3250 SERIES THERMAL WINDOW

DESCRIPTION	PROJECT-OUT	CASEMENT	PROJECT-IN
AAMA Designation	P-HC65 P-AW65	C-HC65 C-AW65	P-HC65 P-AW65
ASTM F588 (Forced Entry)	Grade 40	Grade 40	Grade 40
CRF Rating	54	54	54
Water Resistance	12 psf	12 psf	12 psf
Maximum Sash Size	60" x 36"	36" x 60"	60" x 36"
Operating Hardware	Cam handles 4 bar hinges	Roto operators and locking handles Butt hinges	Cam handles 4 bar hinges
Optional Screens	Wicket screens Fiberglass or aluminum mesh	Extruded frame Fiberglass or aluminum mesh	Extrudes frame Fiberglass or aluminum mesh
Frame Depth	3 1/4"		
Typical Material Thickness	0.125"		
Frame Construction	Miter - crimp & epoxy weld on frames Mortise & tenon on mullions		
Sash Construction	Miter - crimp & epoxy weld		
Glazing Thickness	1" - 2 3/4"		

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HARDWARE GUIDE

DESCRIPTION	PROJECT-IN	PROJECT-OUT	CASEMENT
Cam Handles	Standard	Standard	Optional
Custodial Locks	Optional	Optional	Optional
Spring Latch	Optional		
Pole Ring Cam Handles	Optional		
Pushbars		Optional	
Locking Handles	Optional	Optional	Optional
4 Bar Hinges	Standard	Standard	Optional
Roto Operators		Optional	Standard
Butt Hinges			Standard
Egress Hardware			Optional
Friction Adjustors	Optional	Optional	Optional
Limited Opening Device	Optional	Optional	Optional
Limit Stops	Optional	Optional	Optional
Screens	Optional	Optional	Optional

To determine the recommended number of locks or combinations of locking and hinging hardware, contact your DeSCo representative for assistance.

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SIZE LIMITATIONS

	MINIMUM SIZE	MAXIMUM SIZE
Project-in vent with cam handles	14" wide x 17 3/4" high	60" wide x 36" high

	MINIMUM SIZE	MAXIMUM SIZE
Project-out vent with cam handles	14" wide x 16" high	60" wide x 36" high
Project-out vent with pushbars	23" wide x 18 3/4" high	60" wide x 36" high
Project-out vent with roto operators	24" wide x 18 3/4" high	60" wide x 36" high

	MINIMUM SIZE	MAXIMUM SIZE
Casement vent with roto operators	20" wide x 24" high	36" wide x 60" high

Egress vent

	WIDTH	HEIGHT	
For 20" clear opening width	28 1/4"	45"	5.7 square foot of opening
For 22" clear opening width	30 1/4"	42"	5.7 square foot of opening
For 24" clear opening width	32 1/4"	39"	5.7 square foot of opening

Consult your DeSCo representative for vent size limitations due to hardware limitations.

3250 SERIES SPECIFICATIONS

SECTION 08520 ALUMINUM WINDOWS

PART 1 GENERAL

1.01 DESCRIPTION
A. Furnish and install aluminum windows complete with hardware and related components as shown on drawings and specified in this section.
B. All windows shall be DeSCo Arch., Inc. 3250 Series. Other manufacturers requesting approval to bid their product as an equal must 15 days prior to bid date, submit information, in accordance with Section 1.05 of these specifications, establishing their product as an equal to the specified product, in respect to the performance, testing and other criteria as outlined in these specifications and associated plans.
C. Glazing: Refer to Glazing Section 08800 for glazing of window units.

1.02 RELATED WORK

1.03 ITEMS FURNISHED BUT NOT INSTALLED

1.04 ITEMS INSTALLED BUT NOT FURNISHED

1.05 TESTING AND PERFORMANCE REQUIREMENTS
A. Test Units
1. Air, water and structural test unit shall conform to size and configuration requirements specified by AAMA/NWWDA 101/I.S. 2-97.
B. Test Procedures and Performance
1. Standards: Windows shall conform to AAMA/NWWDA 101/I.S. 2-97 requirements for Class AP-AW65 or C-AW65.
2. Air Infiltration Test: Test unit in accordance with ASTM E 283-91 with an air pressure difference of 6.24 psf. Air infiltration shall not exceed .10 cfm per foot of perimeter crack length.
3. Water Resistance Test: Test unit in accordance with ASTM E 331-96 at static pressure difference of 12.00 psf with no water leakage.
4. Uniform Load Deflection Test: Test unit in accordance with ASTM E 330-97 at 65 psf.
5. Condensation Resistance Test (CRF): Test unit for thermal performance in accordance with AAMA 1503-98 with condensation resistance factor of at least 54.
6. Thermal Transmittance Test (Conductive U-Value): Test unit in accordance with AAMA 1503-98 with U-value of 65 or less.
7. Forced Entry Resistance Test: Unit tested in accordance with ASTM F588-97 for Type B Grade 10.

1.06 QUALITY ASSURANCE
A. Testing shall be done by an AAMA approved independent laboratory certifying performance as specified in Section 1.05.
1. To meet Auxiliary Test 5.3.6.8 Life Cycle test for AW Design operable products only.

1.07 REFERENCES

1.08 SUBMITTALS
A. DeSCo Arch., Inc. to supply product data, shop drawings, samples and test data pertaining to our 3250 Series windows.

1.09 DELIVERY, STORAGE AND HANDLING

1.10 WARRANTIES
A. Product to be free from material defects in workmanship and materials for five (5) years from shipment when installed and maintained in accordance with our installation recommendations and instructions.

