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YOUNG SHIN INDUSTRIES EXPANDS

KOREAN DIE-CUTTER MANUFACTURER INVESTS HEAVILY IN R&D AND OPENS ITS THIRD MANUFACTURING FACILITY IN DAEGU.

A REPORT BY DAVID HAYES



DAVID HAYES

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Young Shin Industries Ltd, the South Korean manufacturer of corrugated and folding carton flatbed die-cutters, is ramping up production at its new 'No 3 factory' in response to a growth in orders from customers in Europe and the United States.

Located in Daegu in the centre of the Korean peninsula, close to

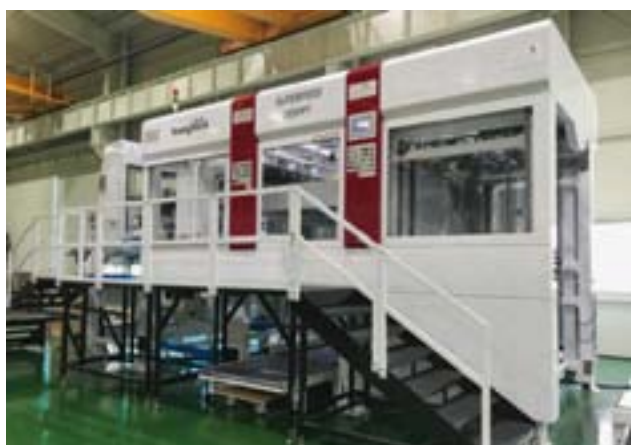
Young Shin's two other plants, the new facility is being used to assemble larger die-cutters and new models now under development that include a large folder cutter blanking machine and a 'Superfeed' for bottom feeding machines. "Opening our No 3 factory has increased our production capacity to 130 machines a year for small machines. But because we have

orders for all sizes of machines, the No 3 plant has increased our capacity to about 90 machines a year of all types," explained Young Shin Industries Ltd's Managing Director, Richard Lee.

"We mostly focus on Europe, the United States and South Korea. Business was good last year – exports increased, especially to the United States and Europe," confirmed Lee.

Left to right: Richard Lee, Managing Director, Young Shin Industries Ltd. and Heo Summa, Sales Manager Young Shin Industrial Ltd.





Focused Design

Young Shin employs 70 engineers and assembly technicians, including 10 R&D engineers, across the company's three plants. "We are developing new models as our customers are looking for machines to handle short runs and many job

changes," Lee said. "We are focussing on easy setting of the machines, to help with fast job changes. We invest 20% of our turnover in R&D – we are very R&D focused."

He continues, "We have our R&D department in our No 2 plant, so we tend to make the more complicated machines at this plant."

Big Investment

Young Shin has invested over US\$12 million constructing its new factory which is just five minutes drive from the company's nearby No 1 and No 2 plants.

"We bought an old steel factory and developed it as an assembly factory. We had to put in new floors particularly, as floor flatness is very important for our machine production and assembly – all machines are carefully calibrated," Lee said.

In addition to expanding Young Shin's production capacity, opening No 3 plant has allowed the company to reorganise its machine assembly more efficiently. "We have filled our No 3 factory bit by bit. Large machines like our Zenith 210 are becoming more and more popular, so we need a big area dedicated for assembly," Lee remarked.

"We use our No 3 plant for assembly and testing of the machines. Our No 1 and No 2 plants were full and we could not increase our assembly capacity, especially as the overall machine sizes were growing in dimensions and we had a full order book. We are building a lot of the larger, standard machines in No 3 plant, so we did not need to put in an R&D office in the new building."

US Appeal

The No 2 plant is used to assemble various machines, including the



“DIGITAL PRINTING MACHINES ARE GETTING QUICKER, ESPECIALLY WITH THE ADVENT OF SINGLE PASS TECHNOLOGY.”

RICHARD LEE, YOUNG SHIN INDUSTRIES LTD'S MANAGING DIRECTOR

Zenith 210 and the Zenith 185S Plus, which are both designed to handle short orders and cope with a large numbers of job changes. Customers in the US buying the Zenith 210S Plus include Bay Cities of Pico Rivera, CA, Liberty Carton of Golden Valley, MN and Batavia Container of Batavia, IL.

