

## ADVANTAGES

- » BRIDGES BIG GAPS BETWEEN THE LENGTH- AND CROSS BAFFLE SEALS TO THE CLADDING
- » JACKING FORCE REMAINS CONSTANT
- » HIGHER CONTACT TIME OF THE MEDIA THROUGH OPTIMAL CLOSURE OF THE GAP
- » PREVENTION OF SHORT CIRCUIT CURRENTS
- » LEVEL OF EFFICIENCY OF THE EXCHANGER IS SIGNIFICANTLY INCREASED
- » PREVENTS CORROSION



## WE ARE THERE FOR YOU!

Should you be interested in a personal consulting through one of our representatives of the field service, please do not hesitate to contact us and arrange an appointment.

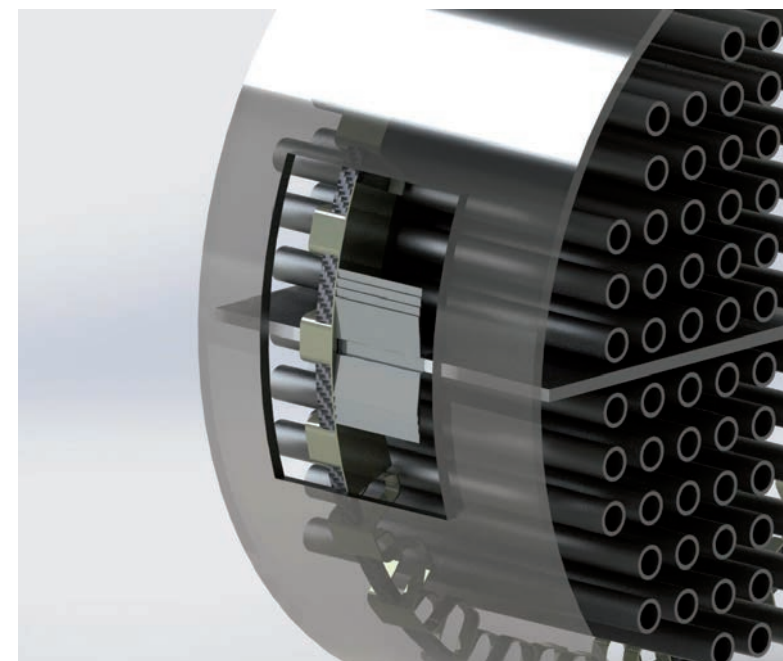
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## LENGTH- AND CROSS BAFFLE SEALS

### FOR HEAT EXCHANGERS

- » Individual design
- » Increase of level of efficiency
- » Reduction of corrosion



# BAFFLE SEALS

The Baffle Seal T4 is used for the efficient sealing of the gap between the pass partition plate and the heat exchanger cover in the high performance heat exchanger.

For the baffles we have as well developed a suitable sealing profile.

At small temperature differences slight short circuit currents can lead to a loss of power. Through overflow at the gaps, corrosion might occur.

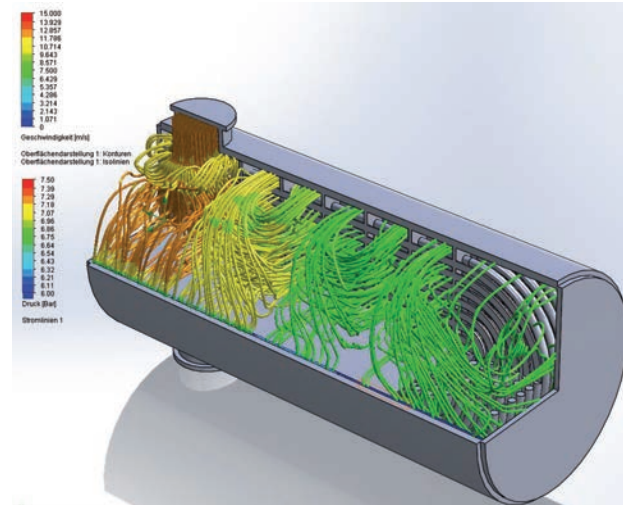
We can produce an exactly adapted baffle seal for each heat exchanger.

It is especially suitable for heat exchangers which developed big or small gaps through reprocessing or warping.

# CALCULATION PROGRAMME

## CFD-Simulation

Basis for the calculation tool was a CFD-simulator.



## Calculation of internal leakage with / without baffle seals

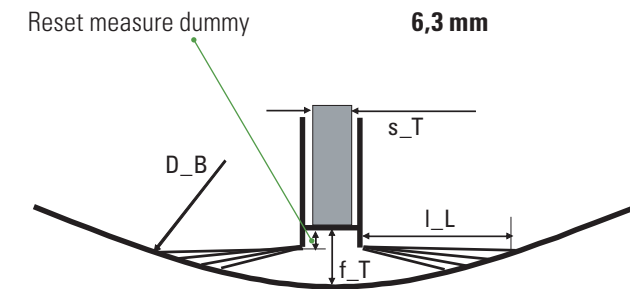
Description	Index	Value	
Overall Volumen-Flow (shell)	V'g	25,00 m <sup>3</sup> /h	416,7 l/min
Overall pressure drop	Δp <sub>s</sub>	0,500 bara	
Number of baffles in one flow direction (only straight numbers)	z	14,0	
Length of baffle (tubes)	L	3000,0 mm	
gap between baffle and shell	s	2,5 mm	
mean density of medium (shell)	ρ	900,0 kg/m <sup>3</sup>	
leakage flow <b>without</b> baffle seals	V'	25,00 m <sup>3</sup> /h	416,7 l/min
flow efficiency without baffle seals	η	0,00 %	
leakage flow <b>with</b> baffle seals	V'	25,00 m <sup>3</sup> /h	416,7 l/min
flow efficiency with baffle seals	η	0,00 %	
Δ-delta leakage flow <b>with</b> baffle seals	V'	25,00 m <sup>3</sup> /h	416,7 l/min
Δ-delta flow efficiency with baffle seals	η	0,00 %	

## Individual determination measure „s“:

### Calculation of the reset measure of a baffle seal

Length of the lamella	I_L	30	mm (T30: 30mm; T20: 20mm)
Width of the baffle	s_T	20	mm (customer specification)
Inner diameter of shell	d_B	500	mm (customer specification)
Number of the lamellas		4	(4 lamellas)
Distance baffle	f_T	10	mm (customer specification)

Additional tolerance	f_T_T	0	
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Through the individual determination of the measure „s“ the level of efficiency of the exchanger is significantly increased and the gasket has a constant contact pressure.

