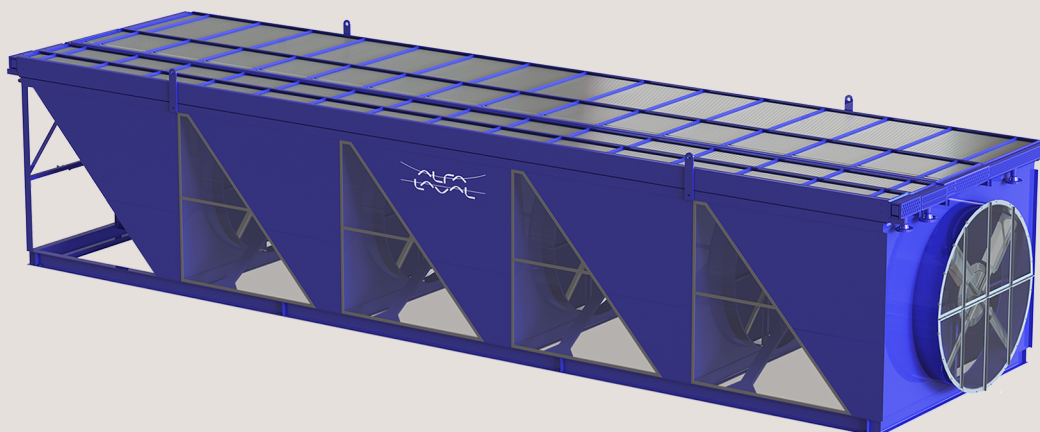




## Alfa Laval ACE Model T

The largest engine driven air cooled heat exchanger available in the industry



### Introduction

The Alfa Laval ACE Model T is an engineered-to-order air cooled heat exchanger perfectly suited for large, engine driven natural gas compression applications. The pressure vessels (bundles) are installed horizontally above one or more vertically oriented fans, a configuration which enables lower transportation costs by optimizing bundle dimensions. Heat transfer is maximized by taking advantage of the longer available finned tube lengths.

### Applications

The Alfa Laval ACE Model T, given the horizontal orientation of pressure vessels, is perfectly suited for all large gas fired engine driven compression applications within the upstream and midstream natural gas industries.

### Benefits

- Engineered-to-order design flexibility allows configurations to meet the customer's exact process fluid cooling requirements.
- Scalable to cool very large amounts of process fluids.
- High reliability due to robust, ASME coded pressure vessels and structures built to withstand the harsh and remote conditions of natural gas compression installations.
- Available ACE Vspeed substantially reduces parasitic motor horsepower and liquid fallout from overcooled process fluids.

- Vertical discharge of waste heat eliminates excess heat load and stress on the engine.
- Lower transportation costs due to narrow design.

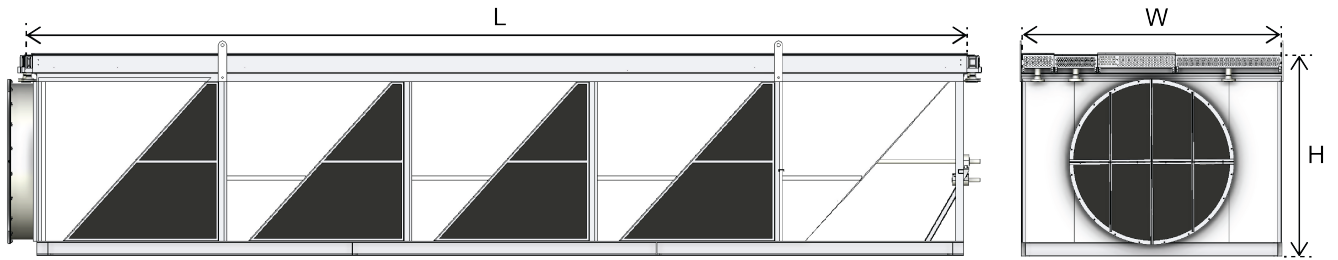
### Working principle

The three primary components of the Alfa Laval ACE Model T are the bundles, fan/speed reducer sub-assembly and the structure. The horizontal bundles, which are the pressure vessels, direct the process liquid or vapor to flow through the inside the finned tubes. The finned tubes transfer heat from the process fluid to the air passing through and around the tube's fins. The fans used to move the air sit underneath the heat exchanger bundles and force, or push, the air across the bundles. The structure directs the airflow between the bundles and fans and supports the weight of the entire unit.

### Design configuration

- Bundles are horizontal with vertical fans and forced draft, vertical air ejection.
- Available in single to five fan configurations.
- Fans are powered by a compression skid engine.
- Structure available in bolted galvanized or welded painted construction.
- Optional ACE Vspeed explosion proof variable fan speed control to reduce parasitic horsepower consumption and liquid fallout from overcooled process fluids.
- Additional structure available, such as manual or automatic louvers hail/bug, service platforms, walkways and ladders.
- Additional accessories such as surge tanks are available.
- Multiple or single process cooling.

## Dimensional drawing



No. of Fans	Dimensions, feet (m)		
	Tube Length (L)	Width (W)	Height (H)
1 - 5*	10' – 60' (3.0 – 18.3)	6' – 16' (1.8 – 4.9)	As required

\* 5 fan unit shown in dimensional drawing

## Technical data

### Pressure vessel (bundle) options

Tube bundles	Straight tube, crossflow or counterflow design
Code designs	Non-code, ASME VIII Div 1, NACE and PED available
Header options	Tubing headers Plug box ASME code headers optional
Header material options	Carbon steel 300 series stainless steel optional
Tube options	0.625" to 1.5" tube OD available
Tube material options	Carbon steel Stainless steel and high alloy optional
Fin options	HyperFin L-footed Smooth L-footed, embedded or extruded fins optional
Bundle accessories	Surge tanks per bundle optional

### Fan/mechanical options

Fans	Diameters available from 2' to 14' Fan driven by compression skid engine
Fan driver	Totally enclosed fan cooled (TEFC), Explosion proof or IEC motors available on special request
Speed control	Alfa Laval ACE Vspeed optional

### Structure options

Metal	Welded and painted construction Bolted steel with hot-dipped galvanized construction optional
Perimeter bug screens	Metal or fabric screens optional
Louvers	Automatic or manual louvers optional
Access package	Ladders, walkways, platforms and piperacks optional

## Unique features



**Vspeed**  
Automatic fan speed adjustment for minimal power consumption.



**HyperFin**  
Slitted fin design maximizes heat transfer.



**HybridCool**  
Combined wet and dry bulb cooling for minimized water consumption.



**ALOnsite**  
Global, onsite service by skilled engineers.

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

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