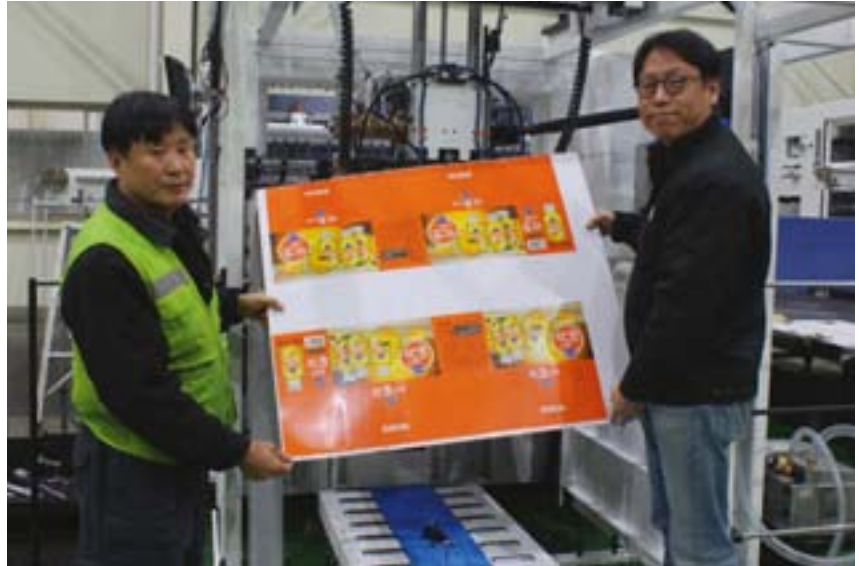
The Zenith series is equipped with an auto-setup system that uses servo motors. The machines auto-adjust for each job change to the correct specifications including: side jogging, stripping adjustment point and the delivery area based on the previous job involving the same sheet size and other parameters.

Two for Germany

“Larger converters choose our Zenith models. We have signed contracts for two Zenith 210 models with Primawelle in Germany to process board coming from their Fosber corrugator. The first Zenith was installed in 2017, the second machine will ship this year,” Lee said.

For Digital Print

Young Shin's latest flat bed die cutter is the Quest 270, which is designed to serve the digital printing and converting market. Launched



in 2017, the new model can handle sheets up to 2700 x 1700mm.

Lee noted the Quest 270 has been installed by Justman Packaging of Los Angeles, CA and is designed for companies producing a high volume of short runs that require a large number of job changes.

“Digital printing machines are getting quicker, especially with the advent of single pass technology. The output levels are now too great for plotters or

clamshells, so that is why we developed the Quest 270 to handle large volumes of digitally printed sheets,” Lee said.

Faster Machines

Young Shin's focus over the next five years will be to develop new flat bed die-cutters able to operate at higher speeds, Lee explained. They are also looking to increase robotic automation in the corrugated and folding carton production process.



“FOR CUSTOMERS USING LITHO-LAMINATORS, THE ‘SUPERFEED’ HAS A FLIPPING SECTION WITH A PHOTO SENSOR TO TURN SHEETS OVER SO THAT ALL THE SHEETS ARE IN ONE DIRECTION.”

HEO SUMMA, YOUNG SHIN INDUSTRIES LTD'S SALES MANAGER



“Our European and American customers used to stick to European and US die-cutters, but now they are looking for lower cost machines with similar build quality, that’s why we have increased our exports,” Lee remarked. “They need a partner who knows machinery safety rules and regulations in Europe and the United States.”

Young Shin is developing several new machines. Due for launch at Drupa 2020, the company is developing a large cutter blanker with automatic set up. Also under development is a ‘Superfeed’ to meet customer requests for non-stop feeding to combine with Young Shin’s Zenith and Meridian die-cutters.

