



# Contemporary Series

## WHY GEM WINDOWS & DOORS

1961... Elvis was on top of the charts. John F. Kennedy becomes the youngest US President and Russia launches Sputnik into outer space. Back at home, John Christopoulos starts GEM Windows to provide high-quality windows and doors to Toronto homeowners and builders. In an industry of fly-by-night businesses, GEM has a well-earned reputation as Toronto's oldest and most trusted window and door company. We've even had the same phone number since 1961.

How have we stayed in business so long? Simple: we listen more than we talk, to understand your needs, budget and priorities and then provide you with customized solutions, not a one-size-fits-all approach.

**GEM works with you to accomplish your goals:**

- Making your home more comfortable**
- Reducing your energy bills**
- letting in more light**
- keeping your home secure**
- Addressing specific problems such as floor fade**
- Reducing or eliminating maintenance**
- Giving your home better curb appeal**

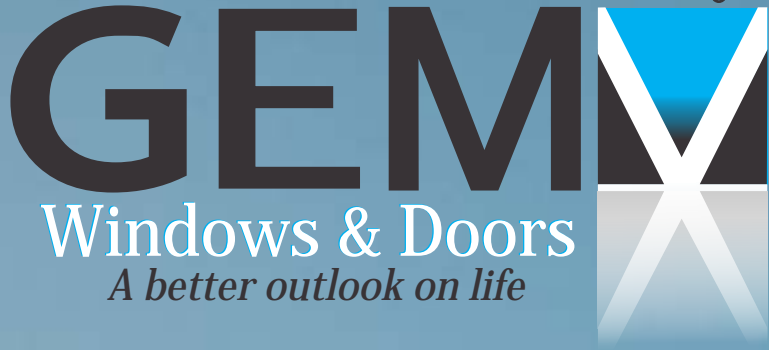
### **PERSONALIZED SERVICE**

At GEM we don't push products, we simply solve problems. We listen carefully to you needs and goals and create solutions to meet them. Our experience and well-trained staff look after our customers from your first visit to our 5,000 square foot state-of-the-art showroom through your installation and beyond.

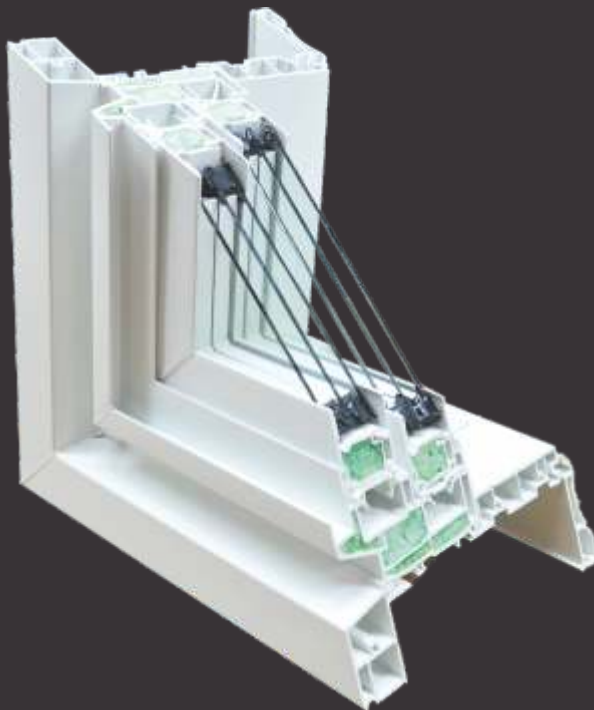
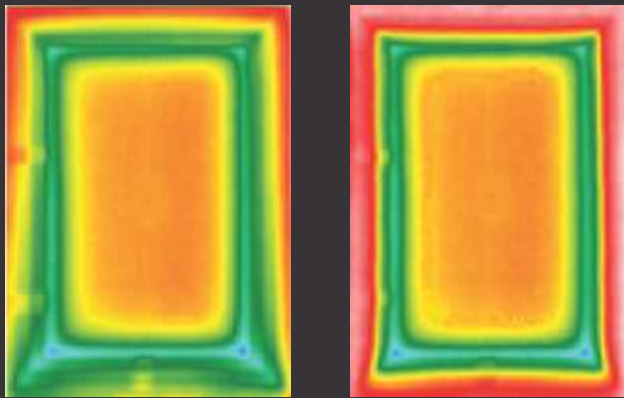
### **THE GTA'S BEST INSTALLATIONS**

A high quality window installation is just as important as the products being installed. At GEM Windows our installers are experienced, well-trained and service-oriented professionals. We don't over schedule and we will never rush an installation. Quality windows are a significant investment and quality installations ensure that your investment is protected and maximized.

