

PRESS-RELEASE

In contact at last:

NORRES PUR AS hose family with electrostatic discharge capability now also available with compatible CONNECT Safety Clamp Systems

The use of wall materials that are conductive or capable of electrostatic discharge is often recommended for transport hoses in hazardous areas. Last year, NORRES Schlauchtechnik (Gelsenkirchen, Germany) unveiled its new, permanently antistatic PUR AS hose family with electrostatic discharge capability. The NORRES CONNECT Safety Clamp Systems 230, 231 and 232, which allow polyurethane hoses to be clamped to all standard connection types, are now also available for this family. These innovative techniques for connecting commercially available fittings to polyurethane hoses lead to a clear reduction in maintenance, energy and process costs. NORRES will present its formidable portfolio of PUR AS hoses with compatible CONNECT Safety Clamp Systems at the Nuremberg POWTECH from April 27 to 29, 2010.

All products in the innovative NORRES AIRDUC®, PROTAPE® and BARDUC® PUR AS family are made from a special wall material. Hoses manufactured in this way impress with a permanent electrostatic discharge capability $< 10^9 \Omega$ as well as a milky transparent surface through which the delivered material is clearly visible. Conventional transport hoses boasting these properties often only achieve these specifications with the help of migrating antistatic material and carbon blacks. It is a well-known problem of antistatic material that its effect is exclusively attributable to its migration to the hose surface, leading to an accumulation of moisture from the ambient air. However, when solids are conveyed, the antistatic material that migrates to the inner surface is continuously abraded, with the result that the antistatic is "leached out" and the discharge effect is gradually weakened. Moreover, the antistatic material can also be absorbed by the product being conveyed. The fact that hoses whose conductivity is achieved by adding carbon blacks are – not surprisingly – also coloured black is a further drawback. On the one hand, this obscures the user's view of the product being pumped while on the other, the conveyed material may be contaminated due to wear. Since the mechanism of action that is responsible for the electrostatic discharge capability is not linked to migration, there is no contamination of the conveyed material and no deterioration in the electrostatic discharge effect.

The NORRES CONNECT Safety Clamp Systems 230, 231 and 232, which allow polyurethane hoses to be clamped to all standard connection types, are now also available for the hoses in the PUR AS family. The CONNECT Safety Clamp System 230 for thick-walled polyurethane hoses was originally developed and introduced by NORRES for loading and unloading silo vehicles. It clamps the

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electrostatic discharge-capable AIRDUC® PUR 356 MHF-AS reinforced hose with a diameter of 100 mm, whereby the metallic supporting spiral is fixed to the metal adapter. The complete system is food grade and capable of electrostatic discharge. The CONNECT Pressfitting System 232 and the CONNECT Safety Clamp System 231 are two further techniques that can be used to connect the hoses in the AS PUR family. The CONNECT Pressfitting System 232 is predestined for the food, pharmaceutical and chemical industries, while the CONNECT Safety Clamp System 231 is intended for industrial applications, for example in plastics production. The hose's metallic insert is exposed and contacted with the adapter when the systems are assembled. Clamping the shells of the CONNECT Safety Clamp System 231 or pressing the sleeves of the CONNECT Pressfitting System 232 together creates a secure connection capable of electrostatic discharge. The CONNECT Pressfitting System 232 is compatible with the AIRDUC® PUR 355 MHF-AS and AIRDUC® PUR 356 MHF-AS hoses, which are food grade and capable of electrostatic discharge. The CONNECT Pressfitting System 231 can be combined with the electrostatic discharge-capable AIRDUC® PUR 355 AS and AIRDUC® PUR 356 AS hoses. Thanks to these compatible clamp systems, the electrostatic discharge-capable hoses in the AS PUR family can be used in hazardous areas in almost any application from bulk material technology through chemicals and pharmaceuticals to plastics processing. Clamping the hoses with the CONNECT Safety Clamp Systems offers several advantages: hose clamps are often used to connect externally corrugated spiral hoses to adapters for a wide variety of applications. Under high pressure, however, this inevitably entails a risk that the adapters could become displaced or the system gradually lose its tightness. Particularly in hazardous areas, the dangers this can pose should not be underestimated. Many popular coupling and connection solutions, such as milk tube, aseptic, TRI-Clamp, Kamlok, Storz or tank truck couplings and fixed or loose flanges, can be connected quickly, easily and securely to the hoses in the AS PUR family using the CONNECT systems. Users profit from increased reliability, enhanced durability and shorter fitting times.

The hoses in the PUR AS series and the compatible CONNECT Safety Clamp Systems will be on show at the Nuremberg POWTECH from April 27 to 29, 2010 along with numerous other NORRES products. You can find NORRES in Hall 6, Stand No. 6-468.

Photos:

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Photo 1: The food grade and electrostatic discharge-capable AIRDUC® PUR 356 MHF-AS reinforced clamped in the CONNECT Safety Clamp System 230 for thick-walled polyurethane hoses used to load and unload silo vehicles

Photo 2: CONNECT Safety clamp system 230 for thick-walled polyurethane hoses used to load and unload silo vehicles

Photo 3: CONNECT Pressfitting System 232 and CONNECT Safety Clamp System 231

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