# Description 

| Ctrl $+A$ | Select All vectors |
| ---: | :--- |
| Esc | Deselect All vectors |

Select $\Leftarrow$
Right to Left

Select
Left to Right


Esc

Right mouse click

Space-bar

Z
Esc
CRTL $+F$
F
F6

## F1

F2

Selects all vectors inside and touching selection rectangle

Only selects vectors fully inside selection rectangle

Toggles between Selection and Node Editing modes
Switches to Selection Mode (exits Node editing or Transform mode)
Opens the Scale form for Transforming the vectors
Opens the Move form
Opens the Rotate form
Opens the Join Vectors form
Opens Measure tool form
Rotates selected object $45^{\circ}$ counterclockwise
Rotates selected object $45^{\circ}$ clockwise

Exits vector drawing and editing tools and closes the data entry form

Exits vector drawing and editing tools and closes the data entry form

Re-opens the last vector creation form you used. This is very useful when using other forms in between each shape / text / dimension you create.

Zoom - click top left and bottom right corners to zoom
Exits zoom mode returning to Selection mode
Zoom to fit Job
Zoom to fit Material
Zoom to fit Material

Opens the Help File
Opens the 2D Drawing window
Opens the 3D Preview window
Opens the Snap Settings form
Refreshes the 2D window
Scales 2D view to fit material
Center selected object in view

## Tab Navigation

| Shortcut key | Description |
| ---: | :--- | :--- |
| F11 | Toggle Drawing Tab on |
| F12 | Toggle Toolpath Tab on |
| Ctrl + L | Opens the Layers Tab |
| Ctrl + D | Opens the Drawing Tab |

## Double Sided Job Setup

| Shortcut key | Description |
| ---: | :--- |
| 1 | Toggle Top Side on |
| 2 |  |
| $=$ | Toggle Bottom Side on |
| $=$ | Toggle Multi-Sided View on |

Mirror

| Shortcut key | Description |
| :---: | :---: |
| H | Mirror Horizontally |
| Ctri +H | Create Mirror Copy Horizontally |
| Shift + H | Mirror Horizontally, around center of material |
| Ctri + Shift +H | Create Mirror Copy Horizontally, around center of material |
| V | Mirror Vertically |
| Ctrl +V | Create Mirror Copy Vertically |
| Shift +V | Mirror Vertically, around center of material |
| Ctrl + Shift + V | Create Mirror Copy Vertically, around center of material |

## Alignment

| Shortcut key | Description |
| :---: | :--- |
| F9 | Moves selected object to the center of the material |
| F10 | Opens the Alignment Tools form |

## Groups



## Description

Group: Creates a single group containing selected vectors / components Ungroup: Converts a Group to individual vectors or components 'Deep' ungroup the selected objects to their original layers.Sub-groups are also ungrouped
'Deep' ungroup the selected objects to their groups layers. Sub-groups are also ungrouped

## Arrow keys

Nudge selected vectors using the Arrow keys

- Holding Ctrl reduces the nudge distance
- Holding Shift increases the nudge distance
- Holding Ctrl + Shift nudges the selected object by the Fixed Nudge Distance which is specified in the Snap Settings ( F4


## Node Editing

Shortcut key


D
S
C

B

A


P
X

X

Y
H
V

Right mouse click


Ctrl $+V$

## Ctrl and Drag

## Ctrl +X

Alt and Drag

Ctrl

## Insert a Point

Delete Point / Span
Smooth / Unsmooth Point
Cut Vector opens the vector
Convert span to Bezier
Convert span to Arc
Convert span to Line
Makes the selected node the Start Point for machining
Displays a single node's X and Y location properties
Changes the X co-ordinate position of selected nodes to match the position of the first one (when more than one selected)
Changes the Y co-ordinate position of selected nodes to match the position of the first one (when more than one selected)
Enter horizontal mirror mode (press again to exit)
Enter vertical mirror mode (press again to exit)

Opens context sensitive menus

## Edit Undo

Edit Redo

Copy the selected vectors
Paste the selected vectors
Pastes a copy of the selected vectors each time the left mouse button is released.

