



Manufacturer
Of
Architectural
And
Commercial
Grade
Windows,
Curtain Walls,
Entrances,
And
Storefronts

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MONETT, MO 65708
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**Series 3400 Non-Thermal Commercial • Series 3410 Non-Thermal Heavy Commercial
Series 3450 Thermal Commercial • Series 3460 Thermal Heavy Commercial • Series 3475 Thermal Fixed
3 1/4" Heavy Commercial Single Hung Non-Thermal and Thermal Window**

Configurations Single Hung

This product family of hung windows retains an AAMA Commercial and Heavy Commercial rating to meet the most demanding specifications. This product is a proven performer in applications ranging from historical replication to new construction. This hung window series is an attractive product for a wide range of applications including both thermal and non-thermal applications. Multiple glazing options provide flexibility to meet specific design requirements. Offered with a complete line of sub frames, mullions and architectural sills, this product family provides the complete solution for your fenestration needs.

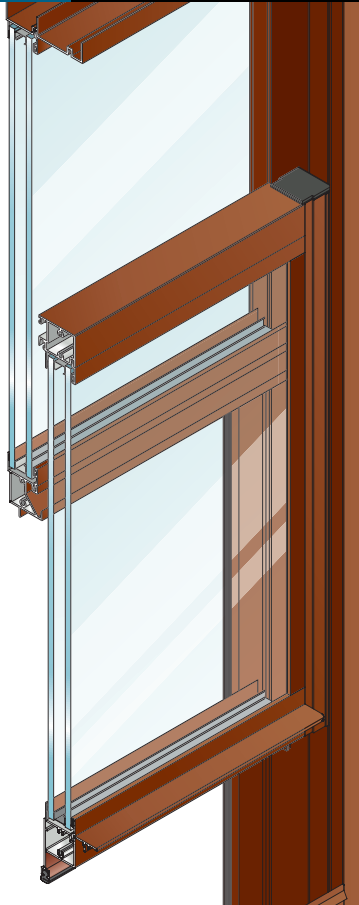
Features

Benefits

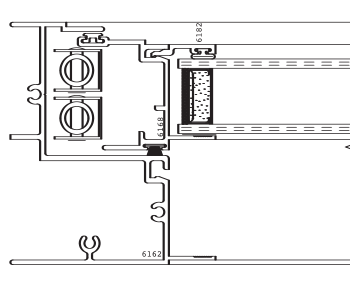
3 1/4" frame with nominal .062" wall thickness	Deep frame depth provides more glass and panel options
Continuous interlock meeting rails	Improves air infiltration resistance
Frame accommodates 1/4" or 1" glass	Expands design and energy saving options
Integral transom with 1/4", 1" or 2 1/2" glazing	Single unit simplifies installation and results in cost savings for material and labor
Weather-stripped sash and sash guide	Better protection against water infiltration
Screen frames of extruded aluminum alloy are available	Stronger more durable screens
Accessory options include subframes, mullions, muntins, and architectural sills	Allows custom designs with standard product
Anodized or painted finishes available	Unlimited options to answer economic and aesthetic concerns



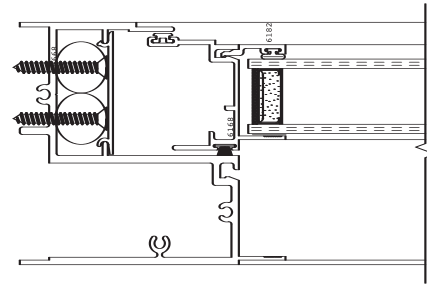
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3 1/4" Heavy Commercial Single Hung Non-Thermal and Thermal Window



