

SRU SOLUTIONS SUPERCLAUS® DYNAWAVE®



99.9+% SULFUR RECOVERY AT LOWEST COST AND HIGHEST RELIABILITY

JACOBS COMPRIMO® AND MECS® COMBINE PROCESSES

Jacobs Comprimo® and MECS® have combined their respective experience in sulfur recovery and wet gas scrubbing. The Jacobs Comprimo SUPERCLAUS® process and the MECS® DynaWave® Reverse Jet Scrubber used in series provides ultra low SO₂ emissions.

TWO PROVEN TECHNOLOGIES

The SUPERCLAUS® process has been developed to recover elemental sulfur from H₂S containing gases originating from refinery and natural gas treating plants such as alkanolamine units or physical solvent plants. SUPERCLAUS® is also able to process Sour Water Stripper Gas. DynaWave® is a unique open bore, reverse jet scrubber that utilizes “Froth Zone” technology to perform desulfurization in a wet gas environment. These two proven technologies, when used in series, reduce total installed cost, simplify operations and deliver over 99.9% sulfur recovery.

Please contact Jacobs Comprimo® or MECS® for more information regarding performance enhancements for your specific application.

FEATURES AND BENEFITS:

EMISSIONS REDUCTION

- 99.9+% Sulfur Recovery
- Less than 50 ppm SO₂ emissions

OPERATIONS AND RELIABILITY

- Low Capital Cost
- Less Complex than Amine-based Tail Gas Treating
- Simple continuous operation (*no switching valves*)

TECHNOLOGY

- Combines SUPERCLAUS® and DynaWave® proven technologies
- Less Complex than Amine-based Tail Gas Treating
- Wet Gas Scrubber adds flexibility:
 - Handles high SO₂ inlet
 - Can compensate for and complement SRU performance
 - Handles full SRU tail gas if SUPERCLAUS® is bypassed
 - Excellent finishing technology for very low SO₂ levels (*10 ppm*)
- Caustic consumption is minimized with high recovery by SUPERCLAUS®
- Potential for production of sodium bisulfite in wet gas scrubber

INSTALLED UNITS

- SUPERCLAUS®:
 - over 140 installed worldwide
- DynaWave®:
 - over 300 installed worldwide

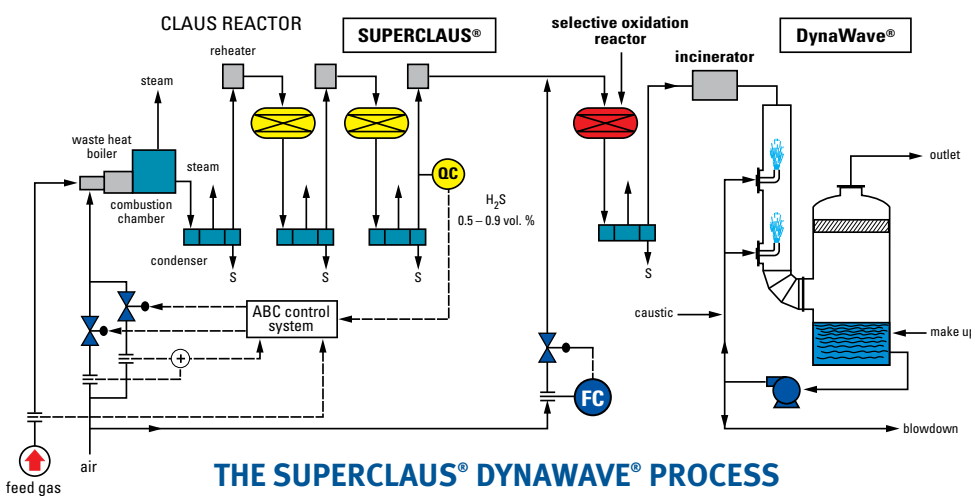
MECS®
DYNAWAVE®

Learn more at www.mecsglobal.com

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HOW THE SUPERCLAUS® DYNAWAVE® PROCESS WORKS

The SUPERCLAUS® process consists of a thermal stage followed by three or four catalytic reaction stages with sulfur removed between stages by condensers. The first two or three reactors are filled with standard Claus catalyst while the last reactor is filled with the selective oxidation catalyst. In the thermal stage, the acid gas is burned with a substoichiometric amount of controlled combustion air, so that the tail gas leaving the last Claus reactor typically contains 0.5 to 0.9 vol.% of H₂S. SUPERCLAUS®, when followed by the DynaWave® Scrubber, achieves 99.9+% sulfur recovery.



SUPERCLAUS® Selective Oxidation Reactor



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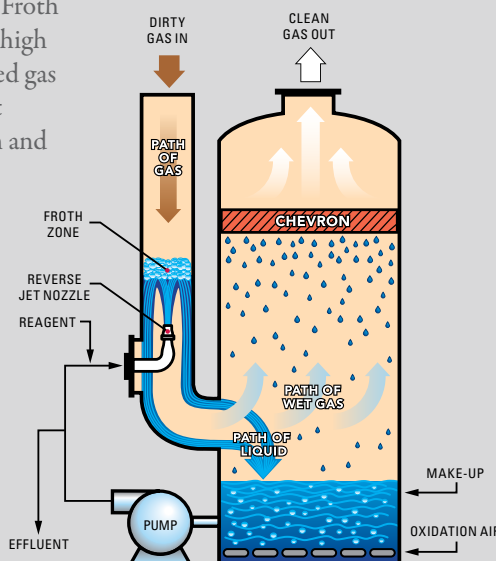
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HOW A REVERSE JET SCRUBBER WORKS.

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. For SRU applications, DynaWave® is installed after the incinerator and before the stack.

SEE HOW IT WORKS

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



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