



**Begg Cousland**

World Class Solutions -Filtration & Pollution Control

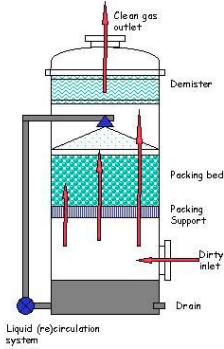
**Gas Scrubbing  
Technology and Equipment**

## 'BEGG COUSLAND' Gas Scrubbers

Begg Cousland can design and supply all types of gas scrubbing equipment, either as 'end-of-pipe' pollution control or as a gas cleaning stage within a process.

Gas scrubbers are all designed to ensure a good contact and mixing between gas and liquid, usually for Absorption Odour control or Particulate removal. Desorption and Distillation are also mass transfers done in columns. Below are the most common designs we supply.

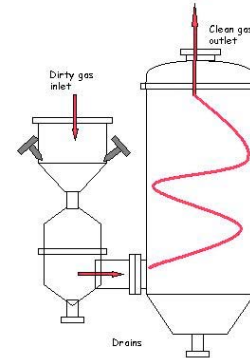
### Option 1. Conventional Packed Bed Scrubber



This design removes gas by absorption or by chemical reaction. Suitable for odour control also.

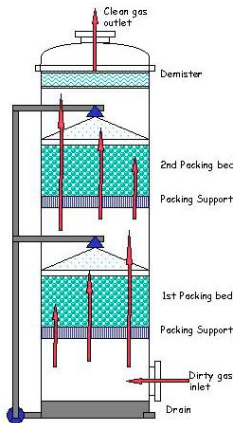
A high energy / high efficiency version of the Venturi uses a cyclone stage afterwards, and can remove 0.1 micron dust. It is not prone to blockage.

### Option 4. Venturi Scrubber + Cyclone Separator



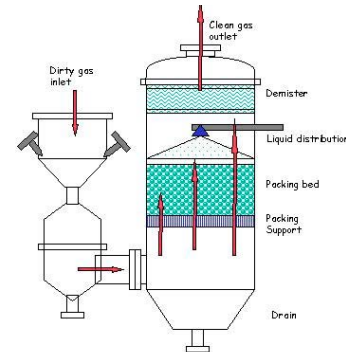
**Begg Cousland Venturi + Cyclone system in U.K. removing HCl mist and TiO<sub>2</sub> particulate.**

### Option 2. 2 Stage Packed Bed Scrubber



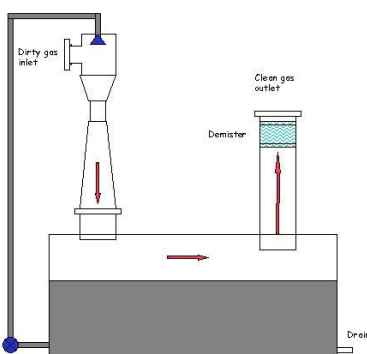
This design removes 2 different gases by absorption or by chemical reaction with different liquors with a dividing tray. Suitable for 1<sup>st</sup> stage 'stripping' and 2<sup>nd</sup> stage scrubbing.

### Option 5. Combination Venturi + Packed Bed



Packed bed scrubbers are designed to give excellent gas / liquid contact and residence time for the reactions, but can be blocked by solid particulates. Where solids are present it is best to use a different design or have a solids removal stage first, to prevent the fouling of the packings. Begg Cousland offer the BECOFLEX technology for wet removal of solids (see separate BECOFLEX Brochure ). Alternatively there are different uses of Venturis.. Educator Venturis are usually used where 'sticky' solids are present or where the high liquid flow can condense steam or generate suction.

### Option 3. Educator Venturi Scrubber



For further information, please contact us at

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