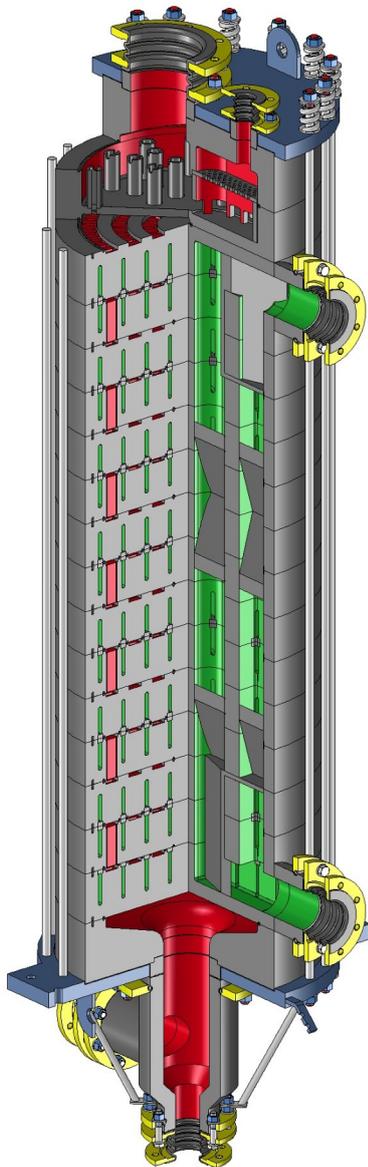


Graphite Annular Groove Absorber A Series

Product Information (RN-S1)

Graphite Annular Groove Absorber

- Impregnated graphite absorber for isothermal absorption of hydrogen chloride (HCl) and other halogen chloride gases
- Resistant against corrosion by virtually all acids, acid mixtures, halogen compounds and solvents
- Large interphase by special current arrangement allowing intensive mass transfer
- Co-current and counter-current designs available
- Design for small, medium and large inert gas content



Design

- Cylindrical, cooled graphite discs with straight flow channels for gas absorption
- Distribution disc with overflow cartridges for equal distribution of liquid and gas absorption
- Step joints between the discs for mass transfer optimization
- Section flow corresponding to decreasing gas volume
- Annular groove channels on utility side for optimized heat transfer
- Carbon fiber reinforcement of main body (optional)
- Capacity for 40 to 2.000 kg/h HCl gas at 100% concentration
- Max. transfer area: 55 m² (592 ft²)
- Max. disc diameter: 900 mm (36")

Potential Applications

- Production of high purity hydrochloric acid
- Absorption of HCl in tail gas stream

Graphite Annular Groove Absorber
(co-current flow with inert gas separation device)
(cross section)

Features

Optional resistance against corrosion by acids and halogen compounds

Flow sections corresponding to decreasing gas volume

High mass transfer

Robust construction

Wide load area at highest absorption

Small overall height, compact design

Low maintenance cost

High plant availability

Design parameters

-1 bar to +6 (+10) bar
max. allowable pressure

Full vacuum to 90 psig
(150 psig)

-30 (-60)°C to +180 (+200)°C
-22°F (-74°F) to 356°F (392°F)
max. allowable temperature



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Materials Used and Material Options

Graphite	Phenolic formaldehyde resin-impregnated graphite GAB GPX1 / GPX1T resp. GAB GPX2 with low resin content (optional)
Reinforcement	Carbon fiber fabric (standard at 90/45 and 90/90 psi design pressure)
Steel parts	Pressure plates and flanges: carbon steel (optional stainless steel) Rods, nuts springs: stainless steel

Specifications and Price Quotes

For a detailed offer, please provide the following data:

- Quantity and physical properties of the process and service medium
- Required inlet and outlet temperatures
- Operational pressure and allowed pressure drops
- Further process details (optional)
- Please fill out our questionnaire: WS 1550

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 design and manufacturing standards upon request

Absorber disc of
Annular groove absorber A7-21-C

Additional information

- Further precisions and complementary information (brochures, corrosion resistance charts, product information, data sheets,...) are available for download at www.gab-neumann.de.

Advantages

- Robust design
- Modular setup
- Easy assembly
- High operational safety
- Easy mechanical cleaning

Technically Perfection

Application preferred in single-purpose and mono plants

Optional thermal performance at compact dimensions

Long lifetime

Economically Outstanding

Low-cost alternative to shell & tube exchangers for small- and medium-sized transfer areas

Low maintenance and spare part cost

Competitive pricing

Short lead times