# SGT - Water Scrubber



### **Ultimate Solution to High Temperature Smoke**

SGT Hydro-Z Water Scrubber System is designed to tackle the pollution problem created by smoke generated by incinerator e.g. joss paper burner or other industrial burners for carbohydrates. The smoke can reach 800°C. Dust content can varies vigorously.

As people concern more about our environment than before, Industry is looking for some more effective and operation friendly solution. Conventional equipments on air pollution may exhibits the following problems:-



- 1. Effective only for a short period or even ineffective consistently
- 2. Complicated operation
- 3. Intensive servicing e.g. cleaning and clumsy sludge collection
- 4. Non-durable to continuous high temperature attack to the equipment components
- 5. High water consumption
- 6. Bulky footprint
- 7. Risk on electric shock
- 8. Risk in dry dust diposal
- 9. Limited capability to uneven dust concentration

SGT Hydro-Z water scrubber is designed to overcome all above drawbacks. Our system is almost maintenance free, consistently high filtering efficiency, operational at high temperature up to 800°C, minimal water consumption, and user friendly operating system and tailored made to suit the users' individual requirement site constraints etc. Hydo-Z is also capable of absorbing most of the pollutant gas e.g. HCl, SO2 and NH3.

Our unit only uses fresh water for recirculation, no additional chemical is necessary in general purpose. Almost 80% of the odour is mitigated. For other requirements chemicals e.g. bleach, soda, alum or chlorine dioxide can be added as options

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### Hydro-Z is enjoying high appreciation from existing users.

Benefits of Hydro-Z System

- 1. Consistently high filtration efficiency up to 90%
- 2. Minimal maintenance
- 3. Fully automatic operationrom On-Off to sludge collection for layman operators
- 4. Minimal water consumption
- 5. Operation at high temperature up to 800 degC
- Tailor made to suit particular requirements and site conditions





#### **Operation Principles**

SGT Series Hydro-Z is a self cleaning and clogging free air cleaning system.

Raw gas is extracted to the unit and humidified by recirculation water and forced drawn through numerous centrifugal separation baffles. Most of the particulates are scrubbed away and dropped into the collection silo at the bottom of the scrubber. Most of the water droplet is eliminated before discharging back into the atmosphere. Cleaned air can be exhausted by the observance of the allowable dust emission rates. Scrubbing water is re-circulated by one or more high pressure non-clogging pumps. Water consumption is minimal. Water is sprayed by special non-clogging nozzles. Frequent washing of the unit is unnecessary due to its self-washing properties.

Sludge from raw gas will be precipitated into the sludge box (Optional) at the bottom of the silo. Operator can discard the sludge easily by closing the connection valve without halting the system.

The extent of maintenance for SGT Series Hydro-Z water scrubber is insignificant. The interior is easily accessed and maintained through large maintenance doors.

SGT Series Hydro-Z water scrubber is designed for treatment of high temperature smoke up to  $800^{\circ}\text{C}$  constantly from incinerator. Dust quality and quantity are the major designed parameters. Different models, size and configurations from 0.5m3/s to 5m3/s are available and fitted to various application conditions. Modules can be assembled to serve larger airflow requirement.





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