



## Cost Estimating

Do a better job at estimating and use that data to make the development of manufacturing plans more efficient.

## 4 Key Elements to Better Cost Estimating

### ► Most Common Challenges

- Cost estimating involves the first detailed review of the customer's Technical Data Package (TDP), which includes the detailed analysis of models, drawings, and specifications.
- The most time consuming part of estimating involves analyzing the TDP to identify the part features, figure out the processes, and determine the labor and material required.
- Since there is limited ability to find similar parts based on features, attributes, or processes, many estimates are created without the advantage of leveraging prior actual experiences.
- Most ERP and MES systems don't provide assistance in determining the appropriate manufacturing processes or calculating the expected times for setup and production.
- Many companies treat the analysis of the TDP for estimating as a "throw-away" effort. The engineers start over with a duplicate first review of the TDP when the PO is received.

### ► Solution Requirements

- The identification of features, characteristics, and processes identified in the TDP is one of the most time consuming aspects of estimating and this is where a tool needs to provide support.
- Companies should be able to maintain control over their estimating algorithms by using familiar tools such as Excel for the detailed calculations.
- The setup and organization of the estimating effort should enable the easy identification of prior cost history for similar parts, features, and processes.
- Any efforts expended in analyzing the TDP in support of cost estimating should be available for re-use once the RFQ and quote turn into a PO.
- Any support for cost estimating has to be integrated with other existing systems such as ERP to minimize any duplication of data entry efforts.

### ► DISCUS ENG Approach

- You create a Smart TDP from models, drawings, and specifications, which are represented in useful structures such as a Bill of Documents, Bill of Processes, Bill of Features, (BoX)
- You use Excel files are to take advantage of the BoX data created for the part's Smart TDP. ENG provides this essential data directly to the estimating files.
- The Smart TDP enables a very efficient search for similar parts, which can then be used during estimating to help validate the cost analysis with actual results experienced in the plant.
- The Smart TDP that has been established to support estimating is stored in the ENG database and is available as the starting point for detailed engineering when a PO is awarded
- The ENG integration connectors enable the direct data sharing with the ERP system, which eliminates re-entering data into another computer system.

### ► ENG Benefits

- Reduces possibility for quality escapes by ensuring that all customer requirements are identified and addressed as part of the RFQ/TDP review effort.
- Increases the accuracy of quotes by addressing the specific part features and the various nuances of the requirements, as well as by validating with history of similar parts.
- Reduces engineering lead time and labor effort by capturing all of the part requirements in a Smart TDP structure for further use when PO is received.

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