

Architectural Specifications Chapter 4

## **Awning Hybrid**

Global Windows and Doors manufactured products are structurally tested in accordance with AAMA/WDMA/CSA 101/I.S.2/A440-08 and -11 'NAFS' with the A440S1-09 Canadian Supplement. And energy performance tested in accordance with ANSI/NFRC 100, NFRC 200 and NFRC 500 as determined by the NFRC Standards accreditation agency.











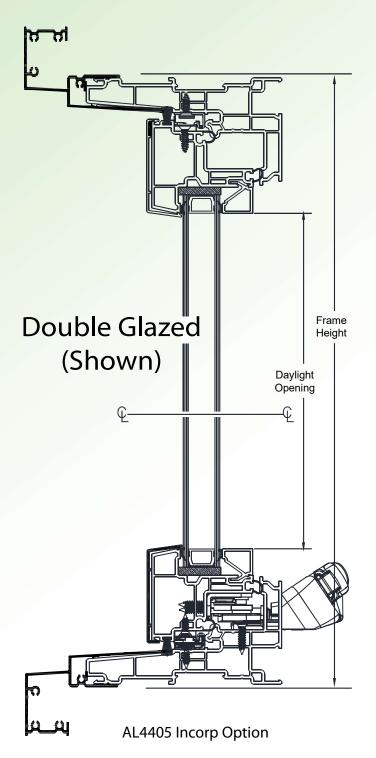
This energy efficient side hinged, outward projecting to a full 90 degree Aluminum Clad Hybrid Awning style window, complete with a finished geared ratio folding crank for ease of operation was conceptualized at Global Windows and Doors with durability and performance as our primary engineering design criteria. Incorporating durability and performance while exceeding Building Code of Canada and regional building code standards.

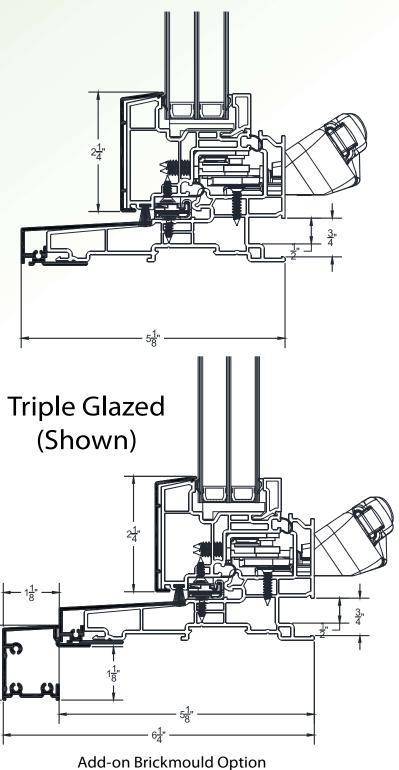




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# **Awning Hybrid**





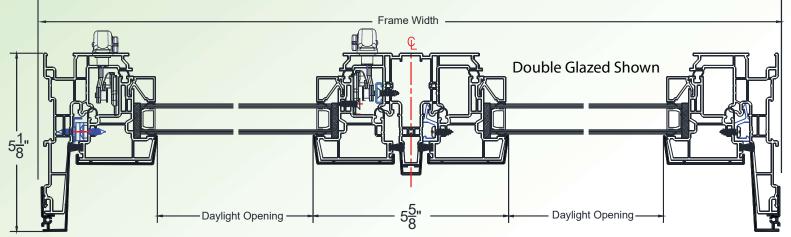


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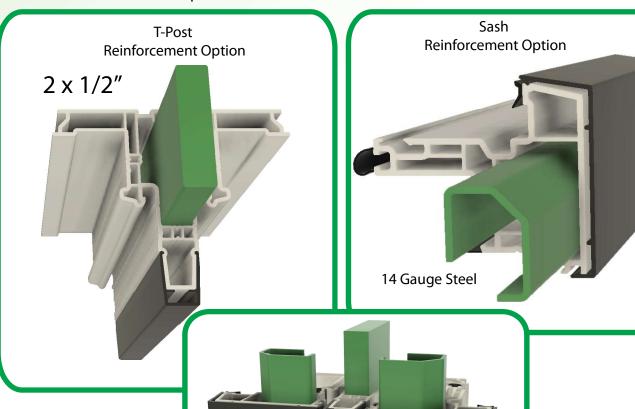


