



Lo-chem thermal plate production

PRODUCT BROCHURE

Low chemistry thermal plate production -
setting new standards in commercial printing.



Market leading low chemistry plate production for thermal applications

The combination of the very latest plate and chemistry technologies, together with Fujifilm designed 'ZAC' software embedded within the company's leading processors, results in market-leading performance. With benefits including lower chemistry consumption, lower processor maintenance, lower waste production, a cleaner working environment and better stability, our low chemistry systems provide benchmark solutions for improving environmental and business performance.

Thermal lo-chem			
Plates	Chemistry	Processors	Waste Reduction Unit
Brillia HD LH-PXE	DT-XWE/DT-XRE	FLH-Z Range FLC-TZ Range	XR-1200F
Brillia HD LH-PLE	DT-2WE / DT-2RE (FCT-E12 / FCT-E13)		
Brillia HD LH-PJE			
Brillia HD LH-NI3			

Fujifilm's low chemistry plate production solutions for thermal CTP applications comprise a range of four high definition thermal plates, each tailored to specific commercial printing application, two processor ranges incorporating Fujifilm's unique award-winning 'ZAC' technology, and a waste reduction unit.

Lower chemistry consumption

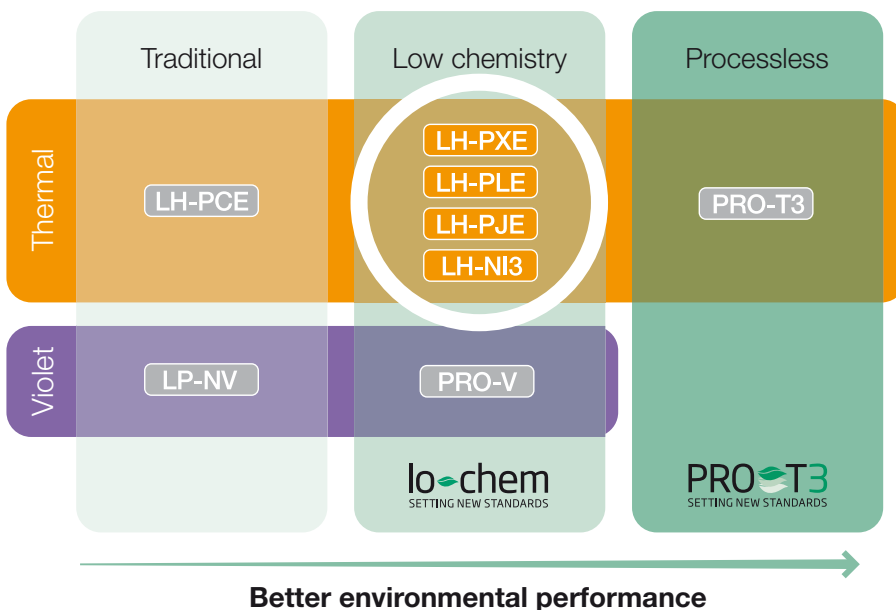
The FLH-Z and FLC-TZ 'ZAC' processors incorporate unique Fujifilm developed software to intelligently control the amount of replenisher used in the plate development process. This improvement means that a full bath of developer can now develop up to 15,000m² of plates resulting in substantial savings in developer consumption. For a printer using around 10,000 B1 plates over a 1-3 month period, chemistry consumption can be reduced to around 294 litres - a reduction of over 80% (depending on existing system used).

