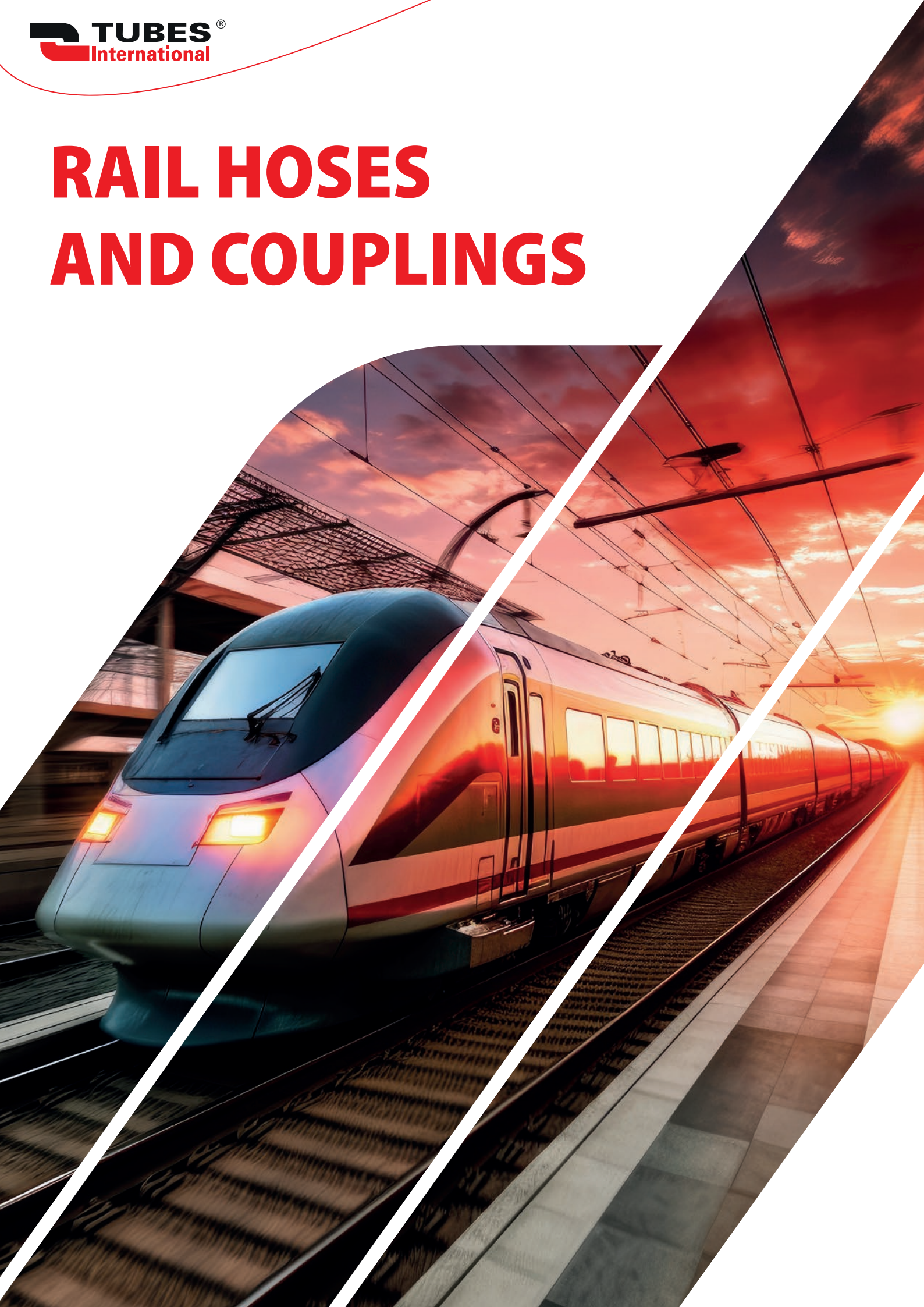
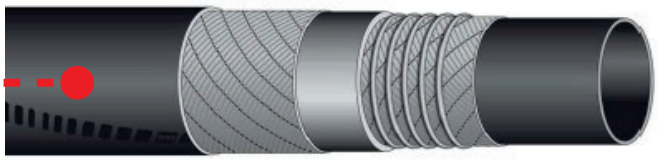
TUBES International

