

MECS[®] DYNAWAVE[®] REVERSE JET SCRUBBER

The only wet scrubbing process that can use a variety of reagents and accomplish multiple functions, all in one scrubber



FEATURES AND BENEFITS

VIRTUALLY UNPLUGGABLE

- Large, open bore reverse jet nozzles
- Non-restrictive, open vessels

ONLY WET SCRUBBING PROCESS THAT CAN USE A VARIETY OF REAGENTS

- Sodium Hydroxide, NaOH (caustic)
- Calcium Hydroxide, Ca(OH)₂ (lime)
- Calcium Carbonate, CaCO₃ (limestone)
- Magnesium Hydroxide, Mg(OH)₂
- Others specific to the process

ACCOMPLISH MULTIPLE FUNCTIONS IN ONE SCRUBBER

- High removal efficiency for SO₂, H₂S, HCl and other acid gases
- Particulate removal
- Hot gas quenching
- In-situ oxidation

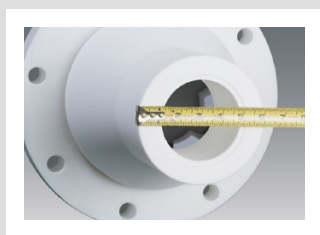
HIGH ON-STREAM RELIABILITY

- Simple operation with minimal control instrumentation
- Minimal use of high alloy materials reduces costs
- Small footprint
- Designed to handle inlet temperatures up to 1'200°C
- Versatility: can be integrated with other air pollution control equipment

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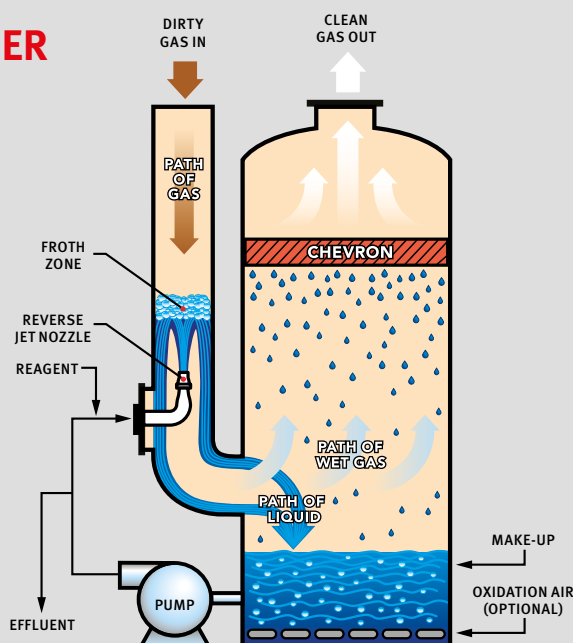
TYPICAL DYNAWAVE® REVERSE JET SCRUBBER



REVERSE JET NOZZLE

SEE HOW IT WORKS

View a Quicktime® video on the MECS website at:
www.dynawavescrubber.com



HOW A REVERSE JET WET GAS SCRUBBER WORKS

The DynaWave® reverse jet scrubber is an open duct in which scrubbing liquid is injected, through a non-restrictive reverse jet nozzle, counter current to the dirty inlet gas. Liquid collides with down-flowing gas to create the “Froth Zone,” a region of extreme turbulence with a high rate of mass transfer. The clean, water saturated gas continues through the scrubber vessel to mist removal devices. The liquid reverses direction and returns to the vessel sump for recycle back to the reverse jet nozzle.

NUMEROUS APPLICATIONS

- Sulphuric acid plants
- Metal smelters and converters
- Sulphur recovery unit off gas
- Boilers / flue gas desulphurisation
- Cement kilns
- Titanium dioxide
- Incineration
- Phosphoric acid recovery
- Magnesium production
- Many others

PROVEN PERFORMANCE

- Over 400 wet scrubbing systems installed worldwide
- Flow rates from 1’200 to over 2’000’000 Nm³/h

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MECS also has regional offices in Asia Pacific and the Americas.

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