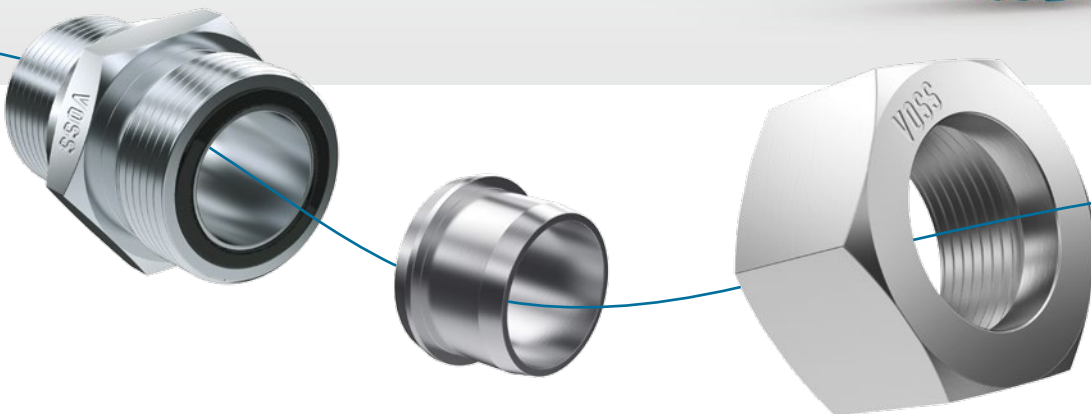
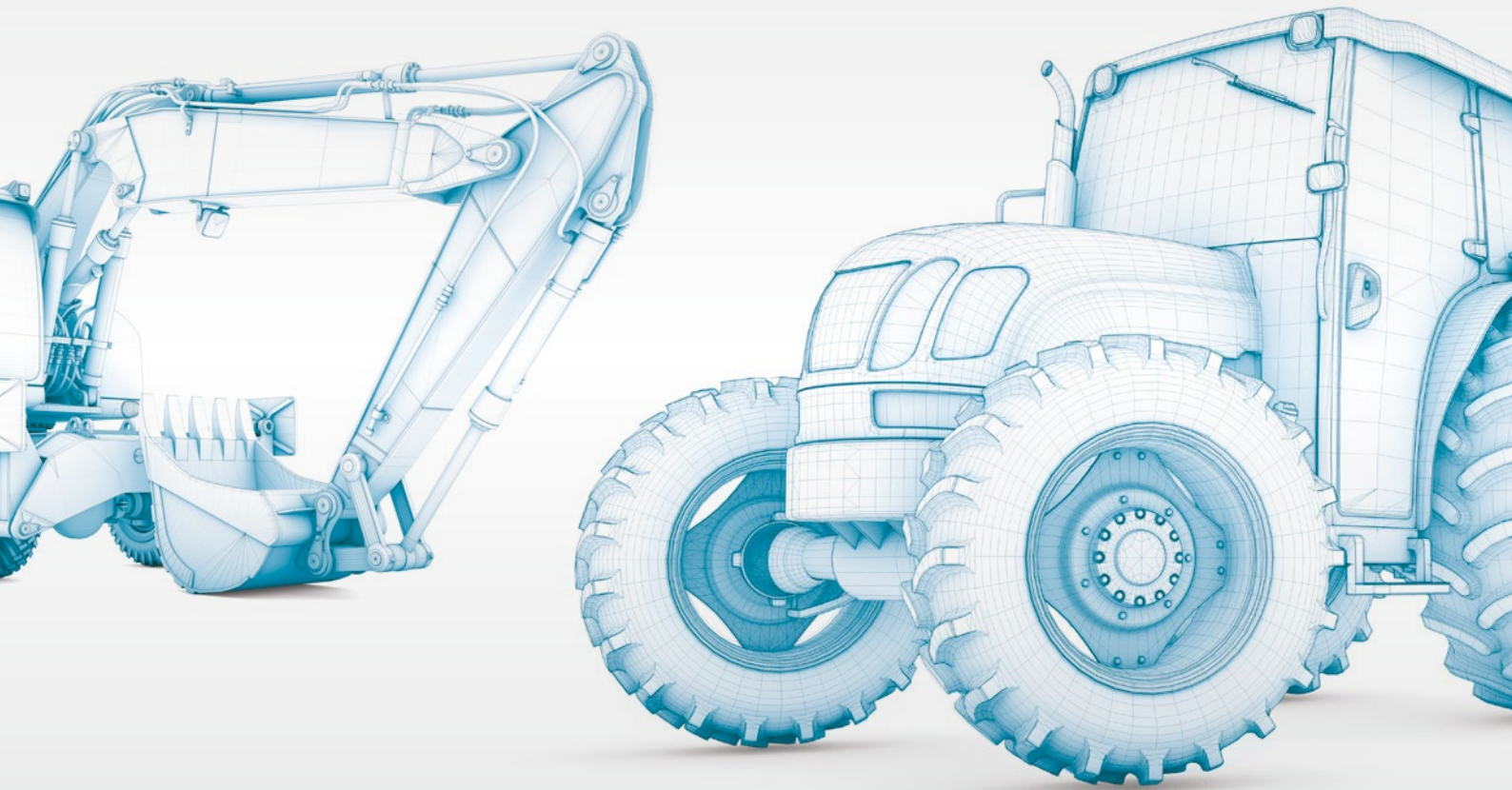