Cut the selected vectors
Moves the object either horizontally or vertically aligned with its original position
Creates a copy of the original object horizontally or vertically aligned to its original position

| Ctrl +N | Create New file |
| :--- | :--- |
| Ctrl +O | Open an Existing file |
| Ctrl +S | Save file |
| Ctrl +O | Import file |

## Page Up

Vertically tiles the 2D View and the 3D View window so you can see them both simultaneously. Currently Selected window is on the left typically best to select the 2D View first when doing this.

Horizontally tiles the 2D View and the 3D View window so you can see them both simultaneously. Currently Selected window is at the top - typically best to select the 2D View first when doing this.

## Quick Keys

Pressing the Space-bar re-opens the last vector creation form you used. This is very useful when using other forms in between each shape / text / dimension you create.

Various values can be typed in while dragging out shapes as follows:

Note: In most cases, the left mouse button must be pressed in order to input a value (i.e.dragging to create a circle, dragging a vector to move it, or dragging one of the rotating/scaling points around a vector to rotate/scale it).

The exception to this is the polyline tool: once the first point is entered the Quick Keys can be used without having to depress the left mouse key. Entering values defines the next end-point.

## Moving Objects m

| Drag Object | Description |
| :---: | :---: |
| Value Enter | Moves object the L Value from original position in direction of cursor. Equivalent to: <br> Value L. |
| Value , Value Enter | Moves object relative to its position by X and Y . Equivalent to: <br> Value <br> D <br> Value <br> W . |
| Value $X$ Value $Y$ | Moves object to the absolute position X and Y |

## Rotating Objects R

Drag Rotation Handles

## Description

Value Enter
Rotate the selection by R degrees counterclockwise. Equivalent to: Value L.

## Scaling Objects T

| Drag Scaling Handles | Description |
| :---: | :---: |
|  | Default when dragging edge scale nodes only. |
| Value Enter | Set the width or height of the object to 'L' (depending on which handle is being dragged). |
|  | Equivalent to: Value L |
|  | Default when dragging corner scale nodes only. |
| Value , Value Enter | Set the width and height of the object to the given values. |
|  | Equivalent to: Value D Value W |
| Value $S$ | Scale the object by a factor. |

## Node Editing ${ }^{\mathbf{N}}$



## Polyline Tool

Note: Once the first point is entered the Quick Keys can be used without having to depress the left mouse key. Entering values defines the next end-point.

Value after adding first

|  |  | $t$ |  | Description |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Enter |  | Places next point $L$ away from the last point in the Equivalent to: $\square$ Value $\square$ |  |  |  |
| Value |  | Value | Enter | Place the next point offset by that amount relative position. |  |  |  |
|  |  |  |  | Equivalent to: Value | D | Value | W |
| Value | X | Value | Y | Places the next point at position $X$ and $Y$ |  |  |  |
| Value | A | Value | L | Creates a line with an angle of $A^{\circ}$ and a length $L$ |  |  |  |

## Draw Circle

Value(s) while Dragging


Value Enter
Value D

## Description

Create a circle with the given radius.
Equivalent to: Value $R$.
Create a circle of Diameter D

## Draw Ellipse

## Value(s) while Dragging

| Mouse | Description |
| :--- | :--- | :--- |
| Value Enter | Create a circle with the given diameter. <br> Equivalent to: Value <br> Create an ellipse with width and height. <br> Equivalent to: Value |
| Value Value |  |

## Draw Rectangle



## Draw Polygon



## Draw Star

Value(s) while Dragging Mouse
Value Enter
Value D

| Value | P | Value | R |
| :--- | :--- | :--- | :--- | :--- |
| Value | P | Value | D |


\section*{| Value | $P$ | Value | $I$ | Value | $R$ |
| :--- | :--- | :--- | :--- | :--- | :--- | <br> Value P Value I Value D}

## Description

Create a star with the given radius.
Equivalent to: Value $R$.
Create a star with diameter D
Create a star with number of points P and radius R
Create a star with number of points $P$ and diameter $D$
Create a star with number of points P , Internal Radius \% I and radius $R$
Create a star with number of points P, Internal Radius \% I and diameter D

[^0]
[^0]:    Copyright © 2018 Vectric Ltd.

