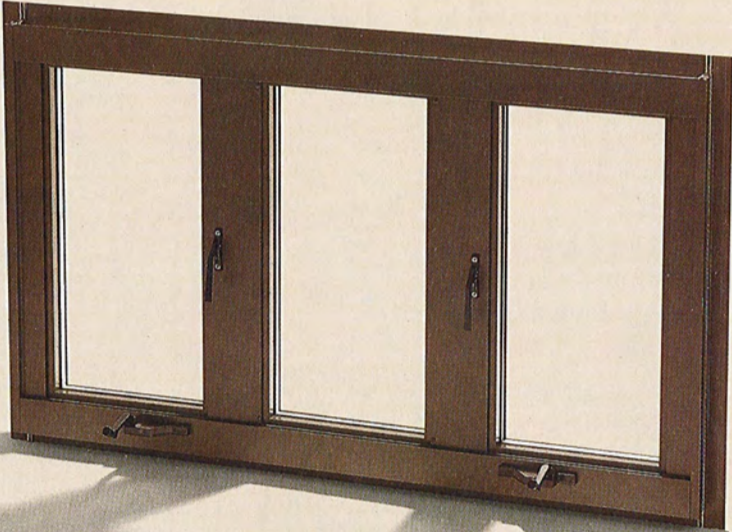
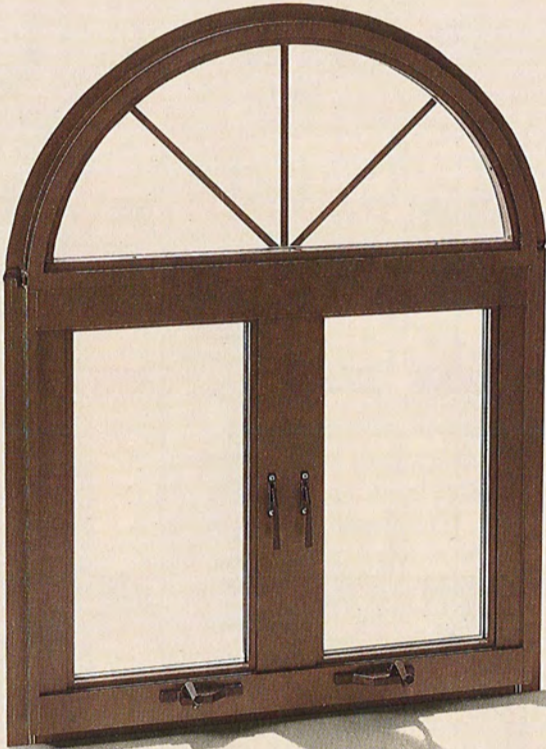
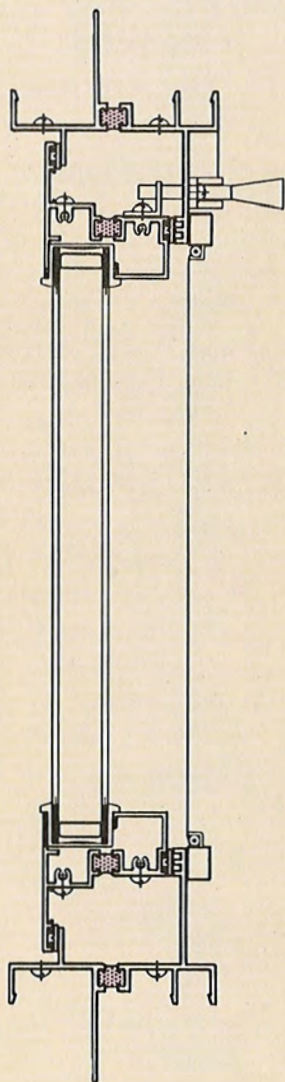


