

# Habasit Capabilities for Spiral Conveyors

Comprehensive Service  
and Retrofit Solution



# Habasit delivers a complete spiral experience

Habasit's approach to spiral belt conveyors is comprehensive project management from start to finish.

Our extensive knowledge and expertise of a specialized spiral team guarantee a single-source experience for our customers.



Spiral systems rank among the most extensive and demanding of conveying applications. Fine-tuning these intricate systems requires expertise and consideration of numerous factors - from energy consumption to wear-and-tear to controlling contamination risk.

Habasit has the knowledge and experience to guide you through a step-by-step process, from a detailed initial assessment to installation and monitored followups. Our dedicated spiral team is well equipped to deliver a comprehensive spiral experience, from concept to completion.

**Assessing your needs**

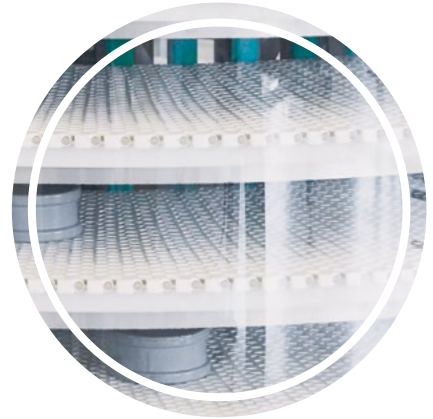
As every spiral installation is unique, finding the optimal solution starts with a careful consideration of your needs and operating conditions of the conveyor.

**Choosing the optimal belt**

Habasit offers an extensive range of belts and materials to meet the requirements of various spiral applications in food processing and other industries where spiral conveyors are used.

**Service and monitoring**

Once the installation or retrofiting has been completed, Habasit experts are available for service, maintenance, and monitoring to ensure the best performance of your spiral conveyor.



# Comprehensive service from start to finish

Habasit delivers full project management for new  
and retrofit installations, ensuring a single point of contact  
and consistently high quality.

With a dedicated team of highly trained technicians and application engineers, Habasit can ensure efficient project management and a reliable spiral system.

Whether you need a new spiral system or you're planning on retrofitting an existing one, our plastic spiral belts can reduce your energy cost significantly while increasing efficiency and reducing maintenance times. This all leads to decreased overall costs of ownership, improving the profitability of your production company.

#### Smooth-running spiral projects

Habasit has decades of experience in running spiral belt installations and retrofitting. In that time, we have perfected the management of the entire process, so that our customers can benefit from knowledge and expertise of a single partner for their spiral project. Our complete spiral experience is scalable and can include the following services:

- **Initial tension testing** - an evaluation of existing belt and operating conditions of the system.
- **Full system audit** - a complete check of all elements of the existing spiral, from refrigeration to gearboxes and support rails to sprockets.
- **Comprehensive report** - detailing all audit findings, the report highlights any remedial work necessary and lists recommendations for system improvements.
- **Belt selection** - support in selecting the optimal belt for the operating conditions and application requirements.



# HabasitLINK<sup>®</sup> Modular Belts

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HabasitLINK plastic modular belts are engineered for reliable operations and hassle-free maintenance. Our spiral belts have been running in thousands of systems worldwide and are a proven technology used every day in a broad range of applications.



### High food safety and hygiene



HabasitLINK belts meet the most stringent demands of the food processing industry and comply with EU and FDA regulations. The belts are designed for efficient cleaning and the wide range of modules available makes them a flexible solution for various industry requirements.

### Less product waste



Better product release, less product marking, and reduced risk of contamination by abraded metal and lubricants improve product yield.

### Energy efficiency



Plastic modular belts are robust and light-weight, which means they can run with lower tensions, significantly reducing energy consumption.

### High tensile strength



High-quality materials and optimized belt design deliver reliable tensile strength performance and a long lifetime.

# Habasit product range for spiral systems

Habasit has a broad range of HabasitLINK plastic modular belts, HabiPLAST profiles and wear strips, and necessary components and accessories, making us the reliable single-source partner for your spiral applications.

