

**The World's Best  
Intelligent Substrate Transport System**



**High Speed Accurate Positioning at  $\pm 5 \mu\text{m}$**



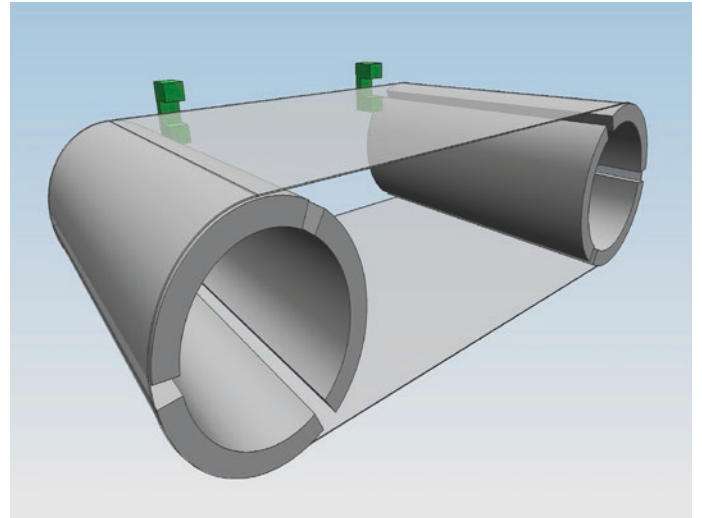
**Modular design for professional inkjet systems**



