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	(Securities code : 6656 ;Tokyo Stock Exchange Standard Market)
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Concerning New Roll-to-Roll Seamless Direct-Imager (Simultaneous exposure on both sides)

We are pleased to announce that we have completed the development of the new RD3000FB series of roll-to-roll seamless direct imager systems, which are capable of seamlessly and simultaneously exposing both sides of long FPCs (Flexible Printed Circuits), which are increasingly being produced for in-car wiring in the rapidly growing electric vehicle field.

Notes

1. Needs for long FPCs in the electric vehicle field in recent years, CO2 reduction has become an urgent issue as a countermeasure to the worsening global environment due to frequent abnormal weather events, etc. As one of the major measures, the spread of Battery Electric Vehicles (BEVs) is showing rapid growth. In line with this trend, production of long FPCs used inside electric vehicles will increase from around 2021, and orders and shipments of our "RA7400 series" roll-to-roll inspection systems for long FPCs are steadily increasing.

On the other hand, FPC manufacturers have been producing these long FPCs with their existing facilities, including exposure systems. However, with the increase in volume, production capacity is approaching its limit, and the need for double-sided FPCs is increasing more than expected, making it particularly urgent to address the exposure process.

To meet this need, we have been developing a roll-to-roll seamless direct imager system in cooperation with the Akita Industrial Technology Center and with the support of the Ministry of Economy, Trade and Industry and the NEDO subsidy program.

2. Features of this product and its contribution to the market

The most significant feature of this "RD3000FB" is the world's first double-sided simultaneous exposure using the seamless continuous exposure method, which eliminates the need for the alignment process between the front and back surfaces, which has been a problem with conventional exposure systems. As a result, there is physically no misalignment between the front and back surfaces, no matter how long the exposure runs.



In addition, the simultaneous exposure of the front and back surfaces doubles productivity and greatly reduces exposure costs.

Real-time position correction, a feature of direct imager systems, is based on the same correction data for the front and back surfaces, and the system also realizes a function that allows each piece, the smallest unit of a product, to have its own unique 2D code exposed on both sides.

As with the existing "RD3000" model, a semiconductor laser is used as the exposure light source, which significantly reduces equipment maintenance costs. We are confident that the RD3000FB series, with its significant features as described above, will make a significant contribution to the need for increased production capacity in line with the rapid expansion of the BEV market in the future.

3. Sales Targets

Sales target for FY2023 (fiscal year ending April 2024): 5 units

The impact on the financial outlook for the current fiscal year

(ending April 30, 2023) will be announced as appropriate after assessing the status of future orders.

4. Specifications

	RD3000	RD3050	RD3000FB	RD3050FB
Maximum exposure length	6m (It is possible to exceed 6m depending on the conditions)			
Maximum material width (exposure width)	260mm (250mm)	520mm (500mm)	260mm (250mm)	520mm (500mm)
Double-sided/Single-sided	Single-sided		Double-sided	
Exposure speed	20~35mm/s			
Recommended photosensitive film	RD-2015 (Showa Denko) , RD-1215 (Showa Denko) ADH-156 (Asahi Chemical) , ADC-151 (Asahi Chemical) , AM-930 (Elga Europe)			
Minimum line / space	70/70μm			
Light source wavelength	405nm Semiconductor laser			
Data entry format	RS-274X			
Power-supply voltage	AC200V 20A			
Compressed air	Oil-free & dry air 0.5MPa			
Width x depth x height	2,400×1,310×2,115mm	2,550×1,650×2,115mm	2,400×1,310×2,115mm	2,550×1,650×2,115mm
Weight	1,950kg	2,500kg	2,150kg	2,700kg



RD3000FB roll-to-roll double-sided simultaneous seamless direct imager system