

Efficiency & Effectiveness in Upgrading Processes

EMbaffle® longitudinal flow Shell&Tube Heat Exchanger is widely referenced in a number of Upgrading Processes where:

- + **fouling rate** is relevant
- + **high pressures** dictate compact shapes
- + crevice corrosion is a major issue

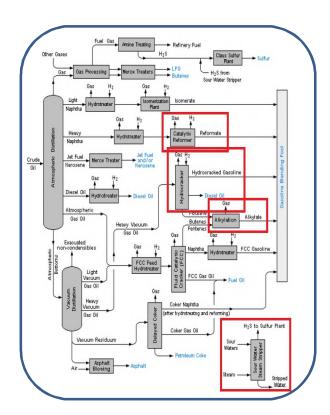
EMbaffle® can successfully replace the conventional heat exchanger design

Longitudinal flow design permits to **reduce fouling** deposition and accumulation. It preserves the flow quality and the reliability of the equipment and the Plant and it reduces the maintenance frequency

High Pressures are usual in synthesis of fuels. EMbaffle® patented design allows for higher tube placement density; as a consequence shell diameter can be minimized providing a more compact & light piece of equipment

Because of its open structure, and consequent avoidance of dead zones, EMbaffle® is **less prone to crevice corrosion** and arising mechanical damages As a consequence EMbaffle® permits to extend the lifetime of the equipment and it is **less sensible to expensive maintenance-to-failure** interventions

EMbaffle®, installed in a critical line, after 4 ys. of almost continuous operations shows no indications of incipient corrosion and consequent mechanical damages

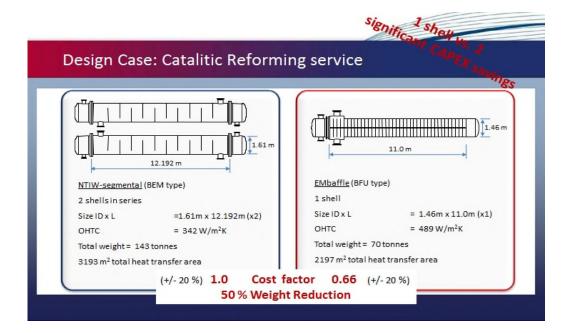






The proposed design case hereinafter refers to EMbaffle equipment currently operating in a critical line of a major Upgrading Facility in North America

Calculations have been performed with HTRI and data source file is available to qualified Professionals



Working with the EMbaffle®

EMbaffle® technology is available under licence to Heat Exchanger Manufacturers

EMbaffle B.V. provides Licensees consulting services to design, review and verification of the thermal performances of EMbaffle®

EMbaffle B.V. supports Engineering Companies, Procurement Contractors and End Customers to ensure the optimal integration of their equipment and clean, safe and reliable operations

EMbaffle B.V. has chosen the widespread HTRI® software as reference design tool

For any information contactus at:

LionsParc

A. Van Leeuwenhoekweg 38 A10

2408 AN Alphen a/d Rijn, The Netherlands

Telephone +31 172 447 040

Licensing enquieries <u>licensing@embaffle.com</u>

Sales enquieries <u>sales@embaffle.com</u>