FläktGroup®

SEMCO®

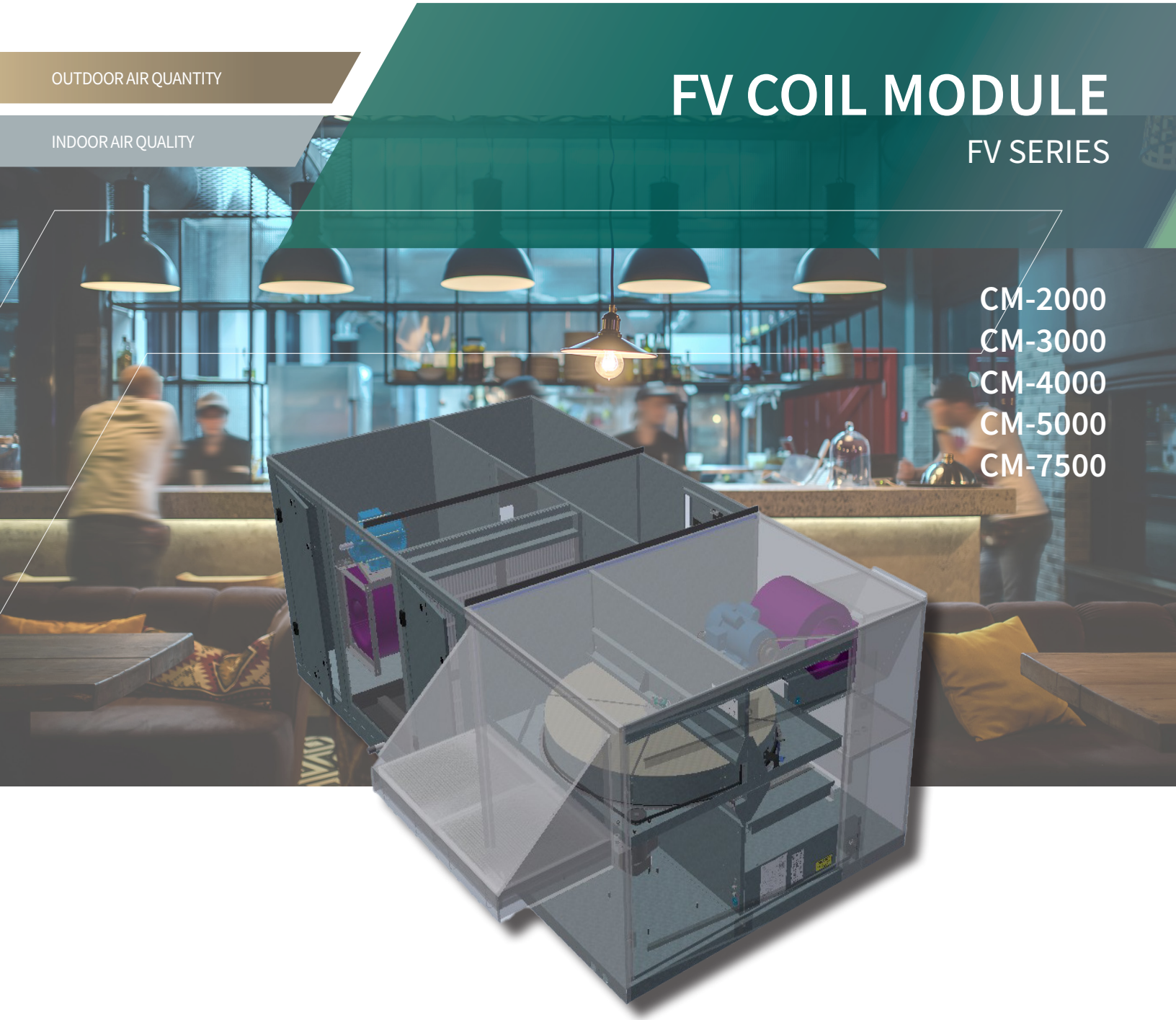
OUTDOOR AIR QUANTITY

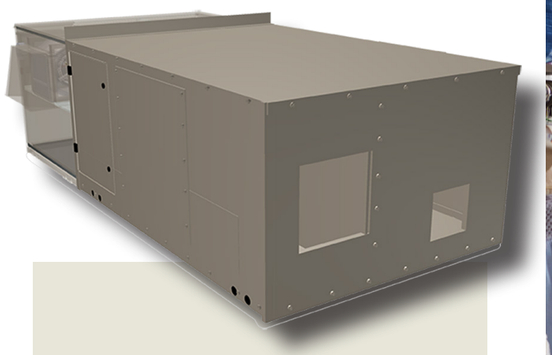
INDOOR AIR QUALITY

FV COIL MODULE

FV SERIES

CM-2000
CM-3000
CM-4000
CM-5000
CM-7500





Economical compliance with the ASHRAE Standard 62.

