

# Concrete confinement for Caltrans sections

Tutorial	
Name:	Concrete confinement for Caltrans sections
Description:	Changing the confinement characteristics for reinforced-concrete Caltrans sections within the Section Designer.
Program:	SAP2000
Version:	14.2.4
Model ID:	na

Figure 1 presents a three-core Caltrans section created using the [Section Designer](#). Different concrete properties may be assigned to each region, including the core (red), cover (yellow), and intermediate region (blue).

Cross-sectional design parameters which may be assigned include:

- The unconfined Mander model;
- The confined Mander model for circular sections;
- The confined Mander model for rectangular sections; and
- For each core, the longitudinal-steel size and quantity, and the transverse-steel size and spacing. These specifications then correlate with confined-concrete properties, which the software calculates automatically.

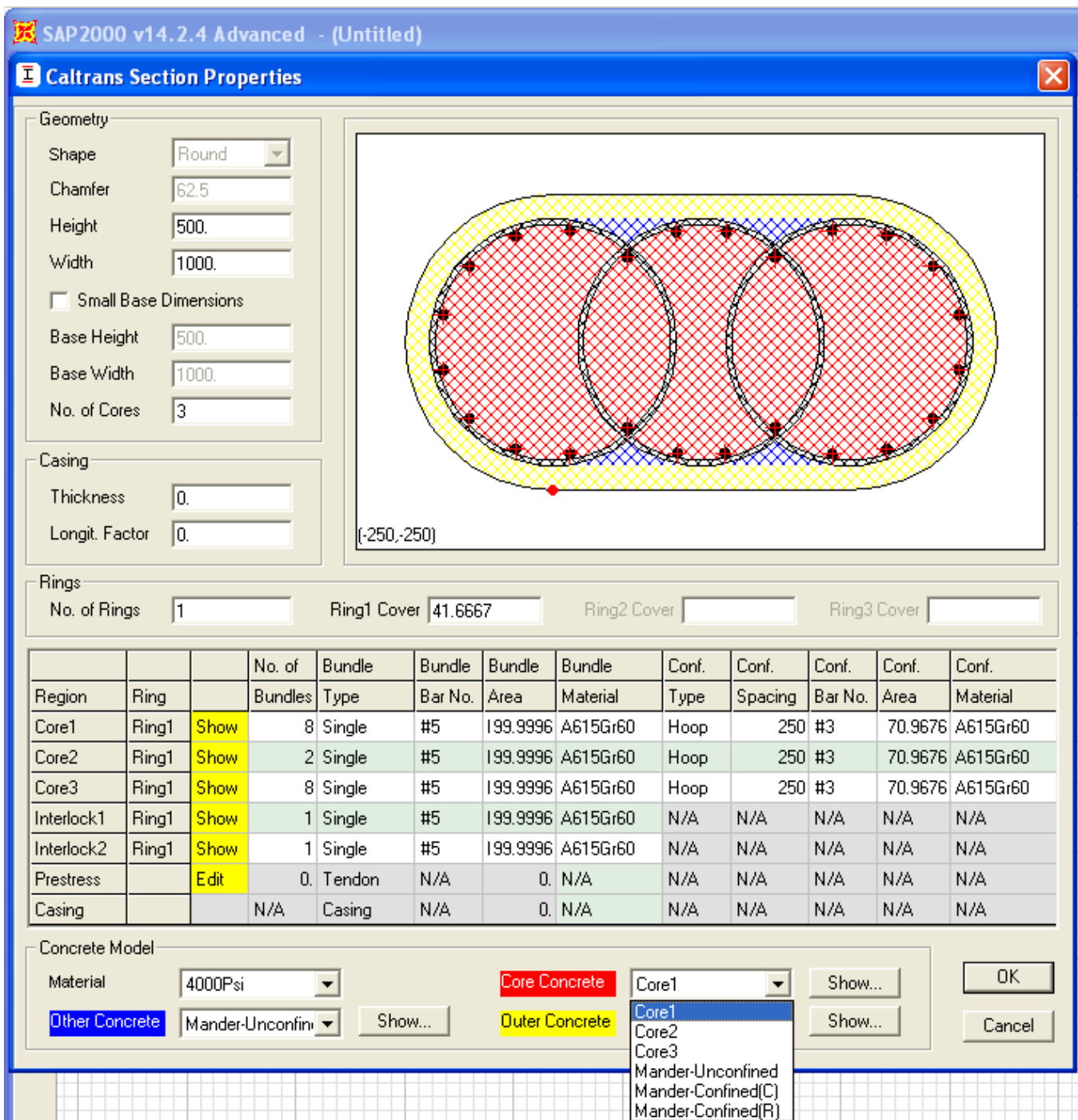


Figure 1 - Caltrans section

Select Show to specify any applicable modeling parameters (Figure 2). Some parameters are not available for editing because they are either taken directly from the material definition or are computed from the variables input on the Caltrans Section Properties form.