Columbia Series C-3300 & C-3400 Casement Windows



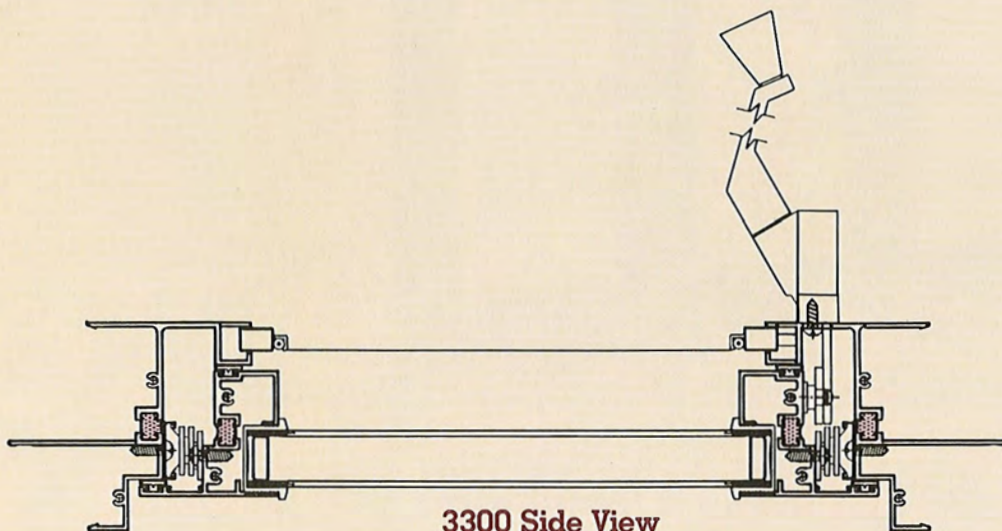
C-3300

Window Dim



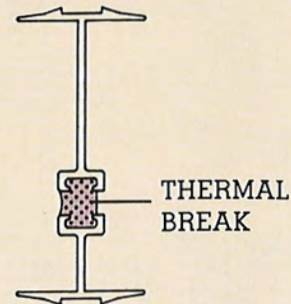
3300 Top View

	18"	34 ⁵ / ₈ "	51 ³ / ₈ "	24"	46 ⁵ / ₈ "	69 ³ / ₈ "	30"								
Rough Opening	17 ¹ / ₂ "	34 ¹ / ₈ "	50 ⁷ / ₈ "	23 ¹ / ₂ "	46 ¹ / ₈ "	68 ⁷ / ₈ "	29 ¹ / ₂ "								
Window Size	12 ⁷ / ₁₆ "	12 ⁷ / ₁₆ "	12 ⁷ / ₁₆ "	18 ⁷ / ₁₆ "	18 ⁷ / ₁₆ "	18 ⁷ / ₁₆ "	24 ⁷ / ₁₆ "								
Glass Size															
24" 23 ¹ / ₂ " 18 ³ / ₈ "	1620 2'10"x2'0"	1630 2'10"x3'0"	1640 2'10"x4'0"	1650 2'10"x5'0"	1660 2'10"x6'0"	2020 3'10"x2'0"	2030 3'10"x3'0"	2040 3'10"x4'0"	2050 3'10"x5'0"	2060 3'10"x6'0"	2620 5'9"x2'0"	2630 5'9"x3'0"	2640 5'9"x4'0"	2650 5'9"x5'0"	2660 5'9"x6'0"
36" 35 ¹ / ₂ " 30 ³ / ₈ "															
48" 47 ¹ / ₂ " 42 ³ / ₈ "															
60" 59 ¹ / ₂ " 54 ³ / ₈ "															
72" 71 ¹ / ₂ " 66 ³ / ₈ "															



3300 Side View

Mullion

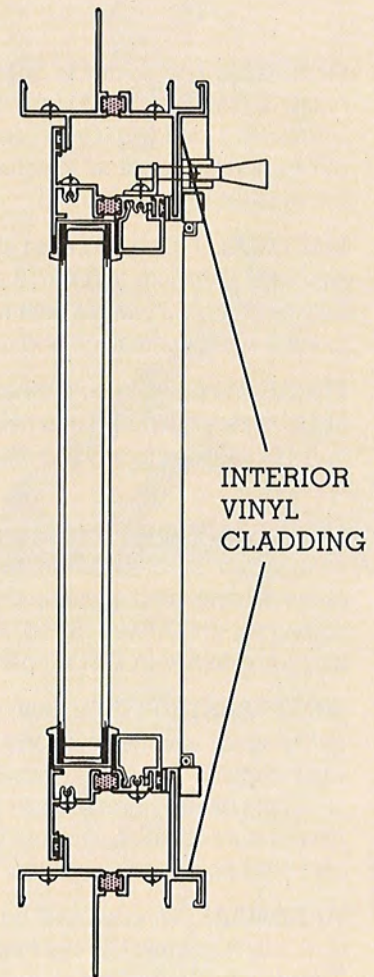


The C-3300 & C-3400 are complemented with a mullion system that allows side-by-side mulling & vertical mulling (stacking).

