



Economic and environmental savings in chillers and heat pumps

The latest range of Danfoss Micro Plate™ heat exchangers Z-design evaporators for chillers and heat pumps facilitate a step change in economic and energy performance.

Thanks to the innovative Z design, architects and specifiers can now take energy-efficient building design to the next level to help leading HVAC-R manufacturers meet the increasing demand for greener and more cost-effective solutions.



Generation Z – a game changer

With the new and innovative Z-design heat exchanger series, HVAC-R manufacturers can achieve significantly better economic and environmental performance with high efficiency.

The secret behind the game-changing advantages of the series lies in the use of a dimple-based design, which promotes an asymmetric Z-shaped flow of fluid across the plates. Not only does this maximize the heat transfer surface, but the liquid and vapor phases of the refrigerant also remain well mixed, ensuring even thermal contact with the water side of the system.

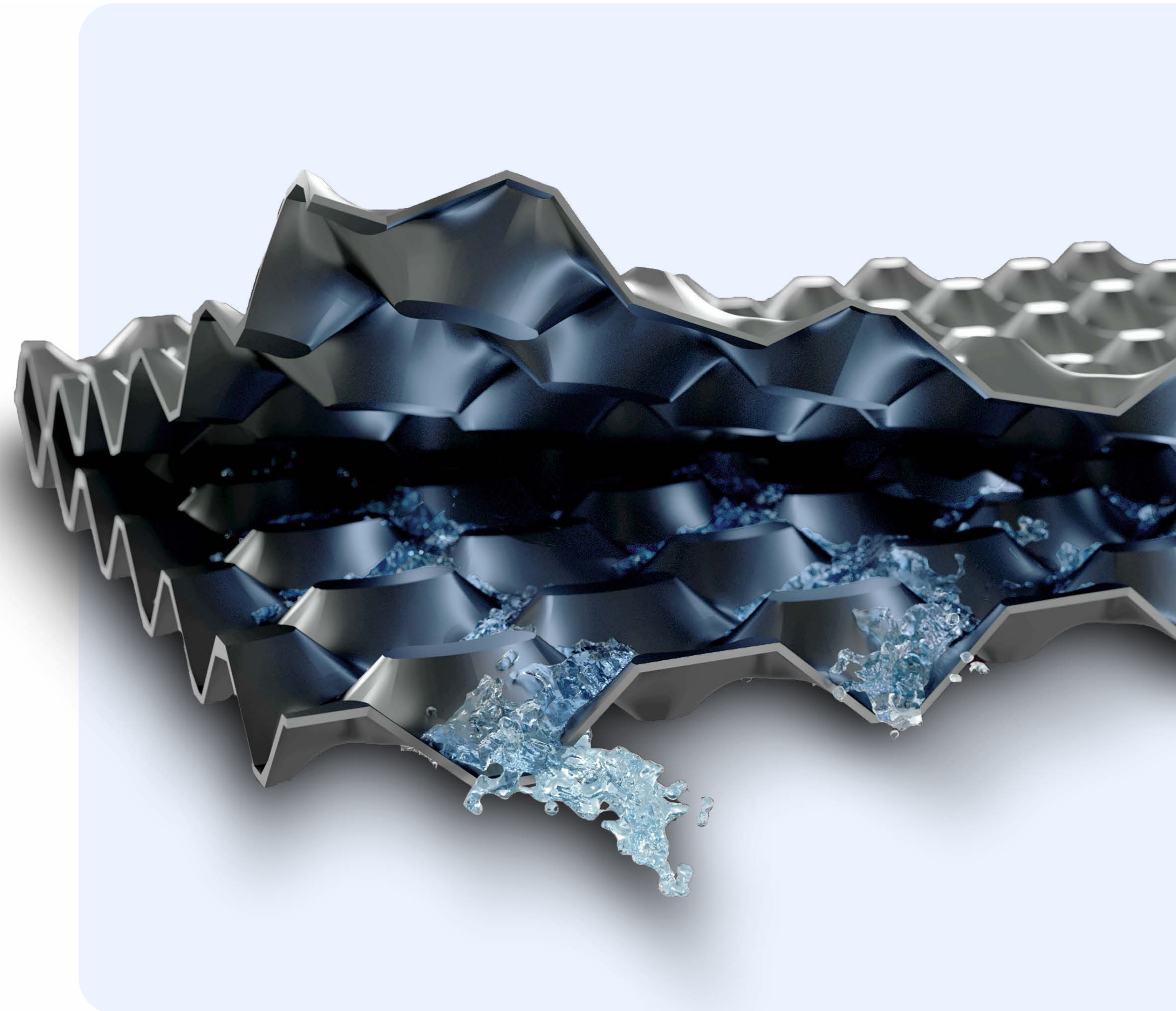
As a result, the same heat transfer capacity can be achieved with fewer plates, which reduces both raw material needs and product weight.

