

DESIGNED

for ultimate performance



GripCon Axial and radial force transmission in reachable never seen before compactness

SCHAAF GripCon takes all of the leading design principles and advantages of ExpaTen and raises hydraulic coupling bolt design and performance levels to a new level. Designed for weight, cost and space saving applications, GripCon offers maximum product safety, cost saving, reliability and total performance for all power bolt connections. The patented SCHAAF design technology offers a complete lifetime guarantee even after a multiple installations and removals.



Advantages

Due to expansion and interlocking of the sleeve into the bore surfaces, the following advantages are given compared to normal bolt connections:

- No nuts for flange connections, thus significant cost reduction
- An approximate 50 % weight reduction
- Lower manufacture investment for significantly less connection elements
- No more thread cutting in stud holes necessary
- No protruding threads or nuts better design and higher efficiency of rotation machines
- No conventional bolt connection elements
- Significant mounting time reduction because of less connection elements
- Significant less mounting and dismounting space needed
- 100 % form fit and frictional connection anytime after mounting, no slipping of flanges
- Simple and quick installation and removal of GripCon even after years of use
- Reusability after removal again and again no spare parts necessary



SCHAAF develops and produces world leading technology in the field of joining technique in all sectors of the industry.

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More advantages due to SCHAAF know how

Due to the radial expansion of **GripCon** during axial force transmission and the special surface geomety of the expansion element, an unprecedented component connection is achieved.

- Torsion and bend-proof connection even with sudden changes of rotational speed, the torque or the direction of rotation respectively load
- No more seized bolts, no more shrinking of over size bolts necessary
- High torque and shear force transmission completely free from backlash with additional axial force



Due to the in-house design and development departments, constructed components are pre-tested for material fatigue in special applications. Thus, the optimum stability is simulated prior to the manufacture of connections in the development process. This procedure guarantees the maximum endurance of SCHAAF components in use. The FEA analysis also guarantees the continued product life time guarantee.



The SCHAAF **Bolt Tensioner (SSV)** and **Hydraulic Nut (HM)** provide pure axial tensioning without the need to tension the screws by turning, offering convincing benefits to all customer applications. Beside some standardised product lines, the design-on-demand CAD system offers quick implementation and adjustment to customer requirements. On the basis of axial tensioning, many patent-registered special solutions have been developed in past years.



The new product group PG 48 is an economic and effective axial bolt tensioner using torque. With **MSN-Multiple Stud Nuts**, the bolt which is tensioned stays absolutely torsion-free and avoids unnecessary component attenuation. The **MSN** can be mounted and dismounted without special tools and stay on the bolt respectively component connection. The economic utilisation of the main bolt is improved.



The manufacture of all seals happens inhouse and guarantees maximum load capacity and endurance. Selected and accurate treatment of material live up to the high quality standards of SCHAAF.



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