RAIL HOSES AND COUPLINGS



COOLANT HOSE ASSEMBLIES

RAIL HOUSTON/PET ACCORDING TO EN 45545-2



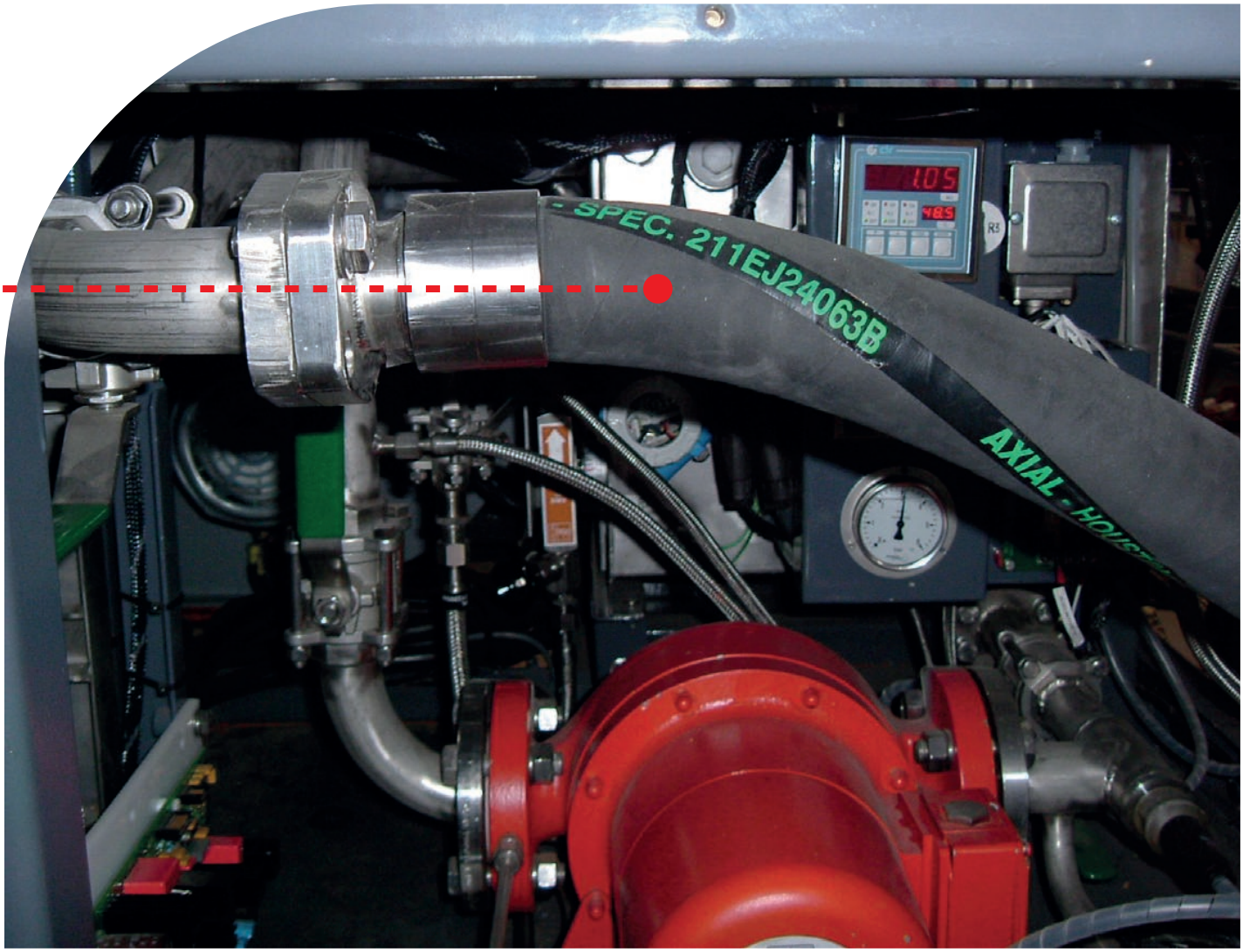
WORKING PARAMETERS:	
Working pressure:	5 bar
Working temperature:	from -40°C to +80°C

DESCRIPTION:

Rail Houston/PET suction-delivery hose made of synthetic rubber compliant to the requirements of EN 45545-2 standard, assembled with SAE flanges.

