

Appendix - Insertion Point Rules

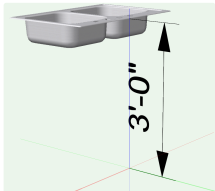
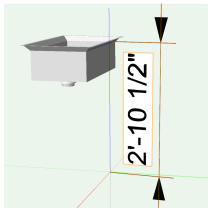
This appendix adds the general rules for the insertion points and arranging your geometry in relation to the “0” coordinate X, Y, Z location when editing a symbol. Exceptions apply.

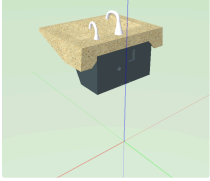
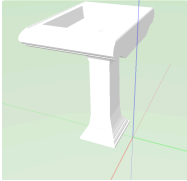
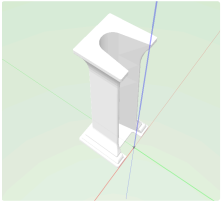
✓ Please remember that 3D/Hybrid symbol need both the 2D and 3d geometry aligned on the X and Y axis

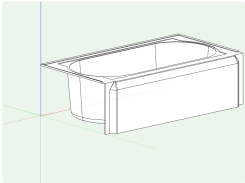
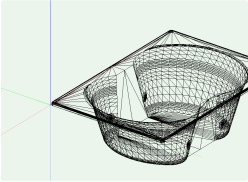
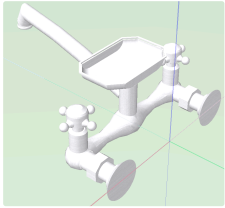
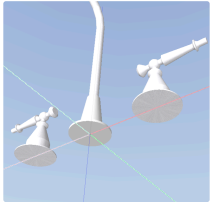
The table below does not include specialized content and the entertainment related content for Spotlight that is also specialized.

Insertion point rules

Please note: This is subject to change for plug-in/feature changes in Vectorworks.

Type of symbol: main object (parent) symbol, part (child) symbol,	Edit 3D Symbol - Show relation of the object to the “0” X, Y, Z, coordinate. Location is based on the front of the object facing the bottom of the screen, when viewed from top/ plan in VW.	Story Aware	Z Reference	Insert in Walls	Insert location	Wall Breaks
Sanitary/Plumbing fixtures						
Sink, Foodservice sink assembly	<ul style="list-style-type: none"> • X, Y axis 0 at back center (typical) • axis 0 back corner (alternative), Z axis • 0 at bottom of object 	yes	F.F.	no	n/a	no
Sink, top mount drop-in (lavatory, kitchen, etc.)	<ul style="list-style-type: none"> • X, Y axis back center • Z axis 0 at <i>bottom of rim</i> • Requires countertop hole shape object. 	no	n/a	yes	<Nearest Wall Edge...>	no
Sink, undermount (lavatory, kitchen, etc.)	<ul style="list-style-type: none"> • X, Y axis 0 at back center (typical) • X, Y axis on drain center for odd shape sinks. • Z axis 0 at <i>top of rim</i> • Requires countertop hole shape object. 	no	n/a	yes	<Nearest Wall Edge...>	no
Sink, vessel/vanity bowl	<ul style="list-style-type: none"> • X, Y axis 0 at drain center or center overall. Z • axis 0 at base of object 	no	n/a	no	n/a	no