Dimension Chart

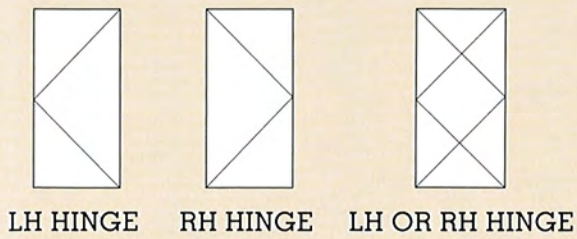
C-3400

58 ⁵ / ₈ "	87 ³ / ₈ "	36"	70 ⁵ / ₈ "	105 ³ / ₈ "
58 ¹ / ₈ "	86 ⁷ / ₈ "	35 ¹ / ₂ "	70 ¹ / ₈ "	104 ⁷ / ₈ "
24 ⁷ / ₁₆ "	24 ⁷ / ₁₆ "	30 ⁷ / ₁₆ "	30 ⁷ / ₁₆ "	30 ⁷ / ₁₆ "
4'10"x2'0"	7'3"x2'0"	3020	5'10"x2'0"	8'3"x2'0"
4'10"x3'0"	7'3"x3'0"	3030	5'10"x3'0"	8'3"x3'0"
4'10"x4'0"	7'3"x4'0"	3040	5'10"x4'0"	8'3"x4'0"
4'10"x5'0"	7'3"x5'0"	3050	5'10"x5'0"	8'3"x5'0"
4'10"x6'0"	7'3"x6'0"			

