

SCREEN

POD

Creating a Future in Print

Truepress Jet
L350UV+ Series

UV Inkjet Label Printing System

Creating innovation in label printing



Truepress Jet
L350UV+

Truepress Jet
L350UV+

 **EQUIOS**
ART & UX

New high-end and food label models!

Dedicated systems designed to drive innovation in label printing

As consumer tastes continue to diversify, the label printing industry's demand for improved multi-format, short-run capabilities is growing every year. There is also a trend towards using an increasingly wide variety of materials in label designs to promote differentiation with competitor products.

The Truepress Jet L350UV+ series has been developed to meet these exact needs.

Its lineup includes a model with the ability to print food package labels, whilst all L350UV+ models deliver a combination of speed and quality. These systems are the key to unlocking a new wave of innovation in the label production field.

Cutting-edge technologies boost food label innovation



Truepress Jet
L350UV+LM

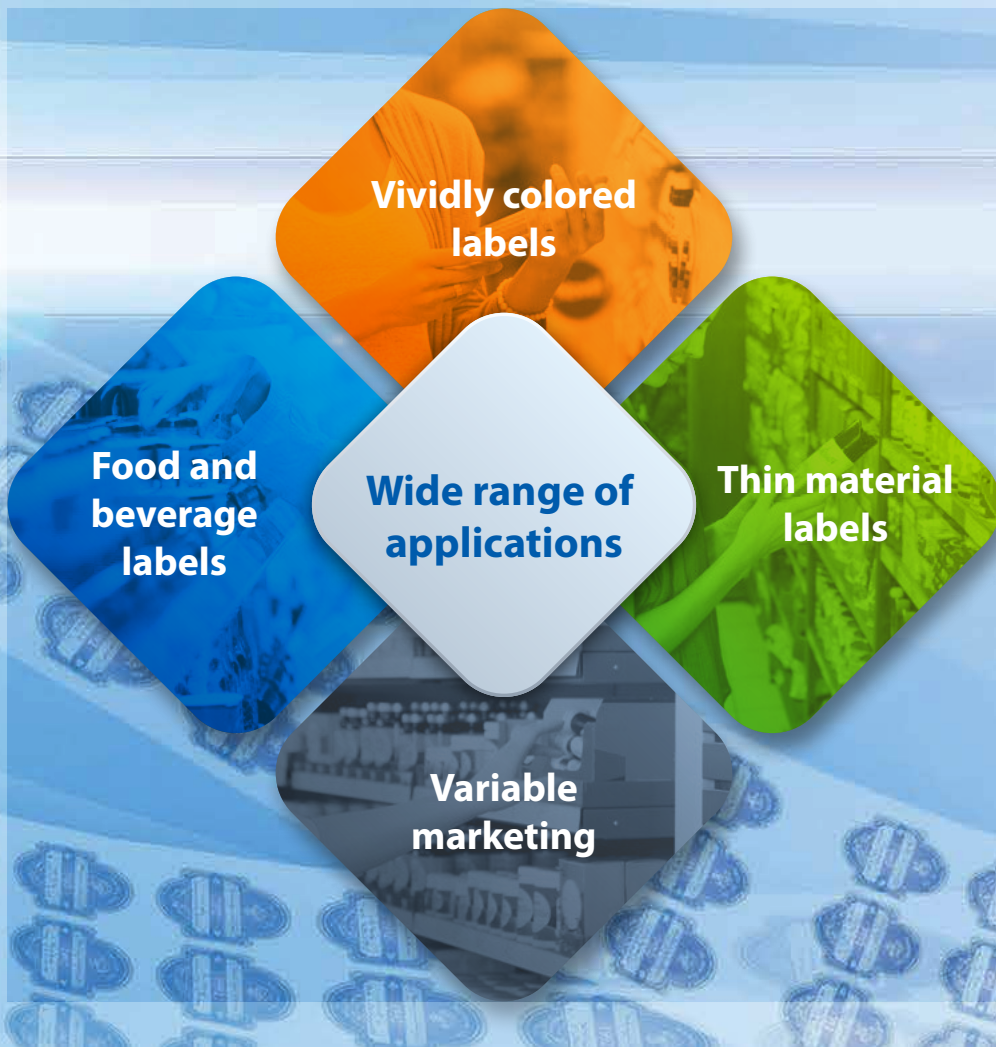
The Truepress Jet L350UV+LM includes a wide array of functions required for food label production. Its improved throughput and quality, and support for a diverse range of applications, makes it ideal for printing everything from conventional to food package labels.