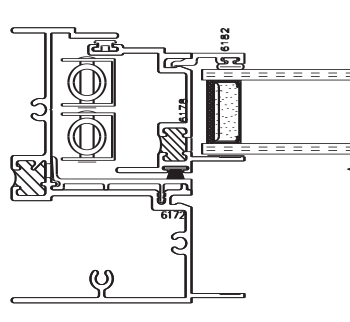
Series 3400 Block & Tackle



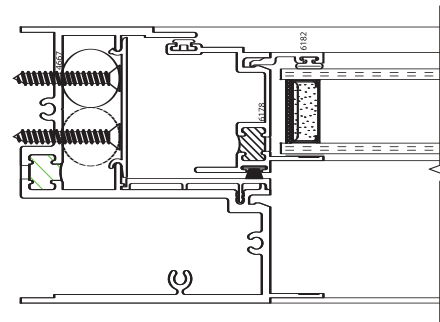
Class 5 Balances



Series 3450 Block & Tackle



Class 5 Balances



Performance Data

S-3400 Nonthermal Commercial

AAMA Rating (NAFS-02)	H-C65
Air Infiltration	<.10 cfm/sf @ 6.24 psf
Water	No Leakage @ 9.75 psf
Structural	±97.5 psf

S-3410 Nonthermal Heavy Commercial

AAMA Rating (NAFS-02)	H-HC50
Air Infiltration	<.13 cfm/sf @ 6.24 psf
Water	No Leakage @ 9.75 psf
Structural	±75.0 psf

A = Estimated values and/or designations
 B = Non-standard size or configuration
 C = Dual glazed
 D = 1" Insulated - 1/4" clear, 1/2" air, 1/4" clear
 E = 1" Insulated - 1/4" clear (Low Emissivity), 1/2" air, 1/4" clear
 F = 1" Insulated - 1/4" clear (Low Emissivity), 1/2" argon, 1/4" clear
 G = 1" Insulated - 1/4" clear, 1/2" air, 1/4" clear (Low Emissivity)

S-3450 Thermal Commercial

AAMA Rating (NAFS-02)	H-C60
Air Infiltration	.10 cfm/sf @ 6.24 psf
Water	No Leakage @ 9.0 psf
Structural	±90.0 psf
CRF-Frame (1503-98)	.55°
CRF-Glass (1503-98)	.54°
U-Value (1503-98)	.64°

S-3460 Thermal Heavy Commercial

AAMA Rating (NAFS-02)	H-HC45
Air Infiltration	.15 cfm/sf @ 6.24 psf
Water	No Leakage @ 9.0 psf
Structural	±67.5 psf
CRF-Frame (1503-98)	.55° ^A
CRF-Glass (1503-98)	.54° ^{A, D}
U-Value (1503-98)	.64° ^D

S-3475 Corresponding Fixed Thermal Heavy Commercial

AAMA Rating (A440-05)	FW-AW75
Air Infiltration	<.06 cfm/sf @ 6.24 psf
Water	No Leakage @ 15.0 psf
Structural	±112.5 psf
CRF-Frame (1503-98)	.62° ^D
CRF-Glass (1503-98)	.54° ^D
U-Value (1503-98)	.54° ^{A, D}

S-3400 Hardware Chart

	Sweep Lock	Auto Sill Lock	2 or 4 Block & Tackle Balances	2 or 4 Class 5 Balances
Single Hung	S	0	S	0
Double Hung	S	0	S	0

Some size restrictions may apply depending on hardware selected.

0 - Optional
 S - Standard
 blank - N/A

Single Hung S-3400, S-3410, S-3450 & S-3460 Glazing Chart

	Polycarbonate			Glass or Panel															
	1/8"	3/16"	1/4"	1/8"	.156"	3/16"	.200"	1/4"	1/4"	1/2"	5/8"	3/4"	7/8"	1"	1-1/8"	1-1/4"	1-1/2"	1-3/4"	2"
Monolithic & Insulated Glass							A	A						A					

*-Obscure Glass Thickness
 **-Laminated Glass Thickness
 A -Available Glazing Option
 I -Internal Blinds Can Be Used With This Type of Dual Glazing
 blank - N/A

Fixed S-3475 Glazing Chart

	Polycarbonate			Glass or Panel															
	1/8"	3/16"	1/4"	1/8"	.156"	3/16"	.200"	1/4"	1/4"	1/2"	5/8"	3/4"	7/8"	1"	1-1/8"	1-1/4"	1-1/2"	1-3/4"	2-1/2"
Monolithic & Insulated Glass							A	A						A					A

Frame Construction

The frames have a depth of 3 1/4" and are constructed of 6063-T6 aluminum alloy. Nominal material wall thickness for the frame is .062", and the sill has a nominal wall thickness of .070". Corners are of screw spline construction and sealed with small-joint sealant. Frame members telescope together.

