DDS-CAD HVAC-Plumbing Feature List

Common CAD Features

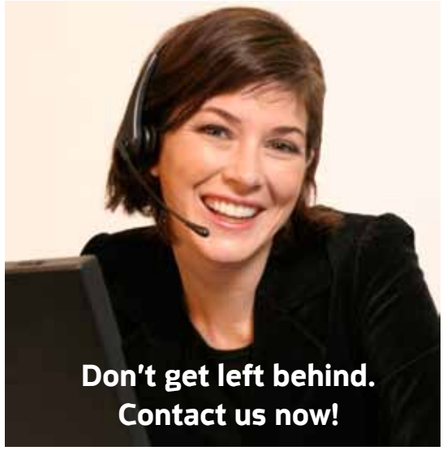
Proprietary CAD System, does not require separate CAD program.
Object database with technical data, parametric symbols and objects
DXF/DWG/IFC import and export
Network ready with multi user access at project level
Dual screen capability
Automatic project data in title fields and legends
Revision management
Multi disciplinary collision detection
2D/3D construction/drawing
Associative dimensioning and hatch definition
Intelligent context sensitive menu, context sensitive tool boxes
Quick edit via keyboards
Unlimited number of layers with multi disciplinary layer administration
Automatic and manual layer assignment
3D Visualisation
Schedules
Structured Bills of Quantity (BOQ) by building, storey, room
Transfer BOQ to text editor, MS-Word or MS-Excel
Interface to/integration with costing and estimating
Layout and planning in 2D or 3D
Configurable, automatic room labels
Automatic associative building dimensioning
Intelligent and automatic ceiling grid construction
Builderswork planning with automatic marking
Production of escape route plans
Production of fire-brigade plans

HVAC/Plumbing Design

Complete 2D and 3D design of pipe systems
Comprehensive catalogue of standard 2D symbols and 3D objects
Boilers, pumps, calorifiers, control valves, expansion vessels
UK specific manufacturer content
Intelligent virtual 3D model with multi-storey connection logic
Automatic 2D/3D pipe distributor and manifold design
U-value and heat loss calculation
Automatic selection and positioning of radiators
Pipe sizing, pressure loss calculation and valve settings
Schematic system diagram generation from the model
Underfloor heating system design to BS EN 1264
Positioning of underfloor heating manifolds
Setting out of underfloor heating zones (High/Low temperature)
Above/below ground drainage and domestic services design
Placement of sanitary devices and fittings
Complete 2D and 3D design of duct systems
Fans, air handling units, air terminals, chilled beam units
Detailed design of plant room layouts
Duct sizing and pressure loss calculation
Automatic terminal and damper setting calculation
Automatic connection of intelligent objects
Integrated design for builderswork openings and chases
Integration with advanced simulation tools
Integration with DDS-CAD Electrical for full MEP design

buildingSMART/IFC Certification
DDS-CAD products have been certified by the buildingSMART Implementation Support Group as having an approved import and export facility for IFC versions 2x, 2x2 and 2x3

System requirements
DDS-CAD 7 will run comfortably on a standard Office PC running Windows XP®, Windows Vista® or Windows 7®



