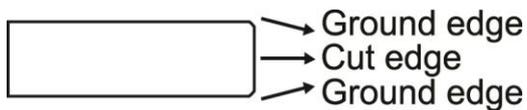


## CHEVRON PROCESSING & TREATMENT SERVICES

Chevron Glass can provide a wide range of processing and treatment services which includes the following:

### **ARRISSED EDGE**



This edge treatment is produced on an automatic vertical arrisser which leaves a white arris edge. This is the minimum edgework for toughened glass.

### **BEVELLED EDGE**



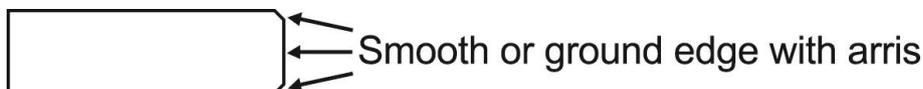
Straight line and shaped bevelling is done on automatic machines which produce a polished bevel on the face of the glass. The bevel width can be varied and is dependent on the glass thickness. Bevelled glass has a clean cut edge as standard but flat polished edges are also an option. Minimum charges may apply.

### **FLAT POLISHED EDGE**



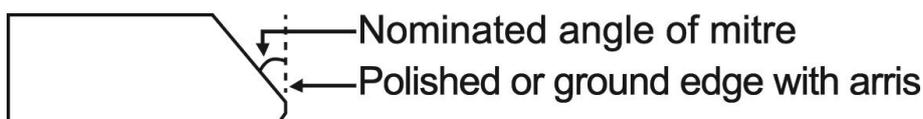
This is the standard machine polished finish to the edge and arris of the glass.

### **FLAT SMOOTH (GROUND) EDGE**



This is a machine flat finish which leaves a smooth, unpolished edge and arris.

### **MITRED EDGE**



A mitre is a machined edge finish normally supplied with a polished edge, or a smooth ground finish if requested, and is suitable for angled butt glazing.

The nominated mitre is the angle of the glass removed from the edge, with the maximum angle available 45°.

## **TIPPED CORNERS**

Tipped corners can be provided where the only requirement is to remove a sharp corner. The finish will be a ground edge. Polished tipped corners are available on request.

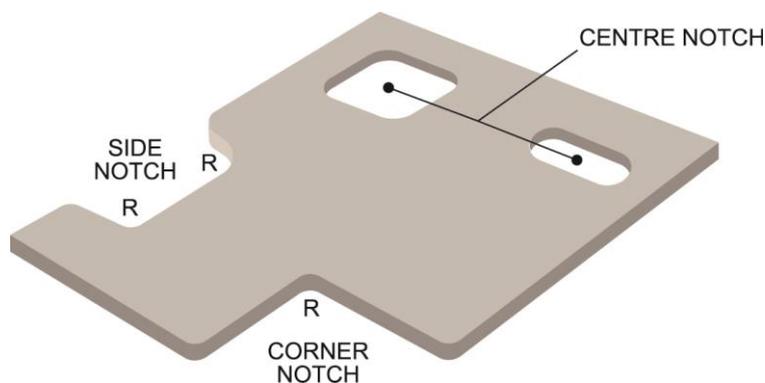
## **RADIUS CORNERS**

Radius corners can be supplied as clean cut or with further processing.

## **FINGER GRIPS**

Standard finger grips (slots) are 13mm wide. Length and depth depend on the glass thickness. The minimum glass thickness is 4mm.

## **NOTCHES**

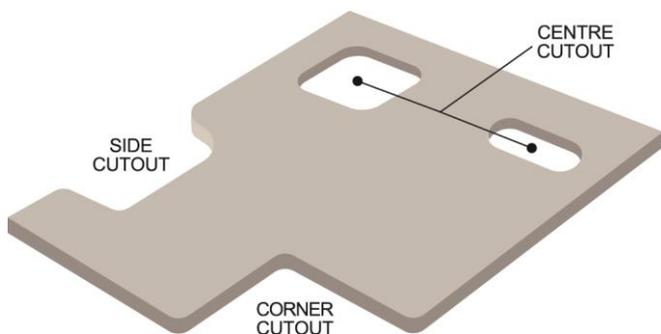


Notches are generally processed by Waterjet Cutter and supplied with flat ground finish with arris.