LM

Low migration
inks

LM

Nitrogen purge
mechanism



Industry-leading speed meets unrivalled functionality

Truepress Jet
L350UV+

LM +

High speed and quality

LM +

Orange ink (optional)

LM +

Thin substrate support (optional)



The Truepress Jet L350UV+ features greatly improved functionality including increased productivity, material compatibility, color gamut and operability, making it an optimal choice for any field. This high-end model offers an ideal combination of speed and quality.

Improved support for food package types and thin materials opens up a range of exciting new opportunities



Low migration inks improve safety for food package labels

Labels for food packaging must satisfy strict safety standards. The Truepress Jet L350UV+LM features newly developed low migration (LM) inks* and a nitrogen purge mechanism that dramatically reduces extractable ink components after printing.

As well as decreasing migration risks, these innovations significantly lower typical UV ink odors. Together they help to extend the considerable merits offered by digital technologies for variable and short-run printing to food packaging applications.

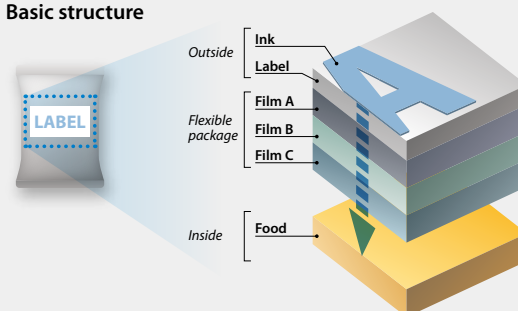
** Low migration inks cannot be used with, or substituted for, standard inks. Migration levels are subject to individual migration tests. They may vary depending on the conditions of usage.*



Ink migration

This refers to the process by which some ink components pass through packaging materials and penetrate the food product.

Basic structure

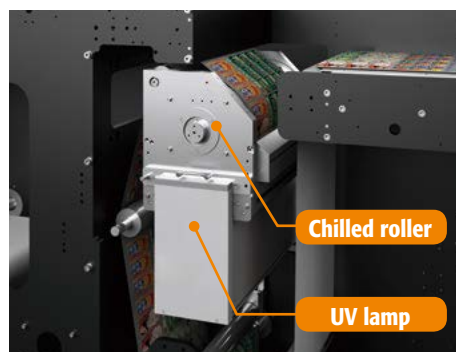


Low migration inks are compliant with EuPIA Exclusion Policy for Printing Inks & Related Products, Swiss Ordinance and Nestle Guidance.



Chilled roller increases stability for thin materials

Both Truepress Jet L350UV+ models can be equipped with a chilled roller that expands the versatility and flexibility of material types that can be supported. The ability to print on thin and heat sensitive film significantly increases the range of packaging and label applications that can be printed.



Vivid, expressive printing and outstanding productivity expand the reach of the label printing business



Industry-leading print speeds provide greater flexibility

Truepress Jet L350UV+ models deliver industry-leading speeds for a digital label system of up to 60 meters per minute (optional setting). Proprietary SCREEN inkjet printhead technologies ensure both outstanding quality and throughput.

Comparison of printing times

Semi-rotary letterpress printing press (Throughput: 25 m/min)	40 min	20 min
High-end flexo printing press (Throughput: 100 m/min)	40 min	5 min
Electronic photography digital printing press (Throughput: 30 m/min)	10 min	17 min
Truepress Jet L350UV (Throughput: 50 m/min)	10 min	10 min
Truepress Jet L350UV+ series (Throughput: 60 m/min)	10 min	8 min

■ Preparation time (roll exchange, plate exchange, registration)
■ Printing time (four color printing, print length: 500 m)

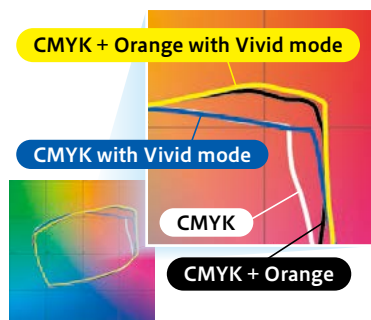
All results are based on SCREEN tests.





Orange ink enables richer reproduction of colors

Orange ink is now supported as an option, along with standard C, M, Y, K and white inks. Corporate colors that usually require spot colors can be reproduced with complete accuracy. The visual appeal of fruits and other foods can also be captured more vividly.



