



**boschman**  
advanced packaging technology

**COMPANY FOLDER**



# ABOUT BOSCHMAN

## Boschman is the one stop shop for highly innovative packaging solutions.

---

Boschman is a high-tech, solution driven Dutch company focusing on advanced packaging solutions. We provide a unique one-stop-shop concept – from idea to industrialization – offering her customers one point of contact for all packaging business. This approach ensures all processes to be carefully monitored and integrated, in order to create the most efficient and effective packaging solution and as short as possible time-to-market.

### Our technologies

- **Ag-Sintering**

Silver sintering is a proven die attach technology offering a void-free and strong bond with high thermal and electrical conductivity. It provides both high yield and high reliability.

- **Film Assisted Molding (FAM)**

Film Assisted Molding is a cluster of unique technologies using films in between the molds and the products to be encapsulated. This technology offers many advantages.

- **Dynamic Insert Technology**

Dynamic Insert Technology (DIT) is a patented technology that has been developed to further optimize the performance of FAM to automatically and dynamically control pressure on one or multiple surface. To keep specific areas fully exposed.

- **Through Polymer Via (TPV)**

Through Polymer Via (TPV) is a patented technology to create high-density high-aspect ratio electrical and/or optical inter-connections through (transfer-molding) package encapsulation.

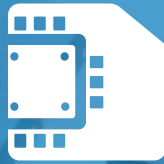
### Our application area's

- Mems & Sensors
- High Power Modules and packages
- Optical Packages
- 2.5D/3D Packages
- Smart Cards

### Our industry focus

Our satisfied customers can be found in the following industries:

- Automotive
- Medical
- Military/Avionics
- Mobile
- Industrial



## package development by boschman



### Package conceptualization

In the concept phase critical design points are being investigated by flow analysis, stress and thermal FEM simulations.



### Package design

Details are being defined and an overview of pros and cons in terms of assembly risks and used technology versus costs is made.

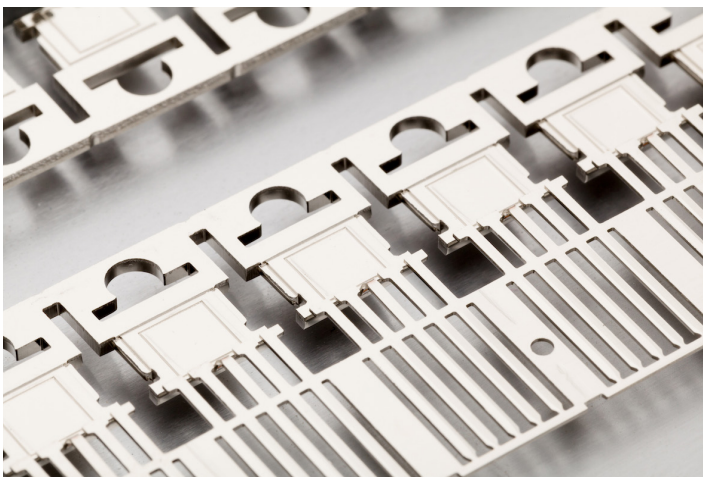


### Prototyping & Sampling

The goal of prototyping is to proof that the concept works and delivers packaged products according to specifications. Prototypes are suitable for reliability testing and customer sampling.

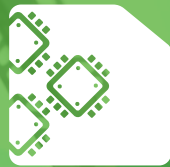
## From conceptualization towards high yield production.

We research, design and prototype advanced packaging concepts. Together with you, we develop and assemble innovative, out of the box package solutions. It all starts with getting to know each other's expectations, capabilities and limitations in order to build your tomorrow's product today!



We offer packaging solutions for high added value products with enhanced functionality. Depending on your application requirements we customize the package design, varying from incrementally improved standard packages (QFN, TO, LGA, SO/SIL/DIL etc) to fully customized packages, to meet your performance and reliability specifications. We manufacture our development prototypes on production compliant equipment which allows you to use these prototypes for functional testing, reliability testing and customer sampling. Our package development activities are fully ISO-9001-2015 compliant.





**assembly  
services**  
by boschman



#### **Low to medium production assembly**

We offer production possibilities, depending on the package, of up-to a few hundred thousand of qualified products per month



#### **Transfer to high-volume production (OSAT or captive)**

When the required volumes exceed our low-medium volume capabilities, we can support to transfer the production to in-house (captive) production or high-volume OSAT

## **Smooth transition from samples to high volume assembly**

We offer the service to manufacture products in low to medium volumes using semi-or fully automatic processes. We offer our assembly services as a separate service or in combination with other services as part of the cycle 'from idea to production.



Package solutions that have been developed in-house can be transferred to low- or mid-volume production relatively quickly. Our assembly services are in particular interesting for fab-less design houses, startups and companies in space/military/ avionics or complex products with high added value. We produce in our 250 square meter clean room facility ranging from ISO-6 for processes such as die-attach and wire-bond to ISO-8 for molding and sintering. Upon request production can be transferred to captive productions or OSATs. Our assembly services are fully Rohs, REACH and ISO-9001-2015 compliant.



**equipment**  
by boschman



#### **Ag-Sintering**

Silver sintering is a die attach technology offering a void-free and strong bond with high thermal and electrical conductivity. Resulting in high yield and high reliability



#### **Film Assisted Molding (FAM)**

Film Assisted Molding is a cluster of unique technologies using films in between the molds and the products to be encapsulated. This technology offers many advantages.



#### **Reel-to-Reel**

Creating the highest productivity by Reel-to-reel molding which is largely determined by effective mold length and machine time. Resulting in the lowest cost molded products

## **Our technology enables revolutionary solutions**

Boschman specializes in the development and supply of advanced transfer molding and sintering systems for electronic assembly industries across the globe. We offer added-value encapsulation and bonding process and equipment solutions for a wide range of packages.



We specialize over 30 years in the development and supply of advanced transfer molding and more recently also sintering systems for electronic assembly industries across the globe. We offer added-value encapsulation process and equipment solutions for a wide range of packages. We have a very large installed base of molding systems and already since 2014 have been and remain the market leader for Ag sintering solutions. We regularly join forces with R&D departments of our customers to co-develop and research innovative packaging production concepts. Early involvement in the development process is a prerequisite to obtain the highest quality, reliable molding or sintering processes, the lowest cost of ownership and the shortest time to market.



“ SMALLER, BETTER AND LOWER  
COST, WE REALIZE THE BEST  
PACKAGE FOR YOUR PRODUCT “



package  
development



assembly  
services



equipment

---

**Boschman** | Advanced packaging technology

Stenograaf 3 6921 EX Duiven T +31 26 319 4900 E [info@boschman.nl](mailto:info@boschman.nl)

[www.boschman.nl](http://www.boschman.nl)