

Boschman Technologies offers distinct process and equipment solutions for the semiconductor industry and related markets.

Boschman focuses on specific market segments offering unique and superior solutions tailored to customer requirements and wishes. We dedicate our resources to deliver molding and sintering equipment for the following market segments:

Mems and Sensor packages

Powers/Discretes

Smartcards

Leadless packages

Pre-molded packages

LED



Mold and Sintering tools

All our molds and sintering tools are developed, engineered, manufactured and tested at our mold tooling center in the Netherlands - all under one roof. Our design specialists and experienced craftsmen form a formidable team with one goal in mind - meeting your requirements. Thanks to our long history of innovative design and precision manufacturing in the Netherlands, our molds comply with the highest standards. We only use powder metallurgy tool steels of the highest quality and deploy certified heat treatments and coating processes. Our molds and sintering tools offer unprecedented wear resistance, dimensional stability and field replaceable spare parts during their entire service life. Our sintering tools are designed and manufactured based on our long term experience on molding tools.

Mold and Sintering systems

Our molding and sintering systems are developed at our systems R&D facility in the Netherlands. Mechanical, electrical, software, process and mold-design experts work in multidisciplinary teams to realize the best possible total system solution. Our semiautomatic and automatic systems are produced at Boschman Technologies Asia in Singapore. Aside from an experienced production staff, we have local mechanical, electrical, software and process engineers available to ensure and maintain the highest possible production quality.

Packaging services

Our Advanced Packaging Center B.V. (APC) provides packaging services ranging from package technology research, package development, qualification, prototyping and small to medium volume manufacturing services. APC also assists customers to transfer from proto-typing to massproduction for MEMS, Sensors and advanced IC packages.

Reelstar

Auto-1-NF-S (single reel)

Auto-2-NF-S (dual reel)

Automatic (single reel or dual reel) Reel-to-Reel multi-plunger molding system designed for contactless and contact smartcard modules, discrete small signal, power packages and ultra-thin tape based packages.

The Reelstar offers high throughput, competitive pricing, low compound usage and high precision mold tooling.



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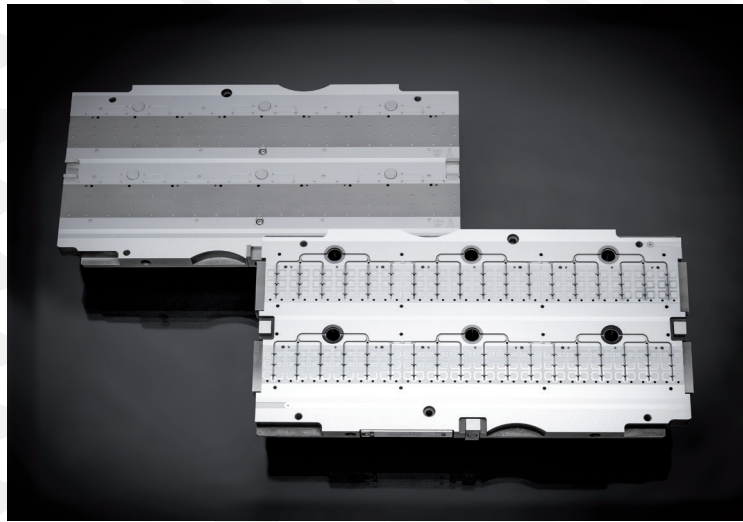
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Highest productivity

Reel-To-Reel (R2R) system UPH is largely determined by effective mold length and machine time. The Reelstar platform offers a mold length of 350mm and very short machine time to achieve maximum productivity. For ultra-high volumes, we offer our dual Reelstar system. Two reels are molded at the same time doubling the output. The system dimensions are identical to the single reel system. Our dual reel system has individual reel transport systems, transfer units and degate units for each reel. The reels are not connected meaning that molding can be done with both reels or only the front or only the rear reel. This feature provides maximum flexibility.



High-Precision Mold

The molds are designed with small cavity blocks enabling very precise pitch control for maximum accuracy in package offset and cavity depth precision. Changeover to other package sizes has been streamlined, making it easier and faster. A complete spare mold is no longer needed. One or two spare cavity blocks will suffice, reducing stock and capital investment.

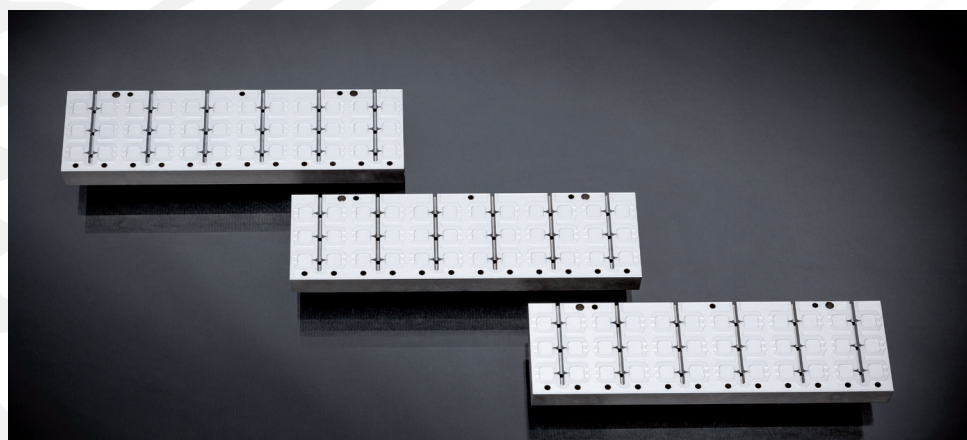
Ultra-Thin Endless Strip Handling < 60 Micron

A synchronously controlled transport system is used to eliminate the friction and force of traditional brake/drive

transport systems. This, in turn, enables very gentle handling of the thinnest lead frames and tapes.

Separate De-gate Station

The de-gate station is fully separated from the main system featuring easy access, conversion, adjustment and control. A new low force degating principle enabling the handling of ultra-thin reels has been implemented. The reel will not move during the degating process ensuring damage free results.



REELSTAR AUTO-NF-S

High Precision Press With Self Correcting Clamping System

Real time clamp force control from 20 to 100 tons through easy set parameter setting on a color touchscreen. Mold movement and closing is controlled by servo motors.

Advanced Transfer and Cure Process Closed Loop Control

Unlimited steps and easy programmed. Can be equipped with additional pressure sensors in the runner for the most accurate process control.

Easy and Fast Conversion Between Different Packages

Simple and fast mold exchange, supported by guide menus on a touchscreen allows for easy and fast conversion. Major language options available.

Three Mold Cleaning Method

Cleaning sheets, melamine pellets or off-line mold cleaning.

Equipped with Internal Hard Disk and USB Port

Allows storage of all relevant process parameters and the extraction of data freely and easily. All key process variables can be monitored real time with upper and lower limits. The process is graphical displayed on the touchscreen for every shot. SECS/GEM optional.

I/O Menu Available for Easy Monitoring

The status of each sensor status can be monitored.

Energy Efficient System Design

Low power consumption. During clamping no power is consumed.

A vacuum mold option is available.

CE Certified

System Configuration

The system can be used in standalone mode or inline by integration with downstream and / or upstream equipment. The inline feature is delivered as standard with every system.

Ergonomic Design

Low pellet container loading position, wide doors for easy access, full view windows and moveable centralised command panel.

