

# Services

- Lower process costs
- Reduce throughput times
- Increase process reliability by applying individual logistics solutions

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### Value Added Solutions

# Corrosion protection specialists

# Intelligent logistics systems

# Solutions for highest efficiency

The high value which VOSS Fluid products and services add to the customer's own products and systems offer sustained technical and economic advantages. This added value is defined in terms of core skills in the three fields: development and production, long-term corrosion protection, availability and services.



Permanent critical observation of our own processes, ongoing investments and the employment of qualified skilled staff are constantly opening up new improvement potential for our customers.

## Values added by VOSS Fluid

### Solutions for highest efficiency

... improve the economic advantages wherever tube couplings are used in your company.

The high quality and user-friendliness of VOSS Fluid product solutions ensure sustained leak-tightness at all times with no negative effect on overall system costs.

- High process safety in assembly / installation processes
- Short assembly/installation times / high productivity
- No reworking required
- Permanently leak-tight connections
- Use of optimum components and systems
- Improved product quality
- Reduction of production costs

### Corrosion protection specialists

... protect your machinery and plants against corrosion for their entire service life!

Corrosion protection by VOSS coat as a standard feature, and VOSS's own electroplating plant ensure sustained process reliability and stability.

- Best available corrosion protection in hydraulic connection engineering
- System selection assistance
- Optimum matching of VOSS components, allowing ease of assembly and installation
- In-house electroplating processes optimized to avoid thread damage
- Constant further development of surface treatments to reduce corrosion and increase ease of assembly
- Optimization of your corrosion protection measures
- Improved customer satisfaction

### Intelligent logistics systems

... provide intelligent logistics, specially tailored to your needs!

Maximum possible regional availability and wide range of services optimize the supply chain at the customer's end.

- Delivery service performance level > 99 %
- Reduction of your stock volumes and re-stocking times
- No special materials management needed
- Complete support for introduction of KANBAN
- Analysis and documentation of consumption
- Web-KANBAN for online monitoring of your entire fluid coupling logistics
- Simplification / automation of your supply chain
- Reduction of your material management costs





# Maintain safety through adequate training

# 'VOSS-quality' assembly training and audits



Leakages are the worst enemy of hydraulic systems. There are many potential causes of faults, but human error is usually the key factor. Only highly-qualified staff can detect error potential at an early stage and thus avoid errors. VOSS offers regular training courses, both at our Wipperfurth facilities and at the customer's own premises, anywhere in the world. In our assembly audits, we watch your staff at work, analyze processes, inspect assembly workplaces and equipment and then work out tailor-made training measures to enhance your company's sustainable productivity. Less faults, faster results, lower costs.

- Assembly training courses to qualify staff, including both theory and practical training
- Assembly audits for process safety and reliability: inspection of all assembly processes, including checking pre-assembly devices and tools on site

## Lower costs by C-parts management

# Savings potential

Only a fraction of the costs of hydraulic coupling components are caused by the actual product.

Logistics make up a disproportionately high share of the costs, since these components belong to the C-parts range. However, if any of these components is missing, the assembly process is disrupted just as much as if an A-part is missing.

## C-parts management

"VOSS Fluid" is aware of its customers' specific needs and has logistics systems and solutions in place which save process costs, reduce throughput times and ensure high process reliability. The key to this solution is called "individuality".

In cooperation with the customer, VOSS develops and implements logistics solutions based on the individual application case. The following examples show how VOSS Fluid has rationalized logistics processes by the use of C-part management.

- Card Kanban
- 2-bin Kanban
- Web KANBAN
- Kit service
- Immediate service
- FD

Further information upon request.

Total costs "Hydraulic connection"		
Product	Price	15-25 %
Logistics	Identification of needs Purchasing administration Incoming goods receipt Packaging and disposal Quality management and testing costs Warehousing and logistics Inventory costs Transportation Assembly line supply Down-time costs	75–85 %
Total		100 %





## Certification and approvals

VOSS Fluid has been certified by TÜV Rheinland in accordance with DIN EN ISO 9001 and DIN EN ISO 14001.

The most common VOSS tube couplings are approved by all major certification companies.

- Germanischer Llovd
- Det Norske Veritas
- Lloyds Register of Shipping
- Bureau Veritas
- American Bureau of Shipping
- US Coast Guard
- ABS
- Russian Maritime Register of Shipping
- DVGW
- Deutsche Bundeswehr (German armed forces)
- Technical committee "Maschinenbau, Hebezeuge, Hütten- und Walzwerksanlagen" (MHHW) of the HVBG-BGZ [umbrella organization of German trade associations]
- TSSA

We are happy to inform you of further certifications upon request.

## Approvals for gas applications in accordance with DVGW\*

The following VOSS Fluid tube couplings have been approved by the DVGW for gas applications (gas transport, plant construction, natural gas filling stations, gas-fuelled vehicles, liquid gas systems):

- VOSS 2S cutting ring couplings
- VOSS 2S plus cutting ring couplings
- VOSS ES-4 cutting ring couplings
- VOSS BV-10 flared couplings
- VOSSForm<sup>SQR</sup> tube couplings

\* DVGW – German Association of Gas and Water Engineers

Gases approved in accordance with DVGW-Arbeitsblatt (DVGW Code of practice) G 260:

- compressed air
- natural gas
- liquid petroleum gas

(Generally, all combustible gases supplied by public gas supply utilities in Germany are approved).

#### Operating pressure:

A maximum operating pressure (MOP) of up to 250 bar is permitted for the heavy-duty coupling series.

A MOP of 250 bar is permitted for couplings of the light-weight series with tubes of outer diameters up to 18 mm. For tube outer diameters of 22 mm and more, the MOP is limited to 160 bar.

### Operating temperature:

Between - 20 °C and +60 °C

### Attention!

Approvals have been obtained for specific products and models, applications and operating conditions. Since approvals are only granted for a specific limited period, VOSS renews these as soon as they are due to expire. Detailed information is given in the respective approval certificate.

Please request the up-to-date versions of approval certificates from us. We are happy to advise you on all matters concerning certification and approvals.