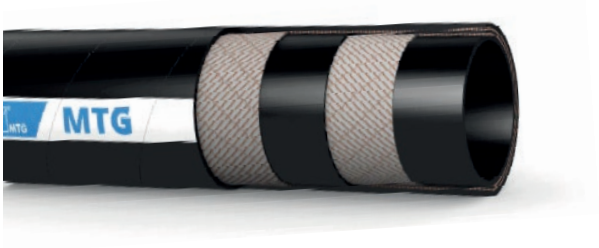
APPLICATION:

Rubber hose assemblies are used to cool the engine of an electric locomotive. They are very flexible and resistant to high temperature. SAE flanges allow fast and easy installation. The hose meets the requirements of EN 45545-2 standard. This standard specifies fire-resistance as well as smoke and toxic emissions of a burning hose.



HIGH-TEMPERATURE HOSE ASSEMBLIES

CORD/CAVI/SIL-NA/8 SILICONE HOSE



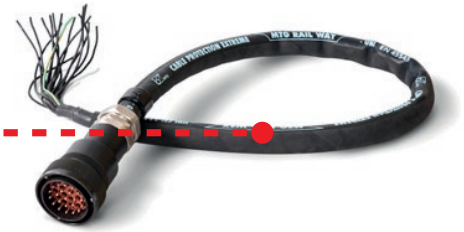
WORKING PARAMETERS:

Working pressure:	8 bar
Working temperature:	from -60°C to +200°C

DESCRIPTION:

Silicone hoses are used wherever resistance to high temperatures is required. The hose meets the requirements of the EN 45545-2 standard at HL2 level for R22 and HL3 for R23.
A suction-delivery version is also available,

as well as a non-pressure version used for shielding electrical cables.



APPLICATION:

They are mainly used in the cooling water circuit of a locomotive engine and for the transport of hot air in train carriage heating systems. They are also used in applications where the outer layer of the hose comes into contact with a hot surface (e.g., in the engine compartment) and for shielding electrical cables (non-pressure version).

HOSE ASSEMBLIES FOR BRAKE SYSTEMS

RAILWAY COUPLINGS

DESCRIPTION:

Rubber hose assembled with special couplings of the "G" type for the main line or type "Z" for the supply line.

APPLICATION:

Couplings are used in railway rolling stock to interconnect main and supply lines of the pneumatic brake system.

HOSES FOR RAILWAY COUPLINGS AND BRAKE HOSES

CORD/46N AB HOSE

WORKING PARAMETERS:

Working pressure:	10 bar
Burst pressure:	75 bar
Working temperature:	from -40°C to +100°C

DESCRIPTION:

Rubber hose made of black, self-extinguishing rubber, reinforced with two synthetic braids. The hose meets the requirements of the EN 45545-2 standard at HL3 level for R22 and R23. On special order, hoses with dedicated fittings meeting the ISO 15540 standard are also available (hose leak-tightness maintained in a flame at a temperature of +800°C for a period of 15 minutes). There is also the possibility to supply the hose with beveled fittings for mounting railway coupling heads.

APPLICATION:

Pneumatic brake supply hoses, pneumatic installations in a rail vehicle.

