MLT patented innovation

The new generation of flexible splice to screw

EASIER AND FASTER TO INSTALL

THINNER AND MORE RESISTANT

FULLY INTEGRATED INTO YOUR BELT

The new SUPER-SCREW® EVOLUTION is currently available for belts strength up to EP630 (or 360PIW)
SOLUTIONS FOR HEAVY AND LIGHT-DUTY BELTS, MANUFACTURER OF TECHNICAL BELTS, TOOLS, VULCANIZING PRESSES

Our products and solutions meet your needs
70 years of experience and innovation for you

A Partner you can Trust

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Advantages and benefits of the New Generation of Flexible Splice

This brand new patented splice has evolved to bring you fundamental improvements.

**EASIER AND FASTER TO INSTALL**

Seamless Integration
- Bias Splice cut is prepared
- Less screws = Faster installation
- Easier skiving
- New spacers = equal skiving size on both sides

**THINNER AND MORE RESISTANT**

New, stronger fabric
- Seamless integration into the belt
- Improved breaking strength
- Higher abrasion resistance
- More flexible splice

**FULLY INTEGRATED INTO YOUR BELT**

- Smaller pulley requirement
- More compatible with scrapers
What is the SUPER-SCREW® EVOLUTION？
The new generation of flexible splice to screw

Splice your belt simply with screws!
SUPER-SCREW® EVOLUTION is the latest addition to the SUPER-SCREW® range. THE fast and innovative solution to splice your conveyor belts.

When on-site, you are exposed to field based issues: do you need to reduce the number of breakdowns, do you have difficult installation access, is your site prone to harsh weather conditions, do you have limited number of staff and training?

These comments from our customers drove the MLT teams to think about future improvements with these issues in mind. The result is we are able to offer highly innovative solutions, designed around our customer's feedback. Thus, MLT teams have developed the new generation of SUPER-SCREW®, unique and innovative solution to splice your conveyor belt: the SUPER-SCREW® EVOLUTION.

SUPER-SCREW® EVOLUTION, just like the previous generation of SUPER-SCREW®, reduces downtime. It supports operating tensions up to 63N/mm (failure stress belt up to 630N/mm). It is available in several grades of rubber and is offered with stainless steel or steel screws and inserts.

The simplicity of screws allows you to install the SUPER-SCREW® EVOLUTION no matter:
• The configuration of the conveyor,
• The conditions of access,
• Weather conditions,
• Temperature: -30°C (-22°F) to 200°C (392°F) peak.

As before, the screws specifically designed for being both self-drilling and self-tapping: they separate the belt fibers without cutting it. Sizes remain unchanged.

The SUPER-SCREW® EVOLUTION:
Performance, Innovation, Easy to install!

Advantages:
- Compatible with all types of scrapers
- Compatible with small pulley diameter
- Optimizes your productivity
- Easy to install
- Waterproof
- Highly flexible
- Any weather conditions
- High tensile strength

Application fields:
- Heavy industries
- Mines
- Cement plants
- Quarries
- And more.

Two types of steel for screws and inserts available:

Steel screws and inserts
- Highly resistant, the ideal choice in most situations.
- Quarry, Cement factory, mine etc.

Stainless steel screws and inserts
- Resistant to corrosive and saline environments.
- Gold mines, Phosphate mines, Sorting center, Fertilizer plant, Recycling facilities and salt handling.

Rubber grades available
SUPER-SCREW® EVOLUTION allows you to splice your own conveyor belts, whatever your activity and your needs.

SUPER-SCREW® EVOLUTION is available in different materials:

- Abrasion resistant
  SUPER-SCREW® Evolution answers the majority of applications, since it is fabricated with a high quality of rubber abrasion resistant 60mm². This is one of the most resistant compounds available today.

- Heat retardant
  SUPER-SCREW® Evolution can be installed on your heat retardant belt and can be able to withstand temperatures between 170°C and 200°C.

- Fire resistant
  SUPER-SCREW® Evolution, fabricated with fire resistant surface ISO 340 and ISO 284, ensures your security of silos and underground mines.

- Heat resistant
  SUPER-SCREW® Evolution can be installed on your heat resistant belt and can be able to withstand temperatures between 150°C and 170°C.

- Oil resistant
  SUPER-SCREW® Evolution is also available for oil resistant surface which resists oil and solvent.

- Very low temperature
  SUPER-SCREW® Evolution resists even at low temperatures until -30°C (-50°C on demand).

- Sliding bed / friction bottom
  Our SUPER-SCREW® Evolution is specially manufactured for sliding bed / friction bottom conveyor belts and made with abrasion resistant or oil resistant rubber with steel inserts. It is available in the SUPER-SCREW® Evolution 35 and 63 in either 5 ML or 25 ML rolls.
To determine the suitable SUPER-SCREW® EVOLUTION, screws and skiving blades, please refer to the chart.