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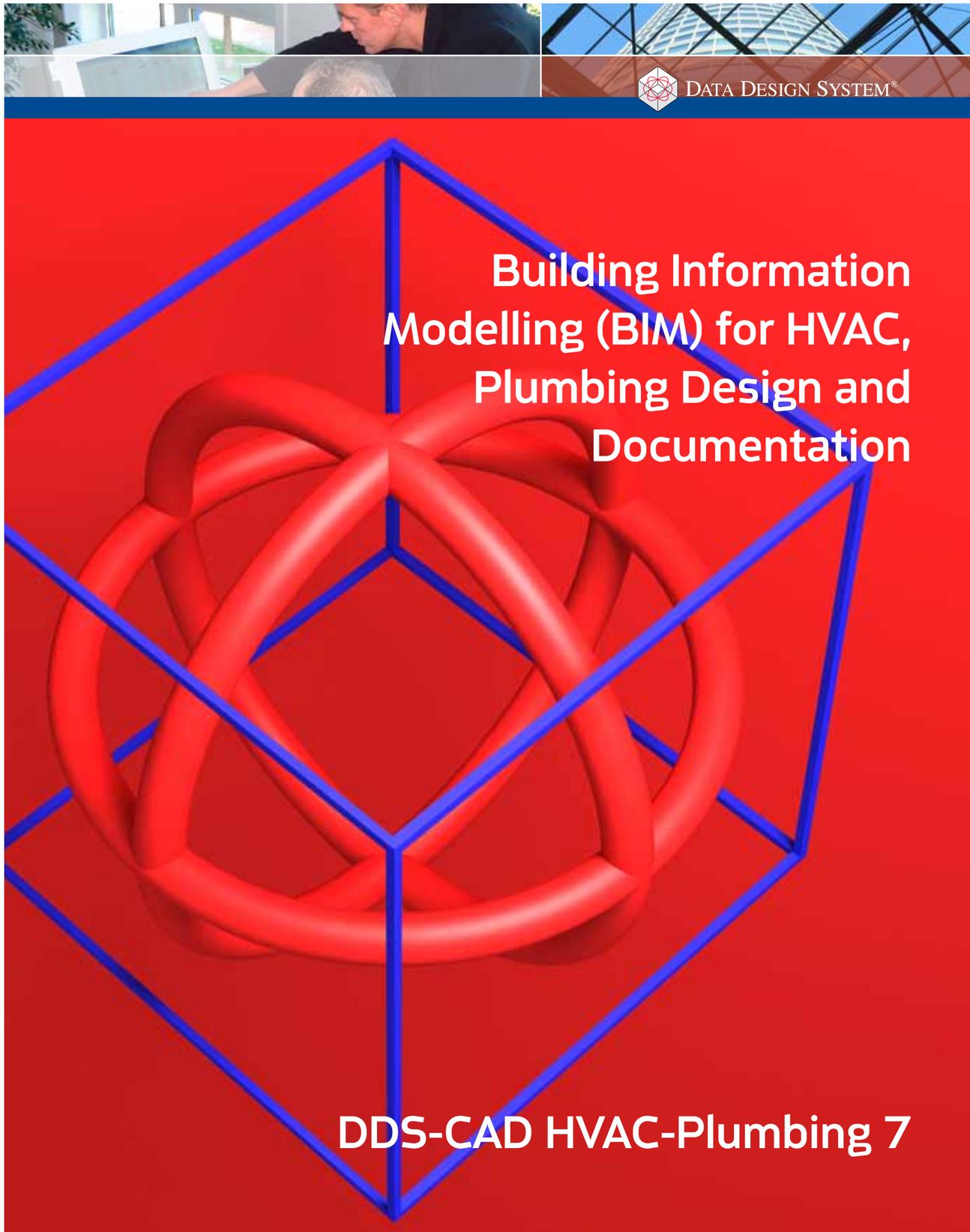


Building Information Modelling (BIM) for HVAC, Plumbing Design and Documentation

DDS-CAD HVAC-Plumbing 7

DDS-CAD 7

*"The extraction of quantities by a click of the mouse from the installation planning saves a lot of time. There is no other CAD system on the market that offers the same level of capability." - **Wolfgang Fiegl, Sulzer and Partner, Germany***

About Data Design System

For 25 years DATA DESIGN SYSTEM has developed complete CAD solutions for the construction industry. With more than 13,000 users world-wide, Data Design System is one of Europe's leading construction software houses. Data Design System ASA has its headquarters in Stavanger, Norway and has a strong financial base resulting from the company's commitment to innovation and value for money. High standards of development and customer care are maintained by substantial investments in R&D and product support each year.

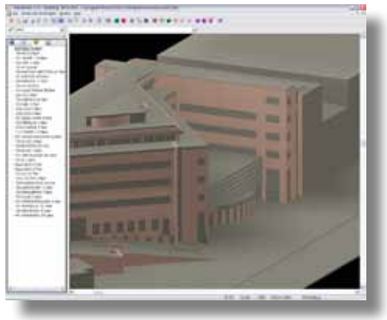
The high level technical quality of the products and their various applications are the results of many years of practical construction experience and intensive international research and development work. Based on a proprietary CAD Core, Data Design System offers modular, object-oriented solutions, which are adaptable to the needs of the users.

Data Design System ASA has a subsidiary in Germany, and is listed under the symbol DDSY on the Norwegian OTC stock market.

DDS-CAD HVAC-Plumbing Features

Import or Create 3D Building Models

DDS-CAD can import and work with intelligent IFC models which can be created by all the leading architectural modelling packages such as Autodesk Architectural Desktop®, Autodesk Revit®, Bentley Architecture®, Graphisoft ArchiCAD® and Nemetschek Allplan®. You can also create 3D building models directly in the software with reference to 2D floor plans, or even scanned images.

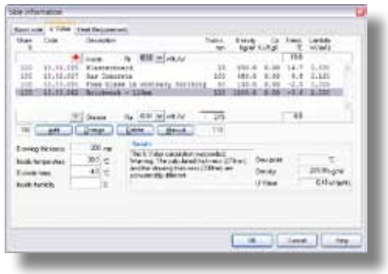


Work with Reference 2D Floor Plans

If you do not have access to a 3D model of the building, you can still develop the HVAC systems in 3D with reference to 2D floor plans provided by the architect. DDS-CAD supports both the DWG and DXF file formats. DDS are members of the OpenDWG Alliance,

U-value and Heat Loss Calculation

To provide the basis for the heating system design, DDS-CAD HVAC-Plumbing includes built in calculations for building element U-Values and building heat losses.



