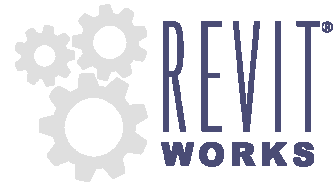# RevitWorks Door Factory Specification

V2 Feature added in 2013 v2

14 Feature added in 2014 and 2013 v2.1

Subcategories Used

Doors

|	
Arrow	-Symbolic directional plan/elevation arrows for sliding doors
Cill Components	-On separate subcategory so can turn off in ceiling plans
Elevation Swing	-Symbolic lines in elevation to show the swing direction
* Frame/Mullion	-Frames to framed doors (ie: Aluminium framed glass doors)
Furniture	-Handles, glass patches, kickplates etc
* Glass	-All glass within doors
Head Components	-Pelmets etc. On separate subcategory so one can turn off in floor plans
* Hidden Lines	
Jamb	-The door jamb
* Opening	
* Panel	-The door panel (except for glass doors)
Plan Panel	-Symbolic panel lines in plan **14**
Plan Swing	-Symbolic swing lines in plan
Trim	-Architrave, casing, mouldings etc around the door opening

* = Revit OOTB subcategories (Revit subcategories that cannot be deleted)

Detail Levels

Jamb Width + Structural Tolerance

Jamb Width

Structural Tolerance

Coarse Medium

Fine

3d views:
Coarse
Medium
Fine

Use visibility graphics door subcategories to turn components off and on as required.
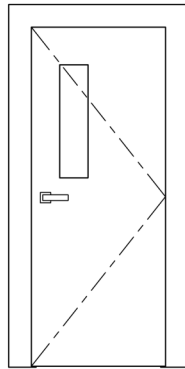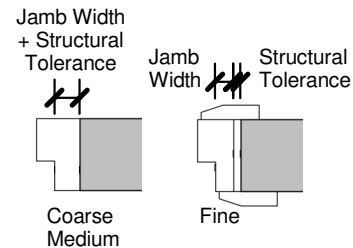
Elevations:
Coarse
Medium
Fine

Use visibility graphics door subcategories to turn components off and on as required.
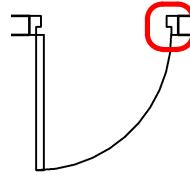
Plans:
Coarse
Medium
Fine

Shared Parameter Usage

Shared Parameters allow for additional usability compared to unshared parameters.
Refer to Typical Door Type and Typical Door Instance Parameters (on the following pages) for complete lists of all shared and unshared parameters.
RevitWorks door families shared parameters are as below:

For Tagging and Scheduling:
Allows parameters to be within tags as well as scheduled. Includes:

- All type parameters under "Construction" group.
- All parameters under "Dimension" group.
- Major Family Wide Parameters:
    Structural Tolerance
   Panel Thickness
    Jamb Width

For Consistency:
Allows families to be swapped with different families without an instance parameter changing back to its default value. Includes:

- All instance parameters under "Graphics" group (including "Swing Angle")
- All instance parameters under "Other" group (including alignment parameters)

Calculation Parameters:
All parameters starting with "rw_calc" are internal calculation parameters for within the RevitWork families. Please do not amend them.

RevitWorks Door Factory Specification
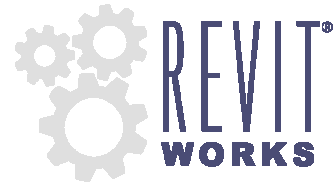
## Typical Door Instance Parameters

Example: Single Side Hinged Door

Show in 3d and elevations.
Parameters appear only
when the component exists.

Parameters appear only when the
component exists. Refer Typical
Door Type Parameters for Panel
and Frame materials.

Read only - dependant on family
wide parameter "Jamb Depth
Specified" and instance parameter
"Jamb Depth to Match Wall Width".

+ve = away from wall
-ve = towards wall

Panel Undercut

Panel to Base Gap
(family wide parameter)

Total gap
under door
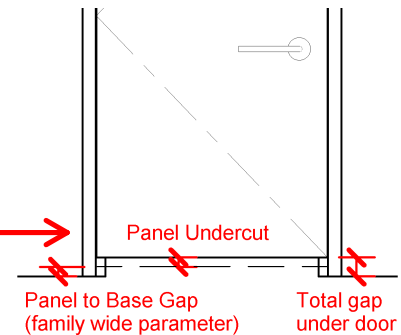
Alignment Variations

No Jambs:

Panel Offset from Wall Alignment	0.0
Align Panel with Wall Centreline	✓
Align Panel with Interior Wall Face	
Align Panel with Exterior Wall Face	

Surface Slider Flat Jambs:

Panel Offset from Wall Face	25.0
Jamb Depth to Match Wall Width	✓

Flat Jambs:

