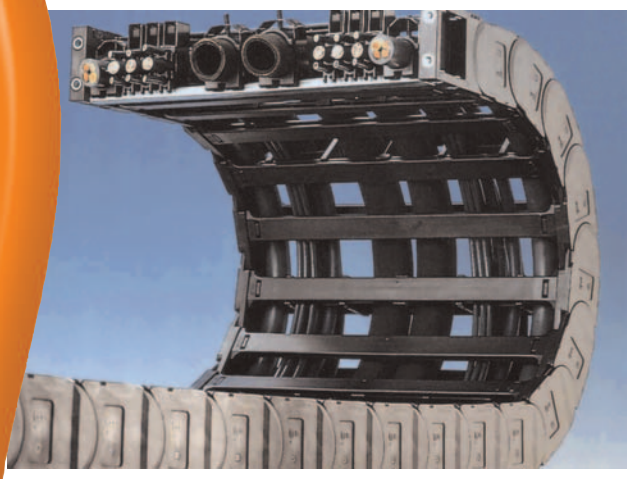
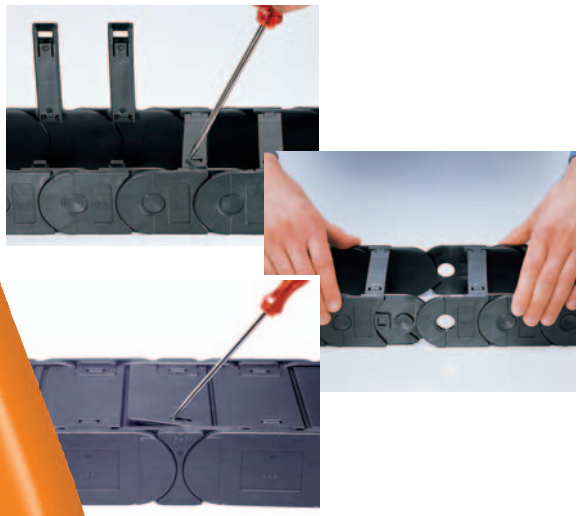
What is it?

A Cable Carrier ...



- Guides and protects moving cables and hoses on machinery
- Prevents cables and hoses from bending too tightly
- Prevents cables and hoses from tangling on machinery
- Extends service life of cables and hoses
- A series of flexible links made of plastic connected via a pin and bore design



Energy Chain Design

- All-plastic maintenance-free operation
- Snap-link modular assembly for easy installation
- Snap-open crossbars for fast cable/hose installation or repair
- Enclosed tubes for complete protection against metal and wood chips
- Special polymer blends available for specific application needs

Energy Chain Features and Benefits

- Plastic won't wear, particulate or degrade
- Lightweight
- Corrosion resistant
- Strong and durable enough to replace metal and hybrid cable carriers in most applications, including demanding applications such as:
  - oil rigs
  - ship to shore machinery
  - outdoor equipment

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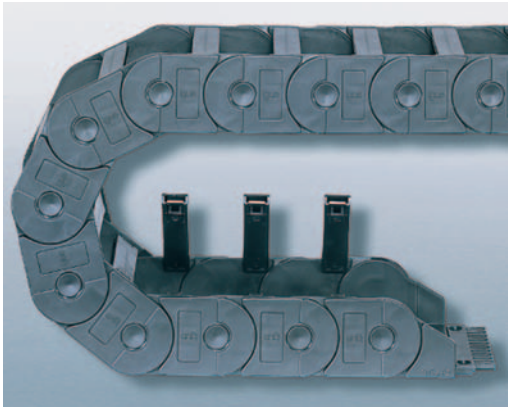
Which design is right for you?

E-chain® Styles

Basic Design

- Modular and interchangeable with other cable carrier components
- Configured to snap open for cable accessibility at any point along the carrier.
- Four separate parts make one carrier link:
  - 2 sideplates
  - 1 inner radius crossbar or lid
  - 1 outer radius crossbar or lid



Snap-Open Style

- Snap-open crossbar along one radius
- Reduced component count to two:
  - 1 U-shaped element consisting of the two side links and one molded-on crossbar
  - 1 separate crossbar or lid.

Tube Style

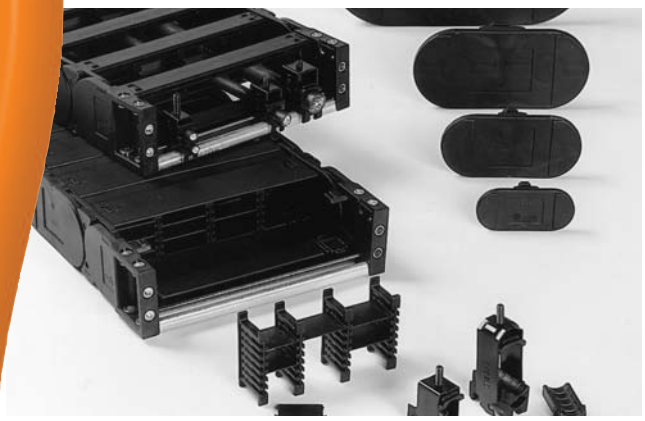
- Crossbars are replaced with lids to fully enclose the cable carrier to provide complete cable protection
- Especially useful in applications where wood chips, metal filings and other debris are present

