

ENGINEERING
TOMORROW

Danfoss

eBrochure | Danfoss brazed plate heat exchangers

Brazed plate heat exchangers for residential **propane** heat pumps

Micro Plate™ technology enhances refrigerant-side flow and ensures low refrigerant charge

Read about the H39L-EZU which is compatible with reversible heat pump systems, the H62L-CZ asymmetric condenser and the ultra-safe HDW30-C/HDW44-C double wall condensers - all optimized for propane as a refrigerant

» START HERE



Danfoss Heat Exchangers

H39L-EZU evaporator

Efficient heat exchanger → efficient system

The heat exchanger is a key component when it comes to overall system efficiency. Having a high-performance heat exchanger can lead to significant energy savings on both the water pump and compressor.

Built for efficiency, the H39L-EZU hits the mark with a low water side pressure drop and the Micro Plate™ technology that lowers the refrigerant charge and enhances the refrigerant-side flow.



Navigate through this eLeaflet by **clicking the**  **buttons**



Danfoss Heat Exchangers

H39L-EZU evaporator



COMPATIBLE

with reversible heat pump systems

H39L-EZU can function efficiently as an evaporator or a condenser, providing you with a state of the art heat transfer solution for your reversible system.

In addition to the unique Micro Plate™ technology, the H39L-EZU has a special mixing chamber that creates excellent conditions for two-phase refrigerants and features superheating regions that enables optimal phase shift. This results in great refrigerant distribution with no degradation on part load and means that the heat exchanger is less sensitive to the refrigerant's connection size.

At Danfoss, we offer a full range of components for heat pumps, including 4-way valves for reversible heat pump systems.

[Read more about all our heat pump solutions >](#)



Danfoss Heat Exchangers

H39L-EZU evaporator

OPTIMIZED

for natural refrigerant R290 propane

With increasing regulations on the climate harming F-gas refrigerants worldwide, there is an increasing demand for products that are suited for more climate-friendly natural refrigerants, such as R290 propane.

The H39L-EZU is optimized for propane with its Micro Plate™ technology that lowers the refrigerant charge in the system by 20% and Z-design that perfects refrigerant distribution making it a future-proof solution that can meet legal requirements in the long run while also greatly benefiting the heat pump system as a whole.

[Watch the H39L-EZU video](#) >

[Read the H39L-EZU datasheet](#) >



Danfoss Heat Exchangers

Heat exchanger portfolio optimized for propane



COMPLETE

solution for R290 propane

Together with our existing line of condenser products, the new H39L-EZU joins an industry leading brazed plate heat exchanger portfolio for residential heat pumps using propane.

We offer best-in-market solutions for heat pumps with our air-to-air and air-to-water heat exchangers - and with the revolutionary H39L-EZU as the latest addition, we have a complete lineup with a ground source compatible heat exchanger for a full propane product suite.

[Discover all our R290 brazed plate heat exchangers >](#)



