mott MANUFACTURING

newenglandlab® lab-tested furniture systems QUALITY BY DESIGN

OPTIMA™ - VERTICAL SASH

Optima™ fume hoods have been specifically designed to meet the demanding safety, operational and ergonomic requirements of the modern laboratory. This hood is designed to meet most laboratory constant air volume (CAV) and variable air volume (VAV) requirements and supplied with an automatic compensating upper by-pass. For VAV, use option S2 for restricted by-pass plate. The Optima™ fume hood is supplied with the following standard features:

Face Velocities - Designed for 80-100 feet per minute face velocities.

Self-Supporting Structure - The self supporting structure allows for slide-in or mobile cabinets allowing for easy reconfiguration.

Adjustable Work Surface - Electro-hydraulic height adjustable work surface (work top included) with electric motor has the flexibility to be raised or lowered from 30" to 36" to accommodate the requirements for individual users, different procedures or equipment. Ideal for ADA applications.

Optimized Interior Working Area - Achieved through sleek side posts and a minimized frame.

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

Baffle System - Baffle system that adjusts with the work surface for improved airflow through the fume hood.

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

Flush Sill Airfoil - Flush with the work surface to provide easy access to the hood interior. Spill trough is designed to provide secondary containment in the event a spill escapes the primary containment work top. Air foil is hinged for easy cleaning.

Performance Sash Handle - Powder coated stainless steel handle incorporates an airfoil design providing improved airflow along the lower edge of the sash to prevent turbulence from disturbing the process or user.

Sash Design - 6mm laminated safety glass is provided with powder coated stainless steel handle and side runners. Hoods are supplied with a vertical rising sash. 38" to 45" viewing height.

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 released, the sash automatically returns to the operational position for energy savings and safety.

Electrical - Controls are conveniently located in the recessed apron pockets. Two UL/CSA approved duplex receptacles provided for 120 volt service. UL/CSA approved fluorescent light fixture and switch provided. T5 fluorescent or LED lighting are available options.

Plumbing - Fixture holes are not pre-punched and punched only as ordered. For ADA applications a maximum of three fixtures per side only if the bottom fixture is for cold water. For standard applications corner posts can accept a maximum of five fixtures per side. Factory pre-plumbing is available as well as plumbing fixtures from a variety of manufacturers to meet most plumbing needs.

Access Panels - Interior gasketed access panels provide convenient access and prevent fume leakage outside the hood chamber. Exterior side panels are also removable for ease of access to plumbing and electrical service fixtures.

Stainless Steel Type 316 Exhaust Collar - Round collar with radiused corners allows for direct connection to exhaust duct to minimize static pressure losses and exhaust noise levels.

Work Surface - Standard white dished epoxy work top with optional cup sink; additional work surface materials are also available. If cup sink is required, telescoping drain with a fixed drain cover is provided.

Agency Approvals - Meets ASHRAE 110 guidelines and CSA certified. Test results available upon request.

Vertical Raising Sash (Chain & Sprocket Sash System)	
Width	FRP
48"	72D1040
60"	73D1040
72"	74D1040

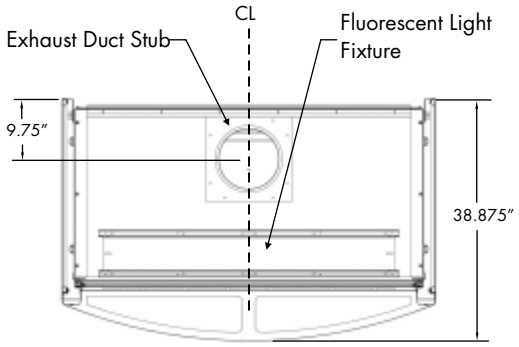
OPTIMA™ - VERTICAL SASH

Exhaust Parameters

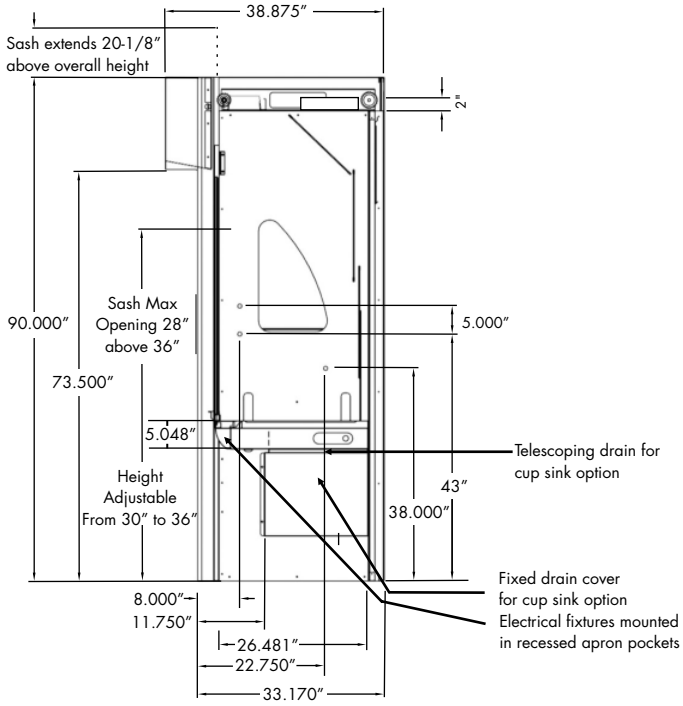
Hood Size	Duct Dia.	100 FPM 18" Max Sash Opening CFM	100 FPM 18" Max Sash Opening SP	80 FPM 18" Max Sash Opening CFM	80 FPM 18" Max Sash Opening SP
48"	10"	581	0.11	465	0.07
60"	10"	739	0.18	591	0.11
72"	12"	897	0.27	718	0.18