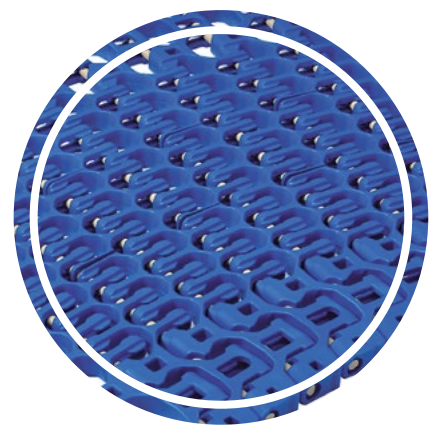
Habasit offers multiple collapse factors from 1.0 to 3.0 to match the characteristics of each specific retrofit and machine size. The smaller collapse factors help to reduce the footprint of new machines in the production plants.

HabasitLINK modules are available in different materials, including food compliant, flame retardant (UL94-V2) PA+FRF.

The HabasitLINK belts design enables good air circulation and fast heat transfer. The lower weight of the belts reduces energy costs, and their patented construction improves cleaning efficiency.



**M5290 Radius Flush Grid**  
2.0" pitch belting, 2.2x turn radius



**PR620 Spiral Pro**  
2.0" pitch belting,  
1.6x to 3.0x turn radius





**M2540** Radius Flush Grid  
1.0" pitch belting, 2.2x turn radius



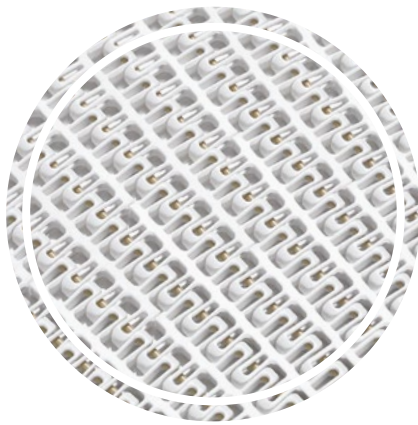
**M2544** Tight Radius  
1.0" pitch belting, 1,6x turn radius



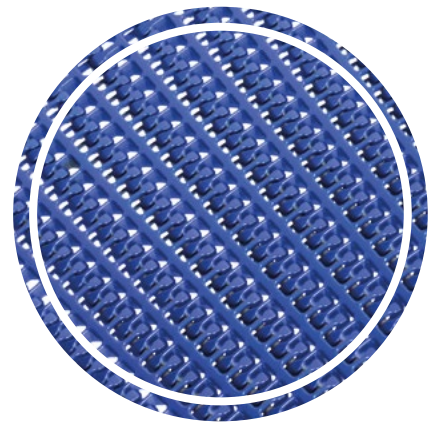
**IS610** Radius Flush Grid  
1.0" pitch belting, 2.2x turn radius



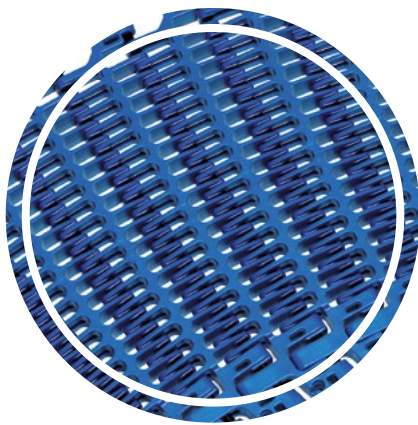
**M5293** Tight Radius  
2.0" pitch belting, 1.6x turn radius



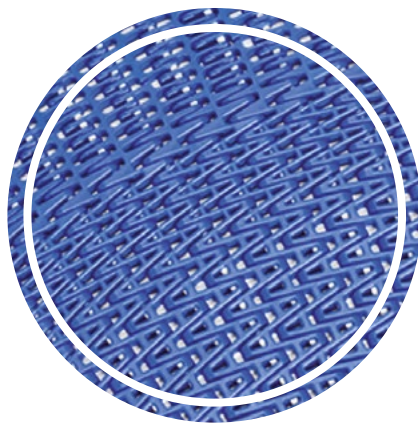
**M5296** Radius Flush Grid  
2.0" pitch belting, 3.0x turn radius



