



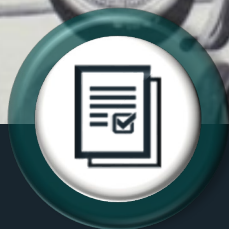
PANEL
SOLUTIONS



Corporate Overview



Energy &
Environmental
Focus



Patented &
Certified
Products



U.S & Global
Footprint



Engineered
Air Quality &
Data Center
Solutions



Engineered
Air Distribution
& Sound
Solutions



OEM,
Key Account &
Sales Rep
Route To Market

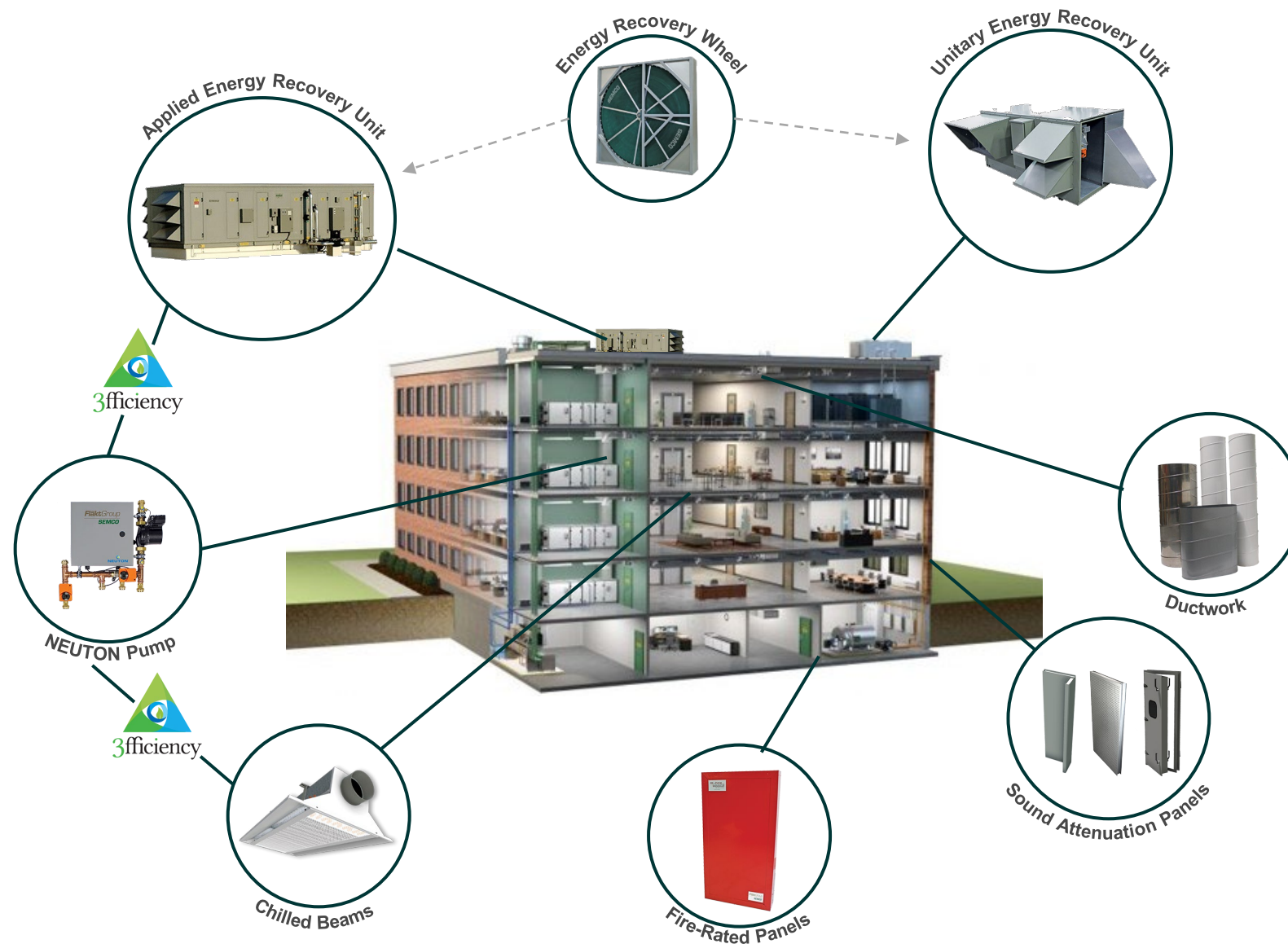


Award Winning
& Industry
Recognized

Who we are & what we do

FläktGroup
SEMCO

FläktGroup SEMCO Products For Commercial Applications



Education



Offices



Healthcare & Labs



Manufacturing & Automotive



Public Buildings & Entertainment



Sports Facilities



Datacenters





FläktGroup SEMCO Superior Sales Support & Service



The screenshot displays the FläktGroup SELECT web application. The top navigation bar includes links for START, PROJECT, CALCULATE PRODUCT, QUICK SELECT, and FAVORITES. The main content area is divided into three sections: Quick Select, Calculate, and Project. The Quick Select section provides a welcome message and instructions for using the tool. The Calculate section shows a detailed product selection process for the IQ STAR DRION II Chilled beam (IQHA). The Project section offers a summary of the selected product and its properties.

Properties	Value
Length	100