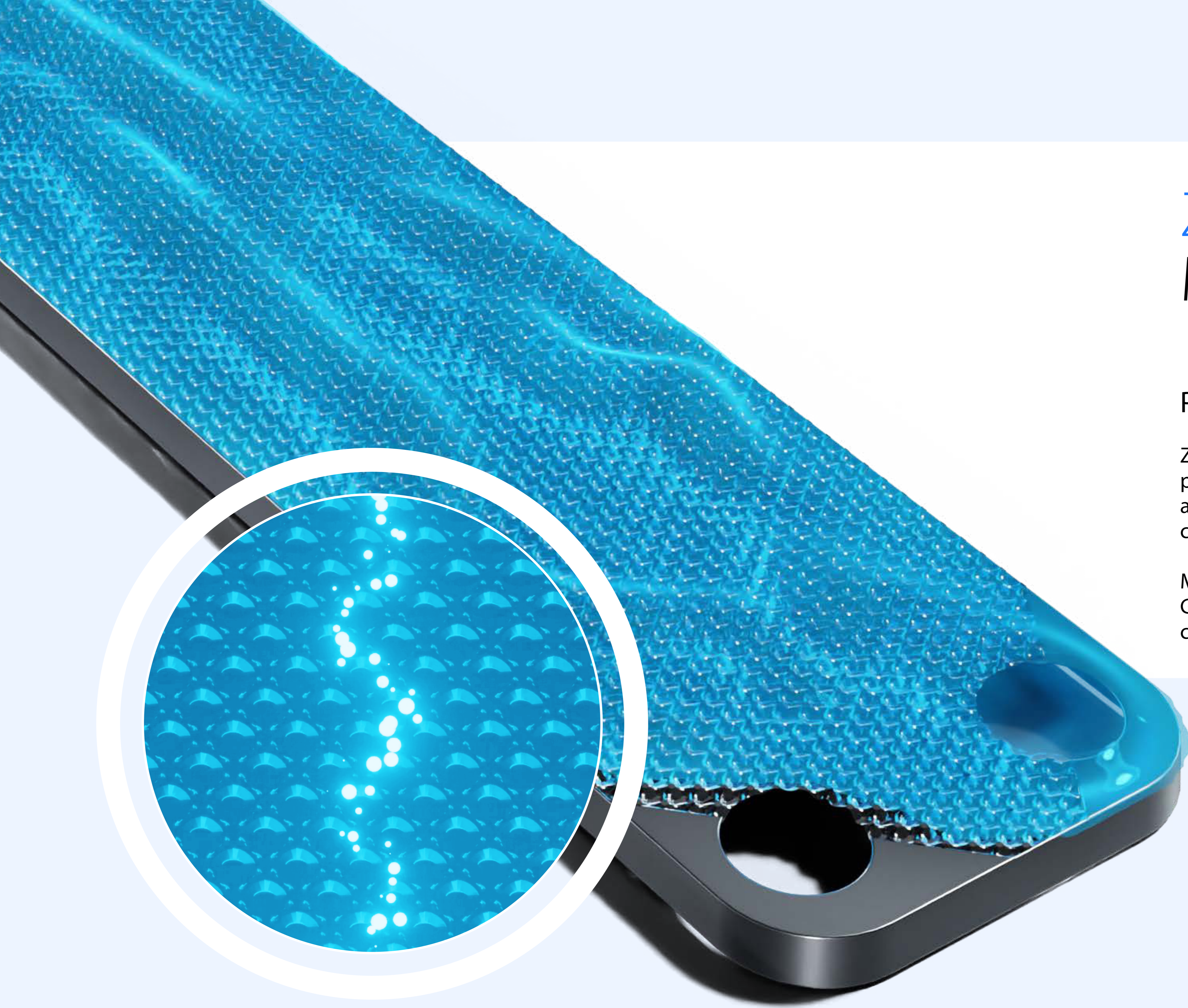
A new generation with big impact

As one of the leading worldwide suppliers of heat exchangers, Danfoss takes pride in pushing the boundaries and constantly setting new standards for tomorrow. Therefore, with every new generation of heat exchangers, we improve the overall efficiency – and the new generation Z is no different.

The range of Z-design heat exchangers sets out to disrupt the status quo within the industry with a minimum of 20% more efficient heat transfer, 20% lower refrigerant charge, and 20% lower raw material weight.

All in all, the new generation Z heat exchangers will enable the creation of a new generation of heat pumps, chillers, and other refrigeration applications for new-build or renovation projects.





Z-design pattern for Micro Plate™ technology

Perfect refrigerant distribution

Z-design Micro Plate™ heat exchangers offer high efficiency performance and are designed for chiller and heat pump applications with single or dual circuits for medium to large commercial buildings with unparalleled refrigerant distribution.

Micro Plate™ heat exchangers are optimized for multiple Low GWP refrigerants and are compatible with other refrigerants for commercial refrigeration.

A wide family of Z-design products

Z-design Micro Plate™ heat exchangers offer high efficiency performance and are designed for chiller and heat pump applications with single or dual circuits for medium to large commercial buildings such as hotels, offices, and data centers ranging from 3 to 800 kW.

Using the same innovative technology, all Z-design evaporator models have been created with both new buildings and retrofits in mind, anticipating rooftop and cellar-compact installations. In addition, the series is also suitable for new waste-heat recovery applications, such as heat transfer from data center chillers to district heating systems.

Key benefits include:

- Higher heat transfer and energy efficiency
- Minimal hold-up volume leading to less refrigerant charge and savings on installation costs
- Reduction in both raw material needs and product weight
- Lower CO₂ emissions and carbon footprint
- Compatible with other Danfoss products and suitable for use in oil-free systems

Compatible with many refrigerants

Micro Plate™ heat exchangers are optimized for R32, R454B, R290, R410A air conditioning systems and are compatible with other refrigerant replacement and with other refrigerants for commercial refrigeration including R134a, R1234zeE, R1234yf, R513A, R515B, etc.

A system design of tomorrow

The Z-design series for HVAC-R applications enables a new generation of highly efficient and compact systems to contribute to the development of highly efficient building concepts that are set to become the norm in tomorrow's sustainable cities.