**Paper - Corrugated board - Foil - Glass - Decor Panels**

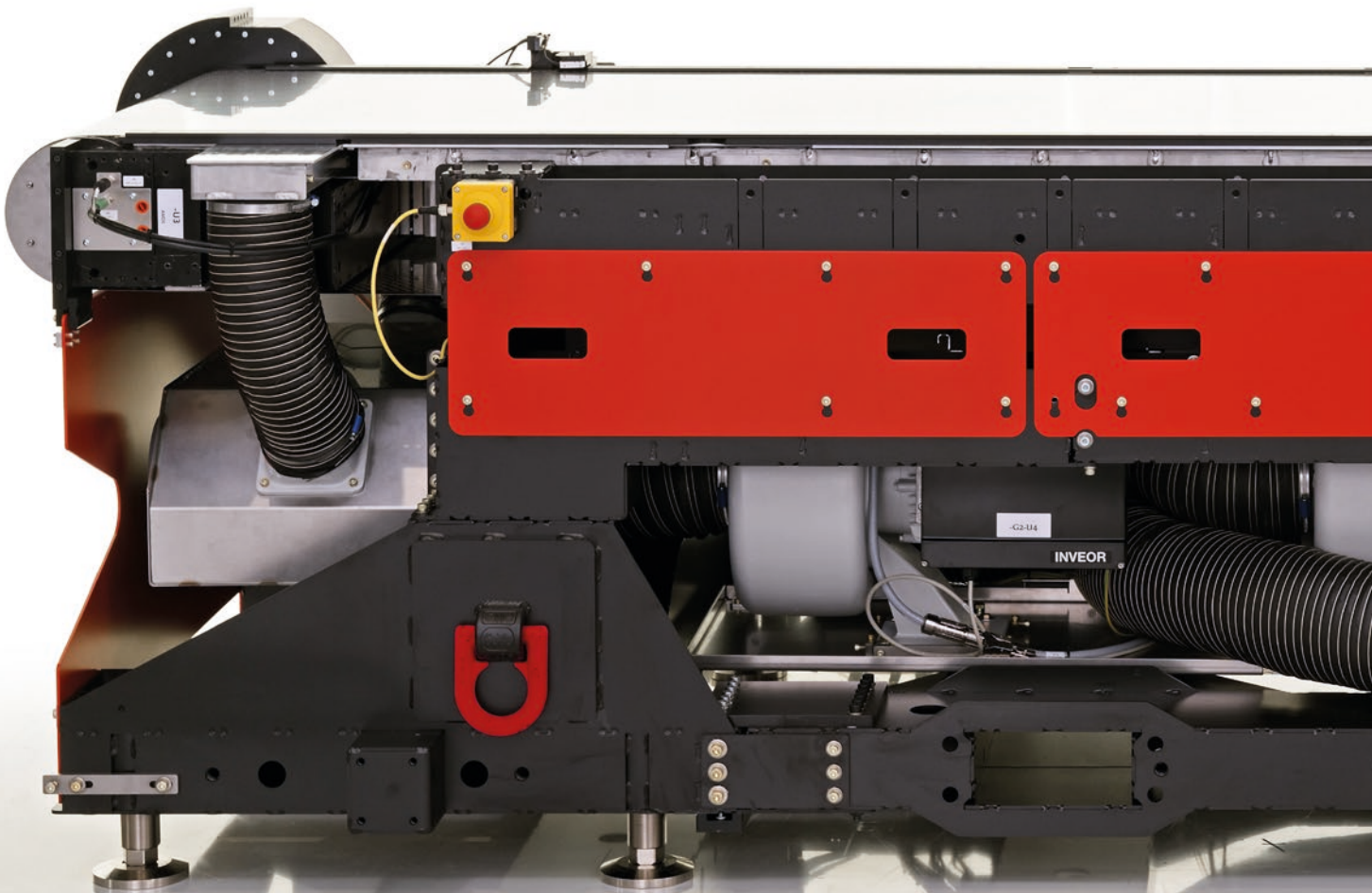
# VEXAR | Technology

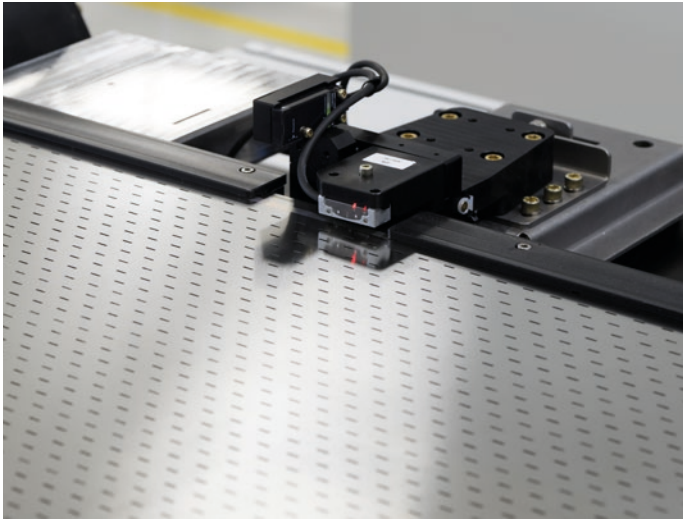
- High accuracy at high speeds
- Substrate fixation by vacuum clamping
- Axially movable segmented rollers (patented)
- Engraved encoder pattern on belt
- Print-head interface included
- Stainless steel belt with different hole patterns
- Suitable for paper, foil, corrugated board, decor panels, glass and metal
- Modular and scalable design



## VEXAR steering principle

The lateral steering of the belt is controlled by the independent movement of the segments of the rollers with information from two belt edge sensors. The motion in transport direction is controlled by a direct drive torque motor and an engraved encoder pattern on the belt.