Coil function	Cooling
Coil	Cooling left
R1 Function	Water
Flexible hoses	Without
Grille	Adjustable horizontal

Parameters	Value
Number of units	1
Air pressure drop	inWG

RESULT	VISUALIZATION	DESCRIPTION	DOCUMENTS	ACCESSORIES (1)
Power	481	1692	2230	btu/h
Coil power	437	1175	1247	btu/h
Supply air power	44	517	992	btu/h
Power (all units)	481	1692	2230	btu/h
Sound Lp10A dBA	< 20	< 20	25	dB(A)

EXPRESS SELECT FläktGroup SEMCO

Colleen Devin Semco
colleen.devin@flaktgroup.com

Home Selection Tool Quote Request Administrator Account Sign Out

Print Schedule Preview Proposal

Read-only mode

Project Global Input Input Output Energy Analysis

Project Information

Project Date	08/28/2018
Quote Valid Through	2nd Half 2018
Project Name	Assembly Dental



PANEL SOLUTIONS

What are Structural Panels?

A structural panel consists of three or more layers. A panel has at stiffeners and at least one insulating layer between two structural layers of steel.

It can be used as a screen, a barrier, or as an enclosure to:

- Mitigate sound
- Provide thermal and weather protection
- Move air as large duct, plenums, and built-up air handlers
- Or to prevent fire spread

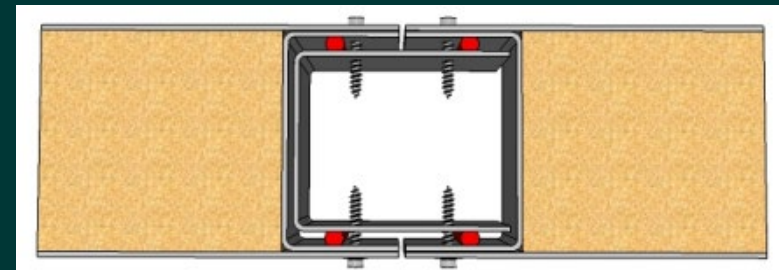
Our performance engineered, factory-built and independently tested panels can



