

# Pneumatic expansion shaft Series 409

with continuous expansion ledges

Vorwald expansion shafts of the Series 409 are suitable for wide as well as for the narrowest reels by virtue of the continuous expansion ledges. The expansion shaft transmits very large torques and has an exceptionally high reel weight carrying capability.

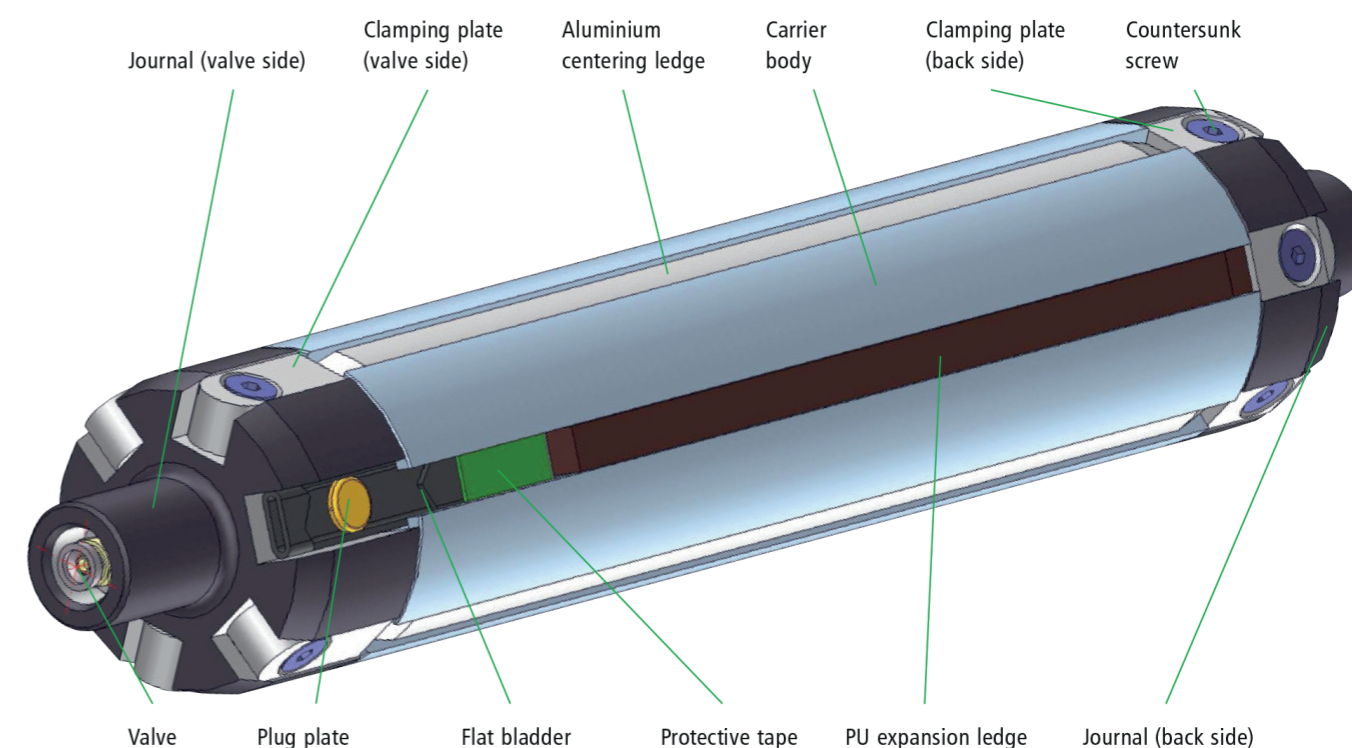
This is an economic and flexible shaft which has a clamping system that is readily accessible externally. It is manufactured in standard sizes of 3 inches/75mm and 6 inches/150mm. Other sizes are available on inquiry.

The carrier body consists either of a high strength aluminium extrusion profile, or of steel for very high load carrying applications. The shaft journals are also made of steel, and they are attached with screws so that they can easily be replaced when necessary.

The weight of the expansion shaft is light compared with the load carrying capability and permits easy handling which otherwise can only be achieved by using considerably more expensive CFK-shafts.

A clamping and/or centering function can be assigned to the expansion ledges depending on the actual requirements. The type and number of ledges is selected according to the application and customer requirements. Thus this type of shaft is very flexibly and can also be adapted subsequently to changed conditions such as new core tolerances, higher speeds, etc.

All expansion shafts described above are available on customer request in special versions and as expansion shafts with bearing on only one side.



## Options

- Filling valves on both sides
- Expansion ledges made of polyurethane, aluminium or plastic
- Aluminium carrier body with wear proof coating; carrier body also available in steel for high loads carrying capability
- Quasi-centering design, matched to your core internal diameter
- Special dimensions are possible on inquiry

## Advantages

- + Simple construction according to the modular design principle
- + Parts subject to wear are readily accessible from outside
- + High rotation speeds possible
- + Low weight of the shaft
- + Secure clamping of the narrowest webs

**Available shaft diameters**  
from 40 to 500 mm

