

# ROTARY LOBE BLOWERS AND SCREW COMPRESSORS FOR STEAM APPLICATIONS

Reliable, Safe, and Efficient Blowers and Compressors for Steam



**AERZEN**

# Blower and Compressor Packages

Application-specific design of the package and the stage to meet desired MTBO targets and other site requirements:

**5 year overhauls and 30 year service life are possible in many applications.**

- Standard designs, modified standard designs, and fully custom process gas packages.
- Insulating jacket and water injection nozzle included.
- Suitable for gases entrained with CO<sub>2</sub>, NH<sub>3</sub>, hydrocarbons, or particulates.

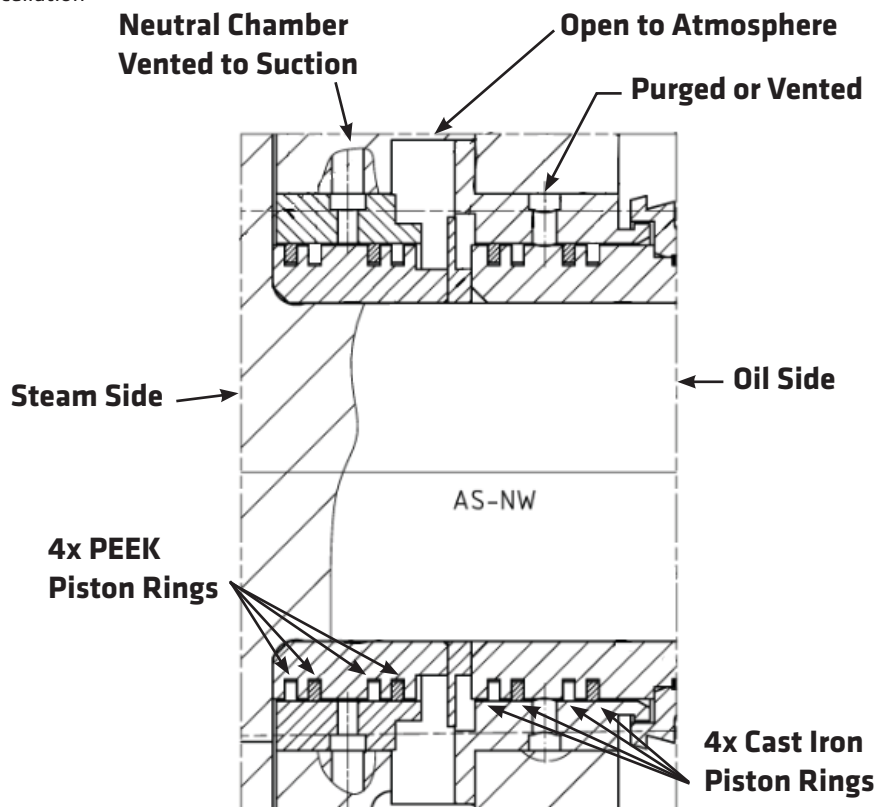
## GM Blower

### Performance Data

- ~2:1 Pressure ratio, up to 15 psi (1000 mbar) pressure difference
- 35 to 8,500 cfm (60 to 14,000 m<sup>3</sup>/h)
- 3 lobes with patented integral pulsation cancellation



GM 240 S steam blower for ZLD with Ni-Resist D2B steam housing and stainless steel rotors



### Materials and Coatings:

- Standard materials with electroless nickel plating
- Material options (Recommended for ZLD Crystallizer)
  - Ni-Resist D2B housing
  - Stainless steel rotors

### Package Options:

- Direct, belt, or gearbox drive
- Controls and instrumentation
- Special sound enclosures
  - High wind, snow, seismic loads
  - Winter, desert, or harsh loads environments

See G1-069 Brochure

## GR Blower

### Performance Data

- ~2:1 Pressure ratio, up to 15 psi (1000 mbar) pressure difference
- 60 to 30,000 cfm (100 to 50,000 m<sup>3</sup>/h)

