

W+D 201

Highly automated Inline Flexo-Print-System
for excellent print quality



W+D

Litho quality flexo print with highest level of ease of use and press efficiency

The first impression is the most important. This is especially true for direct mail – it is the impulse generator to arouse the recipient's interest. In addition to the content or the message, the overall presentation and essentially the print on the envelope encourages the recipient to open the envelope. Color fidelity and brilliance are essential. In addition, visual and haptic effects raise curiosity about the content of the message and transmit the all-important brand image.

State-of-the-art print technology is the basis for excellent print quality! – Simple operation and maximum productivity are a must. The W+D 201 is an inline flexographic printing system that meets even the most demanding requirements for direct mail printers. However, the combination of inline folding, embossing systems along with four-color printing and spot colors or coatings with matt or gloss effects opens new advantages in direct mail printing production costs and time to market.

From the unprinted paper roll to the high-quality printed finished envelope in a single machine workflow – that is efficiency that no other envelope printing process can match.



Top reasons why you will want a W+D 201 inline print system:

- / Flexo printing and coating on uncoated and coated papers
- / Printing and drying of water-based and /or LED-UV inks and coatings
- / Inline module for reel-fed envelope machines W+D 628 RC, W+D 202 RE and W+D 102 RE
- / W+D 201 Ci (Central impression) for precise register for CMYK halftone and solid color trap layouts
- / W+D 201 St (Stack) for inside or outside print and coating flexibility
- / Configuration of both CI and stack modules in tandem for maximum flexibility to print CMYK process work together with different spot colors and or coatings
- / High degree of print deck automation and servo drive technology enable very short changeover times and ensure easy operation

W+D 201 Ci and W+D 201 St modules are a complete direct mail printing and coatings solution

Two Models

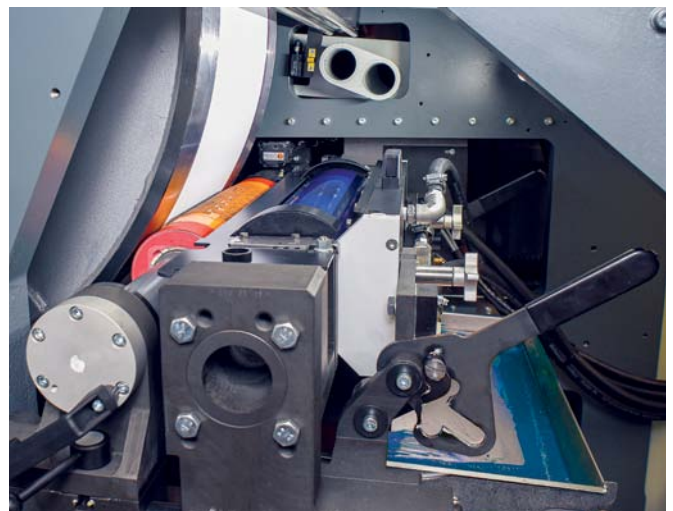
- / W+D 201 Ci central cylinder system chamber doctor blade print units for high-quality four-color printing and process work in 4/1 or 5/0 color configurations
- / W+D 201 St with up to 5 chamber doctor blade print units for multicolor print, printing spot colors and coating on both sides of the paper

Base configuration

- / Print cylinder with sleeve technology – hinged bearings and cantilevered shafts ensure short change over times of the print sleeves
- / Ceramic-coated and laser engraved anilox rollers – different cell geometries and ink volumes enable printing of fine dots up to 100% solids on a wide variety of substrates
- / Proven doctor blade chamber system for precise ink transfer of UV and water-based inks/coating
- / Speed related dynamic impression adjustment of anilox roll and plate cylinder deliver excellent print results at highest speeds. This feature will also reduce wear and tear of printing plates as well as provide the utmost print quality consistency.
- / Automatic pre-registering of the printing units
- / HMI as central operating monitor with high degree of automation, job and format memory
- / Two handheld operating dongles for precise impression adjustment and added operator ease
- / Peristaltic ink pumps ensure fast color change ink supply to the doctor blade chambers



HMI – the central Cockpit



Modern doctor chamber print unit with sleeve technology



Two W+D 201 Inline-Flexo-print-systems as tandem-combination for production of superior applications

Tandem configuration

The combination of two W+D 201 flexographic printing systems expands the possibilities for a wide range of demanding applications:

- / High-gloss, matt and effect coatings
- / Four-color CMYK printing with additional special colors
- / Combination of halftone and large area solid and special Pantone color printing
- / Multicolor printing on both sides

The use of spot Pantone colors allows a true-color reproduction of company logos or branded goods. Additional color decks can also be used to extend the color spectrum of standard four color CMYK printing.

