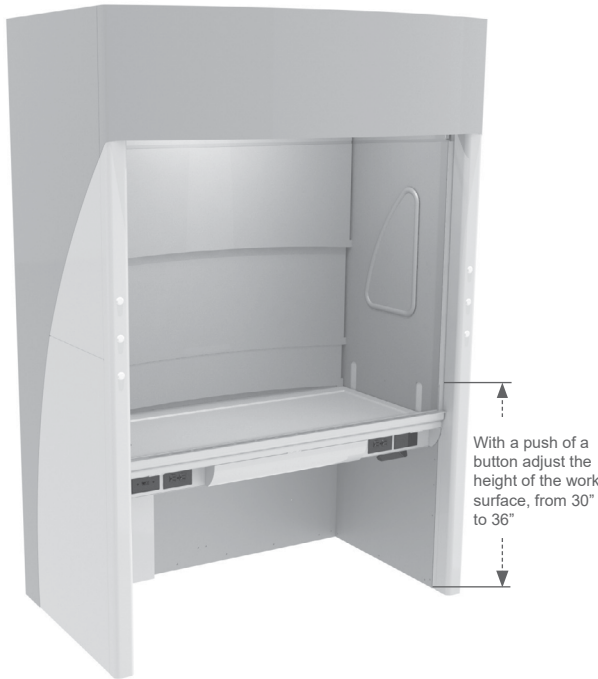


**OPTIMA™ - VERTICAL SASH**

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.

**Adjustable Height 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.

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

**Optimized Interior Working Area** - Achieved through narrow 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 movement.

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

**Flush Airfoil** - Low-profile, hinged, type 316 powder coated stainless steel airfoil is flush with the work surface to provide ergonomic and unobstructed access to the interior. Power cords can be run through the sill to the electrical outlets on the moving apron.

**Spill Trough** - Designed to provide secondary containment in the event a spill escapes the primary containment work top.

**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 sash is freed, it automatically returns to the operational position which offers extra protection to the operator and helps reduce energy consumption.

**Electrical** - Controls are conveniently located in the recessed apron pockets. Two UL/CSA approved duplex receptacles provided for 120 volt service. UL/CSA approved LED light module and switch provided.

**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. Note: ensure plumbing method meets local plumbing codes.

**Agency Approvals** - UL 1805 Classified, CSA certified to UL 61010 and tested in accordance with ASHRAE 110. Test results available upon request.

**Vertical Raising Sash (Chain & Sprocket Sash System)**

Width	FRP
48"	72D1040
60"	73D1040
72"	74D1040

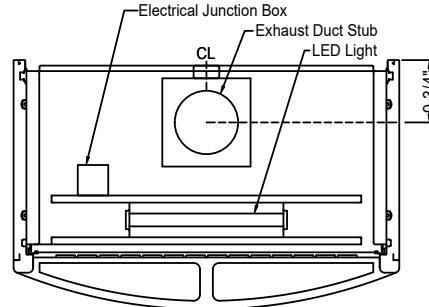
**OPTIMA™ - VERTICAL SASH**

**Exhaust Parameters**

Hood Size	Duct Diameter	100 FPM 18" Max		80 FPM 18" Max	
		Sash Opening CFM	SP	Sash Opening CFM	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