Since 1961



# FOAM INSULATED



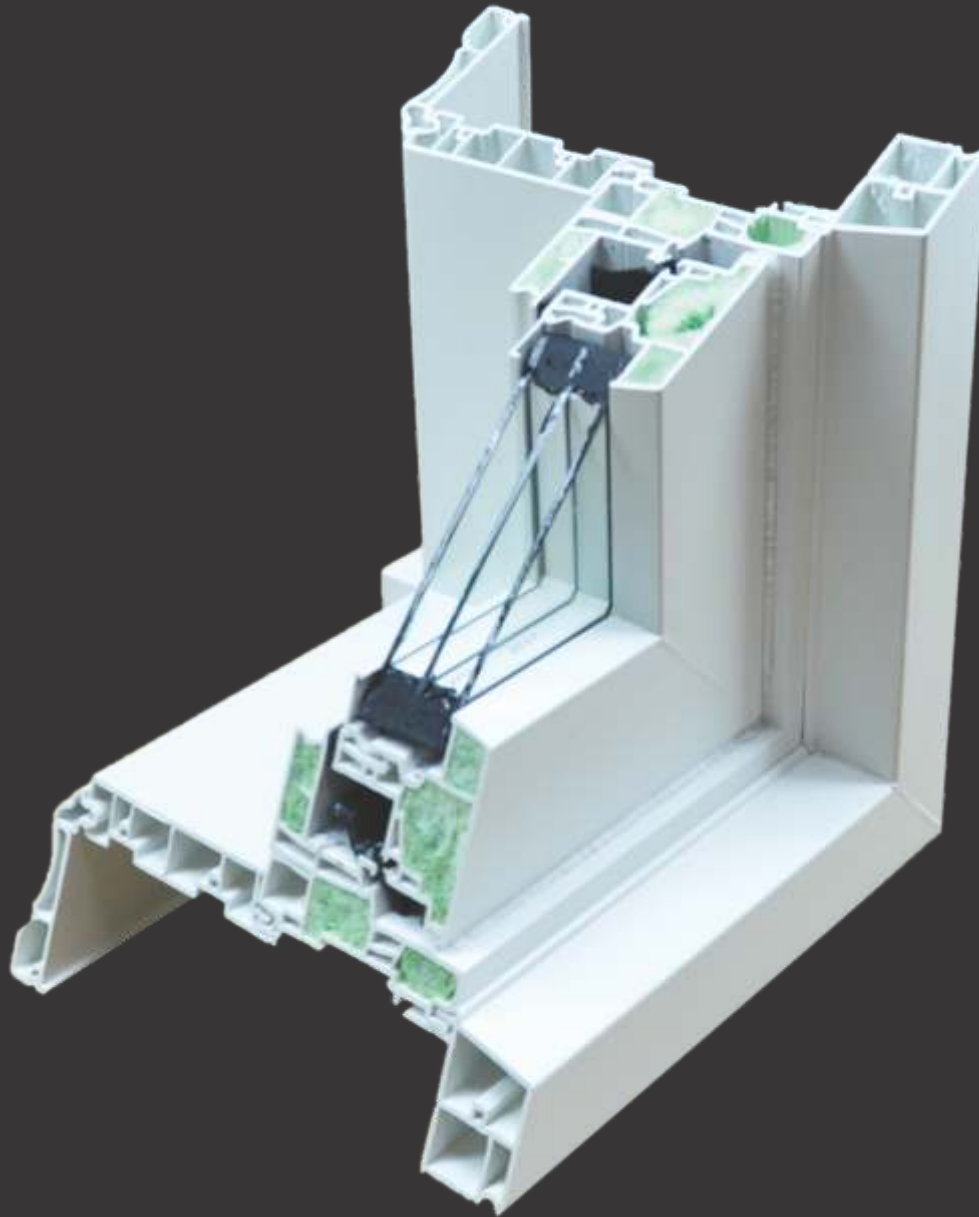
## FOAM INSULATED WINDOWS

These two windows are built identically, except for what is inside the vinyl frames. The frame on the left is hollow, while the frame on the right contains insulating foam. The windows have identical insulated glass units, a superwindow with R-9 center of glass. The hollow window frame allows air to circulate inside the frame, We can observe this convection effect since frame temperatures are cooler at the bottom than at the top. The foam-insulated window doesn't show this effect. (These windows are being cooled on the back side with window at  $-15^{\circ}\text{C}$  ( $5^{\circ}\text{F}$ ).



## INCREASING THERMAL EFFICIENCY

Foam insulated window frames are more thermally efficient than hollow frames. When cured, inside the foam millions of small air pockets are created, significantly improving both thermal and sound efficiency. Polyurethane foam has numerous thermal applications. It can be found inside steel and fiberglass doors, walls and attic insulation. Just about anywhere that there is an airspace that requires great insulation, polyurethane foam is the insulation of choice! GEM Windows use only USDA (United States Department of Agriculture) certified, organic foam. It is safe and odorless. Your foam has the highest performance qualities available in today's market.



## **Organic Foam**

USDA (United States Department of Agriculture) certified polyurethane foam insures safe and toxin free insulation while improving the overall thermal performance of the window.

## **Highest Glass**

### **Efficiency**

When combined with triple Pane Low-E and Argon, the window meets and exceeds the highest thermal efficiency set by ENERGY STAR.

