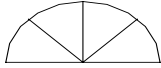
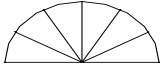
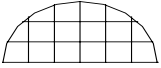




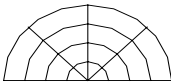
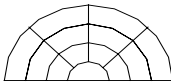
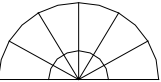
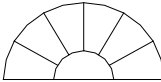
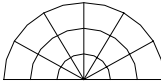
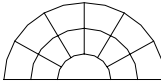
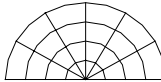


**TYPE A GRILLS**

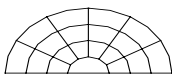
#1--	#2--	#8--	#3--	#3--O	#4--	#4--O
						
Min 600 mm Max 2200 mm	Min 600 mm Max 2200 mm	Min 600 mm Max 2200 mm Will use Standard Spacing	Min 600 mm Max 2200 mm See "i" for line up Standards	Min 600 mm Max 2200 mm See "i" for line up Standards	Min 1000 mm Max 2200 mm See "ii" for line up Standards	Min 1000 mm Max 2200 mm See "ii" for line up Standards

**TYPE B GRILLS**

**TYPE B GRILLS**

#5--	#5--O	#6--	#6--O	#7--	#7--O	#9--
						
Min 1600 mm Max 2200 mm See "iii" for line up Standards	Min 1600 mm Max 2200 mm See "iii" for line up Standards	Min 600 mm Max 2200 mm See "i" for line up Standards	Min 600 mm Max 2200 mm See "i" for line up Standards	Min 1000 mm Max 2200 mm See "ii" for line up Standards	Min 1000 mm Max 2200 mm See "ii" for line up Standards	Min 1600 mm Max 2200 mm See "iii" for line up Standards

#9--O



Min 1600 mm  
Max 2200 mm  
See "iii"  
for line up

**IMPORTANT:**

WHEN CHOOSING YOUR GRILL DESIGN, KEEP IN MIND THE NUMBER OF STANDARD GRILL BARS IN RECTANGULAR UNITS OF THE SAME SIZE. THIS IS PARTICULARLY CRITICAL WHEN MULLING HALF ROUNDS TO RECTANGULAR PRODUCT. SEE SECTION "U" IN THIS BOOK FOR STANDARD SPACING RULES FOR GRILLS IN RECTANGULAR WINDOWS.

Note that the descriptions below relate to lining a half round grill above a single lite below. Note that the relations will change somewhat when mulling above a multi-lite window, or above other products i.e. steel doors. See your sales representative for details and further information.

i When ordering the half round above a rectangular window, the grill rings will line up as follows unless other instructions are specified:

HR100 and HR120 will line up with the first and third grill bars.

HR150 will line up with the second and third grill bars.

HR 160 and HR180 will line up with the second and fourth grill bars.

HR200 and HR210 will line up with the second and fifth grill bars.

HR240 will line up with the third and fifth grill bars.

These grills in HR60 can not line up with grill bars below due to bending restrictions. Grills #3-- and #6-- will not line up with widths less than 961 mm, since there are not three vertical grills until this width (#3--O and #6--O will line up in widths between 700 mm and 960 mm).

ii When ordering the half round above a rectangular window, the grill rings will line up as follows unless other instructions are specified:

HR160 and HR180 will line up with the first, second, fourth and fifth grill bars.

HR200 and HR210 will line up with the second, third, fourth and fifth grill bars.

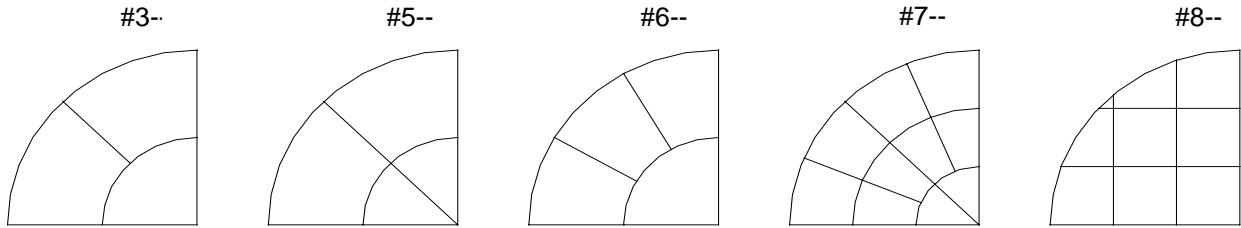
HR240 will line up with the second, third, fifth and sixth grill bars.

