

**NOVAGUARD™ BENCH - VERTICAL SASH**

Designed to deliver competitive containment performance and energy efficiency, the NovaGuard™ operates with exhaust volumes significantly lower than conventional hoods. Providing the operator with a secure and reliable operation environment while providing considerable capital and operating cost savings. Suitable for Constant Air Volume (CAV) and Variable Air Volume (VAV) requirements. The NovaGuard™ bench mounted fume hood is supplied with the following standard features:



**Face Velocities** - Tested to both standard and modified ASHRAE procedures at face velocities as low as 50 fpm with a full open sash and meeting the definition of “high performance”.

**Baffle Design** - Downflow rear baffle is biased to the bottom, drawing fumes downward away from the user and counteracts the normal upward flow of vapors and prevents contaminated air build up behind the closed sash.

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

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

**Full Viewing Area** - Provides a clear and unobstructed side to side view of fume hood interior, with a 44-1/2” high viewing area. Rear mounted fixed tinted visor included.

**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 re-

turns to the 18” open operational position which offers extra protection to the operator and helps reduce energy consumption. Below 18” the sash is equally balanced.

**Alcoves** - Both hood sidewalls are recessed creating alcoves, providing significant gains in interior space over traditional fume hoods. Alcoves can have optional side glass windows and/or optional shelves.

**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 hood posts.

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

**Electrical and Plumbing** - Two UL/CSA approved duplex receptacles provided for 120 volt service. UL/CSA approved LED light module and switch provided. Fixture holes are not pre-punched and punched only as ordered (front post can accept five front load fixtures per side). Factory pre-plumbing is an available option as well as plumbing fixtures from a variety of manufacturers to meet most plumbing needs.

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

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

**Agency Approvals** - UL 1805 Classified, CSA certified to UL 61010 and tested in accordance with ASHRAE 110-2016. Test results available upon request.

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

Width	FRP	PVC	Epoxy	316 S/S Square Corners
48"	72A1040	72A3040	72A6040	72A4040
60"	73A1040	73A3040	73A6040	73A4040
72"	74A1040	74A3040	74A6040	74A4040
96"	75A1040	75A3040	75A6040	75A4040

**Exhaust Transition**

Width	Item Number	Duct Size	Base Size
48" with SM option	EXT0324	10"	3" x 24"
48"	EXT0036	10"	3" x 36"
60"	EXT0036	10"	3" x 36"
72"	EXT0036	10"	3" x 36"
96"	EXT2336	12"	3" x 36"

**Exhaust Transition**

- Fits over exhaust collar on NovaGuard™ hoods
- Exhaust transitions (rectangular duct to round duct) are available in 18 gauge, type 316 stainless steel and fits over exhaust collar
- SM option code: Automatic Sash Operator 2 Plus (ASO2 Plus)

**NOVAGUARD™ BENCH - VERTICAL SASH**

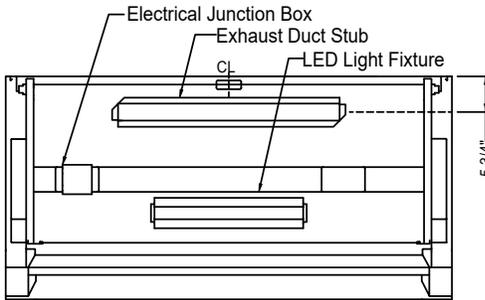
**Exhaust Parameters**

Hood Size	Duct Diameter	100 FPM 18" Max Sash Opening		80 FPM 18" Max Sash Opening		80 FPM 28-1/2" Max* Sash Opening		60 FPM 18" Max Sash Opening		60 FPM 28-1/2" Max* Sash Opening		50 FPM 18" Max Sash Opening		50 FPM 28-1/2" Max* Sash Opening	
		CFM	SP**	CFM	SP**	CFM	SP**	CFM	SP**	CFM	SP**	CFM	SP**	CFM	SP**
48"	3" x 36"	481	0.08	385	0.05	610	0.07	289	0.04	457	0.06	241	0.03	381	0.05
60"	3" x 36"	631	0.13	505	0.05	800	0.11	379	0.04	600	0.06	316	0.03	500	0.05
72"	3" x 36"	781	0.11	625	0.07	990	0.17	469	0.04	742	0.10	391	0.03	618	0.07
96"	3" x 36"	1081	0.21	865	0.13	1370	0.33	649	0.07	1027	0.19	541	0.05	856	0.13