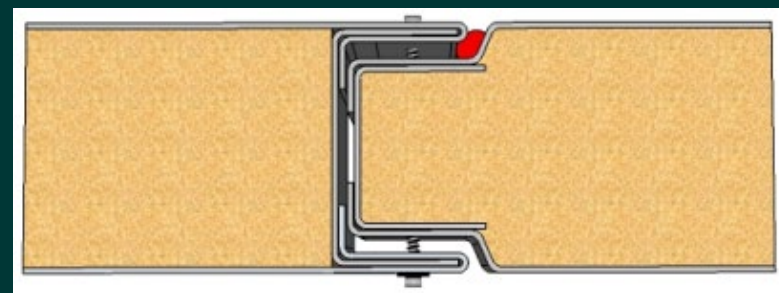
Calgary International Airport
Calgary, Alberta, Canada

Competitor's Joints

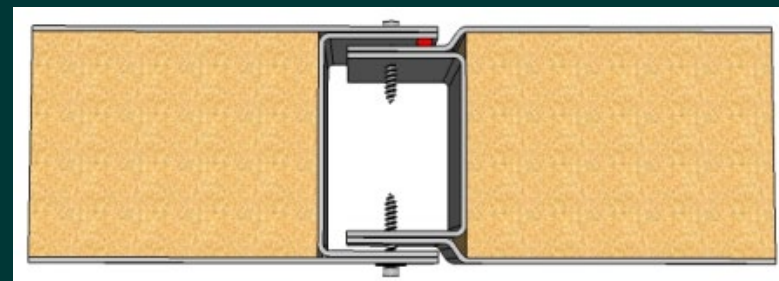
COMPETITOR TYPE A



COMPETITOR TYPE B



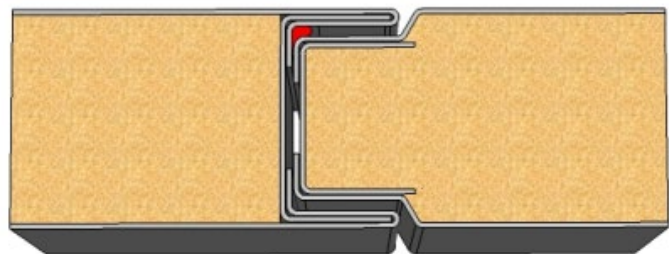
COMPETITOR TYPE C



NOTE: Competitors' screws are 12" O.C.

FläktGroup SEMCO Panel Joint

FläktGroup SEMCO's unique tongue-and-groove design does not require joint screws and requires only one bead of caulk.

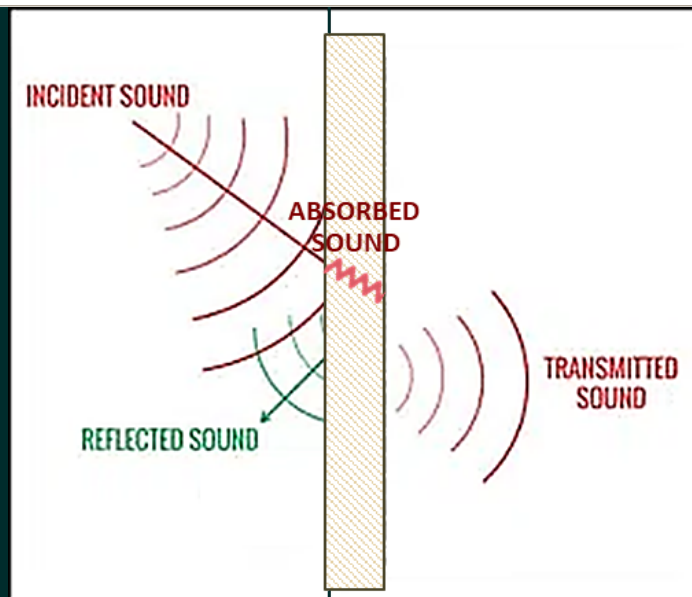


Standard Panel Cross Section

Challenge: Noise Pollution & Sound Mitigation

CHALLENGE: Noisy chillers, generators, and mechanical and electrical equipment are disruptive to neighboring occupants, on the job workers, and nearby communities.

SOLUTION: Sound is absorbed by perforation and mineral wool insulation. Panels are independently tested for acoustical performance.



