

**Dimensioning:**

The Machine Layout Drawings (MLD), found on the Haas website, lists the travel limits for each machine model. You can use these dimensions to constrain the models as desired. The model will import with the X and Y in the center of the spindle. The spindle imports outside it's travel range touching the table, this is for CAM systems. You can use a delta Z move and the MLD to properly locate the Z axis.

**File Naming Convention:**

The machine model, tool changer type, file type (STL/X\_T), revision, and model color can all be gathered from the file name.

Model\_ToolChanger\_FileType\_Date-of-Release      (Date-of-Release is the revision level)

Examples:

VF-3\_S\_STL\_2012-11.zip = VF-3 with side-mount, STL file type, and released in November of 2012

VF-3APC\_U\_XT\_2012-11.zip = VF-3APC with umbrella, X\_T file type, and released in November of 2012

VF-3\_BASE\_DG.STL = VF-3 base that is dark grey in color, STL file type

**Formats:**

HAAS provides machine models in both STL Stereo Lithography and X\_T Parasolid formats. Each set of files, including this readme file is contained in a single ZIP file. The files must be extracted to be usable.

**STL:** These STL files are for CAM simulation. These files are triangle-based geometry and can be used in virtually any CAM system. To use these files, follow the software company's instructions for machine simulations. The basic format is a tree-system of static parts and moveable axes built from the ground up. An XML file or similar will tie the STL files together within any given CAM system, these are created by the end-user or distributed by the CAM company.

**X\_T:** The X\_T files are for CAD engineering. This is a single file that can be interpreted by a CAD system. For example, SolidWorks will unzip the X\_T file and create a new assembly file, and import each component into a new part file. These files are then used for applications such as fixture design and robotic integration.

**Lathe Turrets:**

The windows are all included and visible to simplify the number of downloads required, hide or remove the unnecessary turrets.

**RGB Values for Model Colors:**

LG - Light Grey - (240-240-240)

DG - Dark Grey - (90-90-90)

BLK - Black - (0-0-0)

WHT - White - (255-255-255)

TPT - Transparent - (transparency = 90%)

RED - Red - (186-0-0)

GRN - Green - (0-186-0)

**Side-Mount Tool Changer:**

There is a red cylinder below the side mount arm, this serves to display the travel of the arm, with no tool. The optional 40 pocket tool-changer is excluded because it doesn't interfere any further than the standard.

**Windows:**

The windows are transparent so they have been removed from the model to simplify the design and file size.

**Workholding:**

No work-holding is included, as there are millions of possibilities. Individual work-holding vendors can provide appropriate models.

\*\*\*\*If you have read this document and still have questions, please email [haasmarketing@HaasCNC.com](mailto:haasmarketing@HaasCNC.com)