Improves the indoor air quality of existing facilities by increasing the outdoor air quantity compared to traditional systems.

Reliable operation with minimal maintenance.

The FläktGroup® SEMCO® Coil Module (CM) has been specifically designed to complement and attach directly to the FV series outdoor air pre-conditioner.

This powerful combination provides an effective solution to ASHRAE Standard 62, providing an increase in the outdoor air quantity (5 to 20 cfm/person) without significantly increasing operating costs.

The CM Series offers several heating and cooling options. The cooling options include either chilled water or DX cooling coils. The heating options include hot water or electric coil.

OUTDOOR AIR.
QUANTITY AND QUALITY.

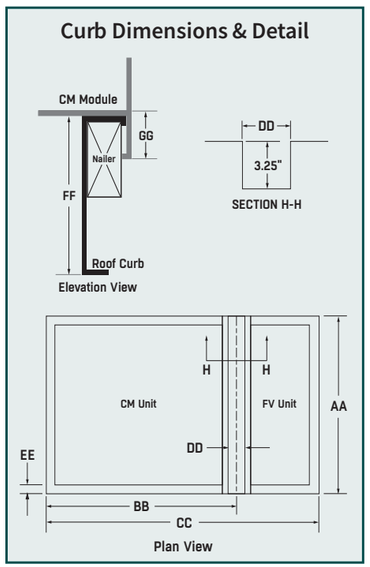
- Simple integration with single source responsibility.
- Provides performance beyond that of a standard rooftop unit.
- Low profile design offers an aesthetically pleasing solution.
- Indoor and outdoor installation configurations.
- Horizontal & down flow configurations.
- Multiple heating and cooling options.
- Numerous coil materials available.
- Galvanized steel cabinet, with optional enamel finish.
- Unit is constructed to ensure a watertight design.
- Unit is insulated to minimize energy loss.
- Filters are ASHRAE compliant.
- Easy access to all components through access doors.
- Internal piping for rooftop installations.

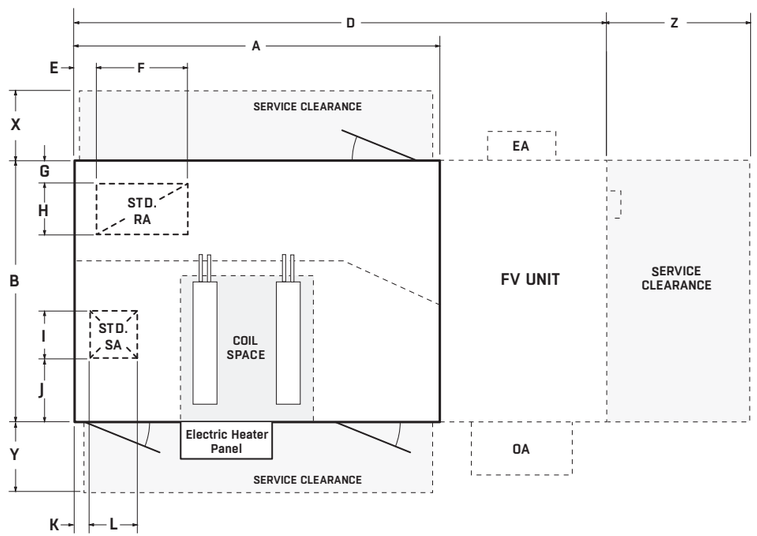
Coil Dimensions & Internal Pressure Losses

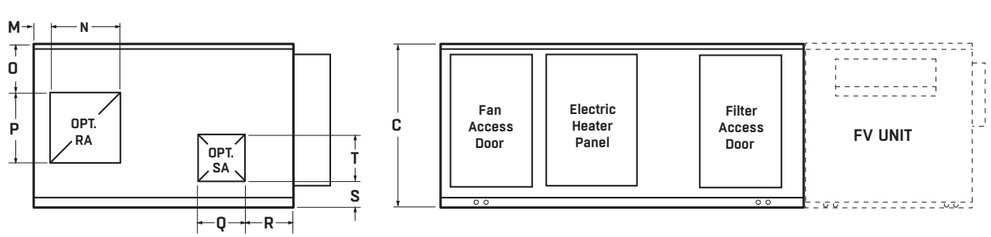
Model#	Coil Size Dimensions Fin L (in.)	Fin H (in.)	Airflow (scfm)	Chilled Water* 4 Row (in. w.g.)	Chilled Water* 6 Row (in. w.g.)	Chilled Water* 8 Row (in. w.g.)	Hot Water* 1 Row (in. w.g.)	Hot Water* 2 Row (In. w.g.)	2" Filter (in. w.g.)
CM-2000	26.0	21.25	1000	0.12	0.17	0.23	0.02	0.04	0.01
			2000	0.37	0.55	0.73	0.06	0.12	.11
CM-3000	30.0	32.5	1500	0.09	0.13	0.18	0.01	0.03	.01
			3000	0.28	0.42	0.56	0.05	0.09	.12
CM-4000	36.0	36.25	2000	0.09	0.13	0.17	0.02	0.02	.02
			4000	0.28	0.42	0.55	0.08	0.09	.17
CM-5000	44.0	38.75	2500	0.08	0.12	0.16	0.01	0.03	.06
			5000	0.26	0.39	0.52	0.04	0.09	.24
CM-7500	54.0	47.5	3750	0.08	0.12	0.16	0.01	0.03	.01
			7500	0.26	0.38	0.51	0.04	0.09	.15

