

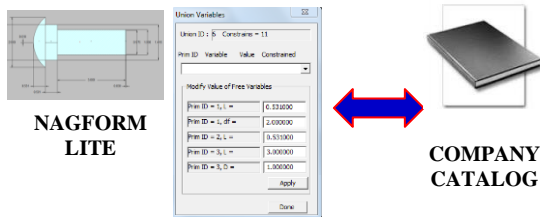
NAGFORM^{Lite} has full modeling capability of NAGFORM program with the ability to create Progression Designs manually. The program output includes part volume, surface area, forming strains, forming load and pressure calculations. The Program also creates DXF drawings of the parts and forming sequences. Templates of most IFI Standard parts, SolidWorks / STEP interface and Tooling Component Library are also available. NAGFORM^{Lite} can be installed on any Windows Based Desktop, Laptop or Windows 8 Tablet. The program features a numerical touchpad for convenient data entry.

Modules of NAGFORM^{Lite}:

- Model
 - Part Model
 - Part Volume, Surface Area, Weight
 - DXF drawing of model
- Manual Progression Design
 - User Created Sequence Design
 - Part and Process History
 - DXF drawing of Sequence
- Forming Calculator for Heading, Forward Extrusion, Backward Extrusion and Trimming / Shearing
- Interference Fit Calculator

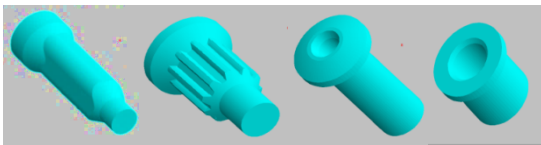
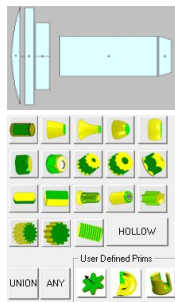
Benefits of NAGFORM^{Lite}:

- Create quote for a part in a few minutes
- Create DXF drawing of a Part & its forming sequence
- Search for similar parts in NAGFORM part files
- Link with part catalog to create any part model



MODEL

NAGFORM^{Lite} has the same modeling capabilities as NAGFORM. The Geometric model of a part is constructed by joining simple building blocks called primitives. All the primitives are defined by certain dimensions. Based on the dimensions, the program determines the volume, surface area and weight. Both simple and complex parts can be created and designed using these primitives.

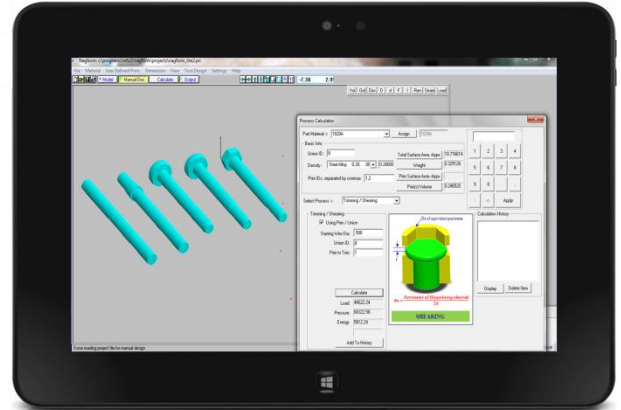


User Defined Primitives

The users can create their own primitive by importing a DXF (2D) or STL (3D) file into NAGFORM. The primitives can be scaled or elongated along the axis.

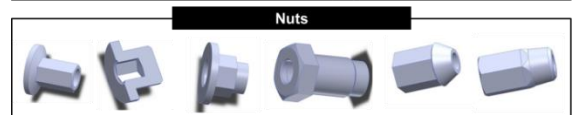
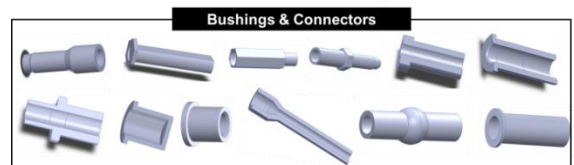
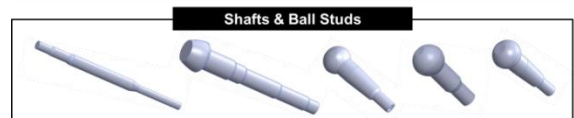
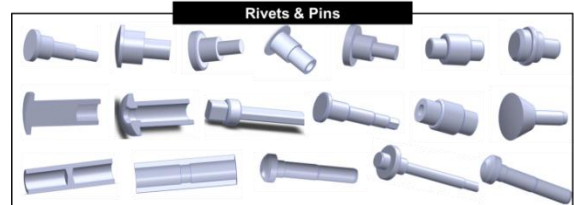
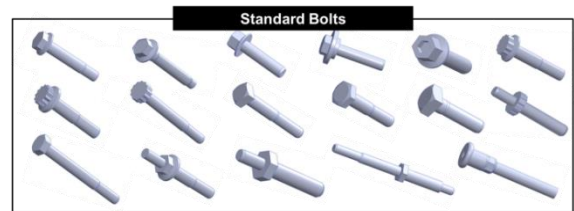


