

Rachanida Panjakha 2013: Effects of Flow Conditions on Liquid Mixing in a Vertical Tubular Jet Mixer. Master of Engineering (Chemical Engineering), Major Field: Chemical Engineering, Department of Chemical Engineering. Thesis Advisor: Associate Professor Phungphai Phanawadee, D.Sc. 57 pages.

Liquid mixing characteristics in a jet mixer that was uniformly scaled down to 25 percent of a jet mixer used in a chemical plant was visually investigated using dye. Domain of the Reynolds number of the liquid providing good mixing was found. The results showed that the operating conditions applied for the jet mixer in the plant can not give good mixing. Based on the Reynold's number, a new jet mixer was designed. This new jet mixer was fabricated and visually tested. It was found that it works for the operating conditions of the plant.

---

Student's signature

---

Thesis Advisor's signature