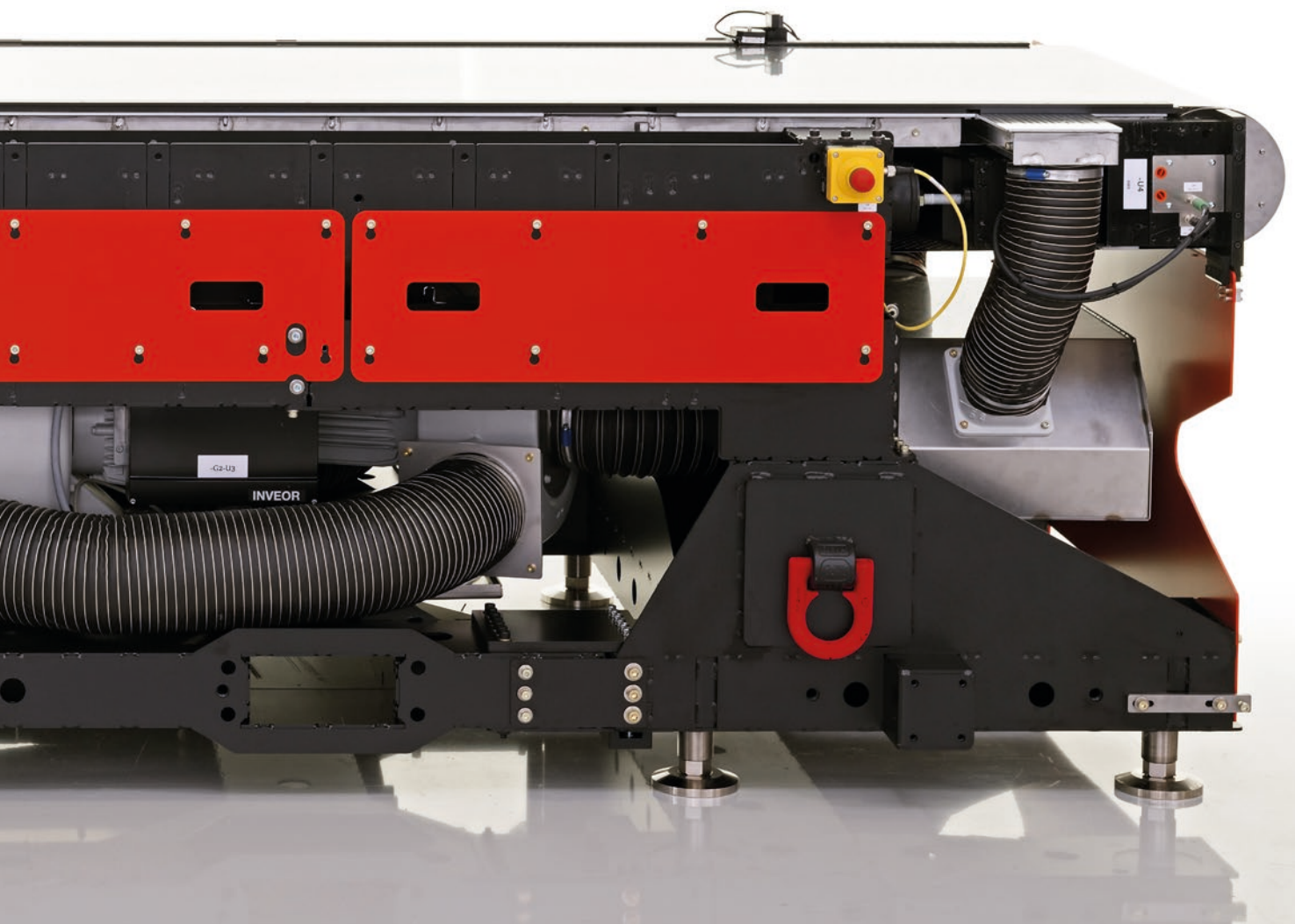
### VEXAR sensor module

At two locations along the belt the lateral and transport position of the belt is being measured with a belt edge sensor and an encoder sensor.

## VEXAR | Patented positioning system

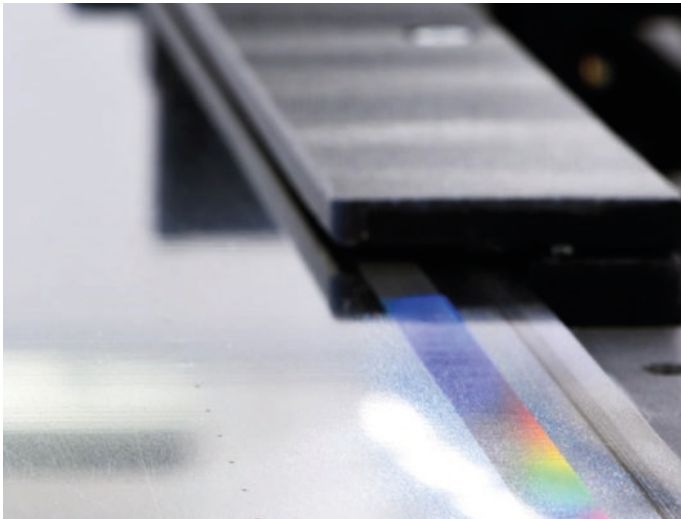
The steel belt conveyor system is developed for accurate transport of substrates underneath inkjet print heads. Due to the vacuum clamping the print quality becomes independent of the mechanical properties of the substrates.

