

## Specifications

### DuSense Pro

<b>Paper size</b>	Width: 279 to 364 mm Length: 210 to 740 mm
<b>Paper quality</b>	Coated paper: 160 to 450 g/m <sup>2</sup> OPP corona treated laminate or printable PET laminate. No film running off the edge on the registration (non-operator) side. Maximum with curl 2mm
<b>Print head</b>	Piezo method - Resolution 600 x 600 dpi
<b>Head cleaning</b>	Automated cycles of purge and wipe during normal operation
<b>Cleaning frequency</b>	Maximum idle for 5 days before flush cleaning is required
<b>Printing area</b>	Maximum printing width: 331 mm Minimum margin 10 mm on all sides
<b>Print data format</b>	PDF, TIFF single layer
<b>Print correction</b>	Automatic camera correction by reading Image Register Marks. Image distortion in length, width, skew, scaling, twist @ max. ±2 mm in the horizontal and vertical directions. XY offset @ ±5 mm in the horizontal and vertical directions Correction in Real time, Lead & trail edge, Lead only, Fully manual
<b>Print accuracy</b>	± 0.2 mm or less
<b>Print thickness</b>	20* to 80 µm ± 10 µm depending on paper quality
<b>Gloss level</b>	Typically 99 GU subject to media and print
<b>Processing speed</b>	1200 x SRA3 sheets per hour for coating thickness @ 20* ~ 40 µm 600 x SRA3 sheets per hour @ 50 ~ 80 µm
<b>Feed tray capacity</b>	150 mm
<b>Paper feeding</b>	Belt suction from top of stack
<b>Sheet separation</b>	Front and side air separation
<b>Cleaning</b>	Dust removal cleaning roller
<b>Sheet alignment</b>	Side lay on non-operator's side plus sheet skew correction
<b>Stacking capacity</b>	150 mm
<b>Noise</b>	Equivalent continuous A-weighted sound pressure level : 72 dB , peak : 82 dB (both conditions reduced to less than 72 dB when air duct extraction is fitted)
<b>Power</b>	3 phase, 16Amp + Neutral and Earth supply, commando type socket (Y220 to 240 V AC/380 to 415 V AC, 50/60 Hz, 12 A/phase, peak 16 A) For PC : Single phase 208 to 240 V AC, 50/60 Hz
<b>Power consumption</b>	6000 W
<b>Operating environment</b>	Recommended Temperature 20 to 25 C, maximum range 15 to 30 C. Humidity 30 to 70% RH with No condensation. Out light 1,500lx or less
<b>Ventilation extraction</b>	Ozone is produced and MUST be extracted outside of the building via 100 mm diameter exible hose (not supplied) or through an ozone destruct unit equipped with ozone sensors (not supplied).
<b>Dimensions</b>	L x W x H 3,518 x 820 x 1,840 mm
<b>Weight</b>	520 kg

\* Results for 20 µm are subject to conditions

### Corona Unit

<b>Input voltage</b>	230V
<b>Input current</b>	2 amps/phase
<b>Input current</b>	50/60 Hz
<b>Phases</b>	1 (single)
<b>Rated output Power</b>	0.30kw
<b>Weight</b>	25kg

### Corona power supply

#### (including HV transformer) Treater Station

<b>Model</b>	SBS 331.FPC1x1.SHT
<b>Electrode type</b>	Ceramic Tube
<b>Electrode width (treat width) min</b>	326mm
<b>Electrode width (treat width) max</b>	326mm
<b>Number of treatment side</b>	1
<b>Dielectric type</b>	Ceramic
<b>Weight</b>	5kg
<b>Treatable area</b>	Power density: Maximum (power/(treat width x speed) = 300W/(0.331 x 10.8m/min) 83.92 W/m <sup>2</sup> /min. Power density set by operator via control panel 1 - 10 set points. Extraction fan unit supplied. Air flow switch supplied.

### Barcode Kit

#### Supported code formats

<b>1D Barcode</b>	CODE39, 93, 128 (including EAN128) Codabar (NW-7) Interleaved 2 of 5
<b>2D Barcode</b>	QR-Code DataMatrix PDF417 MicroPDF417



# Duplo®

from print to documents

# DUSENSE PRO SENSORY COATER

## HIGH DEFINITION SPOT UV SENSORY COATING

**Adds impact and appeal  
Combine solids and fine detail  
Accurate and Easy to use**

*Business Cards, Greetings Cards, Invitations, Postcards, Photo & Wedding Albums,  
Luxury Brochures, Packaging and Gift Tags, Book Jackets,  
Promotional Point of Sale Applications, Notebooks, Magazine Wraps,*



### Duplo International Limited

Automated Precision House  
Hamm Moor Lane  
Addlestone  
Surrey KT15 2SD

Tel +44(0) 1932 263 900 - Fax +44(0) 1932 263 901  
info@duplointernational.com  
www.duplointernational.com

Duplo is a trade mark of the of the Duplo Corporation.  
Duplo has a policy of continuous improvement  
and reserves the right to amend the above specification  
without prior notice

Production rates are based on optimal operating conditions  
and may vary depending on stock and environmental  
conditions. As part of our continuous product improvement  
program, specifications are subject to change without  
notice.