EC155-18A HOSE

WORKING PARAMETERS:

Working pressure:	10 bar
Burst pressure:	70 bar
Working temperature:	from -40°C to +70°C

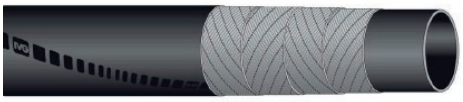
DESCRIPTION:

Highly flexible, kink-resistant pressure hose made of black, self-extinguishing rubber, reinforced with four synthetic braids. The hose meets the requirements of the EN 45545-2 standard at HL1 level for R23, as well as UIC 830-1. On special order, hoses with dedicated end fittings meeting the ISO 15540 standard are also available (hose leak-tightness maintained in a flame at a temperature of +800°C for a period of 15 minutes).

APPLICATION:

Pneumatic brake supply hoses, pneumatic installations in a rail vehicle.

GULL/EN 15807 HOSE



WORKING PARAMETERS:	
Working pressure:	10 bar
Burst pressure:	70 bar
Working temperature:	from-40°C to +90°C

DESCRIPTION:

Flexible and durable hose made of black synthetic rubber with very low toxicity and smoke emission. Halogen-free. It meets the requirements of the EN 45545-2 standard at HL2 level for R22 and R23. There is also the possibility to supply the hose with beveled fittings for mounting railway coupling heads.

APPLICATION:

Pneumatic brake supply lines, pneumatic installations in a rail vehicle.

HOSE ASSEMBLIES FOR AIR-CONDITIONING

PARRAP STEEL HOSE ASSEMBLY

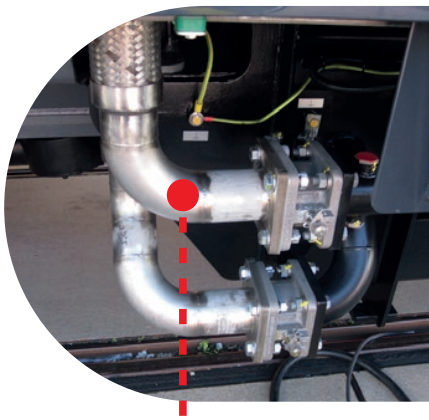
WORKING PARAMETERS:	
Working pressure:	35 bar
Working temperature:	to +70°C

DESCRIPTION:

Corrugated PARRAP hose of AISI 321 steel in braid made of AISI 304 steel. Extremely flexible, meets the requirements of ISO 10380 standard. Assembled with special M28 air-conditioning couplings made of AISI 304 steel.

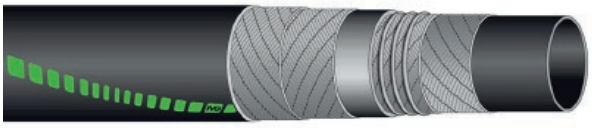
APPLICATION:

The hose assembly is utilized in air-conditioning installations in passenger carriages. It is vital for rail vehicles to contain as little flammable materials as possible, this is why steel hoses are used in these applications. Various configurations of hose assemblies can be formed, e.g. with pipe bent in two planes, with metric threads etc. There is a possibility of producing welded hoses in accordance with the EN 15085 standard.



RAILWAY HOSES FOR OTHER APPLICATIONS

SANITARY PREMIUM HOSE



WORKING PARAMETERS:	
Working pressure:	to 10 bar
Working temperature:	from -30°C to +70°C

DESCRIPTION:

Suction-delivery rubber hose made of black synthetic rubber. It meets the requirements of the EN 45545-2 standard at HL3 level for R22 and R23, as well as BS 6853.

APPLICATION:

Transport of water and sewage in the toilets of rail vehicles.

AIR NF F 11-380/CAT.2 HOSE WITH FITTINGS

WORKING PARAMETERS:	
Working pressure:	10 bar
Working temperature:	to +50°C

DESCRIPTION:

AIR NF F 11-380/cat.2 delivery hose made of synthetic rubber compliant with NF F11-380:2017/CAT.2 standard.

APPLICATION:

Designed for installation in carriages and electric locomotives in compressed air systems in accordance with the NF F11-380:2017/CAT.2 standard.