Prim Imported From 3D .STL file



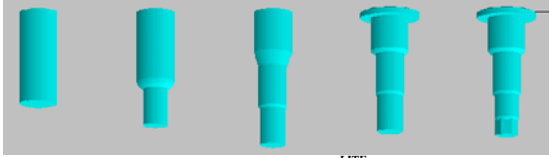
PART TEMPLATES

NAGFORM^{Lite} contains a library of standard parts in the form of templates. The user has the capability to open these parts, modify their dimensions and perform new calculations. Following are some of the part templates that are available:



MANUAL DESIGN

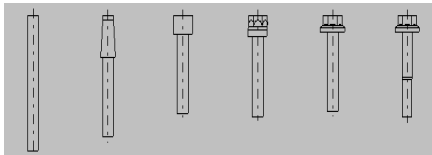
NAGFORM^{Lite} has a module for creating a forming progression manually. Using the modeling features, the user can quickly construct a forming sequence according to his/her concept.



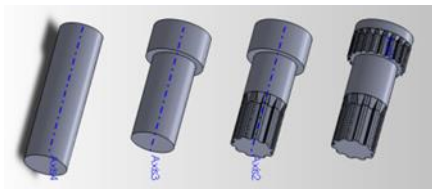
Manually created design using NAGFORM^{LITE}

CAD OUTPUT OF ALL PARTS & DESIGNS

All the parts and designs created in NAGFORM^{Lite} can be exported to a DXF file, which can be opened in any 2D CAD software (AutoCAD, Pro-E etc). Add-On software is available to export all the drawings into SolidWorks or a STEP file for 3D viewing of the part.



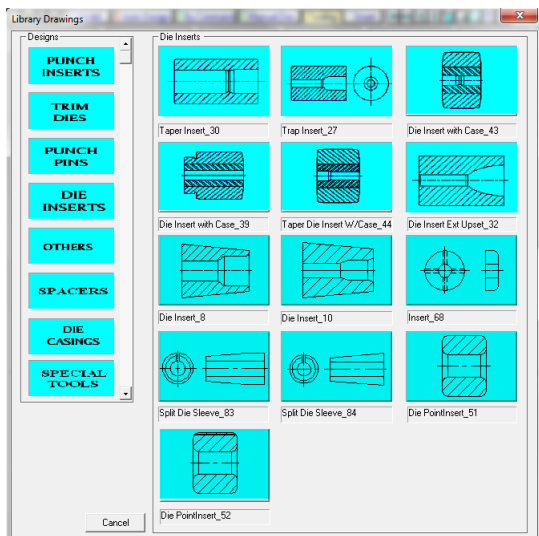
.DXF / CAD Drawing of Process Generated Using NAGFORM^{Lite}



SolidWorks Drawing of Process Generated Using NAGFORM^{Lite}

TOOL DESIGN (Optional)

Using NAGFORM^{Lite} Tool Design Module, the User can quickly create drawings of a number of standard tooling components such as Die Inserts, Punch Inserts, Pins, Trim dies / punches, Spacers – fillers, Die/ Punch casings etc.

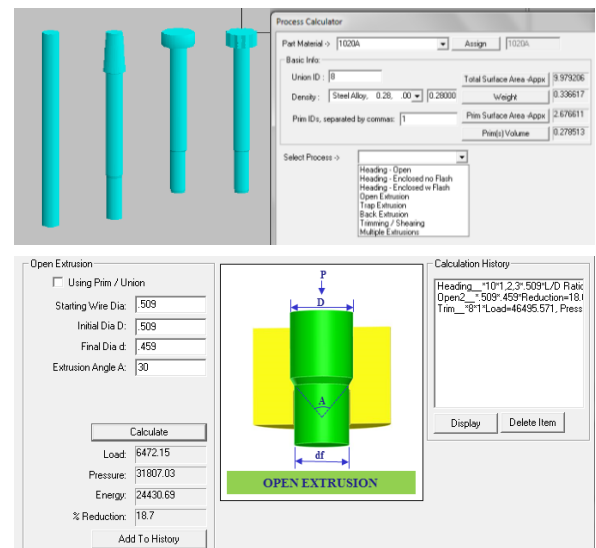


CALCULATOR

NAGFORM^{Lite} contains a calculator to help design the forming sequence. All calculations are saved into the NAGFORM part file and can be accessed at any point. Following Calculations can be performed:

- Part Weight
- Part /Section Volume
- Part /Section Surface Area
- Load, Pressure, Strain, Energy and Area change calculations for the following processes:
 - Forward Extrusion (Open / Trap)
 - Backward Extrusion
 - Heading
 - Trimming

The calculations use the material properties of the part into consideration and can be saved for future reference.



Process Calculator (Sample Open Extrusion Calculation)

Interference Fit Calculator - This calculator estimates the displacement and associated stresses in the insert and casing. It also includes:

- A visual representation of stresses (Tangential, Radial and Difference) in the Insert and the Casing.
- Forming Pressure Input on the inside of the Insert. User can study the combined effect of interference fit and the inside forming pressure on the stresses inside the insert and the casing.