Integration with Advanced Simulation Tools

DDS-CAD can be used in conjunction with advanced building simulation tools to develop the required cooling and ventilation requirements for the building. If you have imported or created a 3D model, then you will be able to perform advanced simulation on the model using Riuska™, EnergyPlus or any other tool which supports IFC model data.

Integrated MEP Design

DDS-CAD can work together with our Electrical product to give you full MEP design capability. The products can be used simultaneously on the same project by multiple users via a network.

Efficient Design of Duct and Pipe Networks

With DDS-CAD you can develop your duct systems using intelligent objects rather than simple 2D line tools. Equipment, ducts and fittings have pre-defined connection points which makes the creation of systems fast and efficient. "Smart Start" technology highlights the available connection points making it easy to build your networks accurately and with confidence.

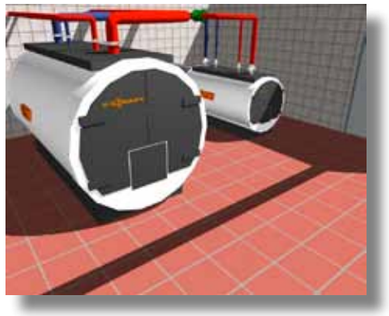
Comprehensive Catalogue of Standard Symbols and Objects

The product comes complete with a library of over 20,000 standard symbols and objects which you can use to create your models. The symbols are based on International drawing conventions, while the 3D symbols are representative of typical equipment available both in Europe and worldwide.

These generic objects can be quickly and easily replaced with manufacturer specific objects to finalise your designs.

Manufacturer Specific Content

A selection of manufacturer content is provided with DDS-CAD, from companies such as Stelrad, Danfoss, Fläkt Woods, Actionaire and others. DDS can also provide and support specific manufacturer databases on request, please contact us for further details.



Intelligent Virtual 3D model with Multi-Storey Connection Logic

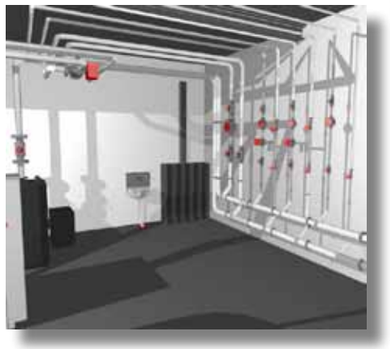
When you develop duct systems which span multiple floors of the building, DDS-CAD provides an intelligent connection between the network at each level.

Duct sizing and Pressure Loss Calculation

DDS-CAD allows you to develop the duct networks manually, or to calculate the required duct sizes using the built-in calculation tool. The tool can either calculate the pressure drop for the system as defined, or select appropriate sizes based on your desired settings. It can also balance the duct network by altering the settings of the volume control dampers and terminals in the system.

Automatic Connection of Intelligent Objects

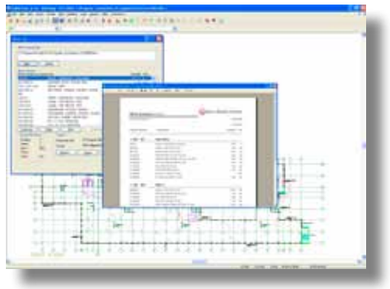
Connecting the components of your duct network together is made as simple as possible in DDS-CAD. Intelligent objects have pre-defined connection points which allow you to build up your networks quickly and efficiently. Equipment such as air handling units have connection points for electrical, piping and drainage, as well as ductwork.



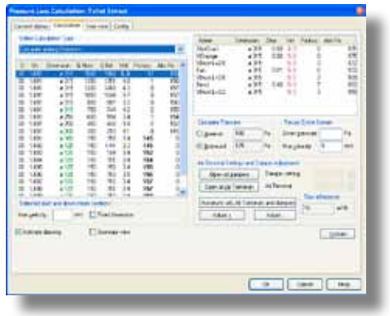
Underfloor Heating Design

DDS-CAD includes facilities for the design of underfloor heating systems. You can plan your system using our built-in calculation module which will select the correct pipe spacing arrangement based on the requirements of EN 1264.

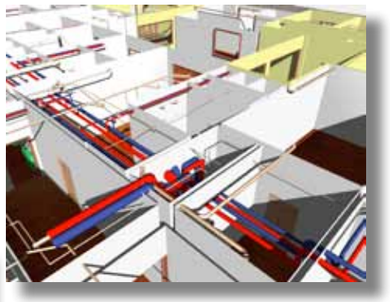
Bills of Quantity



Pressure Loss Calculations



Visualisation and Animation



Schematics

Drawing Production