



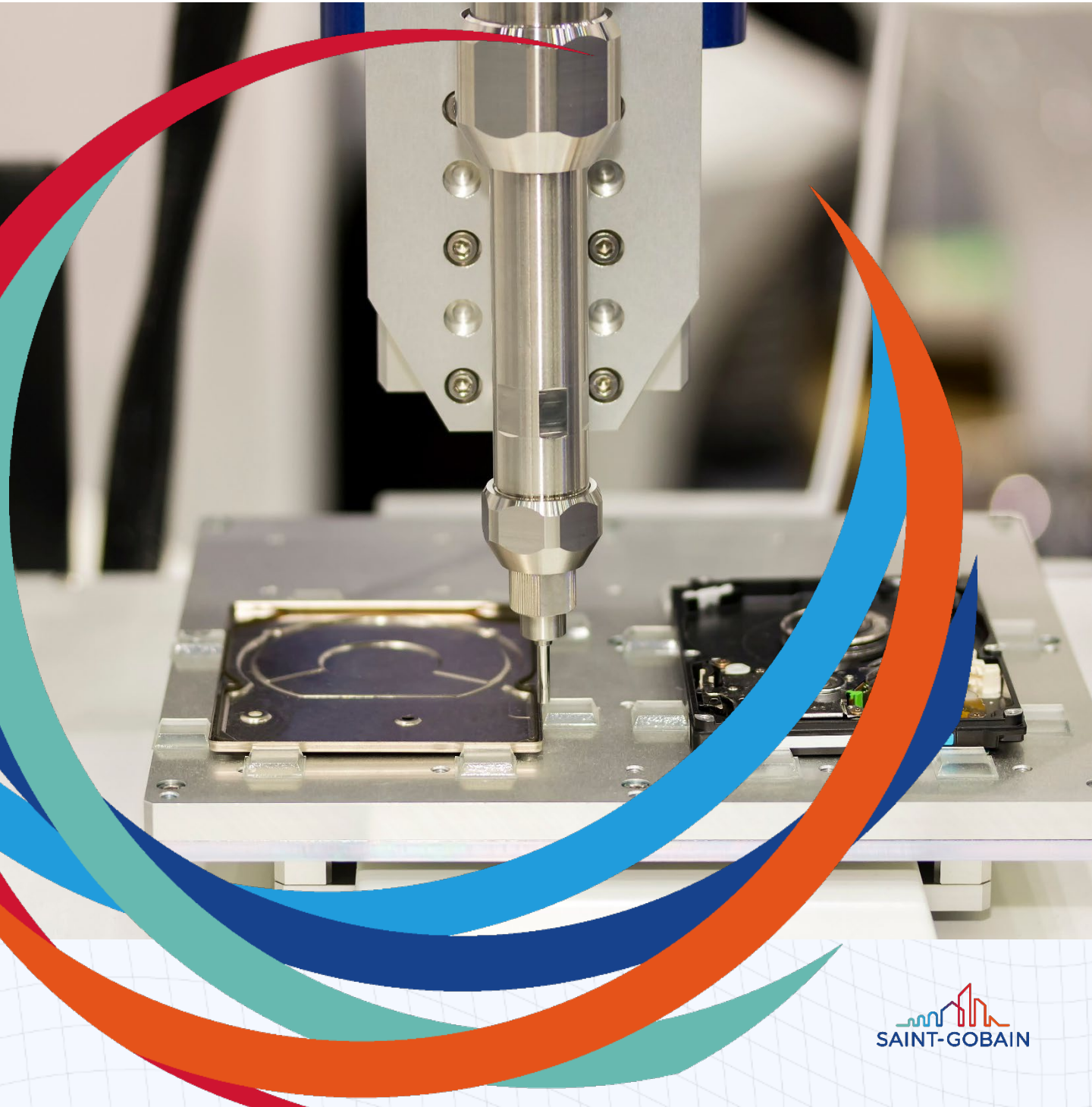
**Omniseal Solutions**  
SAINT-GOBAIN

**BEYOND**  
the boundaries of possible



# INDUSTRIAL CASE STUDY

HOT MELT ADHESIVE  
DISPENSING MACHINE





## OMNISEAL® SPRING-ENERGIZED SEALS

### Hot Melt Adhesive Dispensing Machine

Alessio Romiti August 2024

INDUSTRIAL WEAR RESISTANCE SEAL RELIABILITY LONGEVITY HIGH TEMPERATURE LOW FRICTION

#### Environment

A hot melt adhesive dispensing machine is a critical tool in industries such as packaging, electronics, construction, and many industrial sectors. Controlling the application of the adhesive ensures the quality of the finished products as well as guarantees energy efficiency and efficient cleaning. Other key benefits include reliability, easy maintenance, and lower energy consumption. When using precision solutions such as polymer, spring-energized seals, manufacturing customers can consistently achieve these technology advantages to keep their equipment running smoothly every day and in any climate.

#### Challenge

The adhesive in hot melt dispensing machines is typically pumped through a nozzle or dispensing gun. There are several major aspects that make this application challenging.

- Small dimensions (2.5 mm)
- Wide temperature range (40°C to 200°C)
- Pressure to 100 bar
- High frequency conditions

Additionally, there are various glues and solvents specified by the customer, and the sealing solutions used in this equipment must be able to provide excellent wear resistance and be chemically compatible.



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## Solution

High-performance seals are used to keep the adhesive contained within the dispensing path. Application conditions require the seal to have a very low deformation or compression set while remaining flexible.

Omniseal Solutions has developed custom sealing solutions that are proven to handle these technical requirements. Sealing control is a critical factor in success or failure since industrial equipment that require precision also require the prevention of foreign material contamination, leakage, and build up.



**Don't get stuck!** The right precision seals will keep your application running smoothly and efficiently.

## Benefits

- Long life & reliable service
- Wide range of applications
- High temperature resistance
- High chemical compatibility
- Low friction
- Energy saving
- Cost effective
- Lower carbon footprint
- REACH compliant



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## Design Expertise & Tailor-made Solutions for Your Critical Applications

Omniseal Solutions is a global engineering leader with over 65 years of historical legacy, relentlessly dedicated to the design and manufacture of precision sealing and wear control solutions that protect critical applications in the most demanding environments and passionately driven to push *Beyond the Boundaries of Possible*.



### — Contact Our Expert

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