Press Release

Cost-free and online: Pfannenberg introduces a new F-gas calculator for cooling systems such as chillers

New interactive tool aids OEMs and end customers in preparing for the consequences of a tighter EU regulation on fluorinated greenhouse gases / Calculator estimates GWP and CO_2 equivalent and offers clear alternatives for action

Hamburg, 5 November 2018. Pfannenberg, specialists for production and process safety, have developed an F-gas calculator, an advisory tool for machine builders and industrial end customers. The manufacturer-independent calculator has an intuitive interface and is available free of cost online. By entering the refrigerant and filling quantity noted on the type plate of every chiller, OEMs and systems operators can use the calculator to determine whether there is an urgent need for action and thus ensure compliance with the new EU regulation 517/2014 on fluorinated greenhouse gases (F-gases) which is mandatory for operators. Furthermore, various service-related transition periods will expire at the beginning of 2020. The calculator helps OEMs as solution providers to target their customers with the right services and in good time.

For many years, F-gases have been used primarily as refrigerants in millions of climate control units and systems, in water chillers and in commercial and industrial refrigeration. The current EU regulation on F-gases will have serious consequences for the operators of the devices and systems affected: from 1 January 2020, service on existing devices with certain, in some cases widely used, refrigerants will be severely limited with the risk that leakages will result in lengthy stoppages. At the same time, legal requirements for regular leak tests already apply and result in increased lifecycle costs for operators. The situation is made more critical by price increases and

bottlenecks in the supply of refrigerant. The price of R404a refrigerant has risen more than seven-fold, for example.

"As the manufacturer of thermal management solutions, we wanted to use our expertise to draw attention to a problem about which industrial operators and machine builders in particular often know very little, or even ignore because they are not 100% clear on the consequences," says Alexander Busch, Head of Service EMEA at Pfannenberg. "Our manufacturer-independent and cost-free F-gas calculator is not a comprehensive advisory or information product, but a tool with the main advantages of being interactive and easy-to-use. It reduces a very complex subject area to the aspects which are relevant to the individual machine builder or systems operator. We want to provide a brief and easily understandable recommendation and offer our help. Every operator of relevant systems should know the risks and be able to assess them carefully."

Simple operation, far-reaching results

The F-gas calculator uses the refrigerant and filling quantity data to find the Global Warming Potential (GWP) and calculate the CO_2 equivalent. Machine builders and systems operators are also given an explanation of the consequences for the individual operator and clear recommendations for the measures that need to be taken. If the GWP of the refrigerant used is more than 2500 kg CO_2/kg refrigerant, the operator is obliged in any event to take action. The CO_2 equivalent of a system determines whether regular leak testing and documentation is a statutory requirement and limit values determine the intervals between tests. For example, from 1 January 2020 it will not be permitted to fill a system with refrigerant with a GWP higher than 2500 kg CO_2/kg and a CO_2 equivalent of more than 40t. Furthermore, a refrigerant of this type must not be used in a service, which affects both operators and service providers. A possible drastic consequence can be long machine downtime if the system is found to leak.

Benefits for system operators and machine builders

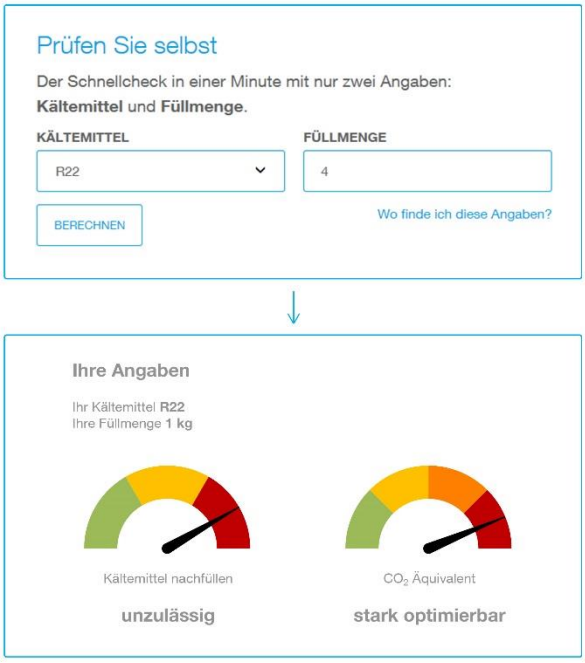
The result output by the F-gas calculator helps system operators to comply with statutory and regulatory requirements, the "operator obligations". As well as meeting all necessary documentation requirements, the aim is to maximize machine availability for a reasonable outlay and to cut the lifecycle costs of the operation. The F-gas calculator is also a very helpful tool for machine builders. The results obtained can be fed into expert and professional advice to end customers.

"It allows OEMs to suggest a carefully chosen solution to their customers. It's a win-win situation: systems operators comply with statutory obligations, machine builders can secure profitable after-sales business with existing systems," says Busch. Converting an existing system is a plausible option which also pays off for the systems operator. By changing to another refrigerant, which often involves hardware updates, it is often possible to bring the CO_2 equivalent value below the level for leak testing. The operator can therefore save on the service budget for inspections every year.

Pfannenberg's services

Maintenance customers whose machinery is looked after by Pfannenberg will be advised on this matter by the company's employees who will carry out any necessary leak tests and explain further options such as converting the plant and using new equipment including their servicing. Pfannenberg will also produce legally compliant documentation for industrial users, for example. Pfannenberg's OEM customers can on request obtain detailed advice regarding the many different options in the after-sales area of their end customer business.

Photos and photo captions:



001555_Photo1: The F-gas calculator is manufacturer-independent and allows system operators to determine, on the basis of the refrigerant and filling quantity data they enter, whether there is an urgent need for action. The calculator outputs a diagnosis protocol with a clear recommendation for the action that needs to be taken.

About Pfannenberg

Pfannenberg is a medium-sized company which provides innovative and high-quality electro-technology for industry. Today, the company belongs to the global players of this industry with its headquarters is in Hamburg, Germany and its locations in Brazil, China, England, France, Italy, Russia, Singapore and the USA. The product portfolio comprises components and system solutions for the thermal management of electrical enclosures, chillers, visible and audible signaling technology and custom solutions. A special highlight in the Pfannenberg portfolio is the designed illuminations which are commissioned by architects, designers, and urban and spatial planners (www.pfannenberg.com/en/solutions/industries/art-illumination/).

You can find more information about Pfannenberg on: http://www.pfannenberg.com

Press office

Carsten Otte

Publitek GmbH

Bäckerstraße 6, 21244 Buchholz

Tel. +49 (0)4181 968 098-80

carsten.otte@publitek.com

Company contact

Ulla Wenderoth
Pfannenberg Europe GmbH
Werner-Witt-Str. 1, 21035 Hamburg, Germany
Tel. +49 (0)40-73412-317
ulla.wenderoth@pfannenberg.com