Sink single or trough, wall mount	<ul style="list-style-type: none"> • X, Y axis 0 back center • Z axis 0 at top of sink. <p>⚠ Requires Z Offset from F.F. to be set from spec. sheet.</p> 	yes	F.F.	yes	<Nearest Wall Edge...>	no
lavatory sink/pedestal combo	<ul style="list-style-type: none"> • X, Y axis 0 at center back. Z axis 0 at base of object. 	yes	F.F.	yes	<Nearest Wall Edge...>	no
lavatory sink/pedestal top only	<ul style="list-style-type: none"> • X, Y axis 0 at center back. • Z axis 0 at sink rim (refer to mfr. spec sheet). <p>⚠ Requires Z Offset from F.F. to be set from spec. sheet.</p>	yes	F.F.	yes	<Nearest Wall Edge...>	no
pedestal full height (part only)	<ul style="list-style-type: none"> • X, Y axis 0 at center back. • Z axis 0 at base of object • The user may need to adjust position from the wall. 	yes	F.F.	no	n/a	no
pedestal (semi) apron only (part)	<ul style="list-style-type: none"> • X, Y axis 0 at center back so it can be mounted to a pedestal sink bottom. • Z axis 0 at top of object • The user needs to adjust position. 	no	n/a	no	n/a	no
toilet base, floor mount	<ul style="list-style-type: none"> • X, Y axis 0 at center back, offset from wall (see mfr. spec. sheet). • Z axis 0 at base of object. 	yes	F.F.	yes	<Nearest Wall Edge...>	no
toilet base, wall mount	<ul style="list-style-type: none"> • X, Y axis 0 is at center back on wall (see spec. sheet), Z at base. 	yes	F.F.	yes	<Nearest Wall Edge...>	no
toilet cisterns (part)	<ul style="list-style-type: none"> • X, Y axis 0 is at center back on wall (see spec. sheet), Z at base. 	yes	F.F.	varies	<Nearest Wall Edge...>	no
toilet seat/cover (part)	<ul style="list-style-type: none"> • X, Y axis 0 is on mounting point to snap to parent locus point (at front), Z at base. 	no	n/a	no		no
urinals	<ul style="list-style-type: none"> • X,Y axis 0 at back center where it mounts to wall, Z at urinal bottom. 	yes	F.F.	yes	<Nearest Wall Edge...>	no
bidets, floor mount	<ul style="list-style-type: none"> • X, Y axis 0 is at center back offset from wall (see mnfr. spec. sheet), Z at base. 	yes	F.F.	yes	<Nearest Wall Edge...>	no
bidets, wall mount	<ul style="list-style-type: none"> • X,Y axis 0 center point where it mounts. • Z axis 0 - T.B.D. according to spec. sheet. 	yes	F.F.	yes	<Nearest Wall Edge...>	no

ptrap (part)	<ul style="list-style-type: none"> X, Y axis 0 center point where it mounts to parent fixture, Z at top 	no	n/a	no		
toilet/urinal valve (part)	<ul style="list-style-type: none"> X, Y axis 0 center point where it mounts to parent fixture. Z at base. 	yes	F.F.	no		
tub/whirlpool alcove	<ul style="list-style-type: none"> X, Y axis 0 back left corner. Z axis 0 at the base where it meets floor. 	yes	F.F.	yes	<Nearest Wall Edge...>	no
tub/whirlpool top mount drop-in	<ul style="list-style-type: none"> X, Y axis 0 at back corner (typical) X, Y axis on drain center for odd shape tub. Z axis 0 at <i>base of rim</i> where it meets the object it inserts into. <p>i Requires countertop hole shape object.</p> 	no	n/a	yes	<Nearest Wall Edge...>	no
tub/whirlpool free standing (claw foot tub)	<ul style="list-style-type: none"> X, Y axis 0 at center, center. Z at bottom where it meets floor. 	yes	F.F.	no	<Nearest Wall Edge...>	no
Shower pan/base	<ul style="list-style-type: none"> X, Y axis 0 at back corner. Z axis 0 at base where it meets floor. 	yes	F.F.	yes	<Nearest Wall Edge...>	no
faucet/taps/mixer - wall mounted	<ul style="list-style-type: none"> X,Y center back point where it mounts to wall. Z axis 0 at connection centerline. 	yes	F.F.	yes	<Nearest Wall Edge...>	no
faucet/taps/mixer - counter or sink mounted	<ul style="list-style-type: none"> X,Y center point of center faucet, where it mounts to a parent fixture (sink, or counter). Z axis 0 at base. 	no	n/a	no	n/a	no
Showerheads, part	<ul style="list-style-type: none"> Varies based on where you want it snapped to other parts 	no	n/a	no	n/a	no
Showerheads ceiling mount	<ul style="list-style-type: none"> X, Y axis 0 center and Z axis 0 at the top. 	yes	Ceiling	no	n/a	no