Lower maintenance

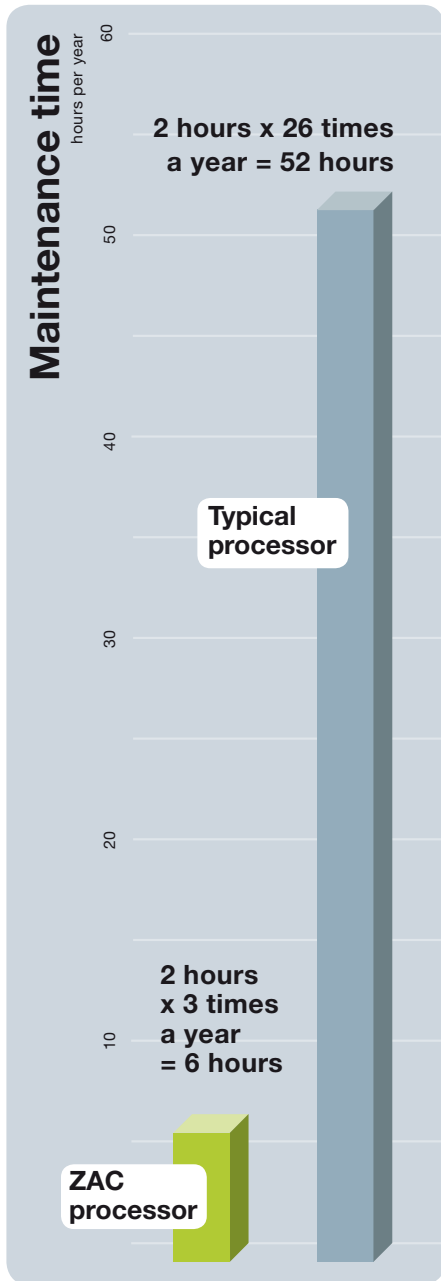
Maintaining perfect developer activity allows the developer bath life to be greatly extended beyond the norm for developing systems. It is typical to achieve bath life figures that are four or more times greater than normal plate processing systems. These improvements mean that a full bath of developer will now develop up to 15,000m² of plates resulting in substantial reductions in cleaning down time. It is not uncommon to save over 40 hours of cleaning time for a large 32,000m² consumer of plates over a year's plate production.

Cleaner working environment

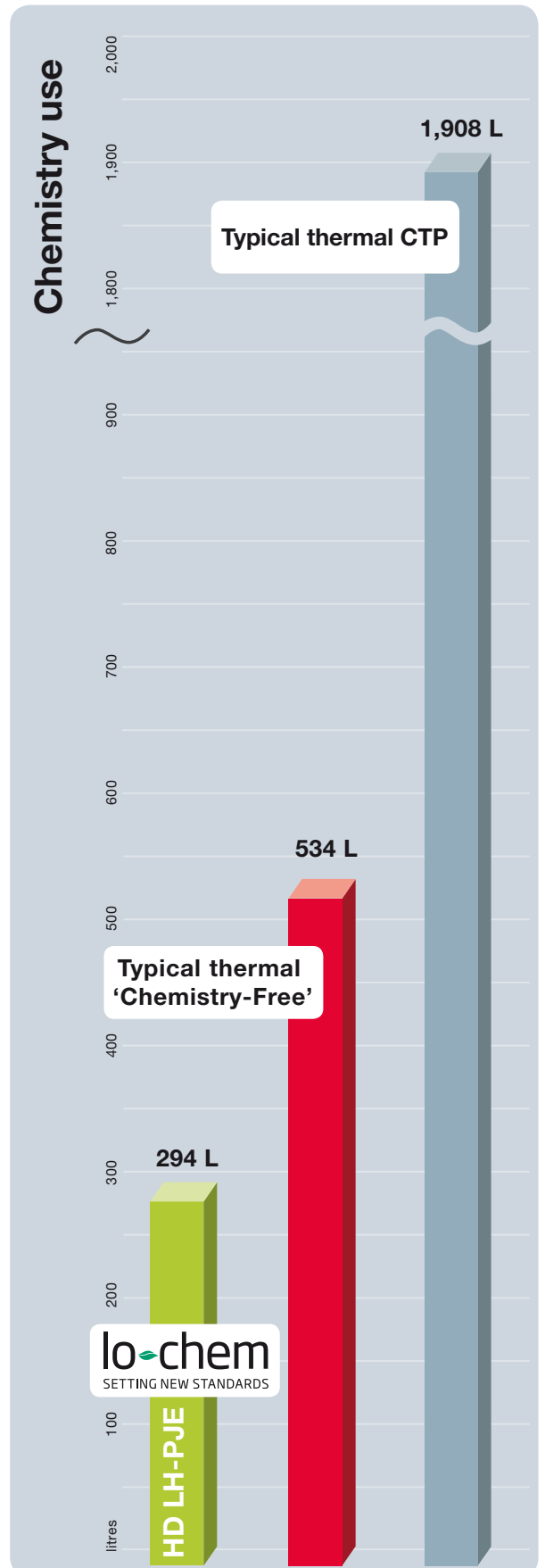
The chemistry used for processing plates in a 'ZAC' system is a non-silicate based recipe. This makes a much longer bath life possible without the increase in developer sludge and



The Fujifilm Brillia plate range for commercial print applications. The four thermal lo-chem plates featured in this brochure are circled.



