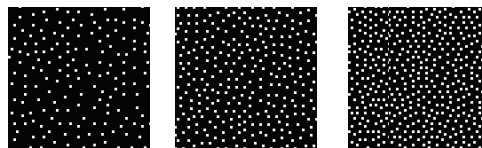


80%

90%

100%

Different miracle cell density setting

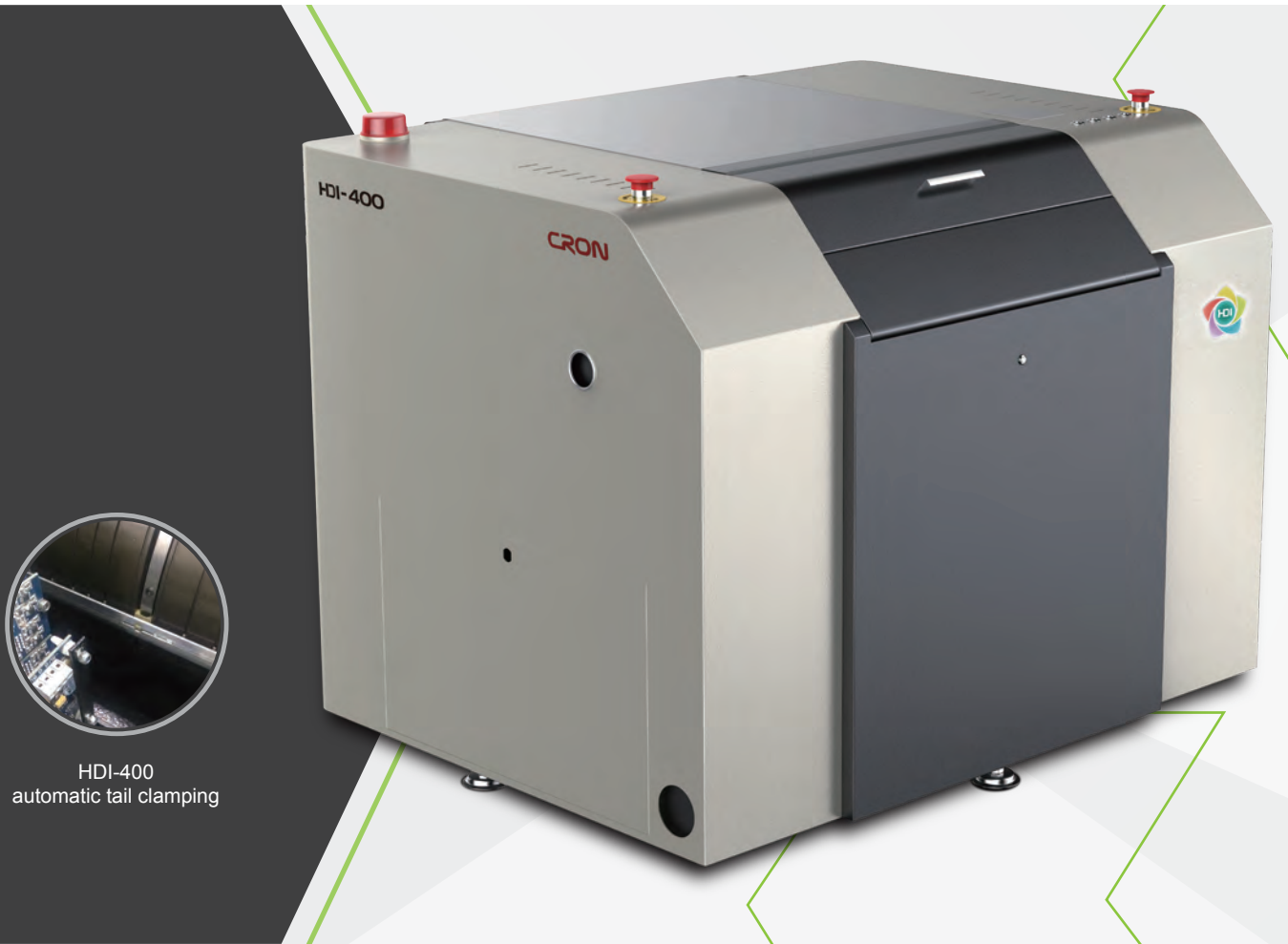


100%  
Miracle cell density: 6

100%  
Miracle cell density: 10

100%  
Miracle cell density: 15

## HDI-400 Series **Technical Specifications**



HDI-400  
automatic tail clamping

CRON HDI-400 is specially designed for high definition label printing on narrow-web flexo presses.

Configured with the advanced CRON SMFO laser optical system, CRON HDI-400 is steadily outputting accurate images which ensure high definition label prints.