High-gloss, matt and a multitude of texture and effect coatings offer further finishing options and bring real added value to the envelope.



Webinsection system – Monitor

Camera web observation and inspection systems

Web monitoring and inspection systems display printed images in the high color and detail accuracy even on fast-moving webs. High-resolution zoom allows the printed image to be viewed in a multiple of its resolution and enable the operator to detect even the smallest defects early, thus avoiding high costs and material waste.

The cameras move to predefined positions either manually or fully automatically and display the corresponding images on the monitor. In addition to the sole operator support, there are further advantages such as:

- / Increased production speed
- / Consistent print and color quality
- / Less waste
- / Faster system setup



AUTO Flex – Doctor blade chamber

AUTO Flex inking- and washing system

The AUTO Flex inking and washing system addresses all aspects of printing, job changeover and cleaning of the printing units. The system ensures high efficiency by simultaneously cleaning the printing units during an ink change. Reduced changeover times, low waste and minimal ink loss during ink changes reduce ancillary costs.

System Benefits

- / Patented high-pressure washing nozzles inside the chamber doctor blade clean the doctor blade chamber and anilox roll within minutes
- / Preselectable cleaning cycles adapt the washing system to the ink type and color and set the cleaning time
- / Automated ink change at the push of a single button
- / User-friendly control system with clearly structured menu guidance support the operator and display the status of the system

IR -and LED UV curing systems

The use of LED UV-curing systems enables high production speeds with high print quality. At the same time, LED UV-inks offer a high degree of gloss, excellent scuff and print marking resistance properties and do not require protective coating.

The fast LED UV curing process stands for energy savings and high throughput. The ability to print sharper and finer dots lays the foundation for a higher quality print and creates added value for the product.

Between color dryers prevent a wet on wet print and avoid ink carry-over into the next print unit. Final drying ensures that the applied ink is completely dried and prevents a lay down of wet ink on idle rollers or ink scuffing in the downstream folding machine.

IR dryer

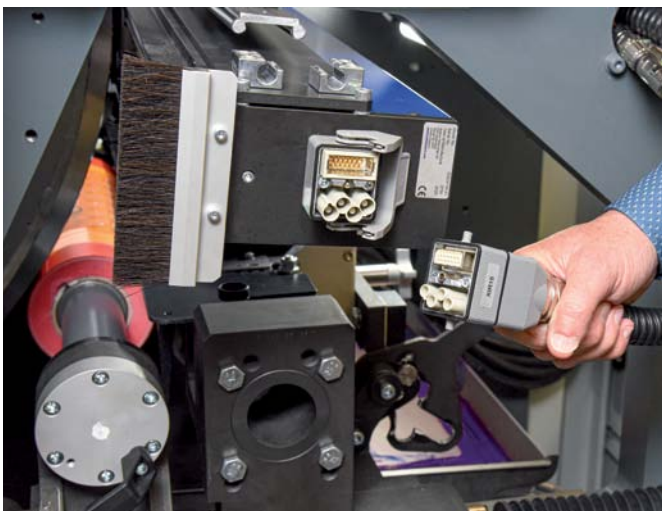
When using water-based inks – especially on coated papers – we recommend the use of IR drying. In addition to the between colors dryers in units 1, 2 and 3, a final dryer after printing unit 4 and respectively after unit 5 is available.

This facilitates to print water-based inks also on coated papers and/or to apply coatings.

LED UV-drying systems

UV-inks are known for their brilliant print quality, effective UV-coatings enhance the printed image and create haptic effects. Prerequisite for UV-ink and coating systems are the corresponding LED UV-lamps.

The cassette system for LED UV- and IR-lamps with plug and play connection allows a quick change between IR- and LED UV-curing system.

