

# SMTJET NEW MODEL STARFIRE 3304



**Strong / Magnificent / Advanced**

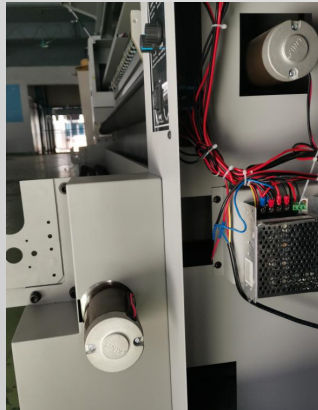
## Main Improvements Compare with Old Model:

1. 7000W Large Power Infrared heating and cooling fan, equals to double of old type



2. Feeding system improved 3 items:

- 1) Add one motor for media holding roller, for movement direction and speed adjusting



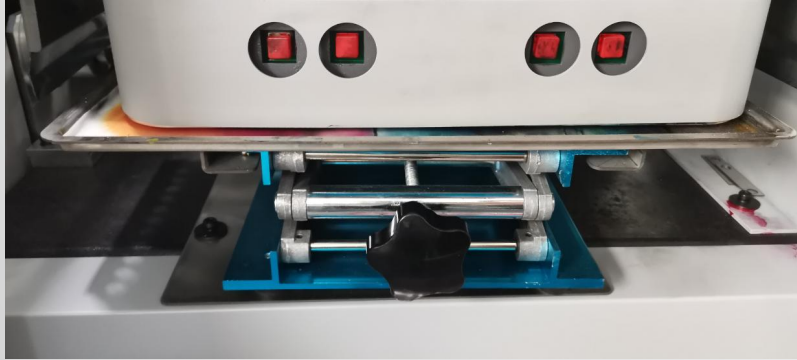
2) Pressure Media Roller fixed way improved, make it more straight and accurate.



3) Back plate of platform improved to be arc shape, more smoothly.  
Also metal plate extend to pinch roller's place, to be a whole part.



3. Ink Cartridge holding tray design improved, more durable(same as 6H and 5M model)

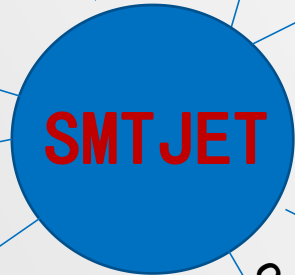


4. Platform air-suction cabin sealed with glass glue, prevent air leakage, media suction better.

5. Change the flat wire to High-flex data cable, lifetime longer.

6. Use Teflon ink tube, higher hardness, more wear-resistant.

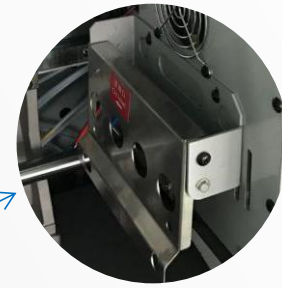
7. Machine more heavy, outlook more beautiful and magnificent.



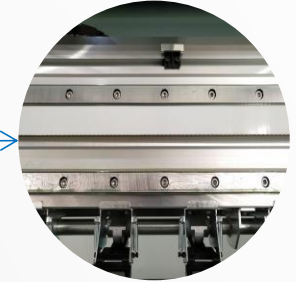
Starfire 1024  
10PL/25PL Printhead



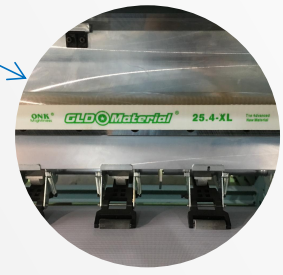
Japan Panasonic  
Servo Driver



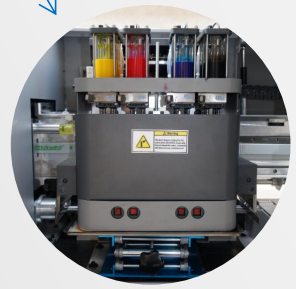
Anti-collision system



Hiwin Double mute guide rail



Taiwan ONK Synchronizing Belt



Circulation ink bottle



German IGUS Chain



Japan Panasonic Servo Motor



Japan SHARP detective sensor



Japan SMC Negative pressure Meter



**Machine Structure**

**Ink Circulation system**

**Electrical System**

**Ink & Cost**

**Service & Maintenance**

# Machine Structure



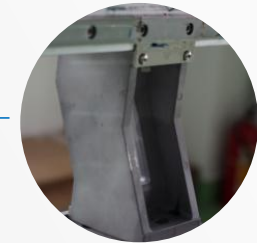
25\*20\*0.6CM Heavy-duty steel, more stable, high precision and strong pressure resistance.