Jamb Offset from Wall Alignment	0.0
Jamb Depth to Match Wall Width	✓
Align Panel with Jamb Interior Face	
Align Panel with Jamb Exterior Face	
Align Panel with Jamb Centreline	
Align Panel with Wall Centreline	
Align Jamb with Interior Wall Face	
Align Jamb with Exterior Wall Face	
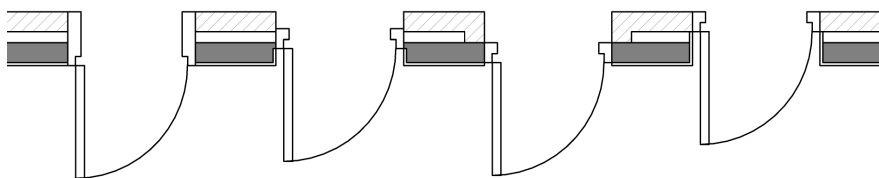
Graphic Variations

Double Doors

Swing Angle	90.000°
Secondary Swing Angle	90.000°

Bifold Doors

Swing Angle	90.000°
Layback One End	
Layback Both Ends	
Fold Angle	88.000°

Only when single
door at end

Only where 2
panel leaf at end
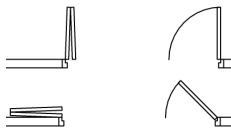
Stacking Doors

Show Plan Stacked	✓
Show Plan Closed	✓
Show 3d Panels	✓

allows design options to
show doors closed or open
in plans, 3d views etc.

Sliding Doors

Plan Arrow Offset	125.0
Plan % Open	100.0

Pivot Doors

Swing Angle	90.000°
Plan Pivot Offset	100.0

allows wider symbolic
representation in plans

RevitWorks Door Factory Specification

Typical Door Type Parameters

Example: Single Side Hinged Door

Type Properties

Family: Hinge (Rebated Jamb)   Load...
Type: Type 1   Duplicate...
    Rename...

Type Parameters

Parameter	Value
Constraints	⊗
Structural Tolerance	10.0
Panel to Jamb Gap Side2	1.0
Panel to Jamb Gap Side1	1.0
Panel to Head Gap	1.0
Panel to Doorstop Gap	1.0
Panel to Base Gap	5.0
Panel Thickness	40.0
Jamb Width	20.0
Jamb Head Width Specified	40.0
Jamb Head Width	20.0
Jamb Depth Specified	100.0
Construction	⊗
Graphics	⊗
Curved Plan Swing	☑
Materials and Finishes	⊗
Panel Material	<By Category>
Jamb Material	<By Category>
Dimensions	⊗
Thickness	40.0
Rough Width	872.0
Rough Height	2016.0
Panel Width	810.0
Panel Height	1980.0
Height	2016.0
Width	872.0
Identity Data	⊗
IFC Parameters	⊗
Analytical Properties	⊗
Other	⊗
Jamb Head Width to Match Jamb Width	☑

<< Preview   OK   Cancel   Apply

Family Wide Parameters - edit family to change

Panel Undercut (instance parameter)

Panel to Base Gap   **Total gap under door**

v2 Type Parameter"Jamb Head Width" equals this parameter if type parameter "Jamb Head Width to Match Jamb Width" is not ticked.

Instance Parameter"Jamb Depth" equals this parameter if instance parameter "Jamb Depth to Match Wall Width" is not ticked.

Parameters appear only when the component exists.

= Panel Thickness (Family Wide Parameter)

Rough Width = Panel Width(s) + Tolerances + Jamb Width*2
Rough Height = Panel Height + Tolerances + Jamb Width

= Rough Height and Rough Width to allow for consistency with curtain panel doors for scheduling (Ie. curtain panel doors don't have usable Rough Width or Rough Height parameters).

v2 If ticked, Type Parameter "Jamb Head Width" equals "Jamb Width", if unticked, "Jamb Head Width" equals "Jamb Head Width Specified".

Variations

Double Doors:

Graphics	
Show Secondary Handle	☑
Curved Plan Swing	☑
Dimensions	
Thickness	40.0
Secondary Panel Width	810.0
Rough Width	1693.0
Rough Height	2041.0
Panel Width	810.0
Panel Height	2000.0
Height	2041.0
Width	1693.0

Pivot Doors:

Graphics	
Two Way Swing	☑
Curved Plan Swing	☑
Dimensions	
Thickness	40.0
Rough Width	882.0
Rough Height	2041.0
Pivot Offset	60.0
Panel Width	810.0
Panel Height	2000.0
Height	2041.0
Width	882.0

Stop Jamb Doors

Other	
Doorstop Depth Centred on Jamb	☐

v2

Double 2 way Swing Doors (including double pivot doors)

Graphics	
Opposing Swings	☑

v2

Multi Sliders, Multi Bifolds and Stacking Doors:

Other	
No of Panels	5

Stacking Doors:

Graphics	
Stack to Side	☐
Stack Offset Across	0.0
Stack Offset Along	0.0
Stack Centred	☑

Content that works

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RevitWorks Door Factory Specification
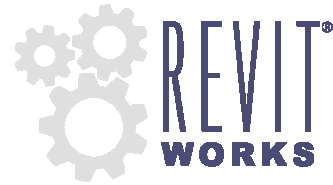
Curtain Panel Door Differences

The differences between curtain panel doors and standard doors can be summarised as follows:
- Curtain panel door dimensions are always instance parameters.
  (i.e. they are dependant on the curtain panel size).
- Curtain panel doors can not report on the wall thickness they are embedded into.