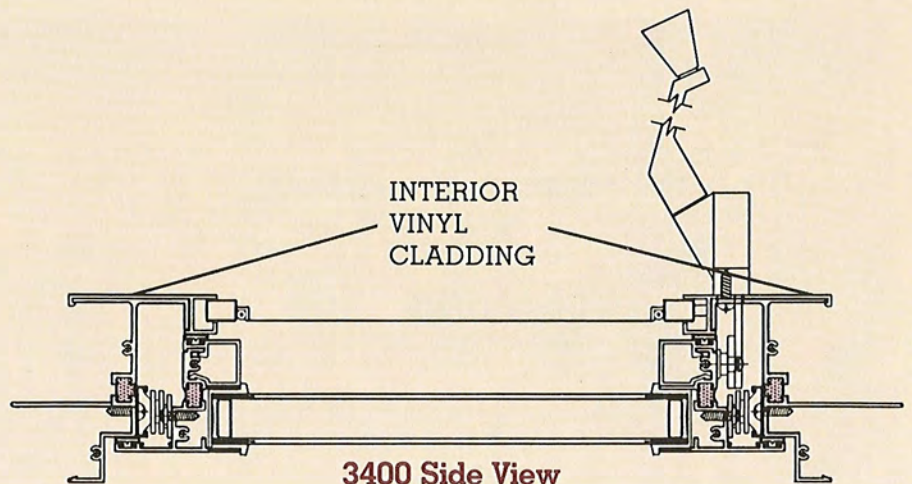


3400 Top View

Hinging Designations

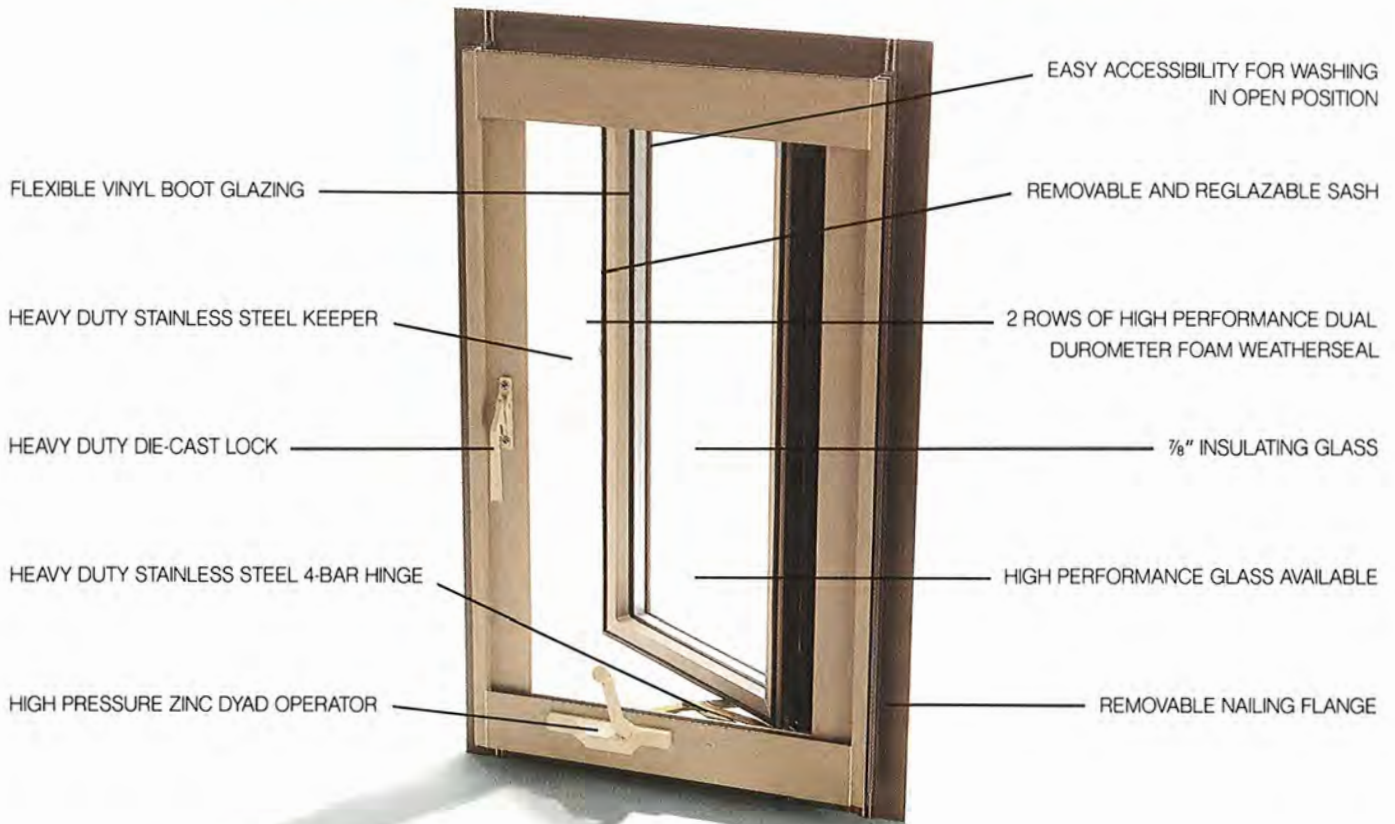


Since ventilating sash may be hinged on either side, desired hinge position must be specified. Standard methods of designating left- or right-hand hinging is shown, determined by viewing window from *outside*. Diagonal lines point to hinge side of unit.



3400 Side View

Series 3300 and 3400 Casement Features



Test Data

Structural Report (under ANSI/AAMA testing procedures)

C-30 Rating

Air Infiltration	@ 15 mph	= 0.01 cfm/ft
Air Infiltration	@ 25 mph	= 0.01 cfm/ft
Water Resistance	@ 4.50 psf @ 5.00 gph/ft ²	= No Leakage
Uniform Load		
Structural	@ 45 psf (Negative)	= 0.005
Uniform Load		
Structural	@ 45 psf (Positive)	= 0.005
Vertical Deflection	@ 60 lbs load	= .1875
Hardware Load	@ 105 lbs load	= No Deformation

Thermal Performance

(in accordance with ASTM C236-87 and AAMA 1503.1 1988)

Condensation Resistance	= CRF Class 50 per AAMA 1504.88
Frame (CRF)	= 61
Glass (CRF)	= 52
Thermal Transmittance due to conduction	= U Class U50 per AAMA 1504.88
U value expressed in BTU/HR•FT ² •F	= 47

Note: Above test values were determined under test conditions. Test specimen was 4060 "dual vent" window with dual glazing with Low E coating on 3rd surface from exterior. Test results will vary with high performance or other glazing options.

Special Features:

Designed for the energy conservation age (new & retrofit construction).

Thermal break minimizes heat flow and condensation on frame.

Thermo barrier yields big savings in fuel and air conditioning costs.

Minimal air infiltration.

Glazed with 7/8" insulated glass dual or triple glazed.

Optional divided lites provided by dust-free muntin bars sealed between insulated glass and bronze-tinted glass.

Greatly reduces noise transfer.

Full 3/4" thick frame depth.

Horizontal & vertical mullion system.

Continuous nailing fin for new construction windows.

Marine glazing.

High performance glass optional.

Tinted glass optional.

Easy access for washability.

Heavy duty hardware.

Interior cladding can be different color than exterior.

Hardware

Dyad Operator

This unique operator provides smooth, continuous control of window. The dyad, or two-linked design, provides smooth operation of windows with *Concealed Casement Hinges*. Finish matches locking handle.



