LEXO INNOVATOR

Packaging – too valuable to waste

Packaging has traditionally served three roles: protecting, promoting, and performing.

But the greatest challenge now relates to sustainability, which will become critical going forward as we see a shift towards paper-based packaging made from renewable and recyclable resources.

At TRESU we believe that winning in the new age of packaging requires being able to print more sustainably.

The very nature of flexo technology makes it ideal for more sustainable, single-pass high speed printing with water-based ink and recycled paper board materials – especially when combined with the industry's most efficient drying technology – the TRESU VelociDryer technology.

Recyclable, compostable or biodegradable

New ways of printing will become core deliverables going forward. Today we supply the most efficient drying technology in the industry enabling waterbased ink and coating to dry faster at higher speeds - while recirculating the heat and using less energy overall.

Our ink- and coating supply systems together with our pressure control technology increase print quality – and at the same time can reduce waste significantly.

At TRESU we understand that sustainability and new ways of printing and coating will change customers' value chains. We are ready to face these challenges and adapt our proven flexo technology solutions to the needs of customers' future applications and today's sustainability agenda - and at the same time move sustainable value to their bottom lines.

⁻or packaging materials, the TRESU Flexo Innovator is the ndustry standard used for iquid packaing and paper board materials by some of the biggest converters in the world working with aseptic and liquid packaging, paper cups, paper board and folding carton materials

Typical configurations for this segment has up to 1.700 mm (67") web width running at speeds up to 800 m/min (2.600 eet/min) printing and coating with WB, UV or EB.

Add to this a modular service concept targeting any part of OEE that customers wish to work with, and you have the picture of the #1 printing press in packaging and converting.

TRESU is a highly specialized company offering flexoprinting machines and ancillary products and concepts for flexo, digital

and offset printing as well as customer service and technical support

TRESU has 40 years of experience and expertise in the development, production and maintenance of engineered solutions and supplies directly to end-customers, OEMs and partners worldwide.

TRESU has production facilities in Denmark and sales companies in USA, Germany, Italy, Japan and China as well as an international agency network providing local support and know-how

TRESU A/S **DK-6000 Kolding** DENMARK +45 7632 3500

D-31157 Sartstedt GERMANY +49 5066 9174286

TRESU GmbH

TRESU Americas Grapevine, TX 76051 USA +1 214 631 2844

TRESU Italia s.r.l I-20024 Garbagnate Milanese (MI) ITALY +39 0296 59 202

SPARE PART HUB US & AMERICAS Spareparts-us@tresu.com

> Venusvej 44 | DK-6000 Kolding | Denmark Tel.: +45 76 32 35 00 | tresu@tresu.com



Sign up on tresu.com and stay connected www.tresu.com





TRESU Japan Co., Ltd. 559-0033 Osaka JAPAN +81 6 4703 060

TRESU China 100062 Beijing CHINA +86 (0) 10 65911628

SPARE PART HUB EU & ASIA Spareparts@tresu.com



TRESU Flexo Innovator

Unbeaten performance for single pass printing of packaging materials



Industry benchmarking throughput

With a modular design, the inline multi-station TRESU Flexo Innovator offers unique opportunities for single pass HD printing of packaging materials – at the lowest cost to print and with the largest installed base of experience and know-how in the entire industry.

Folding carton, paperboard and packaging materials

The TRESU Flexo Innovator is used for printing packaging and folding carton materials by some of the biggest converters in the world working with aseptic and liquid packaging, paper cups, plates and general folding carton where HD printing with speeds up to 800 m/min. and minimum downtime is required.

TRESU Flexo Innovator - still unbeaten:

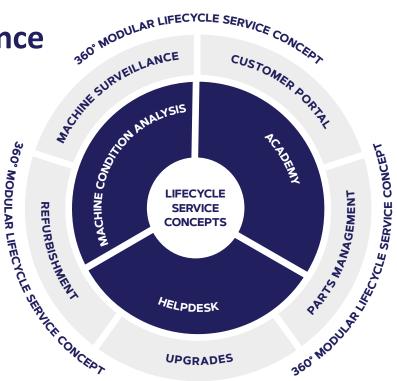
- + Highest flexo printing speed
- + All key parts engineered by TRESU
- + TRESU Pressure Control Technology
- + TRESU VelociDryer best drying
- + Modular service for best OEE
- + Largest installed base
- = TRESU Flexo Innovator still #1

Extending Performance

In collaboration we identify, allocate, and properly manage risks, and ensure peak performance from your equipment.

Extending lifetime performance of your equipment, we offer solutions for every step of the journey and respond quickly to any issue.

Based on your requirements we put together a unique service agreement optimizing Overall Equipment Effectiveness – OEE – throughout the entire product lifecycle of your press.



TRESU - Partnership Performance

Invest your trust in proven concepts and enter a performance partnership extending the lifetime of your press.

