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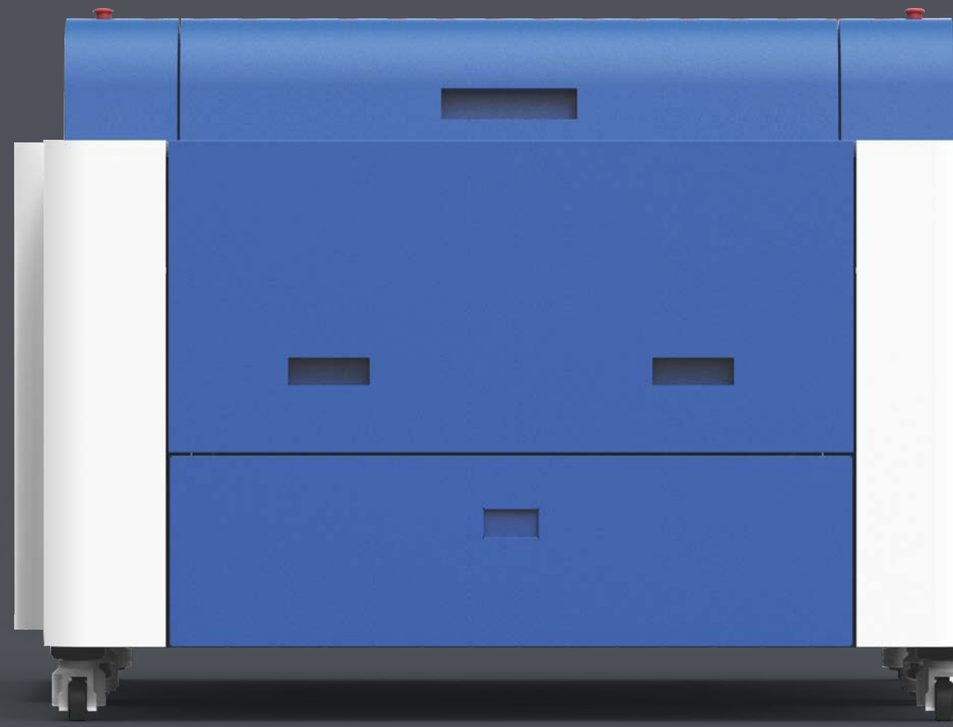
AMSKY

AURORA T256 CTP



AMSKY

AMSKY TECHNOLOGY CO., LTD.

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Binjiang District, Hangzhou, China

AMSKY CTP

COMPANY PROFILE

AMSKY Technology Co., Ltd. (hereinafter referred to as AMSKY Stock code: 300521) was founded in 2006 and officially listed on GEM in Shenzhen Stock Exchange in 2016. Headquartered in Guangdong, China，AMSKY currently has nine subsidiaries.

AMSKY is a new hi-tech enterprise who commits to the development and research of core technology for industrial printing, as well as the integration of multi-technology. (including MEMS, high-power laser, precision manufacture and intelligent control) At present, AMSKY has mastered three core technologies, namely laser technology (spatial light modulator), piezoelectric ink-jet printing technology, and precision motion control system, and has been awarded 11 patents for invention, 61 patents for utility models and 34 software copyrights.

With more than ten years of technology accumulation and development. AMSKY has become well-known enterprise in global CTP (Computer-to-Plate) industry. AMSKY products are available worldwide now. In the future, AMSKY will continuously apply three core printing technologies to replace traditional subtractive manufacturing with additive manufacturing and adopt digital, intelligent, and green printing technology to subvert traditional manufacturing industry and print your dream, finally to be the world-renowned brand in the field of industrial printing.

Establish PKU-AMSKY joint innovation lab of Intelligent equipment with PEKING University

Establish the doctor station with Zhejiang University

Cooperate with school of software of Beijing Institute of Technology in the special R&D project

Cooperate with Hebei University of Technology in 3D printing

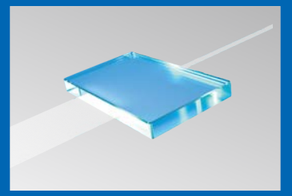
Cooperate with Zhejiang University of Technology in 3D printing

AMSKY COOPERATES CLOSELY WITH MANY DOMESTIC KEY UNIVERSITIES IN MANY FIELDS.

