



Danfoss | D-plate technology

# Experience **D-power** with the **revolutionary** new **D-plate technology**



# Introducing the revolutionary D-plate technology - experience the D-power

Our Danfoss engineers have enhanced the way heat exchanger plates are designed with the introduction of the new D-plate series. Drawing on years of experience within heat transfer technology and deep application knowledge, we have made significant upgrades to the traditional Fishbone plates to truly redefine the way we think of heat exchanger plates.

Maximizing both performance and product lifetime, the D-plate series is a milestone in innovation and moves plate heat exchanger technology into a bright new era of advanced, yet simple solutions.

Someone once said that all gasketed plate heat exchangers are not the same and that you should always look at the features on offer. This is a belief that we share at Danfoss, and why we never settle for mediocre solutions. Just because something works doesn't mean that it can't be improved, which is why we never stop innovating: to bring you the best solution possible.

#### The strongest plate to date

The Composite Diagonal Reinforcement, together with a well-designed inlet pattern, is what makes thinner plates possible.

The component is made from an advanced glass-fiber reinforced polymer able to withstand a wide range of chemicals, acids, and alkalic fluids inside the gasketed plate heat exchanger standard design temperature range of: -20°C to +180°C.

Even though the component is not in direct media contact we have made sure that it is capable of handling a very wide range of even quite aggressive fluids.

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#### Powerful performance We have increased the thermal performance of our plates by up to 10% compared

to the usual plate design.

#### Revolutionary D-Lock<sup>™</sup> ·······

The patented D-Lock<sup>™</sup> gasket system is easy to attach. It snaps the gasket into the D-Lock<sup>™</sup> sockets and keeps it firmly in place. The system is designed so that no part of the gasket is exposed to UV-light, thereby extending its lifetime.

#### Highly intuitive hanging system

Our new hanging system uses a component made from a cost-effective, durable glass reinforced composite that makes servicing the plate pack highly intuitive and easy.

The Composite Hanging System offers two benefits:

- Better user experience (slides much better on carrying bar / guiding bar)
- It is placed more accurately (relative to the portholes) on the plate than a normal stamped hanging profile

#### Perfect plate alignment with corner locks

Perfect plate alignment with our new corner locking system. The plate corners fit together to stabilize the plate pack and eliminate the risk of snaking.

The Corner Alignment system offers significant benefits, such as ensuring perfect alignment of plates which promotes higher first pass yield in the production and also makes it easier for the installer to seal a heat exchanger, after servicing.



## Technical **specification overview**

#### Heat exchanger D110

Туре		D110		
Max. working pressure	PN (bar)*	10, 16, 25		
Max. operating temperature	°C	Up to 180		
Min. operating temperature		-20		
Flow medium		Water and different fluids, steam		
Volume / channel	I	3.2		
Connection size		DN 150 / 6"		
Connection type		DN 150/6" flanges. Carbon steel or rubber lined (Other materials available on request)		
Plate material*		Stainless steel EN 1.4404 (AISI 316L), EN 1.4301 (AISI 304), titanium Gr.1 Other materials available on request		
Plate thickness*	mm	0.3; 0.4; 0.5		
Gasket material		NBR, EPDM, Other materials available on request		
Gasket attachment type		D-Lock (D)		
Liners in connections		Stainless steel EN 1.4404 (AISI 316L), EN 1.4301 (AISI 304), SMO254, Hastelloy C276, titanium Gr.1, Rubber liners (requires 1.5 mm spacer plate)		
Frame		Painted frame, color RAL 3020 (RED)		
Frame type		All carbon steel (non-food) frames: IG/IS/DG/DS		
Frame paint specification		Painting available for corrosion categories C2L, C4M, C5M		
Composite used for hanging system		Glass reinforced PPS type 1		
Composite used for diagonal reinforcement		Glass + Mineral reinforced PPS type 2		

D- plate configuration		AISI304/316 Thickness 0.4 mm	AlSI304/316 Thickness 0.5 mm	Titanium Thickness 0.4 mm	Titanium Thickness 0.5 mm
Max. design pressure	PN16	PN25	PN25	PN16	PN25





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