

# Mesh Boolean Node

The *Mesh Boolean Node* allows you to cut, subtract, and join the geometry of two inputs. This node offers the same operations as the [Boolean modifier](#).

## Inputs

### Mesh 1/2

Standard geometry input.

### Self Intersection

Correctly calculates cases when one or both operands have self-intersections. This involves more calculations making the node slower.

### Hole Tolerant

Optimizes the Boolean output for [Non-manifold](#) geometry at the cost of increased computational time. Because of the performance impact, this option should only be enabled when the solver demonstrates errors with non-manifold geometry.

## Properties

### Operation

#### Intersect:

Produce a new geometry containing only the volume inside of both geometry 1 and geometry 2.

#### Union:

The two input meshes are joined, then any interior elements are removed.

#### Difference:

Geometry 2 is subtracted from geometry 1 (everything outside of geometry 2 is kept).

### Solver

Algorithm used to calculate the Boolean intersections.

#### Float:

Uses a mathematically simple solver which offers the best performance; however, this solver lacks support for overlapping geometry.

#### Exact:

Uses a mathematically complex solver which offers the best results and has full support for overlapping geometry; however, this solver is much slower than the *Float Solver*.

## Output

### Mesh

Standard geometry output.

### Intersecting Edges Exact Solver

A boolean attribute field with a selection of the edges that were created where the two inputs meet.