CAVI 99 HOSE

WORKING PARAMETERS:	
Working temperature:	from -30°C to +80°C

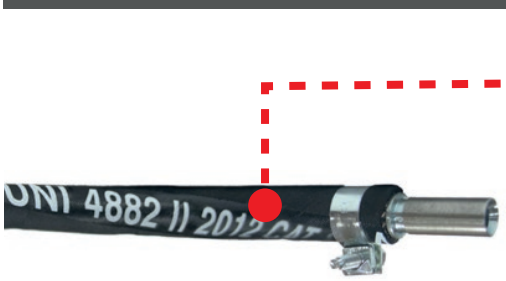
DESCRIPTION:

CAVI 99 rubber delivery hose compliant with EN 45545-2 at HL2 level for R22 and R23 standards.

APPLICATION:

Designed to protect electric cables in trains. Made of special self-extinguishing rubber with low emission of smoke and low toxicity of fumes.

UNI 4882 HOSE WITH FITTINGS FOR PANTOGRAPHS



DESCRIPTION:

UNI 4882 delivery hose made of rubber compliant with: EN 45545-2 at HL2 level for R22 and R23.

APPLICATION:

Designed for pneumatic control of pnatograph, contactors and pneumatic equipment in train and trams. Made of rubber with high resistance to electric surface charges buildup.

CONVER CABLE HOSE

WORKING PARAMETERS:	
Working pressure:	20 bar
Working temperature:	from -40°C to +120°C

DESCRIPTION:

Pressure rubber hose made internally of white synthetic rubber and externally of blue EPDM rubber. Reinforced with a synthetic braid. The hose has very low permeability and electrical conductivity. It meets the requirements of the EN 45545-2 standard at HL2 level for R22 and R23.
Also available in a suction-delivery version.

APPLICATION:

Transport of cooling water, demineralized water, glycol, air, and other mildly aggressive liquids and gases in the electrical installations of rail vehicles.

M2L HOSE

WORKING PARAMETERS:	
Working pressure:	to 2,5 bar
Working temperature:	from -50°C to +150°C

DESCRIPTION:

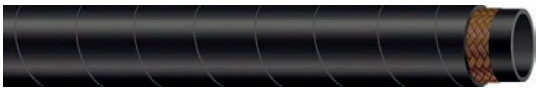
Lightweight, fire-resistant ventilation hose made of white neoprene with a fiberglass coating. Compliant with the EN 45545-2 standard at HL3 level for R1.

APPLICATION:

Ventilation, air conditioning, and heating systems in rail vehicles.

RUBBER HYDRAULIC HOSES

HW-2TE HOSE



WORKING PARAMETERS:	
Working pressure:	to 80 bar
Working temperature:	from -40°C to +100°C (depending on medium)

DESCRIPTION:

Hose made of black synthetic rubber, reinforced with a textile braid. It meets the requirements of the EN 45545-2 standard at HL2 level for R22 and HL3 for R23.

APPLICATION:

Transport of hydraulic oil, air, and other non-aggressive media under low pressure.

HW-1SC HOSE

WORKING PARAMETERS:	
Working pressure:	to 225 bar
Working temperature:	from -40°C to +100°C (depending on medium)

DESCRIPTION:

Hose made of black synthetic rubber, reinforced with a steel braid. It meets the requirements of the EN 45545-2 standard at HL2 level for R22 and HL3 for R23.
Assemblies made with this hose meet the EN 15540 standard.

APPLICATION:

Transport of hydraulic oil, air, and other non-aggressive media under medium pressure.

HW-2SC HOSE

WORKING PARAMETERS:	
Working pressure:	to 400 bar
Working temperature:	from -40°C to +100°C (depending on medium)

DESCRIPTION:

Hose made of black synthetic rubber, reinforced with two steel braids. It meets the requirements of the EN 45545-2 standard at HL2 level for R22 and HL3 for R23.

APPLICATION:

Transport of hydraulic oil, air, and other non-aggressive media under high pressure.

