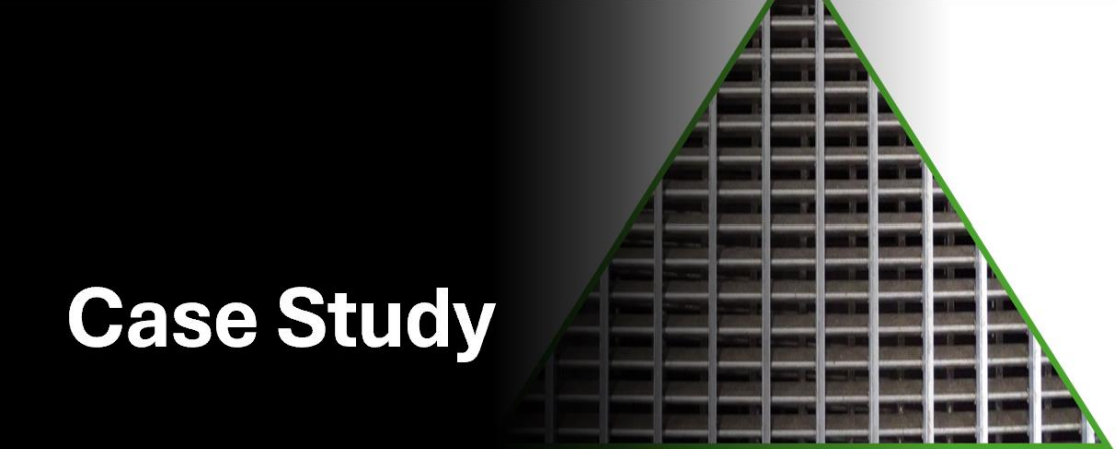


Case Study

Catalyst Support Grid

Profile

A prominent Gulf Coast manufacturer and leader in separations technology solutions in Texas was requisitioned to fabricate a catalyst reaction vessel within a tight timeline.

They focus on offering customized separations solutions that optimize critical customer processes in the hydrocarbon production and processing industries. Their solutions span across O&G production, pipeline & transmission, gas processing, refining, chemical & petrochemical facilities.

Trust is a foundational value they uphold with their clients. In order to deliver on their promise of project excellence, they must rely on competent vendor business partners.

"Delta's responsiveness was one of the main reasons we have stayed with Delta."

"Delta's staff are very technical, you have an impressive facility, and you are also able to technically assist our clients, which is important to us."

(General Manager)

Challenge

The catalyst grid support used in these reaction vessels is a highly critical and functional component that ensures solids separation and liquid transfer through the catalyst media. The design criteria for these typically include:

- High load bearing – grid must support the catalyst media, operating liquid weight and pressure drop
- Buckling and collapse resistance
- Corrosion resistance – for long service life of the vessel and to avoid costly maintenance / shutdowns
- Ensure specific flow characteristics through the grid

The reactor vessel catalyst support grid needed to be modular (multi-piece) in design and fabricated within a 3-week timeline.

"Increasing catalyst bed life increases overall profitability by increasing up time, reducing catalyst replacement cost and aligning shut-downs to plant wide maintenance schedules."

(Excerpt from customer website)

Case Study

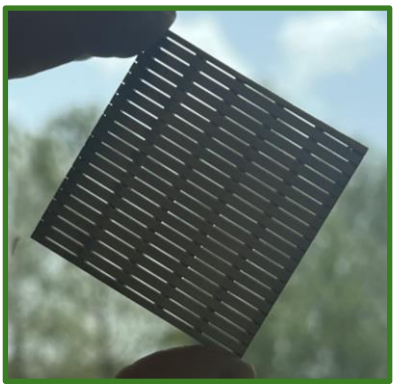
Solution

Developing a solution to meet these demanding working conditions requires industry expertise, manufacturing capability and engineering / design competency. When tight fabrication timelines are imposed, these factors become even more critical.

Our highly experienced Industrial Engineer obtained the necessary dimensional, operational and material specifications criteria and proceeded to engineer and design an appropriately sized catalyst bed support grid made from stainless steel bar (support girders) and Delta Screen's wedge wire filter media. After detailed drawing and customer approval, the support grid was fabricated in Houston with Made in America materials, something we take pride in providing to our customers who are seeking long-term quality fabricated solutions.

This 63" diameter modular (multi-piece) catalyst support grid was designed, fabricated and delivered to our customer within the promised turnaround date of 3 weeks.

Delta Screens & Filtration proudly continues to fabricate filtration / separation screens for this valued customer.



Wedge wire filters are made with precision gap (slot) size to meet the desired flow requirements and solids particulate filtration.

We can provide from 0.002" (50 micron) gaps with best-in-class tolerance of +0.002"/-0.001".

Delta Screens & Filtration, LLC, 6649 N. Eldridge Pkwy, Houston, TX 77041

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