



Comos

Viper

Comos Viper –

**object-oriented 3D detail
engineering**

for plant engineering and construction

The integrated Comos Viper visual concept for end-to-end plant engineering

Since its inception, Comos Industry Solutions has developed products based on the principle that project work should focus on the plant as a whole and not just the individual specialist areas. To achieve this in pipe-part design and pipe specification construction, we have developed an integrated modular concept whose modules can either be implemented as standalone software, or together as an end-to-end software suite.

Highly efficient pipe design – fast, simple and cost-effective

As a result of considerable cost pressures and the harsh global competition of recent years, demand for an efficient, cost-effective pipe design tool has risen steeply. With the introduction of its integrated **Comos Viper** concept, **Comos Industry Solutions** has provided the ultimate solution. During development of this object-oriented software,

“ The three keys to success: speed, simplicity and efficiency ”

Comos Industry Solutions placed a strong emphasis on rapid implementation, the ability to use inheritance mechanisms and integration with non-**Comos** systems. **Comos Viper** offers full

integration between P&ID, Isometrics and 3D modelling. Project time can be reduced considerably by optimising the flow of information between the individual specialist areas. Major improvements to the standards-based pipe specification creation and revision-managed document management tools, have also contributed towards increased efficiency and streamlining.

See page 8 for a glossary of the main technical terms used in this brochure.



Four modules with one goal – future-proof pipe management

Comos Viper is comprised of four individual modules:

- **Comos PipeSpec Designer**
- **Comos PipeSpec Manager**
- **Comos Isometrics**
- **Comos Plant Modeler**
- **Comos PDMS* Integration**

These modules complement each other perfectly and together cater for the crucial aspects of pipe design. The basic principle behind the software package, and synonymous with the name **Comos Industry Solutions**, is that of end-to-end object-orientation.

At the heart of **Comos Viper** lies **Comos PipeSpec Designer** with its integrated pipe-parts catalogue management and pipe specification

management based on around 450 international geometric standards.

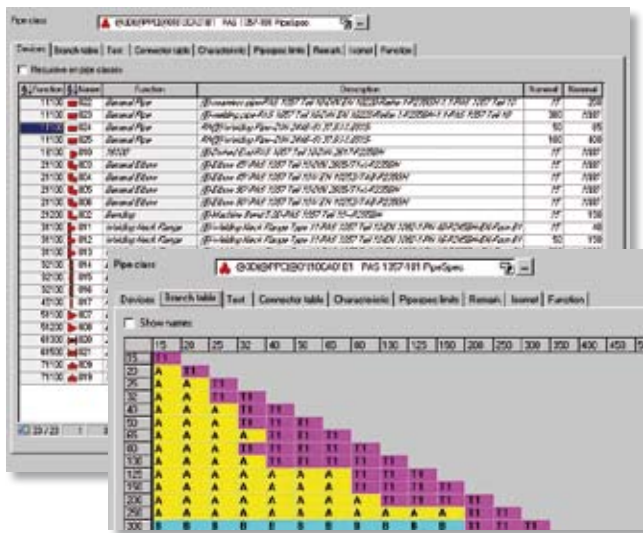
Comos PipeSpec Designer is used for constructing and maintaining pipe specifications for all modules;

Comos Isometrics creates intelligent isometrics quickly and easily; **Comos Plant Modeler** is