The brand new CRON HDI-400 is the very first choice for label printers due to its easy operation its fine image and stability.

Model	HDI-400S	HDI-400S+	HDI-400H
Max. Size	430 x 560 mm (17 x 22 inch)		
Min. Size	100 x 100 mm (3.9 x 3.9 inch)		
Plate loading	Manual mounting, auto loading		
Resolutions	4000 dpi or 2540/4800/5080 dpi	4000/8000 dpi or 2540/4800/5080/9600 dpi	
* S series speed	1.0 ~ 1.8 m <sup>2</sup> /h (3.7 ~ 2.0 J/cm <sup>2</sup> ) 4800/5080 dpi		
* S+ series speed	1.0 ~ 1.8 m <sup>2</sup> /h (3.7 ~ 2.0 J/cm <sup>2</sup> ) 4800/5080 dpi	1.0 ~ 1.8 m <sup>2</sup> /h (3.7 ~ 2.0 J/cm <sup>2</sup> ) 9600 dpi**	
* H series speed	2.0 ~ 4.5 m <sup>2</sup> /h (3.7 ~ 2.0 J/cm <sup>2</sup> ) 4800/5080 dpi	2.0 ~ 2.4 m <sup>2</sup> /h (3.7 ~ 2.0 J/cm <sup>2</sup> ) 9600 dpi***	
Plate type	Digital flexo plates, Letterpress, Ablative film		
Plate thickness	0.11 mm ~ 3.94 mm		
Net weight	500 kg		
Power Supply	Single phase 220V±5% 50/60Hz		
Rated Power	4.3 kW		
Dimensions	900 x 1160 x 950 mm (L x W x H)		
Environment	18 ~ 28°C, RH: 40% ~ 60% (non-condensing)		

\* The speed data in this sheet is for the max. size, HDI-400 series maximum plate length is 560 mm.

\*\* When the plate making resolution is 9600 dpi, the maximum output speed is 1.1 m<sup>2</sup>/h.

\*\* When the plate making resolution is 9600 dpi, the maximum output speed is 1.7 m<sup>2</sup>/h.

CRON reserves the rights to modify or change the design and technical parameters without prior notice.

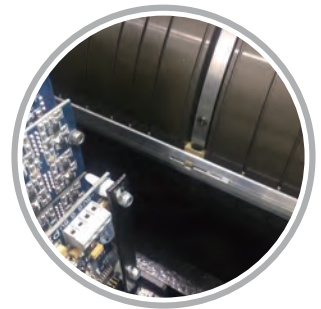
## HDI-600 Series **Technical Specifications**



Label printing companies usually have a variety of types of presses. They may have to use letterpress, flexo and dry film at the same time. CRON HDI-600 can meet the demands of different types of presses to make plates.

CRON HDI-600 is the first automatic plate-making machine that doesn't need to use tape to secure the plate on the drum.

CRON HDI-600 is designed for high-resolution label printing.



HDI-600 automatic tail clamping



Model	HDI-600S	HDI-600S+	HDI-600H	HDI-600H+
Max. Size	660 x 560 mm (26 x 22 inch)			
Min. Size	100 x 130 mm (3.9 x 5.1 inch)			
Plate loading	Manual mounting, auto loading			
Resolutions	4000 dpi or 2540/4800/5080 dpi		4000/8000 dpi or 2540/4800/5080/9600 dpi	
* S series speed	1.1 ~ 2.5 m <sup>2</sup> /h (4.5 ~ 2.0 J/cm <sup>2</sup> ) 4800/5080 dpi			
* S+ series speed	1.1 ~ 2.5 m <sup>2</sup> /h (4.5 ~ 2.0 J/cm <sup>2</sup> ) 4800/5080 dpi		1.0 ~ 1.5 m <sup>2</sup> /h (4.5~ 2.0 J/cm <sup>2</sup> ) 9600 dpi**	
* H series speed	2.0 ~ 4.5 m <sup>2</sup> /h (4.5 ~ 2.0 J/cm <sup>2</sup> ) 4800/5080 dpi		2.0 ~ 2.4 m <sup>2</sup> /h (4.5 ~ 2.0 J/cm <sup>2</sup> ) 9600 dpi***	
* H+ series speed	3.5 ~ 4.5 m <sup>2</sup> /h (4.5 ~ 2.0 J/cm <sup>2</sup> ) 4800/5080 dpi		2.4 m <sup>2</sup> /h (4.5 ~ 2.0 J/cm <sup>2</sup> ) 9600 dpi***	
Plate type	Digital flexo plates, Letterpress, Ablative film			
Plate thickness	0.11 mm ~ 3.94 mm			
Net weight	780 kg			
Power Supply	Single phase 220V±5% 50/60Hz			
Rated Power	5.1 kW			
Dimensions	1175 x 1400 x 1050 mm (L x W x H)			
Environment	18 ~ 28°C, RH: 40% ~ 60% (non-condensing)			

\* The speed data in this sheet is for the max. size, HDI-600 series maximum plate length is 560 mm.

