



**b<sup>®</sup> brevetti  
stendaito**

# CARGO & BULK

CABLE CHAINS RANGE

**Brevetti Stendalto  
in the world**



## Customer Services

**Brevetti Stendalto's** global network is able to provide local expertise to our customer. Our technicians are able to assist from the very first idea through the designing phase to the commissioning. You can find our services in

**ITALY (HEADQUARTERS), ARGENTINA, AUSTRALIA, AUSTRIA, BELARUS, BELGIO, BENELUX, CANADA, CHINA, CZEK REPUBLIC, SLOVAK REPUBLIC, DENMARK, FINLAND, FRANCE, GERMANY, GREECE, IRAN, INDIA, ISRAEL, IRELAND, JAPAN, MEXICO, UNITED ARAB EMIRATES, NORWAY, POLAND, PORTUGAL, ROMANIA, RUSSIA, SINGAPORE, SLOVENIA, SOUTH AFRICA, SPAIN, SWITZERLAND, SWEDEN, TURKEY, TAIWAN, UNITED KINGDOM, UKRAINE, UNITED STATES.**

# Dynamic Cable Protection!

**S**ince 1968, Brevetti Stendalto has been a leading company in engineering and manufacturing cable chains for dynamic cable protection. In 1995, the first Brevetti system equipped a yard crane, and from then the most advanced cranes around the world. The quick and steady growth made Brevetti achieve a market share and a business level so big to develop a specific division with own marketing strategies. Today, more than 1,500 port cranes around the world are equipped with Brevetti's high-performance products. Customers choose Brevetti to enjoy a wide range of solutions and an effective approach to tailor-made systems always able to meet application requirements.

# iR-CHAIN

INVISIBLE ROLLING SYSTEM

**B**revetti's i-Rolling system is the evolution of the sliding chain concept. This technology was developed after years of data collection and analysis from real applications around the globe. The Brevetti engineers succeeded in further improving the well-known advantages of the Brevetti cable chain systems in port technologies with the innovative **i-Block set**.

## IR Benefits

- ✓ Long travel distance
- ✓ Low push-pull force needed
- ✓ High speed
- ✓ High acceleration
- ✓ Smooth movement
- ✓ Heavy added load
- ✓ Long lifetime
- ✓ Easy installation
- ✓ Easy maintenance
- ✓ Designed for the harshest work environments.



## HOW IT IS MADE



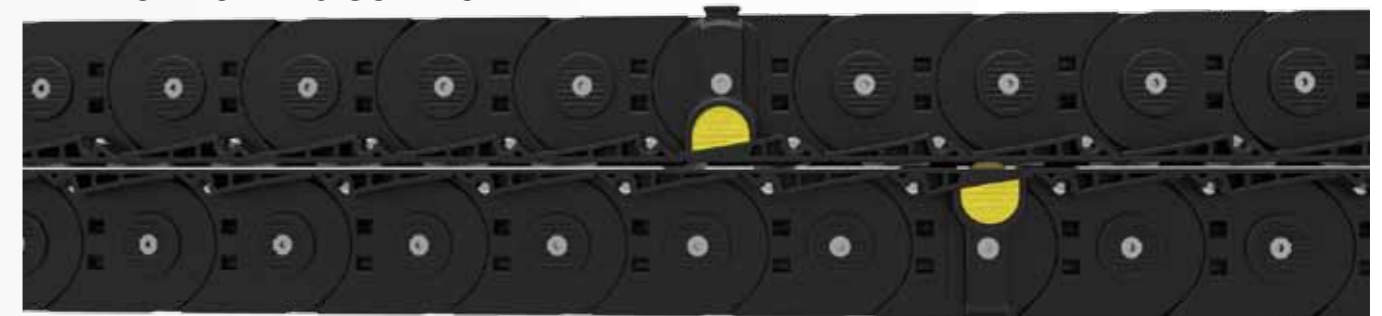
**I-YELLOW ROLLER**  
Ball bearings to get the lowest friction

## HOW THE I-BLOCK SET WORKS

The inner mechanism makes the i-Roller appear when it's needed. When it's not needed, the i-Roller remains invisible and hidden inside the sliding surface.



## PERFECT ROLLING SURFACE!



Through **Brevetti's i-Roller mechanism**, rollers at the lower chain portion are protruded and the upper chain portion slides along a perfectly smooth surface.

# HEAVY DUTY

Chain designed for very heavy-duty applications such as **STS and RMG Cranes, Stackers, Reclaimers**. **Smooth movement and low noise.** Frames opening at inner and outer-radius sides. Strong double sideband and frame construction with large single pin. **Screwed-on interchangeable sliding skids offer durability at high speed and heavy loads.**



## 80PI/PE

### Benefits

- ✓ Screwed-on double-guided sliding skids for heavy-duty applications.
- ✓ Low-friction sliding skids designed for a long-lasting performance.
- ✓ Solid link design and male-female interconnection for reduced torsional stress.
- ✓ Screwed-on bolts.
- ✓ Frames opening at inner and outer-radius sides.
- ✓ Cable-friendly edge-free design of nylon frames.
- ✓ Steel end brackets easy and quick to install.



