

BTU

BRIDLE - TECHNOLOGY



THE TECHNOLOGY

- Even more precise control of the strip tension
- More gentle strip transport
- Further enhanced precision of strip steering
- Much smaller footprint

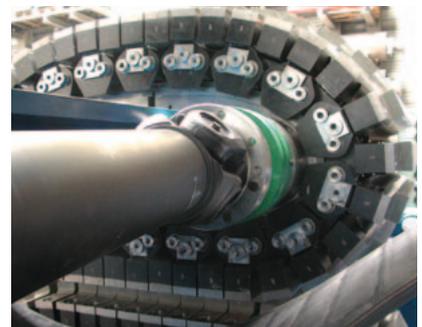
THE COSTS

- Lower investment costs
- Reduced operating costs
- Minimized maintenance effort

UMLAUF-BRIDLE UB 3.0

For more than 30 years, Umlauf Bridles from BTU Bridle Technology have proved extremely reliable in operation. For example, an Umlauf Bridle has been in continuous 24/7 operation in a hot-dip galvanizing line ahead of the recoiler since 1995. During all these years, there has been not a single disruption in operation caused by the Umlauf Bridle.

New developments in measuring and control technology have enabled us to make our Umlauf Bridles even more efficient and smaller in size. Building on our experience gained from more than 30 units installed, we have upgraded the design of the Umlauf Bridle and reduced its total cost of ownership.



... while retaining all the proven features of the Umlauf Bridle:

- adjustment of any strip tension needed and even distribution over the strip width
- perfect surfaces
- linear strip transport without bending
- maximum yield



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**BTU BRIDLE TECHNOLOGY
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THE INNOVATIONS IN MORE DETAIL:

THE TECHNOLOGY

- **Even more precise control of the strip tension**

With the new controls, the strip tension can be even more precisely adjusted between 0 and 2,000 kN.

- **Lifetime extended many times over**

By taking advantage of newly available design options and advances in control technology, we have been able to dramatically reduce the contact pressure. This relieves the entire system and extends the crawler lifetime many times over.

- **Further enhanced precision of strip steering**

We have equipped the adjustment cylinders with position measuring systems. Thus the pressure can be distributed even more evenly over the strip width and the strip can be steered more accurately than before.

With the optionally available steering frame, the strip can be steered with an accuracy of +/- 1 mm – an important aspect in recoiling and leveling processes.

- **Much smaller footprint**

The redesign of the complete mechanical layout of the Umlauf Bridle has also resulted in a significantly smaller footprint. Umlauf Bridles are now the option of choice where space is limited. For example, an Umlauf Bridle 3.0 of only 1,500 mm length can generate a strip tension of up to 200 kN.

THE COSTS

- **Low investment costs**

Implementing various new design features has significantly cut the manufacturing costs of the Umlauf Bridle. We tailor each unit to the specific conditions of the line, based on parameters such as strip thickness, width and strength.

- **Reduced operating costs**

As we have dramatically reduced the contact pressure of the crawlers and can now fine-adjust the pressure with much more precision, the Umlauf Bridle never consumes more energy than needed. This cuts the operating costs significantly. And, if you use an Umlauf Bridle as a braking unit, you can even feed electric power into your works mains.

- **Minimized maintenance effort**

In the redesigned Umlauf Bridle the internal forces are much lower. Consequently, also the loads acting on the mechanical components are lower. This means a marked decrease in maintenance requirements.

For example, by reducing the contact pressure by about 50 percent we have achieved an about ten times longer lifetime of the crawler rollers. And our new condition monitoring feature, which we offer as an option, provides additional operating security.