

Aplikasi Susunan Pemecah Gelombang Tiang Pancang Bercelah dalam Menentukan Transmisi Gelombang

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Abstrak

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Pile breakwater is an effective type of breakwater to reduce wave energy. To find out the effectiveness of the structure of the pile breakwater can be carried out physical modeling experiments in the laboratory. The structure is tested based on the variation of gap between piles (rows)/Diameter (b/D), distance between piles (columns) / Diameter (B/D), arrangement of laying piles (N), and gap width between pile groups stake (G). Besides structure, period (T) and wave height (H) are also varied. This physical model test is carried out in a fume with regular wave at a depth of 60 cm. From the results of physical modeling it can be seen the value of the transmission coefficient (K_t) which is determined based on variations in the gap structure between the piles (rows) /Diameter (b/D), the arrangement of laying piles (N), and the width of the gap between the pile groups (G) which is used as a reference to determine the effectiveness of the pile breakwater structure. Physical modelling of the pile is the optimum value of the transmission coefficient (K_t) to reduce the waveform shown in the variation of the structure of the distance between the pile rows (b/D) 0.5, 58.1 cm Gap, and configuration of the pile structure N_2 (three rows pile breakwater).