



Research Paper

Correlation Analyses in the Design of Pneumatic Transport Plant

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Correlation analyses have long been applied to hydraulic transport with considerable success. The author reviews the possibilities in using, such an approach with pneumatic conveying. The lack of suitable experimental data is a real problem but using the results available some promising correlations are achieved.

The transport of solids in flowing carrier mediums can be calculated analytically only to a certain limit because of the numerous influences of the materials involved, especially in dispersed solids. This is why in this field empiricism has much more importance than in clear fluid flow. Therefore, the calculation and the design of pneumatic and hydraulic transport plants are based mainly on empirical and semi-empirical analyses.