A positioning accuracy of  $5\ \mu\text{m}$  in both lateral (X) and transport (Y) direction is being obtained by a unique patented steering mechanism in combination with an advanced motion control system. Compared to traditional paper transport systems (roller-beds and drums), this method results in a higher accuracy and can therefore meet the highest standards required in the professional printing industry of 1200 dpi and more.





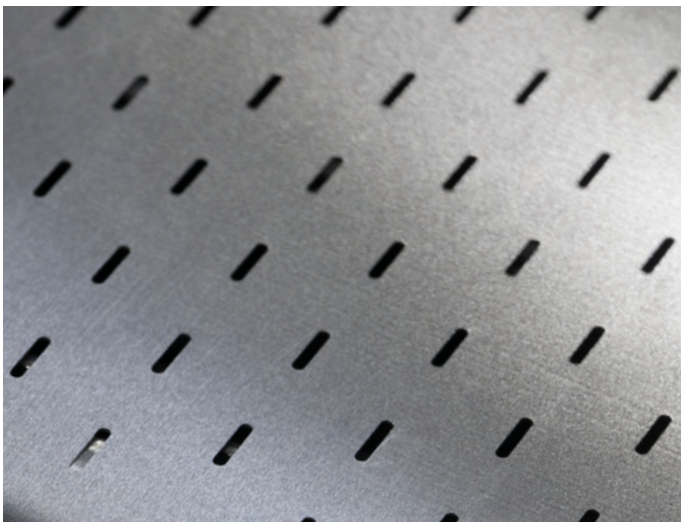
VEXAR | 60, often used in R&D departments with an accuracy of  $\pm 5 \mu\text{m}$