Cut outs are defined as having any one dimension less than 200mm.

Refer to Chevron Glass Toughened Glass Specification for further information.

## **CUT OUTS**



Cut outs are generally processed by Waterjet Cutter and supplied with flat ground finish with arris.

Cut outs are defined as having any one dimension greater than 200mm.

Refer to Chevron Glass Toughened Glass Specification for further information.

## **HOLES**

Holes can be drilled in all thicknesses of glass. Almost any diameter hole is available. Holes can be countersunk to accommodate mechanical fixings.

Polished holes are available with a minimum size of 36mm diameter.

Fan holes and cut outs for pet doors are also available.

Holes must be drilled in glass before toughening.

Refer to Chevron Glass Toughened Glass Specification for further information.

## **TOUGHENING**

Chevron toughened glass is a Grade A safety glass manufactured to AS/NZS2208 for use in buildings or AS/NZS2080 safety glass for land vehicles. It is manufactured by heating and then rapidly cooling float glass and as a result, balancing compressive and tensile stresses to form toughened glass.

This product is four to five times stronger than ordinary glass of the same thickness, combined with much greater resistance to impact. In the unlikely event of breakage, the glass fragments into small blunt-edged pieces.

Toughened glass cannot be supplied with “clean cut” edges. Chevron toughened glass is supplied with an arrissed edge for thicknesses 4mm to 12mm. 15mm and 19mm thicknesses require a minimum flat smooth edge which is a chargeable extra.

Chevron toughened glass cannot be cut or processed further after being manufactured.

Refer to Chevron Glass Toughened Glass Specification for further information.

## **HEAT SOAKING**

Heat soaking involves heating toughened glass in an oven for a period of time to induce breakage that may be caused by any inclusions or contaminants in the glass. The process substantially reduces the likelihood of breakage after installation due to any inclusions or contaminants. The process is strongly recommended for balustrades, pool surrounds and toughened glass assemblies.

In most circumstances where glass is to be glazed vertically 5.0 metres above ground or floor level, it is mandatory for the glass to be heat soaked.

Maximum size is 2140mm x 4200mm.

## **HEAT STRENGTHENING**

The heat strengthening process parallels the process of toughening, except that the cooling cycle is less rapid, thereby creating surface compression levels less than that of fully toughened glass. Although not a grade A safety glass, heat strengthened glass has similar thermal capabilities as toughened but less affected by quench distortion.

Heat strengthened glass is not a safety glass but has approximately twice the mechanical and thermal strength of annealed glass of equal thickness. Heat strengthened glass normally has a break pattern of large pieces similar to a break pattern of annealed glass, but in the event of breakage the broken glass generally remains in the opening.

Heat strengthened glass, like toughened glass, cannot be further processed in any way after heat strengthening.

**SHAPE CUTTING**

Shape cutting surcharges apply for non-rectangular C.T.S. shapes.

Squares and rectangles with radius or cut off corners are not regarded as irregular shapes.

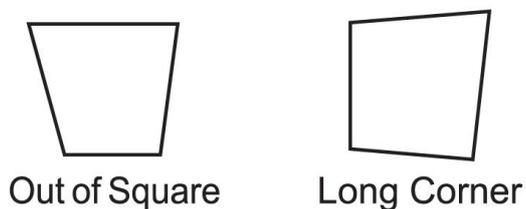
Glass defined as irregular shapes can fit into three possible categories described below with examples.

- **STRAIGHT LINE SHAPES**

*Description:* Straight line shapes with a maximum of 4 sides.

*Includes:* Out of squares, long corners.

