

# CASE STUDY

Turboexpander Modification & Redesign

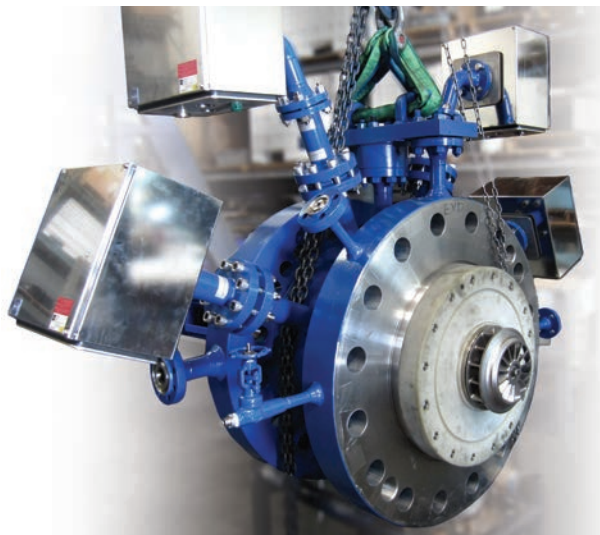
## LAT44 Turboexpander-Compressor

### 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

© 2016 L.A. Turbine Corporation. All rights reserved.  
Printed in the USA. 1004\_021916



L.A. Turbine completed a modification and redesign of the mechanical center section of this existing turboexpander-compressor located on an offshore platform off the African coast. The purpose of the project was to increase gas-processing capacity, while accommodating the existing requirement for a reduced footprint, meeting the demanding environmental platform conditions and providing the customer with more reliable, stable and maintenance-free equipment. The modification and redesign work involved the magnetic bearing, terminal boxes, inlet guide vane (IGV) system, feed-through seal, active magnetic bearing control system, PLC Delta-V control system and seal gas system.

#### Specifications

Frame Size	L4000/FR40
Speed	21,500 RPM
Flow Rate	223,433 kg/hr.
Inlet Pressure/Temperature	79 BAR A/-5.6°C
Outlet Pressure/Temperature	26 BAR A/-55.6°C
Wheel Power	4300 kW

**L.A. Turbine**<sup>™</sup>

*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**

+1 855 FX-TURBO  
(+1 855 398 8726)  
service@LATurbine.com



# 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.

### L.A. Turbine Headquarters

28557 Industry Drive  
Valencia, CA 91355 USA  
T: +1 661 294 8290  
sales@LATurbine.com

### Europe | Middle East | Africa Sales & Service Center

Rue des Semailles 22/5  
4400 Flémalle BELGIUM  
T: +32 4 247 30 11  
saleseurope@LATurbine.com

  
*Rethinking Turboexpanders*  
[www.LATurbine.com](http://www.LATurbine.com)