



NITRIC ACID CATALYST BASKET

Alloy Engineering has been manufacturing ammonia oxidation catalyst baskets for low, medium and high-pressure plants since 1977. Known for our hallmark egg crate grid design for high-pressure plant baskets, Alloy Engineering's catalyst baskets have proven to be robust in the severe temperature service to support and seal the precious metal catalyst. Through innovative design and materials-selection expertise, our catalyst baskets outlive those of most competitors to minimize life-cycle costs.

Features:

- Fabricated from heat-resistant materials such as 310, 800AT, 600, 601 and Haynes Alloy 230® in sizes ranging from 1 ft. -20 ft. in diameter
- Hex-mesh grid support designs offered in single and multiple sections for best performance and ease of installation
- Haynes Alloy 230® grid material for strength and long life
- Integral expansion joints provide metal growth in rapid start-ups and shutdowns
- Segmented weight rings provide an improved seal to prevent ammonia gas bypassing around the gauze
- Compared to cylindrical baskets, conical baskets are more resistant to deformation over time from the extreme thermal gradients experienced during operation

BENEFITS OF ALLOY'S FABRICATED BASKET:

- Truss-alloy grids for improved gauze support
- Integral expansion joints eliminate rigid connections that cause cracking
- Segmented grid assemblies for best performance and increased strength
- Fabricated low, medium and high-pressure baskets
- Specialty grids designed and manufactured on a per-application basis, unlike traditional style baskets

Reduced Maintenance • Longer Life • Lower Life-Cycle Cost

Alloy Engineering

844 Thacker Street, Berea, OH 44017 Phone 440.243.6800 Fax 440.243.6489

Email sales@alloyengineering.com or visit alloyengineering.com



ALLOY ENGINEERING

- Extensive experience in all stainless and high nickel alloys
- Custom fabrications
- Welded to ASME/AWS specifications
- Testing to verify quality including dye-penetrant, pressure testing, x-ray and UT.
- Our ASME-CE's will provide recommendations for longer product life

Quality and Certifications

- ASME Section I S-Stamp
- ASME Section VIII, Div. I U-Stamp
- NBIC R-Stamp
- AWS - CWI and AWS-SCWI Welding Inspectors
- Level II and ASNT TC-1A Certified NDE Inspectors
- In-House Visual, Helium Leak Test, PT, MT, PMI, and Phased Array UT
- RT, UT, Ferrite by Certified Vendors
- Fan Vibration Testing, Balancing and Shaft Run-out

Engineering and Design

- PV Elite (ASME Code Calculations)
- Finite Element Analysis (FEA)
- Fan Design
- SolidWorks 3D
- HTRI for the Thermal Rating of Heat Exchangers

Welding

- Welders Qualified to ASME Section IX and AWS D1.1
- SAW
- GTAW
- GMAW
- FCAW
- PAW
- Manipulators
- Robotic Manipulator-SAW, GMAW
- Strip Cladding Weld Overlays

Fabrication and Prep

- Forming and Corrugation Tooling
- Edge Prep Beveler
- Plasma Table
- Ironworker Hole Puncher
- Bentech 15T Tube/Pipe/Rod Bender
- Shear - 10' Capacity
- Press Brakes to 1,000T/24' Bed/180" Throat
- Plate Rolls - 10' Width/ 1" Thickness (Larger Capacity Available)
- Fan Balancing Machine
- Fan Vibration Testing and Analysis
- Blasting and Painting In-House to Specification

Machining

- CNC Horizontal Boring Mill 168" Capacity
- Large Turning 84" Ø x 37' OAL
- CNC Lathe 80" Ø x 14' OAL
- Vertical Turning Lathes up to 110" Capacity x 66" H
- Milling Machines, Drill Presses, Grinders
- Saws
- Pipe End Machining

Lifting Capacity

- 50,000 LBS in House
- 20' Under Hook
- 20' Shipping Doors

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