For your belts from EP250 to EP630 (200PIW to 360PIW), please refer to the SUPER-SCREW® EVOLUTION range below.

For technical data exceeding those above, please refer to the SUPER-SCREW® The Original range.

Choose your type of SUPER-SCREW® from the EVOLUTION range:

1. Depending on your type of belt (EP or PP) determine which SUPER-SCREW® EVOLUTION to use.

2. Select your screw size:
   Once your SUPER-SCREW® EVOLUTION has been selected, identify the required screw size depending on your belt thickness.

3. Select your skiving blades:
   Depending on your belt thickness before skiving, easily determine which blades to use to skive.

Selection charts to help you select your

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3. Select your skiving blades:
   Depending on your belt thickness before skiving, easily determine which blades to use to skive.

*For EP or PP belts above 630N/mm (360PIW), please refer to the SUPER-SCREW® brochure.
Packaging:
In kit or in roll depending on your needs

SUPER-SCREW® EVOLUTION packaging:

READY-TO-USE KIT (CUT LENGTHS)

KIT IN ROLLS

The ready-to-install kit contains:
- SUPER-SCREW® EVOLUTION, cut to length, pre-assembled by MLT (complete with spacers)
- 2 screw sizes
- 1 packet of PZ2 bits
- 1 installation kit:
  - 1 SUPER-SCREW® EVOLUTION installation guide
  - Installation template
  - 1 installation tool

The roll kit includes:
- One roll of SUPER-SCREW® EVOLUTION to assemble yourself (screws to be ordered separately)
- 1 installation kit:
  - 1 SUPER-SCREW® installation guide
  - spacers, PZ bits, one installation template
  - 1 installation tool

SUPER-SCREW® EVOLUTION from 35 to 65 are available in rolls of 3, 5, 10 and 25 meters with stainless steel or steel inserts depending on the range. You simply have to select your screw size (refer to the selection chart below).

Installation tools:
For a fast and easy installation

Cutting tool
To assist you in the preparation of the SUPER-SCREW® EVOLUTION, MLT has developed a cutting aid. It consists of two distinct components:
- The cutting press itself
- Hydro-pneumatic pump

This press has interchangeable elements, to cut all MLT rubber products: SUPER-SCREW®, SUPER-SCREW® EVOLUTION, FIX‘N GO®.

This cutting press is available as an option.

Cordless Tool kit with skiver and driver
This pack provides the tools to install most MLT products, including the new SUPER-SCREW® EVOLUTION. It is comprised of:
- Cordless belt skiver and accessories
- Cordless powered driver and accessories
- PPE

With a total of 17 elements included in the pack, you will be able to complete your installations easily and efficiently.

SUPER-SCREW® EVOLUTION installation tools, allow you to easily complete your splitting:
- The SUPER-SCREW® EVOLUTION chart will help easily select which type best suits your belt and which blades you will need.
- The installation tool will help you, quickly select which screw to use.
- The SUPER-SCREW® installation template will guide you and help you find the perfect angle for your SUPER-SCREW® EVOLUTION to be installed.

These charts are supplied with each SUPER-SCREW® EVOLUTION package, be it in rolls or ready to use cut lengths.

Technical data:

<table>
<thead>
<tr>
<th>Metric</th>
<th>35</th>
<th>40</th>
<th>63</th>
<th>65</th>
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<tbody>
<tr>
<td>SUPER-SCREW® EVOLUTION</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximum belt tension</td>
<td>315</td>
<td>400</td>
<td>630</td>
<td>630</td>
</tr>
<tr>
<td>Minimum pulley diameter</td>
<td>200</td>
<td>250</td>
<td>300</td>
<td>300</td>
</tr>
<tr>
<td>Thickness Top Cover</td>
<td>3,5mm</td>
<td>3,5mm</td>
<td>4mm</td>
<td>6mm</td>
</tr>
<tr>
<td>Thickness Bottom Cover</td>
<td>3mm</td>
<td>3mm</td>
<td>3mm</td>
<td>3mm</td>
</tr>
<tr>
<td>Imperial</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximum belt tension</td>
<td>200PW</td>
<td>228PW</td>
<td>360PW</td>
<td>360PW</td>
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<tr>
<td>Minimum pulley diameter</td>
<td>7/8''</td>
<td>7/8''</td>
<td>9/32''</td>
<td>9/32''</td>
</tr>
<tr>
<td>Thickness Top Cover</td>
<td>9/64''</td>
<td>5/32''</td>
<td>5/32''</td>
<td>15/64''</td>
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<tr>
<td>Thickness Bottom Cover</td>
<td>1/8''</td>
<td>1/8''</td>
<td>1/8''</td>
<td>1/8''</td>
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Quantity required:

<table>
<thead>
<tr>
<th>SUPER-SCREW® EVOLUTION 35 - 40</th>
<th>SUPER-SCREW® EVOLUTION 63 - 65</th>
</tr>
</thead>
<tbody>
<tr>
<td>Screws</td>
<td>82</td>
</tr>
<tr>
<td>Spacers</td>
<td>4</td>
</tr>
<tr>
<td>PZ2 bits</td>
<td>1</td>
</tr>
</tbody>
</table>
SUPER-SCREW® EVOLUTION Installation method recommended by MLT:

1) Prepare your belt ends by cutting to the required angle (refer to the chart p.9).