CONSTRUCTION	ABSORPTION COEFFICIENT					
	2 125	3 250	4 500	5 1K	6 2K	7 4K
2"	0.58	0.93	1.16	1.18	1.15	1.12
4"	0.70	1.14	1.18	1.14	1.14	1.16
6"	0.82	1.14	1.20	1.15	1.15	1.20

CONSTRUCTION	TRANSMISSION LOSS						STC
	2 125	3 250	4 500	5 1K	6 2K	7 4K	
2" 18 GAUGE SOLID/22 GAUGE PERFORATED	26	29	33	44	52	60	38
2" 18 GAUGE SOLID/22 GAUGE SOLID	29	35	39	47	51	64	39
4" 18 GAUGE SOLID/22 GAUGE PERFORATED	26	32	38	51	60	67	43
4" 18 GAUGE SOLID/22 GAUGE SOLID	23	37	43	53	60	58	46
4" 18 GAUGE SOLID/22 GAUGE PERF. W/ GYPBOARD	27	34	42	53	61	70	45
6" 18 GAUGE SOLID/22 GAUGE PERFORATED	28	38	44	53	62	58	49
6" 18 GAUGE SOLID/22 GAUGE SOLID	30	40	46	55	63	61	50



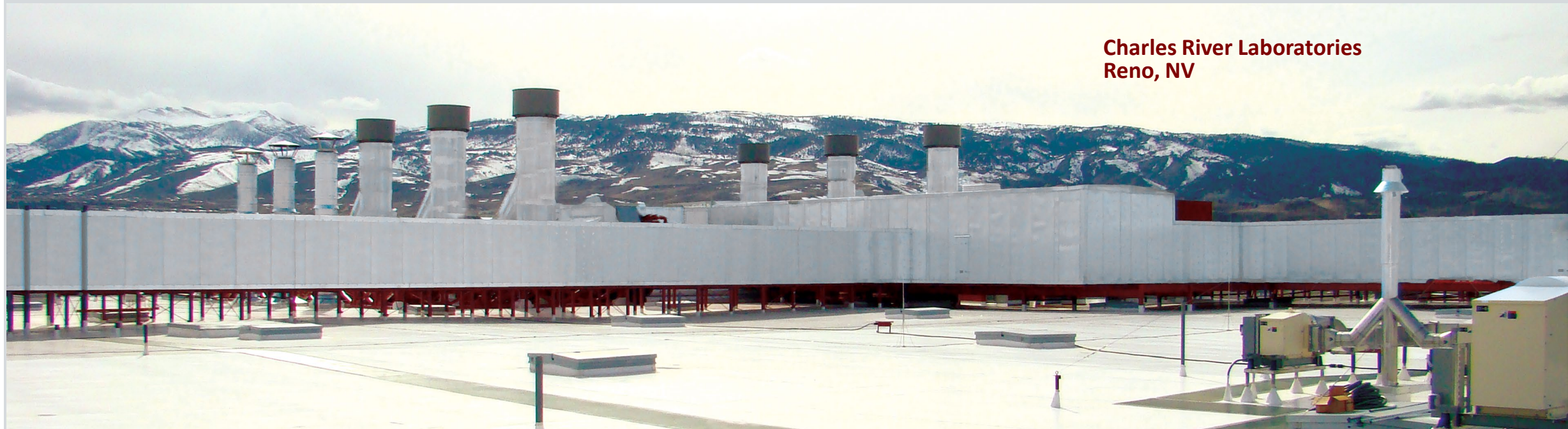
Challenge: Constructing Large Duct Systems

CHALLENGE:

Some applications require very large duct systems which need structural integrity and low air leakages.

SOLUTION:

FläktGroup SEMCO Panels offer an affordable way to construct large scale duct systems. The modular duct panel system allows dual wall rectangular duct to function under high operation pressures and has a longer span which requires less.