Danfoss Heat Exchangers

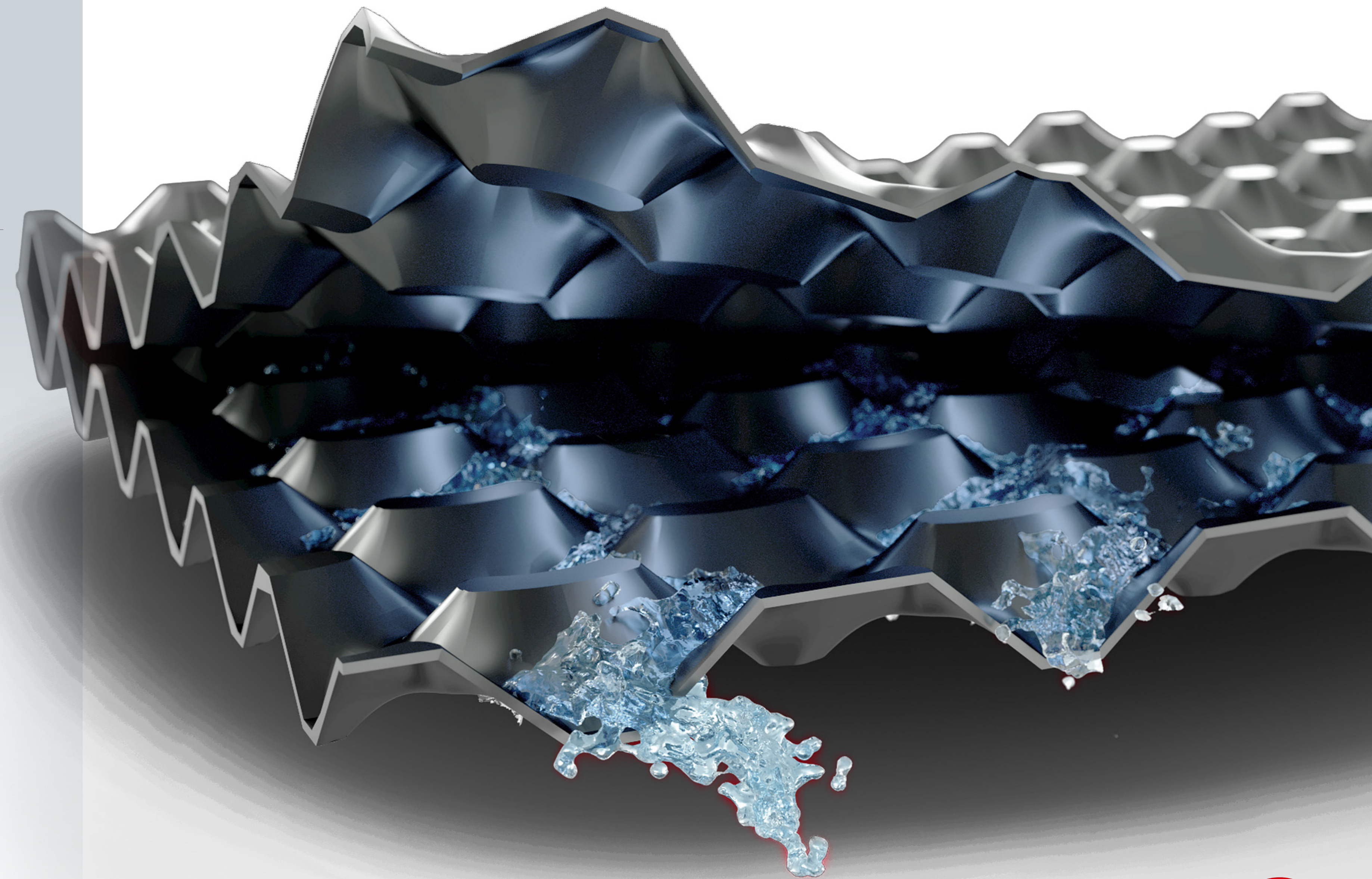
Z-design pattern for Micro Plate™ technology

ASYMMETRIC

efficiency

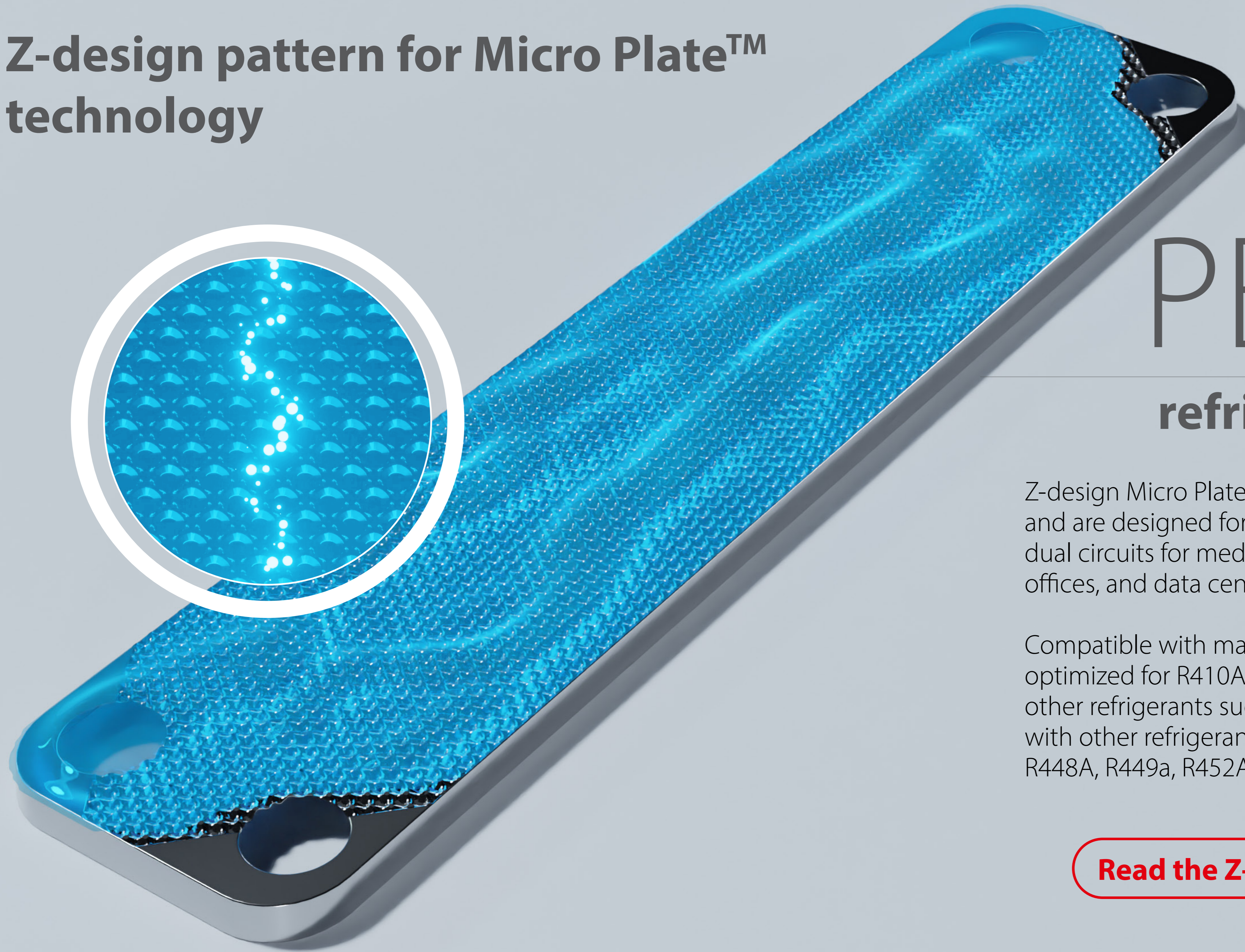
With the new and innovative Z-design heat exchanger series, HVAC-R manufacturers can achieve significantly better economic and environmental performance with high efficiency. The secret behind the game-changing advantages of the series lies in the use of a dimple-based design, which promotes an asymmetric 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.