See Illustration 1.

Sash Frame Construction

The sash consists of aluminum members with .062" nominal material wall thickness of 6063-T6 alloy. Corners are of screw spline construction and sealed with small-joint sealant. Dual weather-stripped, continuous interlock at the sash meeting rail(s) offers superior weathering and structural performance.

See Illustration 2.

Weather Stripping

All sash are dual weather-stripped with FIN-SEAL® or equal.

Screens

Half screens are available. Screen frames are extruded 6063-T6 aluminum alloy frames. 18 x 16 mesh screens are available in fiberglass and .011" diameter aluminum. 18 x 18 mesh screens are available in .009" diameter stainless steel.

Thermal Barrier (S-3450 & S-3460 only)

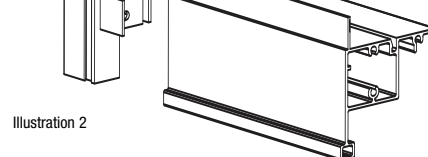
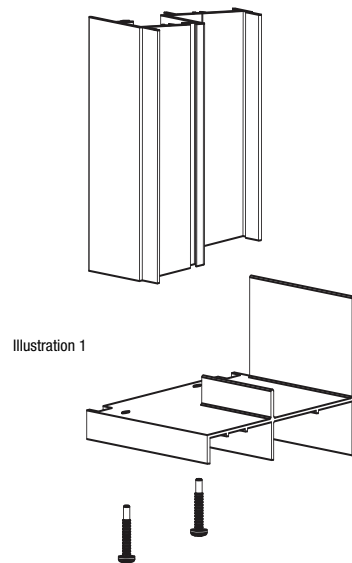
All frames and vents are thermally improved using the latest technology in two-part, high density polyurethane.

