

# CASE STUDY

## Turboexpander Design

# AMB Turboexpander-Compressor

L.A. Turbine designed and built this two-stage, L3000 turboexpander-compressor unit for ethylene processing in the U.S. The design is API 617-compliant and includes high and low pressure units, working in series, with active magnetic bearings and a common seal gas system. The application design requires one (1) on-skid push button panel for local start/stop, and one (1) off-skid unit control panel in a remote control room.



## Your On-Call Turboexpander Experts

Contact us today for  
turboexpander design,  
repair or 24/7/365  
support services.

**24/7/365**  
+1 855 FX-TURBO

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Specifications		
Application	Ethylene Processing	
Frame Size	L3000	
Speed	28,000 RPM	26,800 RPM
Flow Rate	44 MMSCFD	44 MMSCFD
Inlet Pressure/Temperature	428 PSIA/-166°F	187 PSIA/-204°F
Outlet Pressure/Temperature	188 PSIA/-204°F	79 PSIA/-239°F
Wheel Power	611 hp	575 hp

**L.A. Turbine™**

*Rethinking Turboexpanders*

[www.LATurbine.com](http://www.LATurbine.com)

L.A. Turbine designs and manufactures application-specific, highly engineered turboexpanders used in hydrocarbon processing, geothermal power generation and other industrial power recovery or refrigeration applications.

The company is also a recognized leader in aftermarket repair, redesign, maintenance and production of spare parts for all brands and configurations of turboexpanders worldwide.

A global field service team provides diagnostics, maintenance and emergency support 24/7/365.

**24/7/365**  
Support Services

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# L.A. Turbine: Your On-Call Turboexpander Experts

## Turboexpanders

Turboexpander configurations include expander-compressor, expander-generator, expander-dyno (oil brake) and expander-compressors with active magnetic bearing units. Turboexpanders range from 3kW to 14MW, are capable of handling up to 3,000 PSIG pressure, can operate at speeds up to 105,000 RPM, and accommodate temperatures between -195°C to 260°C.

## Ability to Deliver

From concept to commissioning, L.A. Turbine controls and manages the entire design, engineering manufacturing, assembly and testing process for all new and aftermarket equipment. As a result, we are able to deliver faster-to-market customized solutions than competitive firms, and our equipment not only meets but often exceeds clients' output performance requirements. All engineering design and development processes comply with ISO 9001:2008.

## Global Presence

L.A. Turbine has established a global presence on five continents, in 16 world offices and partner locations. U.S. headquarters and manufacturing is located in Valencia, California, with sales and service facilities in California, Texas and Belgium. U.S. operations also support the needs of Canada, South America, Asia and Australia. European headquarters in Belgium serve Europe, the Middle East and Africa.

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