广州爱司凯大厦

杭州爱司凯大楼

THREE CORE TECHNOLOGIES SUBVERT TRADITIONAL MANUFACTURE

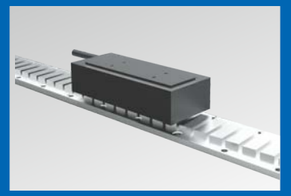


SPATIAL LIGHT MODULATOR TECHNOLOGY

Break through the traditional optical fiber technology limitation, and divide a laser beam into 256 channels of small laser beams which can be controlled individually by software program.

REPRESENTATIVE PRODUCTS:
256-channel laser light valve

APPLICATIONS:
Micron-level high-precision printing, laser cutting, 3D printing and CTP



RECISION MOTION CONTROL SYSTEM

The self-developed linear motors, voice coil motors, servo drives, and motion control cards can cover the positioning accuracy range from micrometer level to nanometer level. With the self-developed supporting control systems, it provides a complete set of solutions to meet the motion control requirements of various automation devices.

REPRESENTATIVE PRODUCTS:
linear motors and servo drives

APPLICATIONS:
High-precision industrial automation device, industrial robot, 3D print, laser cutting, CTP and high-precision industrial print

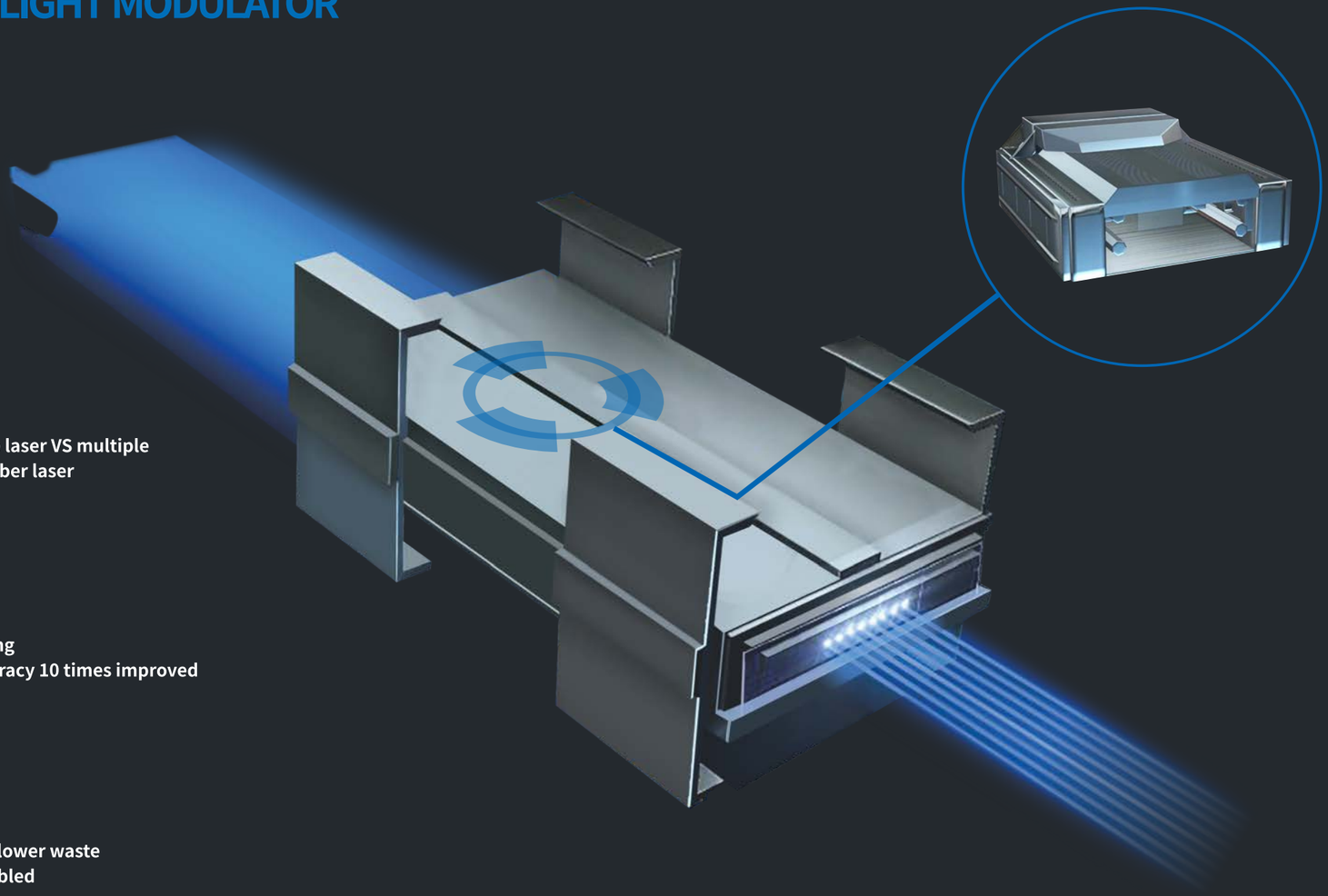
PIEZOELECTRIC INKJET PRINTING TECHNOLOGY