Dimensions must be clearly defined with all necessary measurements.

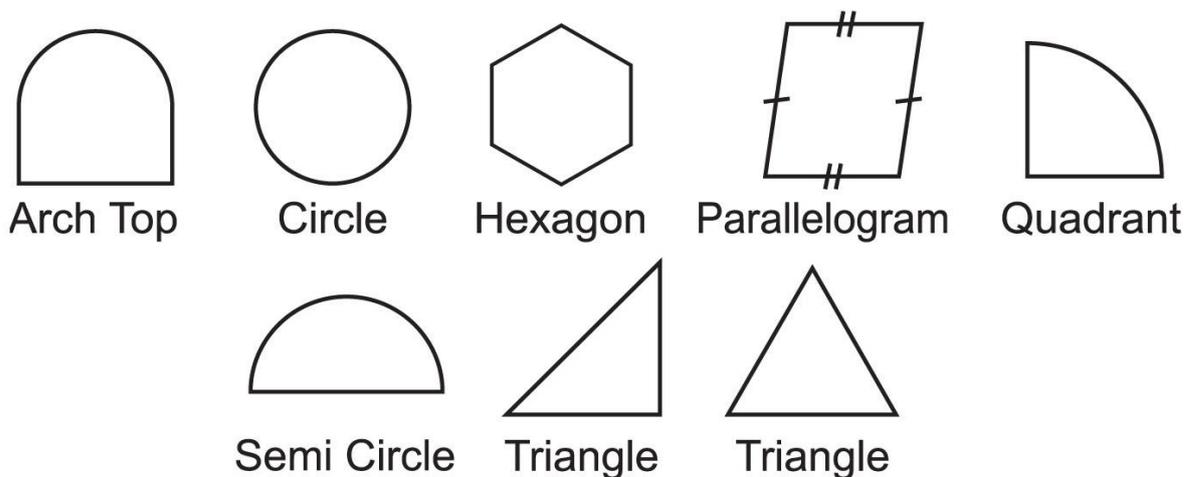


- **REGULAR SHAPES**

*Description:* Common shapes with a maximum of 6 straight sides.

*Includes:* Arch tops, circles, hexagons, parallelograms, quadrants, semi circles, triangles.

Dimensions must be clearly defined with a template or CAD drawing supplied.