Expanded color gamut with orange ink

White ink

White ink enables CMYK printing on transparent film. Weather-resistant and eye-catching in a variety of situations, this type of printing represents an attractive new option to present to customers.



Unprecedented print accuracy marks the start of a new era in digital quality



High image quality boosts product appeal

Truepress Jet L350UV+ models feature proprietary SCREEN printheads with four step droplet technology. The outstanding expression of color gradations enabled by the systems' high-resolution screening, coupled with the wider color gamut of our proprietary UV inks, create an impressive depth of natural beauty.



Food and beverage applications require an effective migration barrier.



Sharp and reliable printing of even fine characters

The Truepress Jet L350UV+ series is able to print the finest of detail, capturing the highest definition and the smallest of text point size. The choke function also prevents thickening of outline text, providing excellent legibility even for the large amounts of information usually found on pharmaceutical and supplement labels. These features enable one pass processing of individual lot numbers and other variable printing jobs.



Variable printing of serial numbers



Exceptional registration accuracy and micro-droplets support security printing

A remarkably stable transport mechanism tightly controls paper feeding to prevent meandering and maintains optimal transfer conditions. In combination with the Truepress Jet L350UV+ series' highly efficient printheads and proprietary inks, this ensures consistently high registration accuracy and small droplet size. This precision is essential for the output of detailed dot codes such as QR and barcodes, as well as any other security printing requiring a high level of accuracy.



Visible type

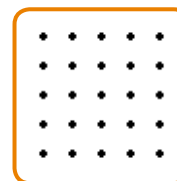
These security marks are usually attached to high-grade or imported products. The marks can be read with a smartphone and compared with registered information stored on a server, providing a check of the items' authenticity. Precise printing is of course required to enable correct reading of marks. The Truepress Jet L350UV+ series is able to supply the high precision needed to successfully output these security marks.



Ritu Manoj Jethani / Shutterstock.com

Invisible type

These dot codes usually cannot be seen when just glancing at an item. A specialized pen or smartphone (with adaptor) is used to read the unique codes for comparison with registered information. The system is effective for identifying various types of counterfeit goods. If a pen that can read audio data is used, this technology also enables the "play back" of pronunciation lessons from teaching materials. It also has various other applications including, for example, audio guides for tourists.



Screen code

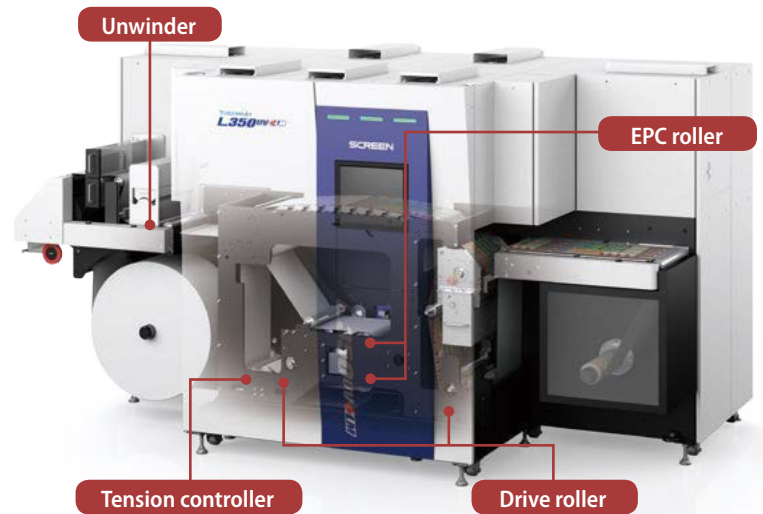


A combination of outstanding quality and handling for short run, small lot jobs creates an industry-leading solution



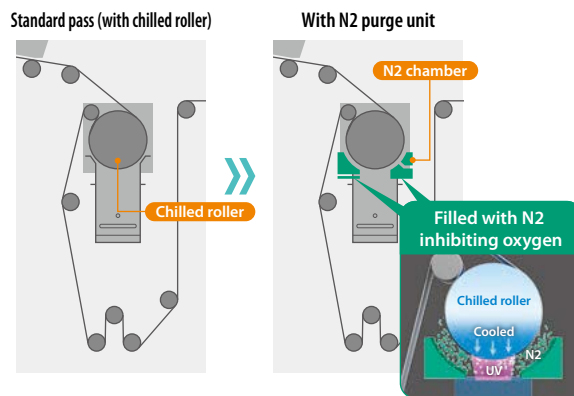
Specially designed structure provides greater stability and operability

The unwinder section for feeding roll paper has been completely designed to improve operability. Thanks to the EPC roller and tension controller, paper transfer remains exceptionally stable even at an industry-leading speed of 60 meters per minute.



