



## GLUING TRAYS QUICKLY AND SUSTAINABLY

*Turkish machine builder Osman Çubuk Makine Ltd. Şti. developed with Robatech a new variant of the tray former KKM 1. Dot application instead of bead application resulted in resounding success: 25 % increase in production and 50 % less adhesive consumption.*

They are in demand wherever loose goods such as fruit, vegetables, baked goods, or confectionery products are transported: trays. Previously made of wood, the transport boxes are now mainly made of corrugated and solid cardboard. Turkish machine manufacturer DMS Osman Çubuk Makine Ltd. Şti. is familiar with this development. The family business started in 1960 with the production of wooden tray machines in Izmir. Since 2005, DMS has mainly been manufacturing tray formers for cardboard boxes. The machines erect flat cardboard boxes and glue them to form stable, stackable trays for the food and beverage industry.

### A Long-term Partnership

As early as 2005, DMS decided to equip its tray formers exclusively with Robatech adhesive application

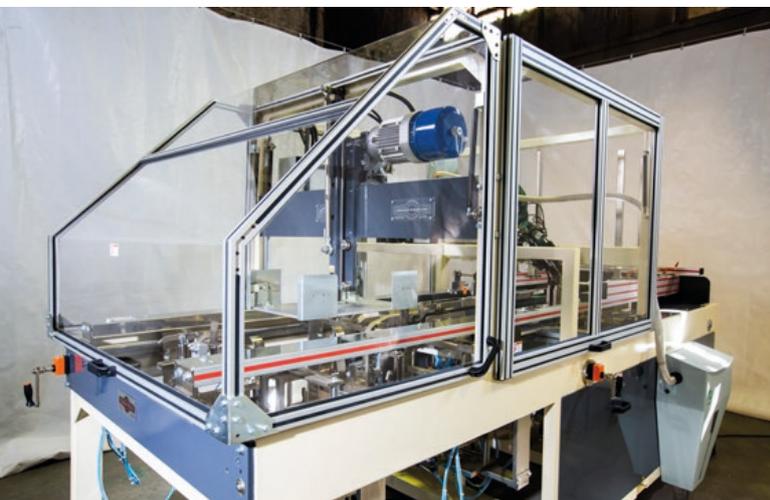
systems. The feedback from the customers spoke for itself: reliable gluing and reliably running systems. "We were pleasantly surprised by how well Robatech's global support took care of our customers all over the world," explains Erhan Çubuk, owner of DMS. "Here on site, we benefit from the ideas and solutions that Robatech Turkey continuously brings to our projects. This creates a lot of trust. We can respond very flexibly to special requests from our customers. Robatech has an extensive product portfolio."

### The Challenge: Speed and Sustainability

In 2018, the Turkish machine manufacturer DMS Osman Çubuk Makine Ltd. Şti suddenly faced a major challenge. "Customers demanded an increase in tray production rate

## THE CUSTOMER

DMS Osman Çubuk Makine Ltd. Şti. based in Izmir, Turkey, mainly manufactures tray formers in standard and special designs for erecting and gluing cardboard boxes for the food industry.



Tray former with GlueFill granulate container (right) of the filling system



Concept Stream melter with RobaFeed automatic filling system



*“With SpeedStar Compact, we were able to replace the bead application with small dots. It was possible to increase production speed by 20 % of our KKM 1 tray former and save 50 % adhesive in the hot melt adhesive application.”*

**Erhan Çubuk**

General Manager,

DMS Osman Çubuk Makine Ltd. Şti.

and wanted to save adhesive at the same time,” Erhan Çubuk describes in retrospect. “Previously, we had used the robust AX Diamond compressed air-controlled heads on our standard machines and intermittently applied beads to the two cardboard flaps of the trays. We required 2.5 grams of adhesive per cardboard box for reliable gluing.”

**The Problem: Operating Cycles and Service Life**

An increase in the production rate requires a higher production speed. For an application head, this means shorter closing times. If shorter beads or even small dots should also be applied to save adhesive, the closing times must be even shorter. “Depending on the operating mode,

the wear parts of a compressed air-controlled application head can then reach the end of their service life after just a few months,” explains Hakan Tanrıöven, Sales Manager Robatech Turkey.