If these grills are ordered for half rounds smaller than those listed above, the bars will be spaced equally throughout the half round unless other instructions are specified, and will not line up with standard spaced rectangular product.

iii Since six vertical grill bars are not used until a unit is 2000 mm wide, it is not recommended using grill #6-- or #9-- in units smaller than this. Grill

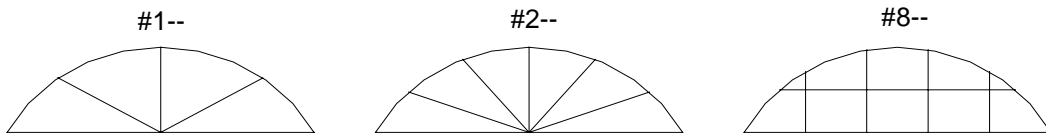
#5--O and #9--O will not line up correctly in units smaller than 2400 mm. If these grills are ordered for half rounds smaller than this, the bars will be spaced equally throughout the half round unless other instructions are specified and will not line up with standard spaced rectangular product.

**200 Series - Quarter Round Grill Designs**



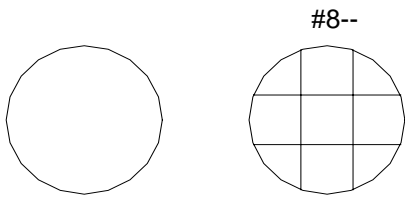
For grills #3--, #4--, #5--, and #6--, the ring will be placed where standard dictates the first grill bar be placed. Grill #8-- will follow standard spacing. See section "U" for standard spacing.

**200 Series - Segmental Grill Designs**



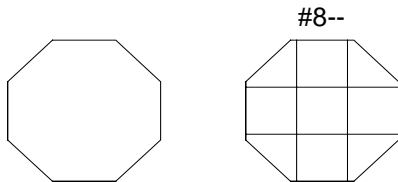
ALL GRILL PATTERNS ARE AVAILABLE IN ALL SIZES OF SEGMENTALS.

**200 Series - Rounds Grill Design**

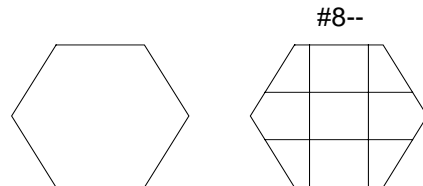


Std. pattern is 2 horizontal by 2 vertical grill bars

**200 Series - Octagon Grill Design**

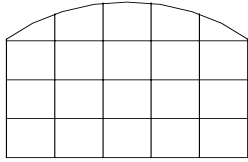


**200 Series - Hexagon Grill Design**



**Type A Grills**

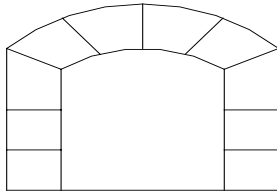
#8--



Min Width 600 mm  
Max Width 2400 mm  
Min Height 400 mm  
Max Height 2400 mm

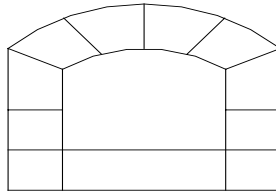
**Type B Grills**

#1--



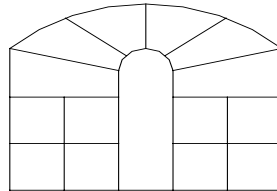
Min Width 600 mm  
Max Width 1800 mm  
Min Height 700 mm  
Max Height 1800 mm

#2--



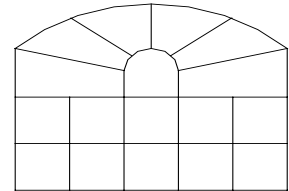
Min Width 600 mm  
Max Width 2200 mm  
Min Height 700 mm  
Max Height 2400 mm

