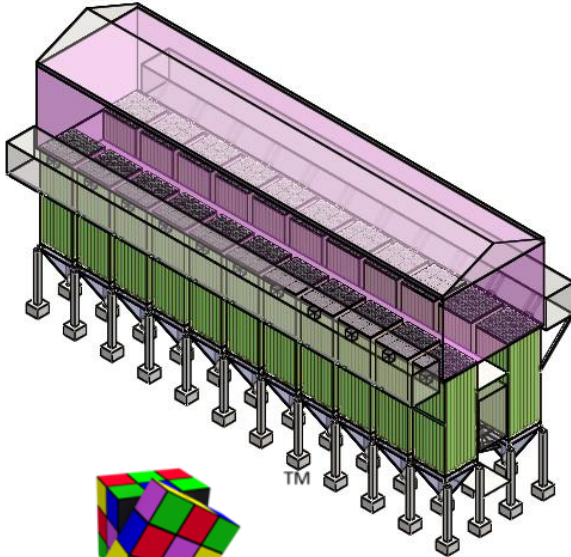


# CadecXpress

**Mark**  
Improving  
Design  
Productivity



Product families with variant geometries need a tool for easy configuration and new instance creation. Further, the variant types, modification rules and output formats also change over time. The design calculation logic needs to be kept separate from the models for better variant management and control. Companies having many product families can manage them from a single programmingless workbench

## Salient Features of CadecXpress

- Easy-to-use variant management tool for product families
- 100% programming less
- Can be used with or without SolidWorks 3D CAD platform
- Generates to-the-scale models and drawings
- Generates BOMs, Quotations, Cost Sheets
- Common Development and Runtime environment

- ✓ Capturing Knowledge Base
- ✓ Securing Intellectual Property
- ✓ Reducing Design Time / Cost
- ✓ Variant Management for Product Families
- ✓ Use of Master Models
- ✓ Freeing Designers For Innovative Work
- ✓ Offering More Options to Customers

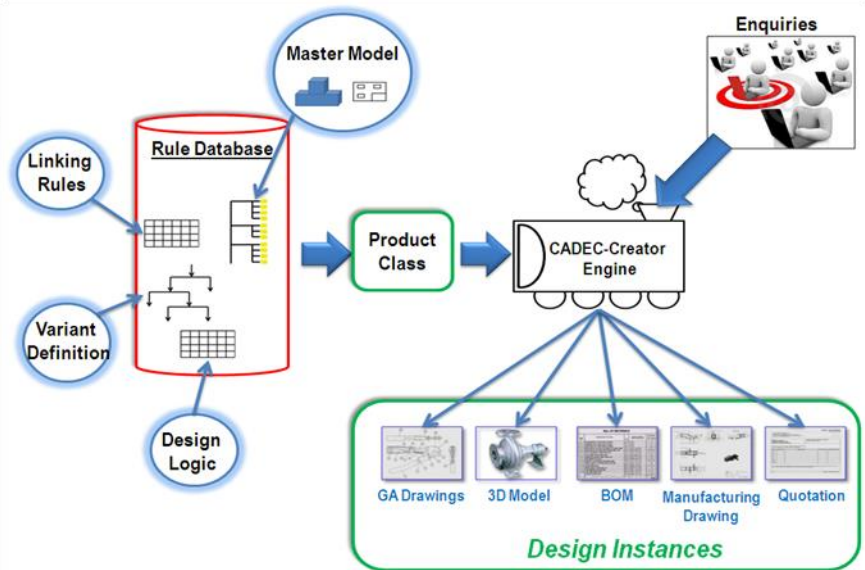
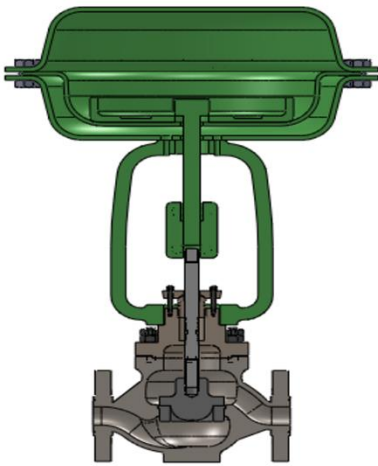
**CadecXpress helps you in defining and managing the design process of product families. At the heart of the design process, is the design logic. It covers:**

- Design variables calculation
- Geometric features and parts requirement
- Validation rules
- Dimension reference tables

## Variable Table:

CadecXpress variable table captures all design variables, their calculation method and validation logic, Design flow chart, all in a single table. This makes it easier to create / review / modify the design logic at one common place. The variables are calculated recursively, so you can create them in any sequence. You can modify variables or change their calculations / validation logic. The Equation Editor helps in creating complex expressions for calculations. Various standard and specialized functions are available for this purpose.





**Automated GA drawing, Manufacturing Drawing, 3D Models, BOM, Quotations**

### Model capture

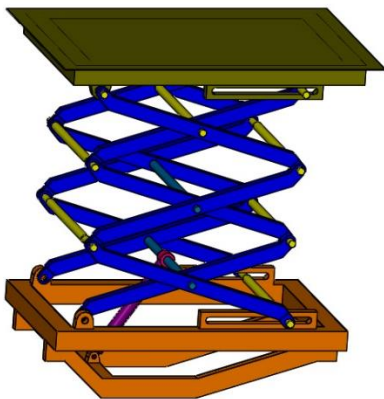
This module auto-captures the master models, Configurations, components, features and parameters. It maintains and updates the configurable geometry sets and all dimensions in CadecXpress. All shapes and sizes are controlled by CadecXpress.

### CAD Linking

The CAD parameters can be broadly classified into 2 types, namely State (suppressed / unsuppressed) and Value (Dimensions). CadecXpress links shape variables to Configurations of parts / assemblies, and size variables to values.

### Model control

This is the runtime functionality of CadecXpress to calculate derived variable values and pass them to the model parameters to create the required design instance.



### Geometry outputs

The customized designs created are saved in 3D format. Drawing output of assembly as well as individual parts also get generated based on configured formats. Bill of Materials, cost sheet and quotation output can be configured. Multiple output formats are also supported.

Modules	CadecXpress	Foundation
Variable Table	√	√
Model Capture	√	√
Configuration Linking	√	√
Size Linking	√	√
Drawing Outputs	√	√
Quotation / BOM / Cost Sheet	√	√
Shape Linking		√
Shape Specific Entities		√
User Defined Functions		√
Drawing Utilities		√
Design Logic Report		√
Custom UI		√