Series 3902 Thermal
3 1/4" Architectural Grade Projected Window

Approved for Historic Preservation
Certificate of Appropriateness
Date: 02/10/16

CONFIGURATIONS

Project-In • Project-Out • Casement • Fixed

Series 3902 retains an AAMA Architectural Grade rating to meet the most demanding specifications. Designed for educational, institutional and high-rise residential, the 3902 window system is an attractive product for a wide range of applications. Multiple glazing options provide flexibility to meet specific design requirements. The window is thermally improved for enhanced energy saving potential. Offered with a complete line of sub frames, mullions and architectural sills, the 3902 window provides the complete solution for your fenestration needs.

Features	Benefits
Thermal barriers in frame and sash consist of a two part, high density polyurethane	Improves U-Factor performance and enhances energy savings potential
Pressure equalization	Superior water resistance
Angle reinforced vent corners	Improves sash/vent rigidity
All vents are dual weather-stripped with dual-durometer Santoprene® gasket	Provides superior air and water resistance
Two weep slots per vent through the window frame	Moisture weeps to the exterior quickly
Wide variety of locking and operating hardware available	Permits hardware options to address specific requirements
Accommodates glazing units from 3/16" to 2" depth	Expands design and energy savings options
Dual glazing with optional integral blinds	Improved energy savings and interior light or privacy control with low maintenance
Screen frames of extruded aluminum alloy are available	Stronger, more durable screens
Accessory line of subframes, mullions, and architectural sills	Allows custom designs with standard product
Anodized or painted finishes available	Multiple options to answer economic and aesthetic concerns

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PERFORMANCE DATA

PROJECTED ARCHITECTURAL GRADE

AAMA RATING PROJECT IN AW-PG130
AAMA RATING PROJECT OUT..... AW-PG140
AIR INFILTRATION..... <.10 CFM/SF @ 6.24 PSF
WATER..... NO LEAKAGE @ 15.0 PSF
STRUCTURAL ..... ±150.0 PSF
CRF-FRAME (1503-98)..... 48
CRF-GLASS (1503-98)..... 60

CASEMENT ARCHITECTURAL GRADE

AAMA RATING INSWING..... AW-PG125
AAMA RATING OUTSWING AW-PG110
AIR INFILTRATION..... <.10 CFM/SF @ 6.24 PSF
WATER..... NO LEAKAGE @ 15.0 PSF
STRUCTURAL INSWING ..... ±142.5 PSF
STRUCTURAL OUTSWING ..... ±165.0 PSF

Note: All performance value data is based on laboratory testing per AAMA 101/I.S.2/A440 for Air/Water/Structural, ASTM E90 and or E413 for Acoustical, AAMA 507 and or NFRC 100/200/500 for UFactors and AAMA 1503 for Condensation Resistance Factor (CRF). Printed values are subject to change pending the frequency of recertification testing. Field results will vary depending on size, the field test method, the addition of sub-frames, panning, mullions, accessories and installation into the surrounding condition.

3902 THERMAL U-FACTORS*		
CENTER OF GLASS U-FACTOR	CONFIGURATION AND SIZE	
	FIXED 47" X 59"	PROJECT OUT 59" X 24"
0.48	0.56	0.67
0.34	0.45	0.59
0.30	0.42	0.57
0.24	0.37	0.53
0.20	0.34	0.51

* Based on NFRC 100

S-3902 HARDWARE CHART	BUTT HINGES	4-BAR ARMS	FRICTION ADJUSTER	KEY RELEASE LIMIT ARM	ROTOR OPERATOR*	CAM HANDLE	POLE RING CAM HANDLE	POLE RING PULL**	ACCESS CONTROLLED LOCK	LIFT LOCK
PROJECT-IN		S				S	O		O	
PROJECT-OUT		S				S	O	O	O	
CASEMENT INSWING WITH 4-BAR ARMS		S				S	O		O	
CASEMENT OUTSWING WITH 4-BAR ARMS		S				S	O		O	O
CASEMENT INSWING WITH BUTT HINGES	S		O	O		S	O		O	
CASEMENT OUTSWING WITH BUTT HINGES	S		S	O	O	S	O		O	O

Some size restrictions may apply depending on hardware selected.
***** Casements requiring roto operators will be furnished with lift locks, providing vents meet minimum width requirements.
****** Pole ring pull will be furnished on project-out vents when optional pole ring cam handle is selected.

O - Optional
S - Standard
Blank - N/A

S-3902 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	A	A	A	A	A	A		A	A	A	A	A	A
DUAL GLAZING	EXTERIOR LITE	I	I	I	I	I	I	I	I	I	I	I		I			A			
	INTERIOR LITE	A	A	A		A	A	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

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Main Frame Construction
The frame is constructed from .125" nominal material wall thickness aluminum of 6063-T6 alloy with a depth of 3 1/4". An equal leg frame is standard. Corners are of screw spline construction and back sealed with a small-joint seam sealer. See Illustration 1.

Illustration 1

Vent Frame Construction
The 2 7/16" deep vent consists of tubular aluminum members with .125" nominal material wall thickness of 6063-T6 alloy. Vent corners are mitered, angle reinforced, crimped, cold epoxy welded, and back sealed with a small-joint seam sealer. See Illustration 2.

Weather Stripping
All vents are dual weather-stripped with a dual durometer Santoprene® gasket. The exterior gasket is intentionally omitted at the vent bottom rail for project-out vents and at the vent top rail for project-in vents. This allows the air to pressure equalize the void between the vent and frame. Each vent utilizes the pressure equalization technique for superior water resistance. Two holes or slots per vent through the window frame facilitate weepage.

Illustration 2

Thermal Barrier
All frames and sash are thermally improved using the latest technology in two part, high density polyurethane. See Illustration 3.

Screens
Full width hinged wickets or fully hinged 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.

Hardware
Locking cam handles, access controlled locks, and keepers are of cast white bronze in a US25D finish. 4-bar arms are fabricated from stainless steel meeting AAMA 904.1 requirements. Butt hinges are fabricated from extruded aluminum of 6063-T6 alloy with stainless steel pins. See Hardware Chart for available hardware types.

Glazing
Windows are inside glazed with an extruded aluminum snap-in glazing bead. Glazings of 3/16" to 2" can be accommodated. Dual glazing is also available in 1/8", 3/16", and 1/4" glass. Aluminum blinds between the glass are available with dual glazed windows. See the Glazing Chart for exact sizes.

Illustration 3

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