### SCREWED-ON PINS

The inner and outer pins are bolted to provide the strongest and most reliable connection for links, and easy maintenance at the same time. Stainless steel bolts.



### SELF-CLEANING CHAIN

Link openings designed to avoid accumulation of dust and dirt. The perfect solution for the harshest environments.

### SCREWED-ON SLIDING SKIDS

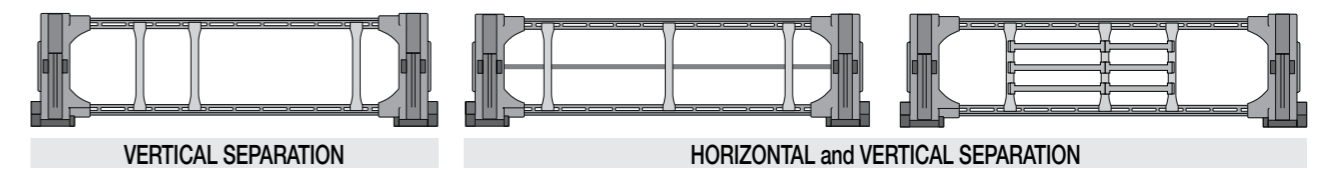
The best choice for very heavy-duty applications.  
 ❶ The material of the sliding skids is special. A plastic compound specifically studied to be wear-resistant and low-friction.

❷ Sliding skids can be replaced at the end of their lifetime without changing the whole chain. Stainless steel bolts.

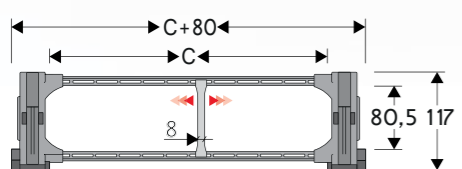
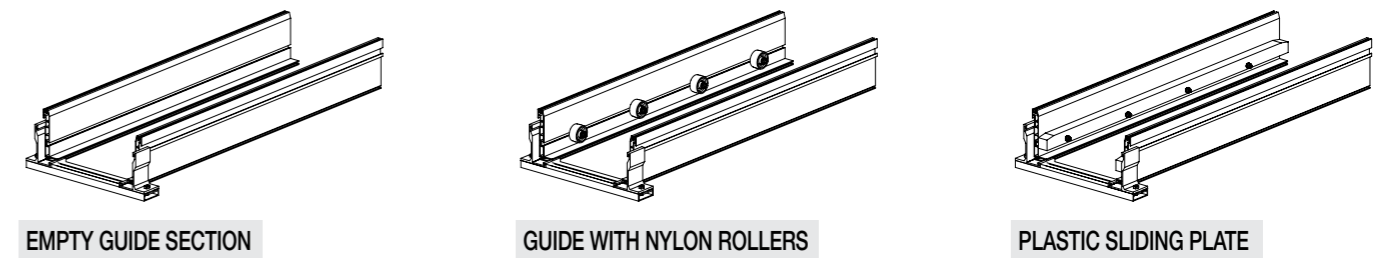


### SEPARATION SYSTEM

Different solutions are available for the best cable management inside the chain. Vertical separations, combinations with vertical/horizontal or modular separation for a multilayer positioning. All this solutions can make the chain narrower in case of needs.



### STAINLESS STEEL GUIDE CHANNELS



| PART          | DIMENSIONS                        |
|---------------|-----------------------------------|
| <b>C</b>      | Inner width from 115 mm to 539 mm |
| <b>Radius</b> | from 200 mm to 700 mm             |

