Currently the water supply problem is of particular concern for both developed countries and developing countries. Indonesia as well as other developing countries too, did not escape from the problems of clean water for the community. One of the main problems faced is the lack of availability of safe water sources.

Under these conditions, conducted research on water treatment to treat water streams that can be operated and utilized by the smallest group of people ie households or by certain groups. Processing begins with the coagulation process followed by flocculation and sedimentation processes.

In this study, the raw water is taken from Surabaya where turbidity levels are obtained by creating artificial turbidity of 50 NTU, 75 NTU and 100 NTU, variations detention time for the coagulation process 30 seconds and 60 seconds, the variation detention time for flocculation process pneumatically 30 minutes and 60 minutes the velocity gradient 25/sec and 50/sec and continued with the process of sedimentation. Then it can be seen % removal of turbidity and organic matter in the raw water.

From this study, obtained by coagulation td 60 seconds, 60 minutes and td flocculation flocculation velocity gradient 50/sec % removal resulted in the highest, 88 % -91.5 % for turbidity and 72.09 % -75.51 % for substances organic.

Keywords: Coagulation, flocculation, sedimentation and Sequencing Process
(HALAMAN INI SENGAJA DIKOSONGKAN)