New nitrogen purge mechanism

The Truepress Jet L350UV+LM features our newly developed nitrogen purge mechanism. UV ink curing can be inhibited by the presence of oxygen. Our innovative technology reduces its density to an absolute minimum to accelerate curing. A separate nitrogen generator is required.



Low and variable speed printing

Truepress Jet L350UV+ models are equipped with a low speed mode that reduces printing to just six meters per minute. This enables easier registration adjustment when connecting to postpress devices. The speed can also be either increased or decreased from this level in fixed steps.

This mode is available in models with a chilled roller installed.

The resulting print quality may differ from normal levels.



Specially formulated wide color gamut Truepress ink

Low odor

UV inks have a characteristic odor due to the materials used in their production. Truepress inks use specially selected materials that effectively reduce this odor and also accelerate UV curing.

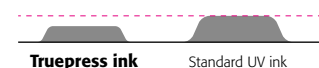
Wider color gamut

Truepress inks are produced using a proprietary formula, enabling the reproduction of a wider color gamut using the CMYK color space. The ability to use orange ink further extends the range of color reproduction.

Minimal buildup

With their combination of small droplet heads and reduced ink thickness enabled by the use of proprietary inks, Truepress Jet L350UV+ models deliver a more natural appearance with minimal quality variation. They also decrease ink buildup, an issue with conventional UV inkjet systems, to achieve a smoother finish.

Comparison of ink thickness (image)





Smooth and natural gradations from highlights to shadows

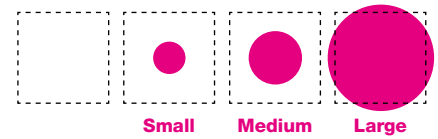
The adoption of grayscale printheads allows droplets to be printed in four steps. This provides much smoother reproduction of halftone images, enabling smooth color reproduction from highlights to shadows with minimal graininess.

Industry-leading 3 picoliter droplet size and more natural finishing for highlights

Truepress Jet L350UV+ models feature ultra-fine three picoliter grayscale printheads and a resolution of 600 dpi. They also incorporate SCREEN's color management and screening technology. This functionality enables natural expression of gradations.

Smoother gradations using four step droplet size

Truepress Jet L350UV+ models also feature a proprietary four step droplet size. Color blending allows even subtle tones to be expressed beautifully, enabling the output of photo-level quality whenever required.



One pixel includes four droplet sizes



Straightforward operation and maintenance

With Truepress Jet L350UV+ models, all output-related processing can be performed from the front touch panel. This ensures any operator can easily achieve excellent print quality. Daily cleaning of printheads can also be performed at the touch of a single button. This and other simple maintenance procedures ensure the system is always in top condition, significantly increasing operational efficiency.

Easy operation

The controller is easy to operate, thanks to its touch panel. The intuitive interface allows all operations to be performed entirely from the touch panel.

One-touch automatic cleaning

To clean the printheads, the operator simply issues a command from the touch panel's maintenance screen during startup or shutdown. Ink mist and other substances causing nozzle clogging are cleaned automatically, preventing problems before they occur.

- Daily maintenance can be performed from the touch panel.
- Periodic purging of ink helps to prevent clogging of the printheads.
- Specialized wipers remove ink at the touch of a button without any damage to the printheads.
- Regular performance of automatic cleaning helps to extend the life of the printheads and preserve print quality for a longer period.

Options

Mark sensors

The mark sensors read light sensitive marks that have been printed in advance, allowing them to be used as references for performing high-precision overprinting.



Splice detection sensor

The splices in joined media (splice media) are detected with dedicated sensors. Following detection, the printheads move up and down while the processing speed is maintained. This makes it possible to continue output without stopping the equipment.



Web cleaner

With its combination of a cleaning roller and adhesion roller, the web cleaner effectively removes dust including paper particles and powder. This device ensures low maintenance and stable, uninterrupted operation.



