

# HITARD

## ENGINEERING

oil & gas engineers

European leading Engineering and Design Office for  
Heat Exchangers - Pressure Vessels - Engineering

## What we do

### Complete project services

- Thermal / process design
- Bid phase / pre-engineering
- Setting plans & Shopping list
- Mechanical design calculations
- Fabrication drawings
- Pipe Stress engineering
- 3D modeling
- Consulting services

### for equipment such as

- Shell and tube heat exchangers
- Plate heat exchangers
- Helixchangers
- Waste Heat Boilers
- Condensers
- Vessels
- Columns
- Reactors
- Separators
- Air coolers
- Filters and Strainers
- Tanks & Silos
- Skids & Modules
- Piping
- Structural

## What we use

### the latest international codes and standards

- ASME VIII Div. 1 & 2
- Eurocodes / EN 13445
- AD-2000 Regelwerk
- CODAP Div. 1 & 2
- BS codes / PD 5500
- AS-1210 S1 & S2
- ASME B31.3
- RToD / Stoomwezen
- TEMA & API Standards

### the latest softwares for thermal and mechanical design calculations

- HTRI
- Compress
- PVElite / CodeCalc
- OhmTech VVD
- Microprotol / AutoPIPE Vessel
- FE-Pipe / NozzlePRO
- Finglow
- CAESEAR II
- Hitard in-house softwares

### CAD tools for fabrication drawings and 3D modeling

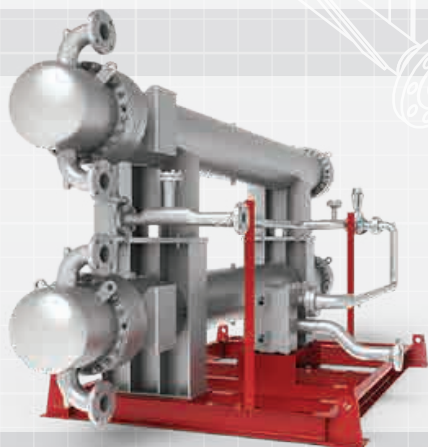
- AutoCAD
- Inventor
- SolidWorks
- Pro/Engineer / PTC Creo
- CADWorks
- OneSpace Designer Drafting

## Finite Element Analysis

Hitard uses FEA and Fatigue life analysis when local stresses need to be calculated in complex structures or equipment with cyclic loading (pressure, temperature, vibration) cases.

### For FEA we use:

- Pro/MECHANICA
- MSC Software
- FE-Pipe / Nozzle-Pro
- PCL-Gold



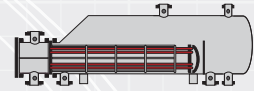
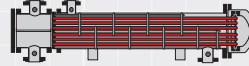
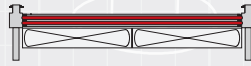
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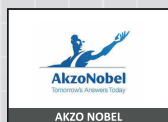
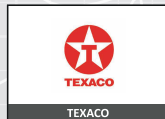
## Proposal Support



- Providing assistance in preparing your proposals
- Supporting your engineering department (we will execute the material selections, the wall thickness calculations, the setting plans and the related engineering issues)
- Based on the services and information prepared by Hitard, you can quickly assess the overall complexity of the equipment construction and calculate the total cost in materials and in man-hours, and do the final pricing
- Due to our know-how and state of the art computer software, we are capable of providing bid calculations within 24 hours, based on your data sheets, with accuracies suitable for your budget estimations so you can respond fast to client quotations.



- With our experience and software tools, Hitard is in a unique position, combining the flexibility of a smaller office and the capabilities of a large engineering contractor.
- Hitard is not only the design office for your process plant but also assists you in getting the required paperwork in order.



**Providing Quality Service is our Top Priority**  
*since 1995*