This graphic highlights the amount of chemistry used by different plate solutions. The calculations assume 10,000 B1 plates are produced over a 1-3 month period.



This graphic highlights the amount of time spent cleaning a processor over the course of a year, assuming 32,000 B1 plates are produced in this period, and a typical 2 hour cleaning regime.

filter blockages. In addition, both Brillia HD LH-PJE and HD LH-PLE plates incorporate an Enhanced Development Layer (EDL) enhancing the solubility of the non-image areas during development, further aiding bath life, giving wider developing latitude and resulting in much cleaner working. Finally, as the chemistry contains no alcohol or solvents, this further enhances the working environment.

More stable system

Because of the way 'ZAC' processors intelligently control replenisher delivery, they are more stable making it much easier to achieve high quality, irrespective of changes to environmental conditions. This is particularly important for demanding FM screening applications.



An extended range of low chemistry plates for every application

There are four plates in the Brillia 'lo-chem' thermal plate range, all bringing the quality and consistency of Fujifilm High Definition, low chemistry CTP to users of thermal platesetters. They allow higher quality print to be achieved more easily, particularly when printing demanding FM, hybrid or fine-line conventional screens, and all exhibit Fujifilm's renowned low chemistry benefits.



Brillia HD LH-PXE

Brillia HD LH-PXE is a positive-working, thermal CTP plate for long-run commercial sheet-fed and web applications. The latest addition to Fujifilm's 'low-chemistry' range, Brillia HD LH-PXE offers an extra long run length of up to 500,000 impressions unbaked, and an extended run length of up to 1,000,000 when baked. The enhanced plate handling properties of Brillia HD LH-PXE have been achieved by using a new double layer emulsion, resulting in much better durability and

reducing the need for plate remakes. This highly sensitive emulsion requires minimal laser power and results in faster plate production (platesetter dependent).

Brillia HD LH-PJE/PLE

Both Brillia HD LH-PJE and LH-PL are high definition, positive-working thermal CTP plates for medium-run commercial print applications. They both incorporate an Enhanced Development Layer (EDL) which enhances the solubility of the non-image areas during development, further aiding bath life, giving wider developing latitude and resulting in

much cleaner working. Both plates can also be used with UV inks, either unbaked or baked, and Brillia HD LH-PJE in particular can be used for ultra high quality 10µm FM screening applications.

Brillia HD LH-NI3

Brillia HD LH-NI3 is a high definition, negative-working thermal CTP plate for long-run commercial print applications. It has an ultra long run length capability of over 1,000,000 when baked, and can be used for high quality 20µm FM screening applications.

Specification	Brillia HD LH-PXE	Brillia HD LH-PL	Brillia HD LH-PJE	Brillia HD LH-NI3
Print application	Ultra long-run commercial sheet-fed and web applications	Long-run commercial, sheet-fed and web offset	Medium-run commercial, sheet-fed and web offset	Long-run commercial, web offset
Laser type	Thermal LD 830 nm (800-850 nm)	Thermal LD 830 nm (800 – 850 nm)	Thermal LD 830 nm (800 – 850 nm)	Thermal LD 830 nm (800 – 850 nm)
Sensitivity	100-120 mJ/cm ²	100-120 mJ/cm ²	100-120 mJ/cm ²	110-130 mJ/cm ²
Resolution	200 lpi (1 – 99%)	200 lpi (1 – 99%)	300 lpi (1 – 99%)	200 lpi (1 – 99%)
FM screen capability	20µm FM **	20µm FM	10µm FM	20µm FM
Plate gauges	0.15, 0.2, 0.3, 0.4 mm	0.3 and 0.4 mm	0.15, 0.2, 0.3, 0.4 mm	0.2, 0.3 and 0.4 mm
Safe light	White: 1 hour; UV-cut: 2 hours; yellow: 12 hrs	White: 1 hour; UV-cut: 2 hours; yellow: 12 hrs	White: 1 hour; UV-cut: 2 hours; yellow: 12 hrs	White: 1 minute; UV-cut: 1 minute; yellow: 30 minutes
Shelf life	2 years	2 years	2 years	2 years (below 12°C)
Contrast	Excellent	Excellent	Excellent	Excellent
Developer/replenisher	DT-XWE / DT-XRE	DT-2WE / DT-2RE (FCT-E12 / FCT-E13)	DT-2WE / DT-2RE (FCT-E12 / FCT-E13)	DT-2WE / DT-2RE (FCT-E12 / FCT-E13)
Bath life ('ZAC' processors)	Up to 3 months or 8,000 m ²	Up to 4 months or 15,000 m ²	Up to 4 months or 15,000 m ²	Up to 1 month or 3,000 m ²
Gum	FN-6CWE	FN-6CWE	FN-6CWE	FN-6CWE
Run length (unbaked)*	Up to 500,000	Up to 300,000	Up to 200,000	Up to 200,000
Run length (baked)*	Up to 1,000,000	Up to 400,000	Up to 300,000	Up to 1,000,000
Run length (UV ink, unbaked)*	Up to 100,000	Up to 150,000	Up to 100,000	Not recommended
Run length (UV ink, baked)*	Up to 400,000	Up to 200,000	Up to 150,000	Good