# HEAVY DUTY

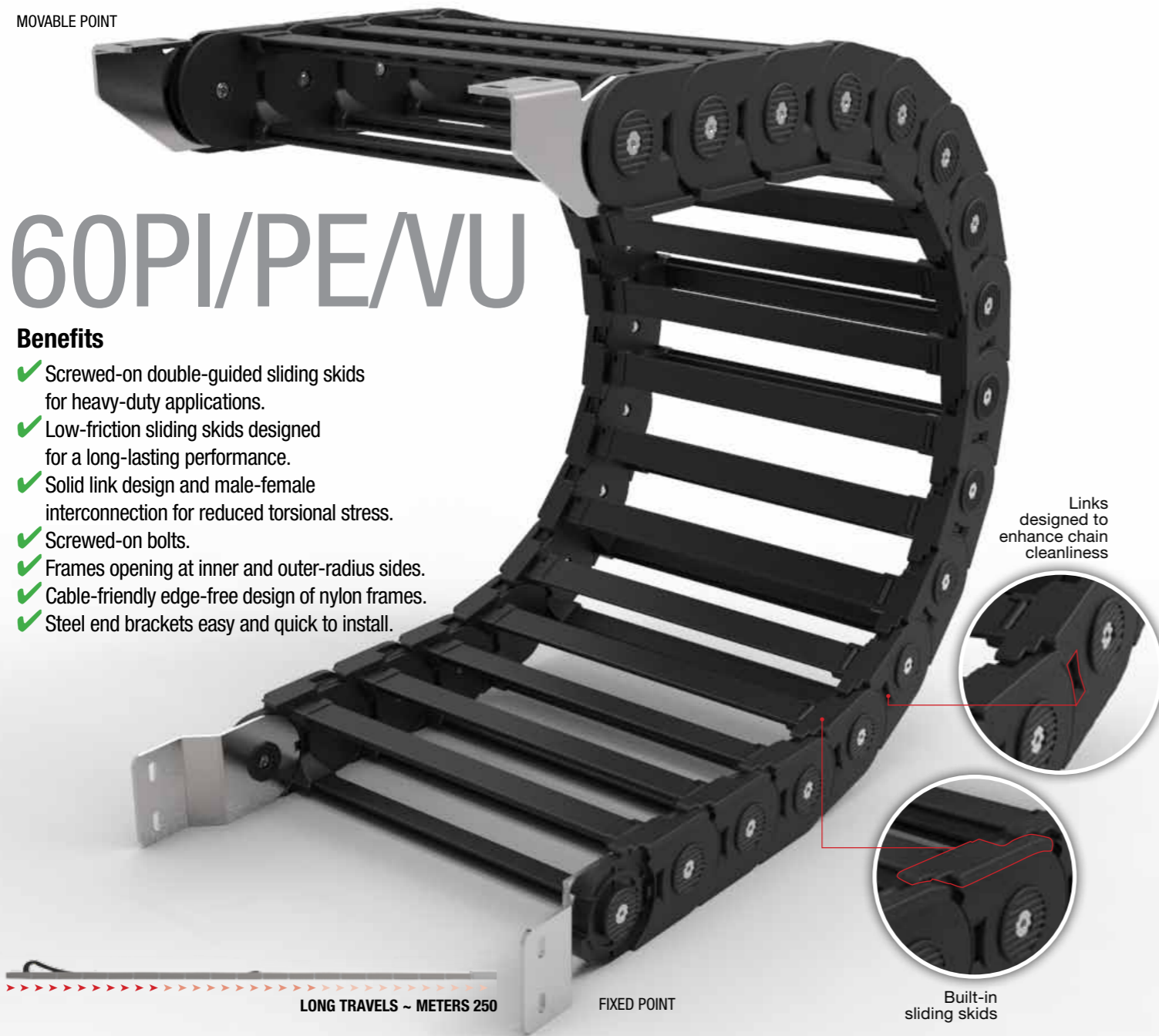
Chain designed for **heavy-duty applications** such as RTG and ASC Cranes. **Smooth movement and low noise.** Frames opening at inner and outer-radius sides. Strong double sideband and frame construction with large single pin. **Screwed-on interchangeable sliding skids of the VU version** offer durability at high speed and heavy loads. Built-in skids of the PI/PE version are also available.

MOVABLE POINT

## 60PI/PE/VU

### Benefits

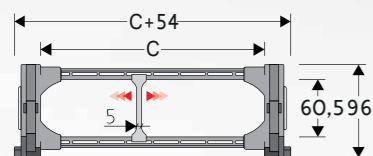
- ✓ Screwed-on double-guided sliding skids for heavy-duty applications.
- ✓ Low-friction sliding skids designed for a long-lasting performance.
- ✓ Solid link design and male-female interconnection for reduced torsional stress.
- ✓ Screwed-on bolts.
- ✓ Frames opening at inner and outer-radius sides.
- ✓ Cable-friendly edge-free design of nylon frames.
- ✓ Steel end brackets easy and quick to install.



LONG TRAVELS ~ METERS 250

FIXED POINT

Built-in sliding skids



| PART          | DIMENSIONS                        |
|---------------|-----------------------------------|
| <b>C</b>      | Inner width from 115 mm to 539 mm |
| <b>Radius</b> | 200 - 250 - 300 - 400 mm          |



### SCREWED-ON PINS

The inner and outer pins are bolted to provide the strongest and most reliable connection for links, and easy maintenance at the same time. Stainless steel bolts.



### SELF-CLEANING CHAIN

Link openings designed to avoid accumulation of dust and dirt. The perfect solution for the harshest environments.

### BUILT-IN SLIDING SKIDS

The classic solution where travel distance, speed and work cycles are not high. Typical selection for RTG cranes. Proven technology over more than 25 years on the field, and laboratory tests.

### BOLTED IN SKIDS

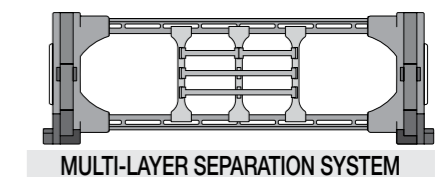
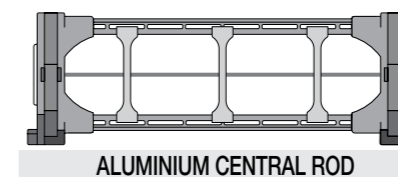
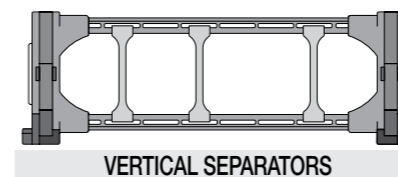
The best choice for the most demanding applications.
 

