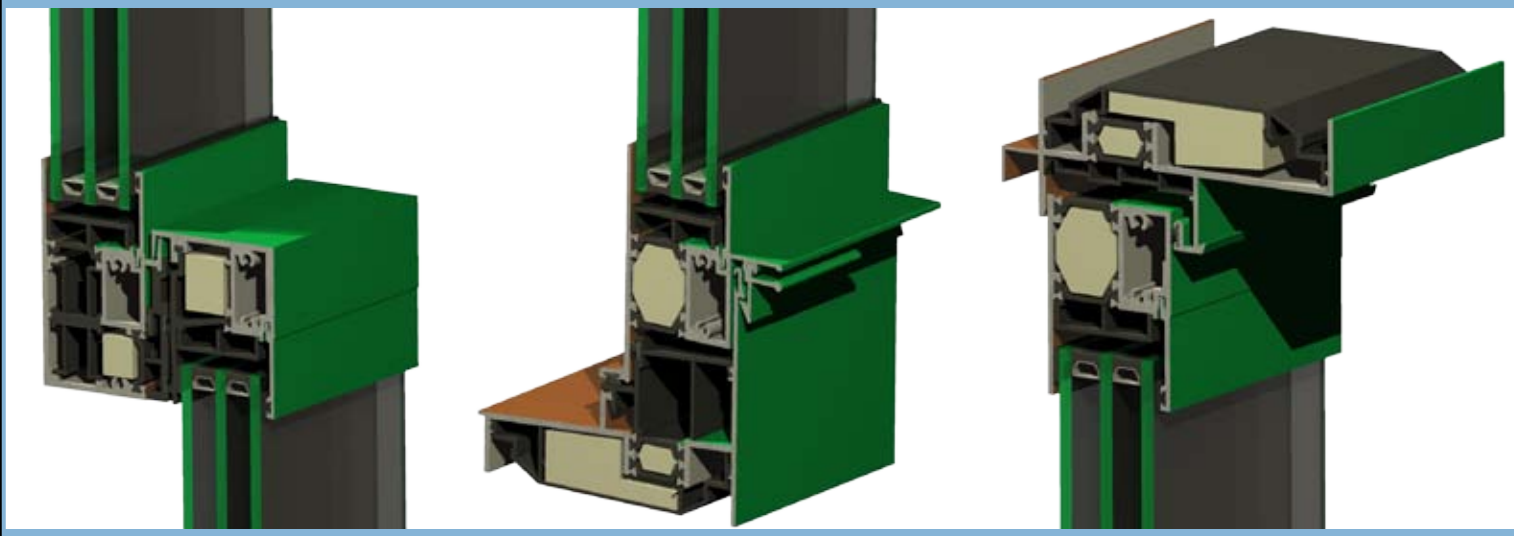
XTHERM®

Series HX45 Double Hung • Series FX45 Fixed
4 1/2" High Performance Thermal, Architectural Grade Windows

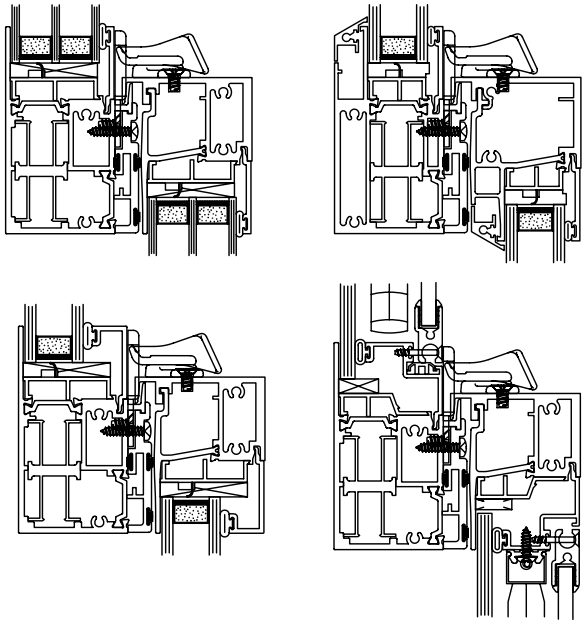


HX45 HIGH PERFORMANCE THERMAL DOUBLE HUNG

The HX45 is loaded with options to fit many applications while providing an industry leading U-Factor. The energy efficient design provides a substantial improvement in the interior frame temperatures as well. Both block and tackle and class 5 balances are available along with the quality auto locking and sweep lock hardware that has been a part of other EFCO products for many years. Designed to meet the increasing demand for thermally superior products needed in schools, government buildings and green construction, EFCO's HX45 double hung window sets a new standard. The outstanding U-Factor provides demonstrable energy savings when used in conjunction with building envelope performance software.

