

Case History no. 17 – High Pressure Water Filtration

Fluid	: Water for use in scrubbing tower to clean & cool down gases in cement industry.
Wkg / Pressure	: Must be suitable for up to 1000 PSI
Flowrate	: 30 m ³ /hr
Retention Rating	: 40 mesh, 400 micron
Line Size	: 3”

A large cement producer conditions waste gases that are being discharged via chimneystacks by scrubbing it. A fine atomised spray of water is sprayed counter current to the direction of flow of the gas, which is travelling up the stack to exhaust to the environment.

The spray scrubs the gas to remove fine dust particles and to desulphurise it by absorbing some of its noxious contents.

Problem:-

The nozzles are expensive items machined to a very precise specification. Wear, due to the abrasion of particles will cause them to go out of specification and prevent them from producing the very fine droplets necessary. Their life will be shortened and maintenance and downtime will be increased.

Solution: -

Provide them with a 400-micron filter suitable for up to 1000 psiq (69 bar) with a large surface area element. We supplied a Ronningen-Petter Strate Thru filter type – SSA-2236-HP-1000 c/w Buna seals, 40 mesh St. Steel woven wire mesh element and special 3” flanged connections.