Wholly processed by professional high precision CNC milling machine, quality assurance



Deformation resistance to pressure

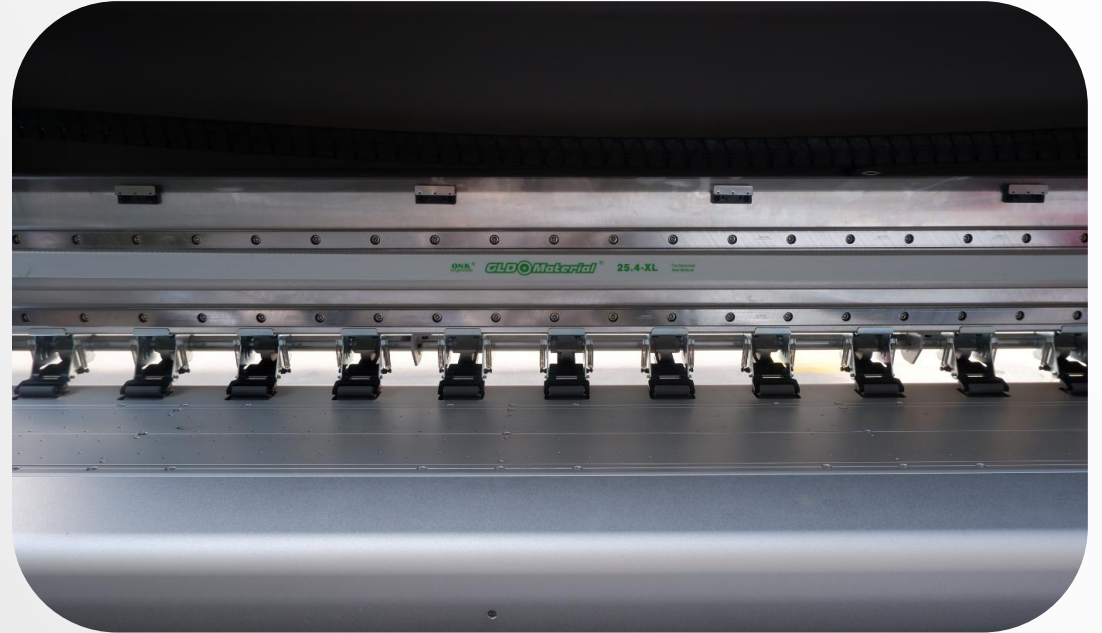


Optional take up system





**Segmented Platform Suction**



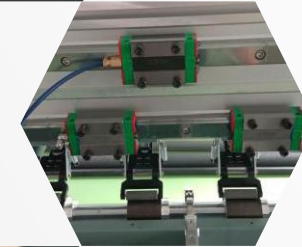
**All Aluminum Alloy Platform&Beam**



Imported double mute linear rail, with high rigidity, stability & pressure resistance, effectively reduce the weight of carriage station.

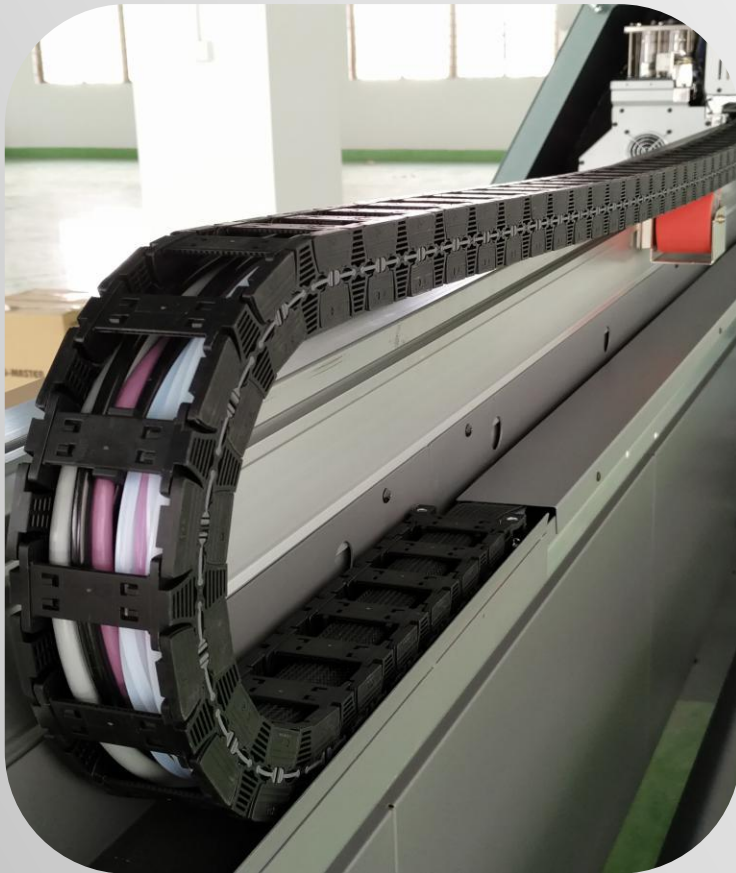


## Double Guide Rail



Carriage fixed by 3 pcs of imported slider with triangle. More stable & fluency, effectively improved the printing precision and speed.

German IGUS high-strength tank chain:  
heat and wear-resistant, flexible movement,  
protection of ink tubes and lines.



Taiwan ONK Timing Belt: high temperature, wear  
& corrosion resistant, with high strength toughened  
steel core, achieves a longer lifetime.