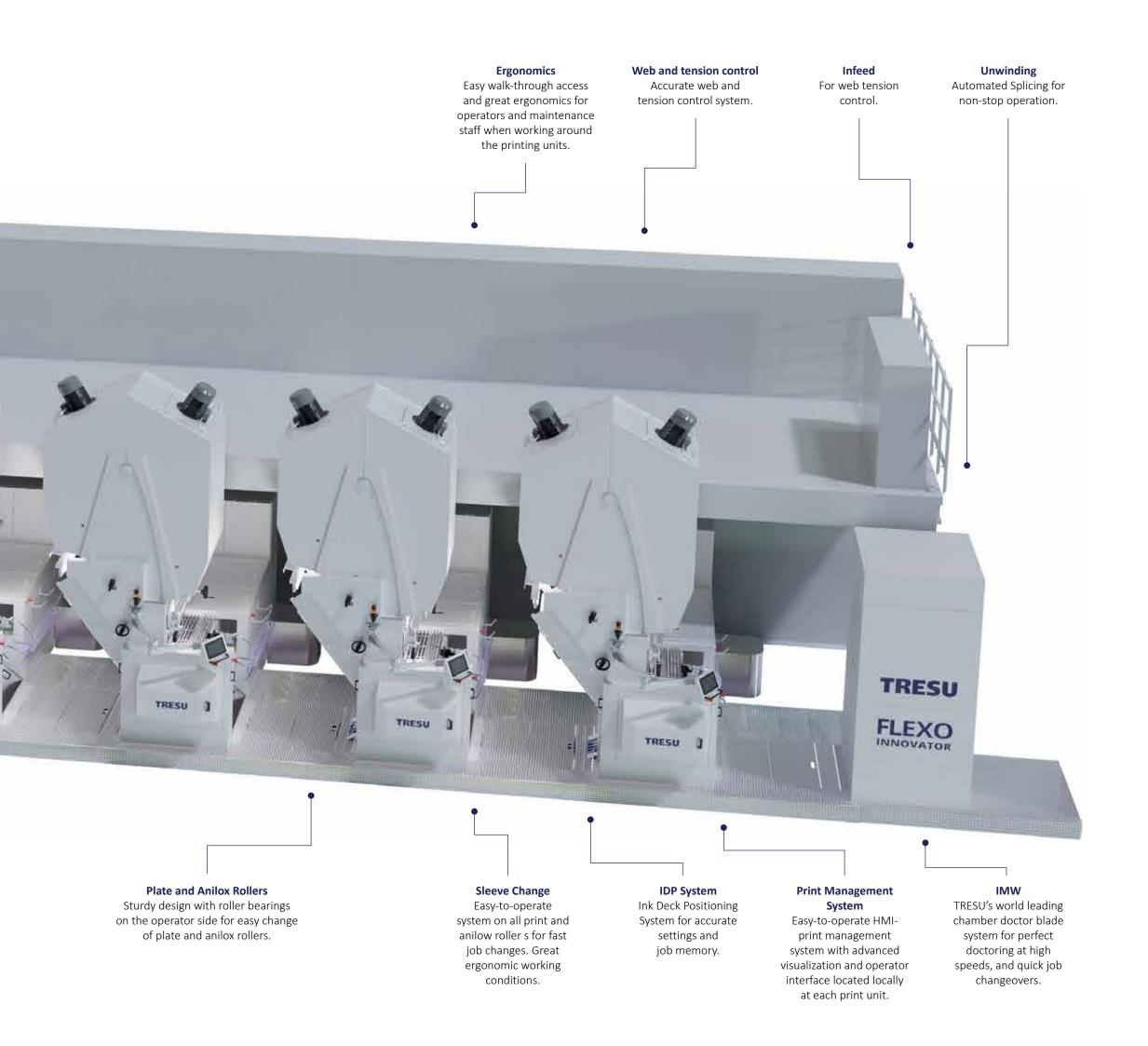
We have supplied proven flexo technology to industry leading brand owners, converters and OEM manufacturers all over the world for more than 40 years. Benefit from the know-how of the industry's largest installed base of flexo

printing units. We continuously strive to upgrade them and extend their performance.

TRESU offers proven solutions for every step of the journey. For sure, this does not come in a box.

We call it Partnership Performance.

VelociDryer - High-capacity **Optional UV, LED-UV and E-beam curing** Cooling Full Electronic Drive Apart from hot air drying the TRESU Flexo unit-to-unit drying performance The efficient cooling Each print unit is equipped with eight Innovator can also integrate and handle servo motors – for the anilox roller, High output with heavy system ensures UV curing and / or E-beam curing. the plate-, and the impression cylinder. laydown on paperboard. an optimal web The hot-air drying system with integrated temperature. nozzle dryers achieves air speeds of up to up to 65 m/min (215 ft/min) – thus preventing web shrinking. Automatic regulations means that approximately up to 75% of the energy is recirculated. TRESU FLEXO TRESU TRESU TRESU TRESU control system Front/back Inspection and quality control. Single pass front- and back side printing available. **Register Control** Print side up High production speed Fully automatic traverse. Front and backside printing The web exits the press with Camera or optic based register control system print side up for easy cut and Security coating with complete, automatic pre-setting ability. Inline cold foil solution crease – no turnbar and less Flexographic HD overprint tension and waste. WB, UV, EB coatings/inks.



TECHNICAL SPECIFICATIONS				
Web width, max.	670mm (26")	1.100mm (43")	1.400mm (55")	1.700mm (67")
Web width, min.	335mm (13")	550mm (21.6")	700mm (27.5")	850mm (33.5")
Repeat length, max	1.066mm (42")			
Repeat length, min.	508mm (18.5″)			
Production speed, max.	400, 600 or 800m/min (1,300, 2,625 or 1,968ft/min)			
Register print	Front: +/- 0,08mm (3 thousands)			
	Front/back: +/- 0,25mm (10 thousands) (Sigma 1)			
Substrates	Uncoated/coated/metallized paper board4-30pt (60-600gsm)			
Unwinder	Flying splice with options			
Rewinder	Flying splice with options			
Backside printing	Optional			
Inline die-cutting	Optional: Platen or Rotary cut, perforation and crease			
Inks & Coatings	Water, solvent and UV			
Drying & curing	Hot-air, UV, LED-UV and E-Beam			



TRESU chamber doctor blade systems and proven doctor blades



TRESU ink and coating supply systems