**M3398** Radius Flush Grid Curved Top  
1.3" pitch belting,  
1.6x, 2.2x and 3.0x turn radius



**PR620 SPS Spiral Pro**  
Small Product Surface  
2.0" pitch belting,  
1.6x to 3.0x turn radius



**PR620 TTR Spiral Pro**  
Tight Turn Radius  
2.0" pitch belting, 1.0x turn radius



**HabiPLAST®**  
Profiles guides, and wearstrips

# Habasit Smart LINK

A close-up photograph of a Habasit spiral conveyor belt system. The image shows a blue plastic wear strip support structure with a stainless steel belt. A blue Smart LINK sensor component is mounted on the belt, connected to a black cable. The sensor is a small, rectangular blue plastic block with a white cable connector. The background shows the complex, curved structure of the spiral conveyor.

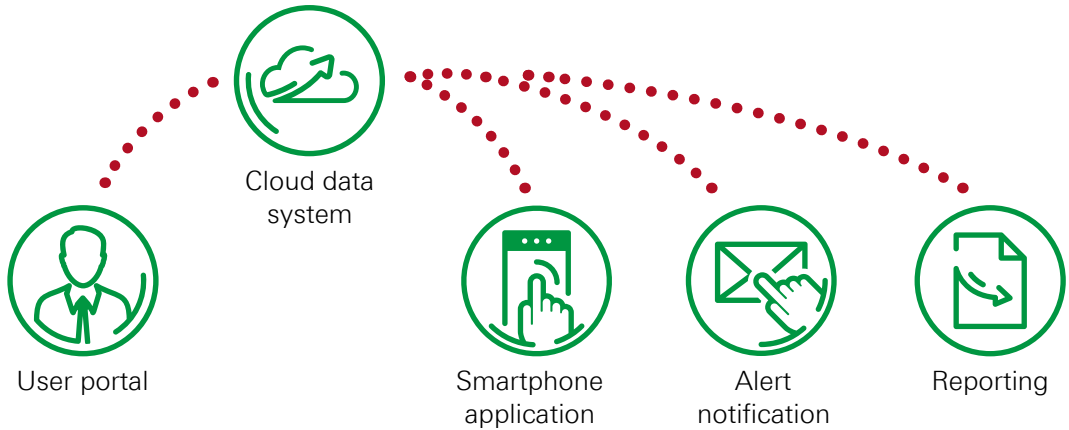
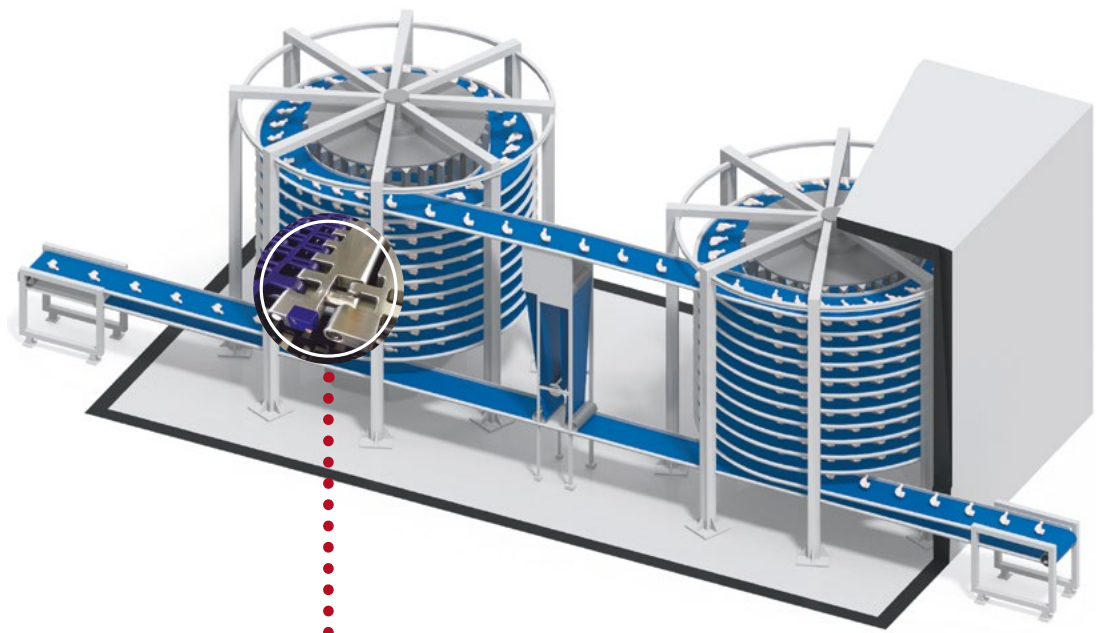
Spiral conveyors need to have belt tensile force surveyed continuously

