

The RFV2™ (Reduced Face Velocity) fume hood offers excellent containment performance and energy efficiency at lower face velocities than conventional fume hoods. This fume hood has been tested to both standard and modified ASHRAE procedures at face velocities as low as 50 fpm. The RFV2™ hood design provides the fume hood operator with a secure and reliable operating environment while providing considerable capital and operating cost savings.



mott
MANUFACTURING

ISO 9001:2015 REGISTERED

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RFV2™ HIGH EFFICIENCY FUME HOOD

Downwardly Vected Upper By-Pass - Prevents contaminated air build up behind the open sash. Supplementary mechanical fans not required.

Full Viewing Sash - Provides a clear and unobstructed side to side view of fume hood interior, with a 34" high viewing area.

Self-Lowering Sash System - Sash latch temporarily secures the sash in the full open position for setup and tear down operations. When the latch is freed, the sash automatically returns to the operational position.

Sash Safety - Optional sash stops are located at 18" working height to shield the operator and helps reduce energy consumption.

Chain Drive Sash - Chain and sprocket mechanism that delivers the easiest and most reliable sash operation available with an exceptionally long life span.

Exhaust System - Suitable for use in either Variable Volume or Constant Volume applications.

Chemical Resistant Liner - Standard fiberglass reinforced polyester liner has excellent strength and chemical resistance; additional liner materials are also available.

Stainless Steel Exhaust Collar - Wide rectangular exhaust duct connection improves airflow distribution across the hood width.

Gasketed Access Panels - Provides convenient access and prevents fumes from escaping the hood.

Removable Panels - Side panels are easily removed to access interior electrical or plumbing fixtures.

Electrical and Plumbing - Two UL/CSA approved duplex receptacles provided for 120 volt service. UL/CSA approved fluorescent light fixture and switch provided.

LED and T5 fluorescent are available options. Front post is prepunched to accept four fixtures per side. Factory pre-plumbing is an available option.

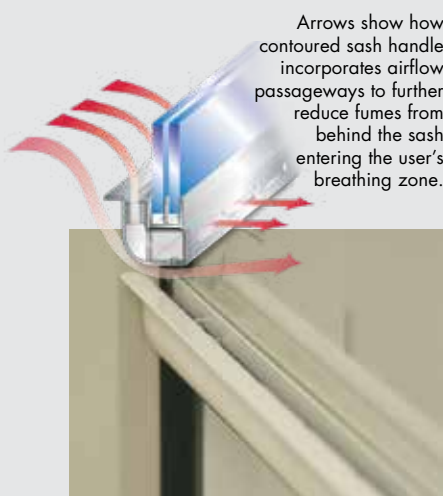
Combination Sash - Top hung combination sash operates smoothly while offering increased visibility with its reduced frame profile.

Agency Approvals - UL 1805 Classified, CSA certified to UL 61010 and tested in accordance with ASHRAE 110-2016.





Downflow Rear Baffle - Baffle is biased to the bottom, drawing fumes downward away from the user. Exhaust air exits the fume hood at work surface level preventing lighter-than-air fumes from rising up into the face of the user while effectively capturing and removing heavier-than-air fumes as well. Baffle actuators and controls not required.



Arrows show how contoured sash handle incorporates airflow passageways to further reduce fumes from behind the sash entering the user's breathing zone.

Performance Sash Handle - Incorporates an airfoil design and provides improved airflow along the lower edge of the sash to prevent turbulence from resulting in a hazardous release. Powder coated stainless steel handle incorporates an airfoil design and provides improved airflow along the lower edge of the sash to prevent turbulence from resulting in a hazardous release.



Flush Sill Airfoil - Airfoil is moved rearward to allow air to flow into the critical low pressure zone between the user's stomach and the hood chamber preventing fumes from building up in that area. Airfoil is flush with work surface providing unobstructed access to the fume hood interior.

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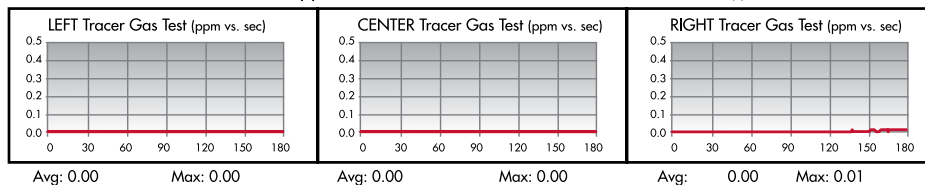
In addition to Mott's extensive in-house testing program, for the RFV2™ fume hood we also engaged the respected test firm of Safelab Corporation to evaluate the performance. Even below 50 fpm face velocity, containment was excellent.

ASHRAE 110 Test Results Summary

Vertical STATIC TRACER GAS CONTAINMENT TEST RESULTS

Control Level: 0.00 ppm

Perimeter Scan PASS (0.01 ppm)



Vertical

FACE VELOCITY TEST RESULTS

Opg. Height (in.)
18
Opg. Width (in.)
62.625

Hood Average (fpm):

47

Minimum Velocity: 35
Maximum Velocity: 56
Max. Dev. from Avg. (%): 25%
Turbulence (% of Avg.): 9%
Profile Var. (% of Avg.): 14%

LXD								
10	A	54	48	46	50	50	54	
	B	54	52	50	49	50	56	
	C	41	40	43	38	38	35	
		1	2	3	4	5	6	7

Sash Opening		18	28
Nominal Face Velocity (fpm)		50	
Actual Face Velocity (fpm)		47	51
Low-Volume Smoke		A	A
High-Volume Smoke		B	B
Tracer Gas (ppm)	Static Left	0.001	0.008
	Static Center	0.001	0.004
	Static Right	0.004	0.006

Automatic Sash Operator 2



The optional Automatic Sash Operator 2 (ASO2) technology works in conjunction with VAV systems to maximize energy efficiency and laboratory safety. Experience has shown that most operators leave the hoods fully open all the time. If the sashes are left wide open with VAV systems, no energy is saved. The ASO2 utilizes a motion sensor that detects when a user has left the face of the hood. The sash fully closes after a period of time set by you; a closed sash is safer than an open one.