

# Vintech Pipe

CAD/CAM system for true shape nesting and NC programming of pipe cutting machines

## Purpose of Vintech Pipe

- ✓ a CAD/CAM system for NC programming of vertical cutting on pipe cutting machines for oxy-fuel, plasma or laser cutting.

## Benefits from implementation

- ✓ Considers the specific particularities of various constructions of welded pipes,
- ✓ considerably reduces the time needed for construction of pipe parts from pipe connections,
- ✓ considerably reduces the time required for NC programming
- ✓ reduces the metal consumption with around 10% on average compared to NC programming with non specialized systems.

## Configuration of Vintech Pipe

The standard bundle includes licenses for:

- ✓ Vintech Pipe – CAM system for true shape nesting and NC programming of pipe cutting machines,
- ✓ Library Vintech rPipe – parametric macros for pipe connections,

## Characteristics

- ✓ Quickly and easily prepares design data.
  - Creates pipe parts by entering dimensions or by choosing from the Pipe blanks dataset,
  - assigns material by a selection from the Materials dataset and input of material thickness.
  - sets machine and processing type by a selection from dataset.
- ✓ Creates pipe geometry using the library Vintech rPipe
  - the library includes parametric pipe macros for defining pipe connections, with no need for an external CAD system,
  - shows 2D general arrangement sketch, a sketch of the flat pattern and 3D image of the processed part,
  - creates structural elements on the flat pattern, such as slots and mounting markers; the flat pattern takes into account the assembly type of the pipe connection,
  - Using the Single pipe macros the system creates matrix-nested round or rectangular openings on a pipe part.
- ✓ Imports pipe part geometry from CAD files in DXF, DWG, SVG, ESSI and DSTV format.
- ✓ Nests pipes with on-line control against overlapping.
  - Vintech Pipe creates multi-pipe nesting with different length of pipes with the same diameter and wall thickness.
  - Visualizes the pipe and pipe parts with their flat patterns,
  - manages the project using job, in which pipe parts of relevant quantity are

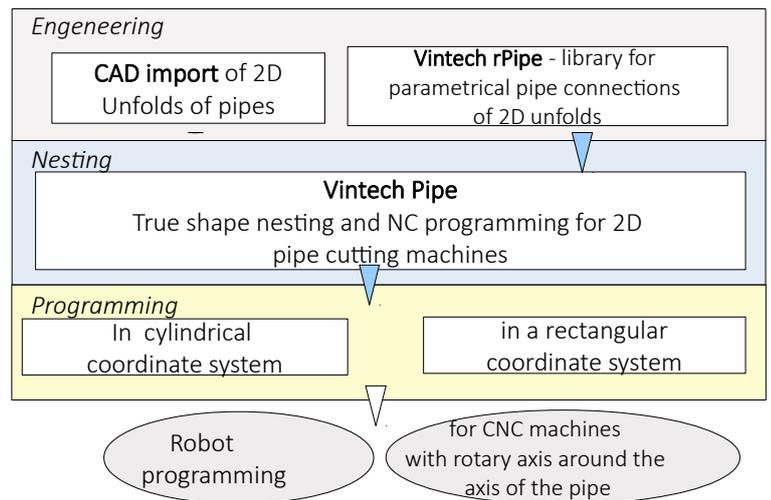


Fig. 1: Workflow

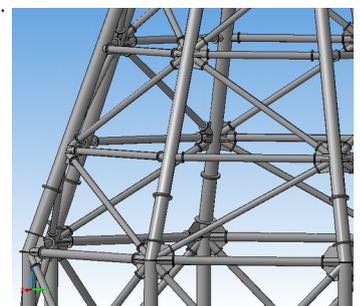
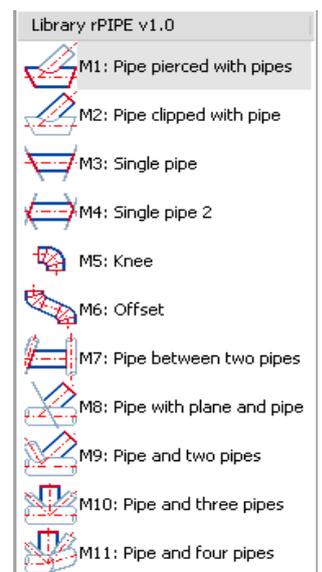