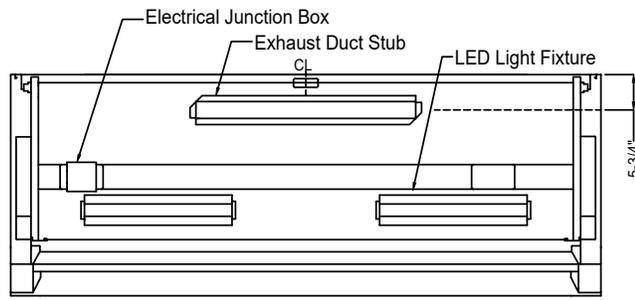
\* 28-1/2" max sash opening is recommended for set-up and tear down only.

\*\* Does not include transition.

**Typical Roof Details**

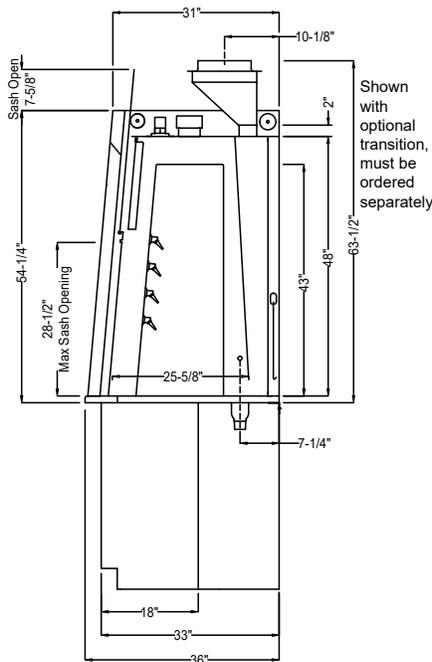


Single Collar Rough-In



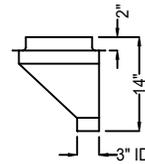
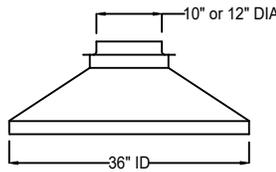
Dual Collar Rough-In

**Side Section Details**



Shown with optional transition, must be ordered separately

**Optional Exhaust Transition Details**



**Side Window Option**



- WL** - Glass end panels on left side replaces solid end panel on left
- WR** - Glass end panel on right side - replaces solid end panel on right
- WB** - Glass end panels on both sides - replaces both solid end panels

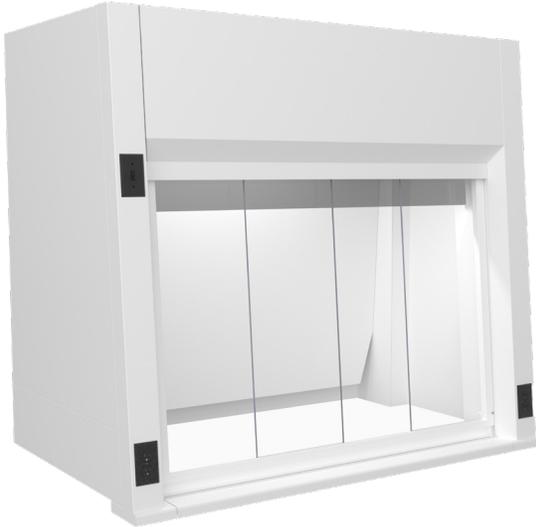
**Alcove Shelving Option**



- Alcove Shelving:** Type 316, powder coated, perforated stainless steel
- ASL** - Alcove shelf on left side
- ASR** - Alcove shelf on right side
- ASB** - Alcove shelf on both sides
- Note:** Depending on shelf position, available plumbing service locations will be reduced. Contact Mott for details.