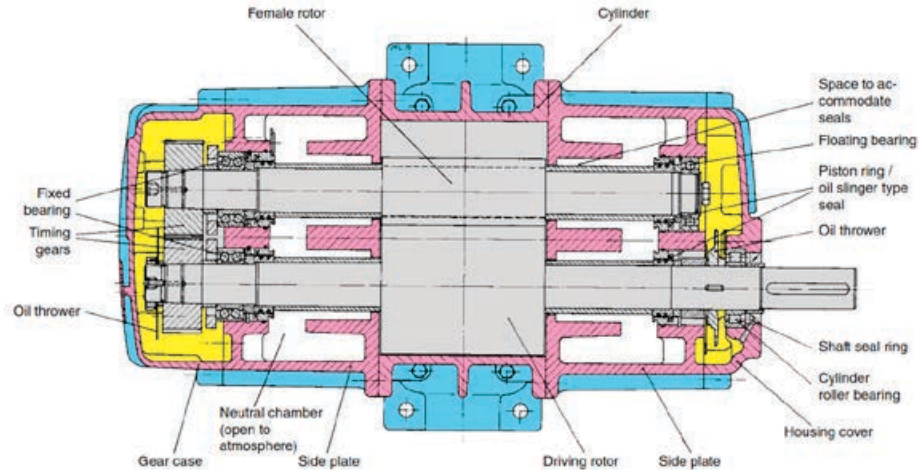
### Materials:

- Standard materials with electroless nickel plating
- Optional: 100% stainless steel

### Seals:

- Carbon labyrinth rings  
Low cost, high reliability
- Double mechanical water-purged seals  
Zero steam loss or process contamination

See G1-151 brochure for more information



## Screw Compressors For Steam Technology

Modified VM compressors and fully custom VRa process gas packages

### Seals:

Water/steam/gas purged carbon labyrinth rings

### Housing Material:

Nickel-resist cast iron, electroless nickel plated cast iron, or stainless steel

### Rotor Material:

Forged stainless steel, one piece

### Options:

- Water/steam purged mechanical seals
- Stainless steel housings
- Fully API 619 compliant packages
- Controls and instrumentation
- Special sound enclosures  
High wind, snow, seismic loads  
Winter, desert, or harsh loads environments

### VM 10 to VM 140 Oil-Free Screw Compressor

#### Performance Data

- 80 to 5,000 cfm (136 to 8,495 m<sup>3</sup>/h)
  - 15 to 72.5 psi dP (1 to 5 bar dP)
- See V1-080 brochure for more information



**VM 237i for steam.**

### VRa API 619 Oil-Free Screw Compressor

#### Performance Data

- 160 to 90,000 cfm (275 to 150,000 m<sup>3</sup>/h)
  - 15 to 100 psi dP (1 to 7 bar dP)
- See V1-067 brochure for more information



**100% stainless steel VRa 736 M  
with water injection.**



## Installation examples



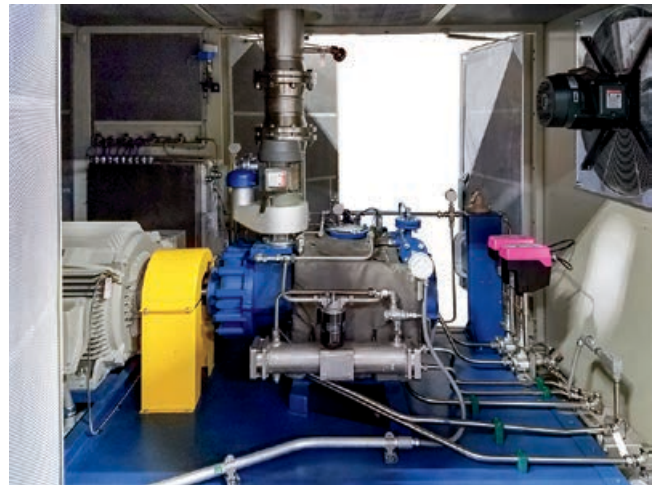
*Aerzen Blower Package for Steam Compression*



*GM 240 S for steam in a ZLD Crystallizer at a battery manufacturer*



*VM 237i Steam Compressor for Lithium Ion Battery Production*



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