Note: Fully open sash is for set-up and tear down of experiments only. Work should not be performed in the set-up position.

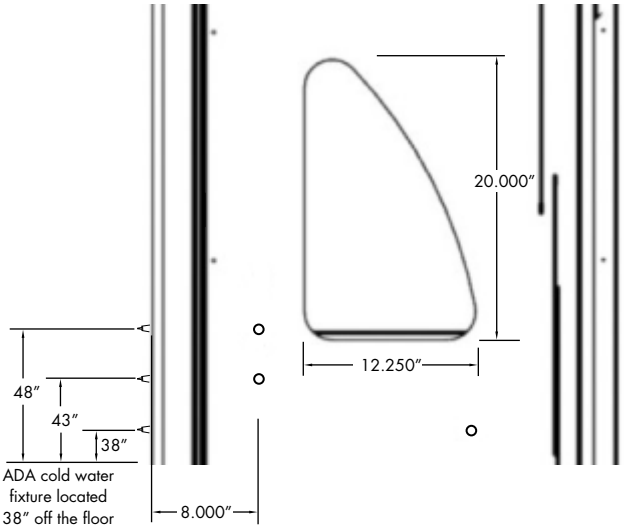
Typical Roof Details



Optima™ Dimensions - End View

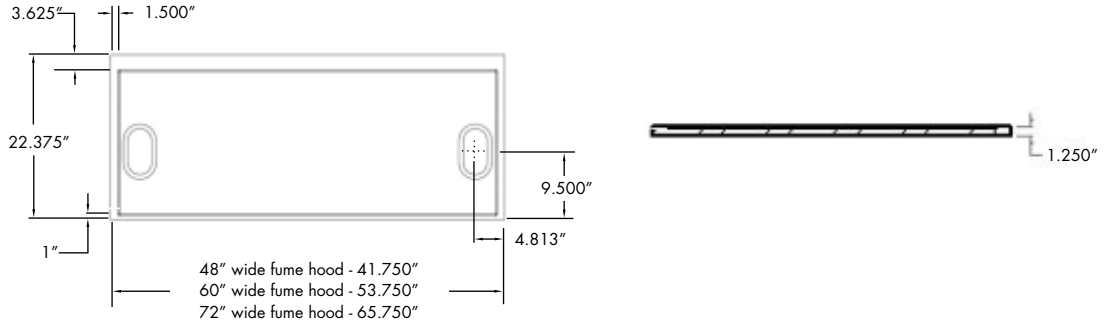


ADA Fixture Location - End View



NOTE: Standard fixture location (not ADA) is 39- 3/4" off the floor and are spaced 5" apart for standard applications.

Optima™ Work Top Dimensions Shown With Optional Cup Sink Location



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OPTIMA™ - COMBINATION SASH

Optima™ fume hoods have been specifically designed to meet the demanding safety, operational and ergonomic requirements of the modern laboratory. This hood is designed to meet most laboratory constant air volume (CAV) and variable air volume (VAV) requirements and supplied with a restricted upper by-pass. The Optima™ fume hood is supplied with the following standard features:

Face Velocities - Designed for 80-100 feet per minute face velocities.

Self-Supporting Structure - The self supporting structure allows for slide-in or mobile cabinets allowing for easy reconfiguration.

Adjustable Work Surface - Electro-hydraulic height adjustable work surface (work top included) with electric motor has the flexibility to be raised or lowered from 30" to 36" to accommodate the requirements for individual users, different procedures or equipment. Ideal for ADA applications.

Optimized Interior Working Area - Achieved through sleek side posts and a minimized frame.

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

Baffle System - Baffle system that adjusts with the work surface for improved airflow through the fume hood.

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

Flush Sill Airfoil - Flush with the work surface to provide easy access to the hood interior. Spill trough is designed to provide secondary containment in the event a spill escapes the primary containment work top. Air foil is hinged for easy cleaning.

Performance Sash Handle - Powder coated stainless steel handle incorporates an airfoil design providing improved airflow along the lower edge of the sash to prevent turbulence from disturbing the process or user.

Sash Design - Sash is 6mm laminated safety glass. Hoods are supplied with a top hung combination vertical rising and horizontal sliding sashes to optimize energy efficiency and maximize operator safety. 38" to 45" viewing height.

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 released, the sash automatically returns to the operational position for energy savings and safety.