A kind of on-demand inkjet printing technology; It utilizes the deformation features of the piezoelectric ceramics when the voltage changes to squeeze the ink out of the nozzle. The high printing quality and long service life make it become the mainstream technology of industrial inkjet printing, regardless of extremely high process requirement. At present, the industry market in China is mainly monopolized by foreign manufacturers

REPRESENTATIVE PRODUCTS:
Piezoelectric inkjet print head (The first piezoelectric inkjet print head for application development in China)

APPLICATIONS:
3D print, digital garment printing, electronic printing, inkjet ceramics outdoor inkjet and label printing

TECHNICAL ADVANTAGES OF 256-CHANNEL SPATIAL LIGHT MODULATOR



Single light source laser VS multiple channels optical fiber laser

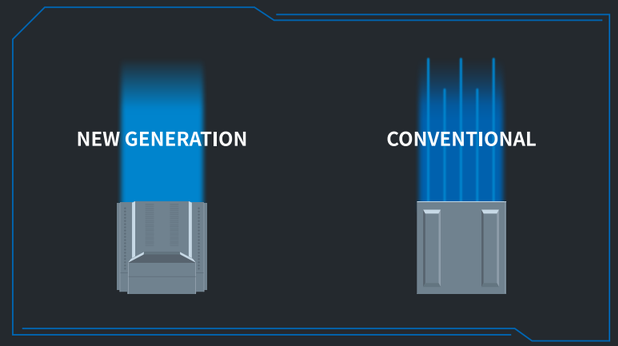
Square dot imaging
Fineness and accuracy 10 times improved

Higher efficiency, lower waste
Output speed doubled

Differing from the current optical fiber carriage, the AMSKY self-developed 256-channel laser carriage adopts spatial light modulator to divide a laser beam into 256 channels of small laser beams and achieves sharp-edged square dot imaging on plate. In comparison to conventional optical fiber technology, the average energy of each channel is easier to be controlled and the dot quality is more consistent, guaranteeing the printing quality.

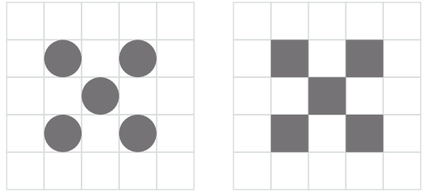
In terms of precision, this technology, with the fine dot feature, breaks through the high-precision requirements and reaches up to 12800 dpi resolution. Even applying in the special printing with high resolution requirement, the result is excellent.