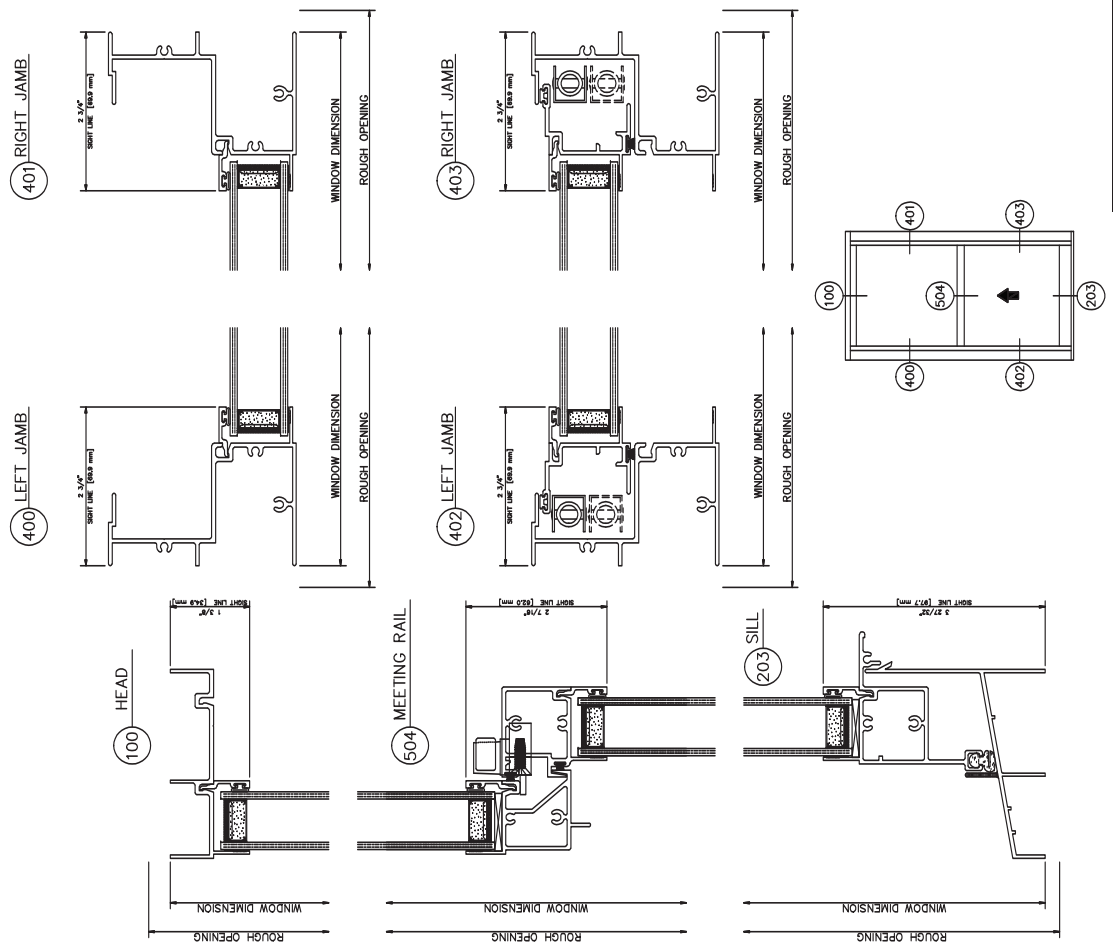
Hardware

Sweep locks, mortised into the sash top rail are standard. The sweep will be painted white, black, or beige. Automatic sill locks are fabricated of aluminum alloy and finished to match the window as an option. Two types of balance systems are available. A spring loaded block and tackle balance rated Class 1 with a .70 MAF* is standard. A high performance torsion spring and extension spring balance rated Class 5 with a .30 MAF* ratio is