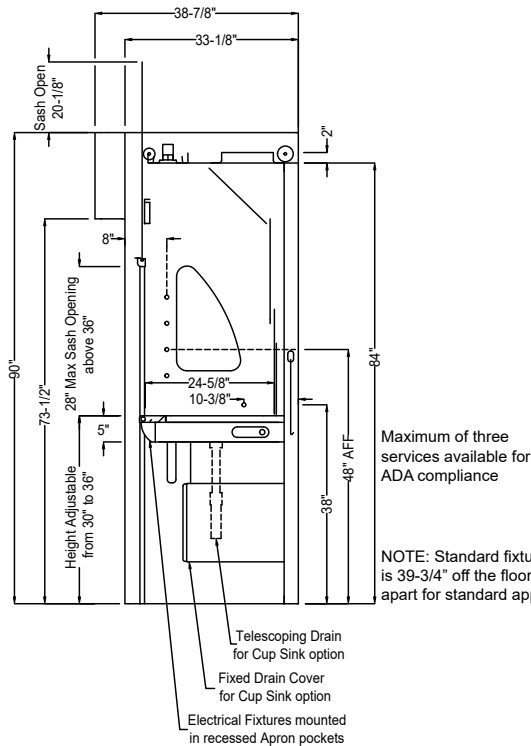
Note: Fully open sash is for set-up and tear down of experiments only. Work should not be performed in the set-up position.

**Typical Roof Details**

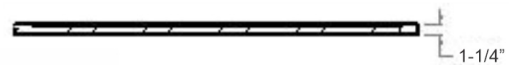
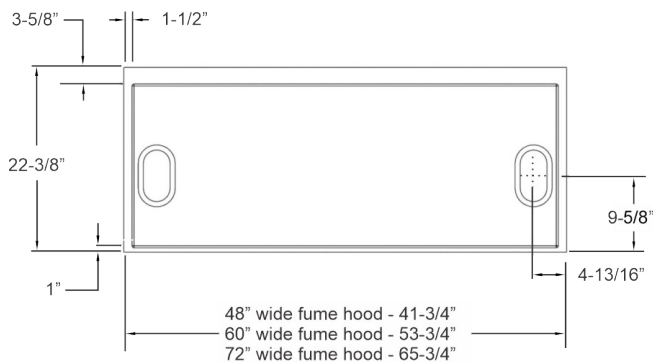


**Single Collar Rough-In**

**Optima™ Dimensions - End View**



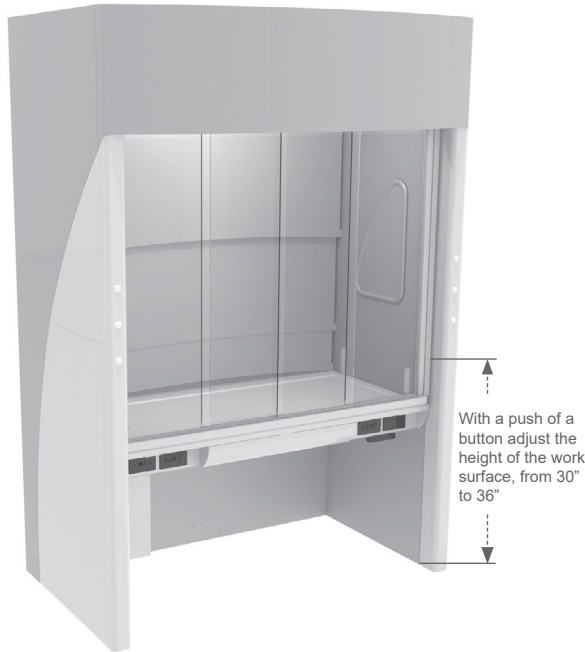
**Optima™ Work Top Dimensions Shown With Optional Cup Sink Location**



Note: White work top is provided by Mott.

**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.

**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.

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

**Optimized Interior Working Area** - Achieved through narrow 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 movement 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 Airfoil** - Low-profile, hinged, type 316 powder coated stainless steel airfoil is flush with the work surface to provide ergonomic and unobstructed access to the interior. Power cords can be run through the sill to the electrical outlets on the moving apron.

**Spill Trough** - Designed to provide secondary containment in the event a spill escapes the primary containment work top.

**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. Hood are supplied with top hung frameless combination vertical rising and horizontal sliding sash 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 sash is freed, it automatically returns to the operational position which offers extra protection to the operator and helps reduce energy consumption.

