



Hydraulic Hoses

Hydraulic Hoses



- All standard hydraulic hoses and associated fittings
- From low-pressure to high-pressure hoses (up to 500 bar)
- High-pressure hoses for hydraulic- or water jet applications (up to 3,200 bar)
- Various approval variants available (e.g. GL, LR, DNV, BWB, DGRL, DVGW)
- Manufacture of one-off hose lines up to large volume manufacturing or customer specific special solutions
- Almost all hose line variants available overnight

Hydraulic Hoses



- Connection technology such as: screw fittings, flanges, ball valves, adapters and couplings
- A wide range of accessories such as: threaded connectors, pull-out protection, hose protectors (kink, heat and abrasion protection)



Metal- & PTFE-Hoses

Metal- & PTFE-Hoses



- Special hose lines for solid, liquid and gaseous media
- Single-wall and double-wall hose lines
- Seamless and longitudinally welded, with parallel corrugations
- Resistant to aggressive media, temperature-resistant from -200 °C to +600 °C
- Non-combustible, lightweight and very flexible with excellent reverse bending fatigue strength

Metal- & PTFE-Hoses



- Antistatic design for explosion protection
- Expansion joints for accommodating axial, lateral and angular expansion
- From one-off manufacturing through to high volume manufacturing
- Numerous approval variants and certifications



Industrial Hoses

Industrial Hoses



- Preassembly of industrial hose lines
- Different connection elements and pressing up to 6"
- Wide selection of connection components and accessories
- Over 500 industrial hose articles and 1,400 ancillary parts available from store
- Hoses in accordance with the new ATEX Directive and the German TRBS 2153
- Preparation of inspection certificate 3.1 in accordance with EN 10204:2005
- Preformed hoses, individual solutions for all geometries

Industrial Hoses



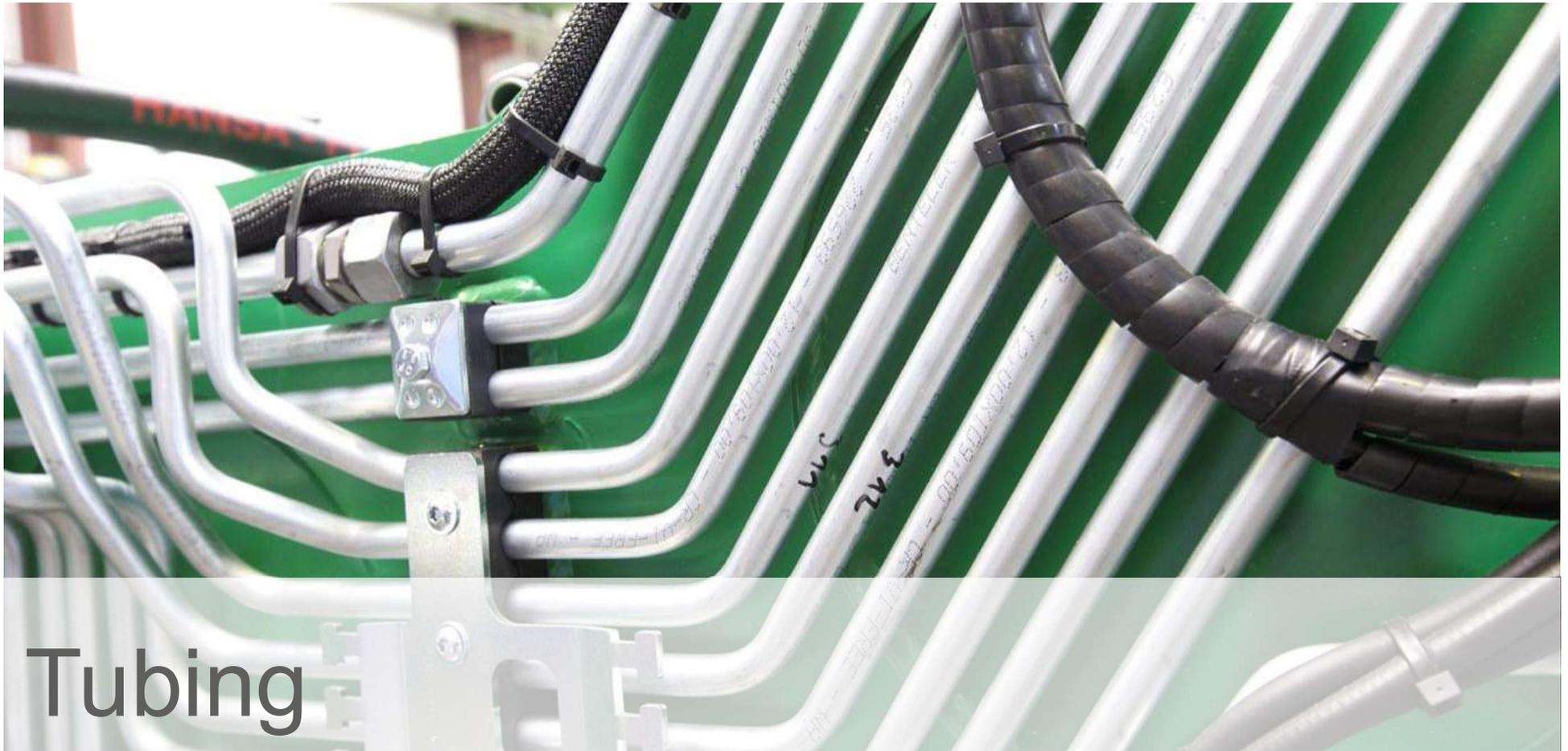
- For the transport of chemicals, fuels, lubrication oils, coolants, foodstuffs, air, water and abrasive media
- Applications range from the chemical, petrochemical industries, construction and tunnel construction to the foodstuffs industry