* Run lengths are always dependent on laser power and press conditions
** Contact Fujifilm for required processor specification

World-class, sustainable plate production



Fujifilm prides itself on its investment in sustainability, and the Tilburg manufacturing site is a prime example. The site itself achieved ISO 14001 certification in 1997, and has been implementing sustainability improvements every year. The ultimate aim of the site is to be 100% CO₂ neutral in everything it does.

In October 2011, the installation of five wind turbines was completed. The five turbines, developed in partnership with ENECO and having a combined capacity of 10MW, are set to supply approximately 20% of the total energy used by the 63 hectare

Tilburg site as a whole. This represents a 12,000 tonne reduction in CO₂ emissions per year.

Other investments include a co-generative thermal oxidiser which uses gases and waste solvents produced as a by-product of the plate manufacturing process for fuel and will help to reduce CO₂ emissions by a further 5,500 tonnes per year. With these and other sustainability measures in place, Fujifilm Tilburg estimates that it currently reuses 13% of the waste it produces, recycles 68%, regenerates 18% and so is left with less than 1% of the total site waste to dispose of.

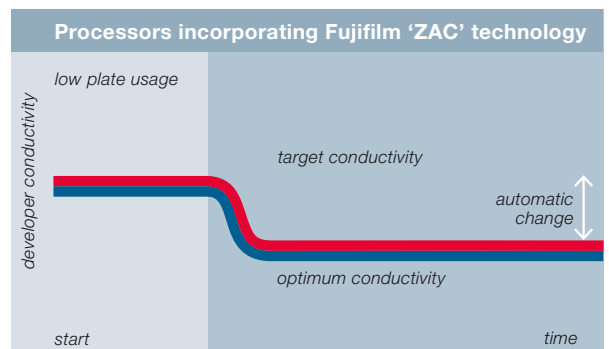
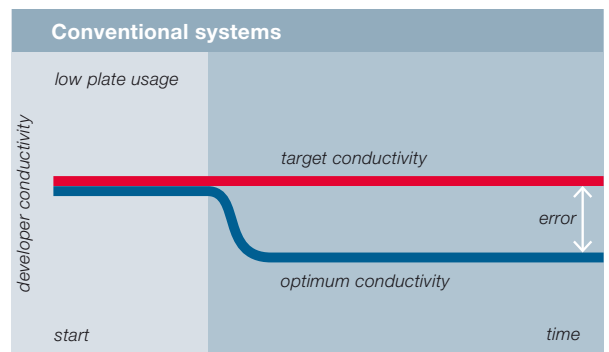


Over 99% of waste produced at Tilburg is recycled, regenerated or reused.

Fujifilm processors incorporating 'ZAC' technology

Fujifilm is able to offer two processor ranges incorporating the company's unique 'ZAC' software, the award-winning FLH-Z range and the FLC-TZ range. Both ranges of processors offer significantly reduced chemistry consumption through intelligent monitoring and replenishment. Unlike conventional plate processors, which just attempt to keep developer solution conductivity at a constant level, Fujifilm 'ZAC' processors incorporate unique technology that precisely controls the replenishment rate according to usage and oxidation levels, drawing upon software algorithms compiled from exhaustive Fujifilm lab testing. This avoids wasteful over replenishment while providing consistent processing of each plate for optimum quality and on-press performance.

