

# Phantom 4000 CW Vents

## Cost effective, zero sightline operable insert

Let fresh air into the building using natural ventilation with Tubelite's Phantom 4000 Series Windows. These operable windows are engineered to complement and seamlessly integrate within mid- to high-rise commercial buildings' storefront, curtainwall, and window wall systems.

These architectural rated windows have a frame depth of 3-1/2" (88.9mm) for dual glazed IGU's with mitered/sealed corners and crimped on an "L" shaped clip. Maximum sizes up to 36-1/4" (921mm) x 60-1/4" (1530mm) with Euro MPL.

Phantom 4000 CW Vents are tested to meet CW Architectural Performance Class, the most stringent performance and durability requirements of North American Fenestration Standard /Specification for windows, doors, and skylights (NAFS-21) plus the AAMA/WDMA/CSA 101/I.S.2/A440-19 Canadian supplement. This industry standard includes high-performance criteria for air, water and structural integrity, lifecycle testing to 4,000 operating cycles.

**Thermal-Block**  
HIGH PERFORMANCE THERMAL FRAMING



**400TU**  
Curtainwall

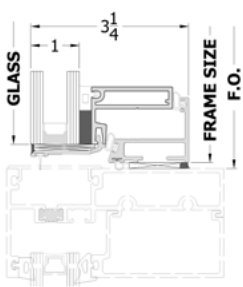
**T24650**  
Storefront

ALSO  
USED  
WITH

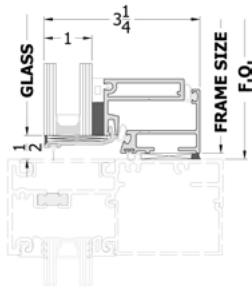
**TUBELITE**<sup>®</sup>  
**DEPENDABLE**

LEADERS IN ECO-EFFICIENT STOREFRONT,  
CURTAINWALL AND ENTRANCE SYSTEMS

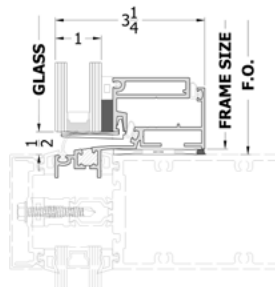
# Phantom 4000 CW Vent



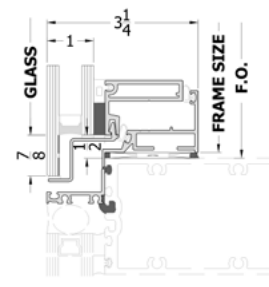
Window Wall Installation



Storefront Installation



Curtainwall Installation



Curtainwall SSG Installation

## System Features:

- Integrates with storefront using pocket filler.
- Adjustable hardware.
- Hardware is available in painted gray (silver) and black.
- White painted hardware is optional (special order, extended lead time).
- Can be integrated in 400T, 400SS and 400TU curtain wall systems.
- Open-out (Awning & Casement) window options.
- Polyamide thermal break provides u-factor of 0.48 (Dual Glazed) and permits two-color interior/exterior finishes.
- Linear handles with Roto operator or "Euro-Groove" multi-point locking options
- Multi-chambered rain screen, pressure equalized design
- Includes EPDM setting blocks
- Optional screens available in fiberglass or aluminum (wickets option available).
- Factory-fabricated only for 2-year standard warranty (can be extended to 5-year).
- Can be integrated in 900T/TU window wall and E14000 I/O\*, T14000 I/O\* and E/T24650.

\*Outboard plane only

Phantom 4000 CW Vent	Awning	Casement
<b>Application</b>	Project Out	
<b>Frame Joints</b>	Windows use mitered corners with crimped clips and small joint sealant	
<b>Window Joints</b>	Windows use mitered corners with crimped clips and small joint sealant	
<b>Glass Thickness</b>	1" [25.4mm], 1 1/16" [27mm]	
<b>Face Width</b>	0 Sitrine	
<b>Frame Depth</b>	3-1/2" (88.9mm)	
<b>Hardware</b>	Please see Installation Manuals for available hardware configuration offerings and finishes.	
<b>ASTM E331 AND E547 Uniform and Cyclic Static Water</b>	15 PSF	
<b>U-Factor*</b>	0.44	0.42
<b>Air Infiltration and Exfiltration @6.27 psf</b>	0.005 cfm/ft <sup>2</sup> @ 6.27 psf	
<b>AAMA/WDMA/CSA 101 I.5.2/A440-17, NAFS Testing</b>	Class CW-PG70**	
<b>CRF (AAMA 1503-2010)</b>	66 CRFf, 69 CRFg	67 CRFf, 68 CRFg
<b>ASTM F588</b>	Grade 40	

\* U-Factor per NFRC 100. Refer to the U-Value table at: [www.tubeliteusa.com/products/operable-windows/](http://www.tubeliteusa.com/products/operable-windows/)

\*\* (36" x 60")

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