- 1 The material of the sliding skids is special. A plastic compound specifically studied to be wear-resistant and low-friction.
- 2 Sliding skids can be replaced at the end of their lifetime without changing the whole chain. Stainless steel bolts.

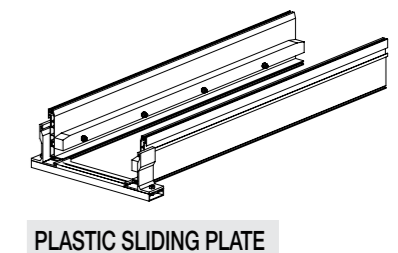
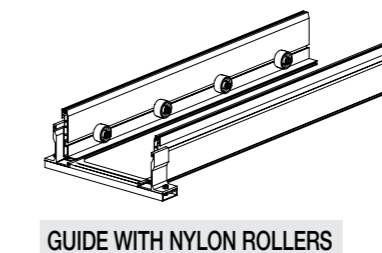
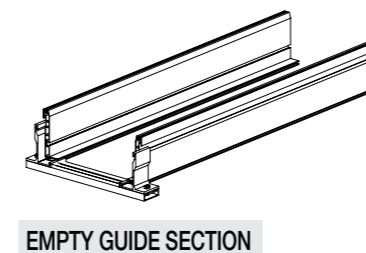


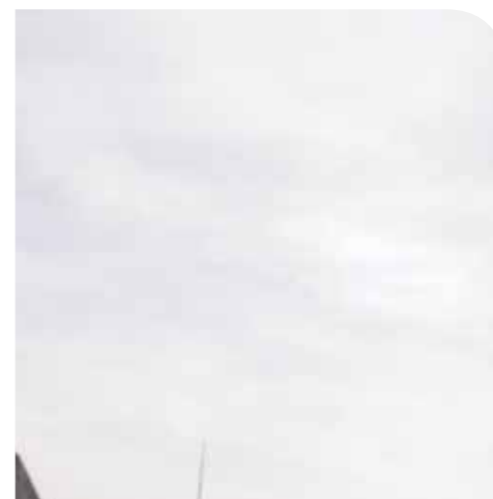
### SEPARATION SYSTEM

Various solutions are available for the best cable management inside the chain and the optimisation of chain dimensions.



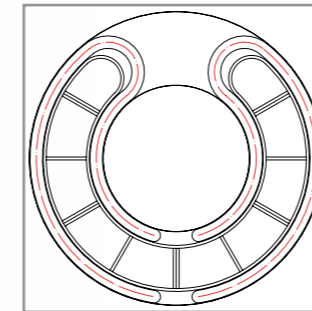
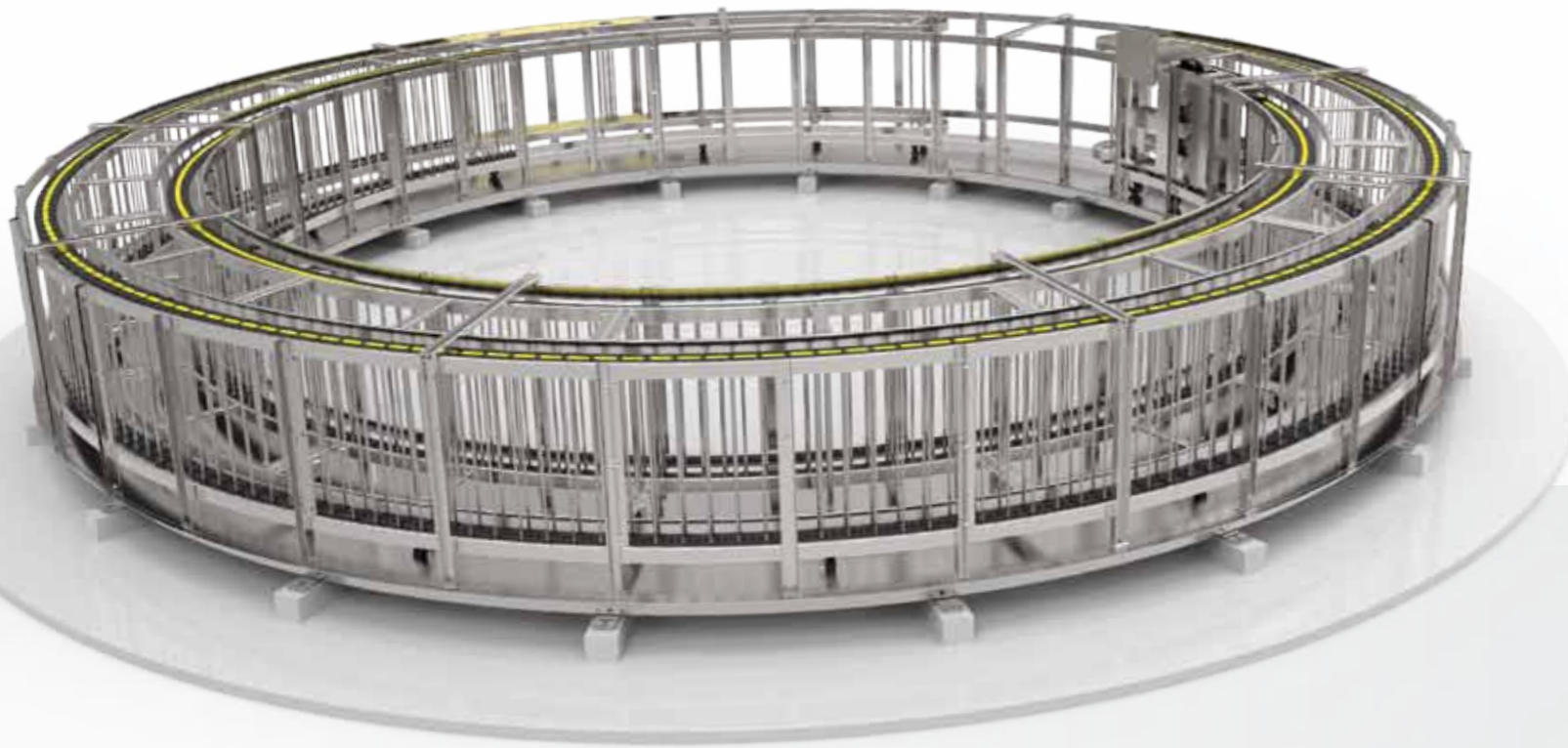
### STAINLESS STEEL GUIDE CHANNELS