Fujifilm 'ZAC' processors incorporate an intelligent replenishment system that tracks the optimum bath conductivity as usage varies, delivering the correct amount of replenisher for extended, consistent and repeatable processing.



Benefits of Fujifilm 'ZAC' processors

- ▶ Deliver major reductions in chemistry usage
- ▶ Maintain optimal processing conditions
- ▶ Robust chain-drive mechanism for long-term reliability
- ▶ Easy to use, service and maintain
- ▶ Support online or offline use
- ▶ Support all commercial plate sizes

FLH-Z Processor Series

The FLH-Z processor range significantly reduces chemistry consumption through intelligent monitoring and replenishment. In the 2010 InterTech™ Technology Awards (organised by the Printing Industries of America) Fujifilm's 'ZAC' technology won an award for its control over plate processing resulting in more consistent plates, less money spent on chemicals, and reduced chemical waste.



Key specifications	FLH-Z 85	FLH-Z 125	FLH-Z 150	FLH-Z 165
Plate types	Brillia HD LH-PJE, LH-PLE, LH-NI3 & LH-PXE thermal plates, and Brillia LH-PCE (without 'ZAC' benefits)			
Maximum plate width	850 mm	1250 mm	1500 mm	1650 mm
Minimum plate length	285 mm	350 mm	350 mm	350 mm
Plate gauge	0.15 – 0.4 mm			
Processing time	LH-PJE and LH-PLE: 16 seconds, LH-NI3: 28 seconds, LH-PXE: 14 seconds			
Develop tank capacity	30 litres	80 litres	96 litres	104 litres
Dimensions (W x D x H)*	1525 x 1070 x 1085 mm	1950 x 1410 x 1148 mm	2250 x 1410 x 1148 mm	2400 x 1410 x 1148 mm

*Not including delivery/input table

FLC-TZ Processor Series

The FLC-TZ Series is an alternative range of heavy duty plate processors that incorporate Fujifilm's unique 'ZAC' technology. Comprising four models, the range features a robust design with excellent maintenance access and usability. Each model is equipped with a heavy duty chain drive mechanism for trouble free processing.

Benefits of Fujifilm's FLC-TZ processors

- ▶ Deliver major reductions in chemistry usage
- ▶ Maintain optimal processing conditions
- ▶ Robust chain-drive mechanism for long-term reliability
- ▶ Easy to use, service and maintain



Key specifications	FLC-T85Z	FLC-T125Z	FLC-T165Z
Plate types	Brillia HD LH-PJE, LH-PLE, LH-NI3 & LH-PXE thermal plates, and Brillia LH-PCE (without 'ZAC' benefits)		
Maximum plate width	850 mm	1260 mm	1650 mm
Minimum plate length	300 mm	300 mm	300 mm
Plate gauge	0.15 – 0.4 mm		
Processing time	LH-PJE and LH-PLE: 16 seconds, LH-NI3: 28 seconds, LH-PXE: 14 seconds		
Develop tank capacity	65 litres	85 litres	105 litres
Dimensions (W x D x H)	1446 x 1580 x 1155 mm	1860 x 1580 x 1155 mm	2260 x 1580 x 1155 mm

'ZAC' System Unit

Fujifilm also offers a 'ZAC' System Unit that can be used to upgrade any G&J processor compatible with Brillia HD LH-PJE and LH-PLE plates to give printers all the benefits of 'ZAC' intelligent processing.