# **Awning Hybrid**

## Structural Mullion T-Post (Composite)



#### **Reinforcement Option**



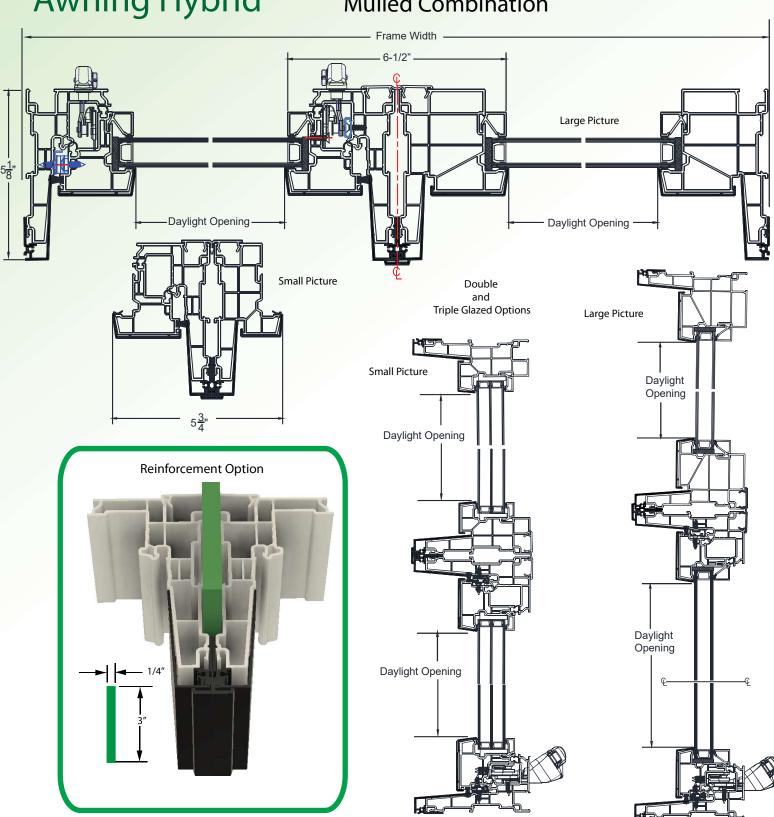
Nominal 0.050" 6063 Grade Aluminum Cladding



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# **Awning Hybrid**

## Mulled Combination





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## **Awning Hybrid**

# **NAFS**

Based on the results of the testing summarized in Table 1, Global Windows and Doors, "3500 Series Aluminum Clad Awning" Window Unit, Exova Specimen No.: 13-06-M0432-2 met the following requirements as outlined in the NAFS - AAMA/WDMA/CSA 101/I.S.2/A440-08 and -11 "NAFS" with the Canadian Suppliment A440S1-09 Window Standard:

#### Sizes Tested

SERIE #	REPORT #	DESCRIPTIONS	REI	NF.	DIM	CSA		NAFS
			Υ	N	Dilvi	AIR	WATER	CLASS
3000 (3½")								
3000	AI-04878-B1	Fixed window (architectural)		Х	78 x 72	FIXED	720 Pa	CW-PG60-FW
3000 (45/8")								
3000	13-06-M0432-2	Awning window		Х	48 X 32	А3	730 Pa	LC-PG70-AP
3000	AI-04196-F2	Awning window		Х	60 x 24	A3	730 Pa	R-CP45-AP

Reference: Test Report 13-06-M0432-2 Primary product designator: Optional Secondary designator:

(Non-reinforced)

Reference: Test Report AI-04196-F2 Primary product designator: Optional Secondary designator:

(Non-reinforced)

#### Fixed (Sash) Casement

Reference: Test Report Al-04878-B1 Primary product designator: Optional Secondary designator:

(Non-Reinforced)

Class LC-PG70-C size tested 1,200 x 802 mm (48 x 32")
Positive Design Pressure (DP) = 3,360 Pa ( 70.0 Psf)
Negative Design Pressure (DP) = -3,360 Pa ( -70.0 Psf)
Water Penetration Resistance = 730Pa (15.0 Psf)
Air Leakage Resistance = A3 Level Canadian

