

Parametric CAD Model of a Double-Lay Six Strand Wire Rope

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Parametric modelling based on mathematical relationships allows creation of different variants of proposed solutions in real time. In particular, parametric modelling enables rapid design of 3D virtual models intended for further analysis and simulations. This paper presents an approach to design of a six strand wire rope model in a CAD environment. The presented model is characterized by double helical winding wires. Wires axes curves are mathematically expressed in the form of parametric equations. The parametric equations used in model generation are presented and the whole methodology of rope model creation in CATIA V5 software is briefly described.

Keywords: Parametric modelling, wire rope, CAD

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