Features

- 4½" Frame depth
- Double Hung configuration
- 10 lb water (12 optional)
- AW70 standard rating
- AW110 optional rating
- Fully strutted- 2 color availability
- Standard sash
  - 1½" glass pocket
  - dual glaze option
  - blinds available
- Snap in grid sash
  - 1" glass pocket
- U-Factor with EFCO stock glass .34
- Fixed mate, series FX45
  - U-Factor = .31



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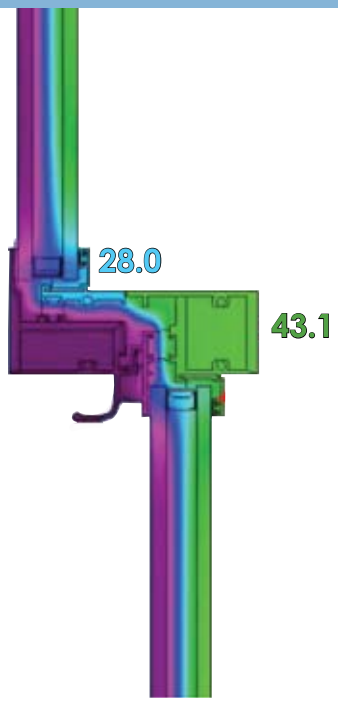
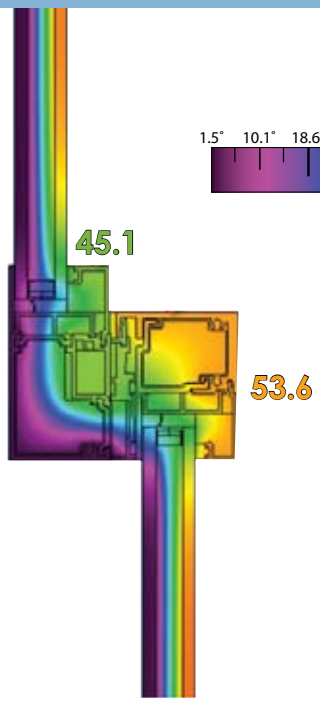
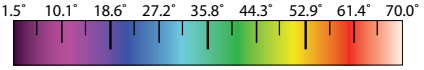


Typical pour & debridge window



HX45



Interior Frame Temp. Comparisons

Interior Temp = 70° F
Exterior Temp = 0° F

PERFORMANCE DATA

HX45 DOUBLE HUNG

AAMA RATING AW-PG70H/AW-PG110H
AIR INFILTRATION ..... <.12 CFM/SF @ 6.24 PSF
WATER ..... NO LEAKAGE @ 12 PSF
STRUCTURAL ..... 105 OR 165 PSF
CRF-FRAME BASE MODEL NON GRID SASH 66
CRF-FRAME PREMIUM NON GRID SASH 70

Note: All performance data is subject to change based on testing recertification and/or revised AAMA testing protocol. Please contact EFCO for latest performance values.

HX45 THERMAL U-FACTORS*		
CENTER OF GLASS U-FACTOR	GRID SASH BASE MODEL	GRID SASH PREMIUM MODEL
	DOUBLE HUNG 47" X 59"	DOUBLE HUNG 47" X 59"
0.47	0.51	0.48
0.29	0.40	0.37
0.24	0.38	0.34

HX45 THERMAL U-FACTORS*		
CENTER OF GLASS U-FACTOR	NON-GRID SASH BASE MODEL	NON-GRID SASH PREMIUM MODEL
	DOUBLE HUNG 47" X 59"	DOUBLE HUNG 47" X 59"
0.47	0.54	0.49
0.29	0.42	0.38
0.24	0.40	0.36
0.13	0.31	0.27

FX45 THERMAL U-FACTORS*		
CENTER OF GLASS U-FACTOR	BASE MODEL	PREMIUM MODEL
	FIXED 47" X 59"	FIXED 47" X 59"
0.48	0.53	0.50
0.30	0.39	0.36
0.24	0.34	0.31
0.20	0.31	0.28

* Based on NFRC 100
**NFRC Gateway size

HX45 DOUBLE HUNG HARDWARE CHART	SWEEP LOCK	AUTO SILL LOCK	POLE RING SWEEP LOCK	ACCESS CONTROLLED SWEEP HANDLE	2 OR 4 BLOCK & TACKLE BALANCES	2 OR 4 CLASS 5 BALANCES
DOUBLE HUNG	S	O	O	O	S	O

Some size restrictions may apply depending on hardware selected.