2) Position the installation template on the row closest to the edge of the splice. Depending on the length of the splice, you can add more templates in the center.

3) Arrange the spacers on the lower part of the junction at equal distances. They must be placed on the central row of nuts located on the same side as the templates. The number of spacers depends on the length of the splice (see table p.9). The two spacers at the ends must be placed on the 4th nut from the end.

4) Position the top of the splice over the spacers aligning the holes.

5) Assemble the upper and lower parts of the splice by installing the screws with the washers at the locations of the spacers.

6) Mark the center line of the belt on both ends of the splice.

7) Place the splice on the belt, centering it across the width. The templates should be parallel to the sides of the belt. The templates should not be near the end of the belt to be spliced.

Required equipment:

- THE SUPER-SCREW® EVOLUTION SPLICE
- SCREWS WITH WASHERS
- MLT SPACERS
- INSTALLATION TEMPLATE
- THE INSTALLATION TOOL
- A POWERED DRIVER
- A BELT SKIVER
- BLADES FOR BELT SKIVER
- A PENCIL
- A RULER

For the installation of your SUPER-SCREW® EVOLUTION 35 - 40
1. Set aside the splice and complete these lines across the width of the belt using a ruler.

2. Extend the skiving line to the bottom cover by marking the belt edges and using a ruler to mark the skiving line. Using a knife cut along the line to provide the edge of the skiving. Do not cut into the plies of the belt. Using a skiving tool, remove the bottom cover. Again making sure not to cut the belt ply.

3. Cut the belt along the first line nearest to the edge. The second line will be used as the skiving edge mark.

4. Mark the belt where the end of the splice sits with a line. Also mark the corresponding line in the cut out on the template. In this example 63.

5. Using a ruler complete the skiving lines and skive top and bottom covers. Ensure the chamfer on this side if necessary.

6. For belts with a carcass thickness greater than 6 mm, make a chamfer on the top and bottom cover of the belt end. This chamfer is to be made on both ends of the belt after skiving.

7. Using the prepared end as a guide, rest this on top of the unprepared belt end, aligning the centre line marking and belt edges. Mark the cut line and skiving line using the side of the belt. Set aside the prepared end and cut the end as marked.

8. MLT Safety Note – For wide or heavy belts where overlapping is not physically possible or safe, we recommend performing Steps 7 to 12 (Belt Skiving and Cutting) on the other end.

9. Measure the thickness of the skived belt to determine the correct screw size, referring to the installation guide.

10. Remove the templates and place the spacers against the end of the belt, whilst centering the splice on the belt.

11. Begin installing screws from the edge working in.
Check points:

To ensure you have a successful splice

19) Place the second end of the belt into the splice, make sure it butts up against the opposite side that was previously marked and align the two sides of the belt using the bias. The two ends of the belt should connect.

20) Repeat this process on the other belt end.

21) Continue installing the screws in an opposing manner (one on the left, then on the right, and repeat).

Skive the belt leaving a thin rubber layer.

Install the SUPER-SCREW® EVOLUTION with a corresponding screw size.

The SUPER-SCREW® EVOLUTION splice should be installed on a bias, fully recessed into the belt.

The installation of the SUPER-SCREW® EVOLUTION should be performed on a flat and rigid surface (e.g. a wooden board)

The belt ends should connect. Ensure you remove all spacers.
Our institute offers a complete range of training:
- conveyor belt training
- on-site expertise
- audit
- an independent testing laboratory

We study your needs and put together a customized offer. Please do not hesitate to contact us.

Contact us:
BRI services are available worldwide through MLT and if you are located in France, through Provulco. Do not hesitate to get in touch with your MLT contact.

INTERNATIONAL:
MLT
Tel: +33 4 42 22 19 19
Fax: +33 4 42 22 56 43
Mail: info@mlt-lacing.com
Site: www.mlt-lacing.com

PROVULCO
Tel: +33 4 42 22 69 57
Mail: contact@provulco.com
Site: www.provulco-bande-transporteuse.com

France:

BRI was created to address the existing theoretical or practical needs of conveyor belt training, especially rubber belts. BRI was founded to offer an unique solution and a domain of expertise that would exceed the users expectations.
Innovation for 70 years.

MLT, it’s solutions for heavy and light duty belts, tools, technical belts, etc.