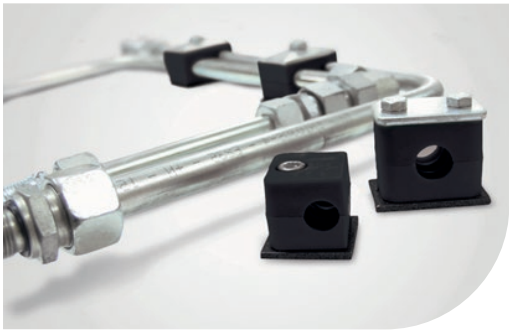
DIN 3015 CLAMPS AND BENT HYDRAULIC PIPES

MATERIAL OF THE CLAMP INSERTS AND THEIR CHARACTERISTICS

Material:	polyamide*
Working temperature:	from -40°C to +180°C

Material:	aluminum
Working temperature:	+350°C

*polyamide PA66 – self-extinguishing, meeting the requirements of fire protection standards in rail vehicles (EN 45545-2, UNI CEI 11170); flammability class according to UL 94-V0.



PROFESSIONAL 3D HYDRAULIC TUBE BENDING

We offer the service of bending seamless hydraulic pipes made of black steel, galvanized, and stainless steel, ranging in diameters from 6 to 42 mm. 3D bending of hydraulic pipes ensures one hundred percent repeatability of manufacture.

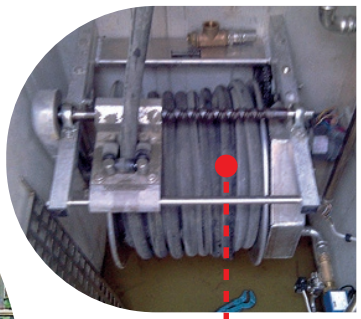
HOSE REELS

DESCRIPTION:

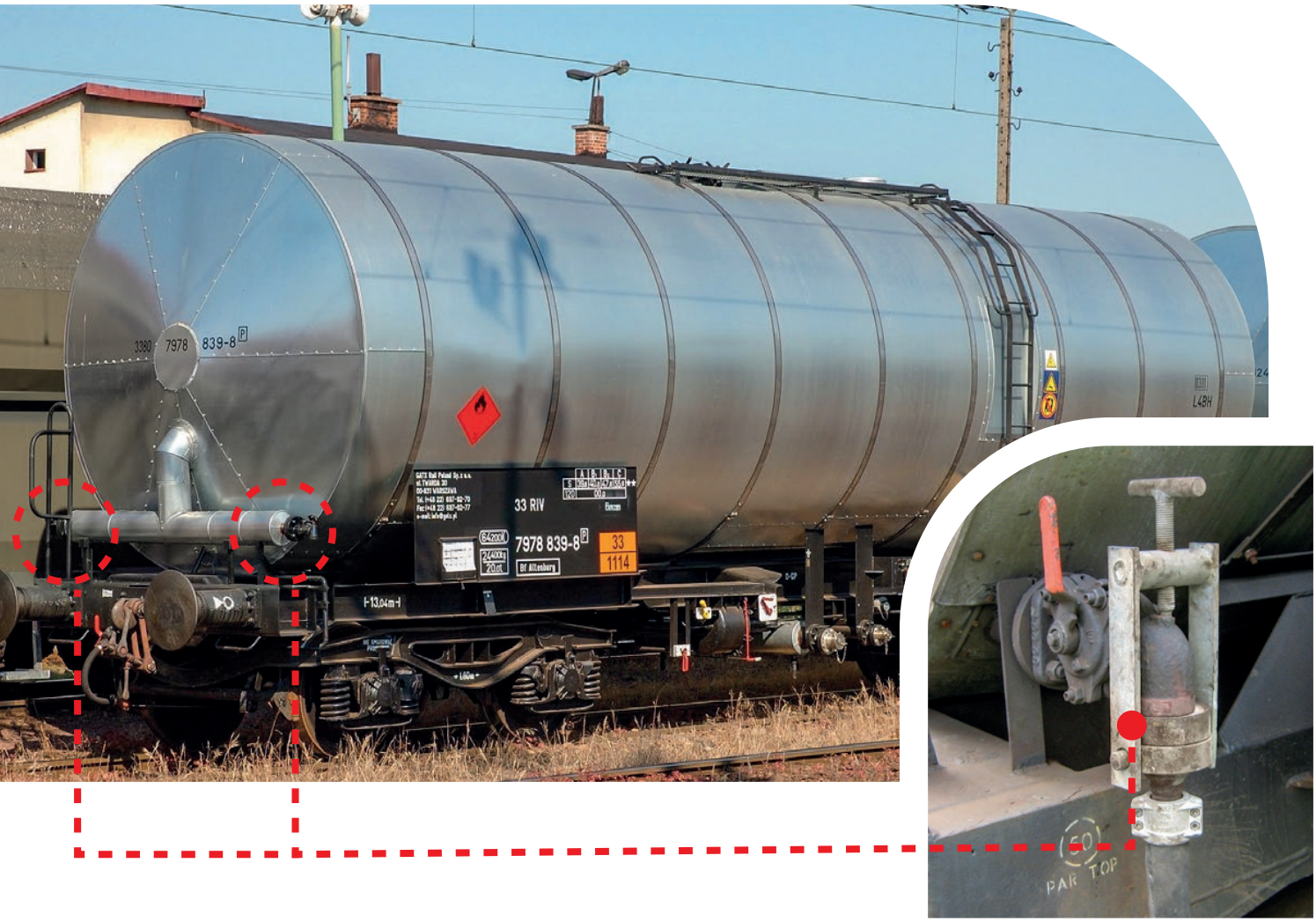
Spring, electric, hydraulic or pneumatic driven hose reels, made of powder coated carbon steel or AISI304 steel. Hose reels are supplied with a hose as a standard, which is selected to match the working parameters (medium in particular).

