

Support Conditions

Civil Engineering

What each support holds, and its unknowns.

Plane structures. Reactions are the unknowns each support introduces.

Support	Restrains	Unknowns
Roller	One direction only	1
Pin	Both translations	2
Fixed	Translation and rotation	3
Guided	One translation, rotation	2
Free end	Nothing	0

Educational reference. Real bearings and connections only approximate these idealisations, and codes say how far.