#3--



Min Width 900 mm  
Max Width 2400 mm  
Min Height 700 mm  
Max Height 2400 mm

#4--

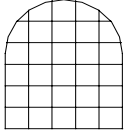


Min Width 900 mm  
Max Width 2400 mm  
Min Height 700 mm  
Max Height 2400 mm

- #1-- The placement of the vertical ring will be placed where standard spacing dictates the first grill bar is placed. The horizontal bars will be placed as standard spacing dictates. For widths less than 1000 mm wide, there will be only one spoke instead of three. For all height less than 700 mm, there will be no vertical leg portion on this grill.
- #2-- The placement of the vertical ring bar will be placed where standard spacing dictates the first grill bar is placed. The horizontal bars will be placed as standard spacing dictates. For widths less than 1000 mm wide, there will be only one spoke instead of three. For all heights less than 700 mm, there will be no vertical leg portion on this grill.
- #3-- The ring on this grill will always be placed on the two innermost grill bars. The number of vertical grill bars to the outside of the ring will be dictated by standard spacing.
- #4-- The ring on this grill will always be placed on the two innermost grill bars. The number of vertical grill bars to the outside of the ring will be dictated by standard spacing.
- #8-- Standard grill spacing will be used for all #8-- grills. See Section "U" for details about standard grill spacing.

**Type A GRILLS**

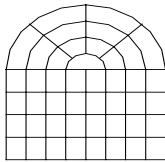
#8--



Min Width 600 mm  
Max Width 1800 mm  
Min Height 700 mm  
Max Height 2100 mm

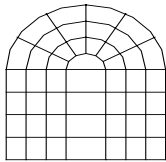
**Type B GRILLS**

#1--



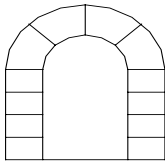
Min Width 800 mm  
Max Width 1800 mm  
Min Height 700 mm  
Max Height 2100 mm

#2--



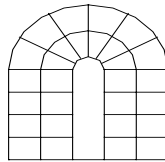
Min Width 900 mm  
Max Width 1800 mm  
Min Height 700 mm  
Max Height 2100 mm

#3--



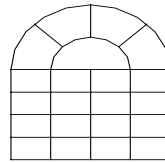
Min Width 700 mm  
Max Width 1800 mm  
Min Height 700 mm  
Max Height 2100 mm

#4--



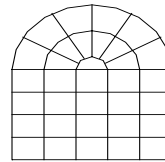
Min Width 1000 mm  
Max Width 1800 mm  
Min Height 700 mm  
Max Height 2100 mm

#6--



Min Width 900 mm  
Max Width 1800 mm  
Min Height 700 mm  
Max Height 2100 mm

#7--



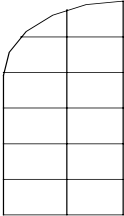
Min Width 1000 mm  
Max Width 1800 mm  
Min Height 700 mm  
Max Height 2100 mm

- #1-- The number of grill bars for this grill will expand as the size of the arch changes. Standard spacing will always dictate the number of vertical grill bars, and the number of rings. If the size dictates six vertical grill bars, there will be three rings in the grill. If standard spacing dictates that an uneven number of bars is required, the center bar will not be attached to a ring, but instead stop at the highest horizontal grill bar. Grill #1-- will have three spokes extending through the curved portion of the grill. For standard spacing, see section "U".
- #2-- The number of grill bars for this grill will expand as the size of the arch changes. Standard spacing will always dictate the number of vertical grill bars, and the number of rings. If the size dictates six vertical grill bars, there will be three rings in the grill. If standard spacing dictates that an uneven number of bars is required, the center bar will not be attached to a ring, but instead stop at the highest horizontal grill bar. Grill #2-- will have five spokes extending through the curved portion of the grill.
- #3-- The placement of the grill ring will be placed where standard spacing dictates the first vertical bar be placed. The horizontal bars will be placed as structural integrity.
- #4-- The placement of the grill rings will be placed where standard spacing dictates the first two vertical bars be placed. The horizontal bars will be placed as standard spacing dictates.
- #6-- Standard spacing will be used in all cases for this grill. The ring in the curved portion of this grill will extend from the outermost vertical grill bars. The number of vertical grill bars inside the "ring" will increase and decrease as the width of the arch changes.
- #7-- There will always be four vertical grill bars in this grill, no matter what the width of the arch. Spacing will be created so the vertical bars are spaced evenly throughout the arch. This grill will not line up with rectangular windows standard spacing, except for in the range of widths where four vertical grill bars is standard (1261 - 1560 mm widths).
- #8-- Standard grill spacing will be used for all #8-- grills. See Section "U" for details about standard grill spacing.