## **Warm Edge Spacer**

Our glass utilizes the latest Warm Edge Spacer technology available in today's market. GEM uses non-conductive, energy efficient materials and dual sealants. This results in extremely high thermal performance and unparalleled longevity.

### **Precision Welded Corners**

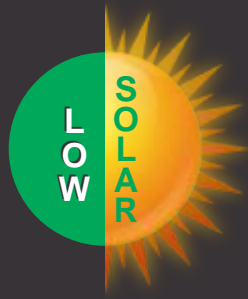
We fusion weld our uPVC window frames and sash 1/4" on each side at 240° Celsius, creating a strong, durable bond, for a longer lasting window.

## LOW E GLAZING OPTIONS

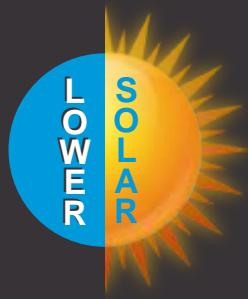
There are different types of Low E glass, created for different homeowners. At GEM we learn what will work best in your home and with your family. Come to our showroom and experience our display which actively demonstrates the effects of different types of Low E glass!



A *high solar gain* glass is the perfect glass for our cold, Canadian climate. Like all Low E glass, our high Solar gain glass is designed to block heat escaping your home in winter and wasting your heating dollars. However, this glass is designed to maximize the amount of free solar heat your home can accumulate from the sun by allowing more intermediate light to enter your home, where it converts to heat. It extends you a warm welcome to your home while achieving extremely high E.R. (Energy Rating) values.



A *low solar gain* glass is the glass to choose when you want to balance summer cooling and winter heating. In the summer, it rejects the sun's heat and damaging UV rays. In the winter it reflect heat back into the room, maintaining you investment. This well balanced glass delivers year round performance and achieves highly desirable low U ratings. It offers a balanced environment and that means comfort!