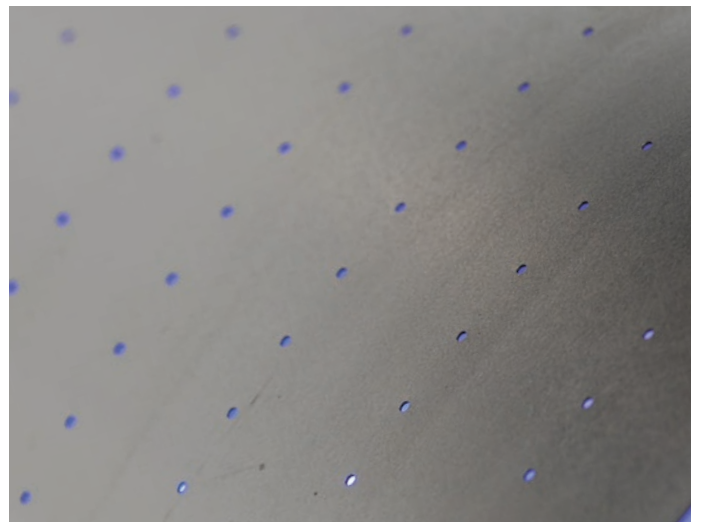
Engraved encoder pattern



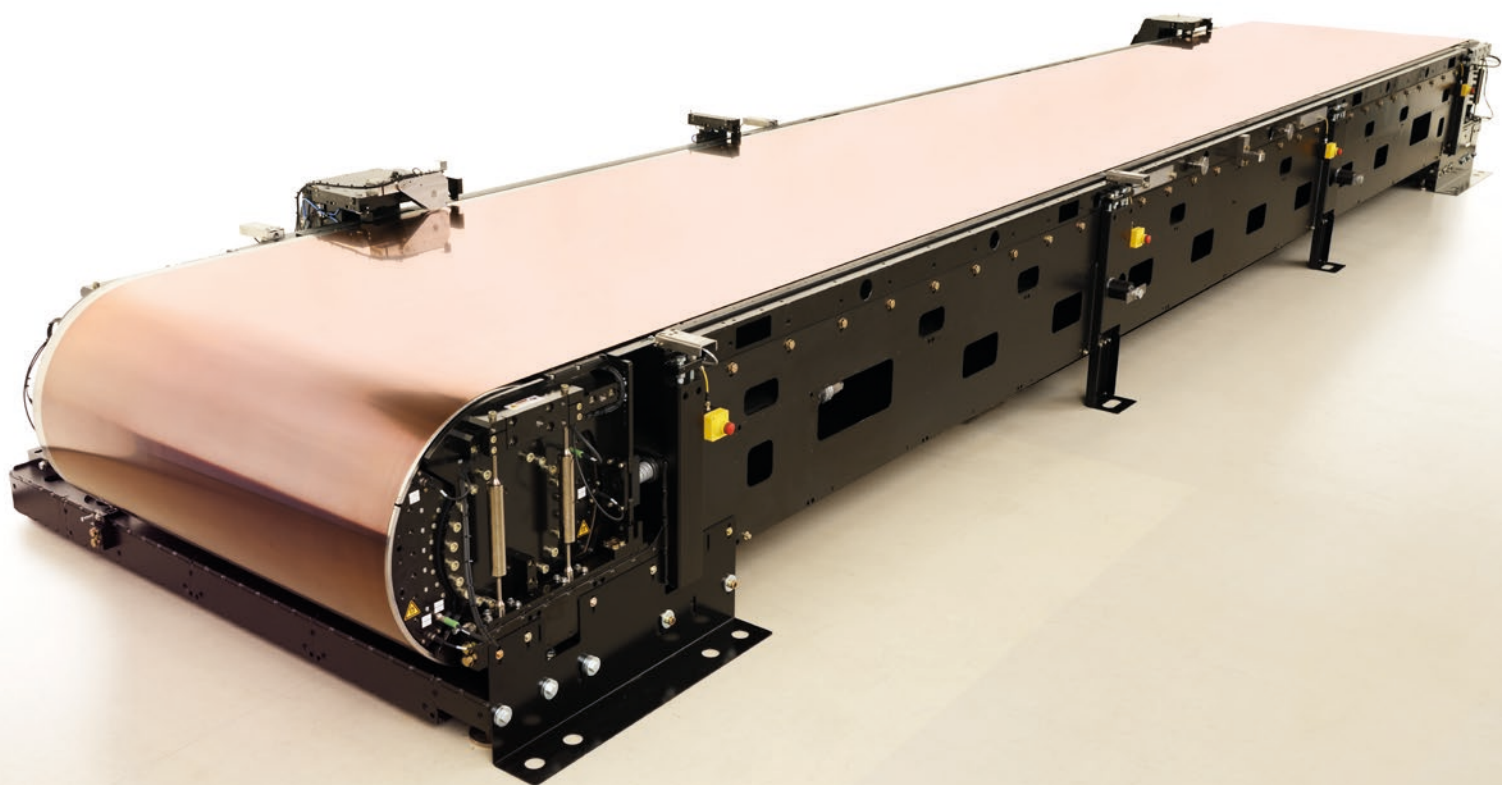
Designed for professional inkjet systems



Slotted holes for a wide variety of paper qualities



Smaller holes for thin and low porosity paper qualities



VEXAR | Special, for decor panels, 10 m with an accuracy of  $\pm 20 \mu\text{m}$

	VEXAR 60	VEXAR 80	VEXAR 120	VEXAR Special*
X accuracy	$\pm 5 \mu\text{m}$	$\pm 5 \mu\text{m}$	$\pm 5 \mu\text{m}$	$\pm 20 \mu\text{m}$
Y accuracy	$\pm 5 \mu\text{m}$	$\pm 5 \mu\text{m}$	$\pm 5 \mu\text{m}$	$\pm 20 \mu\text{m}$
Belt width	560 mm	800 mm	1245 mm	1400 - 2300 mm
Print width	500 mm	700 mm	1150 mm	1200 - 2100 mm
Roller center to center	2150 mm	3350 mm	3950 mm	Up to 10000 mm
Active vacuum length	1800 mm	3230 mm	3830 mm	t.b.d.
Roller diameter	200 mm	200 mm	200 mm	700 mm
Maximum speed	150 m/min	130 m/min	130 m/min	80 m/min

\* Suitable for large, rigid plates, such as decor panels, corrugated boards.



VEXAR operating at full speed of 150 m/min



**VEXAR**

Vexar is a 100% Sioux Group subsidiary. The strength of Sioux lies in the unique combination of high-quality competences in the field of software, mechanics, optics, physics, mechatronics, electronics and mathematics all of which are combined in Vexar.

[www.siox.eu](http://www.siox.eu)

Vexar takes care of the development and marketing & sales of high-tech accurate transport technology.

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