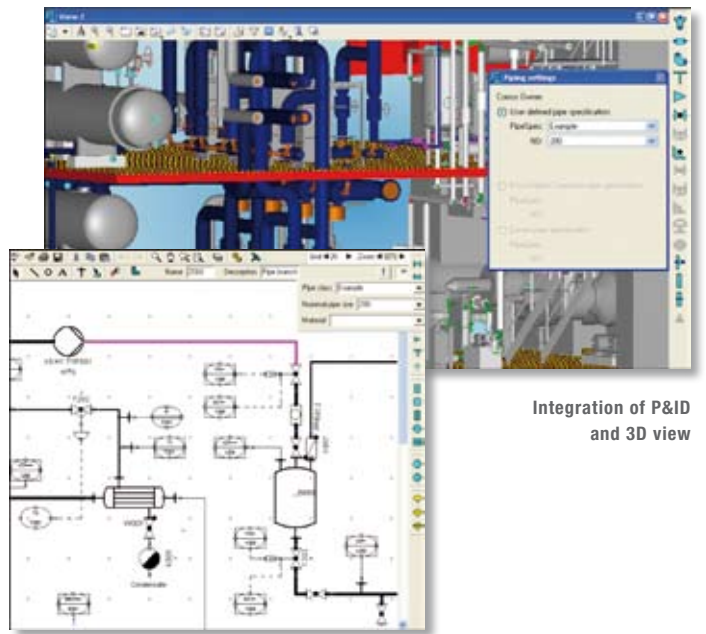
a 3D modelling tool based on MicroStation**, and also serves as the integration platform for 3D detail engineering; with **Comos PDMS* Integration** allowing PDMS users to access design data originating from **Comos**.

“ Modular construction, perfect integration, optimum results. ”

Seamless data exchange in detail engineering



Comos PipeSpec Designer:
Central pipe-parts catalogue management
and pipe specification management



Integration of P&ID
and 3D view

Integrated pipe management

The object-oriented pipe-parts catalogue management and pipe specification management of **Comos Viper** enable pipe specifications to be created on the basis of stored industry standards using drag&drop, considerably reducing time, costs and the potential for error.

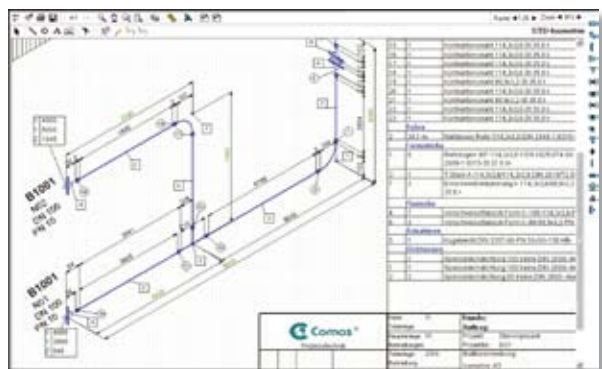
Integration of P&ID, isometrics and 3D view with no transfer problems

All the tools are accessed via a single user interface, giving data in P&ID, isometrics and the 3D view for equipment and piping the same structure. As a result, process and

construction data are fully integrated in the workflow. Status management is thus supported between P&ID design and 3D design.

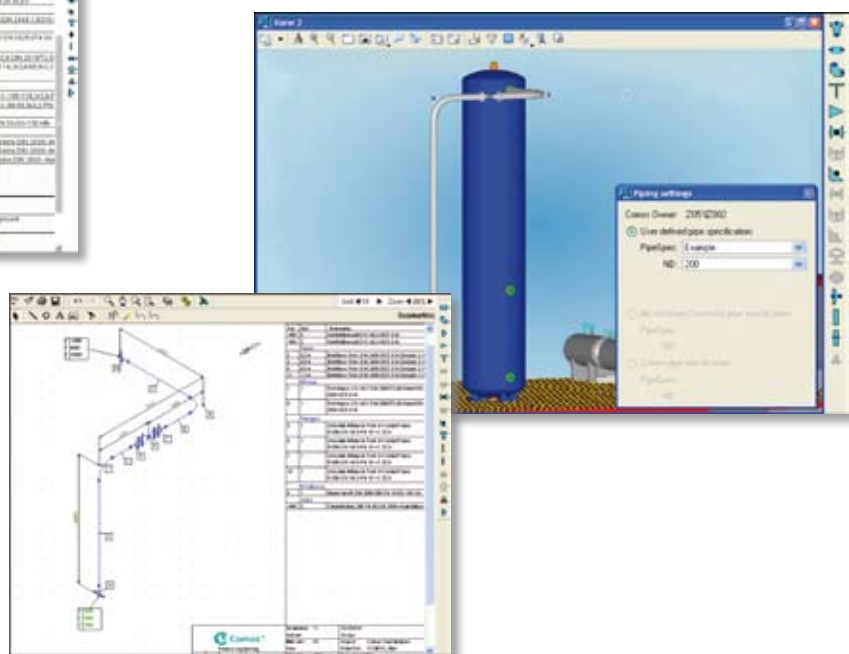
Bi-directional isometric and 3D engineering