Ref: DUSENSEPRO/09/19

# Sensory Coating

As digital print becomes ever more commoditised, companies are having to find specialist niche markets, where the ability to provide a solution that drives customer satisfaction and real results, win over the price of the product. The Duplo DuSense PRO allows the user to differentiate themselves from competitors, within a market that is already over-crowded with surplus capacity driving print prices down. By adding a gloss three dimensional SENSORY COATING to printed images, eye-catching designs are created which interest, entice and excite a reaction from all that view them. Retain and attract new business by creating new revenue streams. The Duplo DuSense PRO combines ease of use, with high accuracy, to produce the most productive solution, at the lowest cost of entry for the market. This new configuration comes complete with a Barcode driven automation and a Corona Unit fitted as standard, removing the additional lamination process and the need to hold different varnishes for multiple print engines. Saving both Time and Money.



**In-house Digital Finishing**  
In 1995, Duplo introduced compact booklet makers, which featured for the first time, an automated set-up with a repeatedly precise operation. The booklet makers triggered and lead the evolution of traditionally divided businesses of commercial printing and finishing. The Duplo DuSense Pro combines advanced features in a small footprint, that allows short to medium print run lengths to be tackled both with ease and economy, without sacrificing quality or creativity. With a competitively priced cost per copy for runs ranging from 1 to 750, 3-dimensional and spot UV digital printing can now be brought in-house. This new product is the perfect complement to a digital press, returning the control of both profitability and time, back to your business.



**High Definition**  
An array of the latest 600dpi ink jet heads, produce high definition images from PDF/TIFF format files, using gray scale images to create textured printing of variable density, ranging from 20\* to 80-micron thickness, all in just one pass. This technology enables the combination of heavy solids and fine detail in the same image as well as smooth curves and detailing in beautiful fine lines, down to 5 point fonts  
(\* ) Results for 20 µm are subject to conditions



**Superb Gloss**  
DuSense Sensory Coating has been developed by Duplo to be compatible with HP electroink, offset and most toner based machines to deliver a beautiful 99 gloss level UV finish.



**Precision as Standard**  
Twin cameras and the Duplo IRM (Image Register Mark) ensure alignment precision, within 0.2mm accuracy along the entire sheet length. With an automatic set-up and adjustment for every sheet, extending from XY image shift to stretch, skew (rotation) and twist (distortion) that are particularly common after laminating. This is all performed in real-time, allowing the operator to concentrate on other tasks.



**Easy Operation**  
Efficient operation starts with the operator interface that allows jobs to be quickly set-up, saved and recalled for reprinting. Furthermore, being Windows PC compatible, means that the software can also be installed in the prepress area to use the integral job preparation tools, as well as by sales/accounts teams for estimating purposes. Instead of incorporating proprietary and unfamiliar job editing tools, the open architecture of the DuSense GUI allows other Windows compatible software such as Acrobat and image editing programmes, to be run directly at the operator console. Duplo draws from our extensive experience of feeding and finishing, to incorporate a market leading air suction feeder, which uses the proven technology of the Duplo AMS feeding system and double feed detection. The integration of every feature, aims to reduce set-up waste to a minimum and make the first print, a saleable product.

**Corona Unit**  
The NEW Corona option for the Duplo DuSense Sensory Coater enables operators to add embellishment without the need for the additional process of lamination. Saving both time and money. The Corona option gives the added benefit of no longer having to stock different Varnish's to embellish print from different print engines. Corona is generated by applying a high frequency, high voltage signal to an electrode separated from an ether plane by an air gap, the substrate and a layer of dielectric material. This increased the adhesion and wettability of a substrate.



**Barcode Kit**  
The DuSense Pro includes the Barcode option which comprises of two elements that introduce new operating procedures for job submission; raising standards to create consistency, while improving efficiency and productivity. A barcode on the sheet is read, identified and the relevant spot file loaded for printing, reducing job changeover times and allowing a mix of different jobs to be run consecutively with minimum operator intervention. This function reduces the opportunity for an operator to load an Incorrect or superseded file that appears similar, ensuring the correct image is applied to the sheet. The Barcode function checks that the sheet is loaded in the correct orientation, avoiding accidental waste.



**Safe and Convenient**  
Simple operation extends to machine operator's safety and convenience, by providing the Sensory Coating in easy loading vacuum sealed cartridges. An automatic cleaning system ensures the ink jet heads remain at their optimum condition, while also ending any requirement for the operator to access them for cleaning, which would typically be required at the start and end of each day. A benefit of the DuSense Pro incorporating the highest quality 600dpi heads, is that wastage is reduced to an absolute minimum and the DuSense Pro comes with the unique ability to be switched off and left unattended for up to 5 days and ready to run again in minutes.

