



Technology &
Business Intellectual



Scrubber

Venturi Scrubber



Working Principle

It works on Impaction-Interception-Diffusion principle for particle collection. Gas stream comes in contact with Liquid stream and the pollutants gets transferred to Liquid stream, clean gas leaves scrubber.

Advantage of TNBi Venturi Scrubber

- Can Be Operated on Most of the dust Collection
- Multiple Pollutants (Dust and Some Gases) pollutants treated in single device.
- Can be Designed at severe condition (Temperature 1100 Deg C, Pressure: 5 Bar)
- Much Efficient over other Pollution control Equipment
- Safest way to control Combustible / Explosive Dust
- Compact Design compared to Dry Collection.
- Can handle Abrasive, Corrosive, Combustible dusts
- Different MOC Can be used

Packed Bed Scrubber



Working Principle

Packed Bed Scrubber works on following two principle

- Absorption: When the gas gets absorbed in scrubbing Liquid. E.g. Ammonia, HF etc.
- Reaction: When the gas reacts with Scrubbing Liquid e.g. SO₂, H₂S, etc...

Advantage of TNBi Packed Bed Scrubber

- Multiple Gaseous Pollutants can be treated in single device.
- Can be Designed at severe condition (Temperature 1100 Deg C, Pressure: 1 Bar)
- Different MOC Can be used based on Gas and Liquid Properties
- Less Power consumption
- Different gases treated like HCl, H₂S, HF, NH₃, SO₂, NO_x, Some odours and some organics

Multi-Stage Scrubber



In many cases, several technologies must be integrated together to provide adequate removal and treatment efficiencies. TNBi's experience includes the engineering and fabrication of customized Multi-Stage Scrubbers utilizing the following combination of equipment:

- Quench, Venturi Scrubber and/or Packed Tower
- Venturi Scrubber and Multi-Stage Packed Tower.
- Quench and Venturi Scrubber
- Quench and Packed Tower
- Venturi and Packed Tower

Advantage of TNBi Multi-Stage Scrubber

- Quench Section addition can handle Inlet Temp. up to 1100 Deg. c.
- Additional Mist eliminator section in Cyclonic Separator to Improve mist elimination efficiency
- Packed bed section for Gaseous pollutant
- Chimney Tray to separate liquid loops
- Mist eliminator spray for on-line cleaning



Design Capabilities

- Volume up to 500000 m³/hr can be handled
- Better technical know-how of the process
- Customized design with Simulation
- Treatment of different gases in single column
- Temp up to 1100 deg C & Pressure up to 5 bar can be handled
- Worked with different MOC's like SS / MS / FRP / PP / Hastelloy etc.
- Different gases treated like HCl, H₂S, HF, NH₃, SO₂, NO_x, Some odours and some organics
- Guaranteed Performance
- ATEX Compliance available

Industries Served

- Food & Pharmaceutical
- Chemicals, Fertilizer
- Paint & Pigment
- Cement
- Metal and minerals.
- Power Plant.
- Metal Processing
- Milling applications
- Wood
- Dryer, Milling
- Many more,

OTHER PRODUCT LINE

Classifier



Bag Filter



Cyclone



Centrifugal Blower



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