VOSS

Impressively unimpressed even under high pressure –
The VOSS VFS 90 flared coupling system

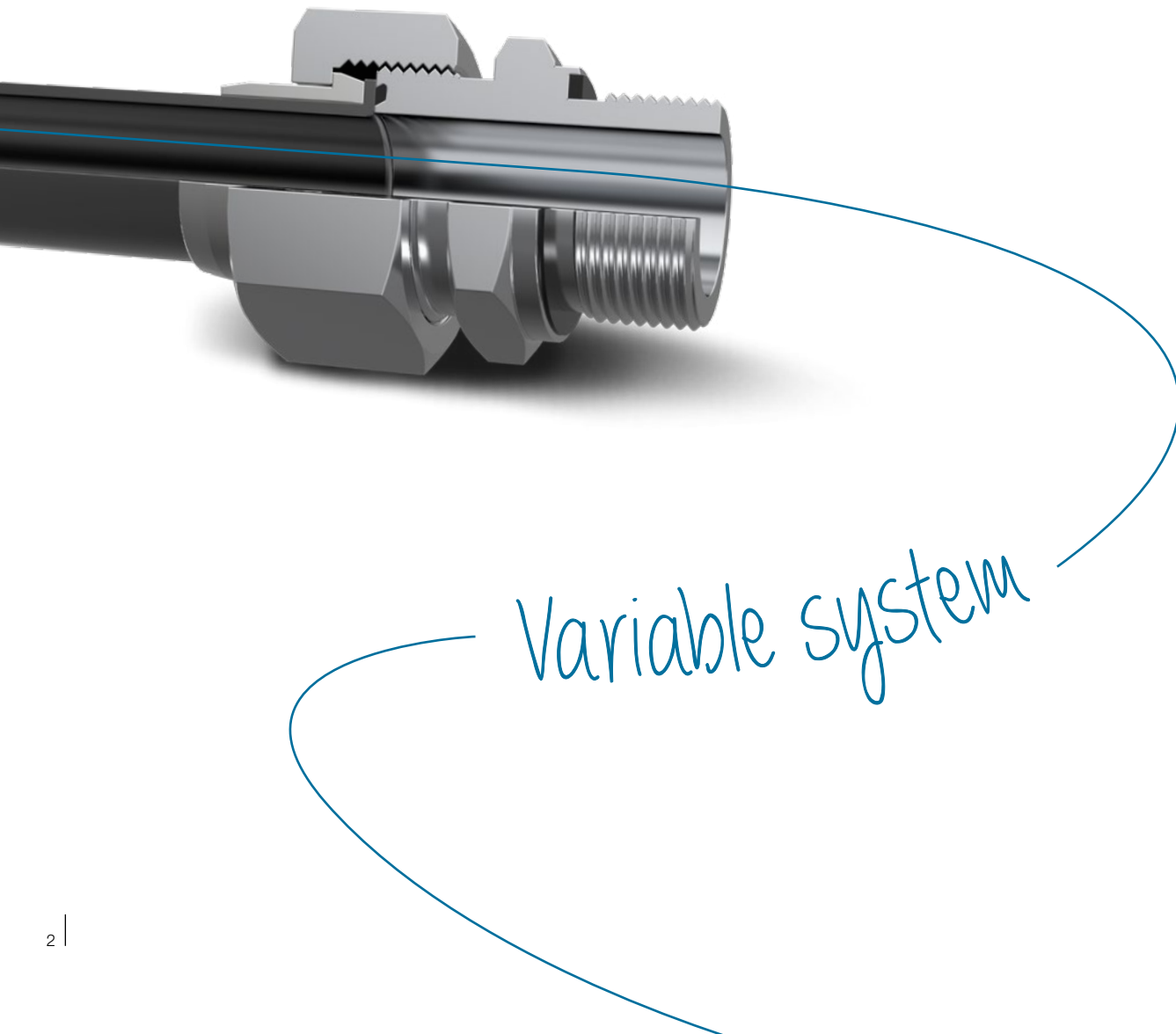


www.voss-fluid.net

Rugged and user-friendly

Compared to metal-on-metal connections, the elastomeric seal on 90° flared couplings provides optimized leakage protection in continuous use – even under the most extreme vibration loads. Today, this type of connection is one of the most trusted solutions in mobile hydraulics. A number of globally active original equipment manufacturers of mobile utility machinery use this simple yet ingenious functional principle.

Our VOSS VFS 90 flange system is based on the widely used connection standard as per ISO 8434-3 or SAE J 1453, which is used in construction and agricultural machinery and many other hydraulic applications – whenever high pressures need to be managed reliably and leak-free.



Variable system

A gain in reliability

The VOSS VFS 90 flared system primarily compels with its leakage protection of the soft seal functional principle, as well as its user-friendliness and adaptable assembly. This is further enhanced by its highly corrosion-resistant VOSS coat surface treatment in the trusted superior VOSS quality.

What does „user-friendliness“ and „adaptability“ specifically mean for the user? Inserting the tube into the coupling is eliminated during assembly. And due to its outstanding compatibility with hose connections, the soft seal VFS 90 connection is exceedingly suited as a maintenance and repair solution. The use of matching sleeves allows metric as well as inch tubes to be adapted to the same connection components, making this connection system particularly flexible and cost-effective.

The most important features at a glance

- Soft seal connection with superior leakage protection
- Suited for high operating pressures up to 630 bar
- Variable tube connection due to a wide range of possible combinations
- Simple and fast assembly due to radial installation
- Maintenance-friendly due to problem-free repeated installation capability
- Superior corrosion-resistance – thanks to VOSS coat



Uncompromising corrosion resistance

All components of the VOSS VFS 90 systems have been treated with VOSS coat as a standard surface. Our innovative and environmentally compatible corrosion protection is free of hexavalent chromium and meets the most demanding corrosion resistance needs.