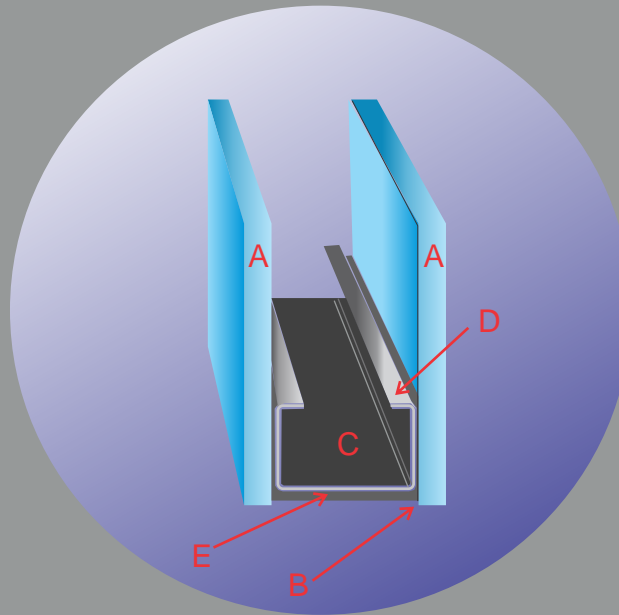


A *lower solar gain* glass is focused on U value to deliver state-of-the-art heat control in both summer and winter. It is the best type of glass for controlling heat loss in winter and the best type of glass for preventing heat build up in summer. Lower solar means your home will have an extra layer of comfort in summer months while it saves on your cooling bill!



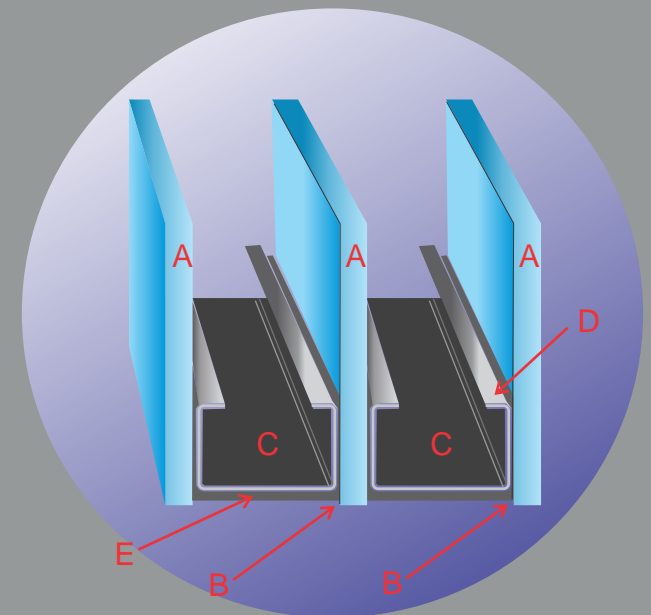


## DUAL PANE



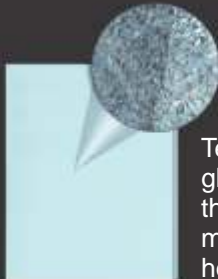
- A. first quality glass
- B. low E glass coating
- C. argon or krypton gas filling
- D. industry leading steel alloy spacer
- E. high tech sealant

## TRIPLE PANE



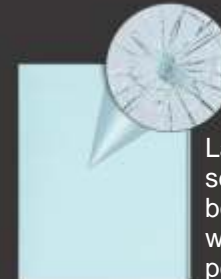
- A. first quality glass
- B. low E glass coating (1 or 2)
- C. argon or krypton gas filling
- D. industry leading steel alloy spacer
- E. high tech sealant

## TEMPERED GLASS



Tempered glass is a type of safety glass that is 4 to 5 times stronger than regular glass. Because it is made through a process of extreme heating a rapid cooling, it is a harder, more brittle glass. When tempered glass breaks, it shatters into small pebbles without dangerous, sharp edges.

## LAMINATED GLASS



Laminated Glass is both a safety and security glass. It is manufactured by bonding two pieces of glass together with a plastic interlayer called polyvinyl butyral. Laminated glass holds together when broken, but it is not as strong as tempered glass.

