

Agitation and mixing by helical impellers in highly viscous and non-Newtonian liquids.

University of Salford - Agitation and Mixing of Fluids and Power Requirements



Description: -

-Agitation and mixing by helical impellers in highly viscous and non-Newtonian liquids.

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Notes: PhD thesis, Chemical Engineering.

This edition was published in 1972



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Tags: #PDF #EFFECTS #OF #GEOMETRICAL #VARIABLES #OF #HELICAL #RIBBON #IMPELLERS #ON #MIXING #OF #HIGHLY #VISCOUS #NEWTONIAN #LIQUIDS

Numerical Study of Mixing of Different Newtonian and Non

The Canadian Journal of Chemical Engineering 1998, 76 4 , 689-695. Note: colour scale logarithmic Owing to the reduction in relaxation time at increasing shear rates, the relation between local shear rate and local Weissenberg number is complex, leading to a disconnection between the location of maximum shear rate and maximum Weissenberg number.

Mixing Flow Characteristics in a Vessel Agitated by the Screw Impeller With a Draught Tube

The ideal result of mixing is a uniform, completely homogeneous solution.

Agitaion and mixing

Chemical Engineering Science 1979, 34 9 , 1160-1162. You may also lower or raise the blade.

Power Correlations for Close

Figure 6: Flow curves obtained for Aspergillus awamori broths by using theon-line impeller rheometer. However, it can be seen that over the whole measured range, Boger A displays lower values of N1, and thus lower levels of elasticity.

Agitaion and mixing

Food and Bioproducts Processing, 73 C2 : 49-56 Patel, D. The variations of entropy generation due to only viscous dissipation with Reynolds number, tank geometry, etc. For volumes less than 5 m³ and homogenization of medium viscosity products, we have our standard VPP3 range with immediate delivery times.

Mixing of Newtonian and viscoelastic fluids using “butterfly” impellers

PASTES WITH EACH OTHER AND WITH SOLIDS.

Mixing Flow Characteristics in a Vessel Agitated by the Screw Impeller With a Draught Tube

Homogenization Efficiency of Helical Ribbon and Anchor Agitators. The flow mechanisms to cause these effects were delineated in detail. Little guidance has been published on this matter.

Optimize Heat Transfer of Viscous Fluids in Agitated Vessels

The Canadian Journal of Chemical Engineering 1992, 70 6 , 1071-1082. The simplest class of devices suitable for gentle blending is the tumbler. The Reynolds number, $N Re$, is a measure of how turbulent or laminar the flow is, and is defined by: where D is the impeller diameter, N is the shaft speed, and ρ is the liquid density.

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