B_Rex

Calculation Programme

Brief Description – Calculation Programme B_Rex

B_Rex is a programme for calculating fitting in belt drives and conveyor belts. It allows the simulation of every product in the Forbo Siegling range with almost any conceivable machine configuration the customer has.

B_Rex uses the symbols at the beginning of each fitting with any combination of the following elements:

- Drive drum
- Reverse drum (in drives drive drum)
- Knife edge
- Skid plate
- Support roller
- Live roller
- Discharger
- Accumulation
- Different types of goods to be conveyed
- Freely definable effective pull (e.g. deflectors, brushes)

B_Rex can fit three possible types of machine mode:

- Standstill (during elongation at fitting)
- Normal operation
- Top load (during acceleration or sudden loads)

The result is presented as figures, text and a graphic:

1. As figures

- Minimum/maximum forces in the strand at each point
- Effective pull broken down according to the elements
- Drive power required
- Flexing components in the belts on the elements
- Load on the drums
- Deflections (including interim results such as mass)
- Centrifugal forces in drives with a high resolution

2. As text (examples)

- Can the drums transmit forces?
- Are the crown heights in the drums sufficient for deflection?
- Is a possible inclination of the machinery allowed?
- Was the minimum diameter for this belt type adhered to?
- Has the machinery symbolised been designed properly?

3. As graphic

- Force ratios at all parts of the belt
- Suggestion for elongation at fitting
- Possibility for users to define elongation at fitting themselves
- Range of permitted elongation at fitting displayed

Further possibilities

- Fitting of machine with spring or gravity take-up systems
- Inclined conveying
- Reverse operation at the touch of a button
- Different entries for immediate new fitting, each machine can easily be optimised in this way
- Comprehensive research possibility in the Siegling product range
- Product overview
- Easy way of changing the belt
- Display and calculation configurable
- Page view
- „Undo" and „redo" of up to 10 steps
- Programme screen, machine fitting and data can be switched from German to English at any time
- Examples

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Calculation Programme
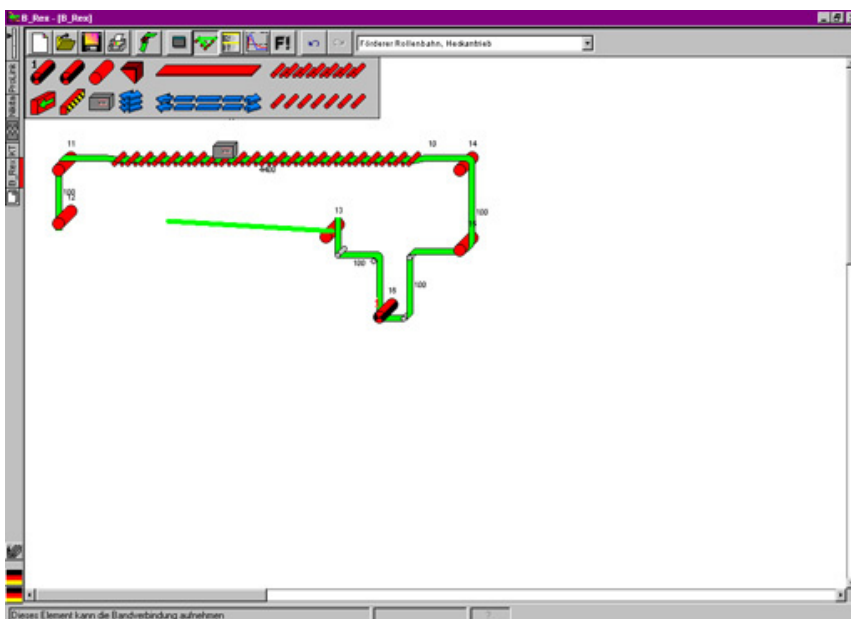
B_Rex screenshots

These screenshots will give you a brief overview of B_Rex:

