FläktGroup®
SEMCO®

717 FIFTH AVENUE
NEW YORK CITY
CASE STUDY

COGENERATION: FIFTH AVENUE STYLE
717 FIFTH AVENUE, NEW YORK CITY

Manhattan property owners appreciate off-peak energy charges – just don't mess with their view. That, in addition to noise, was a major concern when the Class-A office building at 717 5th Avenue was about to be the recipient of a 1.6 MW cogeneration plant to be installed atop a 13-story section of the 26-story office building. The cogeneration plant would allow the owner to take advantage of off peak rates by powering the building during the day – and even feeding the surplus back into the grid. There were enormous financial and environmental benefits, but there would be no compromises when it came to aesthetics or tenant satisfaction. The plant had to meld seamlessly into its high-end surroundings.

"WE WORKED WITH SEMCO ON STRUCTURE ENGINEERING, DESIGN AND FINALLY DELIVERY. THEY HAVE GOOD EXPERIENCE WITH STRUCTURAL ENCLOSURES AND ACOUSTICS, ENABLING US TO ACHIEVE THE DECIBEL REDUCTION REQUIRED."

- TONY HAGEN,
MANUFACTURING ENGINEER FOR ENERCON

The unit was delivered and assembled 13 stories up, exactly as planned.

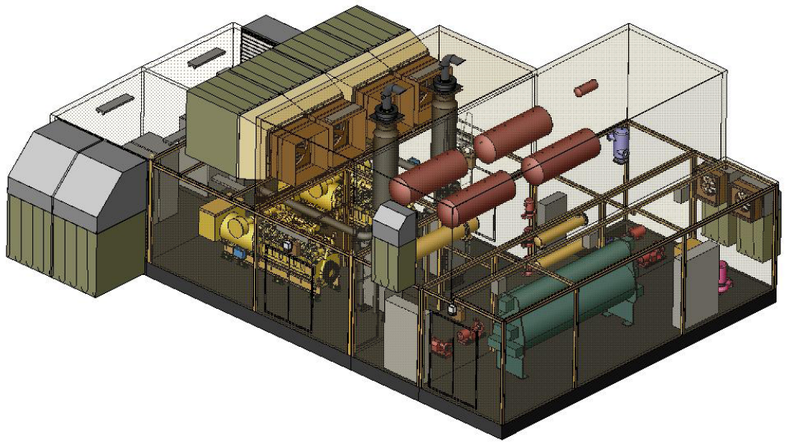
It was a logistical challenge on many fronts for Enercon Engineering, a leading manufacturer of packaged power modules and cogeneration units. To help them manage the demands of this high profile project, the company turned to FläktGroup® SEMCO®.

The completed cogeneration plant consisted of two 820 kW lean burn natural gas engine generator sets, heat exchangers, a 289-ton hot water absorption chiller, controls, electrical switchgear and energy distribution all housed in a modular sound-attenuated enclosure that was provided by FläktGroup SEMCO. It was important that the packaged unit blend into its surrounding as well as contain the noise produced by the large generator and mechanical equipment.

FläktGroup SEMCO designed both the structural and acoustic components for the modular plant. Working within the maximum allowable decibels, 85 dBA at 3 meters, FläktGroup SEMCO provided air inlet and discharge silencers, and fabricated 4" thick modular tongue-and-groove panels that comprised each of the 7 components. The knocked-down components were shipped to Enercon's facility in Barnesville, Georgia where workers assembled and tested the unit. Enercon then dissembled the structure for shipment to the 5th Avenue location where a crane was used to lift it in seven sections, one at a time. The process entailed blocking off a busy Manhattan street for an entire day and extra police for traffic control, but the unit was delivered and assembled 13 stories up, exactly as planned.

Powder coated in a flat black, the unit blends seamlessly into this high-end business district. Visually and acoustically the structure met each and every one of the client's demanding needs, proving that cogeneration plants are a viable solution in even the most discriminating urban areas.