Fig. 3: 3D pipe assembly in CAD system

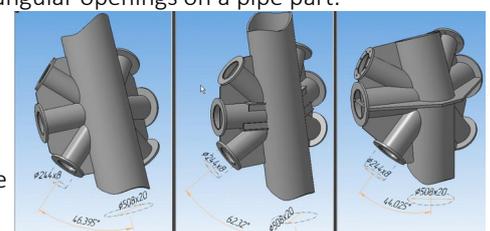


Fig. 4: Pipe parts from pipe connections in Vintech rPipe library

added,

- nests parts interactively using functions, like rotation of part around its axis, axis shift and rearrangement.
- ✓ Automates the creation of cutting technology
  - Automatically generates cutting paths, Lead-Ins/Outs of inner paths and bridges between parts, taking into account the resulting closed contours,
  - manages interactively path elements such as Lead-In – Lead-Out, gap, pseudo-bridge, bridge and transition for continuous cutting
  - when needed calculates the value of the feed (F) for each cutting move, in accordance to the assigned contour cutting velocity,
  - automatically creates route for inner paths in part, interactively creates route between separate paths,
- ✓ Generates NC programs and documents
  - Generates NC programs in ISO/EIA, ESSI and other command systems
  - allows programming of pipe cutting processing in cylindrical or rectangular coordinate system,
  - saves flat pattern geometry of a pipe part or nesting layout in DXF.
  - generates specification and a nesting layout in HTML and PDF.

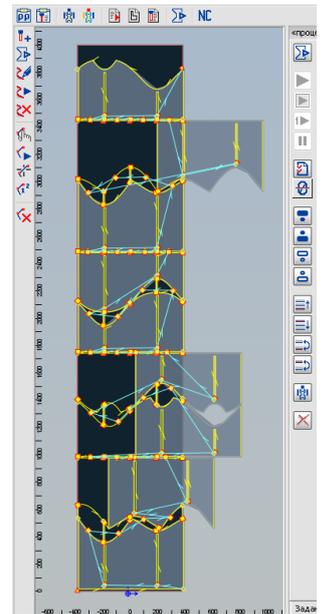


Fig 5: True shape nesting of pipe parts using Vintech Pipe

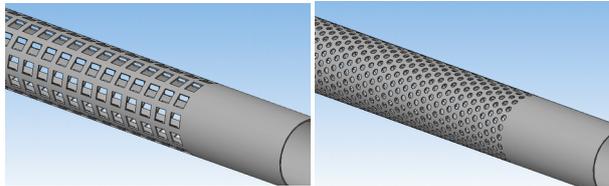


Fig 6: Pipe parts with holes in Vintech rPipe library

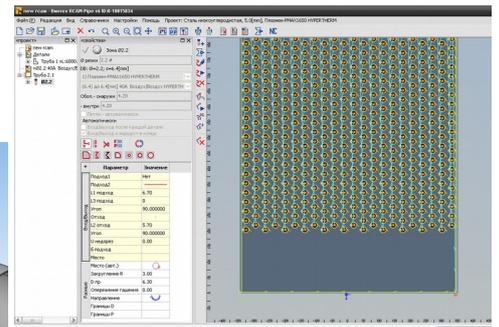


Fig 7: Technology and NC programming in Vintech Pipe

## System requirements and localizations

The Vintech Pipe CAM system works in the environment of:

- Microsoft  Windows 10/7,
-  Linux – Ubuntu v18.04 и v19.10, in native mode without emulation.

The CAM system is localized in English , Bulgarian  and Russian .

The license is activated by network hardware key WIBUBox/U+. The key is installed in a USB port of a local computer or file server in the factory's network. The license of Vintech Pipe is a network license. The network license enables the installation of the CAM system on multiple workplaces connected in a network, while the number of simultaneously working users is equal to the number of owned licenses.

### VINTECH - Your partner for CNC thermal and jet cutting of sheet material!

VINTECH is author and creator of the Vintech CAM system:

#### Vintech RCAM-Pro

CAM system for true shape nesting and NC programming,

#### Vintech Pipe

CAD/CAM system for NC programming of 2D pipe cutting machines,

#### Vintech NCV

System for verification of NC programs for thermal cutting,

#### Vintech Duct

CAD/CAM system for parametric design and NC programming of orders for unfolds of fittings of HVAC systems,

#### VINES

MES system for warehouse management and true shape nesting production

The development of Vintech CAM system is based on IT excellence and more than 39 years of experience in the integration of effective CNC/CAM solutions.

We create software for managing Your future!

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