optional. EFCO reserves the right to substitute a higher performance balance as project conditions dictate, i.e., large, heavy sash requiring minimum operating force. See the Hardware Chart for available hardware types.

Glazing

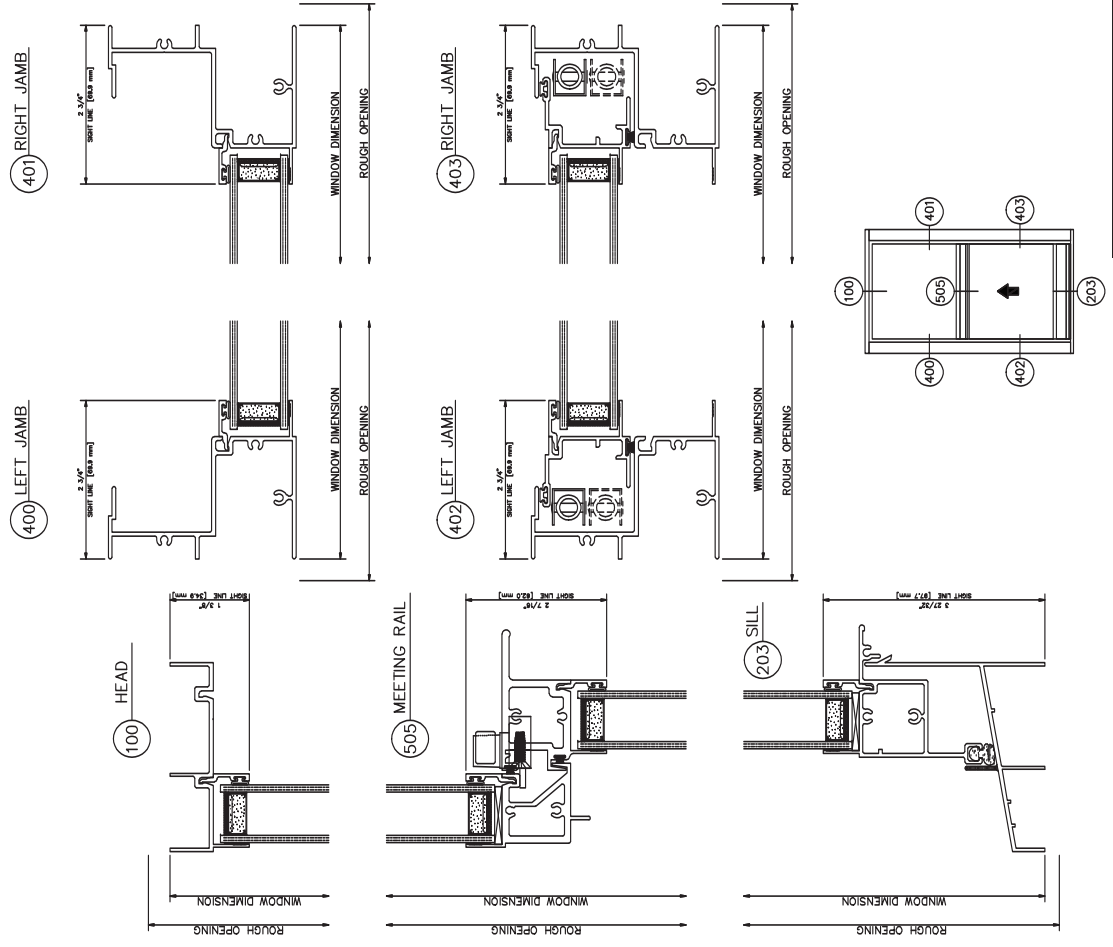
Windows are inside glazed with an extruded aluminum drive-in glazing bead. Glazing of 1/4" and 1" can be accommodated. Series 3475 fixed frame windows accommodate glass of 1/4" and 1" or panels up to 2 1/2" thick.