# FROSTINGS, TINTS & GRILLES

## Frosting & Tints



pinhead



rain



delta



sandblasted



gray tint



bronze tint

## Grilles



11/16" georgian bar



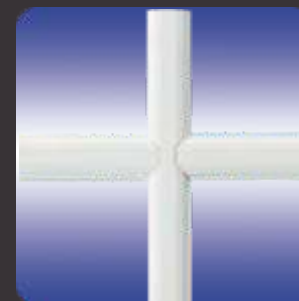
1" georgian bar



5/8" flat bar



5/16" flat bar



7/8" & 1 1/4" sdl

### AVAILABLE COLOURS

white is standard  
any solid gentek colour  
any solid kaycan colour  
two tone colour

white is standard  
any solid gentek colour  
any solid kaycan colour  
two tone colour

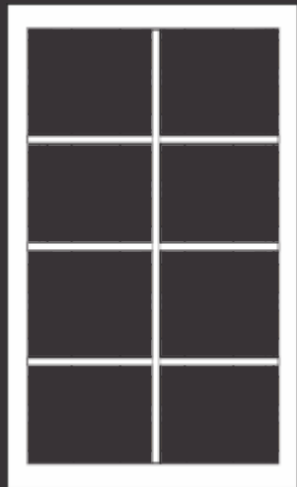
white is standard  
any solid gentek colour  
any solid kaycan colour  
two tone colour  
pewter or brass

white is standard  
pewter or brass

white is standard  
any solid gentek colour  
any solid kaycan colour  
two tone colour



# GRILL PATTERNS



colonial



prairie



ladder



diamond

custom patterns available



# CASEMENTS



*foam*

## *features*

7/8" Dual or 1 3/8" triple pane with warm edge spacer technology for the ultimate in year round comfort

foam insulated frame and sash option improves thermal performance and sound transmission resistance

Canadian made premium uPVC vinyl

3 1/4" frame depth

flexscreen - finally a unique innovation that looks great and is easy to remove and install

sash opens 90° for easy cleaning

triple weather seals are air tight!

multi-point lock for extra security

premium operator with elegant nesting folding handles

precision mitered fusion welded corners are water tight

hidden drainage

wide variety of standard and custom

### **PERFORMANCE TESTING**

AAMA/WDMA/CSA101/I.S.2/A440-08 & CSA A440SI-09

Available for ENERGY STAR Zones 1, 2, 3 and

ENERGY STAR Most Efficient 2018

Energy Rating: As high as +37

CSA Air Rating: A3, Water Penetration Resistance 730pa

NAFS Class tested: R-PG100

Maximum size tested for this rating is: 28" x 63"

Design Pressure: 4800pa

Window +37 E.R. requires triple pane with two layers of LoE, argon and foam.



Since 1961

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Windows & Doors  
*A better outlook on life*



# AWNINGS



*foam*

## *features*

7/8" Dual or 1 3/8" triple pane with warm edge spacer technology for the ultimate in year round comfort

foam insulated frame and sash option improves thermal performance and sound transmission resistance

Canadian made premium uPVC vinyl

3 1/4" frame depth

flexscreen - finally a unique innovation that looks great and is easy to remove and install

scissor arm operator

triple weather seals are air tight!

dual multi-point lock for extra security

premium operator with elegant nesting folding handles

precision mitered fusion welded corners are water tight

hidden drainage

wide variety of standard and custom

### **PERFORMANCE TESTING**

AAMA/WDMA/CSA101/I.S.2/A440-08 & CSA A440SI-09

Available for ENERGY STAR Zones 1, 2, 3 and

ENERGY STAR Most Efficient 2018

Energy Rating: As high as +37

CSA Air Rating: A3, Water Penetration Resistance 730pa

NAFS Class tested: LC-PG55

Maximum size tested for this rating is: 54" x 32"

Design Pressure: 2640pa

Window +37 E.R. requires triple pane with two layers of LoE, argon and foam.





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# SINGLE HUNG



*foam*

## *features*

7/8" Dual or 1 3/8" triple pane with warm edge spacer technology for the ultimate in year round comfort

foam insulated frame and sash option improves thermal performance and sound transmission resistance

Canadian made premium uPVC vinyl

3 1/4" frame depth

recessed tilt latch

flexscreen - finally a unique innovation that looks great and is easy to remove and install

top fixed, bottom operating sash with tilt in action

triple weather seals are air tight!

heavy duty cam lock and keeper

nite latches

constant force balances

precision mitered fusion welded corners are water tight

wide variety of standard and custom colours

### **PERFORMANCE TESTING**

AAMA/WDMA/CSA101/I.S.2/A440-08 & CSA A440SI-09

Available for ENERGY STAR Zones 1, 2, 3 and

ENERGY STAR Most Efficient 2018

Energy Rating: As high as +40

CSA Air Rating: A3, Water Penetration Resistance 580pa

NAFS Class tested: LC-PG50

Maximum size tested for this rating is: 44" x 77"

Design pressure: 2400pa

Window +40 E.R. requires triple pane with two layers of LoE, argon and foam.



