

SPECIAL DESIGNS ARE POSSIBLE

In some applications still special solutions are requested. So NERAK of course continues to offer gastight bucket elevators, so avoiding the ignition source by nitrogen neutralisation. Suitable sealing and design allows an overpressure of 100 mm to 200 mm water gauge in casing.

Pulse pressure tight casings are also possible



Samples for gastight design

NERAK GmbH Fördertechnik
Brigitta 5

29313 Hambühren

Phone: +49(0)5084/944-0
Fax: +49(0)5084/944-222
E-Mail: info@nerak.de
Web: www.nerak.de

CONVEYING OF EXPLOSIVE BULK MATERIALS



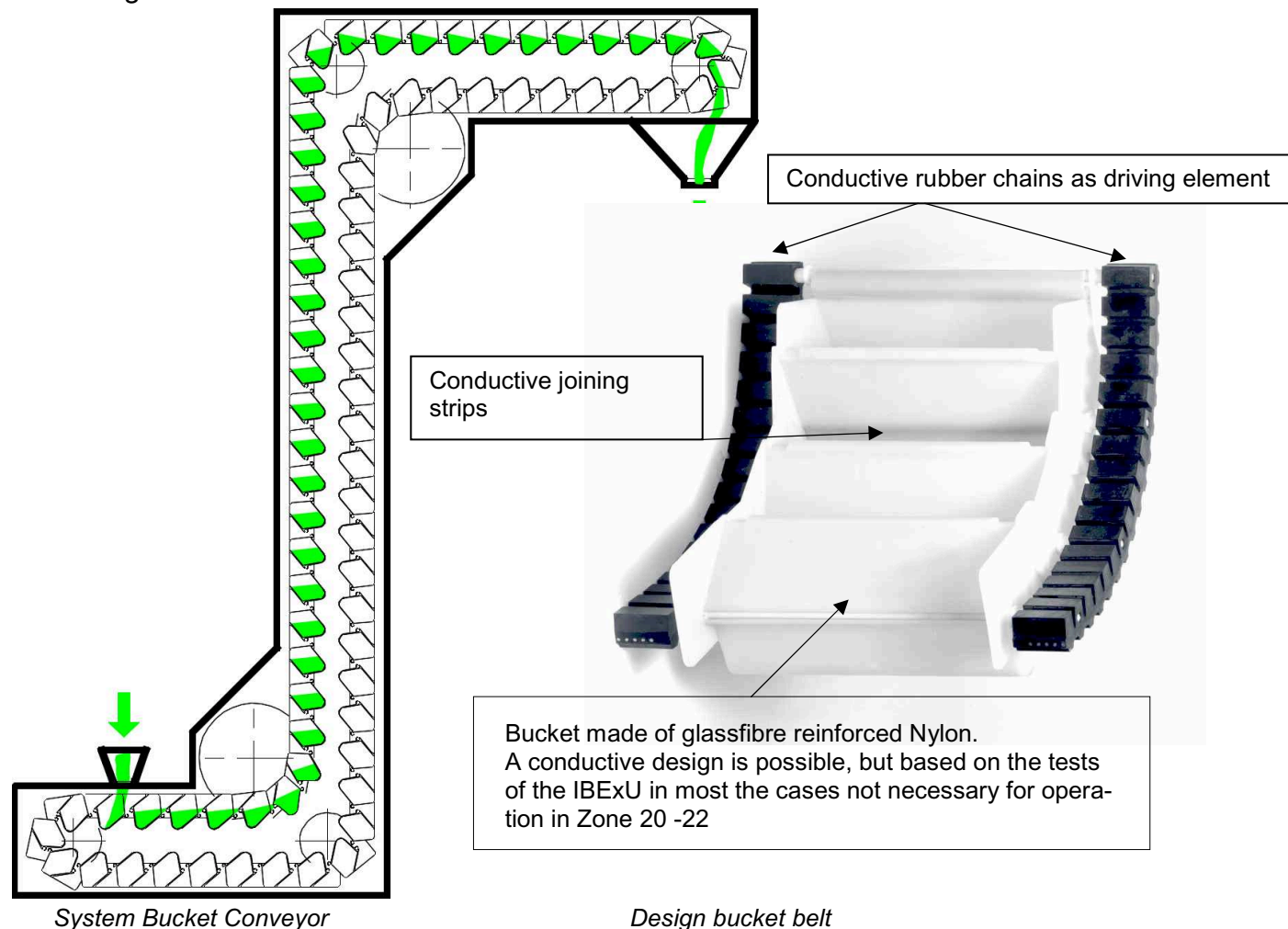
SAFER DANGER ZONES NERAK-BUCKET CONVEYORS IN EXPLOSIVE AREAS

Designing conveying systems need in various ways the consideration of a possible danger of dust explosions. Particularly the vertical conveying demands special technical aspects:

Build-up of product must be avoided, no important creation of electrical loading of the conveying system in allowed and possible conveying speeds are limited the danger of sparks.

For many years NERAK worked with and in explosive areas and is recommended by leading experts. Especially in this field NERAK Bucket Conveyors show important system advantages:

- High conveying capacities by speed remarkable below 1 m/s
- Avoidance of sparks by use of conductive rubber chains as the driving element
- No important creation of electrical loading by use of nylon buckets
- Minimising of product spillage/build-up by the closed bucket belt and optional self-cleaning design



TYPE EXAMINATION TEST ACCORDING TO DIRECTIVE RL 94/9/EC / ATEX 95

Based on the good experiences it was obvious for NERAK to achieve as early as possible the EC Certificates RL 94/9/EG (ATEX 95 (100a)), valid from 01.07.2003.

Together with the IBExU Institut für Sicherheitstechnik GmbH (An-Institut der Technischen Universität Bergakademie Freiberg) as Notified Body (EU-Code-No. 0637) the EC type examination test for dust explosion protection was successfully tackled.

The examinations were based on:

- EN 1127-1:1997
- prEN 13463-1:2001
- prEN 13463-5:2000
- EN 50281-1-1:1998



Results of the examinations were that accordingly designed bucket conveyors fulfilled the demands of the dust explosion protection for dusts with a minimum ignition energy 10 mJ and which matches the code:

Ex II 1/2 D c

So it is possible to use the bucket conveyors in dust explosive zones 20 -22 considering the minimal ignition energy and temperature.



Already in the 70th and 80th bucket conveyor components were tested.