MAKING MODERN LIVING POSSIBLE

Clearly cooler

global refrigeration solutions

REFRIGERATION &
AIR CONDITIONING DIVISION

A fresh approach
to refrigeration challenges

You know Danfoss. We bring you the world's most complete portfolio of refrigeration products in the industry, including compressors, automatic controls, electronics and sensors, heat exchangers and condensing units.

Our 75-year track record of innovation speaks for itself. We were one of the first companies to manufacture a hermetic compressor, we're responsible for most of the major improvements in controls and frequency converters over the past decades, and we've recently created the world's first totally oil-free compressor line, Danfoss Turbocor.

The challenges facing the refrigeration industry have grown much tougher in recent years due to the ever-increasing costs of energy, the demands of regulatory agencies and the inescapable pressures of the market. Danfoss is uniquely suited to help you address these challenges – and turn them into advantages. Energy regulation, food safety, environmental challenges, and global sourcing/competition all represent significant technical and logistical issues for you. Danfoss is the rare global company that can offer a full set of refrigeration products and systems that harness the technology needed to solve refrigeration problems responsibly.

Working Conditions Change
your requirements don't

We start by asking the big questions. At Danfoss's refrigeration labs, our team of engineers conduct long term, in-depth studies of a variety of refrigeration equipment, closely scrutinizing parameters such as capacity and heat load profiles. They also examine the impact of ambient conditions on these parameters. One study, for instance, looked at the impact on the refrigeration system performance of different applications in different climate zones over the course of a year.

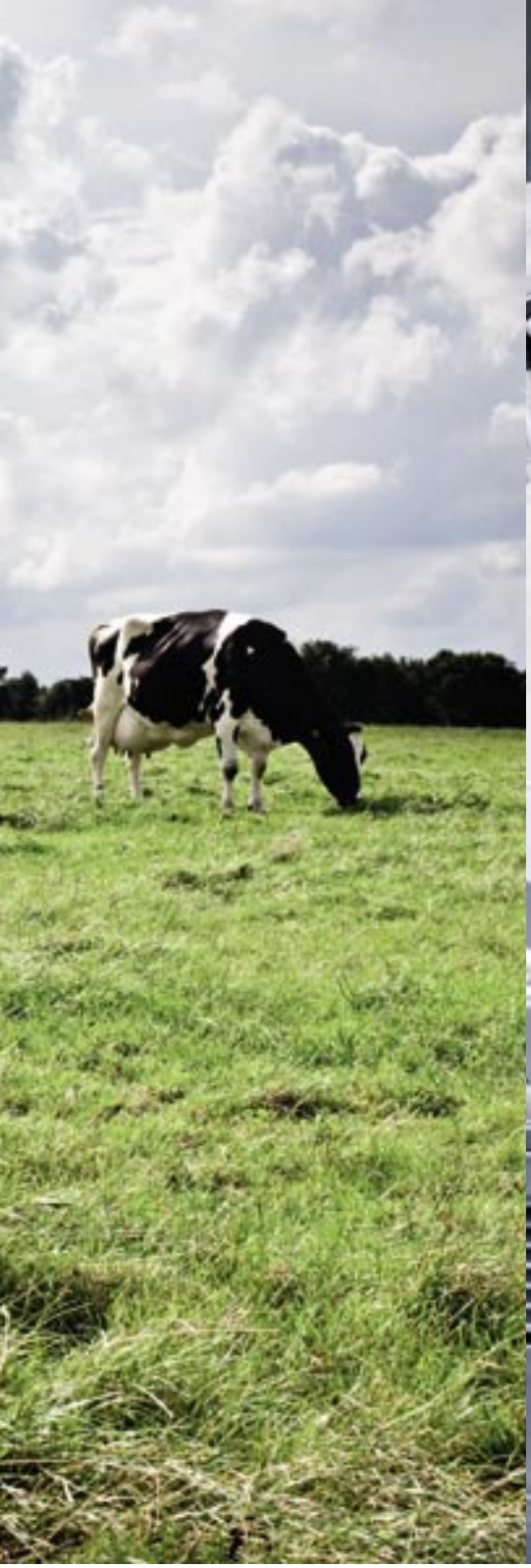
This approach has yielded several insights in component design and specification, including the major role that the inter-relationships between the application, operating load and climate zone location of an application play in the correct selection of components. A milk tank unit placed in the hot, dry climate of Arizona, for example, places dramatically different demands on a compressor than does a cold room placed in cool, damp Finland.

With this in mind, we've developed a whole new line of scroll compressors and auxiliary components whose reliability and performance profile are optimized for the 'variability' in refrigeration applications – and there is more to come.

Perhaps most importantly, our research has taught us the value of flexibility and the importance of focusing on the right components for the right application in a given climate. As surprising as it may seem, a scroll compressor isn't always the best solution for every application. For certain applications in certain climates, a reciprocating compressor is the best and most energy-efficient option. That's what makes our full product portfolio and century of experience an unbeatable combination.

Making a world of difference

requires local expertise



With 70 factories in 25 countries and sales/application support operations in 98 countries, Danfoss offers global production with local support that allows us to partner closely with you to develop precisely the solution that suits your needs. In addition to manufacturing and distribution, we operate specialized engineering competence centres in all regions of the world.

We don't rely on 'one product fits all' requirements. Instead, we offer a wide range of refrigeration system products with local application support. Of course, this is also backed by our global engineering and manufacturing resources, including our Refrigeration Simulation configuration software to assist in solving your unique challenges. We're here to help find exactly what you need – even if it means recommending a competitor's components. We're committed to finding the right answer. What's more, we'll give you proof! We always back up any conclusions we reach – because Danfoss isn't focused on simply selling products. We're committed to being the best and most trusted refrigeration company in the industry. We have a bigger vision for our company – and for our customers.

We've got it covered
The Danfoss refrigeration portfolio

Automatic Controls
Danfoss offers mechanical and electro-mechanical controls for the refrigeration and the air conditioning market, as well as products and customer-specific solutions for industrial monitoring and control systems.

Compressors
We specialize in producing a wide range of compressors, from small household solutions to light commercial and direct current compressors for refrigerators, freezers and light commercial applications; and even Performer® scroll compressors, reciprocating compressors and condensing units for commercial air conditioning and refrigeration applications.

Electronics and Sensors
We also produce electronic systems and controls for full monitoring, regulation and control of refrigeration and industrial applications. Our range includes: controllers, monitoring units, electronically operated expansion valves, temperature sensors, pressure sensors, data communication, and software. Our controllers can be used with all refrigerants.

Heat Exchangers
Danfoss offers a complete line of heat exchangers, including our newest brazed plate heat exchanger, which offers a solution for evaporators and condensers in refrigeration systems. Its increased effectiveness gives the same heat transfer capability as traditional shell and tube heat exchangers, but in a much smaller size.

OPTYMA™ PLUS package units
Danfoss offers a full range of Optyma high efficiency condensing units, covering a capacity of 1/5 to 13 1/2 HP. The Optyma design is so efficient that for each given capacity, a smaller compressor can be used than in conventional units, resulting in lower operating cost. The condensing unit design also ensures a wider operating envelope, especially in high ambient conditions.