* Note: pressure losses based on coils with chilled water 10 fins per inch and hot water 8 fins per inch.

UNIT & CURB
DIMENSIONS







The CM Series is available in five cabinet sizes ranging in airflow capacity from 800 scfm to 9,000 scfm. Each module can be configured for indoor or outdoor installations, and horizontal or vertical airflow.

Model#	Net Wt. (lbs.)	Dimensions (inches)												
		A	B	C	D	E	F	G	H	I	J	K	L	M
CM-2000	550*	72.0	51.5	32.4	109.0	4.5	18.0	4.5	10.0	12.0	11.4	3.5	10.4	2.7
CM-3000	900*	84.0	64.8	47.7	129.0	10.0	17.0	7.0	17.0	13.1	12.6	4.9	11.4	7.0
CM-4000	1300*	92.0	78.8	51.5	146.0	7.9	20.0	5.3	19.0	14.6	16.4	4.0	13.4	5.3
CM-5000	1300*	92.0	78.8	51.5	146.0	7.9	20.0	5.3	19.0	18.6	16.4	4.0	15.9	5.3
CM-7500	1850*	92.0	95.3	58.6	156.6	7.9	27.3	5.1	23.0	18.6	22.3	4.0	15.9	3.3

Model#	Dimensions (inches)																
	N	O	P	Q	R	S	T	X	Y	Z	AA	BB	CC	DD	EE	FF	GG
CM-2000	12.6	10.0	14.2	11.8	11.5	5.0	10.3	24.0	44.0	37.0	47.4	70.0	104.9	4.1	1.7	14.0	2.0
CM-3000	17.0	6.8	17.0	13.1	12.6	9.6	11.4	24.0	44.0	45.0	60.6	82.3	124.8	4.1	1.7	14.0	3.0
CM-4000	19.0	17.2	20.0	14.6	16.4	10.2	13.4	24.0	44.0	54.0	74.6	89.9	141.8	4.1	1.7	14.0	3.0
CM-5000	19.0	17.2	20.0	18.6	16.4	12.2	15.9	24.0	44.0	54.0	74.6	89.9	141.8	4.1	1.7	14.0	3.0
CM-7500	25.0	17.7	25.0	18.6	22.3	12.2	15.9	24.0	54.0	64.6	91.1	89.9	152.4	4.1	1.7	14.0	3.0

* - Weight includes maximum size coils with fluid. Does not include weight of the FV unit. Standard piping connections shown.

COIL MODULE WITH HIGH STATIC FANS

Model#	Net Wt. (lbs.)	Dimensions (inches)												
		A	B	C	D	E	F	G	H	I	J	K	L	M
CM-2000HS	550*	72.0	51.5	32.4	109.0	4.5	18.0	4.5	10.0	12.0	11.4	3.5	10.4	2.7
CM-3000HS	900*	84.0	64.8	47.7	129.0	10.0	17.0	7.0	17.0	13.1	12.6	4.9	11.4	7.0
CM-4000HS	1300*	92.0	78.8	51.5	146.0	7.9	20.0	5.3	19.0	14.6	16.4	4.0	13.4	5.3
CM-5000HS	1300*	92.0	78.8	51.5	146.0	7.9	20.0	5.3	19.0	18.6	16.4	4.0	15.9	5.3
CM-7500HS	1850*	102.0	95.3	58.6	166.6	7.9	27.3	5.1	23.0	18.6	22.3	4.0	15.9	3.3

