

# 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,

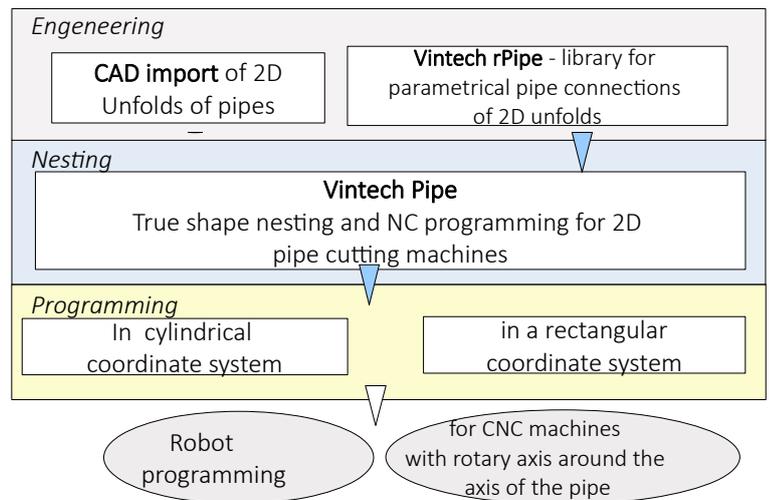


Fig. 1: Workflow

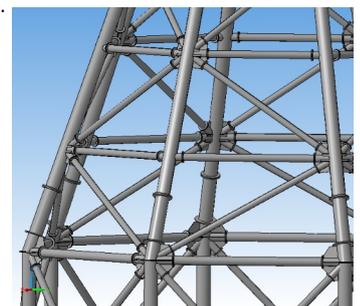
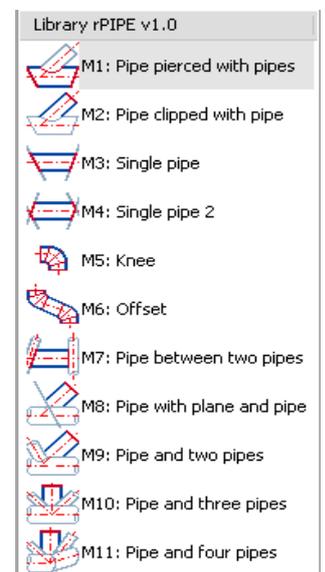


Fig. 3: 3D pipe assembly in CAD system, programmed for nesting with Vintech Pipe

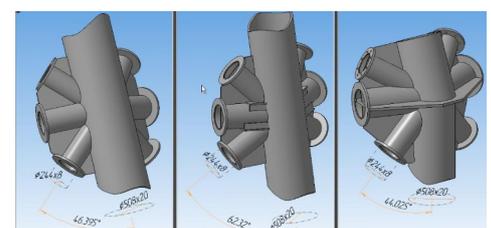


Fig. 4: Pipe parts from pipe connections in Vintech rPipe library

- manages the project using job, in which pipe parts of relevant quantity are 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.

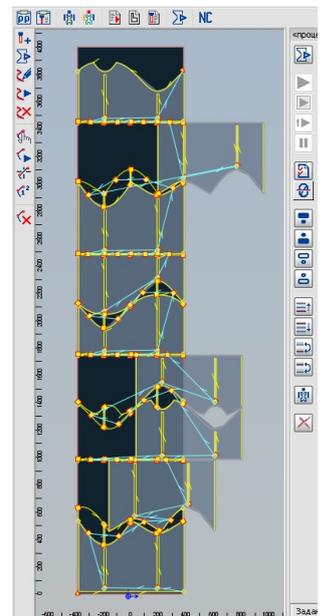


Fig 5: True shape nesting of pipe parts using Vintech Pipe

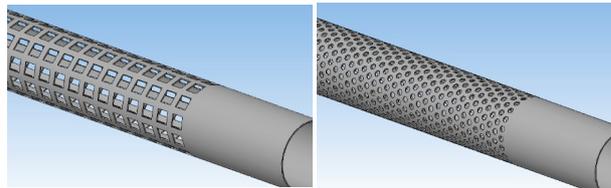


Fig 6: Pipe parts with holes in Vintech rPipe library

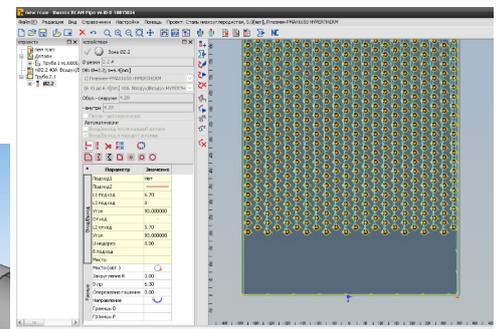


Fig 7: Technology and NC programming in Vintech Pipe

## System requirements and localizations

The Vintech Pipe CAM system works in the environment of:

- Microsoft  Windows 10,
-  Linux Ubuntu, 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 the author and the creator of the Vintech CAM system - a system based on IT excellence and more than 40 years of experience in the integration of effective CNC/CAM solutions.

### Vintech RCAM 11

CAM system for true shape nesting and NC programming,

### Vintech Pipe

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

### Vintech Duct

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

### Vintech NCV

Verifier of NC programs for thermal cutting,

### Vintech Manager

CAPP system for management of technological preparation of true shape nesting production,

### ViNES

MES system for management of preparation, warehouse and true shape nesting production.

We create software for managing Your future!

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