Class R-PG45-AP size tested 1525 x 610 mm (60 x 24") Positive Design Pressure (DP) = 2,160 Pa (45.0 Psf) Negative Design Pressure (DP) = -2,160 Pa (-45.0 Psf) Water Penetration Resistance = 730Pa (15.0 Psf) Air Leakage Resistance = A3 Level Canadian

Class CW-PG60-FW size tested 1,981 x 1,828 mm (78 x 72")
Positive Design Pressure (DP) = 2,880 Pa (60.15 Psf)
Negative Design Pressure (DP) = -2,880 Pa (-60.15 Psf)
Water Penetration Resistance = 720 Pa (15.0 Psf)
Air Leakage Resistance = FIXED

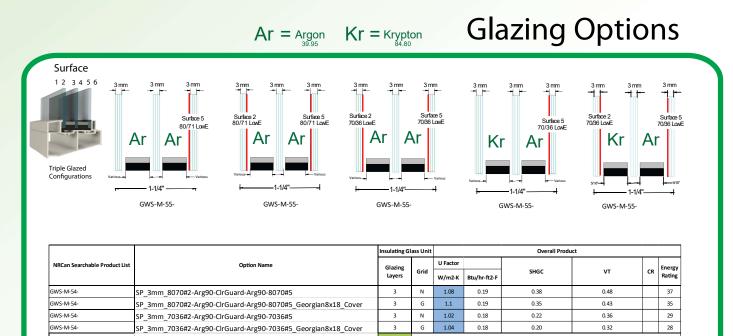


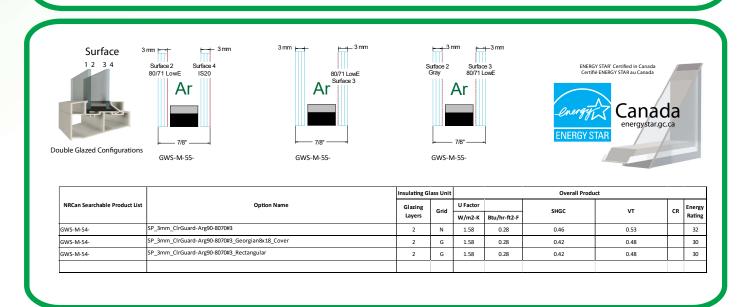
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## **Awning Hybrid**

## NFRC SIMULATION IN ACCORDANCE WITH ANSI/NFRC 100, ANSI/NFRC 200 AND NFRC 500

Our IG's are Hermetically sealed, using Guardian Float Clear and ClimaGuard 80/71, 70/36 and IS 20 LowE insulating glass with minimum 90% plus Argon and/or Krypton gas fill. Combined with a primary seal made of pressure sensitive acrylic adhesive Super Spacer® Premium warm edge high performance silicone with integrally incorporated desiccant. Our perimeter Secondary seal is made of Butyl Hotmelt all tested and IGMAC Certified (cert. No. 021141G) in accordance with CAN/CGSB 12.8 Standard.





Aeets NRCan Certification



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## **Awning Hybrid**



#### Secondary Seal

H.B. Fuller HL5130-149 Hotmelt butyl provides excellent adhesion to glass and resistance to moisture vapor for long term IG performance.



#### Screens:

Rigid aluminum overlap bar frame assembled with PVC corners. Screen removable from interior. 16 x 18 Mesh Fibreglass screen cloth.

#### Paint:

This High Performance Paint system is designed for rigid uPVC and and Aluminum and is offered in a wide variety of colors that can be formulated to meet customers specifications. This paint features superior abrasion and chalking resistance as well as excellent protection from salt exposure, industrial pollutants and acts as an efficient heat barrier that prevents substrates from warping.