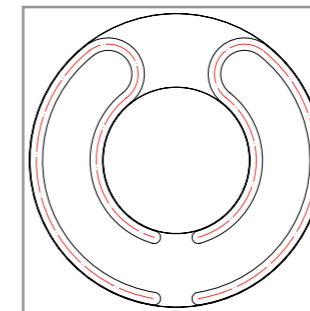


# ROTARY SYSTEM

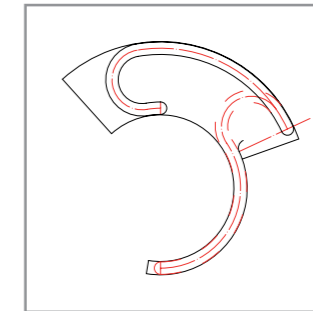
**B**revetti Stendalto's rotary systems are typically used for slewing motion on **stacker-reclaimers and bulk loaders/unloaders**. Various solutions have been developed to match every application need. Power and signal cables, industrial and hydraulic hoses, fibre-optics and BUS cables can be dynamically protected around the swivel point. **Brevetti's solutions can easily reach 600 degrees of rotation.**



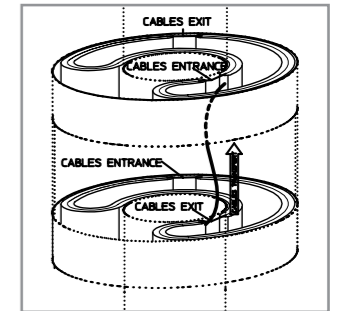
Rotary system with double chain and inner frame. System with towing arm able to compensate axial mismatching.



Rotary system with double chain. System with concentric rings.



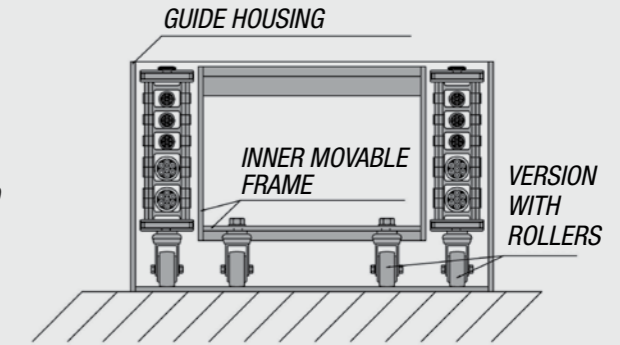
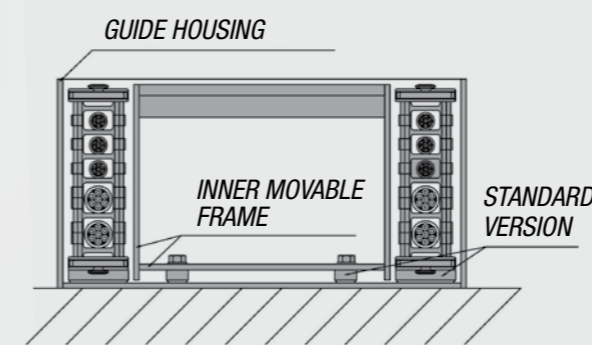
Rotary system with single chain.



Multilayer system for degrees up to 1440°.