APPLICATION:

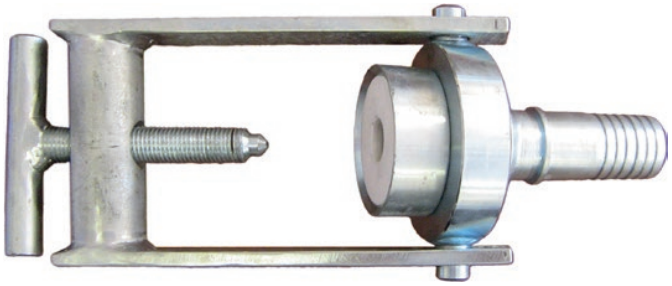
This type of hose reels is used for the suction of waste and sewage from rail carriages, in water feeding systems and locomotive refueling system. The hose reels can be also utilized to store hoses transferring water for cleaning and washing of carriages. The application of the hose reel significantly saves time, increases safety of the hose operator, minimizes leakages and reduces hose wear.



TANK WAGON STEAM ADAPTOR, STEAM COUPLING



SIZES DN80; DN100 WITH TAIL TO CONNECT DN38 HOSE



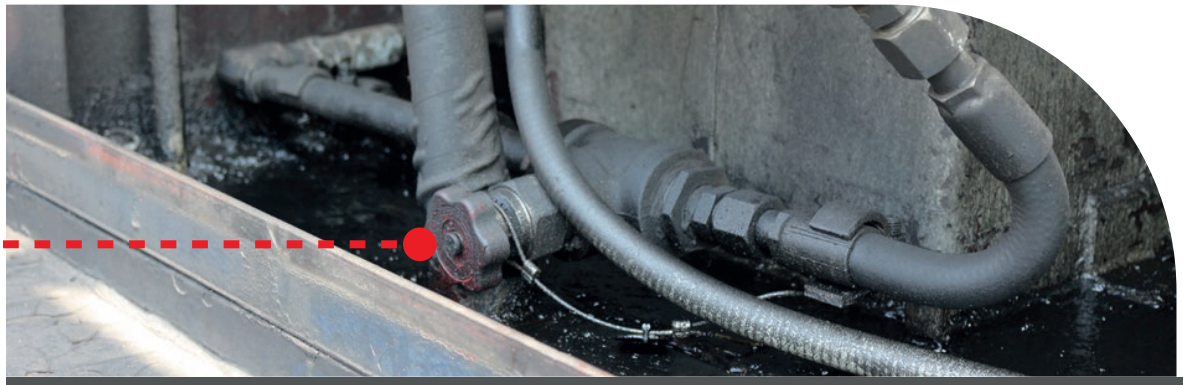
DESCRIPTION:

A coupling assembled on DN38 rubber hose for steam with RS safety clamp. Made of 18G2A/S355J2G3 carbon steel, PTFE sealing.