## Tank Chain & Belt



## Pinch Roller





**7000W Infrared heating**



**Improved Feeding System**

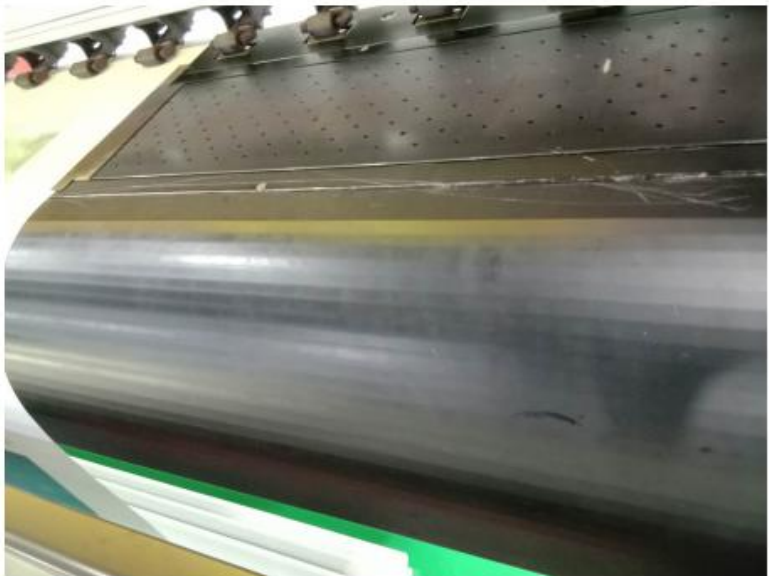




## 3 Section Heating

3 sections of heating system: back arc plate, middle printing platform and front arc plate heating, efficiently improves the drying speed to make printing more efficient & time saving.

Normal Machine : Metal heating plate



VS

SMTJET Machine : Aluminum Alloy heating plate

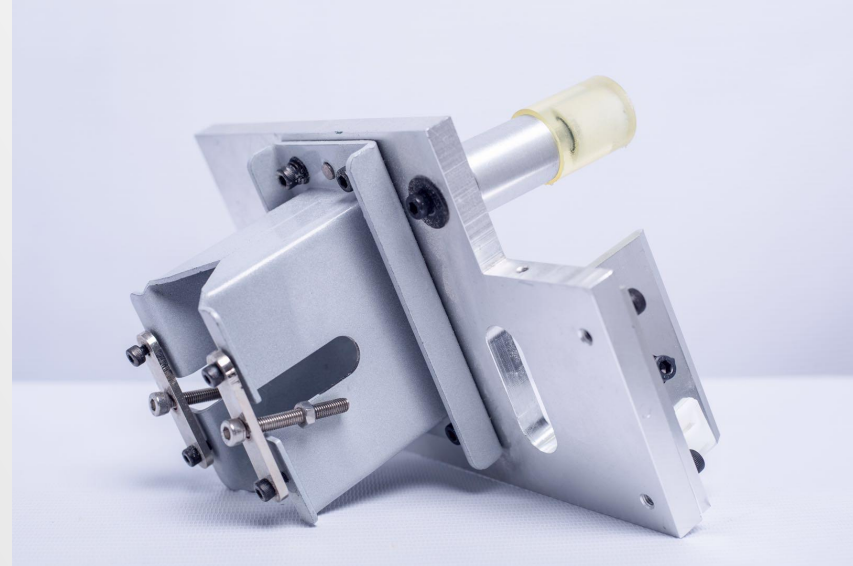


## Aluminum Alloy Gear Bracket

Bracket mounting plate for X axis active wheel & driven wheel all using 10mm thickness all aluminum alloy material and surface processed with enamel, not only stable but also Anti-oxidant & corrosion, also easier to clean and lifetime longer.



X Axis Driven Wheel Mounting Bracket



X Axis Active Wheel Mounting Bracket

## Powerful Ink Circulation System



large capacity capsule filters, prevent impurities come into nozzle



Large-capacity color separation circulation ink cartridges, ensures long time printing without any ink break

