

# Best Solutions.

## Column Internals Made from SIGRABOND® Carbon Fiber-Reinforced Carbon Support Grids

Do you already know our alternative to SGL Group's standard DIABON® process equipment graphite for column support grids?

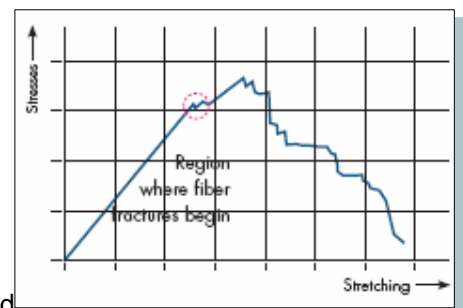
It's SIGRABOND®, our high-strength composite material, which consists of a carbon or graphite matrix with a carbon fiber reinforcement.

SIGRABOND® offers our customers the following unbeatable advantages over other materials:



Segmented SIGRABOND® support grid with DIABON® support ring

- ▶ Large free flow cross-section with only a small pressure drop
- ▶ High specific strength and rigidity with low installation heights
- ▶ Low weight combined with ease of handling (removable)
- ▶ Corrosion resistance even at high temperatures
- ▶ Pseudo plastic fracture behavior (no sudden failure)
- ▶ Thermal shock resistance with virtually no fatigue under alternating load
- ▶ Low coefficient of thermal expansion



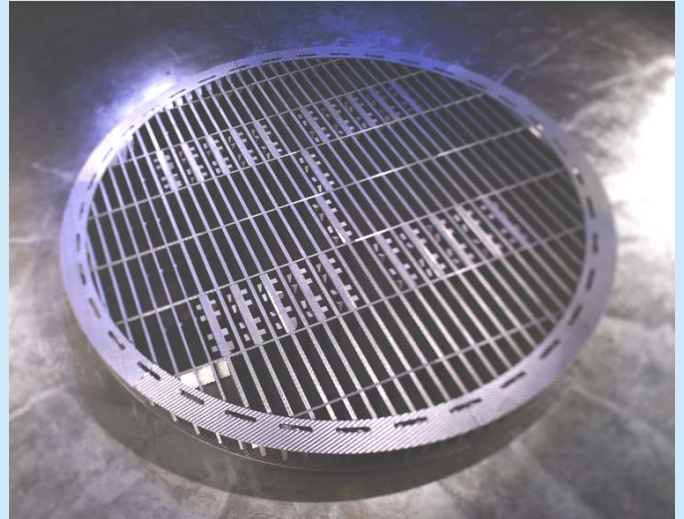
SIGRABOND® strength-strain-diagram

**Broad Base. Best Solutions.**

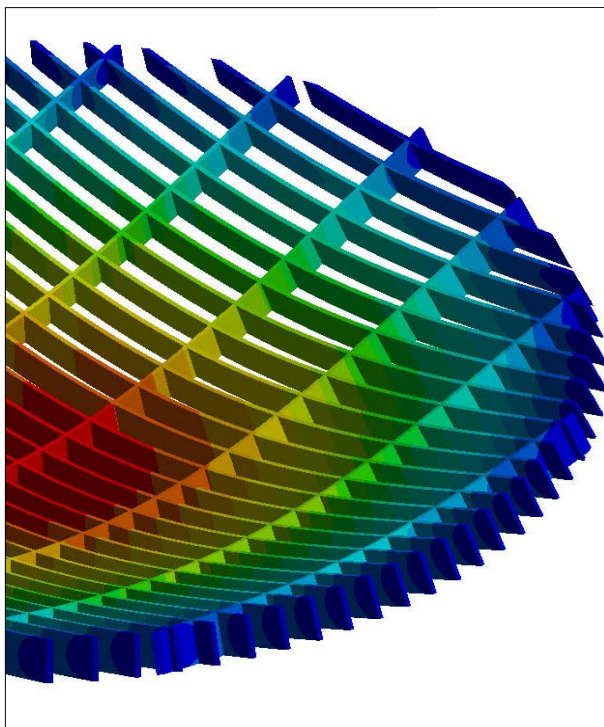
# Best Solutions.

## Available Designs

- ❶ **Standard design, single-component**  
Design of support bars: one piece  
Diameter: up to 1,600 mm
- ❷ **Special design, single-component**  
Design of support bars: one piece  
Diameter: from 1,600 mm to 2,400 mm
- ❸ **Standard design, multiple-component**  
Design of support bars: multipart with bolted joints  
Diameter: 1,600 mm or more
- ❹ **Special design, multiple-component**  
Design of support bars: multipart with bolted joints  
Diameter: from 1,200 mm to 1,600 mm
- ❺ **Other special designs on request**



SIGRABOND® support grid in DN 1600, bolted together



FEM calculation for a SIGRABOND® support grid

SIGRABOND® support grids are suitable for all types of random and structured packing. They can be supplied in various designs for all column cross-sections (see table).

Multipart support bars are bolted together with C/C traction elements (threaded bolts, nuts), so the advantages of composite materials can be fully preserved in these designs as well.

SIGRABOND® support grids can be dismantled completely, whatever their design. This means they can be installed in confined spaces, e.g. through a manhole, without disassembling the column.

Take advantage of our SIGRABOND® composite material and contact us now for more information.