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## **Awning Hybrid**

#### NOVA® Awning Family

# ASSA ABLOY

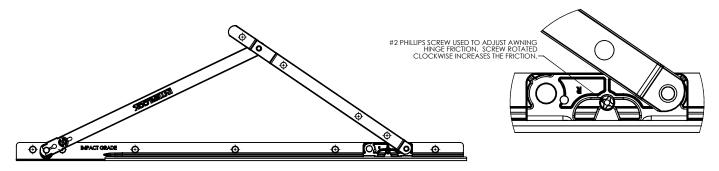
### NOVA® Awning Operator

- All NOVA® operators pass cycle testing for Architectural
   Grade 40 with a minimum factor of safety of 2 (16K+ cycles)
   highest industry rating
- All powder coated parts are pretreated with zinc chromate and UV resistant powder coating surpassing 750 hours Neutral Salt Spray resistance
- External connecting points are 304 stainless steel for maximum Neutral Salt Spray resistance
- Ability to achieve 5 lbs operational force on sash weights of up to 125 lbs



## NOVA® Awning Hinge

- 18" NOVA ® Awning Hinges for Awnings above 24". 10" Hinges for Awnings between 12 and 24"
- Awning hinge features friction adjustment to eliminate sash chatter
- Unique slide shoe positioning detent allows for faster sash to frame assembly time reducing manufacturing costs
- Simple snap-on spring clip design for quick and easy window assembly
- All pivot points use a non-corrosive material for superior corrosion resistance
- Arm assemblies are available in a 304 stainless steel option





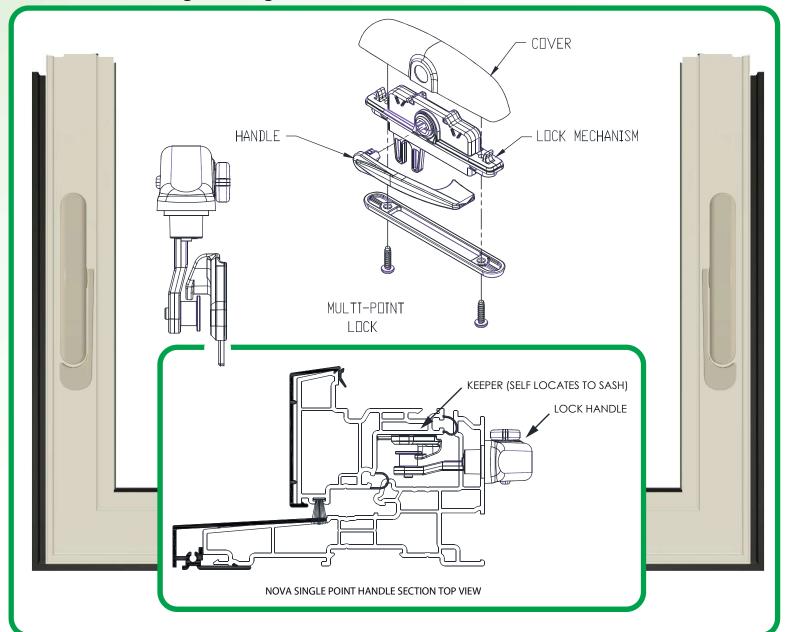
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# **Awning Hybrid**

#### **NOVA® LOCKING Handle**

- Super low profile with only 8 mm projection
- Handle retainer features brush gasket to provide insect barrier
- Available in powder coat and architectural finishes

