

ABSTRACT

Title: Strengthening Structures Strong Strengthening Analysis Press and bending using FRP with Jacketing Method Transmart Project Cibubur Kota Depok Name: Fajar Sokhibul Hasan, NIM: 41116320071, Lecturer: Agyanata Tua Munthe, ST, MT, 2018.

This study aims to determine the strength of tap and bending beam structure using FRP (Fiber Reinforced Polymer) by jacketing method. Test method is done using press and flex test with cylindrical test object size $\varnothing 15\text{cm} \times 30\text{cm}$ and bending beam test object size $15\text{cm} \times 15\text{cm} \times 60\text{cm}$, and material FRP made from carbon. The compressive strength and flexure with retrofitting using FRP will then be compared with compressive strength and bending without FRP. The concrete used in this study has a quality of 30 MPa.

The result of press test shows that the strength value of press using FRP material strengthening reaches 20,31% at 7 days concrete, 17,94% at 14 days concrete, 5,8% at 21 days concrete, and 5,7% at age 28 day. The result of bending test showed the strength value of bending using FRP material strengthening reached 8% at 7 days concrete, 11.67% at 21 days, and 4.2% at 28 days.

Keywords: Strong Press, Strong Bending, FRP