**Charles River Laboratories
Reno, NV**

Challenge: Maintain Performance and Protect Weather for the Building Envelope

CHALLENGE: Building envelope penetrations are required to bring in air which will be treated. However, those openings leave the building susceptible to the outdoor environment.

SOLUTION: Plenums can be built encompassing those openings to keep the elements out—minimizing external noise, maintaining building temperature, and protecting against external weather like rain

THERMAL PERFORMANCE

STANDARD PANEL CONSTRUCTION	2" PANEL	4" PANEL	6" PANEL
Panel U-Factor	0.10	0.06	0.05



Montreal University Hospital Center
Montreal, Quebec, Canada

Challenge: Air Handling Equipment

CHALLENGE:

1. A new air handling unit is needed inside an existing building with limited elevator and door frame sizes,
2. Or air handling equipment needs an external refresh.

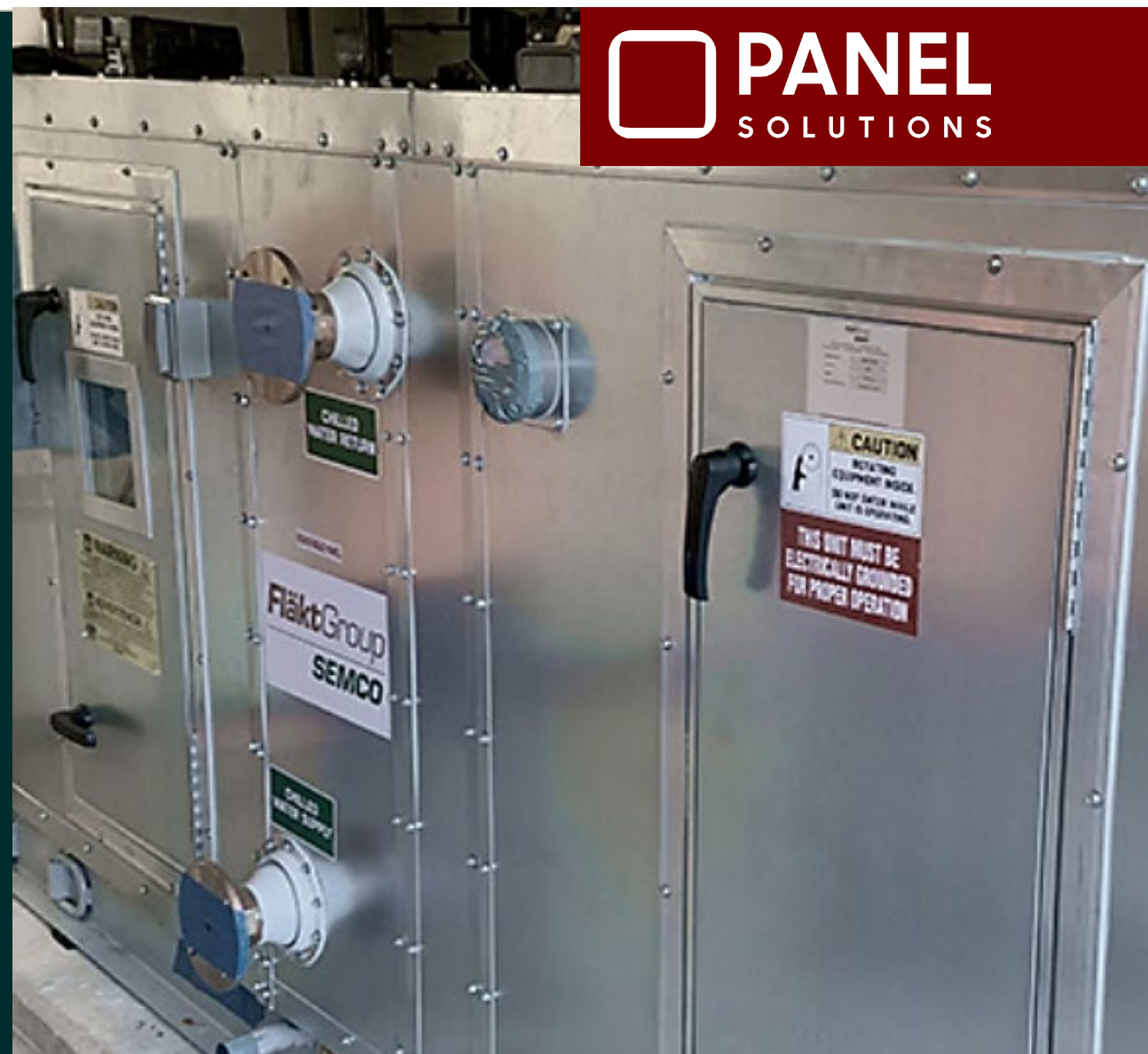
SOLUTION: Utilize FläktGroup SEMCO Panels to:

Dual wall, modular panel enclosures can be:

- Custom engineered,
- Custom sized,
- And erected on the job site.

Can used to build up a new air handler inside an existing building or to replace aged rooftop air handling enclosures.

Pallets will be loaded and sized to fit through the



University of Florida
Montreal, Quebec, Canada

Case Study



CHALLENGE:

Energy-recovery air handling system with 21' large wheels that required low-air leakage, structural walls, and structural roof. Project also required large modular duct and plenums.

SOLUTION:

FläktGroup SEMCO Panel Solution

Benefits:

- No screws through panel joints
- Factory cut and framed openings, seal exposed insulation
- Integrated structural integrity
- Engineered performance
- Simplified project management
- Time savings

Fort Cavazos Carl R. Darnall Army Medical Center (Formerly Fort Hood)
Fort Cavazos, TX

Challenge: Fire Protection

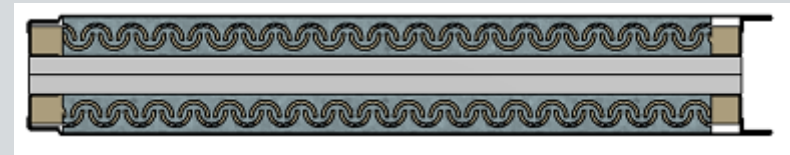
Challenge: Protect areas where occupants exit and where critical equipment/information are stored.

Solution: FläktGroup SEMCO's 1-hour and 2-hour fire-rated panels provide first responder's valuable time.

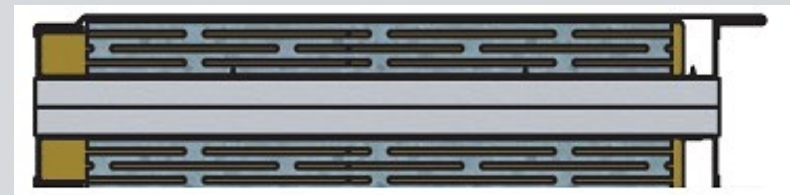
- Third-party tested under UL-263 Standard using ASTM E119 fire rating test and ASTM E84 Class A – requiring no flame spread and no smoke developed criteria.
- National Fire Protection Association (NFPA) 251 Compliant
- Industry's thinnest fire-rated 2- hour panel— saving you space
- Industry's only certified fire protection panels that are also building code-compliant for use in structural, acoustical, and thermal applications.