\*\* When the plate making resolution is 9600 dpi, the maximum output speed is 1.1 m<sup>2</sup>/h.

\*\*\* When the plate making resolution is 9600 dpi, the maximum output speed is 1.7 m<sup>2</sup>/h.

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## HDI-920 Series **Technical Specifications**



The CRON HDI-920 is the ideal model for medium size flexo printers.

Whether for labels, tags, flexible packaging, paper cups, folding cartons or general commercial printing CRON HDI-920 can easily handle the task.

Now with both head and tail clamp the CRON HDI-920 can handle almost any thermally imaged media from a variety of manufacturers, all with excellent results.

Media includes digital flexo plates, letterpress plates (polyester and metal back), thermal ablative film and thermal offset plates (0.11 - 3.94 mm).

Model	HDI-920S	HDI-920S+	HDI-920H	HDI-920H+
Max. Size	920 x 675 mm (36 x 26.5 inch)			
Min. Size	100 x 130 mm (3.9 x 5.1 inch)			
Plate loading	Manual mounting, auto loading			
Resolutions	4000 dpi or 2540/4800/5080 dpi		4000/8000 dpi or 2540/4800/5080/9600 dpi	
* S series speed	1.0 ~ 2.4 m <sup>2</sup> /h (4.5 ~ 2.0 J/cm <sup>2</sup> ) 4800/5080 dpi			
* S+ series speed	1.0 ~ 2.4 m <sup>2</sup> /h (4.5 ~ 2.0 J/cm <sup>2</sup> ) 4800/5080 dpi		1.0 ~ 1.6 m <sup>2</sup> /h (4.5 ~ 2.0 J/cm <sup>2</sup> ) 9600 dpi**	
* H series speed	2.0 ~ 4.5 m <sup>2</sup> /h (4.5 ~ 2.0 J/cm <sup>2</sup> ) 4800/5080 dpi		1.7 ~ 2.4 m <sup>2</sup> /h (4.5 ~ 2.0 J/cm <sup>2</sup> ) 9600 dpi***	
* H+ series speed	3.6 ~ 4.5 m <sup>2</sup> /h (4.5 ~ 2.0 J/cm <sup>2</sup> ) 4800/5080 dpi		2.4 m <sup>2</sup> /h (4.5 ~ 2.0 J/cm <sup>2</sup> ) 9600 dpi***	
Plate type	Digital flexo plates, Letterpress, Ablative film			
Plate thickness	0.11 mm ~ 3.94 mm			
Net weight	880 kg			
Power Supply	Single phase 220V±5% 50/60Hz			
Rated Power	5.6 kW			
Dimensions	1300 x 1650 x 1100 mm (L x W x H)			
Environment	18 ~ 28°C, RH: 40% ~ 60% (non-condensing)			

\* The speed data in this sheet is for the max. size, HDI-920 series maximum plate length is 675 mm.

\*\* When the plate making resolution is 9600 dpi, the maximum output speed is 1.3 m<sup>2</sup>/h.

\*\*\* When the plate making resolution is 9600 dpi, the maximum output speed is 2.0 m<sup>2</sup>/h.

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# HDI-1200 and HDI-1600 Series **Technical Specifications**



CRON HDI-1200 and HDI-1600 is the first choice for wide format packaging flexo printing companies and plate-making centers.

CRON HDI-1200 and HDI-1600 has a unique integrated platform that can automatically load and unload large plates, effectively minimizing the chance of damage and avoiding potential waste caused by manual loading of plates. As a result the CRON HDI-1200 and HDI-1600 is very efficient and production costs are reduced.

Neither air valves nor plastic sheets are needed to seal drum vacuum holes when using CRON's unique patented leak-proof drum vacuum system. It is simple to use and highly efficient.