The single light source laser used; the flexibility for selecting the light source energy and stable power control provide more selections of output speed, meeting the requirement of different customers.



SQUARE DOT IMAGING, FINENESS AND PRECISION 10 TIMES IMPROVED

The square dot with sharp edge feature and a rectangular step-shaped distribution of energy used in 256-channel spatial light modulator technology makes the image clearer, 10 times more accurate than 200lpi AM screening and the color saturation is increased by over 21%. In addition, AMSKY 256-channel spatial light modulator technology can accurately match the resolution of the actual file in the circumference direction, and adjust the length and width ratio of square dot to achieve perfect variable resolution printing.

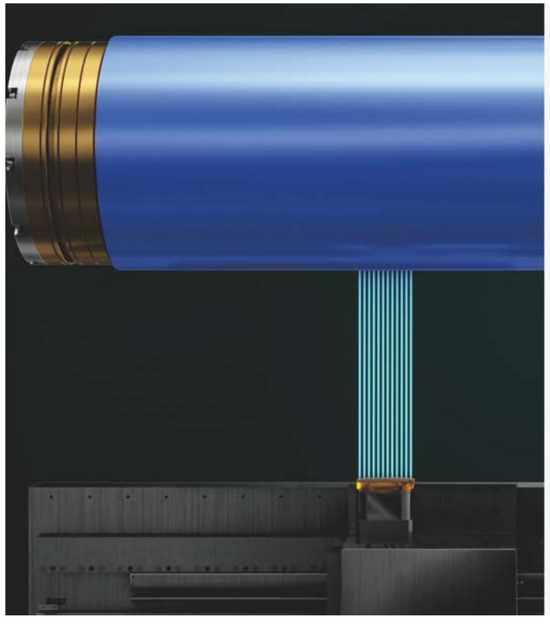


CIRCULAR DOT

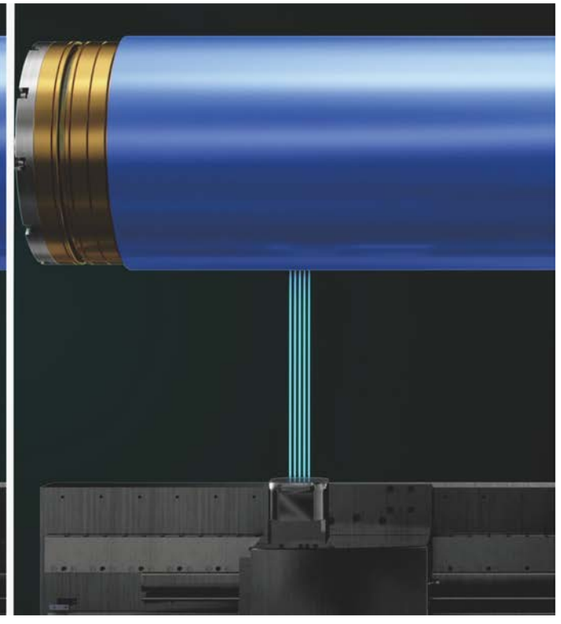
SQUARE DOT

Color saturation increased by 21%

Original color saturation



256-channel spatial light modulator technology



Conventional optical fiber technology

HIGHER EFFICIENCY, LOWER LOSS—OUTPUT SPEED DOUBLED

The 256-channel spatial light modulator technology can generates 180-320 channels of small laser beams simultaneously, which breaks through the limits of conventional optical fiber technology for CTP and makes output speed twice as fast as the fiber technology. This technology not only realizes rapid plate making, but also drops drum speed to 300-500rpm, only 30%-50% of the conventional optical fiber CTP. Thanks to the 256-channel spatial light modulator, the CTP has the advantages of stability, lower energy consumption and small erosion, etc.

TECHNICAL ADVANTAGES OF AURORA T256 CTP FOR NEWSPAPER

At present, there are thermal CTP and photopolymer CTP. Thermal CTP accounts for 95% of the market share. AMSKY Aurora T256 CTP is thermal CTP.