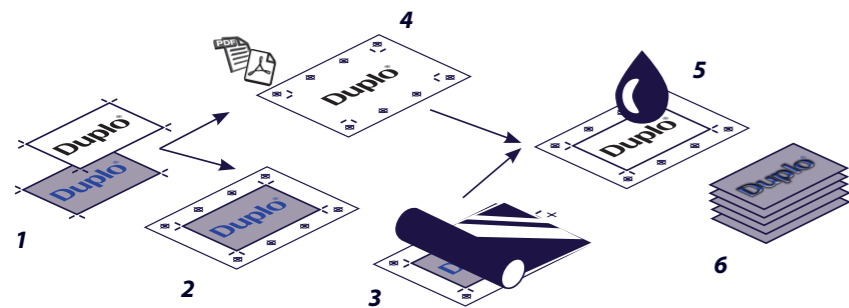


**Going to great lengths to be Productive**  
The DuSense Pro supports a sheet size of 364 x 740mm, making it compatible with any "SRA3" format digital production press, or even a B2 sheet cut lengthways. Running at a healthy 1080 x SRA3/B3 sheets an hour, means that the DuSense Pro has the functionality to run 600 sheets of 250gsm, in 30 minutes of unattended operation.

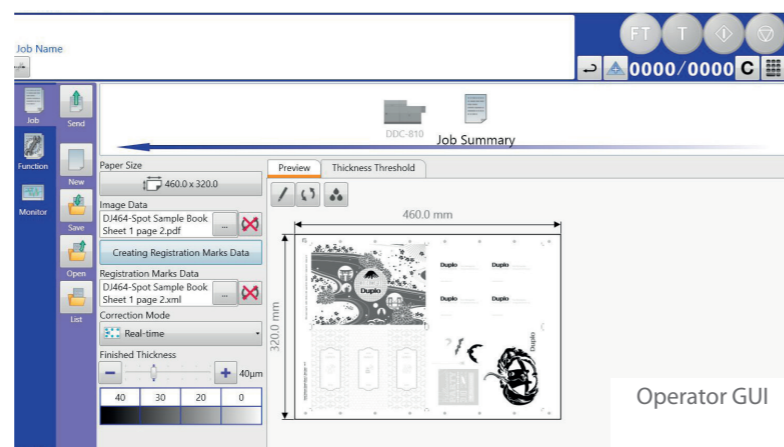


**From Print to Documents**  
Efficient and cost effective production is not simply about the speed of the press, or cost per copy of a printed page, but about the complete end-to-end process. The Duplo DuSense Pro has been built for the needs of the modern digital print shop, where accurate production and rapid delivery is critical. The DuSense Pro is built for digital finishing, drying instantly and ready for job completion on compatible market leading finishing systems, such as Duplo's DC-646 and DC-746 cutter/creasers. These products can automatically cut single sheets, avoiding common problems related to 3-dimensional spot UV being cut in a stack on a regular guillotine. Enabling greater design flexibility, the systems allow cutting media with DuSense Sensory Coating into the bleed.

- 1 : Create spot layer as 5th colour
- 2 : Impose & print CMYK
- 3 : Optional laminating
- 4 : Submit 5th layer as greyscale PDF or TIFF
- 5 : Sensory Coating
- 6 : Finish immediately



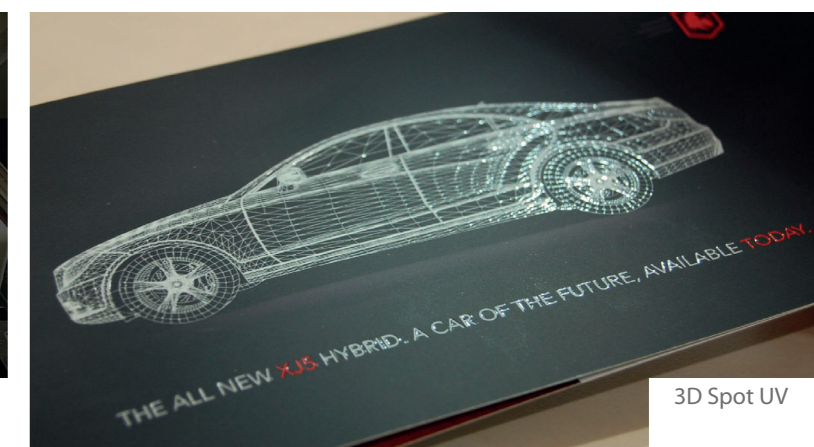
Cleaning and sheet registration



Operator GUI



Corona Unit



3D Spot UV