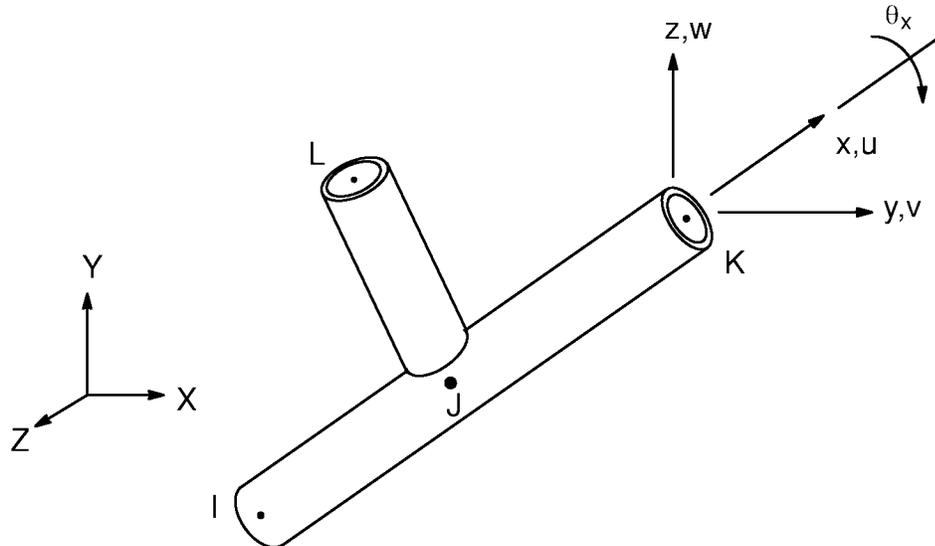


14.17 PIPE17 — Elastic Pipe Tee



Matrix or Vector	Shape Functions	Integration Points
Stiffness Matrix	Equation (12.2.2-1), (12.2.2-2), (12.2.2-3), and (12.2.2-4)	None
Mass Matrix	Same as stiffness matrix	None
Stress Stiffness Matrix	Equation (12.2.2-2) and (12.2.2-3)	None
Load Vector (Pressure and Thermal)	Equation (12.2.2-1), (12.2.2-2), and (12.2.2-3)	None

Load Type	Distribution
Element Temperature	In each branch: linear thru thickness, constant along the length
Nodal Temperature	In each branch: constant thru thickness, linear along the length
Pressure	Internal and External: constant on all branches along the length and around the circumference Lateral: constant on each branch along the length

14.17.1 Other Applicable Sections

PIPE17 is essentially the same as three PIPE16 (elastic straight pipe) elements, as discussed in Section 14.16.