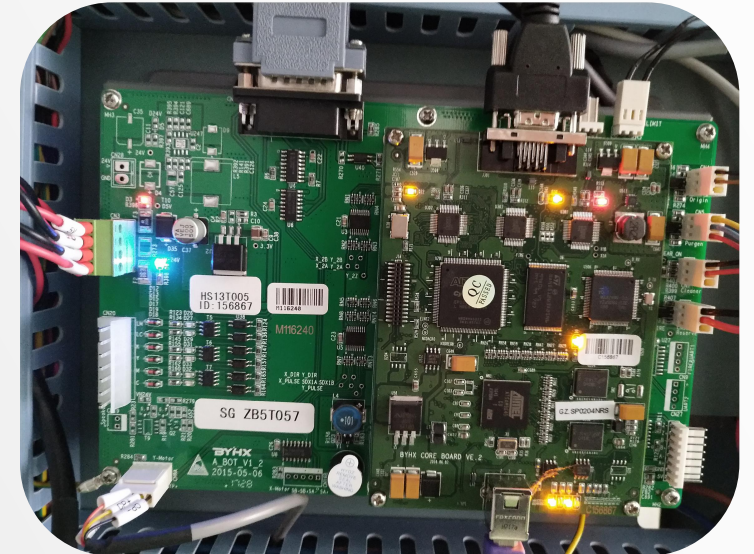
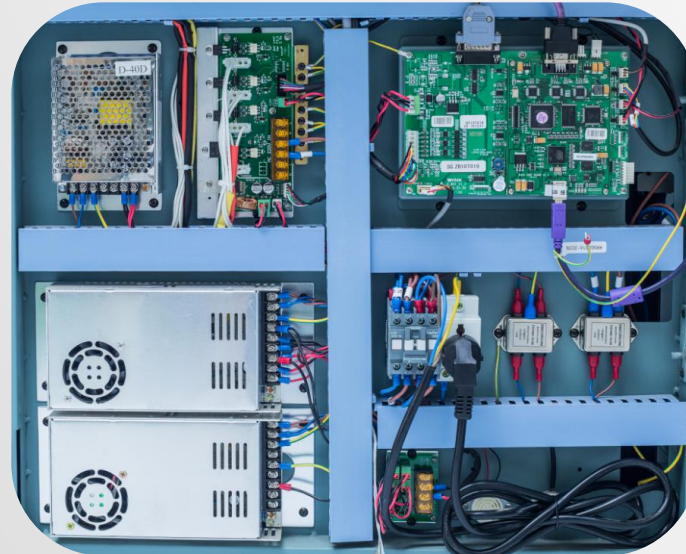
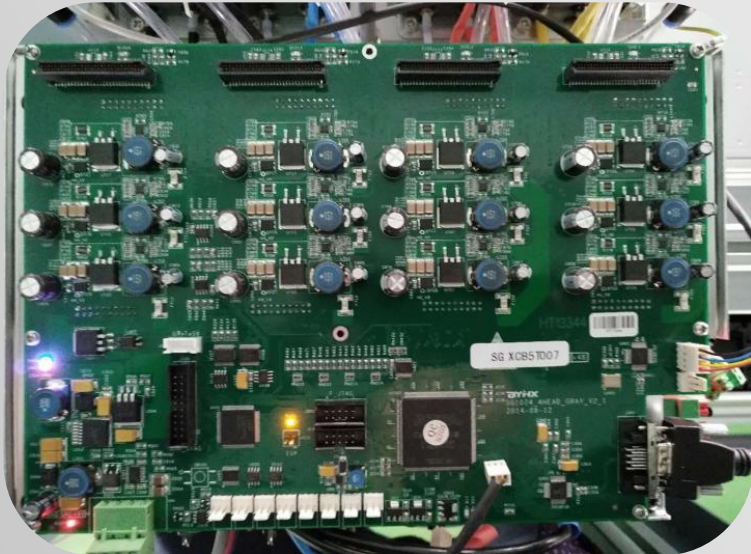


Double large-capacity negative pressure gas tank, enhances the buffer time of pressure, make ink circulation more stable & fluency.



## Electrical System

Beijing BYHX board (best board in China) , with a high degree of market acceptance, output standard and stable, low failure rate, higher accuracy & speed





## Motor & Driver

Motor using imported bearings and oil seals, strictly dynamic balance tested before delivery, with low noise.



Powerful Panasonic servo motor imported from Japan, quality assured, more stable and fast response, Anti-jamming and jitter & noiseless, suitable for long time working.





Braking resistor

Consumes the electric energy generated by motor decelerates, realizes a quick stop, stabilizes the internal current, ensures the servo motor and server operates stably.



2-way/3-way solenoid valve. Strong corrosion resistance and high pressure resistance, with long lifetime.



Japan SMC Negative Pressure Meter

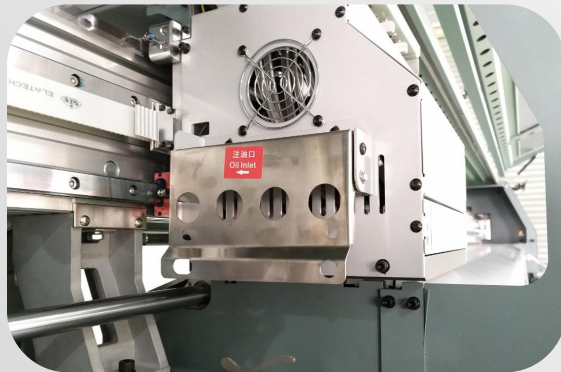


EMI Filter

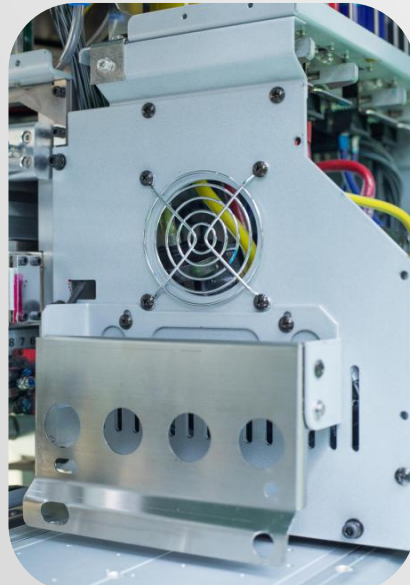
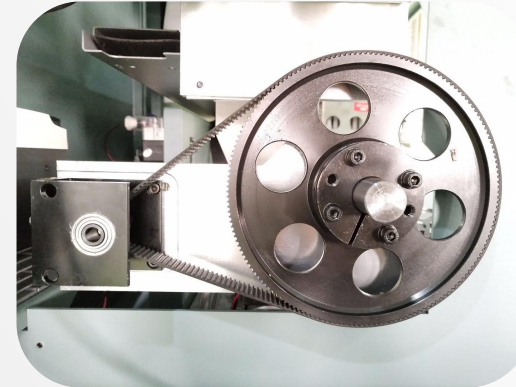