**Type A GRILLS**

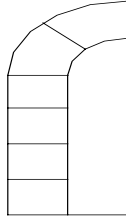
**Type B GRILLS**

#8--



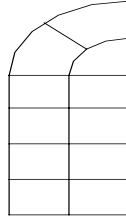
Min Width 300 mm  
Max Width 1100 mm  
Min Height 600 mm  
Max Height 2400 mm

#3--



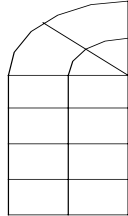
Min Width 300 mm  
Max Width 1100 mm  
Min Height 600 mm  
Max Height 1200 mm

#5--



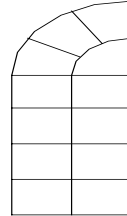
Min Width 300 mm  
Max Width 1100 mm  
Min Height 600 mm  
Max Height 2400 mm

#4--



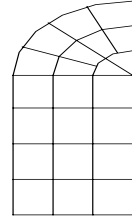
Min Width 300 mm  
Max Width 1100 mm  
Min Height 600 mm  
Max Height 2400 mm

#6--



Min Width 300 mm  
Max Width 1100 mm  
Min Height 600 mm  
Max Height 2400 mm

#7--



Min Width 500 mm  
Max Width 1100 mm  
Min Height 900 mm  
Max Height 2400 mm

#3-- The vertical ring will be placed where standard spacing dictates the first grill bar be placed. Horizontal bars will be placed as standard spacing dictates.

#4-- The vertical ring will be placed where standard spacing dictates the first grill bar be placed. Additional vertical grill bars will be placed as standard spacing to create support and to help with grill line up. These bars will be to the inside of the "ring" and will end at the highest horizontal grill bar.

#5-- The vertical ring will be placed where standard spacing dictates the first grill bar be placed. Additional vertical grill bars will be placed as standard spacing dictates to create support and to help with grill line up. These bars will be to the inside of the "ring" and will end at the highest horizontal grill bar.

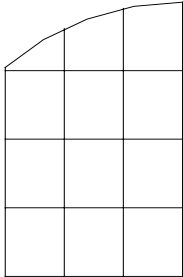
#6-- The vertical ring will be placed where standard spacing dictates the first grill bar be placed. Additional vertical grill bars will be placed as standard spacing dictates to create support and to help with grill line up. These bars will be to the inside of the "ring" and will end at the highest horizontal grill bar.

#7-- The vertical ring will be placed where standard spacing dictates the first two grill bars be placed. Additional vertical grill bars will be placed as standard spacing dictates to create support and to help with grill line up. These bars will be to the inside of the "ring" and will end at the highest horizontal grill bar.

#8-- Standard grill spacing will be used for all #8-- grills. See Section "U" for details about standard grill spacing.

**Type A Grills**

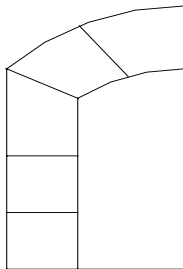
#8--



Min Width 600 mm  
Max Width 2200 mm  
Min Height 450 mm  
Max Height 2400 mm

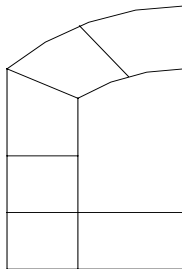
**Type B Grills**

#1--



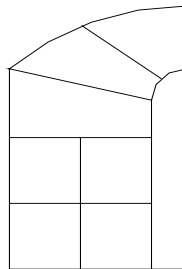
Min Width 600 mm  
Max Width 2400 mm  
Min Height 700 mm  
Max Height 1800 mm

#2--



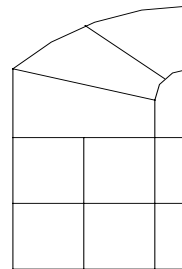
Min Width 600 mm  
Max Width 2100 mm  
Min Height 700 mm  
Max Height 2400 mm

#3--



Min Width 900 mm  
Max Width 2200 mm  
Min Height 700 mm  
Max Height 2400 mm

#4--



Min Width 900 mm  
Max Width 2200 mm  
Min Height 700 mm  
Max Height 2400 mm

#1 & #2 The placement of the vertical ring will be placed where standard spacing dictates the first grill bar is placed. The horizontal bars will be placed as standard spacing dictates. For widths less than 1000 mm wide, there will be only one spoke instead of three. For all height less than 700 mm, there will be no vertical leg portion on this grill.

#3 & #4 The ring on this grill will always be placed on the one innermost grill bars. The number of vertical grill bars to the outside of the ring will be dictated by standard spacing.

#8-- Standard grill spacing will be used for all #8-- grills. See section "U" For details about standard grill spacing.