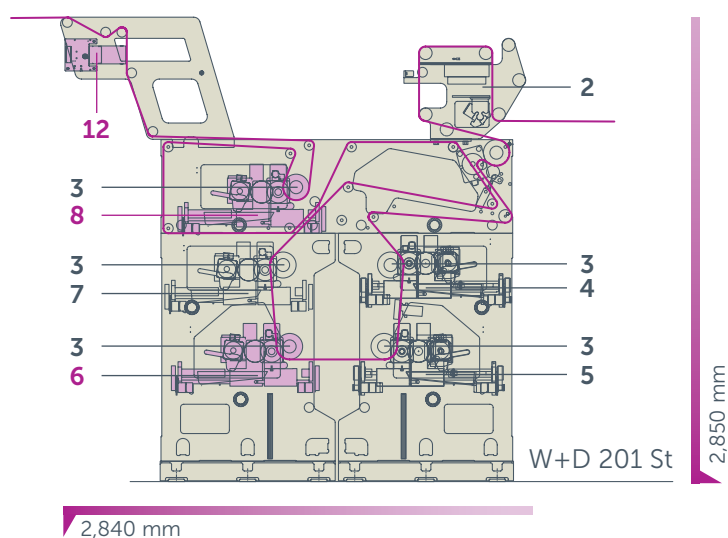
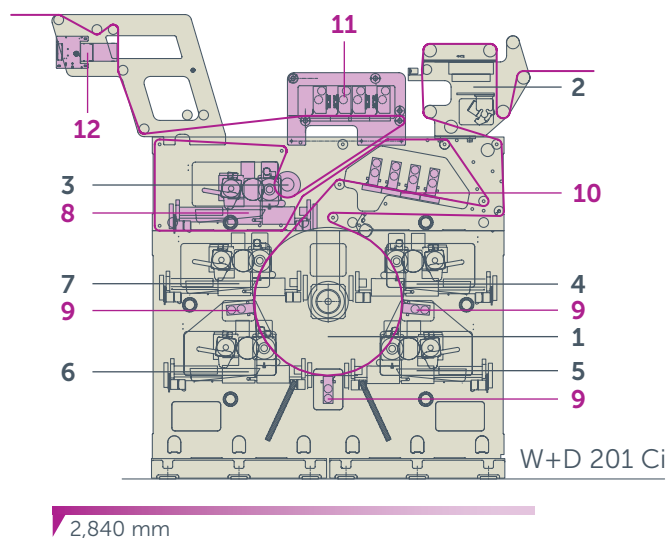


IR-Inbetween dryer



IR/LED UV-Enddryer

Machine layout



- 1 Central impression cylinder (Ci)
- 2 Web aligning section
- 3 Single impression cylinder
- 4 Print unit 1
- 5 Print unit 2
- 6 Print unit 3 (Option St)
- 7 Print unit 4

- 8 Print unit 5 (Option Ci and St)
 - 9 IR- or LED UV-Inbetween dryer
 - 10 IR- or LED UV-Enddryer Outside print
 - 11 IR- or LED UV-Enddryer print unit 5
 - 12 Webinspection system
- Web run

Technical specification

Type		W+D 201 Ci Central cylinder	W+D 201 St Stacktype
Performance and size range	Speed	450 m/minute (1,475 ft/minute)	
	Paper weight	70 – 120 g/m ² (19 – 32 lb)	
	Web width	min. 145 mm (5 ²³ / ₃₂ ") – max. 390 mm (15 ¹¹ / ₃₂ ")	
	Printing width	max. 380 mm (14 ³¹ / ₃₂ ")	
	Size diameter ^{2-up} ^{1-up}	min. 54 mm (2 ¹ / ₈ ") – max. 67 mm (2 ⁵ / ₁₆ ") min. 68 mm (2 ¹¹ / ₁₆ ") – max. 124 mm (4 ⁷ / ₁₆ ")	
Dimensions and weight	Length	2,840 mm (9.3 ft)	
	Width	3,830 mm (12.6 ft)	
	Height	2,850 mm (9.3 ft)	
	Net weight	6,500 kg (14,300 lb)	6,000 kg (13,228 lb)
Connected load	Compressed air	min. 5 bar – max. 7 bar	
	Base machine	43 kVA	
	IR drying	78 kVA	
	LED UV drying (complete)	59 kVA	
Noise emission	According to specification EN 13023	72.5 dB (A)	

All binding data concerning the dimensions and formats for each machine type can be found in the performance data sheet.

All performance data published refers to the production of a defined reference product under certain circumstances reflecting a possible practice of use. The performances achieved in practice depend on a multitude of parameters which are beyond our control. This includes, amongst other factors, the condition of the raw materials to be processed, the shapes of the products, the air humidity and the ambient temperature. W+D reserves the right to make design changes and changes to the performance values.

Winkler+Dünnebier GmbH (W+D), part of global equipment manufacturer Barry-Wehmler and its BW Converting Solutions platform of five industry leading brands, specializes in the design and manufacture of high-performance converting machinery for the tissue, nonwovens, hygiene, package-printing and bag-converting industries worldwide.

With more than 100 years of experience, W+D is the only engineering company to cover the entire envelope mail production value chain: from converting, printing and value ad enhancement systems for the manufacturing of envelopes to highly intelligent mail inserting technology. All with the aim to produce the most complex and personalized letter mail packages for postal system intake.

For more about W+D, visit w-d.de.

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BW Converting Solutions



ONE Global Team - Better Together



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