

ABSTRACT

Scaffolding column planning is generally based on the condition of pinned column or $K=1$ which is a matter that can be understood. However the scaffolding used in high building structure must be arranged in stages so that the value of K becomes more difficult to calculate. The calculation of the value of K in the scaffolding structure can be done by stability planning in the AISC 2010, which introduced Direct Analysis Method (DAM) and Advanced Analysis. Both methods are the alternative methods to account the effect of imperfection geometry and residual stress of global stability. The planning result by DAM and Advance Analysis method will be compared with experimental test data on the scaffolding stability test type H2000-L2000-W2000. From the result of scaffolding planning conducted by DAM and Advance Analysis method using SAP 2000 v.15.0 and SeismoStruct program, can be concluded that this scaffolding planning with these two methods and programs can account the imperfection geometry and residual stress of global stability

Keywords: scaffolding, stability, imperfection geometry, residual stress.