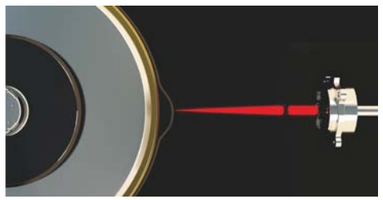
THERMAL CTP	VS	PHOTOPOLYMER CTP
Output speed: 30-100 plates/hour		High operation cost
Lower plate cost		High plate cost
Darkroom not needed		High environment requirement
		Serious pollution

EQUIPPED WITH AMSKY 256-CHANNEL SPATIAL LIGHT MODULATOR

Output speed doubled
Fineness and precision 10 times improved
Color saturation over 21% increased

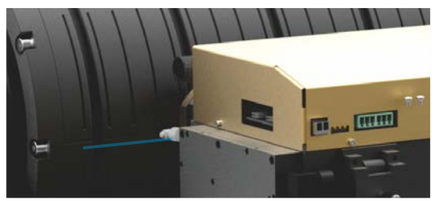
TRIANGULAR-DISPLACEMENT DYNAMIC AUTOFOCUS SYSTEM

Aurora T256 CTP uses the third-generation dynamic autofocus technology. Its accurate ranging system can directly detect small distance changes of 0.1 micron, and achieve the focus to be accurate at any time driven by voice coil motor. In the process of exposure, this system can real-time measure the distance between the plate and the lens and adjust the lens position to ensure the constant distance between the plate and the lens, so as to achieve the exposure accuracy of the whole plate.



LASER DETECTS PLATE EDGE TECHNOLOGY

Use the ultrafine 650nm infrared to find the edge of the plate without any effect on the plate, which perfectly matches the traditional plate edge aligning and punching method; better than the method of punching by cross line registration(the cross line cannot be seen on processing-free plate before printing)

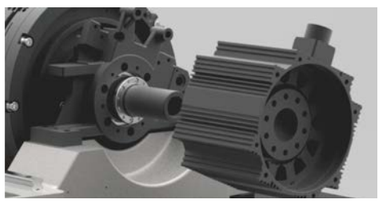


LINEAR MOTOR

The linear motor eliminates all kinds of positioning deviations caused by intermediate links, so the positioning precision is high. In addition, contactless transmission can be achieved. Except for the guide rail, almost no mechanical friction exists, more stability, less failure and longer service life.

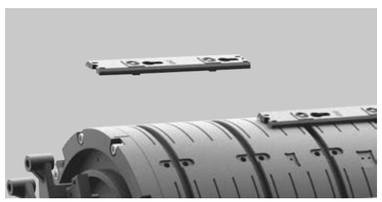
DIRECT DRIVE MOTOR

Extremely high positioning precision, fast acceleration; The direct drive motor significantly reduces the time of load & unload and greatly improves the efficiency, comparing to the conventional belt driving drum method.