Corona unit

Performing corona discharge onto the media before printing improves the surface and increases ink adhesion.



EQUIOS increases the efficiency and reliability of the label/package printing workflow from data creation right through to post-processing



Universal Workflow

EQUIOS

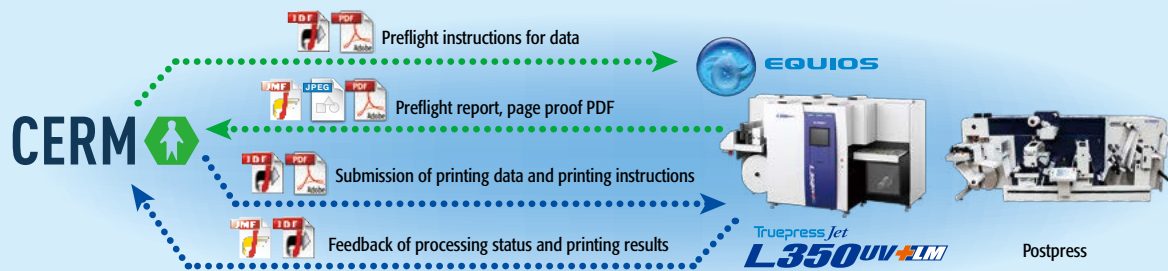
EQUIOS is a universal workflow system that draws on SCREEN's extensive prepress and printing knowledge to maximize the performance of our cutting-edge inkjet technology. EQUIOS offers high-speed processing using Adobe's PDF Print Engine 4, a newly developed color management system that links to paper information, and user-friendly imposition functions that integrate SCREEN's full prepress knowhow.

These features have been developed based on SCREEN's wealth of experience and encompass the full range of our professional knowledge. Together they help to provide an outstanding work environment regardless of the operator's own skill level.



Optional linking with MIS

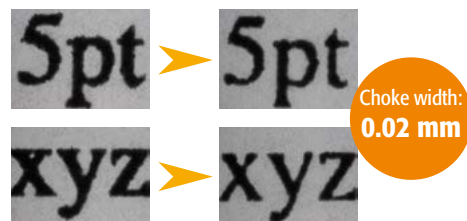
EQUIOS is able to link with a management information system (MIS) using the JDF (option). It is possible to execute processing automatically based on the JDF, with the results fed back to the MIS. This allows more precise progress management and cost control, as well as process planning.



Text choke

In label printing, the use of outline fonts is common. However, when fonts are converted to outline text, the characters can increase in thickness by up to one pixel. EQUIOS is equipped with a function that effectively corrects for any increase in thickness. Using the function, it is possible to output text and then check and set a desired choke volume. This enables the selection of the optimal character thickness for individual applications.

Print result using outline font (5 pt)



With modern lifestyles changing rapidly, the requirements placed on printing are continuing to evolve and diversify on an

almost daily basis. EQUIOS helps you stay ahead of these changes by providing comprehensive integrated management of all SCREEN CtP and POD devices. EQUIOS extends the functionality and reliability of our market-leading Trueflow software and is able to link with MIS and

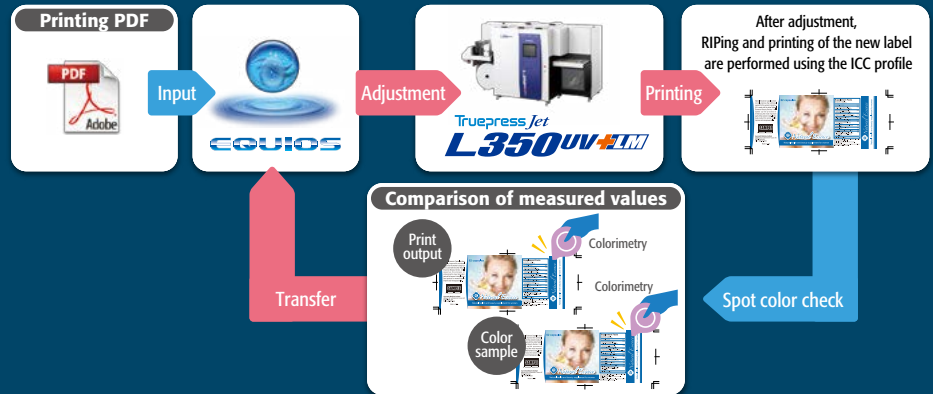
postpress systems to create a total solution platform that ensures optimized color management of any job.