3400 Single Hung

Inside Glazed with Block & Tackle Balances

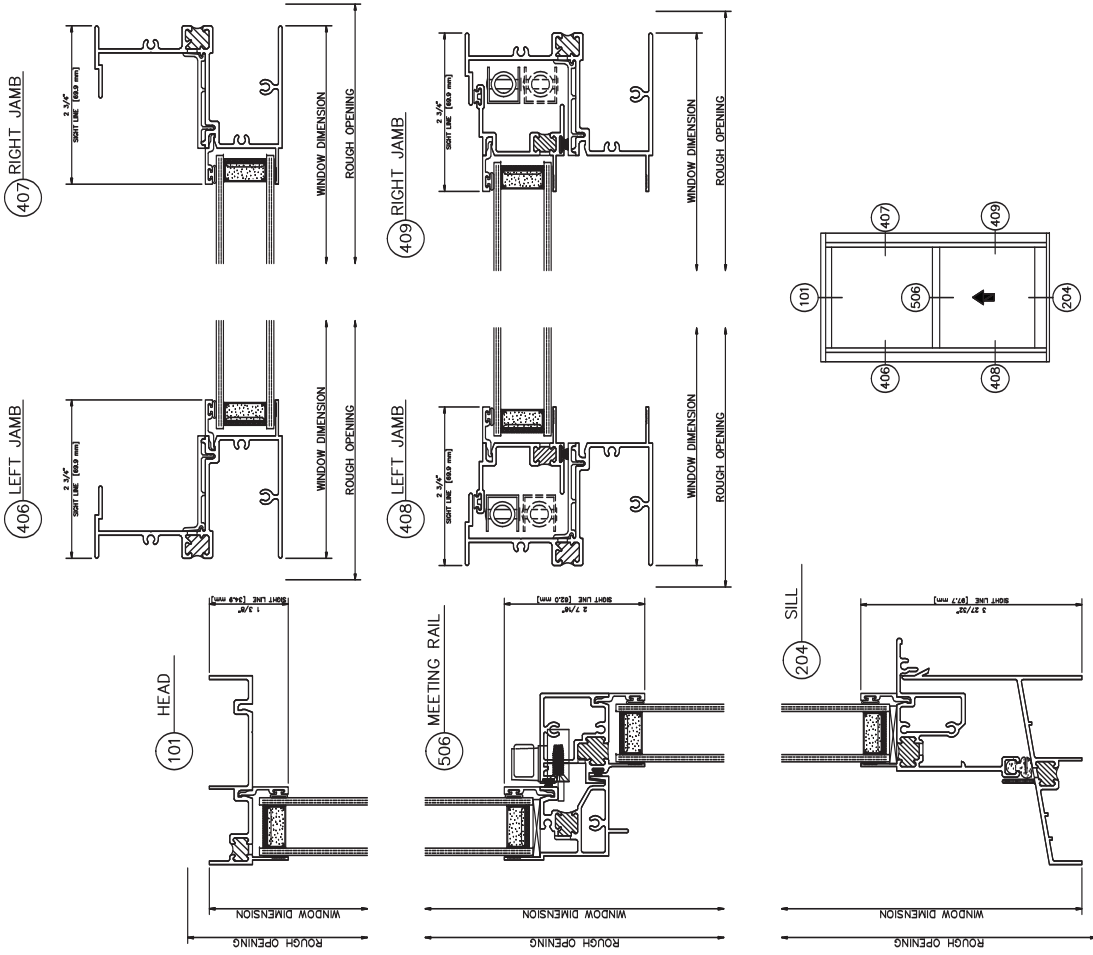


3410 Single Hung

Inside Glazed with Block & Tackle Balances

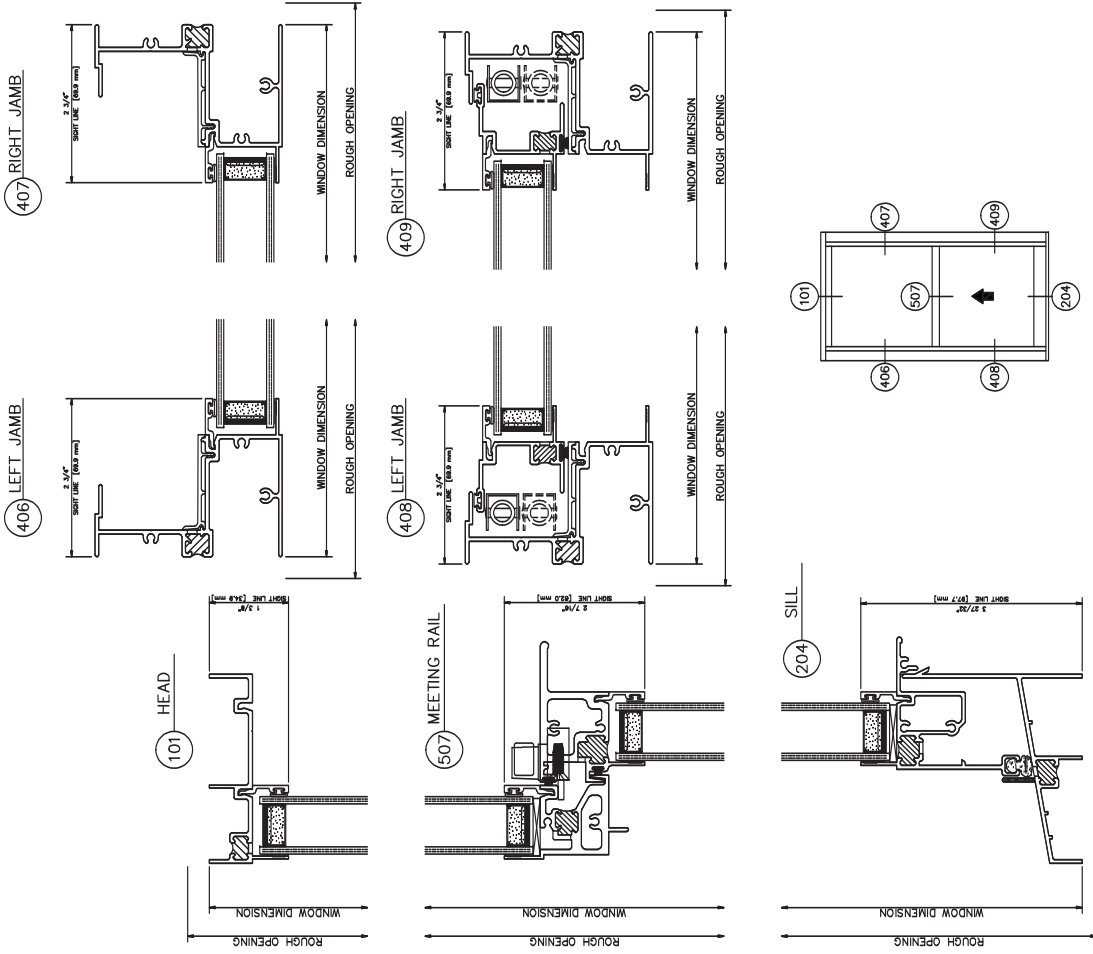
3450 Single Hung

Inside Glazed



3460 Single Hung

Inside Glazed



1/4" MONOLITHIC

