Kälte. Wärme.
Innovationen.

DK-WATER CHILLER

IDEAL SOLUTIONS FOR SPECIFIC CASES

Introduction

In 1979 DK developed a system for the efficient use of waste heat energy – long before the issue of Climate Change. Two years later the DK-Water Chiller division was created, to provide specialist system solutions which were not available from the standard major chiller manufacturers.

The DK-Water Chiller is similar to the design of the DK-Heat Recovery and has the same high quality of in-house manufacturing. The most popular DK tanks are from 180 to 950 litres sizes. Finished in vapour-sealed insulation and smart plastic outer coating.

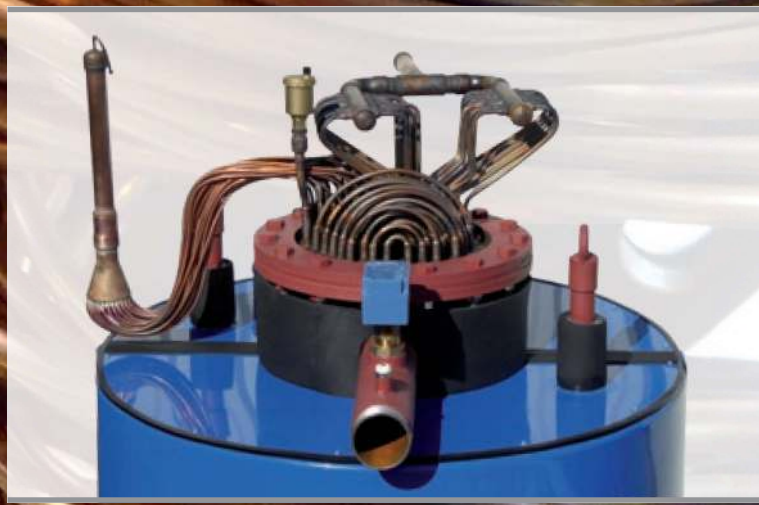
The KS-evaporators are manufactured in 10 module types, but in different lengths according to the required performance, temperature and medium. Working with our highly skilled engineers the most suitable solution is developed for each individual application – no mass production – but custom solutions for individual customers and their applications.

This KS-Evaporators are manufactured using a complex DK designed, liquid distribution and suction-line arrangement, giving exact guidance of the refrigerant, resulting in an almost 100% uniform refrigerant distribution to the individual tubes, giving a perfect temperature balance in all tubes. This is essential for for trouble-free operation and gauranteed performance with evaporation temperatures below zero and water temperatures close to freezing.

The complete factory finished DK-Water Chiller package, requires only the liquid and suction of the refrigeration systems and water connections to be fitted by the specialist contractor. In addition to the DK-Water Chiller package system. For Engineers wishing to build their own systems, DK also offers separately, the DK-shell and tube evaporators and the DK-cold water buffer tanks. For this type of work the major chiller manufacturers are unable to offer a perfect solution from their standard range of equipment or experience.

An overview in a nutshell!

Whatever your application needs – DK will Design, Build & Deliver – Simple!



DK-cold water tank buffer

Available with multi-ports connections or filling and draw off. Connections are available in any format – screw fitting, pipe, tube, nozzle.

DK Tanks with the contents 180/280/400/700 or 950 litres come with a vapor diffusion-tight PU shells insulation. Standard colour is blue (RAL 5017), and other colours are available on request.

The larger and special dimension tanks are normally supplied without fitted insulation and must be insulated on site after installation and assembly. All tanks can also supplied with insulation (made of vinyl rubber with and without metal jacket). DK has in planning a suitable insulation for outdoor installation (with rear ventilation).

These insulated tanks will require clear and careful installation, to avoid damage to the vapor-proof outer skin.

DK-Water Chiller with single-walled evaporators

For application areas with special cooling medium temperatures, a custom-made refrigeration system and a DK- Water Chiller with built-in evaporators is the perfect solution.

DK-evaporator can be designed to your requirements. They are manufactured in single or multi-circuit options for complete flexibility. In addition, cooling of the medium are available to -40°C. In the past 35 years numerous projects have been completed. Including tanks and evaporators for cooling mediums -25°C for the sports facility's cooling at the ski jumping hill in Sochi for the Winter Olympics 2014.

Illustration of tank and evaporator for cooling mediums -40°C being prepared for international engine test standards for international automakers.

DK-Tank with pump station

DK-Water Chiller / DK Cold brine tanks serve as the buffer to the short or medium-term energy storage and the distribution to the consumer circuits. In addition to the storage tanks, a pump station can be fitted by DK to complete the package. This illustration shows the tank & factory fitted pump station – ready to go for a simple site installation.

Factory fitted and ready for simple site connection and offers a cleaner and more precise finish than on-site build.

Projects of any size and over the megawatt range are available.

Two 6,500 litre tanks connected in paralell with each having four single circuit evaporator, and four independent refrigeration systems for Doha airport. This application is for brine cooling -8/-3°C:

Tanks with 12,000 litres and four dual-circuit evaporators, connected to 8 refrigeration systems, for the catering company of Emirates, Dubai airport. A similar plant has been installed in Frankfurt for the catering company – Lufthansa Sky Chefs.

DK-Water Chiller with double-walled evaporators

Designed for water cooling to +2°C, the chilled water is used in direct food production, for example, dough cooling in large bakeries and salad washing.

The illustrations show the complete chiller pack refrigeration unit fitted with full operation controls for water-cooling at +2°C and with evaporating temperatures below zero. Our Plug & Go solution for the food processing industry.

DK-Water Chiller with VA-double tube cooler

A specialist application of the DK Chiller is the glycol cooling, e.g. to -2°C, and connection of a stainless steel double-tube cooler in which a further medium is cooled.

These double-tube coolers are equipped with quick and easy release sections for cleaning purposes, allowing cooling of contaminated products such as blood from slaughterhouses.

This system is also useful in the production of cooked sausage, sliced cheese and others products with deposits such as syrups, chocolate and mashed vegetables.

DK-Water Chiller as unpressurized system

The open DK-steel tank is applied in systems with cooling capacities that are not in permanent demand operation – as an ice storage facility. This provides low water temperature and is ideal for cooling cooking kettles Cook & Chill process.

This is an open water system, which is equipped for level regulation with mechanical or electrical filling valves.

Cool Solution – Hot Performance – DK

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