

Trouble-free installation, high performance in action

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The agile street sweepers made by Aebi MFH AG are very compactly constructed. The installation space for suction hoses around the hydraulic power unit is thus very tight. The innovative, highly flexible Angst+Pfister UNIVERSAL VHF hoses selected for this application can be optimally installed even with minimal bending radii. The low bending resistance additionally simplifies installation. The smooth exterior surface of the hoses facilitates the use of hose clamps. The following article presents Angst+Pfister's UNIVERSAL VHF hose solution using a typical vehicle model as an example.

Aebi MFH AG, which has been operating out of Hochdorf in the Canton of Lucerne for more than a century, ranks among the world's leading suppliers of municipal street-sweeping machines. Cutting-edge complex technology and high manufacturing quality are Aebi vehicles' key to success in the international market.

Several hundred units of the Aebi MFH 2500 vehicle have been built since 2002 in a variety of customized versions. The Aebi MFH 2500 is equipped with a debris collector with a capacity of approximately 2,000 liters, which typically meets the needs of small and midsize communities. Its modern and appealing appearance as well as its

excellent agility and universal deployability in summer and winter distinguish this vehicle model. The hydraulic traction drive and the drives of accessory equipment such as sweep brushes or snowplough blades are supplied by a central hydraulic unit powered by a common rail diesel engine.

Complex installation situation

The width and length of the vehicle are kept as small as possible to meet customers' needs. The installation space for the power train elements and additional components is thus limited. An extremely compact construction design is therefore an inevitable selection criterion, especially with regard to the hydraulic power unit area with pump, tank, filter and oil cooler. Flexible hose lines that ideally fit in tight spaces are used to connect these components.



Smooth inside and out, and nevertheless highly flexible.



Challenging operating conditions

Consistent use of hoses brings big advantages. Assembly inaccuracies and thermal expansion of rigid components as well as vibrations and movements of elastically mounted parts are compensated by them. In addition to having tight bending radii, the hoses must also fulfill further requirements, including:

- resistance to pressure up to 10 bars at cold start
- chemical resistance against specified ISO VG 68 oil grades
- no impairment of function with up to 50 % vacuum in the pump suction pipe at cold start
- short-term resistance against oil temperatures of up to +100 °C in the drive unit in extreme cases
- external-layer resistance against weathering, oil splashes and detergents
- possibility of assembly on hose sockets with conventional hose clamps or press sleeves

Easy assembly

The easily bendable UNIVERSAL VHF hose offers an additional benefit that shouldn't be underestimated: reduced assembly time. It can be optimally mounted in almost every installation situation without added effort because it is flexible but nonetheless stays in position until the hose clamps are tightened.

Oil-resistant UNIVERSAL VHF suction and pressure hoses with an NBR inner layer are available from stock in commonly used dimensions between 20 mm and 76 mm. On request, Angst+Pfister also supplies the hoses in nominal widths up to 152 mm as well as with an EPDM inner layer. Ask us for information.



The UNIVERSAL VHF suction and pressure hose fits even in tight spaces.



Aebi MFH 2500 street sweeper in daily use.