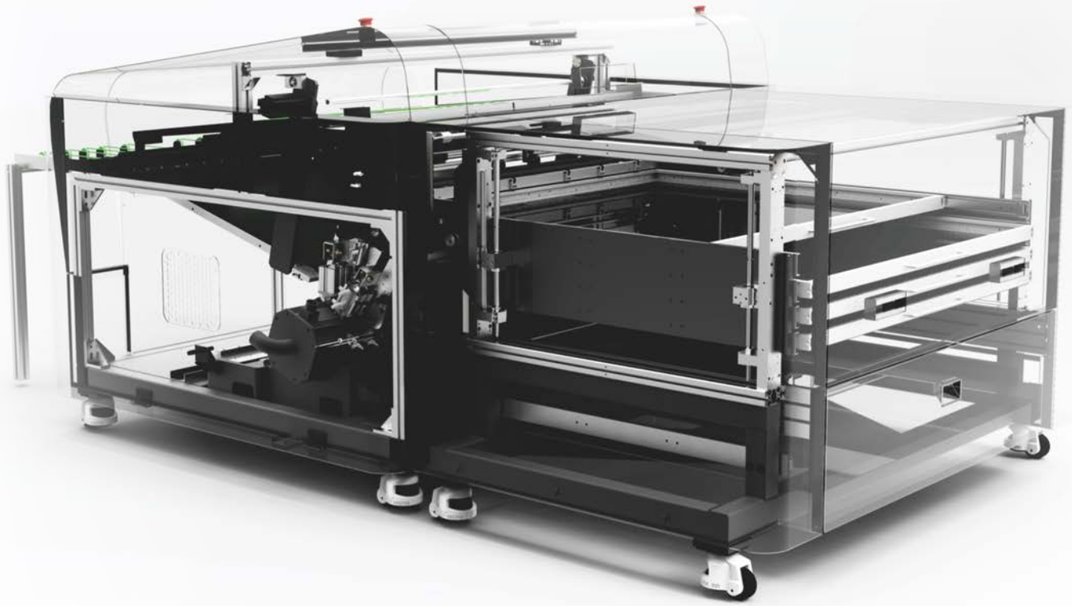


RELIABLE PLATE CLAMP TECHNOLOGY

Innovative design, reliability and free of maintenance; Even in the case of vacuum module failure, our clamp can still work reliably.



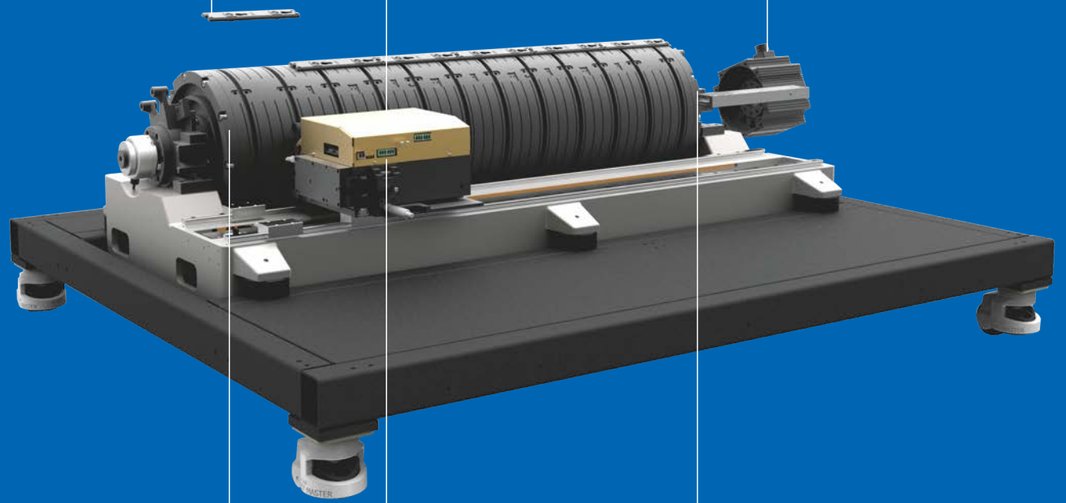
PERSPECTIVE OF DEVICE



RELIABLE PLATE CLAMP TECHNOLOGY
Free of maintenance
Stability

TRIANGULAR-DISPLACEMENT DYNAMIC AUTOFOCUS SYSTEM
Focus accurate at any time
Accurate exposure

DIRECT DRIVE MOTOR
Higher positioning precision
Reduce plate loading and unloading time



LASER DETECTS PLATE EDGE TECHNOLOGY
Automatic plate edge detection
Perfect alignment