Thanks to bi-directional integration, there is no need to input duplicate information into the different systems – this reduces the potential for error. Intelligent isometrics can be transferred directly from the 3D model. Furthermore, when creating or modifying these isometrics, the impact on the 3D model can be controlled.



Interactive isometrics with automatic BOM

Bi-directional isometric engineering and 3D engineering

**Central document management**

Central document management provides reliable and fully transparent revision management, even in the case of multiple revisions. The integrated redlining function allows users to mark-up amendments or new information without modifying the original file. As a result, any authorised user can have fast access to consistent data.

Comprehensive MTO and BOM management

During every stage of the project, the system automatically generates corresponding MTOs and BOMs to allow material to be calculated and ordered.





A solution concept spanning various industries and markets

A wide range of users and industries are already experiencing the considerable benefits of this innovative software package. Its cross-industry design and secure, consistent data exchange between the various engineering disciplines means that Comos Viper is attractive to plant operators, modellers, and specialist engineering companies alike.

For the process industry in particular, including refineries, power stations, oil and gas installations, along with the chemical, pharmaceutical and food industries, this software is

the ideal solution for future-proof plant design. At the same time, increased competitiveness results from realising and optimising potential.

Comos Viper features & benefits

“ Redundancy-free data management thanks to precise object-orientation ”

“ Integrated pipe management in the form of a sequence covering pipe specification creation and ordering processes through to pipe scrapping ”

“ Pipe specification creation based on approximately 450 stored international standards ”

“ Integration of P&ID, isometrics and the 3D view with no transfer problems ”

“ Project time can be substantially reduced by optimising the flow of data ”

Looking to the future

The onward march of globalisation is always bringing new challenges. Here at **Comos Industry Solutions**, we have a team of highly qualified professionals who constantly face these challenges in order to offer you both future-proof and forward-looking solutions.

Want to find out more? Get in touch and allow us to tailor a solution to your requirements.

We look forward to hearing from you.



Glossary

Object-orientation

Object-orientation is based on the holistic definition of a real-world entity and its accurate graphical representation. The graphical and alphanumeric parameters within the database form the unit known as an object.

AVEVA PDMS*

3D design software developed by the company AVEVA with users around the world (PDMS stands for Plant Design Management System). **Comos Industry Solutions' Comos PDMS* Integration** module enables PDMS users to use **Comos** generated design data in PDMS 3D detail engineering to optimum effect.

* AVEVA PDMS is a registered trademark of AVEVA

** MicroStation is a registered trademark of Bentley Systems, Inc.

Inheritance

Inheritance is the automatic transfer of defined attributes and elements to another application. Because changes only have to be made once, integrated inheritance mechanisms play a considerable role in minimising redundancy and ensuring data consistency.

Redlining

Redlining is the term used for marking-up electronic documents and drawings with suggested amendments or comments, which are intended for individuals involved in the project. Redlining does not modify the original file.

As a world-leading provider of comprehensive Life Cycle Management systems, **Comos Industry Solutions** offers professional software solutions and services. The integrated **Comos** concept is designed to cater for both customer-specific requirements and established industrial processes. The individual modules can be used as either stand-alone software or as a complete software suite. **Comos** is the complete solution for end-to-end basic and detail engineering processes, catering for all industrial plant life-cycle phases. The **Comos** philosophy, products and services have long been trusted by plant designers, operators and contractors.

More information, as well as contact data for our company locations around the world, can be obtained here:

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