VOSS coat guarantees longest service life

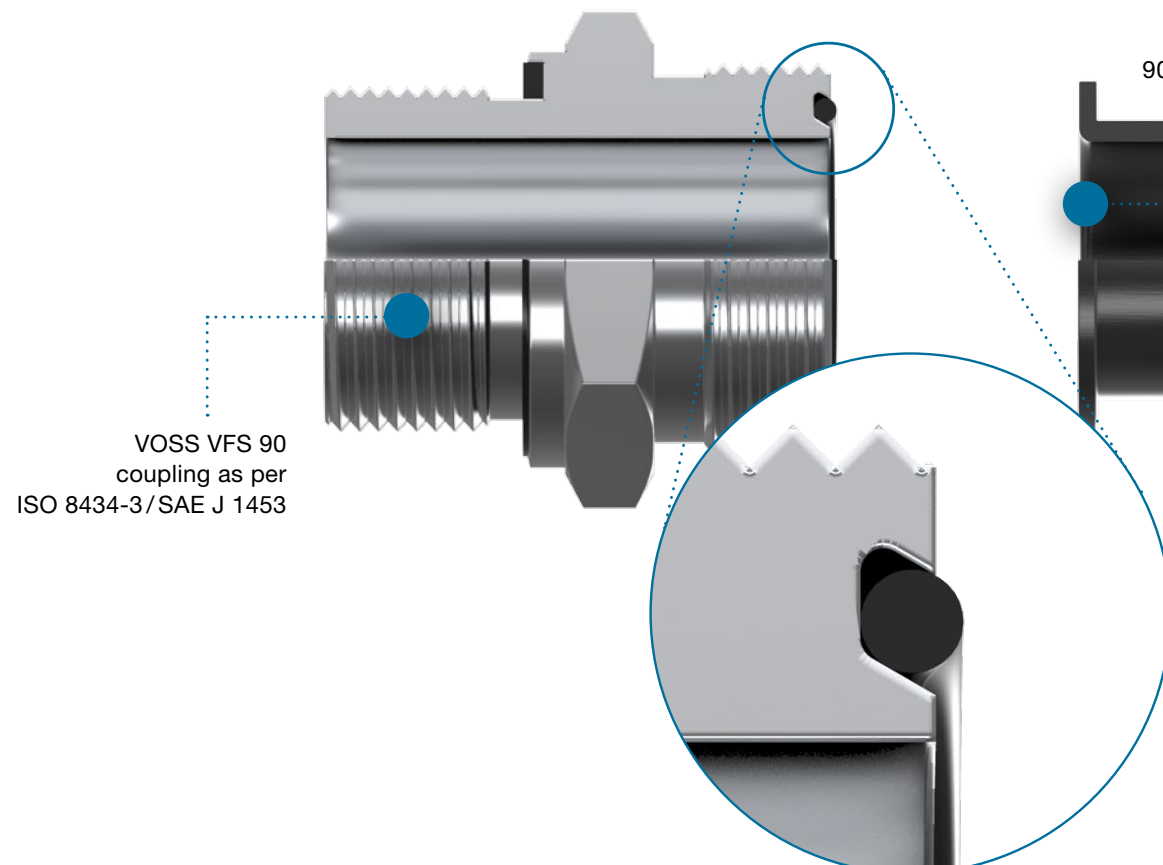
- 1,000 hours of corrosion resistance in salt spray tests under field conditions
- More than 2,000 hours of corrosion resistance in salt spray tests under laboratory conditions in the uninstalled condition
- Much higher resistance to damage affecting the base coat
- Sustainable production due to state-of-the-art electroplating plant

Four components working as a system

All connection components are ideally matched to ensure maximum leakage protection and particularly user-friendly assembly. The VFS 90 System consists of a coupling with an O-ring seal on the front face, a 90° flared tube end as a mating seal surface (alternative a brazed sleeve), a support sleeve and the VFS 90 union nut.

Coupling with integrated O-ring

The coupling of the VFS 90 flared system can be universally used on a wide range of tubes with metric and inch dimensions. This helps to effectively reduce warehousing costs. The integrated O-ring is located on the front face of the coupling to ensure the leakage protection of the soft seal system. In addition, the special geometry of the O-ring groove protects the soft gasket against loss or pinching during the assembly process. All connection components are additionally shipped with an integrated O-ring cap for maximum assembly reliability. It goes without saying that the VOSS VFS 90 flared system offers a wide range of thread geometries, thread types and seal types.