## HEAVY SERIE

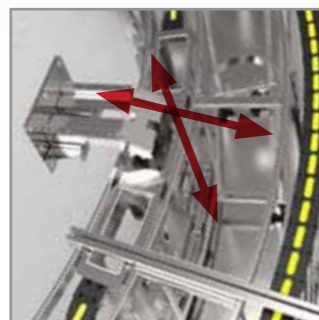
Brevetti's new Series H (H57, H80, H110) provides the most robust and versatile solution to heavy-duty rotary applications.



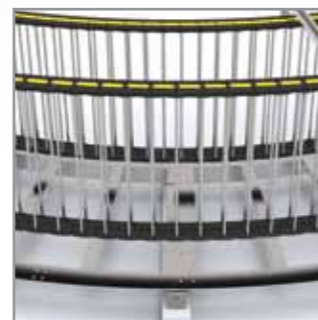
The use of rollers and inner frame is related to the cables and hoses weight that need to be moved. The **Brevetti Stendalto Expertise around the world** can assist you in finding the most suitable solution.



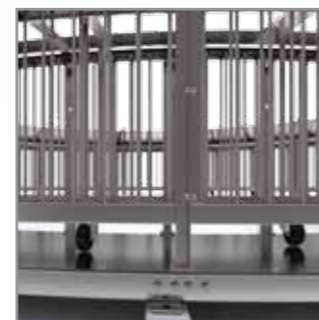
Frames guide and protect the chains. The bottom plate is designed to avoid accumulation of coal or other dirt.



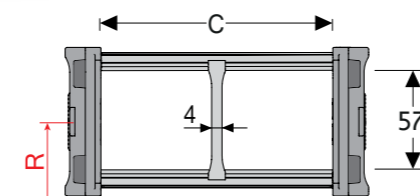
The movable point is equipped with a cable conveyor and a tow arm designed to compensate for vertical and radial misalignment.



Chains are designed to run smoothly, provide a long-lasting performance, and minimise maintenance downtime.

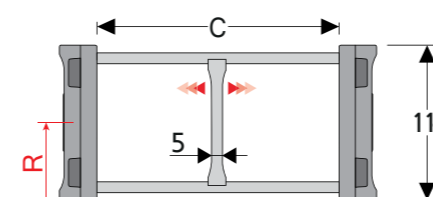


Specific features for the most demanding rotary applications: big rotation range, big diameter, etc



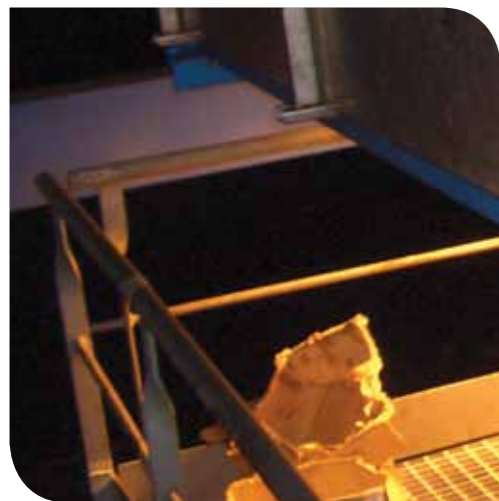
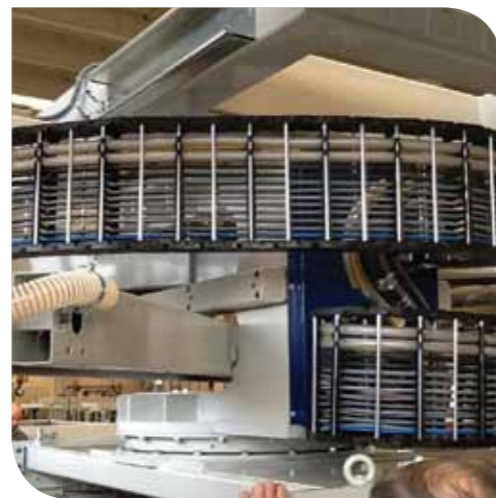
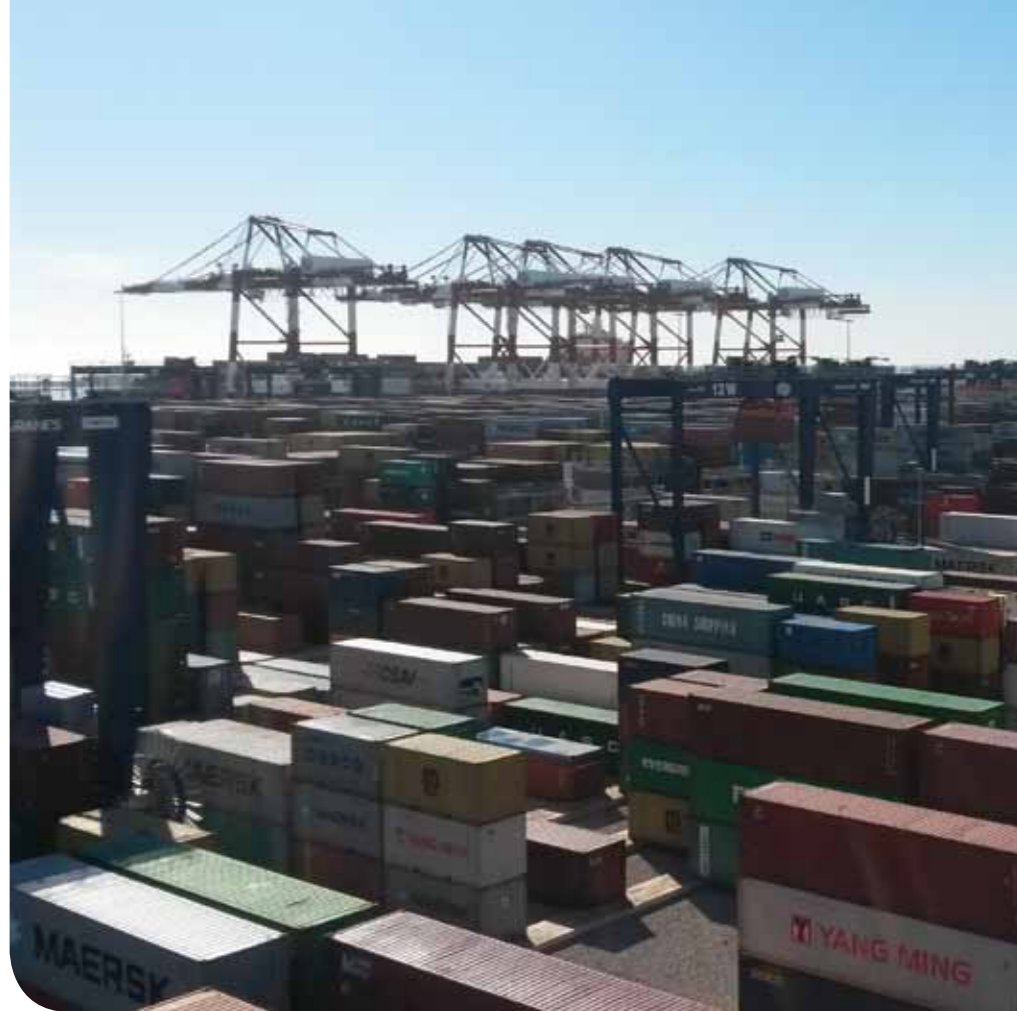
### H57SC