1-Hour Cross-Section



2-Hour Cross-Section

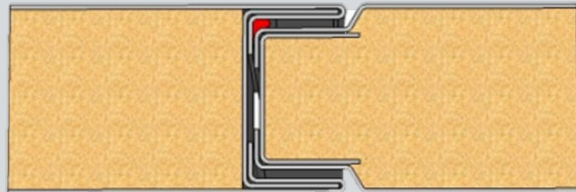


Challenge: Installation Costs

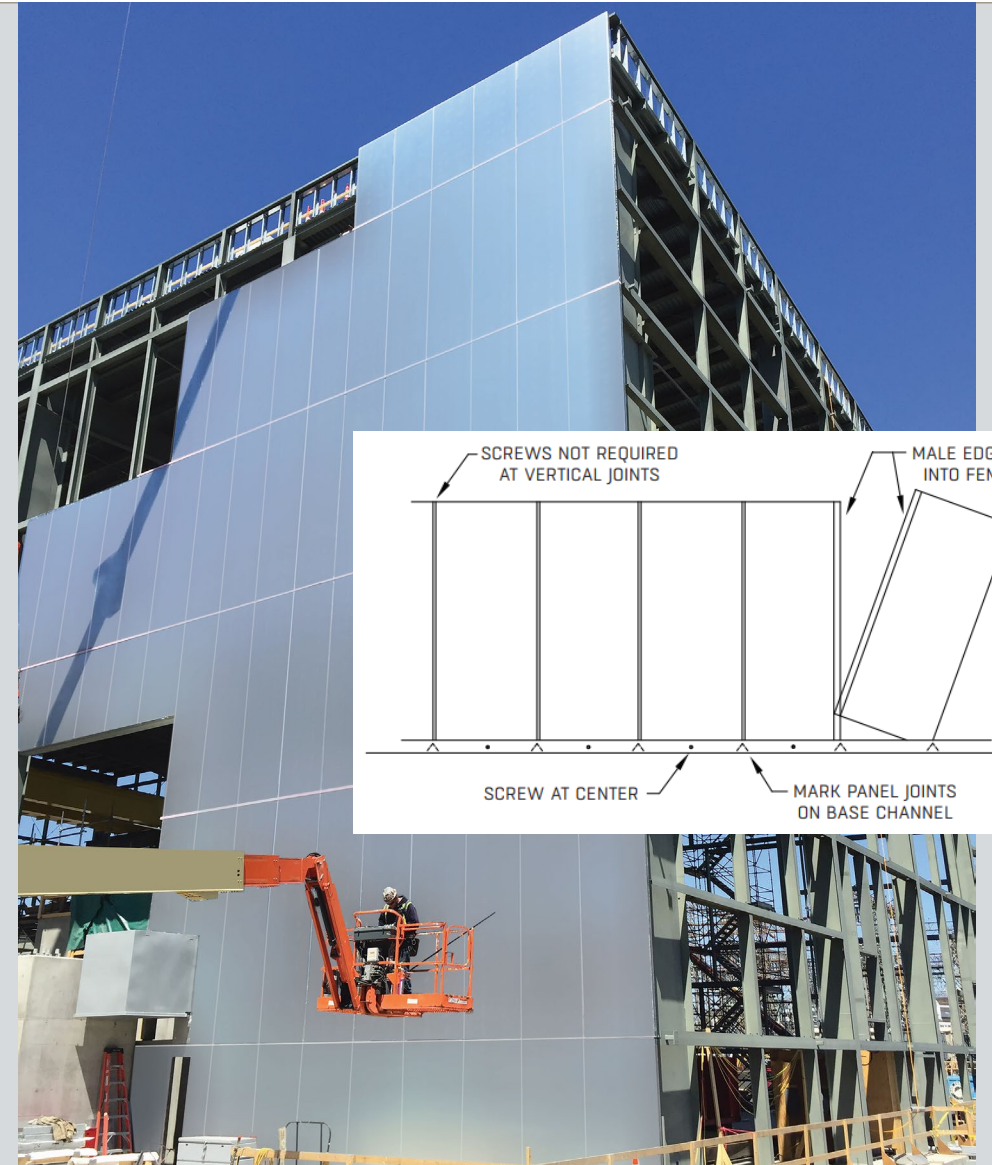
CHALLENGE: Field construction can be expensive, time consuming, and can have unreliable performance.

SOLUTION: Panel Solutions are suited for large, complex projects.