Fittings & Adapters



- Leak-free connections for your hydraulik applications
- Cutting ring fittings, flanged screw fittings, weld-on and sealing cone fittings,
- Swivel and rotary fittings, connectors, reducers, ISO 8434-1, DIN 2353
- 24°, 37°, 40°, 60°, 74°, BSP, UNF, NPT, JIS, SAE
- Steel, stainless steel, chrome-VI-free, electroplated, brass
- DIN fittings
- clamping technology for pipes, hoses, cables and other components



Tubing

Tubing



- Precision pipes of black and galvanised hydraulic tubes, stainless steel, copper, aluminium or Zistaplex
- Data acquisition from drawings, geometric data, specimen tubes or contact-free laser measurement
- Portable lasers for the measurement of geometric parts on site at the customer's premises
- Computer-controlled CNC bending machines with extreme manufacturing precision
- All standard pipe end preparations, pipe connection technologies and forms of seal

Tubing



- One-off parts, series production or fully preassembled units
- Certified specialist welding operation for consistently high quality (GSI, DIN EN 15085-2, EN 287-1)
- Orbital welding machine for consistently high and reproducible weld quality
- Continuous soldering furnace for hard and high temperature soldering under a protective gas (length 16 m, 1.130 °C, approx. 100 kg/h)



Specialist Fittings



- Production of special pipes and special fittings to suit the customer's wishes
- Multi-bend hose fittings, freely formed adapters and threaded connectors with a wide variety of threads and complex collectors and manifolds
- Special threaded connectors to optimize the pipework layouts, the engineering design or to reduce leaks
- As replacements for standard articles, reduction of the part range and the associated costs
- Production of prototypes, small and large production runs

Specialist Fittings



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Hydraulic Cylinders

Hydraulic Cylinders



- Development and manufacture of hydraulic cylinders in virtually any length and type
- Single or double acting cylinders, telescopic cylinders
- Cylinder with positioning sensor, cushioning or integrated valve technology
- Construction of specialist cylinders using 3D software
- Whether mass production or custom-made item
- Short delivery times and quick availability

- Siehe auch [Sealing Technology](#)
- Siehe auch [Cylinder Repair](#)



Sealing Technology

Sealing Technology



- More than 8,000 standard seals available on demand
- Seals to suit all your requirements: from rod seals to piston seals, from flange seals to flat seals.
- Our product range also includes aluminium or copper seal rings, O-rings, Usit rings, guide rings, U-rings, support rings and wiper seals

Sealing Technology



- Over 350 different semi-finished products in various sizes and materials
- CNC precision production from 5 mm inside diameter to 520 mm outside diameter
- Individual seal solutions available up to Ø 2,500 mm
- One-off parts and small batch production
- Materials: NBR, FPM, EPDM, MVQ, FFKM, PTFE, polyurethane, polyamide, graphite or stainless steel, slide bearings, PTFE, POM, bronze etc.