Model#	Dimensions (inches)																
	N	O	P	Q	R	S	T	X	Y	Z	AA	BB	CC	DD	EE	FF	GG
CM-2000HS	12.6	10.0	14.2	11.8	11.5	5.0	10.3	24.0	44.0	37.0	47.4	70.0	104.9	4.1	1.7	14.0	2.0
CM-3000HS	17.0	6.8	17.0	13.1	12.6	9.6	11.4	24.0	44.0	45.0	60.6	82.3	124.8	4.1	1.7	14.0	3.0
CM-4000HS	19.0	17.2	20.0	14.6	16.4	10.2	13.4	24.0	44.0	54.0	74.6	89.9	141.8	4.1	1.7	14.0	3.0
CM-5000HS	19.0	17.2	20.0	18.6	16.4	12.2	15.9	24.0	44.0	54.0	74.6	89.9	141.8	4.1	1.7	14.0	3.0
CM-7500HS	25.0	17.7	25.0	18.6	22.3	12.2	15.9	24.0	54.0	64.6	91.1	89.9	152.4	4.1	1.7	14.0	3.0

* - Weight includes maximum size coils with fluid. Does not include weight of the FV unit. Standard piping connections shown.

DESIGN SPECIFICATIONS

Casing

Standard panels shall be 20 gauge galvanized steel, lined with 1/2 inch thick neoprene insulation where required. The housing shall be supported by a formed structural base that forms a pan to ensure weather tight construction. Lifting holes shall be provided at the unit base. All access doors shall be hinged. Units shall have a weatherproof sheet metal roof. The exterior of the unit shall be coated with an epoxy primer and a polyurethane enamel painting system for added protection. Painting system shall be rated to meet a 750-hour salt spray test.

Fan

Fan shall be double width double inlet design with forward curve type wheels. The blades shall be designed for maximum efficiency and quiet operation. Impellers shall be statically and dynamically balanced.

Fan shall be driven by a motor using belt and sheaves. Motor shall be standard NEMA frame with open drip-proof enclosure. V-belt drive shall be designed for a minimum 1.2 service factor.

Chilled Water, DX and Hot Water Coils

Primary surface shall be round seamless .020-inch thick copper tube on 1.5-inch centers, staggered in the direction of airflow. All joints shall be brazed.

Secondary surface shall consist of .006 inch rippled aluminum plate fins for higher capacity and structural strength. Fins shall have full drawn collars to provide a continuous surface cover over the entire tube for maximum heat transfer. Bare copper tube shall not be visible between fins and the fins shall have no openings punched in them to accumulate lint and dirt. Tubes shall be mechanically expanded into the fins to provide a continuous primary to secondary compression bond over the entire finned length for maximum heat transfer rates.

Casings shall be constructed of continuous galvanized steel. Coil side plates shall be of reinforced flange type.

Coils shall have equal pressure drop through all circuits. Coils shall be circuited for counter flow heat transfer to provide the maximum heat transfer rates.

Headers on coils shall be seamless copper tubing. The headers shall have intruded tube holes to provide a large brazing surface for maximum strength and inherent flexibility. Supply and return connections on water coils shall be steel with male pipe threads. DX coils shall have copper sweat connections.

The complete coil core shall be tested with 315 psig air pressure under warm water and be suitable for operation at 250 psig working pressures.

Individual tube tests and core tests before installation of headers shall not be considered satisfactory. Water cooling coils shall be circuited for drain ability. Use of internal restrictive devices to obtain turbulent flow shall not be acceptable. Vents and drains shall be furnished on all water coils. Coils shall be rated in accordance with ARI.

Coils shall be mounted in galvanized holding racks. Water coil drain and vent connections are accessible from the interior of the unit. Cooling coils shall be mounted in an insulated pitched 304 stainless steel condensate pan.

Electric Heating Coil

Where scheduled, electric coil shall be either the open element or enclosed element electric resistance type. Heater shall include main disconnect switch, fusing as required, magnetic contactors, control circuit transformer, pressure type air flow interlock switch and manual and auto reset thermal cutout over current protection. The electric coil shall require a separate power feeder connection in addition to the power connection to the main unit electrical panel.

WWW.SEMCOHVAC.COM

FV COIL MODULE / 05-27-25

FläktGroup® SEMCO® is the market leader for smart and energy efficient indoor air and critical air solutions to support every application area. We offer our customers innovative tecnologies, high quality and outstanding performance supported by more than a century of accumulated of 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.

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

© Copyright 2025 SEMCO LLC. All Rights Reserved. SEMCO embraces a policy of continuous development and improvement, the right is reserved to supply products which may differ from those illustrated and described in this publication. Specifications are subject to change without further notice. Any FläktGroup SEMCO purchase is subject to FläktGroup SEMCO standard terms and conditions. Certified dimensions will be supplied upon request on receipt of order. SEMCO is a registered Trademark of SEMCO LLC. Other trademarks and logos in this publication may be property of SEMCO, LLC, its subsidiaries or any of its related companies and/or other organizations or individuals.