FläktGroup SEMCO Industrial Acoustic Products combine the best of Acoustic, Thermal, and Structural performance for endless noise abatement applications. Utilizing roll-forming manufacturing, FläktGroup SEMCO's tongue-and-groove panels are available in 2" through 6" thickness with panel spans up to 16' in length. Manufactured from galvanized, stainless, or aluminum with a variety of acoustic fill, FläktGroup SEMCO also offers durable powder coat finishes, DecoCoat PC™, from an array of standard to custom matched colors to meet specific project needs.



A rendering of the cogeneration plant housed in a FläktGroup® SEMCO® modular sound-attenuated enclosure.

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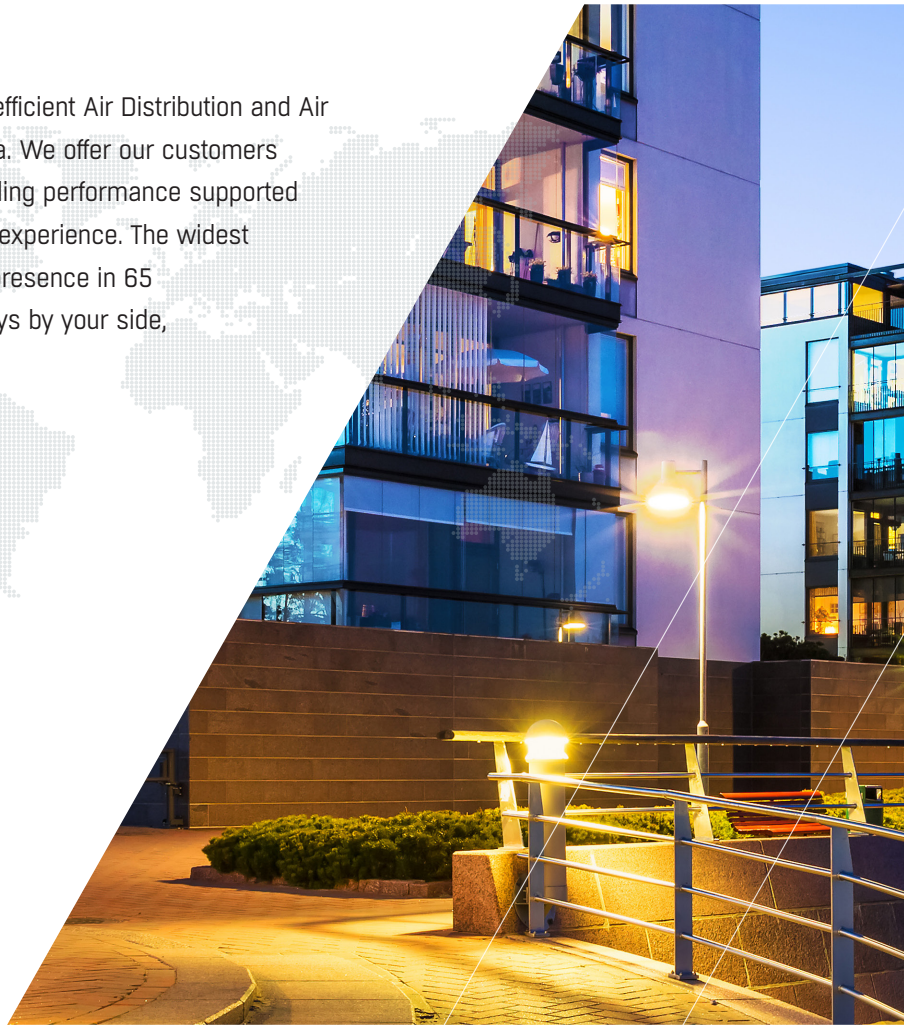

FläktGroup® SEMCO® delivers smart and energy efficient Air Distribution and Air Quality solutions to support every application area. We offer our customers innovative technologies, high quality and outstanding performance supported by more than fifty years of accumulated industry experience. The widest product range in the market, and strong market presence in 65 countries worldwide, guarantee that we are always by your side, ready to deliver Excellence in Solutions.

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To learn more about FläktGroup® SEMCO® offerings and to contact your nearest representative please visit
www.semcohvac.com

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