Tank cleaning

CHEMICAL HOSE

Introduction

The mandrel-built chemical hose is designed for use with automated and manual cleaning systems in industrial tanks, vessels, and tankers. The hose is made from durable materials, such as EPDM rubber, to withstand high temperatures, chemical exposure, and mechanical stress. The primary function is to transport corrosive chemicals, such as acids, aromatic solvents, chlorinated, or aromatic hydrocarbons. Also, with a hose saddle to hold the machine in position within the tank during tank cleaning operations.

Application

Chemical hoses are widely used in:

- Fixed and portable tank cleaning.
- Petroleum/crude oil and chemical tankers for removing sludge, residues, and contaminants.
- Bulk carriers and offshore installations.
- Marine vessels and inland barges for routine maintenance and safety compliance.
- Food and beverage processing tanks for hygienic cleaning during CIP (Clean-in-Place) operations.
- Pharmaceutical and cosmetic industries where sterile environments are critical.

Working principle

The hose connects to a water or chemical source (refer to chemical resistance chart) and channels the fluid to a tank cleaning machine. The machine then rotates or oscillates to spray the tank's interior surfaces with high-pressure jets, ensuring full coverage and effective cleaning. The hose can also be used as a suspension line to position the cleaning device within the tank using the hose saddle.

Benefits

- Chemical and temperature resistance, especially with EPDM.
- Compliance with industry standards, such as ISGOTT, for oil tankers.
- Versatility for use with hot water, steam, or chemical additives.
- Applicable for animal or vegetable produce and alcoholic drinks.
- Electrical continuity via embedded bonding wires for safety in hazardous environments.

Related product

- Tank cleaning hoses and other hoses
- Hose saddles, for example SC SADDLE
- Portable tank cleaning machines, for example SC 15TW and SC 45TW
- Fixed tank cleaning machines, for example SC 30T and SC 90T2

Accessories

The hose comes with a wide range of accessories:

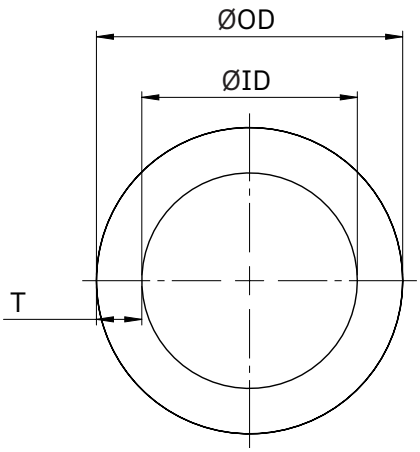
- Adapters
- Hydrant connections

Technical data

Tube:	UHMWPE, black, smooth, conductive, abrasion resistant, food quality. Complies with FDA-standards .
Reinforcement	Synthetic plies, helix wire embedded.
Cover:	Black conductive rubber, abrasion, ozone and weather resistant. Smooth with fabric impression. Flame resistant according to Trbf 131 – Teil 2 - §5.5.
Working pressure:	16 bar
Nominal Burst Pressure:	64 bar Ø 100 mm: 48 bar
Temperature:	T emperature and concentration of the transported medium: refer to chemical resistance chart.
Marking:	Scanjet branding, SUPERIOR UPE, embossed tape according to norm. Length marked on hose. Serial no. marked on coupling.

Cutaway drawing

Dimensions



Sizes and Weights

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Model/Part no.	OD, Outer Diameter (mm)	ID, Inner Diameter (mm)	T, Thickness (mm)	Bending radius (mm)	Vacuum (bar)	Weight (kg/m)
HOSE 15 UPE	51 mm	38 mm	6.5 mm	225 mm	0.9 bar	1.26 kg/m
HOSE 20 UPE	66 mm	50 mm	8 mm	275 mm	0.9 bar	2.10 kg/m

[1] Other sizes and pressures available on request. Technical data, structure and polymers subject to change without notice.

Safety recommendation

Guidelines for the selection of chemical hoses according EN 12115:2011

Ω/T = For highest safety requirements. The complete hose assembly consists of electrically conductive rubber blends. Conductivity 109 Ω through the hose wall. Suitable for explosive mixtures inside, and for the use in hazardous areas (hose entirely or to a major part within an Ex zone). Suitable for media of explosion group higher than IIA (IIB or IIC). Also suitable for critical, non-conductive chemicals like toluene.

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Contact Scanjet Marine & Systems AB
Up-to-date contact details are available
on our website at scanjet.net