APPLICATION:

Tank wagon steam adaptors are applied to heat up tank wagons that carry e.g.: mazut, paraffin, molasses in order to unload them. Some products tend to solidify at ambient temperature, so unloading application demands heating up a tank wagon up to the temperature requied by a particular product.

VALVES FOR THE RAILWAY INDUSTRY



FREEZE PROTECTION VALVE FOR LOCOMOTIVES

WORKING PARAMETERS:	
Working pressure:	0,2 bar
Working temperature:	from -20°C to +30°C

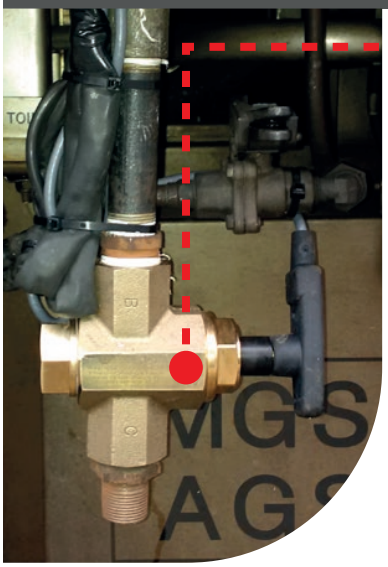
DESCRIPTION:

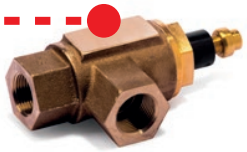
High capacity automatic bleed valve. Fully mechanical, no outside power supply required. A plug opens the flow when the temperature of a cooling agent falls below +1.7°C (optionally with opening temp. +4.4°C). Resistant to ambient temperature variations and vibrations coming from an engine or produced by a moving train. The system closes and can be refilled after the plug is warmed up. To refill with cold water an optional cap should be used on the plug.

APPLICATION:

The valve, mounted on the engine cooling system of a locomotive and cooling system of a compressor, protects the system from bursting caused by cooling agent freezing when the locomotive is shut down. The cooling agent is released from the system automatically.

FREEZE PROTECTION VALVE FOR PASSENGER COACHES





WORKING PARAMETERS:	
Working pressure:	0,2 bar
Working temperature:	from -20°C to +30°C

DESCRIPTION:

Fully automatic, self-operating, high capacity bleed valve made of bronze. Completely mechanical, no outside power supply required. Opens the flow when an ambient temperature falls below +1.7°C. Compliant with NSF 61/372 standard, tested for shock and vibration resistance.
An optional electric heater 120V AC/74V DC or 230V AC mounted on the valve, allows for closing the valve immediately even when the ambient temperature drops below the set opening point, until the passenger coach is heated up. Reduces the time needed to get the carriage back into service.

APPLICATION:

The valve mounted in passenger coaches protects tanks and pipes from bursting due to freezing water, when heating in the train carriages is off. Draining the system from water is automatic.

PRODUCTS FOR THE RAILWAY INDUSTRY

- industrial rubber, steel, and composite hoses for tank car unloading
- rail couplings
- industrial valves, couplings and quick release couplings
- hydraulic hoses according to EN 45545-2, hydraulic fittings, tubes and couplings
- DIN 3015 clamps compliant with EN 45545-2 and hose clamps
- pneumatic components
- hose reels

SERVICES FOR THE RAILWAY INDUSTRY

- production of hydraulic hose assemblies
- production of complete loading/unloading hose assemblies compliant with TDT requirements
- designing and production of loading/unloading equipment
- production of hose assemblies according to Customer specification
- production of technical drawings of customised fittings and couplings
- professional 3D hydraulic tube bending
- welding in accordance with the railway standard EN 15085

OUR CERTIFICATES