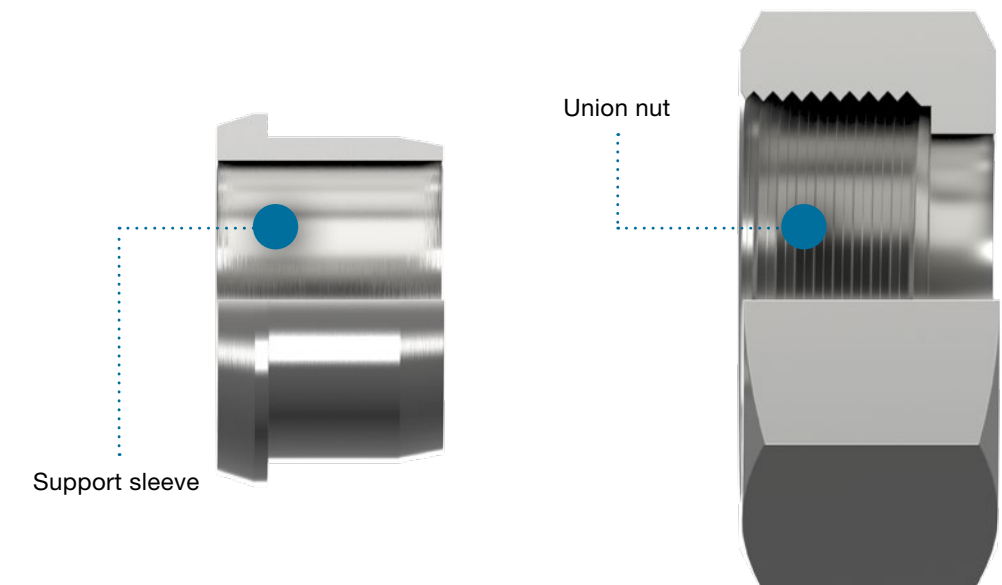


90° flared tube end

The tube-sided mating seal surface for the O-ring that is seated into the coupling either forms the tube end with 90° flare or the front face of a brazed sleeve that is brazed to the tube end. All commercially available inch and metric tube dimensions can be connected with the VFS 90 system.

Support sleeve for maximum strength

Sufficient margin for dynamic loads is provided by the support sleeve that slides directly over the tube end by providing additional support in the flared area. The support sleeve also shines in terms of its cost-effectiveness due to its adapter function: the support sleeve can be adapted to various tube diameters. A brazed sleeve that does not rely on the prior flaring of the tube end can also be used as an alternative to the support sleeve. In this case, the end of the tube is brazed directly to the sleeve. The brazed sleeve then forms the seal surface to the O-ring seated in the coupling.