Shower/tub faucet assembly/combo	<ul style="list-style-type: none"> X,Y axis 0 center back point where it mounts to the wall, Z bath spigot centerline. 	yes	F.F.	yes	<Nearest Wall Edge...>	no
Appliances						
Major appliances, floor standing	X, Y axis, back left corner, Z at base where it meets floor	yes	F.F.	no		
Major appliances, cabinet insert - wall oven, microwave	X, Y axis, back left corner, Z at base where it snaps to adjoining cabinet, furniture, etc.	yes	F.F.	no		
Range hood w/chimney	X, Y axis, back center, Z at top where it meets ceiling	yes	F.F.	no		
Countertop appliances	X, Y axis, back left corner, Z at base	yes	F.F.	no		
Electronics (devices, audio/video components)	X, Y axis, back left corner, Z at base	yes	F.F.	no		
Furnishings						
Furniture/furnishings	Typically, if it may be referenced when place from a wall corner, the x, y insert should be on the objects corner.	yes	F.F.			
tables, desk, sofa, modular furniture intended to be put together with other symbols	X, Y axis, back left corner, Z at base where it meets floor.	yes	F.F.	no	n/a	no
desk chair, round table, table and chair combo set	X, Y axis, center, Z at base where it meets floor	yes	F.F.	no	n/a	no
systems furniture	main "assembly" symbol should be on a corner where it can be snapped to another systems furniture configurations	yes	F.F.	no	n/a	no
wall mount objects: shelving/pictures/	X, Y axis, back left corner ⚠ Set Z offset so it is at an appropriate height from F.F.	yes	F.F.	yes	<Nearest Wall Edge...>	no
Sprinklers (ceiling mount)		yes	Ceiling	yes	<Nearest Wall Edge...>	no
Sprinklers (wall mount)	⚠ Set Z offset so it is at an appropriate height from F.F.	no	F.F.	yes	<Nearest Wall Edge...>	no
Lighting fixtures						
wall recessed mounted		yes	F.F.	yes	<Nearest Wall Edge...>	no
wall surface mounted	⚠ Set Z offset so it is at an appropriate height from F.F.	yes	F.F.	yes	<Nearest Wall Edge...>	no

ceiling surface		yes	Ceiling	no	n/a	no
ceiling recessed mounted		yes	Ceiling	no	n/a	no

Appendix - Cut Plane Settings for Symbols

Introduction

Beginning in Vectorworks 2020 we started adding cut plane settings to symbols and plug-in objects. This allows objects that are typically never cut, to automatically show as uncut when passing through the cut plane of a section viewport.

Horizontal and vertical section settings

The following table below is for selecting which horizontal and vertical section setting to apply to plug-in objects and black symbols.

Plug-in Object	Horizontal Section	Vertical Section
	dash = View as Cut when Cut in Viewport Uncut below = View as Uncut below when Cut in Viewport Uncut above = View as Uncut above when Cut in Viewport	dash = View as Cut when Cut in Viewport Uncut beyond = View as Uncut beyond when Cut in Viewport Uncut before = View as Uncut before when Cut in Viewport
Bath-Shower	Uncut below	-
Base Cabinet	Uncut below	-
Ceiling Grid	-	-
Clothes Rod	Uncut below (to show the PIOs 2D Top component)	-
Compartment Sink	Uncut below	Uncut beyond
Counter Top	Uncut below	-
Desk	Uncut below	Uncut beyond
Fireplace*	-	-
Grab Bars	Uncut below	-
MEP – Circuiting	Uncut below	-
MEP – Receptacle	Uncut below	-
MEP – Comm Device	Uncut below	-
MEP – Incandescent Fixture	Uncut below	-
MEP – Switch	Uncut below	-
MEP – Piping	Uncut below	-
MEP – Piping Connection	Uncut below	-
MEP – Piping Run	Uncut below	-
MEP – HVAC Damper	-	-