**NOVAGUARD™ BENCH - COMBINATION SASH**

Designed to deliver competitive containment performance and energy efficiency, the NovaGuard™ operates with exhaust volumes significantly lower than conventional hoods. Providing the operator with a secure and reliable operation environment while providing considerable capital and operating cost savings. This hood is designed to meet most laboratory Constant Air Volume (CAV) or Variable Air Volume (VAV) requirements and includes restricted by-pass panel. The NovaGuard™ bench mounted fume hood is supplied with the following standard features:



**Face Velocities** - Tested to both standard and modified ASHRAE procedures at face velocities as low as 50 fpm with a full open sash and meeting the definition of “high performance”.

**Baffle Design** - Downflow rear baffle is biased to the bottom, drawing fumes downward away from the user and counteracts the normal upward flow of vapors and prevents contaminated air build up behind the closed sash.

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

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

**Full Viewing Area** - Provides a clear and unobstructed side to side view of fume hood interior, with a 34-1/2” high viewing area. Rear mounted fixed tinted visor included. Hoods are supplied with a combination vertical rising and horizontal sliding sashes.

**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 18” open operational position which offers extra protection to the operator and helps reduce energy consumption. Below 18” the sash is equally balanced.

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**Alcoves** - Both hood sidewalls are recessed creating alcoves, providing significant gains in interior space over traditional fume hoods. Alcoves can have optional side glass windows and/or optional shelves.

**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 hood posts.

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

**Electrical and Plumbing** - Two UL/CSA approved duplex receptacles provided for 120 volt service. UL/CSA approved LED light module and switch provided. Fixture holes are not pre-punched and punched only as ordered (front post can accept five front load fixtures per side). Factory pre-plumbing is an available option as well as plumbing fixtures from a variety of manufacturers to meet most plumbing needs.

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

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

**Agency Approvals** - UL 1805 Classified, CSA certified to UL 61010 and tested in accordance with ASHRAE 110-2016. Test results available upon request.

**Combination Sash (Chain & Sprocket Sash System)**

Width	FRP	PVC	Epoxy	316 S/S Square Corners
48”	72A1050	72A3050	72A6050	72A4050
60”	73A1050	73A3050	73A6050	73A4050
72”	74A1050	74A3050	74A6050	74A4050
96”	75A1050	75A3050	75A6050	75A4050

**Horizontal Glass Panels**

Panel Width	Width Opening	Height Opening	Number of Panels
9-3/4”	16”	32”	4
12-3/4”	22”	32”	4
15-3/4”	28”	32”	4
14-13/16”	38-7/8”	32”	6

**Exhaust Transition**

Width	Item Number	Duct Size
48”	EXT0036	10”
60”	EXT0036	10”
72”	EXT0036	10”
96”	EXT2336	12”

**Exhaust Transition**

- Fits over exhaust collar on NovaGuard™ hoods
- Exhaust transitions (rectangular duct to round duct) are available in 18 gauge, type 316 stainless steel and fits over exhaust collar
- Base size 3” x 36”

**NOVAGUARD™ BENCH - COMBINATION SASH**

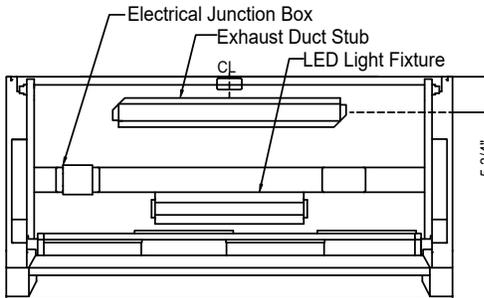
**Exhaust Parameters**

Hood Size	Duct Size	100 FPM 18" Max Sash Opening		100 FPM Sash Open Horizontal Only		80 FPM 18" Max Sash Opening		80 FPM Sash Open Horizontal Only	
		CFM	SP**	CFM	SP*	CFM	SP**	CFM	SP**
48"	3" x 36"	481	0.08	457	0.05	385	0.08	363	0.04
60"	3" x 36"	631	0.13	600	0.07	505	0.05	483	0.04
72"	3" x 36"	781	0.11	742	0.10	625	0.07	603	0.06
96"	3" x 36"	1081	0.21	1027	0.20	865	0.13	843	0.13