Electrical - Controls are conveniently located in the recessed apron pockets. Two UL/CSA approved duplex receptacles provided for 120 volt service. UL/CSA approved fluorescent light fixture and switch provided. T5 fluorescent or LED lighting are available options.

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Stainless Steel Type 316 Exhaust Collar - Round collar with radiused corners allows for direct connection to exhaust duct to minimize static pressure losses and exhaust noise levels.

Work Surface - Standard white dished epoxy work top with optional cup sink; additional work surface materials are also available. If cup sink is required, telescoping drain with a fixed drain cover is provided.

Agency Approvals - Meets ASHRAE 110 guidelines and CSA certified. Test results available upon request.

Combination Sash (Chain & Sprocket Sash System)		**Horizontal Glass Panels**			
Width	FRP	Panel Width	Width Opening	Height Opening	# of Panels
48"	72D1050	10-9/16"	17-1/2"	43-1/8"	4
60"	73D1050	13-9/16"	23-3/4"	43-1/8"	4
72"	74D1050	16-9/16"	29-3/4"	43-1/8"	4

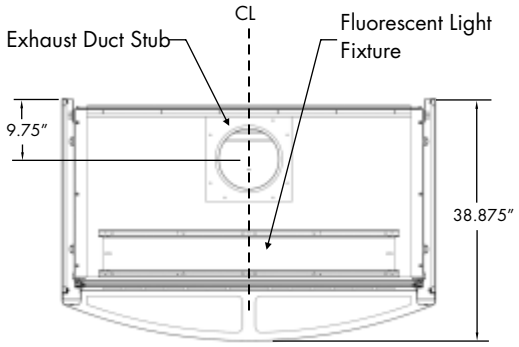
OPTIMA™ - COMBINATION SASH

Exhaust Parameters

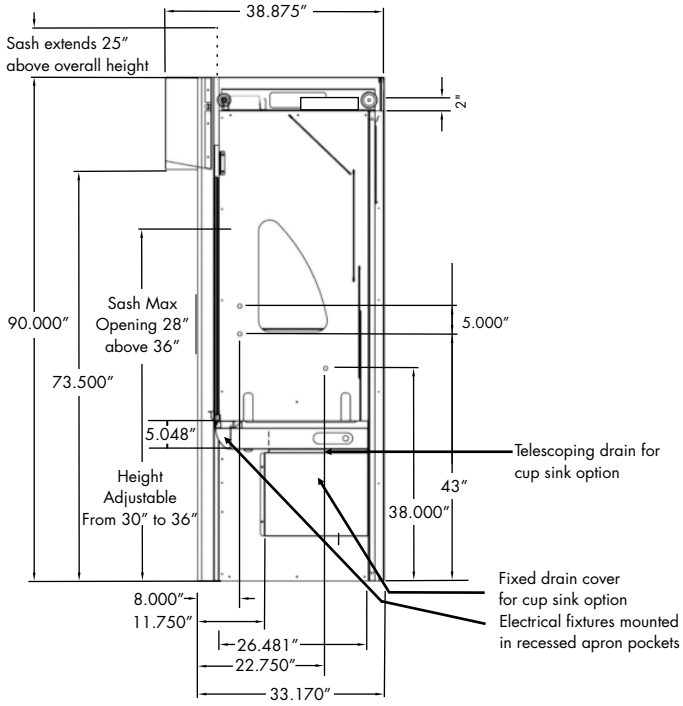
Hood Size	Duct Dia.	100 FPM 18" Max Sash Opening CFM	SP	100 FPM Sash Open Horizontally Only CFM	SP
48"	10"	555	0.11	585	0.12
60"	10"	713	0.17	750	0.19
72"	12"	871	0.12	917	0.14

Note: Fully open sash is for set-up and tear down of experiments only. Work should not be performed in the set-up position.

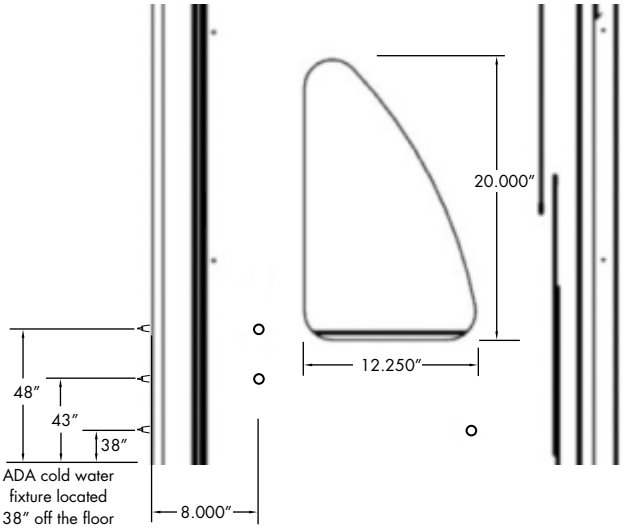
Typical Roof Details



Optima™ Dimensions - End View



ADA Fixture Location - End View



NOTE: Standard fixture location (not ADA) is 39- 3/4" off the floor and are spaced 5" apart for standard applications.

Optima™ Work Top Dimensions Shown With Optional Cup Sink Location