Leackage Protector

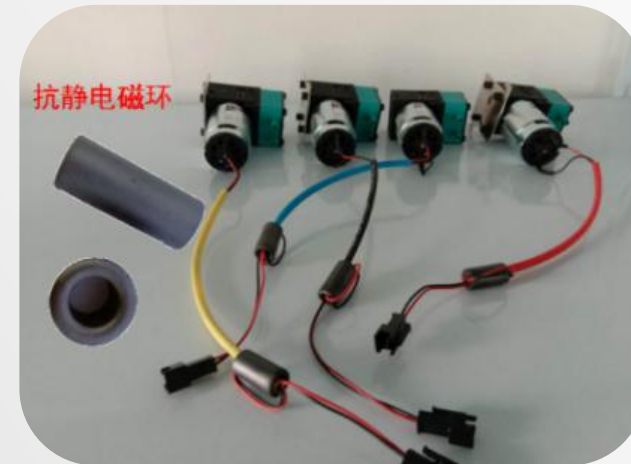
**Anti- collision system**



**Y Axis big diameter gear**



**Antistatic magnetic ring**





# Starfire Printhead



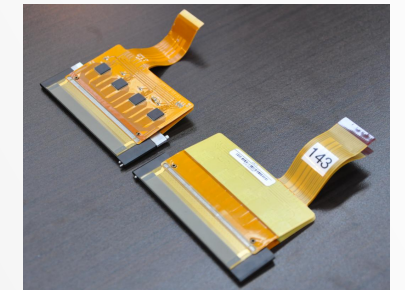
StarFire™  
SG-1024

**Dimatix**™

FUJIFILM Dimatix, Inc., a wholly owned subsidiary of FUJIFILM Corporation, is the world's premier provider of piezoelectric, drop-on-demand industrial inkjet printheads. Every product we deliver carries FUJIFILM Dimatix's more than quarter century of dedication to developing the world's most advanced, precise and reliable inkjet printheads, components and systems.

- **Inner Ink Heating & Circulation System, can use the high density & fast drying ink, prolong machine working time and more ink saving, continuous printing for 10 hours without stop.**
- **Variable Ink drop technology, 10PL small ink drop, 25PI middle and 65PL big ink drop. Both light & deep color printing can achieve a bright and good color effect.**
- **Printhead is detachable, parts are removable and repairable. Lifetime 5-8 years. Using cost lesser.**
- **1024 nozzles, high density designed, achieve high speed & high resolution printing, and long lifetime.**

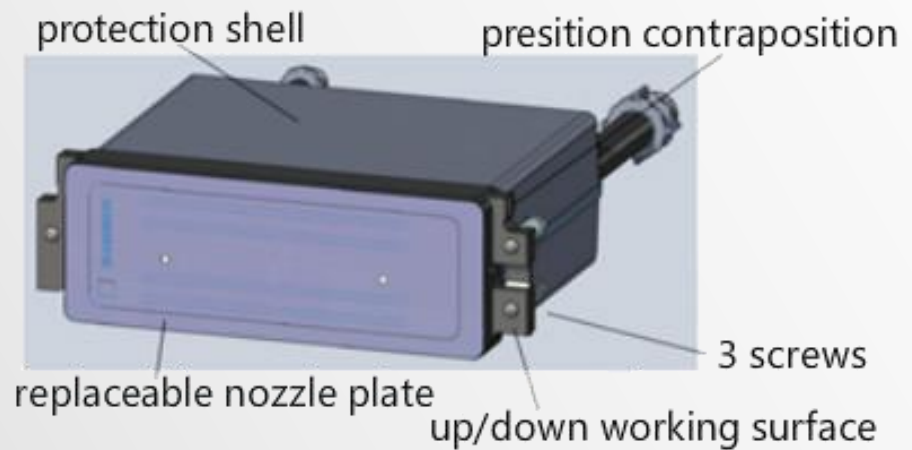
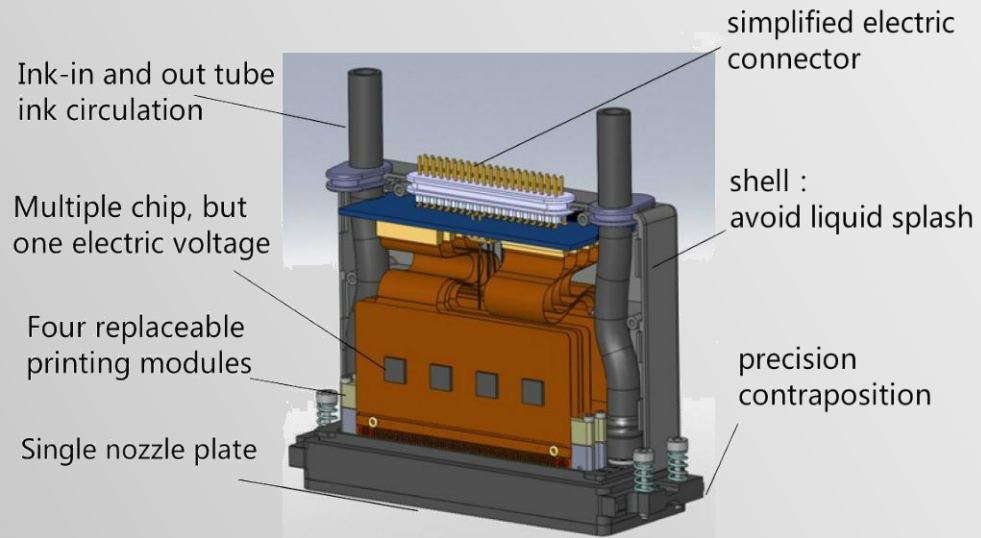
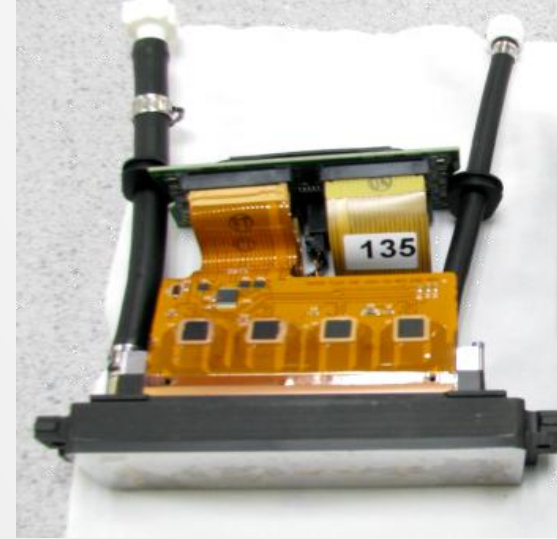
**Starfire™ SG-1024/M-C** is a compact unit built to withstand the harsh environment of industrial ceramic tile production. It combines field-proven materials with a repairable design and continuous ink recirculation to deliver consistent and reliable output over a long service life.