Chillers – R410A – R454B – R32

Platform	12	17	22	39	55	62	118	117	129-S	129-D	212	262
Outline, mm	76 x 154	95 x 178	76 x 312	118 x 332	109 x 525	118 x 525	186 x 613	246 x 486	246 x 525	246 x 525	296 x 706	358 x 744
Capacity, kW	0.5 - 6	2 - 15	3-30	5-50	10-65	30-90	70-250	50-250	50-300	50-300	200-450	300-800
Chiller, evaporator	<u>C12L-EZ</u> <u>C12L-EZ-R</u>	<u>C17L-EZ</u>	<u>C22(L)-E</u>	<u>C39L-EZ</u> <u>C39L-EZ-F</u> <u>C39L-EZ-J</u>	<u>C55(L)-EU</u>	<u>C62(L)-E</u> <u>C62(L)-EZ</u> <u>C62(L)-EZ-B</u> <u>C62L-EZ-F</u> <u>C62L-EZ-J/K</u>	<u>C118(L)-E</u> <u>C118(L)-EZ</u> <u>C118L-EZ-F</u>	<u>C117(L)-EZD</u> <u>C117(L)-EZD-B</u>	<u>C129L-EZ</u> <u>C129L-EZ-B</u> <u>C129L-EZ-F</u>	<u>C129L-EZD</u> <u>C129L-EZD-B</u> <u>C129L-EZD-F</u> C129L-EZD-C/D	<u>C212(L)-EZD</u> <u>C212L-EZD-F</u>	<u>C262L-EZD</u> <u>C262L-EZD-F</u>
Chiller, condenser	-	-	<u>C22(L)-C</u>	-	<u>C55(L)-C</u>	<u>C62(L)-CX</u>	<u>C118(L)-C</u>	<u>C117L-CZD</u>	<u>C129L-CZ</u>	<u>C129L-CZD</u>	<u>C212L-CZD</u>	<u>C262L-CZD</u>
VRF, economizer	<u>C12L-EZ</u> <u>C12L-EZ-R</u>	<u>C17L-EZ</u>	<u>C22(L)-E</u>	-	<u>C55(L)-EU</u>	<u>C62(L)-E</u>	<u>C118(L)-E</u>	-	-	-	-	-
Heat recovery	-	-	<u>C22(L)-E</u>	-	<u>C55(L)-C</u>	<u>C62(L)-C</u>	<u>C118(L)-C</u>	-	<u>C129L-CZ</u>	<u>C129L-CZD</u>	<u>C212L-CZD</u>	<u>C262L-CZD</u>

Heat Pumps – R32 - R290 - R410A - R454B - R454C - R455A

Platform	17	22	30	34	39	44	48	55	62	118	129-D
Outline, mm	95 x 178	76 x 312	95 x 320	118 x 289	117 x 331	119 x 376	126 x 386	109 x 525	118 x 525	186 x 613	246 x 525
Capacity, kW	2-15	2-20	3-10	2-20	5-15	2-15	10-150	5-40	5-50	30-130	50-300
Heat pump, evaporator	-	<u>H22(L)-E</u>	-	-	<u>H39L-EZU</u>	-	-	-	<u>H62(L)-E</u> <u>H62(L)-EZU</u>	<u>H118(L)-E</u> <u>H118L-EZ</u>	<u>H129L-EZD</u>
Heat pump, condenser	<u>H17L-CZ</u>	<u>H22(L)-C</u>	<u>H30(L)-C</u> <u>H30-CW</u> <u>HDW30-C</u> <u>Double Wall</u>	-	-	<u>HDW44-C</u> <u>Double Wall</u>	<u>H48T-CH</u> <u>H48T-CL</u>	<u>H55(L)-C</u>	<u>H62(L)-C</u> <u>H62(L)-CX</u> <u>H62L-CZ</u>	<u>H118(L)-C</u> <u>H118L-CZ</u>	<u>H129L-CZD</u>
SGHX	<u>H17L-CZ</u>	-	-	<u>H34L-CL</u> <u>H34L-CM</u>	-	-	<u>H48T-CH</u> <u>H48T-CL</u>	-	-	-	-