256-CHANNEL SPATIAL LIGHT MODULATOR
256-channel laser light valve

LINEAR MOTOR
Eliminate the positioning deviation
Smooth movement

Appearance of CTP
with single cassette unit

Appearance of CTP
with multiple cassettes unit

AURORA T256-8 &T256-6 SERIES TECHNICAL SPECIFICATIONS

Model	T256-8/F3	T256-8/F4	T256-8/F5	T256-6/F4	T256-6/F5	T256-6/F7
Exposing Method	External Drum					
Imaging System	825nm laser					
Max. Output Speed	35plates/hour	45 plates/hour	55 plates/hour	42plates/hour	56 plates/hour	72 plates/hour
	1,030×800mm., Plate sensitivity: 100mJ/cm^2			780×660mm., Plate sensitivity: 100mJ/cm^2		
Plate Size	Max.1,163×940mm., Min.400×300mm.			Max.800×660mm., Min.300×300mm.		
Plate Thickness	0.15mm.-0.3mm.					
Resolutions	Standard: dual resolutions 2,400dpi and 1,200dpi, or 2,540dpi and 1,270dpi (Option) Variable high resolution option: maximum up to 12,800dpi at fast scan direction					
Repeatability	±0.01mm					
Interface	Optical Fiber (Fiber Way)					
Plate Loading	Standard single cassette unit, Multiple cassette unit (MCL-8) or large-capacity (single) cassette unit (PL-8)			Single cassette unit		
Plate Loading Quantity (0.27mm Plate)	Standard single cassette unit: 100 plates Multiple cassette unit (MCL-8): 400 plates (4×100 plates/cassette)			100 plates		
Punching System	Option: Internal punching (Five sets of plate holes)			Option: Internal punching (Three sets of plate holes)		
Net Weight	CTP with Single cassette unit: 1,250KG CTP with Multiple cassette unit: 1,650KG			1,000KG		
Device Size	CTP with Single cassette unit: 1,900×2,431×1,341mm. (L×W×H) CTP with Multiple cassette unit: 1,900×2,687×1,331mm. (L×W×H)			1,536×1,971×1,341mm. (L×W×H)		
Power Supply	CTP with Single cassette unit: Single phase: 220V, Power: 5KW(Peak value), 2KW (Average) CTP with Multiple cassette unit: Single phase: 220V, Power: 6KW(Peak value), 2.5KW (Average)			Single phase: 220V, Power: 4.5KW(Peak value), 2KW (Average)		
Environment	Operating temperature range:15-32°C Recommended temperature:21-28°C Humidity:<70%					

Model	T256-8N/F4	T256-8N/F6	T256-6N/F5	T256-6N/F8
Exposing Method	External Drum			
Imaging System	825nm laser			
Max. Output Speed	45 plates/hour	65 plates/hour	50 plates/hour	80 plates/hour
	886×586 mm, Plate sensitivity: 100mJ/cm^2, 1,200dpi		780×586 mm, Plate sensitivity: 100mJ/cm^2, 1,200dpi	
Plate Size	Max.1,163×940mm., Min.400×300mm.		Max.800×660 mm., Min 300×300 mm.	
Plate Thickness	0.15mm-0.3mm			
Resolutions	1,200dpi			
Repeatability	±0.01mm			
Interface	Optical Fiber (Fiber Way)			
Plate Loading	Standard single cassette unit, Multiple cassette unit (MCL-8) or large-capacity (single) cassette unit (PL-8)		Standard single cassette unit	
Plate Loading Quantity (0.27mm Plate)	Standard single cassette unit: 100 plates Multiple cassette unit (MCL-8): 400 plates (4×100 plates/cassette)		100 plates	
Net Weight	CTP with Single cassette unit: 1,250KG CTP with Multiple cassette unit: 1,650KG		1,000KG	
Device Size	CTP with Single cassette unit: 1,900×2,431×1,341mm. (L×W×H) CTP with Multiple cassette unit: 1,900×2,687×1,331mm. (L×W×H)		1,537×1,976×1,340 mm. (L×W×H)	
Power Supply	CTP with Single cassette unit: Single phase: 220V, Power: 5KW(Peak value), 2KW (Average) CTP with Multiple cassette unit: Single phase: 220V, Power: 6KW(Peak value), 2.5KW (Average)			
Environment	Operating temperature range:15-32°C Recommended temperature:21-28°C Humidity:<70%			

SERVICE