## NOVA® Awning Locking Handles

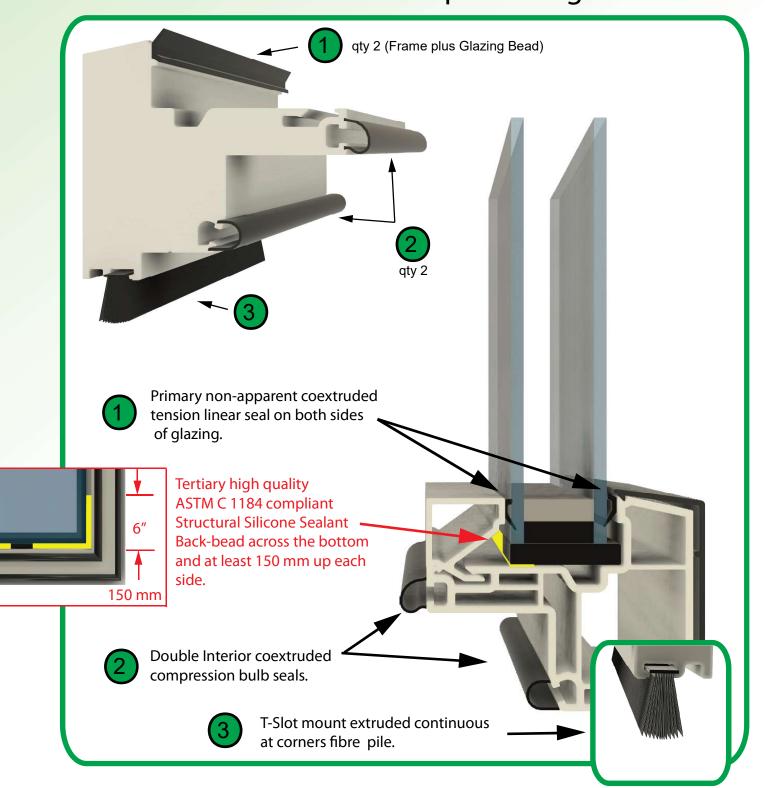




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# **Awning Hybrid**

## Weatherstrip - Sealing

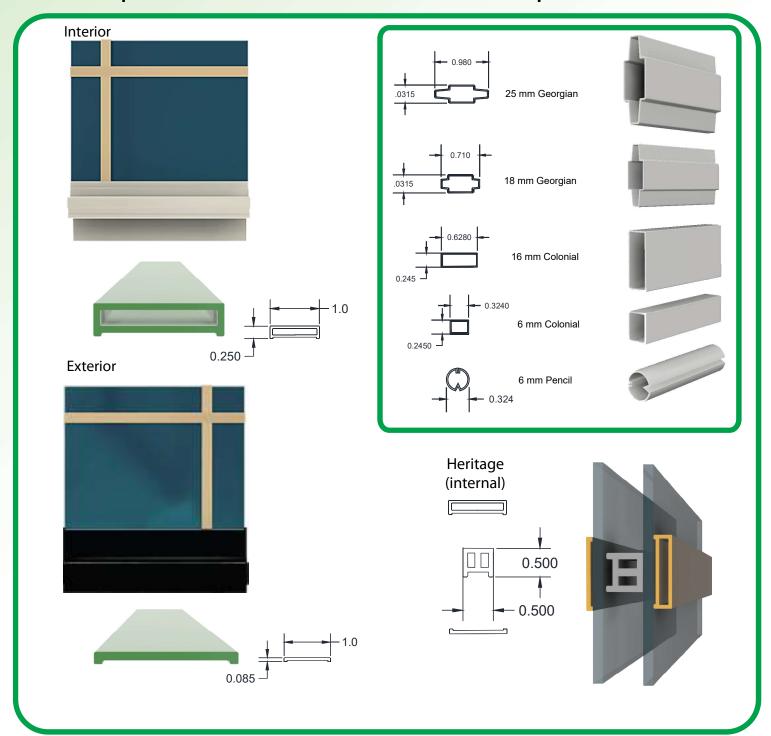




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# Awning Hybrid SDL Options

## **Grill Options**





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## **Awning Hybrid**

### NBCC 9.9 Compliant

## Specification/Standards - built in accordance with:

Canadian General Standards Board (CGSB)

- .1 CAN/CGSB-12.1-M90 Tempered or Laminated Safety Glass.
- .2 CAN/CGSB-12.2-M91 Flat, Clear Sheet Glass.
- .3 CAN/CGSB-12.3-M91 Flat, Clear Float Glass.
- .4 CAN/CGSB-12.8-M90 Insulating Glass Units.

#### Canadian Standards Association (CSA)

- .1 AAMA/WDMA/CSA 101/I.S.2/A440-[08][11] NAFS North American Fenestration Standard / Specification for Windows, Doors, and Skylights; including A440S1-09 Canadian Supplement.
- .2 AAMA/NWWDA 101/I.S. 2-97, Specifications for Aluminum, Vinyl (PVC) and Wood Windows and Glass Doors.

Insulating Glass Manufacturers Alliance (IGMA)

.1 IGMAC Certification Program for manufacturers of insulating glass units.

National Fenestration Rating Council (NFRC)

- .1 ANSI/NFRC 100 Procedure for Determining Fenestration Product U-Factors.
- .2 ANSI/NFRC 200 Procedure for Determining Fenestration Product Solar Heat Gain Coefficient and Visible Transmissionat Normal Incidence.
- .3 NFRC 500 Procedure for Determining Fenestration Product Condensation Resistance Values.



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