Key Specifications	'ZAC' System Unit
Processor	Any G&J processor suitable for processing LH-PJE, LH-PLE and LH-PXE plates, like FLH-E2 & FLH-P Interplaters
Applicable chemistry	DT-2WE, DT-2RE, DT-2RWE, DT-XWE, DT-XRE
Chemical consumption	8-10 ml/m ² depending on plate consumption
Bath life	Up to 3 months or 8000 m ²
Weight	19 kg
Dimensions (W x D x H)	180 x 400 x 635 mm

XR-1200F Waste Reduction Unit

The XR-1200F unit is designed to reduce pre-press developer waste*¹ and water use for printers using Fujifilm plate production systems requiring chemistry. The XR-1200F system works by separating plate chemistry into 'concentrated waste', reducing it by 70 to 90%*², and 'distilled water' that can then be reused in the plate production process. This results in a significant reduction in waste and water usage. The XR-1200F has been developed from technologies found in our 'ZAC' processors, and has the following benefits:

- ▶ Reduces waste volumes and therefore the cost of treatment
- ▶ Reduces water consumption as the distilled water can be reused in the processor
- ▶ Reduces CO₂ emissions generated by the transport and incineration of waste



Key specifications	XR-1200F
Processing capacity	1.2 L/h
Dimensions (W x D x H)	419 x 476 x 722 mm
Weight (operational)	70 kg
Power requirement	220-240 V 0.5 kW

*¹ Only for use with Fujifilm Brillia HD LH-PJE, LH-PLE, LH-PXE and LH-NI3 plates processed using Fujifilm developer

*² Maximum value under standard conditions

Pressroom products compatible* with lo-chem thermal plates

In addition to developing market leading printing plates, we go one step further. The way plates perform on-press with the relevant pressroom products is critical to achieving optimum printing results. Because Fujifilm is one of the largest suppliers of pressroom solutions in the industry, we have been able to optimise the formulation of our pressroom products to match our plates. By using Fujifilm plates with our pressroom solutions, you can be guaranteed of the best performance and print quality.

Application	Plate	Founts	Description	Washes	Description
Heatset	LH-PXE	FountMax Red 20.21 AF	IPA-free fount; reduced piling; extended washing intervals	WashMax 100.40 BIO	104 °C flashpoint; non VOC; maximum dryer security; improved cleaning power
		FountMax Red 22.21 AF	IPA-free fount; strong buffer capacity; suitable for hard water	WashMax 100.20 BIO	105 °C flashpoint; non VOC; automatic blanket washing system
		FountMax Red 21.65 AF	standard heatset fount IPA-free; for all dampening systems	WashMax 60.10 MI	64 °C flashpoint; manual and automatic cleaning
		FountMax Red 22.10 AF	standard heatset fount IPA-free; for all dampening systems		
Sheet-fed	LH-PLE	FountMax Blue 30.30 AF	IPA-free fount; especially suitable for metallic inks	WashMax 60.10 MI	64 °C flashpoint; manual and automatic cleaning
		FountMax Blue 30.33 AF	IPA-free fount; for medium hard water; reduced ink feed back	WashMax 60.65 MI	62 °C flashpoint; especially suitable for brush automatic blanket washing system
		FountMax Blue 30.25 AF	IPA-free fount; suitable for all water qualities		
		FountMax Blue 30.11	conventional fount for all dampening systems		
Sheet-fed	LH-PJE	FountMax Blue 30.30 AF	IPA-free fount; especially suitable for metallic inks	WashMax 60.10 MI	64 °C flashpoint; manual and automatic cleaning
		FountMax Blue 30.11	conventional fount for all dampening systems	WashMax 60.65 MI	62 °C flashpoint; especially suitable for brush automatic blanket washing system
		FountMax Blue 30.25 AF	IPA-free fount; suitable for all water qualities		
		FountMax Blue 30.33 AF	IPA-free fount; for medium hard water; reduced ink feed back		
Heatset	LH-NI3	FountMax Red 20.21 AF	IPA-free fount; reduced piling; extended washing intervals	WashMax 100.40 BIO	104 °C flashpoint; non VOC; maximum dryer security; improved cleaning power
		FountMax Red 22.21 AF	IPA-free fount; strong buffer capacity; suitable for hard water	WashMax 100.20 BIO	105 °C flashpoint; non VOC; automatic blanket washing system
		FountMax Red 21.65 AF	standard heatset fount IPA-free; for all dampening systems	WashMax 60.10 MI	64 °C flashpoint; manual and automatic cleaning
		FountMax Red 22.10 AF	standard heatset fount IPA-free; for all dampening systems		

* Run lengths are always dependent on laser power and press conditions

PRESSMAX

Please contact your local Fujifilm partner or visit www.powertosucceed.eu/contacts



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