EQUIOS also links with IoT systems to enable full automation and integration of third party devices along the entire production process from Web2Print input to printing and finally postpress. This global standard workflow allows you to create a production environment that supports high-quality printing applications with minimal operator skill requirements.

Color matching with existing samples

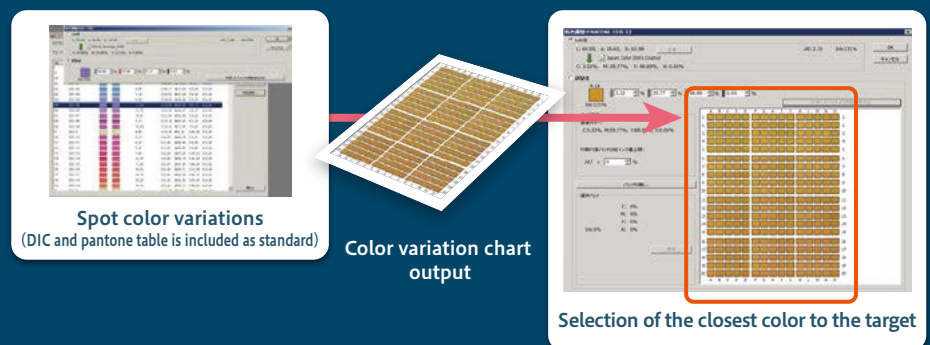
With label printing, an existing item may be supplied as a sample, and the printing company is required to match the colors. Even in a situation like this, EQUIOS is able to smoothly match the colors of new print output with existing items.

EQUIOS first picks up the standard colors in the previously created label and uses them as references to perform colorimetry. It then records the differences between the reference and actual values for the existing label in an ICC profile and finally performs color adjustment.



Spot color adjustment tool

This function allows spot colors to be selected from a list and automatically generates a color variation chart of the selected color. Once the chart has been checked, the color closest to the target can be selected and reflected in the data. This enables simplified matching of spot colors.



Full-color variable data processing (optional)

EQUIOS includes a variable data processing function that enables high-speed RIP processing of variable elements in black separations for numbering and serial barcodes as a standard feature. A dedicated function for high-speed RIP processing of full color variable data is also available as an option.



Highly dependable solutions for

TRUST Network Service

Solving Client Problems Is Our Core Mission

The Internet of things (IoT) has quickly become a key factor in industry, triggering major advances in business innovation across a wide range of areas. It has underpinned the development of Industry 4.0 in the manufacturing sector and self-driving vehicles in the automotive field.

The IoT connects many different types of physical objects (things) to the Internet, allowing the accumulation of vast quantities of data, known as big data. It allows companies to gain an in-depth understanding of various aspects of the issues potentially affecting customers. However, it is important to interpret the gathered data so it holds value from a customer's perspective and represents knowhow that can be used to solve relevant problems.

At SCREEN, we are proud of our achievements as a comprehensive manufacturer of graphic arts equipment. We have more than 70 years of experience in solving the challenges facing the printing industry and have built a relationship of deep trust with our clients. Our current goal is to integrate the practical expertise gained over many years of working at the forefront of graphic arts development with the dramatic opportunities for connectivity provided by the new IoT.

Harnessing the knowledge available from the big data generated by current equipment and services will enable us to bring new offerings to market. It is these products and services that will support the continuing success of our clients.



TRUST Guard

Remote monitoring of equipment conditions

Remote monitoring of systems allows potential problems and failure indicators to be detected quickly, ensuring more stable operation. Careful observation of client data and points that are likely to cause issues also enables the continuous improvement of services to meet individual user needs.



TRUST Assist

Precise analysis of root causes

If a problem occurs, operators face the challenging task of checking complex setting and log information in order to report detailed information to their service engineers. With TRUST Network Service, SCREEN support staff remotely analyze equipment data in real-time, ensuring faster, more accurate and, perhaps most importantly, worry-free system recovery.

Normal operation

Monitoring

Problem occurs

Detection

Call re

Assess



TRUST Dialog

Regular updating of service information

Each client's Web page is regularly updated with resources including the latest service manuals and maintenance videos for their installed equipment. All pages use Salesforce.com's cloud-based platform, ensuring a cutting-edge security environment and peace of mind browsing.