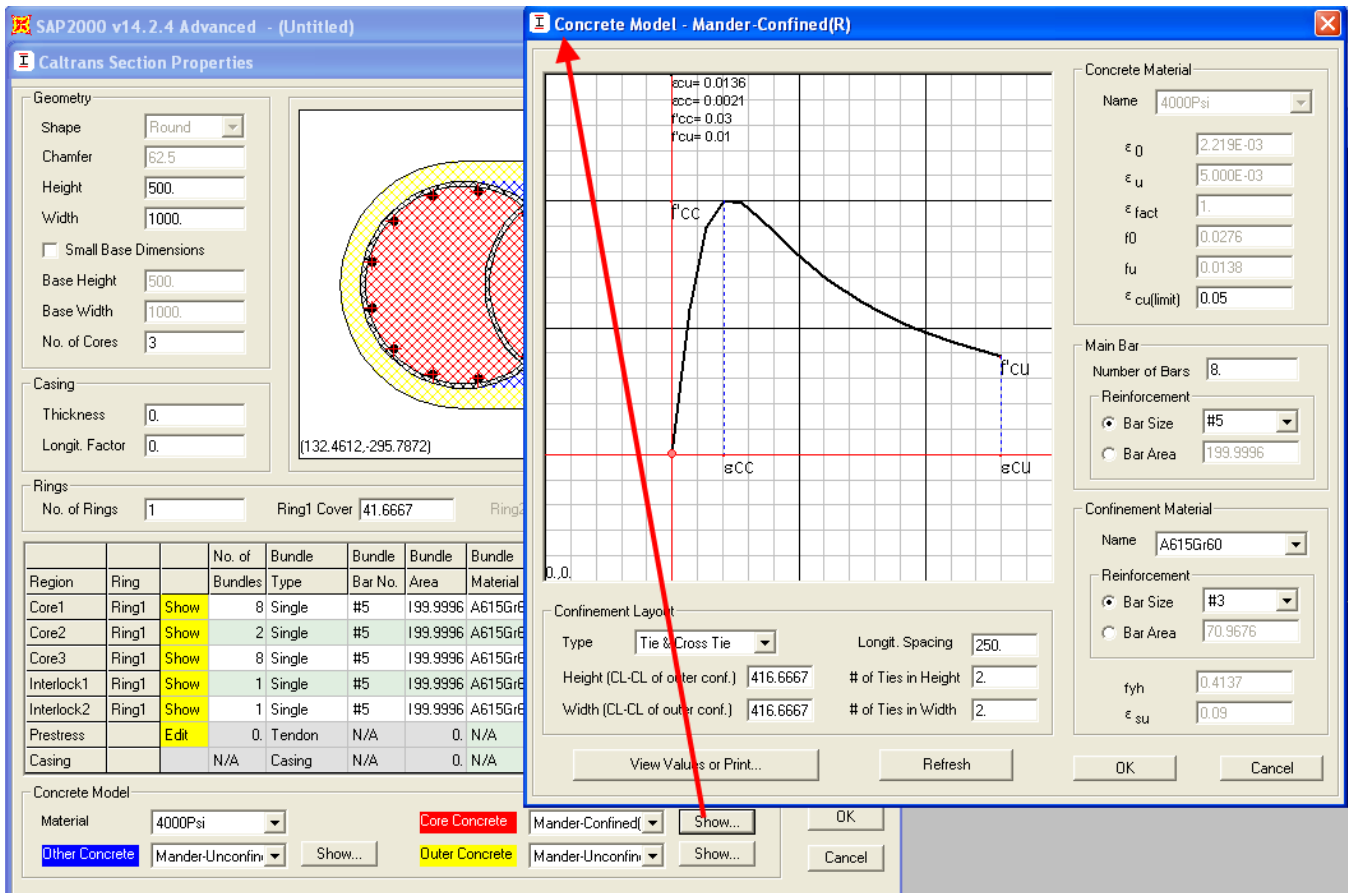


Figure 2 - Mander confined-concrete specification

## See Also

- Technical Note: Material stress-strain curve (available through Help > Documentation > Technical Notes)