

### ***Abstract***

*Cold-formed steel is a material that becomes popular in Indonesia. Cold-formed steel material is chosen because it is light, easy, and fast implementation. But Cold-formed steel has a weakness, that is local buckling easily occur. Therefore it takes a lot of research on how to increase local buckling resistant due to the very thin cross section. This thesis conducted an experiment on the effect of stiffener is added to the tap rod using three different placement patterns. Stiffeners are expected to increase the buckling capacity of the compression member. The correlation between stiffener placement patterns is studied in this experiment then verified using the finite element method analysis.*

**Keywords:** *cold-formed steel, local buckling, stiffener, compression member.*