TRUST Guard

Immediate reporting of system errors

When an error leading to a system stoppage or other serious problem occurs, a notification is automatically sent by e-mail to SCREEN's customer service center. This allows the support team to take steps to evaluate the situation and begin recovery even before the client contacts it.

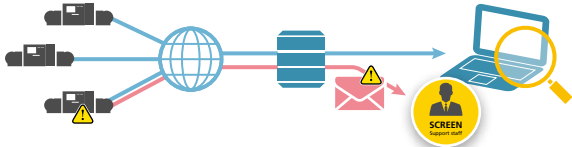
time-sensitive production lines

Protection of client equipment

TRUST Guard

Failure reporting functions

Client systems are constantly monitored to detect stoppages and other critical issues, as well as the errors that predict them. This information is immediately reported to SCREEN support staff by e-mail.



The above diagram is an illustration and does not indicate the actual configuration.

Condition monitoring

Remote monitoring of systems improves decisions on when to replace parts based on actual operating conditions and enables the early detection of minor issues that can lead to serious malfunctions. This operating data is provided to clients in specially created analytical reports.

Remote assistance of clients

TRUST Assist

SCREEN staff are able to use a shared interface to remotely provide operators with an extensive range of support, including assistance with efficiency analyses, recovery processes and operational procedures. TRUST Assist has been carefully designed to improve system reliability and operability, without the installation of specialized tools.

Communication with clients

TRUST Dialog

All clients are provided with a dedicated Web page that allows them to access a wide variety of service information. As well as manuals and maintenance videos, this is where clients can receive reports analyzing the operational efficiency of their systems (TRUST Guard reports).



TRUST Assist

Flexible response to emergency situations

Expert personnel remotely assist with setting changes, software updates and other maintenance tasks while co-monitoring equipment conditions in real-time. This approach also provides greater flexibility when handling unscheduled operations such as the application of urgent software patches.

If an error does occur, it is virtually the same as having a SCREEN engineer on site providing a detailed response to the problem or supporting operators as they restore production. SCREEN staff can also quickly assess whether to dispatch engineers to the site for repairs.



TRUST Dialog

Provision of operational analysis reports

All clients receive a dedicated Web page where they can view analytical reports of daily operation logs in Excel format. The reports help to clarify actual operating conditions and provide valuable insights that enable the elimination of potential inefficiencies or wastage. This information is also highly useful for profitability reviews and the improvement of production processes and management.



Reception ment

Remote support Resolution

Analytical report Optimization



TRUST Assist

Operational support using a shared interface

Spoken explanations of procedures can be extremely time-consuming and lead to significant gaps in knowledge. Operators often cannot understand crucial points and must share details of layouts, accessories and other conditions before even discussing basic processes.

With TRUST Network Service, SCREEN's highly experienced support staff are able to remotely connect to the same interface and environment as the client. Using a shared screen allows them to simply but expertly guide the operator through even the most complicated procedures.

This ability means SCREEN personnel are always able to tailor their assistance to individual client needs and find the optimal solution.



Truepress Jet L350UV+ specifications

Product name	Truepress Jet L350UV+LM	Truepress Jet L350UV+
Printing system	Piezo single-pass printing	
Resolution	600 x 600 dpi	
Printing speed	Maximum 19.3 m ² (207.8 ft ²)/min at 60 m (196.8 ft)/min*1	
Printing size	Width: Maximum 322 mm (12.6") Repeat length: 50.8 mm to 2,400 mm (2" to 94.4")	
Media size	Width: 100 mm to 350 mm (4" to 13.7") Roll diameter: Maximum 750 mm (29.5") Weight: Maximum 120 kg (264 lb)	
Media thickness	0.04 to 0.35 mm (1.6 to 13.7 mil)*2 [when chilled roller installed]	
Inks	Truepress inks for L350UV+LM*3	Truepress inks for L350UV
	Ink tank capacity: 8 liters per color Ink bottle capacity: 4 liters per color	
Output configuration	CMYK + White + Orange CMYK + White CMYK + Orange	
Printheads	4 step grayscale printheads Droplet size: Minimum 3 picoliter	
Controller (bundled)	Controller for L350	
RIP (bundled)	EQUIOS for L350	
Options	60 meter upgrade, web cleaner, mark sensors, corona unit, splice detection sensor, full color variable data processing	
	MIS connection (CERM)*4	
	Chilled roller and chiller*5 Nitrogen generator*5	Chilled roller and chiller Wrinkle reduction roller (when chilled roller not installed)
Dimensions (W x D x H) / Weight	Printer: 3,701 x 2,065 x 2,005 mm (145.8" x 81.3" x 79") / 3,350 kg (7,370 lb) Main tank: 890 x 760 x 1,120 mm (35.1" x 30" x 44.1") / 200 kg (506 lb) Power supply box: 1,327 x 878 x 1,627 mm (52.3" x 34.6" x 64.1") / 580 kg (1,276 lb)	
Power requirements	Three phase 200/208/220 V, 3 W, 50/60 Hz, 60 A Three phase 380/400/415 V, 4 W, 50/60 Hz, 40 A Earth leakage circuit breaker (200 mA sensed current) must be installed.	
Operating environment	Required temperature and relative humidity: 15 to 25°C (59 to 77°F) / 40 to 70°C (104 to 158°F) [no condensation] Warrantied temperature and relative humidity: 18 to 24°C (64.4 to 75.2°F) / 40 to 70°C (104 to 158°F) [no condensation] Recommended elevation: less than 1,000 meters above sea level	
Incidental utilities	Air-pressure utilities such as compressor Connection to exhaust duct	