*tilt-in action*



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# DOUBLE HUNG



## features

7/8" Dual or 1 3/8" triple pane with warm edge spacer technology for the ultimate in year round comfort

foam insulated frame and sash option improves thermal performance and sound transmission resistance

Canadian made premium uPVC vinyl

3 1/4" frame depth

recessed tilt latches

flexscreen - finally a unique innovation that looks great and is easy to remove and install

top and bottom sashes, both with tilt in action

triple weather seals are air tight!

heavy-duty cam lock and keeper

nite latches

precision mitered fusion welded corners are water tight

constant force balances

wide variety of standard and custom colours

*foam*

### PERFORMANCE TESTING

AAMA/WDMA/CSA101/I.S.2/A440-08 & CSA A440SI-09

Available for ENERGY STAR Zones 1, 2, 3 and

ENERGY STAR Most Efficient 2018

Energy Rating: As high as +38

CSA Air Rating: A3, Water Penetration Resistance 730pa

NAFS Class tested: R-PG50

Maximum size tested for this rating is: 40" x 63"

Design Pressure: 2400pa

Window +38 E.R. requires triple pane with two layers of LoE, argon and foam.



*tilt-in action*



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# SINGLE SLIDERS



## features

7/8" Dual or 1 3/8" triple pane with warm edge spacer technology for the ultimate in year round comfort

foam insulated frame and sash option improves thermal performance and sound transmission resistance

Canadian made premium uPVC vinyl

3 1/4" frame depth

flexscreen - finally a unique innovation that looks great and is easy to remove and install

one sash operable with tilt in action or lift out action for easy cleaning

triple weather seals are air tight!

recessed tilt latch

heavy-duty cam lock and keeper

precision mitered fusion welded corners are water tight

constant-force balance

wide variety of standard and custom colours

### PERFORMANCE TESTING

AAMA/WDMA/CSA101/I.S.2/A440-08 & CSA A440SI-09

Available for ENERGY STAR Zones 1, 2, 3 and

ENERGY STAR Most Efficient 2018

Energy Rating: As high as +39

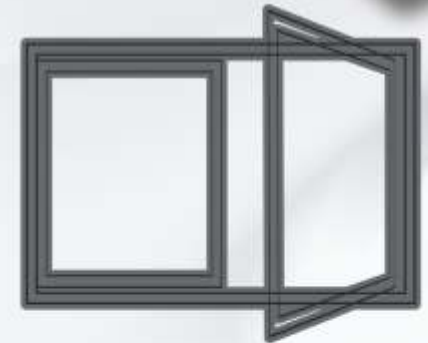
CSA Air Rating: A3, Water Penetration Resistance 360pa

NAFS Class tested: LC-PG50

Maximum size tested for this rating is: 63" x 44"

Design Pressure: 2400pa

Window +39 E.R. requires triple pane with two layers of LoE, argon and foam.



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# DOUBLE SLIDERS



*foam*

## *features*

7/8" Dual or 1 3/8" triple pane with warm edge spacer technology for the ultimate in year round comfort

foam insulated frame and sash option improves thermal performance and sound transmission resistance

Canadian made premium uPVC vinyl

3 1/4" frame depth

flexscreen - finally a unique innovation that looks great and is easy to remove and install

both sashes operable with tilt in action for easy cleaning, or lift out action

triple weather seals are air tight!

