

Agricultural Machinery



Forestry Machinery



Hydraulic Attachments





The companies in the STAUFF Group offer manufacturers of harvesters, tractors, farm loaders and other agricultural machinery as well as their suppliers, sub-suppliers and service providers an extensive range of original STAUFF products, some of which were specially developed for these complex applications or adapted and optimised continuously.

The portfolio includes hydraulic line components such as tube clamps and hose clamps, tube connectors including powerful assembly machines, flanges, hose fittings and couplings as well as filters, measuring equipment and other accessories for tank, container, drive unit and gearbox manufacturing for mobile hydraulics. These products from in-house development and manufacturing can be supplied all over the world at competitive prices and with a high level of availability from stock. STAUFF branches and a close network of authorised sales and system partners provide often unrivalled fast deliveries – precisely to any location worldwide.

The range is completed by countless special variants and system solutions, which are implemented based on customer requirements or in-house developments.

All STAUFF products undergo relevant testing in accordance with international regulations and are governed by the high standards of the in-house quality management system. Furthermore, many items have received certifications and approvals from various international institutes, organisations and authorities who have independently confirmed the quality and performance of the products.



Quality Management – ISO 9001:2015
Environmental Management – ISO 14001:2015
Safety Management OHSAS – 18001:2007
Energy Management – ISO 50001:2011

The use of components in agricultural machinery places high demands on the corrosion resistance of hydraulic line components, such as tube and hose connections and fasteners. They are not just exposed to usual weather and climate-related hazards, but frequently come into contact with particularly aggressive substances: with fertilizers containing phosphate or nitrogen, pesticides, cleaning concentrates, hydraulic, lubrication and engine oils, fuels, coolants, brake fluids and other media.

For the finishing of the range of components in carbon steel, STAUFF relies on the STAUFF Zinc/Nickel surface coating which has proven successful for many years. It provides reliable surface protection – even after transport, handling and assembly and under the most adverse conditions – and meets all current legal requirements.



During field trials and in a test rig in the STAUFF Technology Centre in Werdohl (Germany), that was specifically developed to determine the resistance of materials and coatings, components are challenged with particularly aggressive media



Selected Hydraulic Line Components for Agricultural and Forestry Machinery as well as Hydraulic Attachments

STAUFF Clamps



STAUFF Pipe, Tube and Hose Clamps according to DIN 3015

Most Economical Solution available for Quick and easy Installation of Pipe, Tube and Hose, Cables and other Parts

Environmental Protection due to Vibration-damping and Noise-reducing Features

- Suitable for most common Metric and Imperial Diameters
- Suitable for Various Types of Mounting such as Single or Multi-level (Stacking), Weld Plates or Channel / Mounting Rails
- Clamp Bodies made from Various Thermoplastics, Thermoplastic Elastomers or Aluminium – Shock-absorbing and Noise-reducing Elastomer Inserts available (**STAUFF NRC Clamps**)
- Mounting Hardware available ex stock in Steel and several Stainless Steel qualities
- Zinc/nickel Coating of Steel Parts guarantees optimal Corrosion Protection
- Excellent UV, Weathering and Chemical Resistance – even under Extreme Conditions

Light Series Clamps Type LBBU

Compact and Light-weight alternative for Applications with Limited Space

Environmental protection due to Vibration-reducing and Noise-reducing Features

STAUFF Connect



24° - Tube Fittings with soft seals from STAUFF are particularly suitable for use in agricultural and forestry machinery. The soft seals ensure the last possible leakage path, which is an important contribution to environmental protection. Adjustable Elbow or Banjo Elbow Fittings from STAUFF can be easily connected to Hose Connectors with DKO connections, for example, which can compensate for movements and unevenness in attachments, among other things.

- Banjo Elbow Type FI-RSWND with Taper, Retaining Ring and Captive Seal
- Adjustable Elbow Type FI-EWD with 24° Taper/ O-Ring
- 24° - Tube Fittings with Soft-Sealing Cutting Ring

STAUFF Flanges



SAE Flanges

- 3000 / 6000 PSI Series according to ISO 6162
- Safe and Leak-free alternative to regular Tube Connectors, available in Steel and Stainless Steel
- Continuous high Pressure Level

Gear Pump Flanges

- Wide Range of different Variations, divided into Various Types, such as a Straight or 90° Design
- Three-hole or Four-hole Fastening Manufactured according to German and Italian Connection Standards

STAUFF Quick Release Couplings



STAUFF Quick Release Couplings are suitable for use in Agricultural and Forestry Machines

▪ **Flat Face Push-to-Connect Couplings of the FF Series according to ISO 16028** can be manually connected in combination with Male Tips of the **FC Series according to ISO 16028** up to 250 bar (3626 PSI) residual pressure on the male side. Likewise, a maximum operating pressure of 350 bar (5076 PSI) can also be achieved in combination with male tips of the STAUFF FC Series. **Colour Marking Rings** are available for both series.