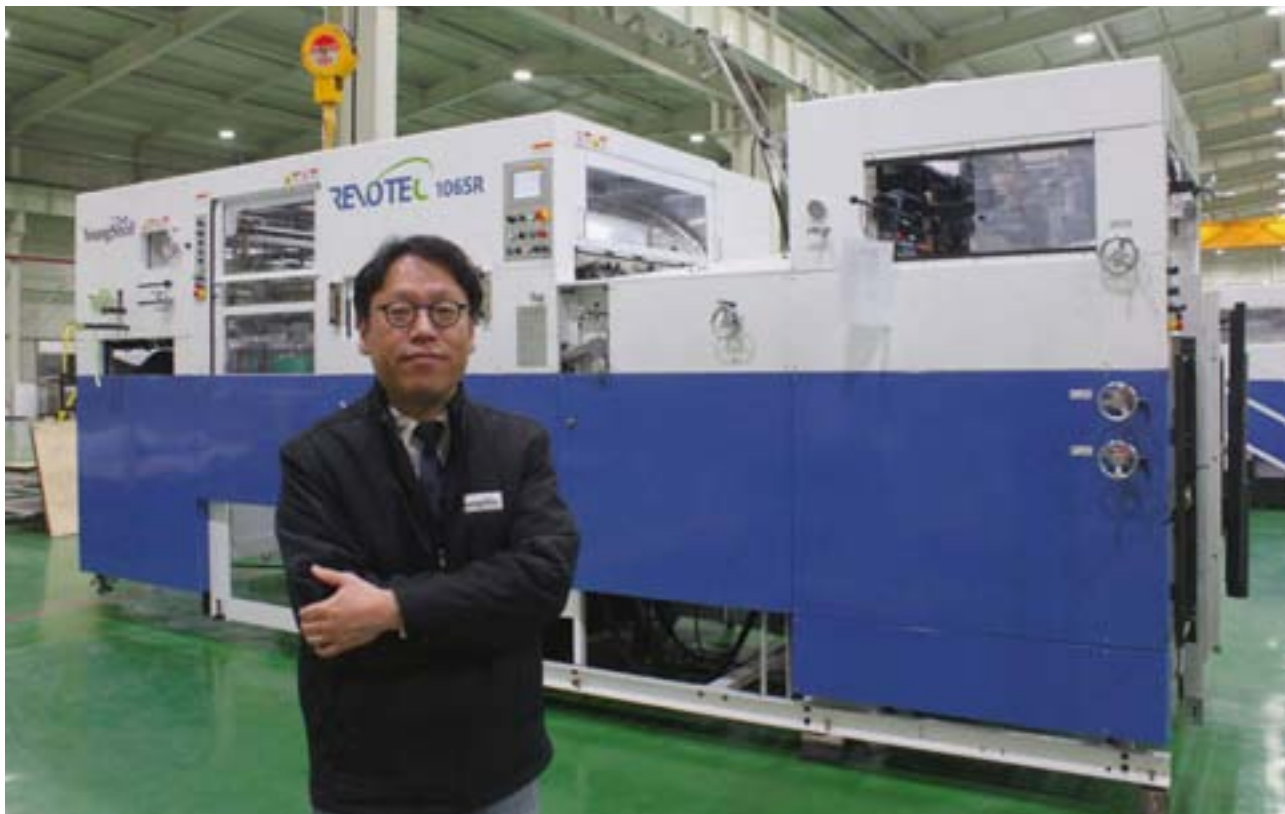


“For customers using litho-laminators, the ‘Superfeed’ has a flipping section with a photo sensor to turn sheets over so that all the sheets are in one direction,” explained Heo Summa, Young Shin Industries Ltd’s Sales Manager. “We have a lot of South Korean customer requests for this non-stop feeder, as they now need an operator to manually flip the sheets to help prevent board warp. Our first Superfeed is almost complete. We are in discussions with a South Korean customer who makes fruit and vegetable boxes. They want to save labour costs.”

According to Summa, Young Shin’s ‘Superfeed’ will be available to handle sheets up to 1850 x1300mm. Sheet thicknesses handled can be in the range of E flute right up to AA doublewall. Now under assembly in Young Shin’s new No 3 plant, the ‘Superfeed’ is 12.53 metres long and 3.8 metres high.

“Our concept at Young Shin is to create solutions that have lower labour requirement,” Summa said.





Remote Diagnostics

The number of overseas customers requesting Young Shin's e-Won remote diagnostic system when placing orders for new machines is growing. Customers provide the fixed IP address that connects to the eWon electronic panel fitted on their flat bed die-cutter, which then links to Young Shin's service centre in Daegu.

"eWon diagnostics works through the Cloud and we can see their machine monitor when they open

their firewall. We can also undertake preventative maintenance with the eWon system," Summa explained. "Remote diagnostics is an optional item. It's not so important for some smaller machines, but it's more important for larger, faster machines that operate 24 hours per day. Without eWon we have to send an engineer and link his laptop to the machine to access it directly, but with eWon, we can do it remotely."

Remote diagnostic support is more

valued among overseas customers while South Korean customers still rely on on-site support from Young Shin. "We started eWon in the United States in 2013, now 20% of our new machines have eWon fitted, mostly in the US and Europe. Overseas customers choosing the eWon diagnostic option include Abbe Corrugated of Melbourne, Australia which recently installed two Young Shin machines – a Giant die-cutter and a Zenith," concludes Summa. ■