**StarFire™**  
SG-1024



## Printhead Comparison

Printhead Company	Printhead type	Nozzle quantity	Inigation frequency	Resolution	Drop size	Jet speed	Servo motor voltage	Romovable	Reparable	Ink consumption per sqm
United States Starfire	Spectra 512	512	25khz	200dpi	35PL	8m/s	110-130v	NO	NO	13ml
	StarFire SG1024 MC	1024	50khz	400dpi 128×8	25PL	8m/s	110-130v	YES	YES	9ml
	StarFire SG1024 SC	1024	50khz	400dpi 128×8	10PL	8m/s	110-130v	YES	YES	9ml
Japan Seiko	SEIKO 510	510	18khz	200dpi	50PL	7m/s	36v	NO	NO	16ml
Japan Konica	KM 512i	512	20khz	360dpi	50PL	6m/s	36v	NO	NO	16ml
Japan Konica	<b>KM 1024i</b>	<b>1024</b>	<b>12.8khz</b>	<b>180dpi×2</b>	<b>30PL</b>	<b>6m/s</b>	<b>110v</b>	<b>NO</b>	<b>NO</b>	<b>16ml</b>

### Print 720000m<sup>2</sup> Printhead Using Cost :



	Polaris-8H	XAAR600-12H	Konica1024-8H	Seiko-4H	Starfire-4H	Espon DX5-1H
<b>Need Change Heads' Amount (2 Year)</b>	1-2	1-2	1-2	4-8	0	3
<b>Cost for Heads (2 Year)</b>	\$2300	\$1200	\$2000	\$4000	\$700	\$3000
<b>Good Color effect Production Speed</b>	130m <sup>2</sup> /h	85m <sup>2</sup> /h	105m <sup>2</sup> /h	80m <sup>2</sup> /h	250m <sup>2</sup> /h	15m <sup>2</sup> /h
<b>Print 720000m<sup>2</sup> takes time</b>	4 Year	6 Year	5 Year	6 Year	2 Year	33 Year
<b>Using Cost/ 720000m<sup>2</sup>:</b>	\$4600	\$3600	\$5000	\$12000	\$700	\$49500



## Ink & Cost

Original SMTJET ink is high-viscosity & high-color density ink, ink toner content is double of normal ink, 2 pass effect equals with normal 3&4 passes, more ink-saving and very good fluency. Matching with original ICC profile, images colorful and vivid.



