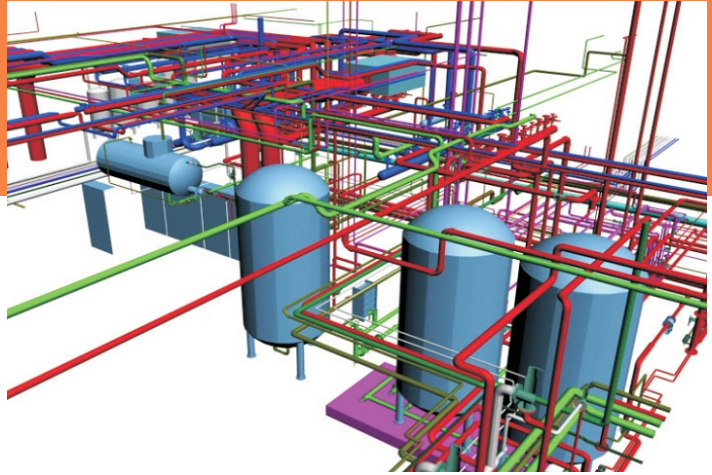


## PIPING PROFESSIONAL

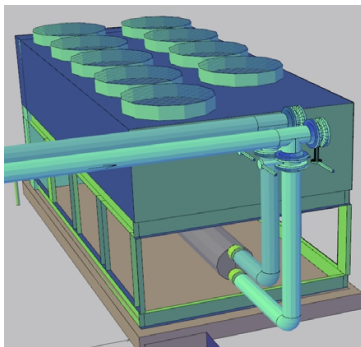
The Pipeline Construction module is used for constructing pipelines or complete systems for use in heating, sanitary systems or sprinklers in 3D. Each drawn component is displayed realistically. Comprehensive product catalogues from well-known manufacturers are incorporated. Any choice of cross-section can be generated automatically from a drawing.



The Pipeline Construction module is used for constructing pipelines, bathroom details or entire central installations. All components are drawn with realistic visualisation. Comprehensive product catalogues from standard manufacturers are available for this purpose. Cross-sections of any kind can be generated automatically from a drawing.

The C.A.T.S. libraries contain standard DN (DIAMETER) and PN (PIPE SCHEDULE) sizes and can be easily selected and incorporated into the drawing.

If required, it is possible to modify dimensions and parameters for all parts, and to save them in a user database. All components have intelligent connections and can be positioned exactly.



You can also edit all components already drawn and incorporate new data and dimensions in them. It is also possible to create new components with the CATS Designer. Any CATS object can be refashioned or a completely new geometry can be used. The (Designer's) components are saved locally or in the CATS WebCADalog. They can be added to any drawing with information such as the manufacturer and connection logic.

With the complex display method and the great product variety, it is also possible to construct manufacturer-neutral objects, such as apparatus, containers, collectors and distributors, or vessels, with great ease.

Pipelines can be freely positioned in the drawing or incorporated between existing accessories and fittings. Entire pipeline traces can be pre-drawn with a 1D line and subsequently filled out to create a 3D visualisation. When installing accessories in existing pipes, the appropriate connection adapters are suggested automatically. Warning messages are displayed if the user should attempt to connect incompatible parts, for example a PN6 (150 lb.) and PBN25 (600 lb.) flange.

By displaying the pipe shadow, the user always knows where the component is pointing to at any given moment. Central lines and pipe shadows are displayed with respect to the current view.

In this way, pipes can be drawn with a central line and shadow in the floor plan and section view; however in an isometric view, where circular bodies and their orientation can be clearly seen, these features are not displayed.

The insulations can be determined at any time and assigned to the components. If required, the insulation can be displayed as a silhouette, so that the outer edges are visible but the components themselves are not covered over.

When displaying a component, the user can choose between a three-line construction, or a full 3D view. The C.A.T.S. Hide function ensures that in the case of overlapping parts, the lower one is shown with a dotted line.

It is not only possible to draw pipes with a fixed, solid shape (with separate bends) but also pipes which are flexible. The course is indicated on a trace line and the pipe bent to the required radius.

In response to a query, the user determines the shape and angle of the branch. Additionally, he can determine the required gradient. The connection is then made in accordance with the desired specifications. All installation parts required, such as adapters, bends or connectors are constructed automatically at the correct angles.

There are several options available for labelling the pipes, depending on the purpose. The user can select the usual DN but other options include inch and diameter, with or without wall thickness, depending on the pipe type.

Parts lists can be generated from the drawn components in ASCII or Excel. The collision test, which is active throughout all modules, ensures that all crosspoints are displayed in the plans.

