

It is important to have the best catalyst to ensure optimal performance of your hydroprocessing unit. However, it is equally important to have the best reactor internals to ensure the optimal flow conditions for the catalytic reactions in your reactor.

Topsoe's outlet collector ensures even flow distribution in the bottom bed thereby maximizing catalyst utilization in addition to preventing bed migration. Furthermore, it is designed to withstand high loads during operation, and the removable center panel allows for fast and easy inspections of the reactor outlet piping.

## **Advantages**

- Ensures ideal flow characteristics at the exit of the bottom bed
- Simple and fast installation
- Easy inspection through the removable center panel
- Strong construction and functional design



Topsoe's outlet collector provides a uniform pressure drop profile over the bottom bed in the reactor resulting in an even flow distribution. By minimizing channeling and hotspot formations in the catalyst bed, you can fully utilize the catalytic capacity resulting in peak performance for your unit.

## Designed for fast and simple installation

The outlet collector consists of pie-shaped pieces which easily fit through the reactor manway and allows for simple assembly inside the reactor. All of Topsoe's internals are preassembled in the workshop prior to shipping to ensure a perfect fit.

## Removable center panel enables fast assessment and cleaning

The removable center panel is a unique feature for Topsoe's outlet collectors. It is easily opened and allows for hassle-free inspection, cleaning and vacuuming of the outlet pipe without unbolting the larger external outlet pipe flanged connection.

## High mechanical strength ensures endurance

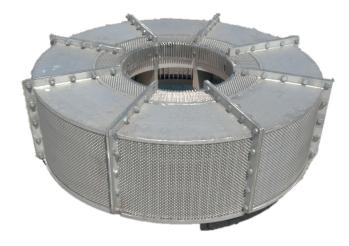
Topsoe's outlet collector is constructed with a very strong metal frame, to withstand the high load of the fluids and catalyst bed above even under upset conditions.



Installation point of the outlet collector in the bottom of the reactor.



CFD simulation showing a uniform pressure drop profile over the bottom bed guaranteeing plug flow in the reactor.



Topsoe's outlet collector is equipped with a removable center panel which enables easy cleaning, vacuuming and inspection of the reactor outlet pipe.



The outlet collector is designed and constructed to withstand the differential pressure it is exposed to during normal operation and upset conditions in order to avoid collapsing and malfunctioning.