A simulation or fitting of a machine is restricted to four steps. First of all, using the symbols combine the components of your machine (drums, knife edge, live roller etc). Secondly connect the elements with a mouse click in the right order with a belt symbol. Thirdly determine the properties of the elements (diameter, resolution, lengths etc). Finally interpret the result, but B_Rex will offer you a variety of tips for your machinery.
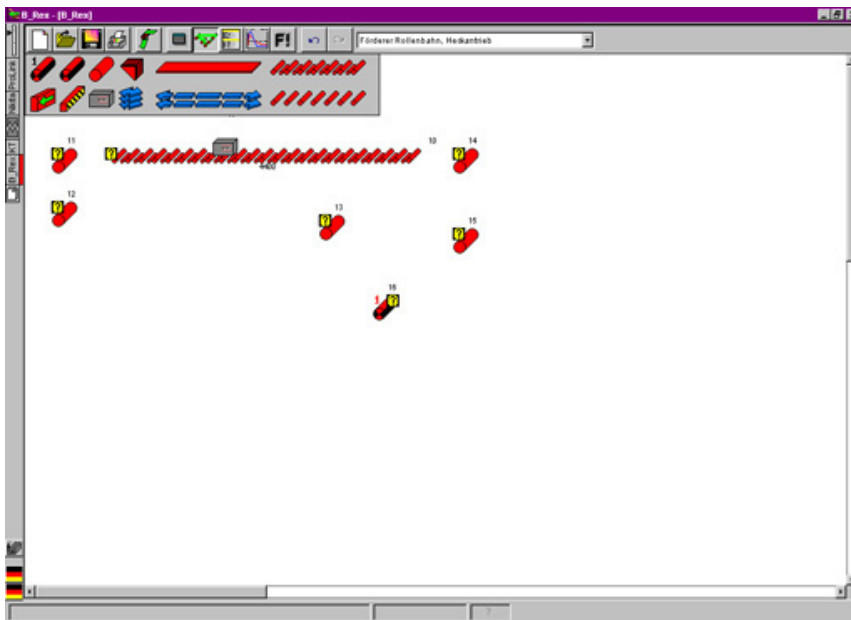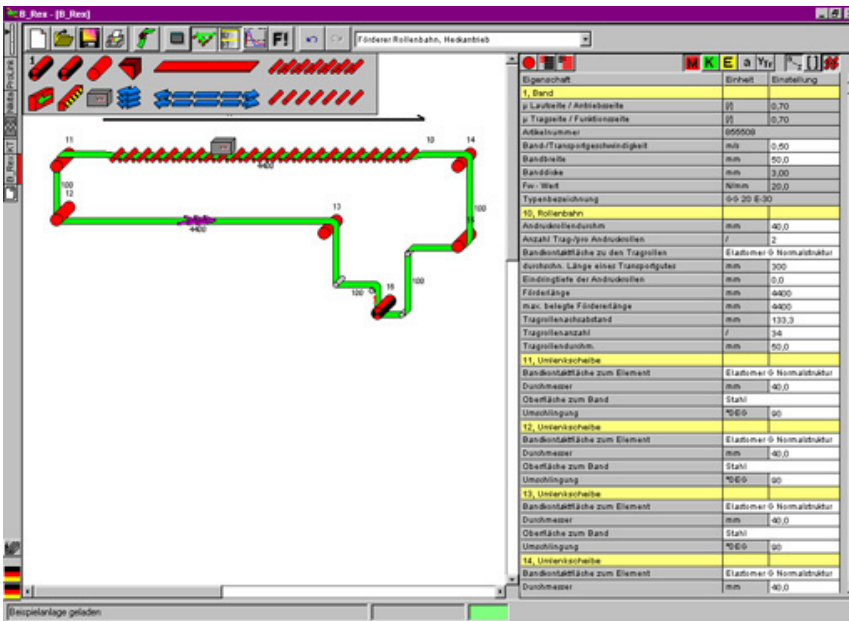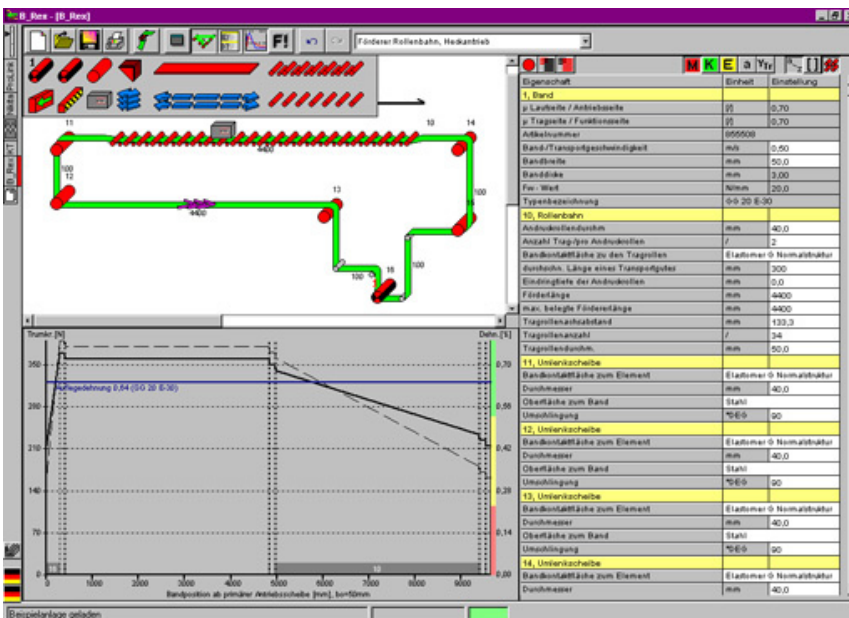

Step 1

• Combine machine components

Step 2

• Fit belt

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Step 3

• Enter machine properties

Step 4

• Calculation of the machine
  has taken place