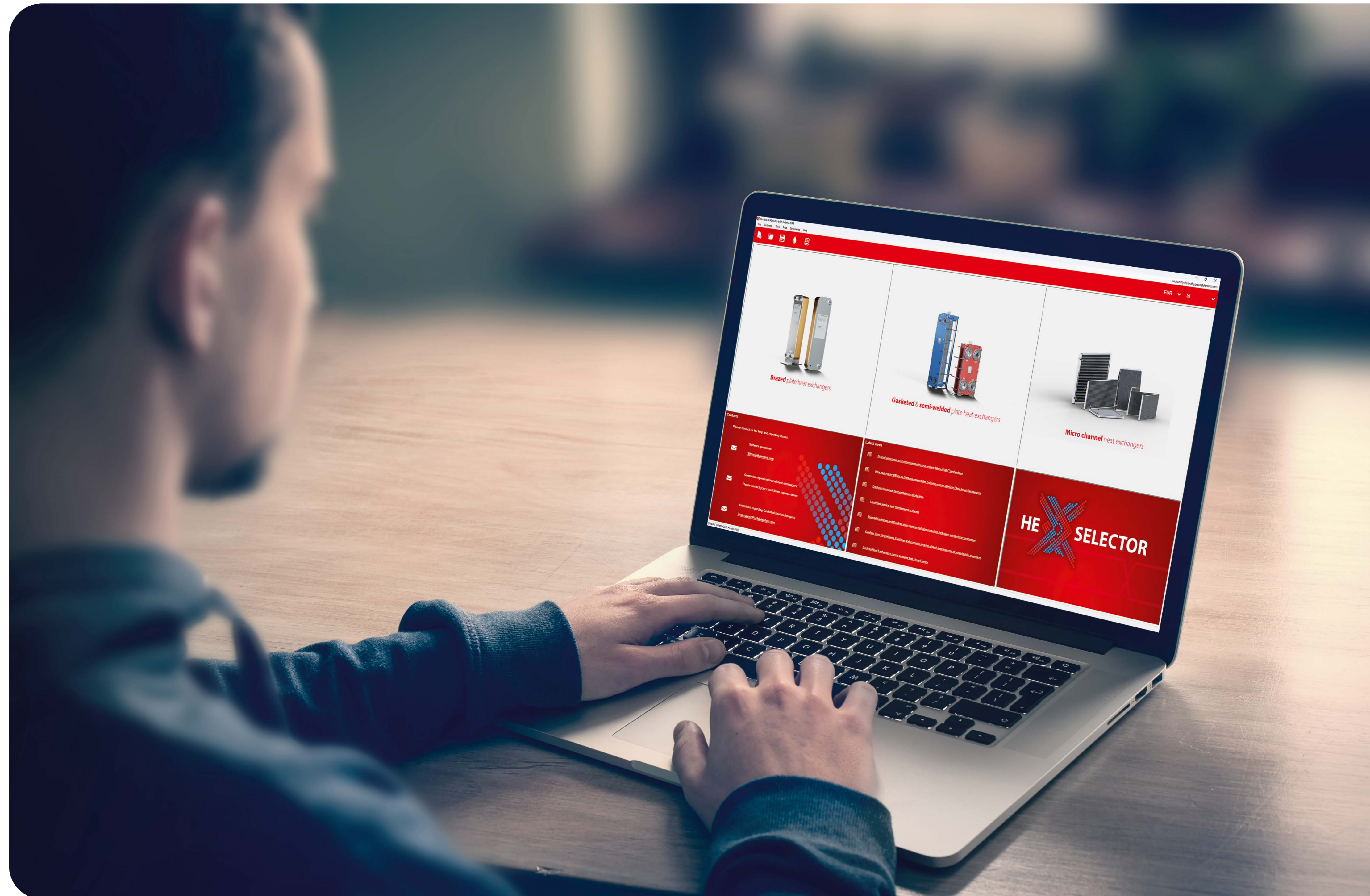
Danfoss HEXSelector

Your ultimate solution for selecting the right heat exchanger

The HEXSelector selection software is a powerful tool engineered to streamline and optimize the selection process, ensuring you are getting the most out of your equipment.

Whether you require to choose a heat exchanger for HVAC applications to indirectly connect chillers, boilers, and cooling towers to central plant systems, or for economizer circuits and heat recovery circuits to reduce cooling load on the chillers, our heat exchanger software ensures the latest product range and software features at your fingertips.

[Get HEXSelector](#)



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Danfoss A/S
Nordborgvej 81
6430 Nordborg
Denmark
danfoss@danfoss.com
CVR reg. no. 20165715

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