recessed tilt latch

heavy-duty cam lock and keeper

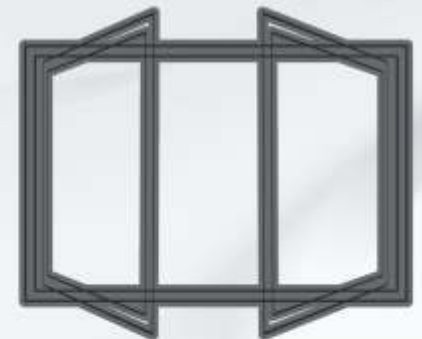
nite latch

precision mitered fusion welded corners are water tight

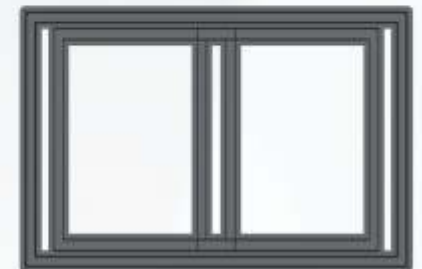
constant-force balance

### **PERFORMANCE TESTING**

AAMA/WDMA/CSA101/I.S.2/A440-08 & CSA A440SI-09  
Available for ENERGY STAR Zones 1, 2, 3 and  
ENERGY STAR Most Efficient 2018  
Energy Rating: As high as +37  
CSA Air Rating: A3, Water Penetration Resistance 360pa  
NAFS Class tested: R-PG40  
Maximum size tested for this rating is: 63" x 44"  
Design Pressure: 1920pa  
Window +37 E.R. requires triple pane with two layers  
of LoE, argon and foam.



*tilt-in action*



*lift-out action*

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# FIXED & PICTURES



## PERFORMANCE TESTING - FIXED

AAMA/WDMA/CSA101/1.S.2/A440-08 & CSA A440SI-09  
Available for ENERGY STAR Zones 1, 2, 3 and  
ENERGY STAR Most Efficient 2018  
Energy Rating: As high as +43 (Picture) +43 (Fixed)  
CSA Air Rating: Fixed, Water Penetration Resistance 720pa  
NAFS Class tested: CW-PG70  
Maximum size tested for this rating is: 72" x 72"  
Design Pressure: 3360pa  
Window +43 E.R. requires triple pane with two layers  
of LoE, argon and foam.

*foam*



## PERFORMANCE TESTING - PICTURE

AAMA/WDMA/CSA101/1.S.2/A440-08 & CSA A440SI-09  
Available for ENERGY STAR Zones 1, 2, 3 and  
ENERGY STAR Most Efficient 2018  
Energy Rating: As high as +45  
CSA Air Rating: Fixed, Water Penetration Resistance 720pa  
NAFS Class tested: CW-PG50  
Maximum size tested for this rating is: 74" x 74"  
Design Pressure: 2400pa  
Window +45 E.R. requires triple pane with two layers  
of LoE, argon and foam.

fixed  
window

picture  
window



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# bay window



available angles: 30°, 45° and custom

# bow window



available angles: 10°, 15° and custom

Bay windows project outward from the wall to add additional space to your room. They can be created with a combination of window styles to meet your design requirements.

common configurations



casement bay



single hung bay



double hung bay

Bow windows are made from a series of 4 or more identical sized windows projecting outward from the wall to add additional space to your room. They can be created with a combination of window styles to meet your design requirements. Bow windows allow for panoramic views, adding dimensionality. They create an excellent window seat for reading or having a snack or, for keeping plants in sunlight.