Heavy Duty 4-Bar Hinge

This stainless steel hinge is generally used for commercial projects requiring relatively heavy window sections, but is standard in all Columbia Series 3300 & 3400 casement windows. The hinge allows easy access for washing from inside without having unsightly hinges projecting from the exterior.



Locking Handle

High-pressure die-cast locking handle, with stainless steel keeper is designed to assure a positive locking action. Phosphate-coated, electrostatically painted baked enamel finish, resists chipping and flaking. Available in black, white, or beige finish.



COLUMBIA GLASS

1600 N JACKSON, KANSAS CITY, MO 64120
(816)241-5800 TOLL FREE: 1-800-892-8703
FAX #: 1-816-241-5809

COLUMBIA INDUSTRIES, LINDSBORG, KS

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FAX #: 1-913-227-3002

COLUMBIA METAL, IOLA, KS

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FAX #: 1-316-365-3168

COLUMBIA METAL, PAWNEE, OK

(918)762-3637 TOLL FREE: 1-800-722-4144
FAX #: 1-918-762-3966

SPECIFICATIONS

Columbia Series C-3300 and C-3400 Casement Windows are designed for today's special new construction or replacement applications. The frames of both series are fully compatible with Series C-3000 Double-Hung, C-3100 Sliding, C-3200 Picture Window, and Series 3220 Circle Top, allowing stack mulling or side-by-side mulling to accomplish complete flexibility and versatility in special design requirements.

GENERAL: The Columbia Series C-3300 (aluminum thermal-break) C-C30 and C-3400 (aluminum thermal-break with interior vinyl cladding) C-C30 shall comply and bear the quality certification label in accordance with ANSI/AAMA Certification Program 101-88.

MATERIAL: Frame and sash shall be integral thermal-break insulated aluminum of 6063-T5 alloy having a minimum thickness of .062", within commercial tolerances. Integral fins to have suitable break-off and nailing grooves.

FINISH: Windows to be finished in bronze or white electrostatically applied enamel finish. The Series C-3400 has optional solid beige or white vinyl cladding on all interior surfaces.

CONSTRUCTION: All joints of frame and sash shall be neatly fitted, securely connected and permanently watertight. Thermal-break shall separate the interior from the exterior complying with AAMA 1502.6. Window shall perform according to AAMA C-C30 specifications.

WEATHERSTRIPPING: Sash shall have two rows of high-performance weatherseal consisting of dual durometer elastomeric TPE skin over closed cell foam. Weatherstripping shall provide easy break-a-way performance under all temperature variations without wicking or compression set. Skin shall be puncture and tear resistant with no air pockets.

HARDWARE: Window shall be factory equipped with heavy duty stainless steel four-bar hinge allowing a 75° opening of sash. Hardware shall be of such design to allow proper operation of sash weight of 90 pounds. Hinge and operator system shall allow easy access of both interior and exterior glass surfaces for easy cleaning from inside of window. Dyad

operator shall be made of high-pressure die-cast zinc casing with hardened steel drive worm and gear. Locking handle shall be high-pressure die-cast with stainless steel keeper. Operator and handle hardware are furnished in optional white, black or beige colors.

SCREENS: Screens shall be available on all windows and shall be installed on interior frame. Screen frame shall be aluminum sections securely joined at the corners. Screen cloth shall be 18 x 16 mesh fiberglass or aluminum as required.

INSTALLATION: All window and door frames shall be set in accordance with the manufacturer's recommendations without springing, forcing or distorting. Head and sill shall be aligned parallel and square with jambs. A non-hardening sealant compatible with aluminum shall be provided by the window erector, and applied in sufficient quantity to provide a watertight seal between window and surrounding construction. Manufacturer assumes no liability for damage by the trades or final cleaning of aluminum.

GLAZING: All windows shall be glazed with clear 7/8" dual insulated glass, set in wrap-around vinyl (marine glazing). Also available bronze-tinted glass and muntin bars between the glass at an extra cost. The insulated glass shall be manufactured under the trade name "thermo cell" and shall meet or exceed ASTM E 773-83 and ASTM E 774-84A Class A.

GUARANTEE: The windows and components as represented on these pages are unconditionally guaranteed against defective material or workmanship for one year provided that the installation is in accordance with the manufacturer's specifications and instructions.

YOUR ASSURANCE OF
QUALITY
WINDOWS & DOORS



Columbia
*Aluminum Windows
and Doors.*

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