

PARAMETRIC MODELING AND DRAWING AUTOMATION FOR FLANGE COUPLING USING EXCEL SPREADSHEET

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ABSTRACT

Coupling is a mechanical device which used widely in many big and small scale industries. 3D solid modeling has been mostly used since last few years as a substitution and complementation of the conventional 2D drafting. However, in general, many draftsmen do not have the skills of performing such 3D modeling as well as it takes lots of time. One way of overcoming this problem is to develop a tool which can perform 3D modeling as well as 2D drafting automatically. In this paper an attempt has been made to integrate commercially available package Autodesk Inventor with Microsoft Excel spreadsheet for creation of modeling and manufacturing drawing. Various product variants of the flange coupling have been executed by parametric designing concept in Inventor. It is easy for the user to give necessary input data in an Excel spreadsheet. Then using one feature crates in Inventor software the 3D modeling and manufacturing drawings will be generated automatically and efficiently.

KEYWORDS: Parametric Modeling, Computer Aided Design, Modeling and Drawing Automation, Flange Coupling