ETP-POWER®

Fast mounting and high radial loads

ETP-POWER is a hydraulic connection with the highest performance among the single screw ETP hub-shaft connections. With ETP-POWER all the positive benefits and features of hydraulic clamping, such as easy handling, compact design and precision, is combined with high radial load capacity due to the specific properties of the pressure medium.
**Facilitates assembly of machine**

Manufacturing lines for laminated flooring contain many components, for example levers and timing pulleys, which need to be synchronised and free from backlash. When adjusting the timing belt drive, the pulley can be freely turned around and moved along the shaft and the belt tensioned.

ETP-POWER is used to fasten the large pulley as the tensioning forces applied by the belt leads to high radial loads. Also maintenance work time is saved as only one screw needs to be loosened/tightened.

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**Good runout, no axial displacement**

In this manufacturing line for aluminium radiators for cars, the rollers are fastened with ETP-POWER. In roller applications there are most often high radial loads applied making ETP-POWER the ideal choice. Also the positioning along the shaft is critical, this is easily adjusted and does not change when the screw is tightened. There are a lot of rollers in the line which are easily changed thanks to the features and benefits of ETP-POWER, when the production is changed.
ETP-POWER is available as standard for shafts 15 – 40 mm. Runout ≤ 0.03 mm. Number of mountings 200 - 500 (size dependent). ETP-POWER combines quick mounting with a high radial load capacity due to the specially developed pressure medium.

Construction
ETP-POWER is a hydraulic connection which consists of a double-walled hardened steel sleeve filled with a specially developed pressure medium and a flange. The flange part contains screw and piston with seals to maintain pressure. In the flange there are two pre-machined bores which can be used for mounting location pins, screws to the hub or similar.

Operation
When the pressure screw is tightened the double-walled sleeve expands uniformly against shaft and hub and creates a rigid joint. Dismantling is done by loosening the screw. ETP-POWER returns to its original dimensions and can easily be dismantled.

Benefits and features
- High radial load capacity.
- Fast mounting/dismantling with only ONE screw.
- Small built-in dimensions.
- Radial tightening of the screw saves space along the shaft.
- Accurate positioning, no axial movement when mounting.
- Good concentricity, also after several mountings.

When the pressure screw is tightened to the recommended tightening torque, the piston has reached the bottom of the bore. ETP-POWER has created a uniform surface pressure against the shaft and hub.
**TOLERANCES**

Shaft k6-h7 for d = 19, 22, 24, 28, 32, 38 mm.
Shaft h8 for all other dimensions d.
Hub H7.

**Type of torque**
- Transmittable torque, T, is for static load.
- If the load is alternating or pulsating torque, reduce the transmittable torque, T, with the following factors: (factor x T).
  - Alternating: 0.5 x T.
  - Pulsating: 0.6 x T.

For further information see section Technical information/Design tips, page 52-55.