COMPARISON OF ELECTRODE 7016 AND 7018 PROCESSES 
SMAW AT PLATE ASTM A36 WIHT TYPE BUTT JOINT TO 
STRENGTH DRAWS DAN BREADTH HAZ

Name : Bayu Pamungkas
NRP : 2105 030 021
Department : Mechanical Enginering FTI – ITS
Advisor : Ir. Subowo, MSc

ABSTRAK

Extension type Butt Joint many applied in industrial world of shipping, bridge structure, and industry - other industry. At welder process SMAW there is having kinds - kinds of its(the electrode type and diameter, all the things done to accomodate thickness of the plate and carbon steel type and lessens main problems at welder process that is the happening of handicap at welder process. At this research in expecting to in getting an analysis about how far electrode type influence to mechanical property (strength draws) and wide HAZ.

Welder process SMAW is done to applies low carbon steel material ASTM A36 (construction steel of public) at specimen of the size length, wide, and thickness of plate is 270 x 120 x 6 mm. This study point weighs against at mechanical property analysis (strength draws) and wide HAZ.

From result of experiment it is known that breaking at specimen test average of residing in metal base area. This thing means under strength of area weld metal and HAZ (good of weldment specimen E 7016 and E 7018) be bigger than at strength draws his own metal base. And wide HAZ at weldment specimen of electrode 7018 more widely from at specimen weldment 7016.

Keyword : Electrode type, weld SMAW, strength draws, and breadth HAZ