| PART          | DIMENSIONS                       |
|---------------|----------------------------------|
| <b>C</b>      | Inner width from 75 mm to 400 mm |
| <b>Radius</b> | radii from 150 mm to 400 mm      |



### H80B

| PART          | DIMENSIONS                        |
|---------------|-----------------------------------|
| <b>C</b>      | Inner width from 115 mm to 539 mm |
| <b>Radius</b> | radii from 200 mm to 600 mm       |





# CABLES - HARNESS CABLES - HOSES WITH FITTINGS

**B**revetti Stendalto's cables are extra-flexible, specifically designed for use with cable chains. All cables are IEC 60228 Class 6. Materials are tested and studied to last longer in operation inside chains. Medium voltage 3,6/6 kV and 6/10 kV cables are included in the product range.

**Brevetti Stendalto also offers finished cables equipped with connectors, from the most common standards to customised solutions, delivered in the shortest time at the most cost-effective conditions.**

A large selection of industrial and hydraulic hoses, also equipped with fittings, complete the range

- High bending properties • Low bending radius • Oil resistant • UV resistant • Flame retardant • Working temp -40°C ÷ 80°C
- High speed and acceleration • UL/CSA/GOST Certifications

|  |   |   |  |   |  |   |  |   |  |
|--|---|---|--|---|--|---|--|---|--|
| <p><b>BC417</b><br/><b>SHIELDED</b><br/>DESCRIPTION<br/>MULTIPAIR SIGNAL<br/>JACKET<br/>PUR<br/>INSULATION<br/>TPO<br/>VOLTAGE<br/>1000 V<br/>CORES N.<br/>4P TO 12P<br/>SECTION MM<sup>2</sup><br/>0,5 TO 2,5</p> | <p><b>BC419</b><br/><b>SHIELDED</b><br/>DESCRIPTION<br/>MULTIPAIR SIGNAL<br/>JACKET<br/>PUR<br/>INSULATION<br/>TPE-E<br/>MULTICORE<br/>VOLTAGE<br/>600 V<br/>CORES N.<br/>3P TO 25<br/>SECTION MM<sup>2</sup><br/>0,34 TO 2,5</p> | <p><b>BC421</b><br/><b>SHIELDED</b><br/>DESCRIPTION<br/>POWER CABLE<br/>JACKET<br/>PUR<br/>INSULATION<br/>TPO<br/>VOLTAGE<br/>1000 V<br/>CORES N.<br/>4<br/>SECTION MM<sup>2</sup><br/>25 TO 50</p> | <p><b>BC425</b><br/><b>SHIELDED</b><br/>DESCRIPTION<br/>SINGLE CORE<br/>JACKET<br/>PUR<br/>INSULATION<br/>TPE-E<br/>VOLTAGE<br/>1000 V<br/>CORES N.<br/>1<br/>SECTION MM<sup>2</sup><br/>10 TO 185</p> | <p><b>BC426</b><br/><b>SHIELDED</b><br/>DESCRIPTION<br/>SINGLE CORE<br/>JACKET<br/>PUR<br/>INSULATION<br/>TPE-E<br/>SHIELDED<br/>VOLTAGE<br/>1000 V<br/>CORES N.<br/>1<br/>SECTION MM<sup>2</sup><br/>10 TO 185</p> | <p><b>BC413</b><br/><b>SHIELDED</b><br/>DESCRIPTION<br/>MULTIPAIR SIGNAL<br/>JACKET<br/>PUR<br/>INSULATION<br/>TPE<br/>VOLTAGE<br/>300 V<br/>CORES N.<br/>2P TO 10P<br/>SECTION MM<sup>2</sup><br/>0,25 TO 0,5</p> | <p><b>BC418</b><br/><b>SHIELDED</b><br/>DESCRIPTION<br/>MULTIPAIR SIGNAL<br/>JACKET<br/>PUR<br/>INSULATION<br/>TPE-E<br/>MULTICORE<br/>VOLTAGE<br/>600 V<br/>CORES N.<br/>3P TO 25<br/>SECTION MM<sup>2</sup><br/>0,34 TO 4</p> | <p><b>BC420</b><br/><b>SHIELDED</b><br/>DESCRIPTION<br/>POWER CABLE<br/>JACKET<br/>PUR<br/>INSULATION<br/>TPO<br/>VOLTAGE<br/>1000 V<br/>CORES N.