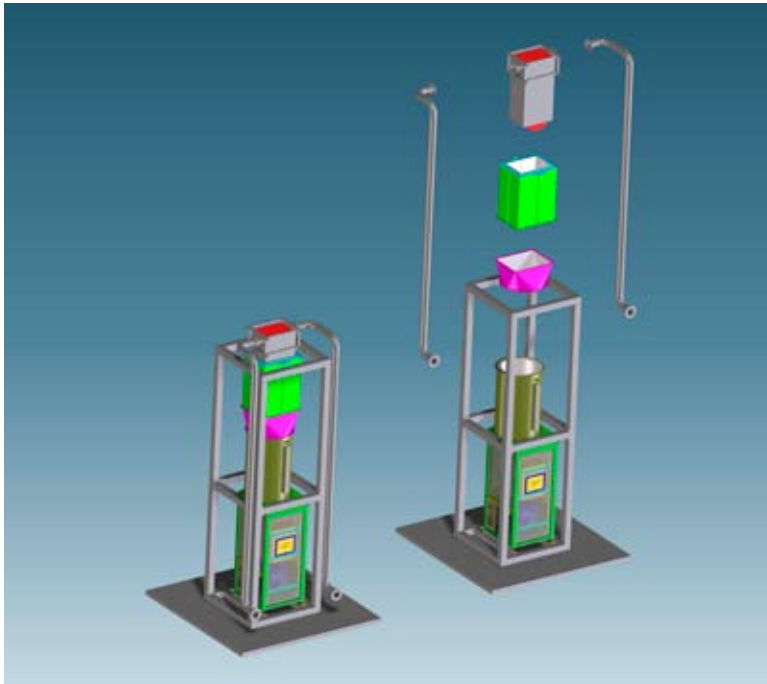


Heat Recovery Module for Bekaert CEB[®] systems

Don't waste the energy of your waste gas/vapour



Keep the environment clean when combusting your waste gases

- No luminous flame
- No odour
- No heat
- No smoke
- Low height
- Small footprint

Achievable emissions levels:

NO_x < 15 ppm

CO < 10 ppm

C_xH_y < 10 ppm

Combustion efficiency:

99,99% over full operational range

Base load, nominal load, peak load: recuperation of the energy out of your waste flows is an interesting option for your operation and the environment.

The Bekaert CEB[®] Heat Recovery Module converts the combustion heat of the Bekaert CEB[®] system into:

- Hot air
- Thermal oil
- Hot water
- Steam

This recuperated thermal energy can be utilized in your process or can be used to generate electrical power.

The Bekaert CEB[®] Heat Recovery Module provides a pay-back on your VOC destruction. It is a valuable energy source for your facilities and helps you to offset your carbon footprint.

CEB[®] is a product of

Bekaert CEB Technologies

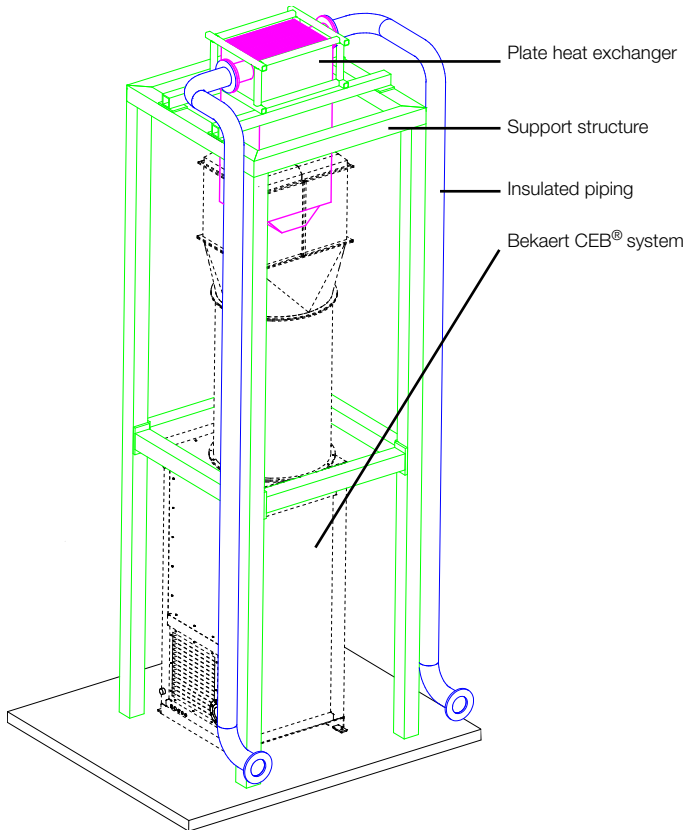
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Bekaert CEB® Technologies can offer you heat recuperation solutions for all our new, but also for already installed Bekaert CEB® systems. Besides the presented plate heat exchanger technology, we can offer you solutions based on for example flue gas boiler and ceramic air-to-air technology.

The Bekaert CEB® systems offering:

- High VOC destruction rate (99.99%)
- Low emission (NOx <15 ppm; CO <10 ppm; CxHy <10 ppm)
- No luminous flame, no sooth
- High operational flexibility (turn-dow, changes in load & flow)
- Small footprint and low height
- Fully automated and processor controlled
- Easy operation and maintenance

Technology:

U plate heat exchanger, 316Ti execution material.
 Heat Exchanger height 2 m
 Total system height 7 m

Implementation:

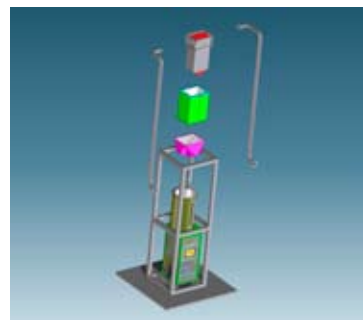
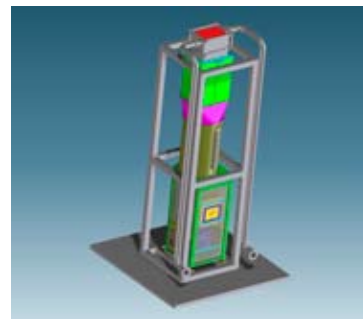
Supported by a structure above the Bekaert CEB® and connected to the Bekaert CEB® chimney outlet with insulated parts.

Application to the Bekaert CEB 350 unit:

All the below listed data are based on standard Bekaert CEB 350 unit:

(capacities are based on 100% methane with 39.82 MJ/Nm³ (1,069 btu/scf) GHV)

Maximum Bekaert CEB 350 flue gas flow 6,111 Kg/h
 Flue gas temperature 1,200°C
 Heat Exchanger weight 1,500 Kg
 Heat Exchanger foot print 0.75x0.54 m



Heat output Bekaert CEB 350	%	25	100
Inlet temp. thermal oil	°C	10-50	10-50
Efficiency	%	75	65
Energy recovered	MWth	0.46	1.62