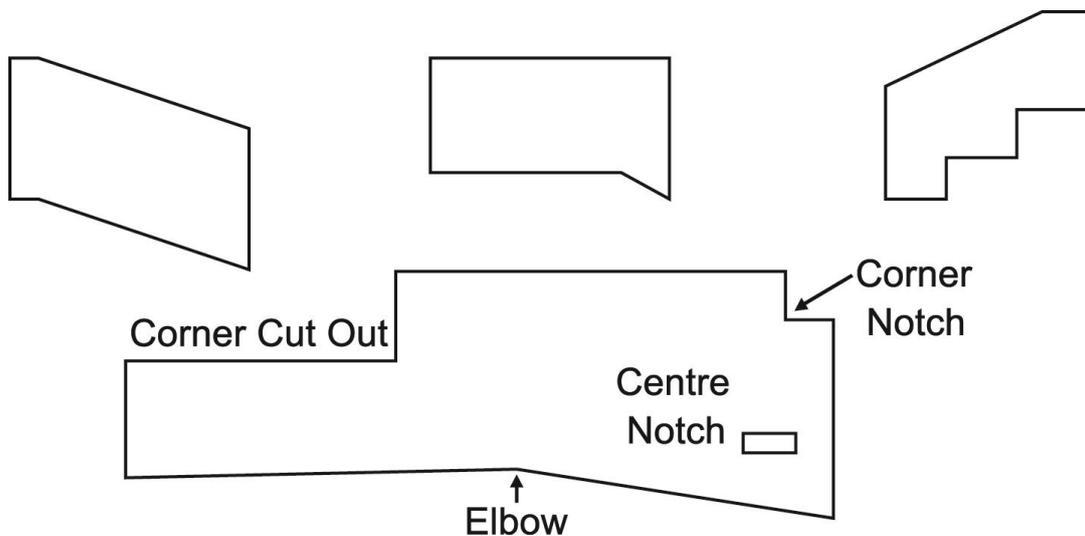
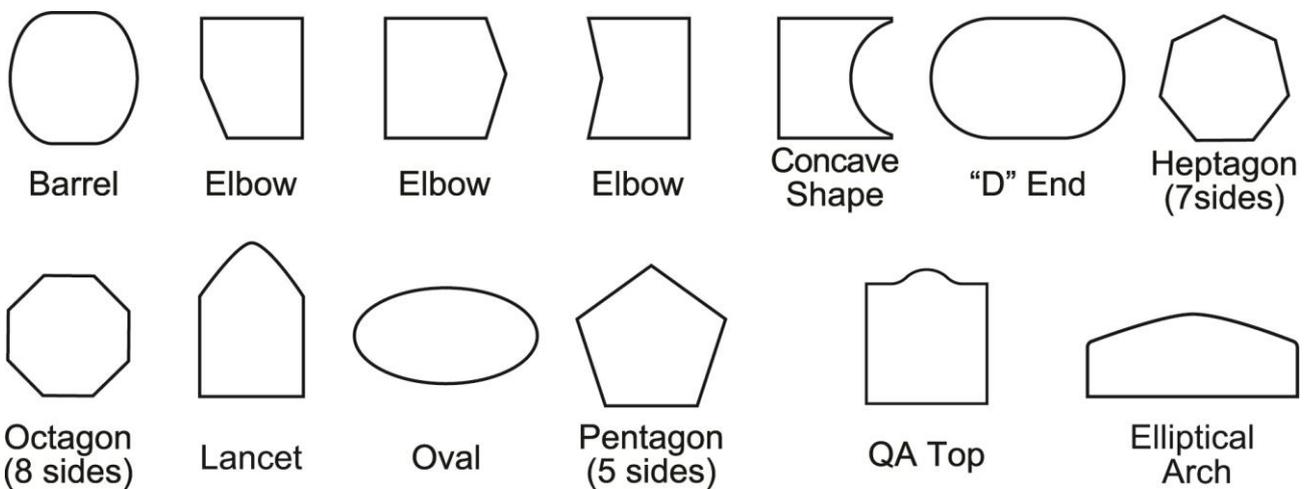


• **COMPLEX SHAPES**

*Description:* Irregular shapes with more than 6 sides, non-straight edges or curved shapes.

*Includes:* Barrels, elbows, concave shapes, "D" ends, heptagons, octagons, ovals, pentagons, Queen Anne tops, abstract shapes and any other shapes not previously covered. Dimensions must be clearly defined and a CAD drawing or template supplied.

Templates must comply with the Chevron Glass Template Specification Sheet.



## **SPLASHBACK MULTI-PROCESSED PANELS**

### **DEFINITION**

Any glass panel incorporating any or all of the following:

- Processed glass panel with any combination of four or more cut outs, notches or hole configurations.
- Any panels with polished internal cut outs.
- Processed panels with multiple hole configurations for typical tap set-ups.