HDI-1200 and HDI-1600  
automatic load and  
unload platform



Model	HDI-1200S HDI-1600S	HDI-1200S+ HDI-1600S+	HDI-1200H HDI-1600H	HDI-1200H+ HDI-1600H+
Max. Size	HDI-1200 Series 1000 x 1200 mm (39 x 47 inch) HDI-1600 Series 1524 x 1200 mm (60 x 47 inch)			
Min. Size	200 x 200 mm (7.9 x 7.9 inch)			
Plate loading	Manual mounting, auto loading			
Resolutions	4000 dpi or 2540/4800/5080 dpi		4000/8000 dpi or 2540/4800/5080/9600 dpi	
* S series speed	1.0 ~ 2.4 m <sup>2</sup> /h (4.5 ~ 2.0 J/cm <sup>2</sup> ) 4800/5080 dpi			
* S+ series speed	1.0 ~ 2.4 m <sup>2</sup> /h (4.5 ~ 2.0 J/cm <sup>2</sup> ) 4800/5080 dpi		1.0 ~ 1.6 m <sup>2</sup> /h (4.5 ~ 2.0 J/cm <sup>2</sup> ) 9600 dpi	
* H series speed	2.0 ~ 4.6 m <sup>2</sup> /h (4.5 ~ 2.0 J/cm <sup>2</sup> ) 4800/5080 dpi		1.6 ~ 2.4 m <sup>2</sup> /h (4.5 ~ 2.0 J/cm <sup>2</sup> ) 9600 dpi	
* H+ series speed	3.8~ 4.6 m <sup>2</sup> /h (4.5 ~ 2.0 J/cm <sup>2</sup> ) 4800/5080 dpi		2.84 m <sup>2</sup> /h (4.5 ~ 2.0 J/cm <sup>2</sup> ) 9600 dpi	
Plate type	Digital flexo plates, Letterpress, Ablative film			
Plate thickness	0.11 mm ~ 3.94 mm			
Net weight	1480 kg			
Power Supply	Single phase 220V±5% 50/60Hz			
Rated Power	6 kW			
Dimensions	1150 x 2315 x 1175 mm (L x W x H)			
Environment	18 ~ 28°C, RH: 40% ~ 60% (non-condensing)			

\* The speed data in this sheet is for the max. size, HDI-1200 and HDI-1600 series maximum plate length is 1200 mm.

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## HDI-2000 Series Technical Specifications



CRON HDI-2000 series is the very first choice for high-volume flexo trade shops and corrugated converters.

As the very first full-size flexo imager made in China, the CRON HDI-2000 is compatible with all 50" x 80" size flexo plates, hence perfectly achieves maximum plate utilization.

Configured with CRON's dual clamping systems (both head- and tail-clamp), the HDI-2000 greatly assist trade shops in efficiency improvement. The CRON HDI-2000 takes plates up to a thickness of 7 mm which can be loaded from the loading table situated on the top of the machine. The loading and unloading cycle is fully automatic and reduces the amount of manual labour to a minimum.



HDI-2000 automatic load and unload platform

Model	HDI-2000S	HDI-2000S+	HDI-2000H	HDI-2000H+
Plate size	2032 x 1270 mm (80 x 50 inch)			
Plate loading	Manual mounting, auto loading			
Resolutions	4000 dpi or 2540/4800/5080 dpi		4000/8000 dpi or 2540/4800/5080/9600 dpi	
* S series speed	1.0 ~ 2.4 m <sup>2</sup> /h (4.5 ~ 2.0 J/cm <sup>2</sup> ) 4800/5080 dpi			
* S+ series speed	1.0 ~ 2.4 m <sup>2</sup> /h (4.5 ~ 2.0 J/cm <sup>2</sup> ) 4800/5080 dpi		1.0 ~ 1.6 m <sup>2</sup> /h (4.5 ~ 2.0 J/cm <sup>2</sup> ) 9600 dpi	
* H series speed	2.0 ~ 4.6 m <sup>2</sup> /h (4.5 ~ 2.0 J/cm <sup>2</sup> ) 4800/5080 dpi		1.6 ~ 2.4 m <sup>2</sup> /h (4.5 ~ 2.0 J/cm <sup>2</sup> ) 9600 dpi	
* H+ series speed	3.8 ~ 4.6 m <sup>2</sup> /h (4.5 ~ 2.0 J/cm <sup>2</sup> ) 4800/5080 dpi		2.84 m <sup>2</sup> /h (4.5 ~ 2.0 J/cm <sup>2</sup> ) 9600 dpi	
Plate type	Digital flexo plates, Letterpress, Ablative film			
Plate thickness	0.11 mm ~ 6.35mm			
Net weight	2800 kg			
Power Supply	Single phase 220V±5% 50/60Hz			
Rated Power	6 kW			
Dimensions	1400 x 2810 x 1125 mm (L x W x H)			
Environment	18 ~ 28°C, RH: 40% ~ 60% (non-condensing)			

\* The speed data in this sheet is for the max. size, HDI-2000 series maximum plate length is 1270 mm.

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High Definition Digital Flexo Imager

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