common configurations



casement bay



single hung bay



double hung bay

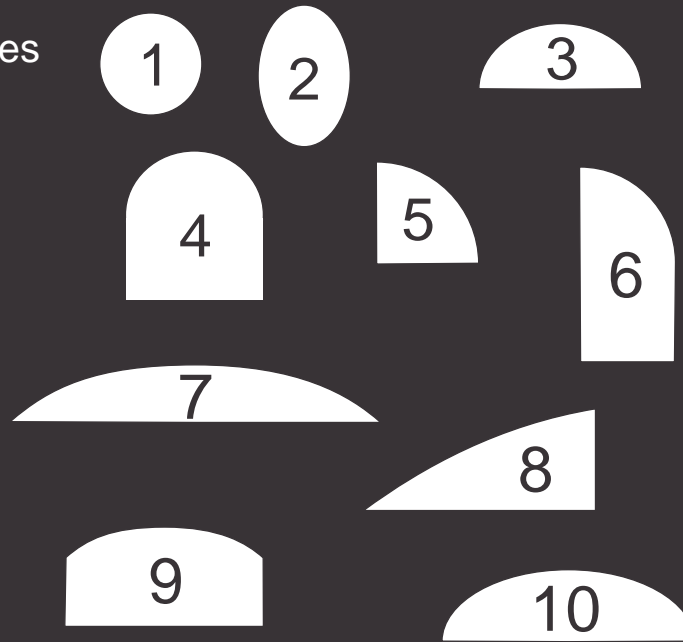




# SHAPES

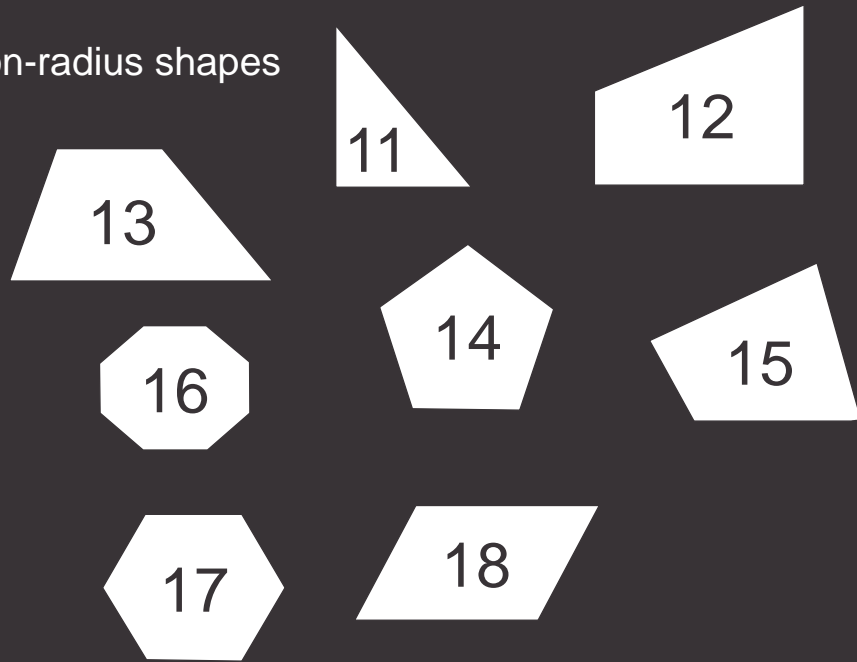
## picture profile radius shapes

1. circle
2. oval
3. half round
4. raised half round
5. quarter round
6. raised quarter round
7. cord
8. partial cord
9. raised cord
10. ellipse



picture profile non-radius shapes

- 11. triangle
- 12. rake head
- 13. trapezoid
- 14. pentagram
- 15. polygon
- 16. octagon
- 17. hexagon
- 18. parallelogram



high-fixed profile non-radius shapes

- 11. triangle
- 12. rake head
- 13. trapezoid
- 14. pentagram
- 15. polygon
- 16. octagon
- 17. hexagon
- 18. parallelogram



## vinyl jamb extensions



7 1/4"    4 5/8"    3 3/8"    2 3/8"    1 3/8"

custom size vinyl jambs available

## primed wood jamb extensions



7 1/4"    4 5/8"    3 3/8"    2 3/8"    1 3/8"

custom size wood jambs available

## exterior brickmoulds



A    B    C    D    E    F

- A. 2" brickmould (with or without fin)
- B. 1 7/8" renovation brickmould
- C. 1 1/2" brickmould (with or without fin)
- D. 1 1/4" brickmould (with or without fin)
- E. 1" brickmould (with or without fin)
- F. flush brickmould

## additional information

cellular jambs and casings are available

vinyl casing available exclusively in colonial styling

additional wood jambs and casing are available

wood casing profiles may vary

## interior casings



vinyl casing  
with rosettes

vinyl casing  
45° corner cap

natural oak  
casing  
(unfinished)

available in  
2 5/8" & 3 3/8"

available in  
2 5/8" & 3 3/8"

2 1/2" & 3 1/2"  
(custom order)

## handles and colours

white standard

Coppertone



black

cream





*Visit our showroom at:*  
**1590 The Queensway, Toronto M8Z 1V1**  
**(Just East of Highway 427)**  
**tel: 416-533-4331 1-888-852-6988**  
**fax: 416-503-9251**  
**[www.gemwindows.com](http://www.gemwindows.com)**