

# Solid FAQ



This page is devoted to **frequently asked questions** (FAQ) related to [solids](#).

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## Are solid objects with less than eight nodes available?

**Answer:** Yes, degenerate [solids](#) are available, which are solid objects with collapsed (duplicated) nodes. These solids have less than eight nodes, and are useful for [modeling](#) wedges and tetrahedra. [Joints](#) may be collapsed in a variety of ways. An error message will report any creation of an illegal solid object.

## How are solid objects drawn in SAP2000?

**Answer:** [Solid](#) objects may be created in SAP2000 through one of the following two methods:

1. Extrude [area](#) objects by using Edit > Extrude.
2. Define solid objects directly by using [interactive database editing](#) to modify the Connectivity - Solid table, available through Edit > Interactive Database Editing > Model Definition > Connectivity Data > Object Connectivity > Table: Connectivity - Solid.

## Why are red springs automatically generated on my solid objects?

**Answer:** Red springs are typically generated for solid objects with edge [constraints](#) to restrain their [joints](#) from rotation.

See the [Solid elements and rotational degrees of freedom at their joints](#) article for additional information on why the joints need to be restrained from rotation.