



## Alfa Laval DuroShell plate-and-shell heat exchangers

### 5 reasons to switch from shell-and-tube heat exchangers



For years, shell-and-tube model heat exchangers have been the traditional solution for heat transfer in applications involving two-phase mixtures or especially high temperatures and pressures. But while shell-and-tubes can meet demands that are unsuitable for gasketed plate heat exchangers, their operation also involves a number of significant drawbacks.



## Improved performance

As many in industry have already discovered, converting to a plate-and-shell heat exchanger like Alfa Laval DuroShell can mean improved performance – and an improved bottom line. If your business is unsure about making the switch, here are five reasons that may change your mind:



Robust, fully welded and highly resistant to fatigue, Alfa Laval DuroShell withstands variations in temperature and pressure.



**DuroShell RollerCoaster**  
Robust and efficient performance.



**DuroShell PowerPack**  
Optimized flow distribution and fatigue resistance.

Learn more at [www.alfalaval.com/duroshell](http://www.alfalaval.com/duroshell)

## Extending performance with the Alfa Laval 360° Service Portfolio

Our extensive service portfolio offers all the services you need to ensure top performance, maximum uptime and operating efficiency from your Alfa Laval equipment throughout its life cycle. Our committed team's expertise and the availability of parts bring you peace of mind.



### How to contact Alfa Laval

Up-to-date Alfa Laval contact details for all countries are always available on our website at [www.alfalaval.com](http://www.alfalaval.com).

Alfa Laval reserves the right to change specifications without prior notification.

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- 1 A smaller footprint**  
Bulky shell-and-tube designs pose particular challenges for power plants and petrochemical facilities dealing with space limitations. This can cause acute issues during expansion projects, where plants are looking to add capacity within a minimal existing footprint, or simply where debottlenecking is necessary. Plate-and-shell models are much more compact, offering a number of clear benefits – from simplified installation to increased operational efficiency.
- 2 No more fouling issues**  
Shell-and-tubes are notoriously prone to fouling, limiting their heat transfer capabilities over time. By switching to a unit such as DuroShell, turbulence created across the plate makes it possible to reduce or even eliminate fouling problems altogether. The result is more reliable performance and a longer lifetime for equipment used in demanding applications.
- 3 Increased thermal efficiency**  
The flow distribution and reduced fouling give plate-and-shell heat exchangers like DuroShell much higher thermal efficiency than their shell-and-tube counterparts. This in turn creates new possibilities for increased productivity and energy savings.
- 4 Reduced maintenance needs**  
Due to fouling problems, businesses using shell-and-tube heat exchangers are forced to devote a great deal of time to labour-intensive maintenance. For plate-and-shell units like DuroShell, complicated cleaning processes are replaced with quicker, simpler solutions such as backflushing or Cleaning-in-Place systems.
- 5 Significant savings**  
With DuroShell as your choice of plate-and-shell heat exchanger, the initial investment will be much lower than with most shell-and-tube units. However, savings on CAPEX is only the start. There is also a much lower total cost of ownership thanks to minimized service needs combined with the possibility of a reduction in overall energy consumption.

As these reasons show, plate-and-shells can offer important benefits for demanding positions in both power and petrochemical production. But their full potential has only now been realized with Alfa Laval DuroShell. Visit [www.alfalaval.com/duroshell](http://www.alfalaval.com/duroshell) to find out why.