Efek larutan tinta terhadap koefisien gesek pada pipa acrylic bulat ø 12.7 mm = ink solution effect in friction coefficient on acrylic pipe ø 12.7 mm

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Abstrak

[ABSTRAK
Perhitungan effisiensi suatu aliran fluida akan menjadi suatu hal penting di dalam kehidupan sehari - hari, dalam suatu aplikasi industri atau area lain yang memanfaatkan suatu aliran dari fluida. Banyak insinyur yang telah mengkonsentrasikan ilmunya untuk lebih jauh mengetahui tentang sifat ? sifat dari suatu aliran,fluida dengan tujuan akhir adalah bagaimana kita dapat mengendalikan suatu aliran dengan efektif dan effisien di dalam aplikasi nyata. Variabel ? variabel yang diperhitungkan dalam pemanfaatan aliran seperti kecepatan aliran, debit aliran, temperatur fluida, viskositas fluida, penampang aliran dan lain ? lain yang saling bersinergi satu sama lain telah jauh dikembangkan agar tujuan tersebut bisa tercapai. Salah satu teknik yang dipakai untuk memberikan debit fluida yang lebih besar dengan tenaga yang sama adalah dengan penambahan zat aditif (agen) pada fluida yang secara langsung akan merubah sifat viskositas fluida tersebut dan mempengaruhi aliran yang terjadi, disinilah pentingnya kita mengetahui sifat ? sifat yang terjadi pada suatu aliran fluida jika ditambahkan agen tertentu. Tujuan dari penelitian dan percobaan ini adalah untuk mengetahui sejauh apa pengaruh dari penambahan agen yaitu tinta pada fluida air dalam suatu aliran turbulen di dalam pipa lurus yang di plot pada perbandingan suatu grafik kecepatan aliran yang terjadi. Diameter yang akan digunakan yaitu Ø½? dengan panjang pipa total 5 meter. Variasi dari konsentrasi campurannya menggunakan 2 variasi konsentrasi yaitu sebesar 3 ppm dan 7 ppm. Hubungan koefisien gesek dengan generalis bilangan Reynolds mennjukkan semakin tinggi kepadatan lumpur diikuti kenaikan nilai koefisien gesek.;
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ABSTRACT
Efficiency calculation in some flow of fluids, will become something very important matter in daily lives, in some industrial application or another area which using fluids current flow.. Many engineer that has been concentrating their knowledge to understand more about characteristic of a current flow of fluids so that they can produce and control a current flow of fluids in a very effective and efficient way in some real practice. The variables that calculated in a current flow of fluids such as fluids viscosity, volume, temperature, dimension and others has been developed to some extend so they can achieve a very efficient application. One technique that can be used to give a better efficient current of fluids flow is to add some agent on fluids, which can directly change the character of fluids that can be used in a better way. This is the matter that how important why we must understand the characteristic of a fluids and what happen to it if we add some agent to it. The goal of this research and testing is to know how far effect of some agent which in this case is ink solution effect in a wsome turbulent water current flow on a straight

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