MEP – HVAC Diffuser	-	-
MEP – HVAC Elbow Duct	-	-
MEP – HVAC Flex Duct	-	-
MEP – HVAC Outlet	-	-
MEP – HVAC Splitter	-	-
MEP – HVAC Straight Duct	-	-
MEP – HVAC Transition	-	-
MEP – HVAC Vertical Duct	-	-
MEP – HVAC Vertical Elbow	-	-
Plant	Uncut below	Uncut beyond
Seating Section	Uncut below	-
Shelving Unit	Uncut below	Uncut beyond
Table and Chairs	Uncut below	Uncut beyond
Toilet Stall	Uncut below	-
Utility Cabinet	Uncut below	-
Wall Cabinet	Uncut above	-
Workstation Counter	Uncut below	Uncut beyond
Workstation Overhead	Uncut above	Uncut beyond
Workstation Panel	Uncut below	Uncut beyond
Workstation Pedestal	Uncut below	Uncut beyond

Category - Architectural/Interior	Horizontal Section	Vertical Section
	dash = View as Cut when Cut in Viewport Uncut below = View as Uncut below when Cut in Viewport Uncut above = View as Uncut above when Cut in Viewport	dash = View as Cut when Cut in Viewport Uncut beyond = View as Uncut beyond when Cut in Viewport Uncut before = View as Uncut before when Cut in Viewport
Appliance - Water Heaters	Uncut below	Uncut beyond
Appliance - Refrigerators and Freezers	Uncut below	Uncut beyond
Appliance - Hoods	-	-
Appliance - Clothes Washers and Dryers	Uncut below	Uncut beyond

Appliance - Wall Ovens	Uncut below	Uncut beyond
Ceiling Fans	-	Uncut beyond
Electrical Devices and Panels (Libraries/Objects - Building Services/Electrical/)	Uncut below	-
Equipment - Shelving and Racks (floor standing)	Uncut below	Uncut beyond
Furniture	Uncut below	Uncut beyond
Modular Workstation Assemblies	-	-
Light Fixtures - Ceiling Mounted and Suspended	-	Uncut beyond
Light Fixtures - Wall Mounted	Uncut Below	Uncut beyond
Light Fixtures - Floor and Table Lamps	Uncut below	Uncut beyond
Fire Extinguishers and Extinguishers Cases	Uncut below	Uncut beyond
Plumbing Fixtures - All except Shower Heads	Uncut below	Uncut beyond
Plumbing Fixtures - Shower Heads	-	Uncut beyond
Entourage - Vehicles	Uncut below	Uncut beyond
Entourage - People 3D Image Props	Uncut below	Uncut beyond

Category - Entertainment	Horizontal Section	Vertical Section
	dash = View as Cut when Cut in Viewport Uncut below = View as Uncut below when Cut in Viewport Uncut above = View as Uncut above when Cut in Viewport	dash = View as Cut when Cut in Viewport Uncut beyond = View as Uncut beyond when Cut in Viewport Uncut before = View as Uncut before when Cut in Viewport
Audio	Uncut below	Uncut beyond
Bumpers	Uncut below	Uncut beyond
Microphones	Uncut below	Uncut beyond
Panels, Acoustical	-	-
Speakers, Professional	Uncut below	Uncut beyond
Controls - Audio, Lighting, Video	Uncut below	Uncut beyond
Event, <i>most objects</i>	Uncut below	Uncut beyond
Event, Tents	Uncut below	Uncut beyond
Ent Stage folder (all objects)	Uncut below	Uncut beyond

Ent Lighting Instruments objects	Uncut below	Uncut beyond
Truss	-	-

Category - Landscape	Horizontal Section	Vertical Section
	dash = View as Cut when Cut in Viewport Uncut below = View as Uncut below when Cut in Viewport Uncut above = View as Uncut above when Cut in Viewport	dash = View as Cut when Cut in Viewport Uncut beyond = View as Uncut beyond when Cut in Viewport Uncut before = View as Uncut before when Cut in Viewport
Furniture/Furnishings	Uncut below	Uncut beyond
Transit Stops	Uncut below	Uncut beyond
Outdoor Lighting	Uncut below	Uncut beyond
Landscape Site objects	Uncut below	Uncut beyond