*1. This printing speed is supported when the 60 meter option is installed.

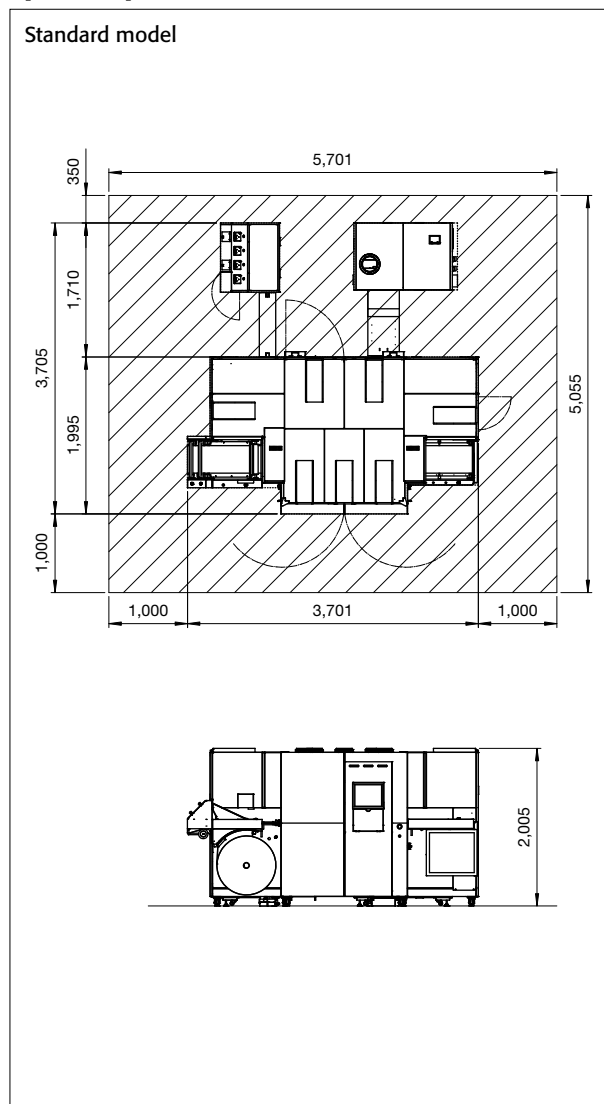
*2. Thicknesses of 0.09 to 0.35 mm (3.6 to 13.7 mil) can be used with the standard specifications.

*3. The low migration (LM) inks are only available on the Truepress Jet L350UV+LM model.

*4. This option is not available in all regions.

*5. These options are required for the Truepress Jet L350UV+LM model.

Space requirements (mm)



TRUST Network Service
The Truepress Jet L350UV is covered by the Network support program.



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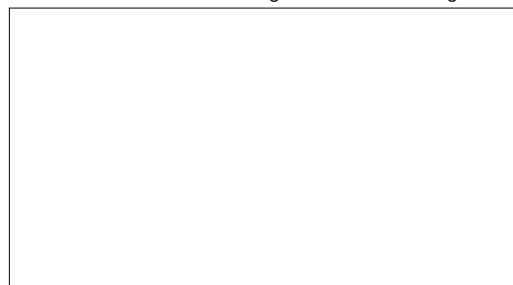
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www.screeneurope.com

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