▪ **Push/Pull Push-to-Connect with Poppet Valve of the HP Series according to ISO 7241-1 A and ISO 5675** can be connected under pressure with male tips of the **HU Series according to ISO 7241-1 A**. A reliable ball locking system keeps the two halves together and can additionally be installed as a breakaway coupling. For the HP Series are colour marking rings or in the AP or ZP Series are dust caps for couplings with marking clips available.

▪ Female Bodies of the **UX Series according to ISO 7241-1 A** can be connected by hand under full working pressure in the Male Tip of the HP Series with low connecting forces and installed as a breakaway coupling. The design of the push/pull UX Series have a high-flow valve unit with return volume flow up to 240 l/min.



Selected Hydraulic Line Components

for Agricultural and Forestry Machinery as well as Hydraulic Attachments

STAUFF Hose Connectors

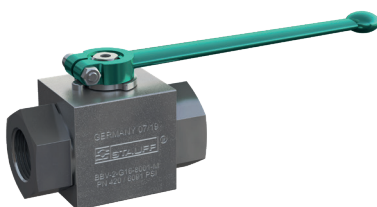


The STAUFF **ECOVOS** system of hose connectors enables crimping of many different hose types (1SN, 2SN, 1ST, 2ST, 1SC, 2SC, 1SN-K, 2SN-K, 2TE, 3TE, 4SP, SPC3 and 4SH) with only one hose insert profile, which results in an immense reduction of endless product varieties.

The use of identical parts with **ECOVOS** means a reduction of individual components by approximately 45 per cent.

- Skive and Non-Skive Swage Ferrules for Braided and Spiral Hose, Compact Braided Hose and Hose with Textile Insert
- Straight Inserts in all common connection types
- 45° Elbow Inserts in all common connection types
- 90° Elbow Inserts in all common connection types

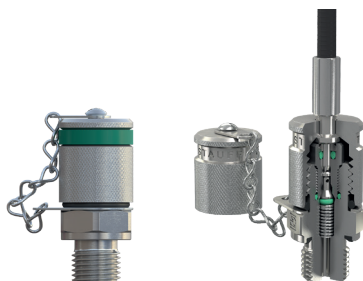
STAUFF Valves



Ball Valves

- Two-way and Multi-way Ball Shut-off Valves
- Block, Forged or Round Body Design, available in Steel and Stainless Steel
- Various Threaded or Flanged Connections

STAUFF Test



Test Points / Hoses

- Leak-free Connections to Fluid Power Systems for Monitoring System Pressure
- Used at Full Pressure without Machine Downtime
- Venting of Fluid Power Systems
- Obtaining Representative Fluid Samples
- Colour Marking Rings to Distinguish Between Different Criteria

Tube and Hose Assemblies from Port to Port

Production and pre-assembly of custom-designed, ready-to-install hydraulic line systems, units and modules:

Tube Manipulation

- Seamless precision tube made from carbon steel (Zistaplex®, Zista® Seal, zinc-plated, phosphated, untreated), stainless steel and special materials
- Large variety of tube diameters and wall thicknesses
- Optimum tube preparation from cutting and deburring to cleaning; automated bending precision
- Cleaning of processed tubes in order to achieve specific cleanliness levels and requirements
- Capping and protecting the tube ends

- Assembly of cutting rings
- Flaring and forming of tube ends
- Welding, brazing and soldering
- Pre-assembly of additional system components (clamps, flanges, ball valves, distributors etc.)
- Combination of several individual tubes to complex units and modules
- Capping and protecting the tube connectors and other connection pieces

Hose Assemblies

- All hose types commonly used in hydraulic applications
- Hose connectors with interlocking protection
- Optimum hose preparation from cutting and skiving to cleaning
- Testing according to standard or customer's specification
- Cleaning of processed hoses in order to achieve specific cleanliness levels and requirements
- Capping and protecting the hose connectors



STAUFF LINE Value-Added Services



If desired, Original Equipment Manufacturers can be supported with value-added services, from **technical consultation** to **pre-assembly, assembly and kitting** as well as **logistics services**:

- Support with the **selection of suitable standard components** and ordering options; provision of **customised solutions** according to customer's specifications or based on our in-house development – from prototyping to large scale production
- **Analysis and optimization** of existing and design and developments of new systems aimed at increasing the efficiency and performance of machines and equipment and creating value for customers by reducing the total cost

STAUFF products for use within hydraulic lines are increasingly being developed with a uniform, coordinated quality and design. A large part of the range manufactured from steel features the high-grade STAUFF zinc/nickel finish. This ensures reliable corrosion protection which – even after transport, processing and assembly of the components – far exceeds the previous market standards, while also meeting all currently applicable legal requirements. The high-quality appearance supports the positive overall impression of the machines.

With the STAUFF Line concept, STAUFF offers mechanical engineering companies and line builders delivery of individual components for original equipment, as well as the option of procuring individually tailored hydraulic lines, assembled ready for installation, and complex line systems from connection to connection.

As a true one-stop supplier, the company allows customer to gain cost advantages in procurement by reducing the number of suppliers, bundling orders and shipments, reducing stock for individual items, reducing assembly times and increasing assembly reliability by avoiding assembly errors.

STAUFF products are not only ideal for OEM use, though. They are also a convincing solution for the maintenance, repair, overhaul and servicing of agricultural machines used on farms, fields, pastures and meadows.

Increase the economic efficiency and performance of your agricultural machines with fluid technology components, systems and added-value services from STAUFF. Let us convince you.



- **Pre-assembly, assembly and kitting** of individual components to customer-specific system modules
- Individually coordinated **procurement solutions** (e.g. web shop and electronic data interchange) and **supply models** (e.g. from warehousing of customised components to Kanban logistics and just-in-time delivery of pre-fabricated system modules to the assembly lines of the customers) aimed at optimising material flows

Performance Features for OEMs at STAUFF

In addition to a long service life, optimum performance and easy application and assembly, STAUFF products particularly impress with the following features, which are particularly important for OEMs in the field of agricultural machines:

- Resistance to particularly aggressive substances such as phosphate-based or nitrogen-based fertilisers, pesticides, cleaning concentrates and quickly biodegradable hydraulic oils as per ISO 15380 (bio oils), including HETG vegetable oils, HEPG polyglycol oils, HEES synthetic esters and HEPR oils
- High resistance to environmental factors such as extreme temperatures and temperature fluctuations, humidity, UV and ozone
- Compact, space-saving and lightweight design which contributes to weight optimisation and lowering of the energy consumption
- Robust, particularly impact-resistant design that resists even the strongest mechanical strains
- Distinct vibration resistance, leak-proof design and tightness
- High resistance to static operating pressures – for agricultural machines sometimes over 400 bar – and permanent resistance to dynamically changing pressure loads, pressure surges and pressure peaks

Selected System and Reservoir Components for Agricultural and Forestry Machinery as well as Hydraulic Attachments



Fluid Level and Temperature Indicators



Tank Filler Breathers



Replacement Filter Elements



Pressure Filters



Return-Line Filters



Spin-On Filters



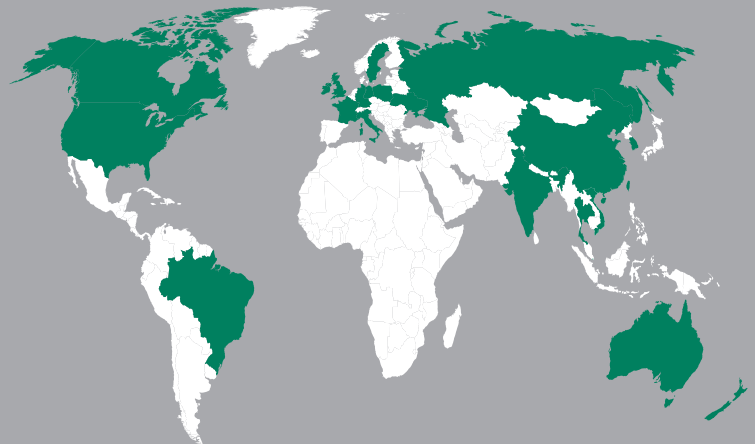
Pressure Gauges



Hydraulic Testers



Agricultural and Forestry Technology



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STAUFF products and services are globally available through wholly-owned subsidiaries and a tight network of authorised distributors and representatives in all major industrial regions of the world.

Contact STAUFF:

www.stauff.com/contact