to monitor friction increments between the belt and wear strips support, which may be caused by missing or improper cleaning.

Smart Link is the real-time Habasit spiral conveyor belt monitoring system

embedded into the belt that performs this task providing

additional valuable data.



**Habasit SmartLink enables you to:**

- Monitor belt tension for improved preventative maintenance. Access to monitoring data and possible text message or e-mail alert notifications reduces or eliminates sudden downtimes caused by too high tension or 'Christmas tree' modules lift. Control of belt tension and preventative maintenance increase the belt's lifetime.
- Perform nonstop diagnostic activities with live data, statistical analysis, and reports.
- Obtain on-site and remote support from Habasit spiral specialists
- Improve scheduling of cleaning and sanitation activities
- Reduce total cost of ownership

Habasit SmartLink measures and wirelessly transmits the belt tension data to an external unit or a web platform available 24/7 worldwide.

The monitoring system is available for M5290, M5293, and M5296 flush grid 2" belts.

**Additional features:**

- Stainless steel and POM blue materials (compliant with food contact regulations)
- Belt pull range: 0 ÷ 3100 N
- Operating temperature -35° C to +55° C
- IP rating: IP68, Cleaning In Place devices max 5 bar and +50° C

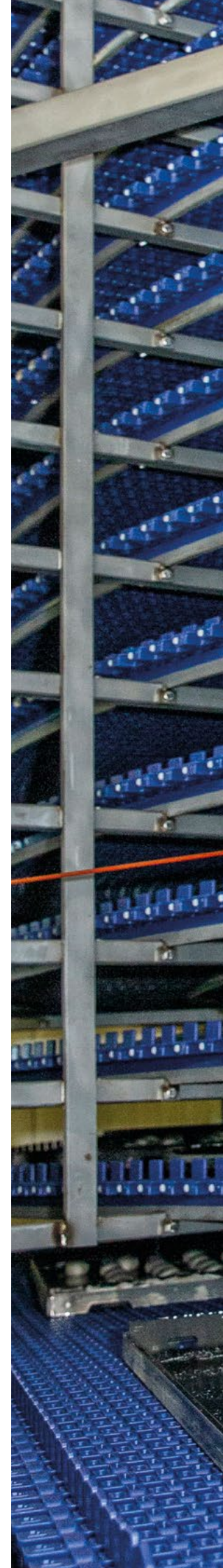
# Advantages of plastic modular belts for spiral conveyors

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## What's in it for you?

By retrofitting your current spiral system or ordering a new one with a Habasit modular plastic spiral belt, you can:

- **Prevent the risk of contamination of your products** with metal belt wear debris and steel lubricant
- **End stainless steel "blackening"** of your products
- **Boost product yield** with non-stick FDA/USDA direct contact plastic belt surfaces
- **Increase your product throughput** thanks to the greater loading capacity of lighter and stronger belts
- **Reduce spiral downtime** through reduced system wear, lower belt tension, significantly less ice and frost build-up, and quick, thorough belt cleaning
- **Cut back maintenance time:**  
Reduce "run-in" time, reduce lubrication requirements, and eliminate the need for periodic belt "flipping"  
End periodic wear strip and charge-bar cap replacement
- Eliminate steel belt cutting, grinding, and welding



HabasitLINK spiral modular belts are designed to optimize different types of businesses.

They are a proven solution for various low tension spiral systems and improve efficiency in:



Proofing systems



Ambient cooling systems



Refrigerated cooling systems



Freezing systems



Elevating or Lowering



Buffering and Accumulation

#### Flame retardant, food contact approved HabasitLINK belts



Fire safety is a top priority in all industrial environments. Given the right conditions, almost any food product and plastic material can burn.