PART 2 PRODUCTS

2.01 MATERIAL
A. Aluminum extrusions are 6063 T-5 alloy with minimum ultimate tensile strength of 22,000 PSI.
B. Hardware
1. Casements
a. Standard: Die cast roto gear operators, locking handles with tie rod on units over 32" high, and extruded aluminum 5 knuckle hinges with stainless steel pin, and radial and thrust load supported by Delron bearing surface.
b. Optional: Concealed 4-bar stainless steel balanced arms or egress hinges, cam handles, custodial locks, friction adjustors, limited opening devices, limit stops or screens as specified.
2. Project-In
a. Standard: Cam handles with concealed 4-bar stainless steel balanced arms.
b. Optional: Custodial locks, spring latches, pole ring cam handles, locking handles or screens as specified.
3. Project-Out
a. Standard: Cam handles and 4-bar stainless steel balanced arms.
b. Optional: Custodial locks, locking handles, pivot shoe roto operators, pushbars or screens as specified.
C. Weatherstrip
1. Closed cell Santoprene foam encapsulated by a seamless Santoprene elastomeric skin.
D. Glazing: Refer to Glazing Section 08800 for glazing of window units.

E. Thermal Barrier
1. Barrier material is a poured-in-place two part polyurethane.

2.02 FABRICATION
A. General
1. Depth of frame and sash shall be 3 ¼".
2. Aluminum frame and sash extrusions shall have a nominal wall thickness of 0.125".
B. Frame
1. Frame corners shall be mitered, crimped and epoxy welded. Mullions shall be mortise and tenon construction.
2. Corners shall be weather sealed with sealant.
3. Units are reglazable from the interior with re-useable snap in stops.
C. Sash
1. Sash corners shall be mitered, crimped and epoxy welded.
2. Corners shall be weather sealed with sealant.
3. Dual weatherstrip with closed cell foam.
4. Units are reglazabel from the interior with re-useable snap in stops.
D. Screens
1. Flat Screens
a. Shall be constructed of 6063 T-5 alloy extruded aluminum.
b. Screen mesh shall be 18x16 fiberglass or aluminum.
2. Wicket Screens
a. Frame shall be constructed of 6063 T-5 alloy extruded aluminum.
b. Screen mesh shall be 18x16 fiberglass or aluminum.
E. Finish
1. All exposed surfaces shall be free of scratches and other serious blemishes and shall receive... (Specify one of the following):

... an Architectural Class II Clear anodic coating conforming with Aluminum Association Standard AA-M12C22A31
... an Architectural Class I Clear anodic coating conforming with Aluminum Association Standard AA-M12C22A41
... an Architectural Class I Color anodic coating conforming with Aluminum Association Standard AA-M12C22A44 (Specify color – Dark Bronze, Medium Bronze, or Black)
Note: DeSCo's standard anodized finishes are AA-M12C22A31 Clear and AA-M12C22A44 Dark Bronze. Other finishes generally require longer lead times and are priced as special colors.
... a polyester baked enamel paint coating per AAMA 603.8 or high performance Kynar or exotic finishes.
Note: Painted finishes generally require longer lead times and are priced as special colors.

PART 3 EXECUTION

3.01 INSTALLATION
A. Install units in accordance with approved shop drawings and specifications.
B. Set units plumb and level without warp of frames or sash. Anchor securely in place.
C. Adjust units for proper operation.
D. Set members to provide a weather tight construction.

3.02 ADJUST AND CLEAN
A. After completion of window installation, windows shall be inspected, put into working order and left clean, free of labels, dirt or other substances.

END OF SPECIFICATION

LIMITED WARRANTY

DeSCo Arch., Inc. warrants that our products shall be free from material defects in workmanship and materials for a period of five (5) years from the date of shipment provided they have been installed and maintained in accordance with our installation recommendations and instructions. Written notification of defects must be received by DeSCo Arch., Inc. within our warranty period.

Building and safety codes vary widely throughout the world. DeSCo Arch., Inc. does not control and will not be responsible for the selection of product, configurations, hardware or glazing materials. DeSCo Arch., Inc. makes no other warranties or representations, either expressed or implied, concerning product fitness for a particular purpose. DeSCo Arch., Inc.'s shop drawings indicate our understanding of the project requirements and are submitted for the appropriate approval. DeSCo Arch., Inc. will fabricate to dimensions shown on customer's approved shop drawings but will not take responsibility for the failure of the customer to confirm shop drawing dimensions against project site conditions. In no event will DeSCo Arch., Inc. be liable for direct, indirect, special or consequential damages including but not limited to loss of profits or use.

No person is authorized to make any warranty, representation or promise with respect to our products and no terms or conditions other than stated herein shall be binding on DeSCo Arch, Inc. unless made in writing and signed by our authorized representative.

INSTALLATION INSTRUCTIONS

Window and Window Components

1. Responsible contractor or his representative shall be responsible for installation.

2. Use only skilled tradesman with work done in accordance with approved shop drawings and specifications.

3. Plumb and align window faces in a single plane for each wall plane and erect windows and materials square and true adequately anchored to maintain positions permanently when subjected to normal thermal and building movement and specified wind loads.

4. Adjust windows for proper operation after installation.

5. Furnish and apply sealants to provide a weathertight installation at all joints and intersections and at opening perimeters. Wipe off excess material and leave all exposed surfaces and joints clean and smooth.

6. Glass and glazing shall conform to and be set in accordance with the specifications and drawings to provide a satisfactory, fully leak free installation.

7. Install vapor barrier materials and insulation between window perimeter and adjoining collateral materials and/or existing wall barriers to assure continuity (optional).

8. Aluminum shall be insulated from direct contact with steel, masonry concrete or non-compatible materials by bituminous paint, zinc chromate primer or other suitable insulating material.