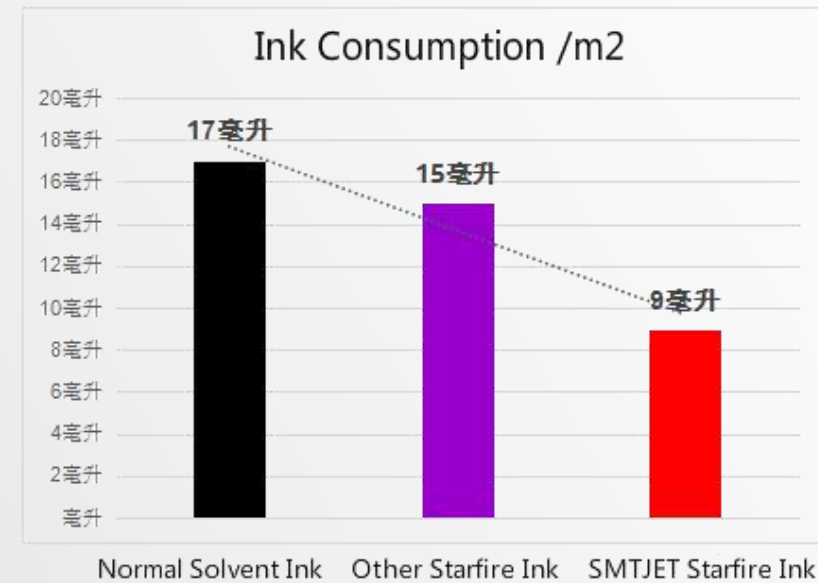
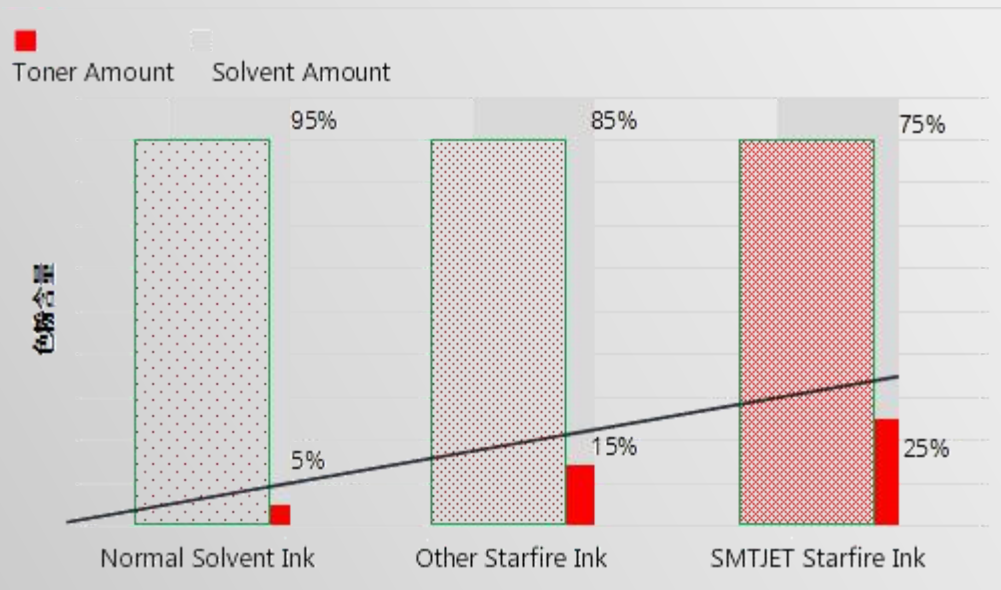
Yellow

Magenta

Cyan

Black

SMTJET machine's continuous ink circulation system, match with head internal heating & circulation function, make it able to use high density ink. Achieves over 10 hours continuous printing with low ink consumption. Ink cost less than \$0.05 /m<sup>2</sup>.



Normal solvent printer ink consumption about 16ml/m<sup>2</sup>, ink cost \$0.1/m<sup>2</sup>  
 SMTJET Starifre printer ink consumption 7ml/m<sup>2</sup>, ink cost less than \$0.05 /m<sup>2</sup>

**If print 30000m<sup>2</sup> every month,  
 ink cost can save \$18000 every year**

墨量记录 (ml)												
	一月	二月	三月	四月	五月	六月	七月	八月	九月	十月	十一月	十二月
K	0.00	0.00	0.00	656.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C	0.00	0.00	0.00	2558.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
M	0.00	0.00	0.00	6051.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T	0.00	0.00	0.00	7108.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
N	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
N	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
N	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
N	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

打印面积记录 (m <sup>2</sup> )												
	一月	二月	三月	四月	五月	六月	七月	八月	九月	十月	十一月	十二月
	0.00	0.00	0.00	2340.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Customer Uses Case: Ink consumption: 7ml/m<sup>2</sup>  
 $(656+2558+6051+7108) \div 2340.64 \approx 6.995 \approx 7\text{ml}$