Danfoss Heat Exchangers

Z-design pattern for Micro Plate™ technology



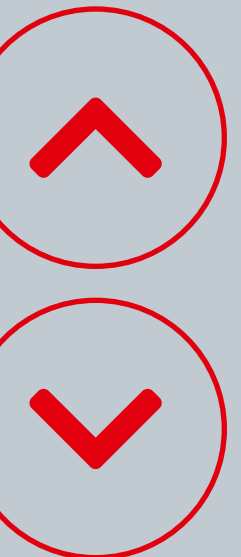
PERFECT

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 such as hotels, offices, and data centers with unparalleled refrigerant distribution.

Compatible with many refrigerants Micro Plate™ heat exchangers are optimized for R410A air conditioning systems and are compatible with other refrigerants such as R410A replacements (R32, R452B, R454B) and with other refrigerants for commercial refrigeration including R134a, R448A, R449a, R452A, R290 etc.

[Read the Z-design brochure](#)



H62L-CZ condenser

Z-DESIGN

Micro Plate™ condenser

The H62L-CZ is a condenser optimized for use in R290 heat pumps and chillers. The innovative Micro Plate™ technology and the asymmetric Z-design plates with different flow channels on the refrigerant and water side improve heat transfer, reduce the amount of material used and minimize the pressure loss on the water side.

To meet demands for higher seasonal efficiency, the H62L-CZ is designed to work efficiently and increase comfort in modern buildings without increasing the carbon footprint. Helping heat pumps and watercooled chillers perform more efficiently, it reduces both energy consumption and environmental impact. The low hold-up volume reduces the system refrigerant charge and offers valuable savings.

[Read the H62L-CZ datasheet](#)



Danfoss Heat Exchangers

HDW30-C & HDW44-C double wall condensers



ULTRA-SAFE

solutions for critical-media applications

HDW30-C and HDW44-C are double wall heat exchangers designed for condenser or desuperheater applications where the liquids are not allowed to mix.

The double wall heat exchangers prevent the primary flow to be mixed with the secondary flow if there is an internal leak in the unit by leading the leaking liquid out of the heat exchanger.

The main applications are condensers or desuperheaters in heat pump systems for hot sanitary water.