Zipper Style

- Crossbars are connected so that opening one crossbar also opens the next crossbar

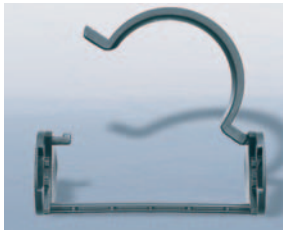
Other Elements

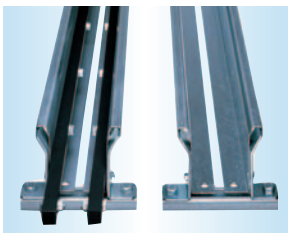
Crucial elements to prolong cable life



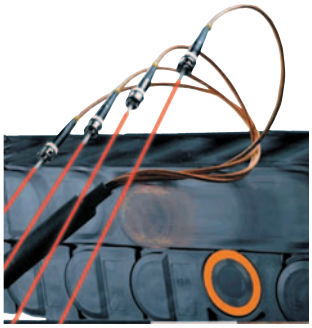
- vertical separators (used to eliminate friction and tangling)
- shelves (used to separate cables horizontally)
- strain relief, located at each end of the cable carrier to keep cables in position
- mounting brackets to attach the carrier system to the machine

Optional elements available





- guide troughs for long-travel applications
- rollers/wheels for even longer-travel applications
- glide shoes or gliding elements
- extender crossbars for oversized conduits



Installation

- Horizontal movement in which the cable carrier bends and travels above itself without support
- Horizontal movement supported by a guide trough
- Vertical movement
- Rotary
- Spiral movements.
- Combined movements in a single application
- Side-mounting
- Nesting

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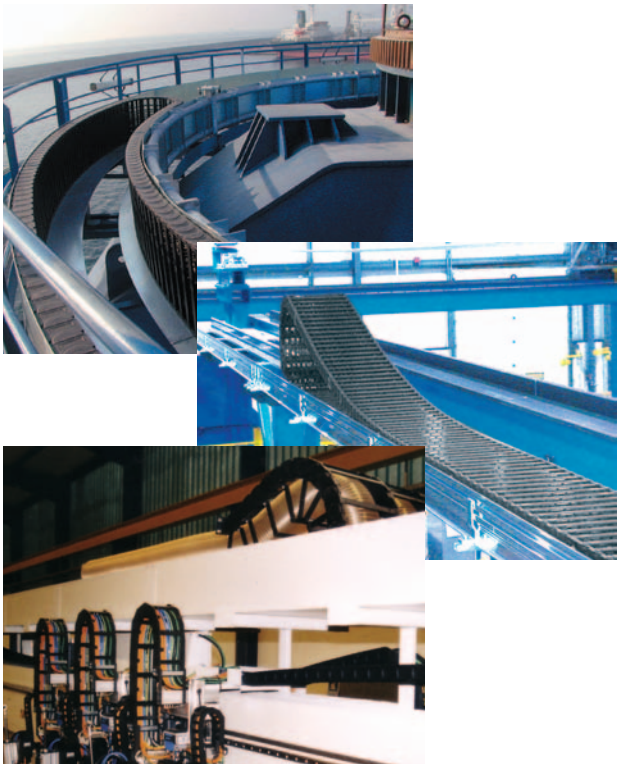
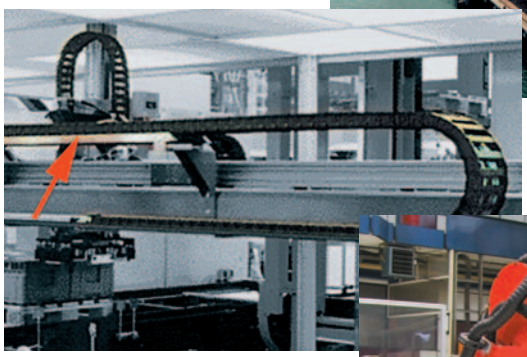
A Cable Carrier can be used in ...



- Virtually any application with moving cables will benefit from an Energy Chain
- Small carriers designed for lab devices
- Medium carriers for machine tools
- Large carriers for ship-to-shore cranes
- Travels up to 1,400 feet and speeds of more than 1,000 feet per minute
- Multi-axis and rotary E-Chains for robots
- UL-XXX flammability rating for use in appliance-type devices
- All types of applications from clean rooms to medical labs, machine shops and outdoor equipment

Energy Chains can be used in a wide variety of applications including:

- Aerospace
- Automotive
- Conveyor systems
- Cranes
- Machine tools
- Material handling
- Medical products
- Packaging equipment
- Robotics
- Semi-conductor
- Textile machinery



Applications