

November 2015

Arctic Operations Valves from AS-Schneider:

# Safe and functional to minus 55 degrees Celsius

Nordheim (Germany) – November 10, 2015 – Whether in Alaska, Canada, Norway or Russia: Industrial valves as they are used, for example, in chemical plants or the oil and gas industry are often exposed to extremely low environmental temperatures. This means that designers face major challenges: Because not all bodies and sealing materials and lubricants are suitable for operation under these conditions. For this reason, the specialist for industrial valves, AS-Schneider, offers valves and manifolds with a special Arctic Operations Design. These can also be used without any problems even at temperatures as low as minus 55 degrees Celsius.

When designing the Arctic Operations Valves, AS-Schneider makes sure that it only uses materials that guarantee a safe and reliable operation even at extremely low temperatures. It begins with the selection of a suitable body material: While Austenitic Stainless Steels have a sufficiently high resistance to low temperatures, other materials such as Brass are unsuitable because they are slightly brittle in cold conditions. Combined with the high pressure that industrial valves are often exposed to, this can quickly lead to damage and leakage.

AS-Schneider also takes special care in the design of the stem seals. The specialist relies on PTFE for its materials: These are not only resistant to most process media but also against extreme cold. A leak-free, bubble-tight seal of the Arctic Operations Valves is thus ensured.



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The following is important in addition to the tightness of the valves and their ability to function: If necessary, they must be able to be opened and closed effortlessly at all times. For this, customary valve threads are provided with a lubricant which ensures low-friction movement. However, many lubricants are not suitable for use at such low temperatures due to their temperature-dependent viscosity. This can lead to a "freezing" of the valve. AS-Schneider therefore uses a special coating to reduce friction on its Arctic Operations Valves. This is used in the stem thread area and provides for a dry lubricant which maintains the mobility of the valve, even at temperatures down to minus 55 degrees Celsius.

AS-Schneider offers a wide range of valves in its Arctic Operations Design. As a "solution provider", the company, with headquarters in Germany, also has a high level of expertise in the implementation of customized solutions. Numerous users around the world already successfully use the Arctic Operations Valves.

Scope: 2,612 characters including spaces



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## **Captions:**



**Picture 1:** Arctic Operations Valves by AS-Schneider can also be used without any problems even at temperatures as low as minus 55 degrees Celsius.



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**Picture 2:** Whether in Alaska, Canada, Norway or Russia: Industrial valves as they are used are often exposed to extremely low environmental temperatures.



**Picture 3:** Industrial valves as they are used in oil and gas industry are often exposed to extremely low environmental temperatures.

Pictures by: Armaturenfabrik Franz Schneider GmbH + Co. KG



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#### **About AS-Schneider**

The family-run company, AS-Schneider, was founded in 1875 and with over 350 employees, is one of the leading manufacturers of Instrumentation Valves and Manifolds worldwide. In the market segment for Large-Bore Diesel Engine Valves such as those used in marine propulsion and the generation of electricity, AS-Schneider is even the world market leader. With our own subsidiaries in Romania, Singapore, Dubai (UAE) and Houston (USA) and professional partners in more than 20 countries worldwide, we are located everywhere our customers need us.

#### Press details: