

# Pneumatic expansion shaft

## Series 403

with individual expansion ledges

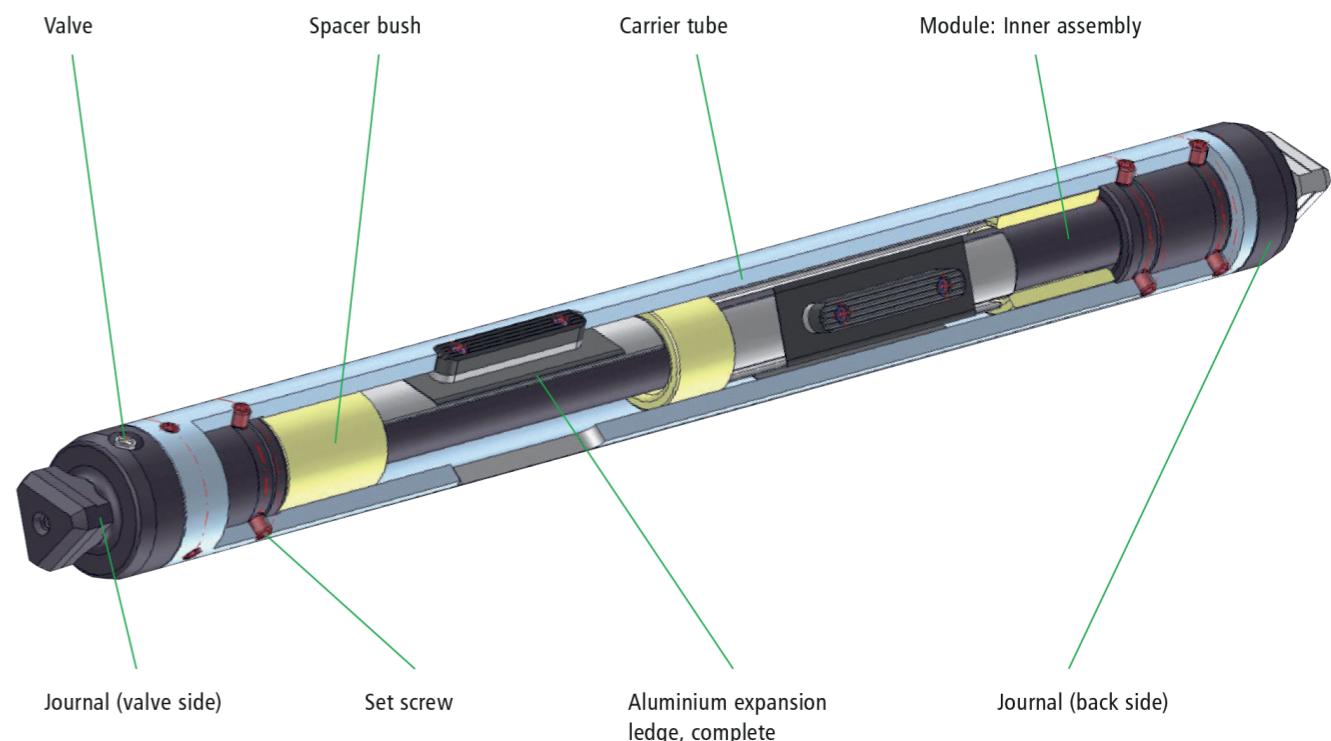
These unusually robust Vorwald expansion shafts of the Series 403 L are intended for utilisation under conditions of heavy reel weights and large torques.

As with the Series A, these expansion shafts are equipped with individual expansion ledges. The simple construction permits direct replacement of the expansion ledges from outside. Three types of expansion ledges are available to cover all requirements: Lengthwise grooved expansion ledges made of aluminium, expansion ledges made of steel or rubber expansion ledges. The number and positioning of the expansion ledges in the shaft body are determined by the customer requirements.

The lengthwise grooved surface of the steel and aluminium expansion ledges permits the greatest possible torque transmission with cardboard cores. The smooth surface of the rubber expansion ledges permits this force transmission for steel or plastic cores.

All expansion ledges are retracted into the carrier body by an internal plate spring, so that the shaft can easily be pulled out of the core. Expansion shafts with expansion ledges are available for cores with an internal diameter in the range from 50 to 300 mm.

Further very important advantages of these Vorwald expansion shafts include the light weight of the shaft compared with its high load carrying capability, by using high strength materials (steel, aluminium, CFK) as well as the easy to maintain construction. If the bladder starts to leak, as can happen from time to time with every expansion shaft, the unique internal constructional design makes a repair possible within a very short time. By keeping a complete inner assembly or a "repair kit" in stock, a bladder defect can be remedied within minutes.



### Advantages

- + Simple construction according to the modular design principle
- + Numerous variants
- + Heavy reel weights and large torques possible
- + Expansion ledge retracted by spring system
- + Short repair times, by virtue of externally accessible expansion ledges
- + Robust design

Available shaft diameters from 50 to 300 mm

Special dimensions are possible on inquiry.



**BIBUS**  
SUPPORTING YOUR SUCCESS

BIBUS SK, s.r.o.  
Trnavská 31, SK-94 901 Nitra

Tel.: 037/ 7777 911 Email: [sale@bibus.sk](mailto:sale@bibus.sk)  
Fax.: 037/ 7777 999 <http://www.bibus.sk>

**neuenhauser**  
**Vorwald**  
EXPANSION UNITS