# PIPING PROFESSIONAL

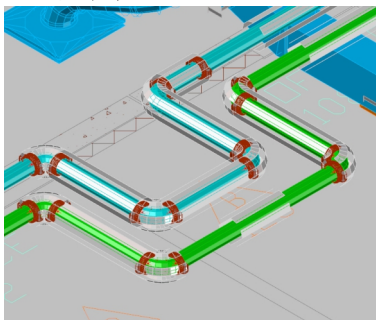
## Overview of functions

- Construction using fitting/joining or as a single line trace, as required
- Display with or without insulation, as required - insulations can be displayed in silhouette
- All components are neutral as regards manufacturer
- Accessories can be installed in existing pipes
- Automatic creation of adapter pieces
- All component measurements and labels can be changed
- Security enquiries and warning messages in the event of non-possible connections
- Item numbers issued automatically or manually
- Dimensioning in inches, DN, or diameter, with or without wall thickness
- User-defined information signs
- Automatic generation of cross-sections and views
- View-sensitive pipe shadow and central lines
- Automatic pipe installation between two building components
- Inclusion of necessary connectors, such as sockets, nipples or clamps
- Various drawing aids, such as automatic gradient, etc.
- Automatic 3D offset
- Module-universal collision testing

## Integrated product catalogues

### Accessories /components (selection)

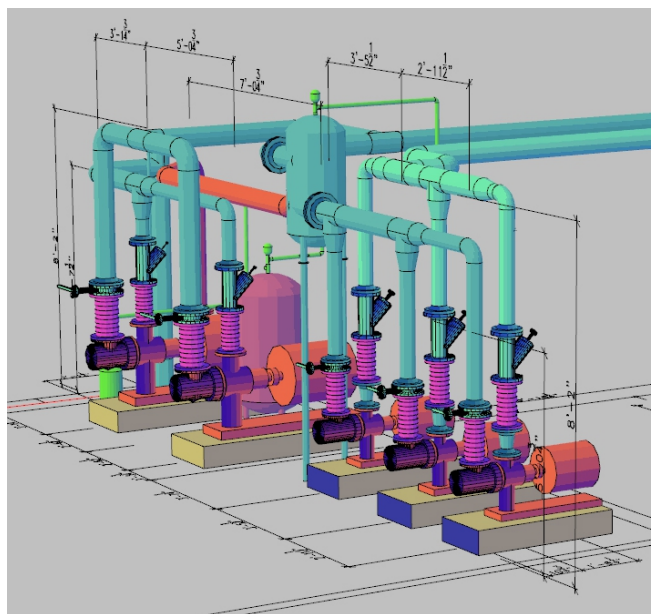
- ARI valves and accessories
- Caleffi taps and threaded accessories
- Centra regulator accessories
- Danfoss radiator accessories
- FK Krombach dirt filters
- Herz radiator valves
- Honeywell-Braukmann sanitary accessories
- Gestra stop valves, other valves
- Grundfos pumps
- Kemper threaded accessories
- Krom-Schröder gas taps
- KSB valves, dirt filters
- MNG radiator accessories, valves
- Quikcoup sprinkler accessories
- Samsom dirt filters, regulator accessories
- Sauter regulator accessories
- Seppelfricke threaded accessories
- Speck pumps
- Stenflex compensators
- TA regulator accessories
- Thies faucets
- Opal threaded accessories
- Oventrop regulator accessories
- Wilo pumps
- Wika & measuring equipment



## Pipes and fittings

### (DIN, DIN EN, ASTM, ASME, ANSI)

- Steel pipes for welding and thread cutting, DIN EN 10255
- Steel pipes, seamless and welded DIN EN 10220
- Steel pipes for high-pressure loads, seamless
- DIN EN 10216, welded DIN EN 10217
- Steel pipes, medium-weight threaded pipe DIN 2440
- Steel pipes, heavy-weight threaded pipe DIN 2441
- Steel pipes, seamless DIN 2448, welded DIN 2458
- Stainless steel pipe DIN EN ISO 1127
- Food transport pipe DIN 11850
- Copper pipe DIN EN 1057
- Precision steel pipes with pipe-fitting press system
- GW541, DIN EN 10305, DIN EN ISO 1127
- Metal composite pipe with pressed fittings (Geberit MEPLA)
- Tempered cast fittings DIN EN 10242
- Welded fittings: flanges, bends, T-pieces, etc.
- HT waste water pipes and fittings DIN EN 1451
- Loro-X steel socketed waste water pipes and fittings
- PE-HD waste water pipes and fittings DIN EN 1519
- SML socketless waste water system DIN EN 877
- Reinforced tubes, flexible pipes



## Neutral component range

- Sensors, regulators
- Thermometers, manometers
- Vessels, containers
- Block pumps
- Distributors/collectors
- Relief valves
- Boilers
- Plate heat exchangers
- Hydraulic gates
- Metal guttering
- Circular pipe feet or quadrilateral feet for components
- Gas meters

## WebCADalog and Designer

Manufacturer data with intelligent connection logic



Heating

Ventilation

Plumbing

Sprinkler

Piping

Cooling load