Filtration

Filtration



- High-quality filter elements to optimize the degree of cleanliness of the hydraulic fluids
- Selecting the correct filters increases the service life and performance capacity of machinery and systems
- A suitable filter solution for all fields of application: suction filter, pressure filter, duplex filter, return flow filter, venting filter and bypass filter
- Servicing to ensure trouble-free operation and increased retained value

Filtration



- Consistent fluid management prevents around 70 % of all system breakdowns
- All measures taken depend on the condition of the oil and are therefore carried out to ensure maximum cost efficiency
- Additional services provided by Fluid Service: oil analyses, cleaning the oil, or cleaning complete hydraulic systems etc.
- Installation and maintenance of partial flow filter systems



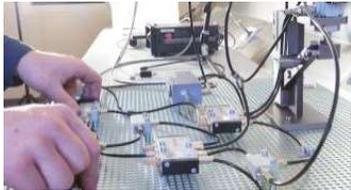


Pneumatics



- Comprehensive range of compressed air products with about 17,500 items
- Maintenance units for compressed air preparation in various sizes
- Linear- and vacuum-technology for precise and smooth movements
- Cylinder in accordance with ISO 6432 and ISO 1552 for high requirements
- Electro-pneumatic valves and centrally controllable ball valves
- Hoses, fittings and connectors, as well as measuring technology and sensors

Pneumatics



- Planning, calculation and implementation of pneumatic controls and pneumatic applications
- Delivery of individual products to complete assemblies or ready-to-install solutions
- Supply of circuit diagrams, parts lists, documentation, certification and test certificates
Maintenance, repair and technical advice
- Compliance with all relevant standards in terms of reliability, air quality and energy efficiency
- Clean, safe, energy- and cost-efficient



Hydraulic Components

Hydraulic Components



- More than 4,500 different hydraulic components from store
- Valves, pumps, filters, tanks, electric and hydraulic motors
- Various assembly components, hydraulic cylinders, flow dividers, measuring technology and a selected 700 bar product range
- Supply of ready-to-install hydraulic assemblies (valve blocks, valve combinations)
- Technical advice, design and recoding

Hydraulic Components



- Design and production of hydraulic cylinders and manufacture of customer-specific seals
- Documentation of testing methods and results



Power Unit Manufacture

Power Unit Manufacture



- Innovative solutions in hydraulic drive and control technology
- Design and manufacture of units, cylinders and special valve blocks
- Planning for entire hydraulic systems, and conversion and expansion of existing systems
- Including electronic controls or proportional technology, with combustion engine or in accordance with ATEX Directive
- Consideration of energy-efficient systems (perfectly coordinated components, not over-sized, use of pressure accumulators etc.)

Power Unit Manufacture



- Technical advice, design and type recoding
- Flexibility through high production depth
- Comprehensive testing and approval methods, 100 % quality
- Repair of pumps, valves and cylinders
- Assembly, installation, commissioning as well as servicing and maintenance of hydraulic systems



Fluid Service

Fluid Service



- Comprehensive analysis and maintenance of hydraulic oil
- Measuring and recording of oil condition for failure analysis in hydraulic systems
- Determination of the number and size of solid particles, viscosity, temperature, relative humidity, pressure, permittivity and polarity
- Cleaning of media, components and complete systems
- Installation and maintenance of partial flow filter systems, flushing units and vacuum dryers
- Mobile fluid service laboratory for oil analyses on site

Fluid Service



- Clean oil increases reliability of the hydraulic and lubricating oil systems
- Malfunctions of hydraulic systems are often caused by oil choice, oil aging or high degree of contamination
- Minimization of component wear, downtime and the associated costs
- Extending the service life of expensive oil
- Production downtimes are reduced and production reliability increased
- Fluid service work depends on the state of the oil and can therefore contribute to cost optimization