**Electrical** - Controls are conveniently located in the recessed apron pockets. Two UL/CSA approved duplex receptacles provided for 120 volt service. UL/CSA approved LED light module and switch provided.

**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. Note: ensure plumbing method meets local plumbing codes.

**Agency Approvals** - UL 1805 Classified, CSA certified to UL 61010 and tested in accordance with ASHRAE 110. Test results available upon request.

Combination Sash (Chain & Sprocket Sash System)		Horizontal Glass Panels			Number of Panels
Width	FRP	Panel Width	Width Opening	Height Opening	
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

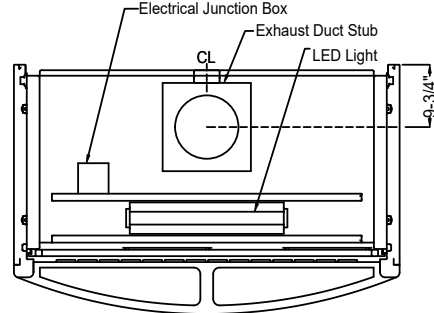
**OPTIMA™ - COMBINATION SASH**

**Exhaust Parameters**

Hood Size	Duct Diameter	100 FPM 18" Max Sash Opening		100 FPM Sash Open Horizontally Only	
		CFM	SP	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

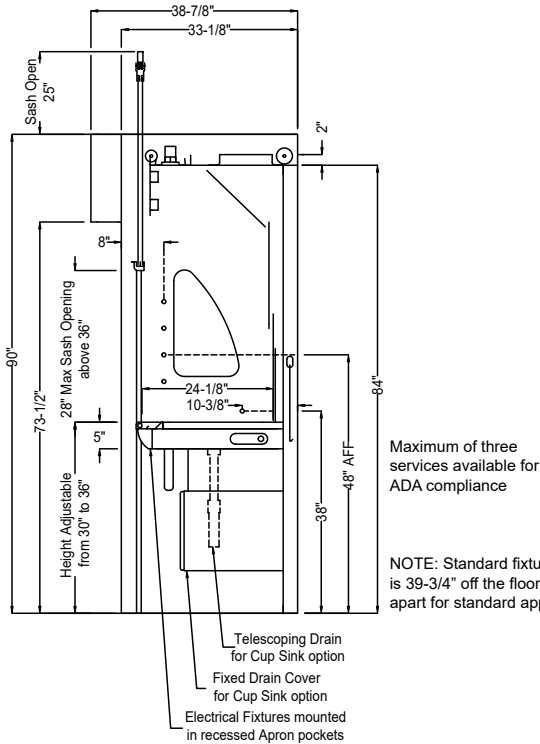
Note: Fully open sash is for set-up and tear down of experiments only. Work should not be performed in the set-up position.

**Typical Roof Details**

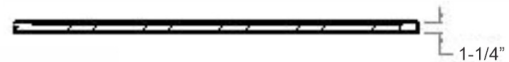
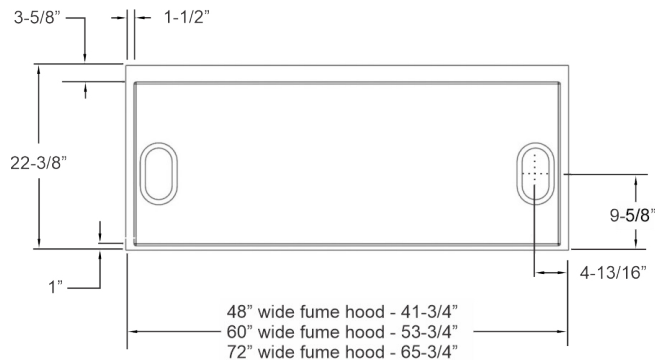


Single Collar Rough-In

**Optima™ Dimensions - End View**



**Optima™ Work Top Dimensions Shown With Optional Cup Sink Location**



Note: White work top is provided by Mott.