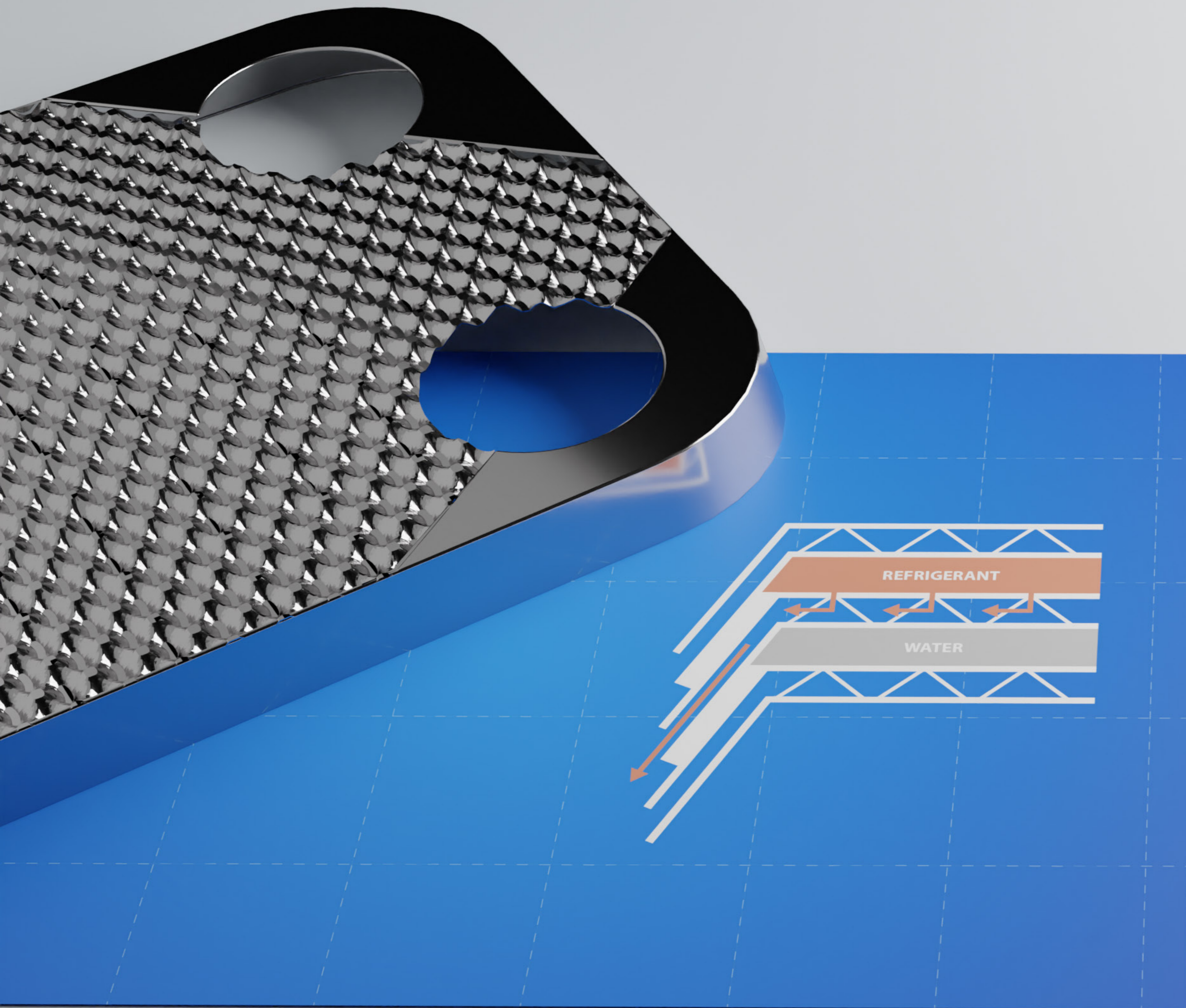
[Read the HDW30-C datasheet](#)



[Read the HDW44-C datasheet](#)



Double wall technology



WORKING

principle

By having two plates per flow channel instead of one, Danfoss double wall technology ensures that the liquids in the heat exchanger will never mix and makes any internal leaks visible from the outside. Both factors are very important in applications where safety is a priority.

Benefits:

- Internal leakage can be detected
- Exceptional double-wall thermal efficiency

[Watch the propane heat pump portfolio video >](#)



Danfoss Heat Exchangers

Double wall technology

SAFEGUARD

against internal leaks

Danfoss double wall brazed plate heat exchangers are high-quality products that combine high efficiency with high safety, while keeping the advantages of the regular brazed plate heat exchanger – including compactness.

These products are optimized for applications where the liquids must not mix, such as heat pump applications, boilers, transformer oil cooling, de-super heaters, and heat recovery from air compressors.



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To learn more about how Danfoss can help you improve your energy efficiency and optimize your solutions, please visit our website and get in touch today.

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