## RIP Software



Standard : Maintop

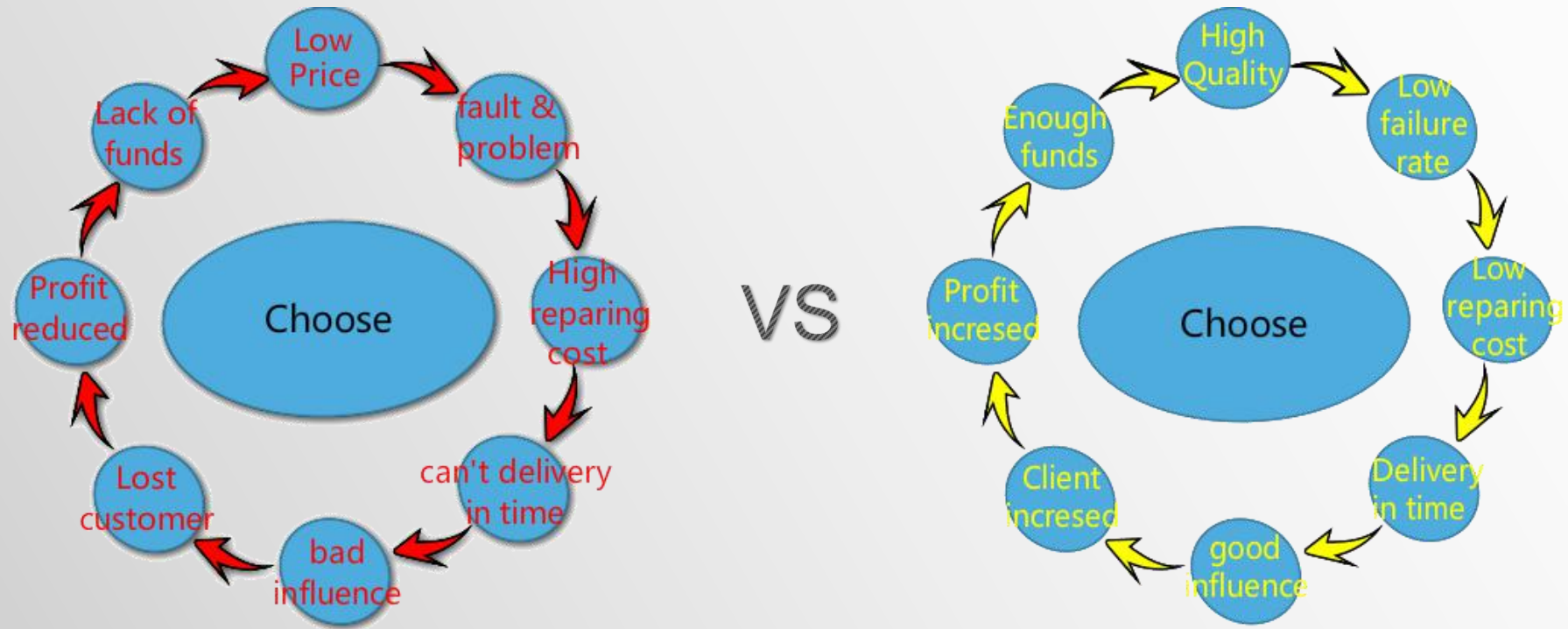


Optional Photoprint

Printer software also increased function of counting ink consumption amount & counting the amount of square meters printed.

<b>SMTJET SJ21S 3304</b>			
Printing Speed	Heads	2H	4H
	2pass	124m <sup>2</sup> /h	248m <sup>2</sup> /h
	3pass	89m <sup>2</sup> /h	178m <sup>2</sup> /h
	4pass	69m <sup>2</sup> /h	138m <sup>2</sup> /h
Printhead		STARFIRE 1024 10PL/25PL Printhead	
Image Format		BMP/TIFF/EPS/PDF/AI/JPEG	
Media	Printing width	3.2M	
	Printing material	PP Paper, Vinyl Sheet, Film, Coated Paper, Banner, Canvas, Adhesive Vinyl Sheet, Banner	
	Ink type	Eco solvent ink / Solvent ink	
Take up device		Take up system (Optional)	
Heating& Drying		Front& Back heating , Infrared Drying	
RIP Software		Maintop 6.0, Photoprint / Onyx (Optional)	
Control System		WIN7/WIN10 64 bit System,CPU: I5 Above, Ram:4G Above, USB2.0 Port	
Power Supply		AC220V, 50H±10%	
Working Condition		Temperature 20°C-30°C, Humidity60%-70%	
G.W/N.W		1200kg/1000kg	
Packing Size		4910*1100*1730mm	

## Details Deciding Quality | Stable Ensuring Future



With the competition becoming increasingly fierce, only design details and spare parts' choosen can make one machine stand out from many similar brands. SMTJET pay attention to every detail, adopt best parts to make sure machine stable enough, also avoid fault & problem happening in future.



## SMTJET Professional Technical Team

- Professional engineers with 5-10 years' experience.
- Regular training and technical communication.
- Online technical support or teamviewer support.
- Training or installing printers in foreign countries.
- One year warranty for the electrical parts and boards.



## Machine Daily Maintenance

1. Machine working Temperature: 20-30 °C , Relative humidity: 40% - 70%.
2. Connected to voltage stabilizer and well grounded before turn on machine.
3. After machine installed, do nozzle cleaning with cleaning solution by syringe.  
Each time use 40ml flush, do once every 10 minutes, total 3-4 times.  
Then start to install printhead, thus can effectively avoid head block.
4. Do test print first before print image, if condition not good, purge ink for a while and test again, more serious situation pls uninstall printhead and do cleaning like above step 3.
5. Recommend to choose middle speed, especially at the beggining of printing.
6. After working finished every day, make sure turn off machine power,  
close the valve of the 4 ink cartridge bottles, press servo release button.  
Move carriage to the left side. Put non-woven cloth onto the carriage tray,  
inject with cleaning flush, to seal the printhead bottom, avoid ink drying lead  
to head block.
7. It's a must to use the original ink, otherwise will damage printhead.

Thanks 