### **SPECIFICATIONS**

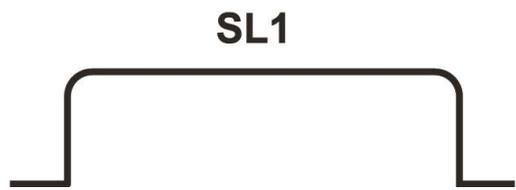
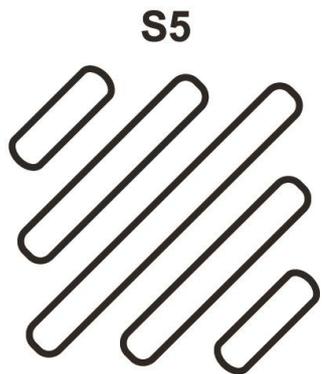
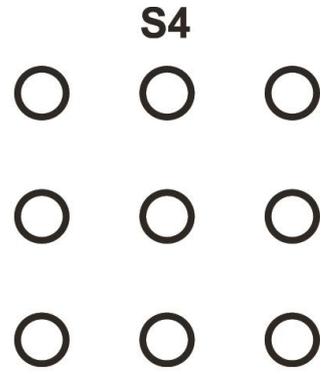
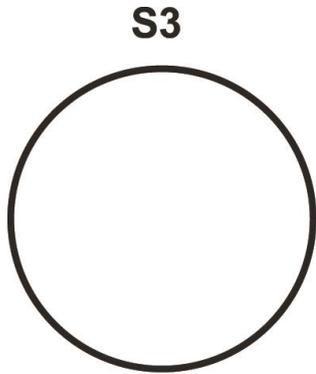
- Large size panels will be considered subject to W.H.&S. and manufacturing considerations, up to a maximum size for any panel of 4150 x 1500mm with cut outs or notches.  
An additional charge may apply for these panels.  
This charge would be in addition to standard edgework charges, shape cutting charges and template handling charge.  
Refer to Chevron Glass Toughened Glass Specification for further information.

### **TOLERANCES**

- Glass supplied by Chevron Glass is manufactured to comply with AS 4667.  
Therefore, standard visual and surface tolerances will apply.
- Finished tolerances are  $\pm 2.0$ mm on all overall dimensions, cut outs and hole positions.

**STANDARD POLISHED SPEAK HOLES & PAY SLOTS**

Standard design polished speak holes and pay slots are available as shown.  
Non standard configurations may be available on request.



## TEMPLATES

### TEMPLATE SPECIFICATION SHEET

Chevron Glass processes customer supplied templates using a process known as Virtual Digitising. This process involves taking a photo of the template against a reference point background, using a digital camera with a calibrated lens.

This photo is then imported into a program allowing us to “replicate” the individual template shape, including holes, cut-outs and notches, which is then converted into our various processing machinery.

The following specifications are intended to reduce any lost time due to an unacceptable template with the main consideration being that the quality of the template will largely affect the outcome of the finished product.

- CAD or similar computerised drawings are acceptable and **preferred** to actual templates.
- A template handling charge will apply in addition to other charges for all orders to template.
- All templates must be of a sturdy material, such as timber, ply, MDF, Corflute, Perspex or metal. Corflute is preferred due to it being a lightweight, waterproof material.
- Templates must be actual FULL SIZE with finished sizes marked on the face of the template.
- Templates that can be stretched or shrunk, such as paper or plastic, will not be accepted.
- Templates made of glass are not desirable, due to potential breakage & WH&S concerns.
- All templates must have customer’s name and order number clearly marked, attached or followed up with a faxed or emailed order.
- Templates for products with coated surfaces, mirror or patterned glass must be clearly defined which surface is the face.
- Templates made with multiple thicknesses or with protruding screws or nails will not be accepted.
- Templates to be returned to the customer must be labelled accordingly.
- Templates for toughened glass must clearly show where the Standards logo is to be located.
- Templates for toughened glass must comply with Chevron Toughened Glass Specifications covering sizes, notches, holes etc. for toughened glass.
- Templates with added or subtracted measurements will not be accepted.
- Multi-dimensional templates will not be accepted, i.e. one template must refer to one glass panel.
- Broken or damaged templates will not be accepted.
- Radius corners drawn on orders and faxed will not be accepted as a template unless an accompanying specified dimension is included.
- Hole positions on templates should be clearly marked with a cross to identify centre point or supplied with required hole sizes drilled in the template.

Chevron Glass may request adjustments to any order due to manufacturing limitations or WHS considerations. Any requirement not covered by these specifications should be referred to our Production staff for approval prior to processing.