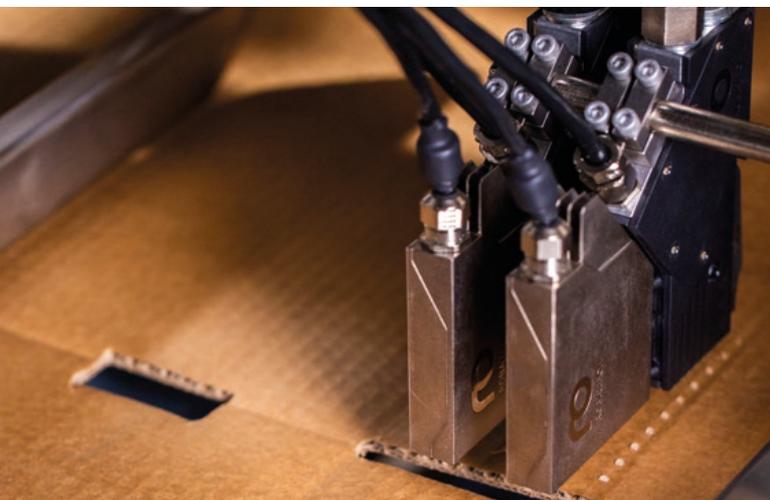
**The Solution: Stitching and Durability**

It was clear to Hakan Tanrıöven that SpeedStar Compact offered the ideal solution. “The electromechanical application head can apply very small dots (stitching) at very high speeds. With 500 million operating cycles, it has an exceptionally long service life. A special nozzle on the jetting element can be used to apply two lines of adhesive per head. This is advantageous for reliably gluing trays,” says the Sales Manager of Robatech

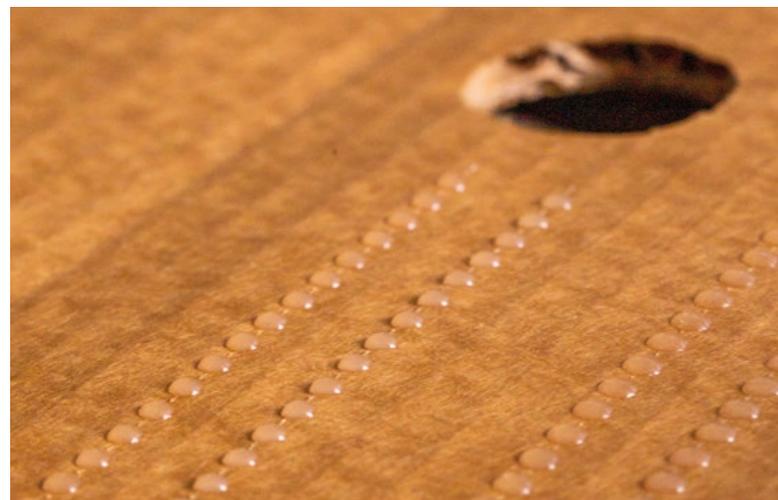
Turkey. "In addition, we only need two application heads per side flap. With stitching, 1.2 grams of adhesive are sufficient per box." Satisfied, Erhan Çubuk from DMS adds: "The investment costs are higher compared to a pneumatic application head, but they pay for themselves quickly. The new tray former variant requires 50 % less adhesive and erects 6 more cardboard boxes per minute than the standard machine."

### The Icing on the Cake

To increase the safety of the operating personnel and avoid unscheduled downtimes, DMS equipped the new tray former with the Concept Stream tankless melter and an automatic filling system for granulate adhesive. "This allows us to offer our customers a very safe and sustainable adhesive application system that can be used to glue trays quickly and reliably," concludes Erhan Çubuk.



SpeedStar Compact application head in dual design



Stitching: Adhesive-saving dot application replaces bead application

## ROBATECH

Headquartered in Muri, Switzerland, the Robatech Group is a leading global manufacturer of innovative and sustainable adhesive application solutions for industrial hot melt and cold glue applications. Robatech has produced and supplied high-quality controls, application heads, melting and dosing systems since 1975. Robatech representatives advise and support customers in 80 countries in a wide variety of industries around all questions and concerns regarding adhesive application and optimization of gluing processes.

[www.robatech.com](http://www.robatech.com)

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