The RevitWorks curtain panel door parameters relate to, and improve these differences.

Instance Parameter Differences
Refer to Typical Door Instance Parameters for full parameter lists
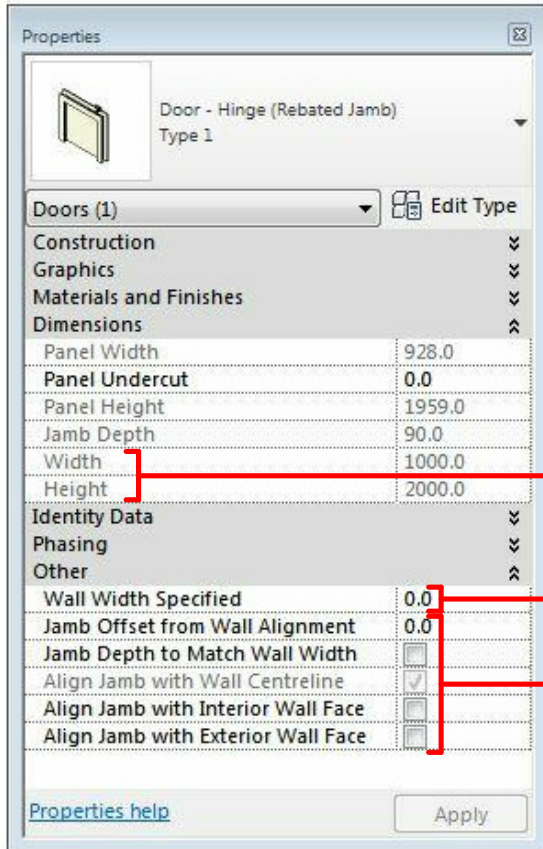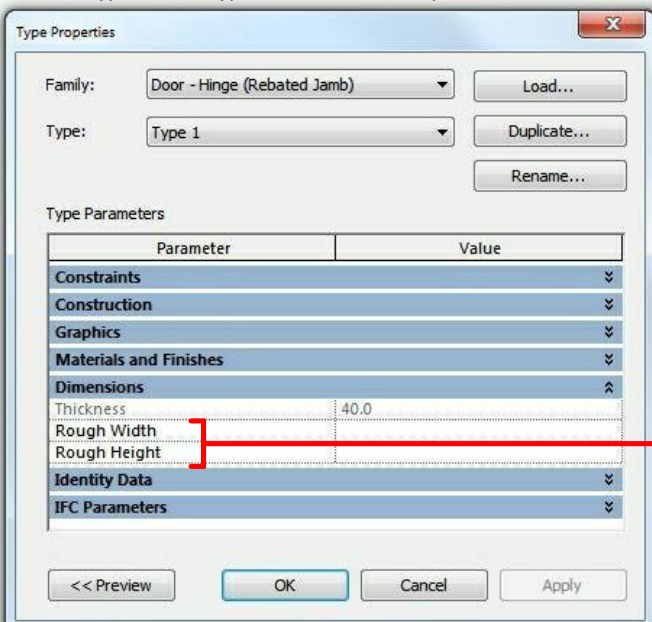

These parameters report the door's Rough Width and Rough Height (curtain panel doors don't come with real Rough Width or Rough Height parameters). These are consistent with the RevitWorks standard doors to allow for scheduling.
(i.e. Width = Panel Width(s) + Tolerances + Jamb Width*2.
Height = Panel Height + Tolerances + Jamb Width)

Manually set for ease of use of alignment parameters. Also allows for "Jamb Depth to Match Wall Width" jamb depth override.
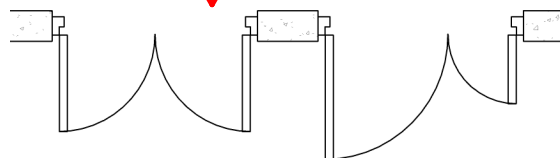
Wall Width Specified
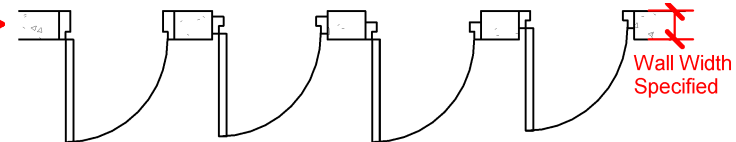
Type Parameter Differences

Refer to Typical Door Type Parameters for full parameter lists

Dimension Variations

Double Doors:

These parameters are Revit system parameters that do not report any lengths and can not be linked to any other parameters. They are ignored by RevitWorks (unfortunately they can not be deleted).