- Fastener-free, fully insulated tongue and groove construction.
- Each panel numbered with assembly instructions.
- Ease and speed of assembly.
- Reliable, engineered performance.
- Allows for easy replacement of component parts.



FläktGroup SEMCO Panel Joint



Footprint Power Salem Harbor Power Plant
Salem, MA

Time-Saving Design- Competitor Information

Panel Joint Labor Comparison

Panel Type	Joint-Field Insulated	Screw Joint	Seal Joint	External "H" Joiner
FläktGroup® SEMCO®	No	No	Yes (1 time)	No
Type A	Yes (2 times)	Yes (4 each 12" O.C.)	Yes (4 times)	Yes
Type B	No	Yes (2 each 12" O.C.)	Yes (1 time)	No
Type C	Yes (1 time)	Yes (2 each 12" O.C.)	Yes (2 times)	No

Labor Calculations*

Panel Type	# of Screws in Joint	Linear Foot of Insulation Fill	Liner Foot Sealant	Total Man Hours
FläktGroup® SEMCO®	0	0	1,000	136
Type A	4,000	2,000	4,000	204
Type B	2,000	0	1,000	160
Type C	2,000	1,000	1,000	170

*Based on a 2,500 sq. ft. enclosure, 10'-0" high or a total of (100) 10'-0" panels that average 25 sq. ft. per panel.

Standard Panel Applications:

- Rectangular duct
- Barrier walls
- Generator/compressor enclosures
- Equipment enclosures
- Material handling enclosures
- Supply/return chase plenums
- In-plant noise abatement
- Turbine enclosures
- Chiller enclosures
- Standard built-up AHU
- Extended plenums
- Pump enclosures
- Modular buildings
- Mixing plenums
- Outdoor air plenums
- Clean rooms
- Louver blank-offs
- Amusement park partitions

Fire Panel Applications:

- Interior Walls
- Elevator Shaft
- Stairwell Chase
- Equipment Rooms
- Power generating enclosures
- Ductwork
- Building Envelope/Penthouse
- Data Center

Standard Product Line Offering

Dimensions

- 2-, 3-, 4-, & 6-Inch Thickness
- Up to 45.5 Inch Width
- Up to 16 Foot Length
- Pre-formed Corners up to 12 Foot Length

Materials

- Galvanized
- Stainless
- Aluminum
- Aluminized

Finishes

- Custom Powder Coat
- Field Painted
- Mill Finish

Insulations & Barriers

- Mineral wool
- Fiberglass
- Polyisocyanurate
- Custom insulation available
- Vapor barrier available

Other Features & Options

- Pre-punched base channels
- Circular cuts
- Semi-circular cuts
- Panel interior cuts
- Panel notching
- Standard pre-hung doors
- Custom doors and hardware are

When time means money:

FläktGroup SEMCO has the industry's
SHORTEST LEAD TIME
and most consistent on-time deliveries

Typical production lead times:

FläktGroup SEMCO = 2 to 3
weeks

Our competition = 4 to 6 weeks



Contact Information & Thank You

Panels: panels.semco@flaktgroup.com

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ElitePro: elite.semco@flaktgroup.com

Applied Products (Pinnacle, Ascendant, EnergyPackage, Custom):
applied.semco@flaktgroup.com

Chilled Beams: chilledbeams.semco@flaktgroup.com

Duct: duct.semco@flaktgroup.com

Panels: panels.semco@flaktgroup.com

Refresh Wheels & Components: refresh.semco@flaktgroup.com

OEM Energy Wheel: oem.semco@flaktgroup.com

Datacenters: datacenters.semco@flaktgroup.com

Parts/Service Contact Information: service.semco2@flaktgroup.com

Warranty/Quality Claims: <https://info.semcohvac.com/claim-form>

Service Request: <https://info.semcohvac.com/service-request>

Parts Request: <https://info.semcohvac.com/parts-request>



www.semcohvac.com

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Thank you for your attention!