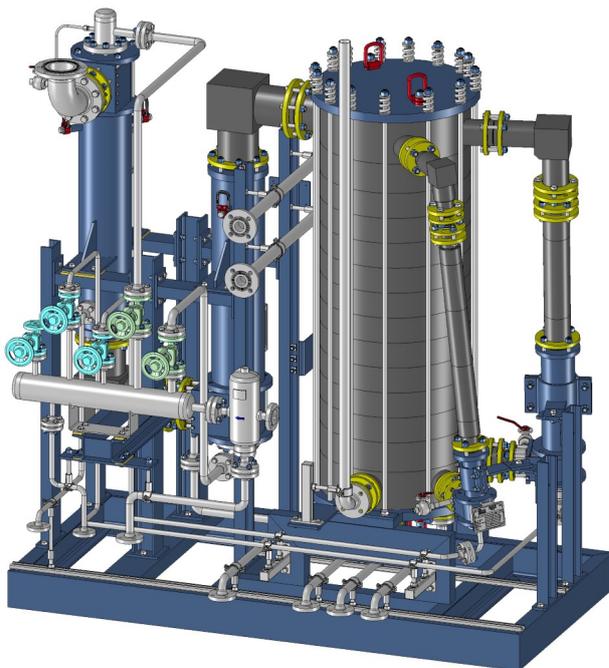


Graphite steam jet vacuum pumps and vacuum technology with annular groove condenser

Graphite Steam Jet Vacuum System

- Multiple steam ejectors in series
- Single annular groove condenser with multiple pressure levels. The heat transfer surface of the condenser is split in several independent condensation areas
- Outstanding corrosion resistance against acids, halogenated compounds, and solvents
- Adjustable vacuum level from 1 mbar abs to atmospheric pressure
- Implementation of highly conductive materials therefore ATEX design possible on request
- Skid-mounted unit upon request



Skid-mounted 4 stage steam jet vacuum system

Applications:

- Vacuum generation for chemical, pharmaceutical or fine chemical applications
- Production of phosphoric acid, herbicides, pesticides, fine chemicals, active pharmaceutical ingredients, fire retardants, flavors and fragrances, vitamins, and many more
- Replacement of porcelain ejectors (because of ATEX requirement)
- Replacement of metal ejectors (because of corrosion)

Advantages and special features

High corrosion resistance against acids, halogenated compounds, and solvents

Simple, reliable, low-cost way to produce vacuum

Compression rate between 1:7 and 1:15. Adjustable vacuum level

No rotating parts. High reliability and plant availability

Sturdy, compact, and modular design

The steam jet can be equipped with a heating jacket if required

Low maintenance requirements

Allowable operating conditions

Design pressure: -1 barg (full vacuum) to +6 barg (90 psig)

Design temperature: -30 to +200°C (-76 to 392°F)



Graphite steam jet vacuum pumps and vacuum technology with annular groove condenser

Materials Used and Material Options

Graphite	Phenolic resin-impregnated graphite GAB GPX1 / GPX1T or GAB GPX2 with low resin content (option)
Reinforcement	Carbon fiber fabric (optional)
Gaskets	None (inside the condenser due to cemented discs) Flat gaskets
Steel parts	Pressure plates and flanges: carbon steel (stainless steel as an option) Rods, nuts, springs: stainless steel

Technical Perfection

Long lifetime

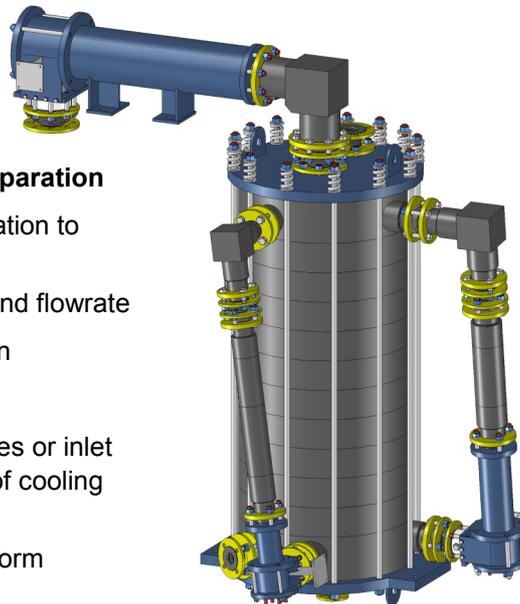
Cost effective

Low-cost alternative to corrosion-resistant rotating vacuum pumps

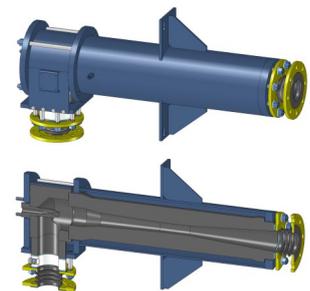
Low maintenance cost

Design and Inspection

- Annular groove heat exchangers are designed, manufactured and inspected according to AD 2000 Merkblatt (in compliance with the European Pressure Equipment Directive, PED). Other designs and codes upon request



3 stage steam jet vacuum system



Single steam ejector

Specifications and offer preparation

We need the following information to prepare a complete offer:

- Requested vacuum level and flowrate
- Process media composition
- Motive steam pressure
- Inlet and outlet temperatures or inlet temperature and flowrate of cooling media
- Please fill in our WS1553 form

Additional Information

- Additional piece of information (brochures, corrosion charts, product information, data sheets,...) can be found on our web site at <https://www.gab-neumann.com/>



Graphite and SiC Heat Exchangers and Process Equipment