Habasit developed a range of plastic modular belts made with materials combining flame retardant properties (UL94-V2) and compliance with EU and FDA food contact regulation.

# Food supplier to major airlines improves profitability with Habasit retrofit

Over 38,000 USD in yearly savings

## Customer background

A large 'Ready-To-Eat' and entrée producer for major airlines.

## Application

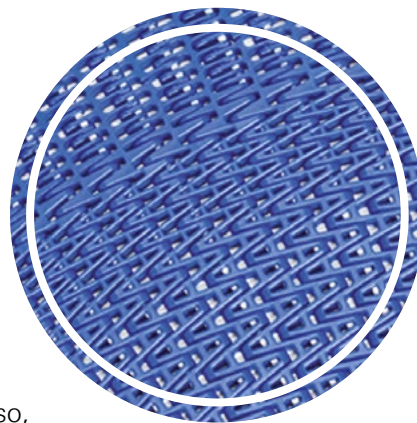
Spiral freezer for various meat products.

## Challenge

A customer suffered regular breakage of the mesh overlay on a metal spiral belt. At temperatures around -29° C (-20° F), warm foods like chicken breasts and sausage patties can freeze to the belt, straining the mesh by snapping off at transfer points. Also, at low temperatures, lubrication on the spiral rails can mix with steel contaminants to create a black smear that could contaminate the product. Moreover, several hours of maintenance, usually cutting, grinding, and welding, was required each week, creating costly downtime and lost product.

## Habasit's solution

To beat breakage and contamination, the producer required a spiral belt that was suitable for a tight-radius application and that provided superior product release for a variety of meat products. Habasit delivered these capabilities by retrofitting the system with the PR620SPS-TTR, an acetal belt offering a tight collapse factor (1.1), high strength to withstand breakage and good product release characteristics.





### Benefits

Once installed, the PR620SPS-TTR eliminated the breakage and contamination issues, creating large savings for the customer:

- 31,200 USD in maintenance labor savings
- Elimination of costly lubrication
- Thousands dollars in redeemed product previously lost during maintenance activities
- No product recall due to black smear contamination



Beyond the savings around sore points, retrofitting metal spirals to plastic brings a wealth of additional benefits:

- Ease of maintenance by simple rod removal
- Lower energy usage through lighter weight




**Total annual savings surpassed 38,000 USD.**

To read more success stories visit the Habasit website: [www.habasit.com](http://www.habasit.com)

# Our services

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Our commitment to our customers' success is what drives our continuous innovation and product and service improvements. We combine engineering expertise with dedication to reliability, to create lasting value for our customers.



### **Global leadership, local service**

Habasit is your local partner with global reach. With 30 affiliated companies, each with its own inventory, fabrication, assembly, and service facilities, plus our worldwide network of partners, we react quickly and expertly to meet your most complex installation challenges.



### **Comprehensive technical support**

from belt selection to design assistance  
Extensive knowledge of our customers' processes lets us guide you from application analysis to selecting the optimal solution. We offer online calculation and belt selection tools, as well as on-site engineering assistance and equipment design, to make sure you get the best solution.



### **Process optimization and everyday efficiency**

Innovation comes from understanding our customers' daily challenges. Habasit is more than a belting company. Our experts can provide belt condition monitoring, regular inspections, analysis, and surveys at your sites, to keep your lines running smoothly and fully optimize your equipment and production processes.



### **Sharing knowledge and making business easy**

Habasit offers training programs and support tools to ensure optimal use of our products, with training on fabrication, installation, assembly, maintenance and belt repair either at a Habasit site or your own location. Orders, shipping and tracking can be managed via our Customer Care team, or directly online.

### **Committed to innovation beyond the obvious**

Because our customers' challenges and needs are always changing, we are constantly investing in the research and development of new products and solutions not only for today, but also for tomorrow.

### **Habasit is a member of EHEDG**

Our dedicated belting solutions aim to support the highest standards of hygienic equipment design.



# Contact us

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