

**A THREE-DIMENSIONAL FINITE-ELEMENT COMPUTER CODE
FOR THE ANALYSIS OF COMPLEX STRUCTURES**

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The general computational procedures are described with emphasis on the FORTRAN based 'dynamic' storage allocation and adaptability of specialized input routines for the analysis of complex structures, including pump casings and pipe tees and elbows. A brief discussion is given on the algorithms used in this code for the formation and solution of banded linear equations. The basic finite element building blocks, including isoparametric tetrahedra, pentahedra, and hexahedra are described. The results of a complex structural analysis, along with sample computer output, is presented.