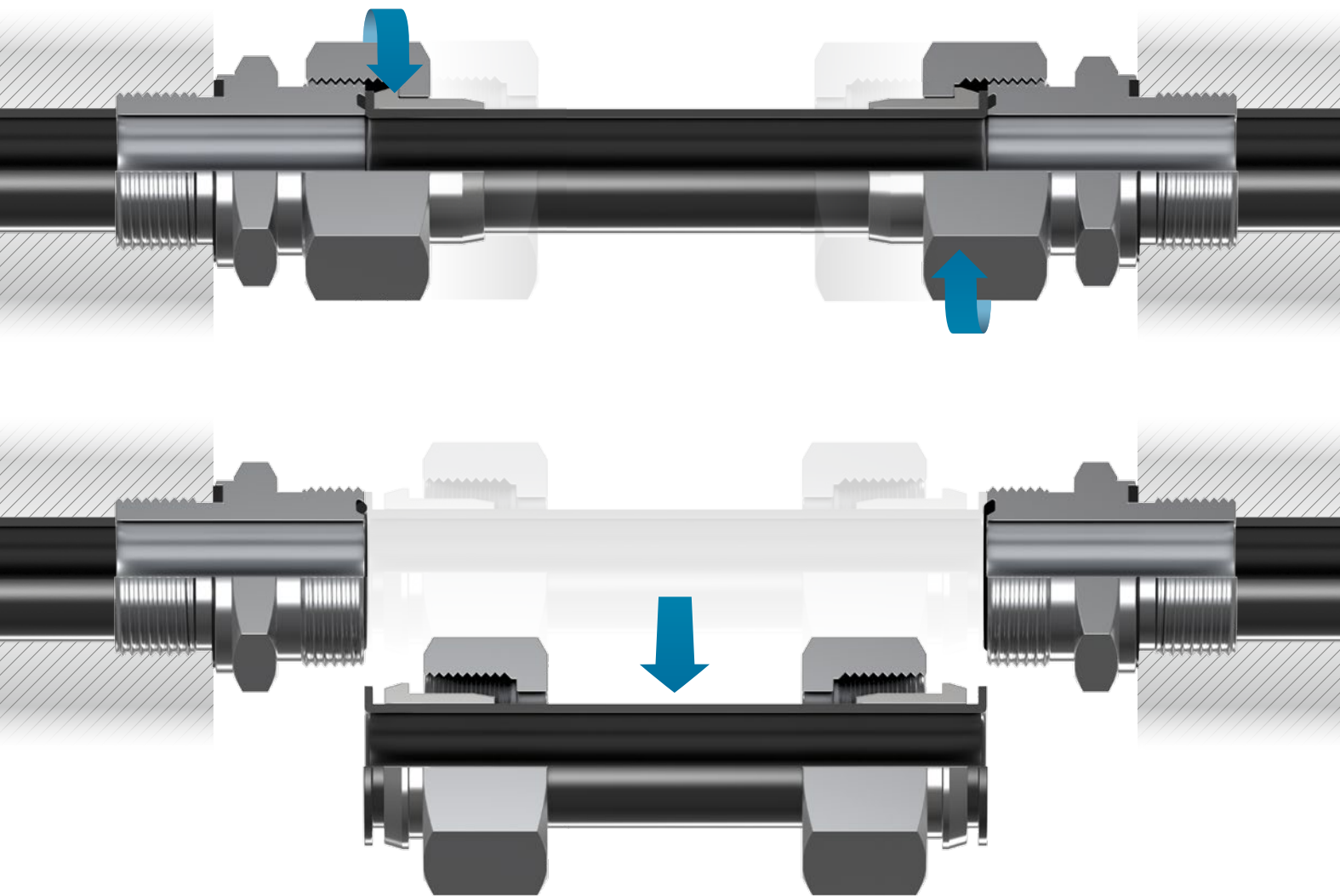


Easily installed union nut

Like the connection piece, the VOSS VFS 90 union nut is universally usable. Warehousing costs can be cut here as well. Since the diameter of the inside bore on the union nut is much larger on these systems, the union nut can frequently be pushed even over tight tube elbow bends in a user-friendly manner. This also simplifies the downstream assembly process since the support sleeve centers the nut on the tube, allowing it to be threaded on with greater ease.

Radial installation and dismantling save time and money

A special advantage of the VOSS VFS 90 system is that it supports radial installation and dismantling of tubes. This requires neither loosening of a mating location nor inserting the tube into the coupling. This cuts down on assembly and dismantling time and saves money. As a result, final assembly is possible quickly and easily even when space is tight – even when connecting hydraulic hoses. The direct contact of the sealing surface on the flared tube with the coupling greatly reduces the risk of over-tightening. In conjunction with the problem-free repeat assembly capability, this increases the reliability of the entire assembly process.



Many versions for commercially available form factors and sizes

The VOSS VFS 90 system is exceedingly adaptable: This is demonstrated by the broad spectrum of the product range. It is worth noting that the wide range of couplings give the user a large number of possible combinations with respect to form factor and size. The support sleeve on the VOSS VFS 90 system also has an adapter function: the sleeve allows couplings and union nuts that are compatible with each other to be assembled with different tube diameters. Using the same components also reduces warehousing costs.

We offer a complete product range for the VFS 90 system with a wide range of sizes, inch and metric thread dimensions, types, check valves, and many other components.



VOSS



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