O -Optional
S -Standard
Blank - N/A

GRID SASH INSIDE GLAZED HX45 DOUBLE HUNG GLAZING CHART	GLASS OR PANEL
	1"
INSULATED GLASS	A

NON GRID SASH INSIDE GLAZED HX45 DOUBLE HUNG GLAZING CHART	GLASS OR PANEL		
	1/4"	1"	1-1/2"
INSULATED GLASS		A	A
DUAL GLAZE WITH BLINDS	I		

***-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

INSIDE GLAZED FX45 FIXED GLAZING CHART	GLASS OR PANEL		
	1/4"	1"	1-1/2"
INSULATED GLASS		A	A
DUAL GLAZE WITH BLINDS	I		

EFCO a Pella Company

Series HX45 High Performance Thermal 4 1/2" Architectural Grade Double-Hung Window

Main Frame Construction
The frames have a depth of 4 1/2" and are constructed of 6063-T6 aluminum alloy. The nominal material wall thickness for the frame is .080", and the sill has a minimum wall thickness of .094". Corners are of screw spline construction and sealed. See Illustration 1.

Sash Frame Construction
The sash consists of aluminum members with .080" nominal material wall thickness of 6063-T6 alloy. Corners are of screw spline construction and sealed. Dual weather-stripped continuous interlock at the sash meeting rail(s) offers superior weathering and structural performance. See Illustration 2.

Thermal Barrier
All members are thermally isolated with two thermal struts consisting of glass reinforced polyamide nylon, mechanically crimped in raceways extruded in the exterior and interior extrusions. See Illustration 3.

Weather Stripping
All sash are weather-stripped with FIN-SEAL® or equal. Two holes per sash and two slots through the window frame facilitate weepage.

Screens
Screen frames are extruded 6063-T6 aluminum alloy. Screens are easily removed by retracting two plungers located on the interior face of the screen frame near the sill at each jamb. Full or half screens are available. 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
Sweep locks, access controlled sweep locks, pole ring sweep locks, and keepers are of cast white bronze with a US25D finish. Automatic head and sill locks are fabricated of aluminum alloy and finished to match the window. Two types of balance systems are available. A spring loaded block and tackle balance rated Class 1 with a .70 MAF* ratio is standard. A high performance torsion spring and extension spring balance rated Class 5 with a .30 MAF* ratio is optional. EFCO reserves the right to substitute a higher performance balance as project conditions dictate, i.e., large, heavy sash requiring minimum operating force. See the Hardware Chart for available hardware types.

Glazing
Sash is inside glazed with an extruded aluminum snap-in glazing bead.

Standard Sash
- 1 1/2" triple pane insulating glass option
- Dual glazed option(1/4" exterior x air space x 1/4" x interior panel)
- Blinds available with dual glazing option

Exterior Grid Sash
- 1" or 3/18" dual pane insulating glass

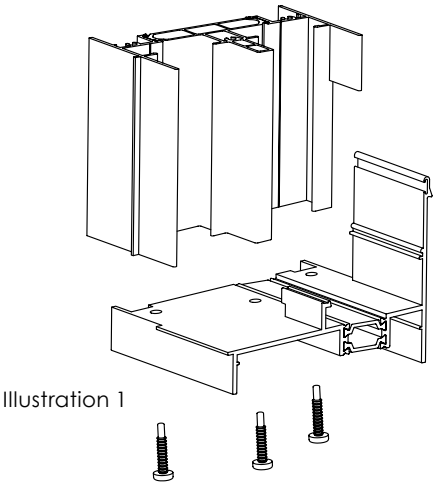


Illustration 1

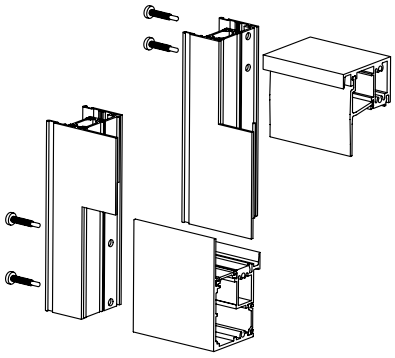


Illustration 2

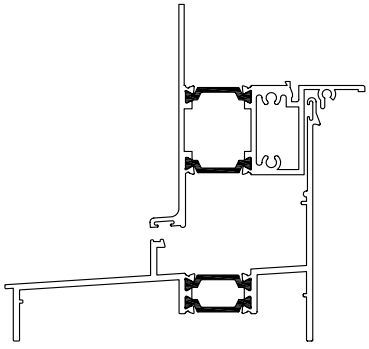


Illustration 3

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