<br/>3P TO 5<br/>SECTION MM<sup>2</sup><br/>2,5 TO 35</p> | <p><b>BC500</b><br/><b>SHIELDED</b><br/>DESCRIPTION<br/>FIBRE OPTICS<br/>JACKET<br/>LSZH<br/>INSULATION<br/>PTB<br/>FIBRE<br/>CORES N.<br/>6 TO 24<br/>SECTION<br/>MONO-MODE<br/>MULTI-MODE<br/>9/125<br/>50/125<br/>62.5/125</p> | <p><b>BC470</b><br/><b>SHIELDED</b><br/>DESCRIPTION<br/>SINGLE CORE<br/>JACKET<br/>PUR<br/>INSULATION<br/>EPR<br/>VOLTAGE<br/>3.6/6kV<br/>OR 6/10kV<br/>CORES N.<br/>1<br/>SECTION MM<sup>2</sup><br/>25 TO 185<br/>Higher voltages available on request</p> |
|--|---|---|--|---|--|---|--|---|--|

## CONNECTORS AND TERMINAL LUGS

## HOSES

Flexible hoses with high resistance against abrasion, light weight, vacuum-tested. Complying with international standards e.g. SAE, DIN, ISO, JIS, etc. Various fittings available

## ANTI-MISALIGNMENT DEVICE

Alignment between the chain and the machine is crucial for a good performance. Anti-misalignment devices have been developed for this reason. Brevetti Stendalto's design integrates the chain movable point, the cable clamps and the anti-misalignment device in a single unit.



CABLE CLAMPS SYSTEM



C PROFILE FOR CABLE TIES

## CABLE CLAMPING

Brevetti Stendalto's cable chain systems are designed with cable clamps at the movable and fixed points. Two clamping systems are available for port applications: the classic steel clamps and the cost-effective perforated profiles.

## SAFETY SYSTEMS



### CESystem

Mechanical device able to control the proper functioning of the chain. Easy installation with own supports and easy management.



### ESDSYSTEM

System able to predict the extra stresses caused by a malfunctioning of the chain. User friendly interface for an intuitive use.

Brevetti Stendalto experience in this engineered field made us to improve the delivered service to the customer.

## PROJECT MANAGEMENT

We team up with our customers along the entire project at various level, from consultancy to on-site intervention, and from installation to commissioning supervision.

## TURNKEY PACKAGE AND COMPLETE PRODUCT RANGE

In combination with our cable chains, we can supply hydraulic hoses, power and signal cables with connectors, fibre-optic cables, and cable clamps.

## REDUCED INSTALLATION TIME - TOTAL CHAIN

We can provide our systems reeled around drums, or secured to transport and lifting frames, in Plug-And-Play package, for a fast and easy installation.

## SERVICE TEAM

A team of skilled technicians and engineers, certified to operate anywhere in the world, is available around-the-clock to provide assistance with our products.



## HEADQUARTERS

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The logo features a stylized yellow 'b' with a registered trademark symbol (®) to its upper right, followed by the words 'brevetti' and 'stendalto' in a bold, lowercase, sans-serif font.

[WWW.BREVETTISTENDALTO.COM](http://WWW.BREVETTISTENDALTO.COM)