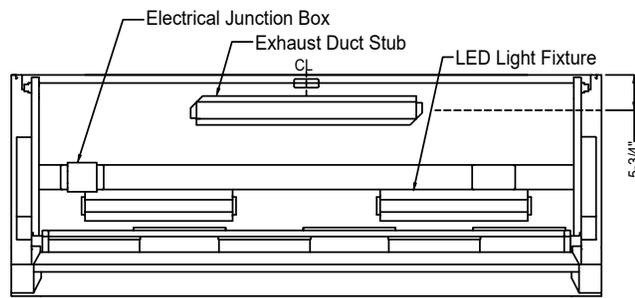
\* 28-1/2" max sash opening is recommended for set-up and tear down only.  
\*\* Does not include transition.

Hood Size	Duct Size	60 FPM 18" Max Sash Opening		60 FPM Sash Open Horizontal Only		60 FPM 28-1/2" Max* Sash Opening		50 FPM 18" Max Sash Opening		50 FPM Sash Open Horizontal Only		50 FPM 28-1/2" Max* Sash Opening	
		CFM	SP**	CFM	SP*	CFM	SP**	CFM	SP**	CFM	SP*	CFM	SP**
48"	3" x 36"	289	0.02	289	0.02	457	0.05	241	0.03	227	0.03	408	0.04
60"	3" x 36"	379	0.03	379	0.03	600	0.07	316	0.03	302	0.03	535	0.05
72"	3" x 36"	469	0.04	469	0.04	742	0.10	391	0.03	377	0.04	662	0.08
96"	3" x 36"	649	0.08	649	0.08	1027	0.20	541	0.05	527	0.05	916	0.15

**Typical Roof Details**

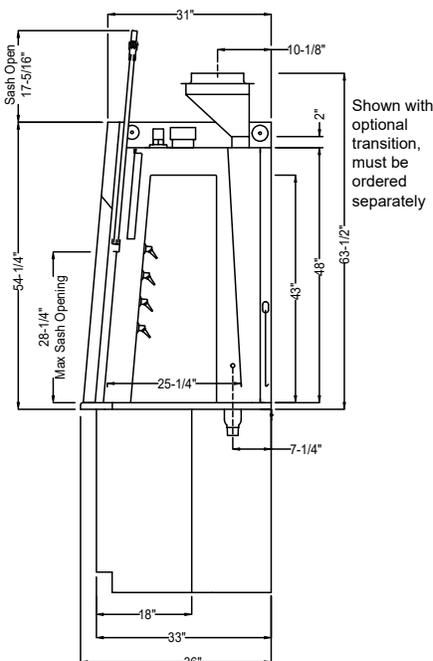


Single Collar Rough-In



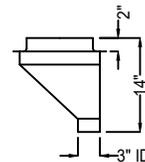
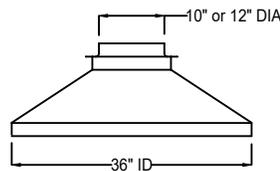
Dual Collar Rough-In

**Side Section Details**



Shown with optional transition, must be ordered separately

**Optional Exhaust Transition Details**



**Side Window Option**



**WL** - Glass end panels on left side replaces solid end panel on left  
**WR** - Glass end panel on right side - replaces solid end panel on right  
**WB** - Glass end panels on both sides - replaces both solid end panels

**Alcove Shelving Option**



**Alcove Shelving:** Type 316, powder coated, perforated stainless steel  
**ASL** - Alcove shelf on left side  
**ASR** - Alcove shelf on right side  
**ASB** - Alcove shelf on both sides  
**Note:** Depending on shelf position, available plumbing service locations will be reduced. Contact Mott for details.

Note: The above side section detail drawing is shown with the optional transition, this must be ordered separately.

All dimensions and sizes shown are nominal unless otherwise noted. Specifications and details are based on product information at the time of printing and may change at any time without notice. Mott Manufacturing reserves the right to change dimensions, specifications and manufacturing details at any time without notice.