

# **CADprofi 2023.12**



#### ✓ CADprofi – object placement (command extension)

In the latest version of the program, the *Arrange* command has been extended with the possibility of arranging objects in the dynamic area.

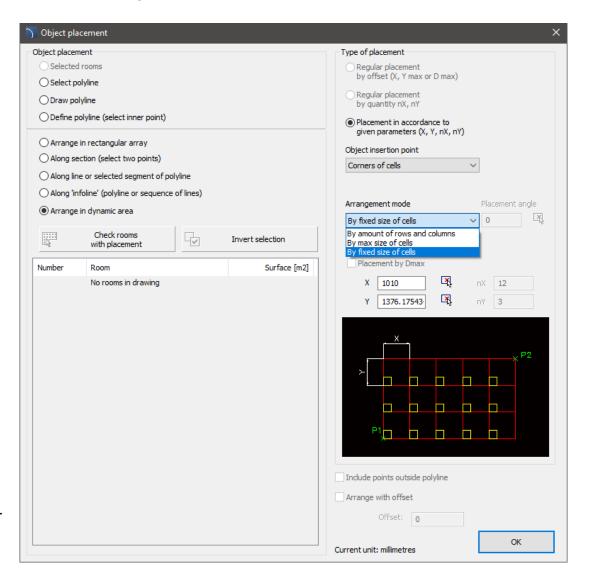
Command allows user to quickly insert multiple copies of a given object at regular intervals.

Arrangement can be easily customized with the available layout options and modes. If needed user can also save a dynamic area block (rectangular grid).



**Watch movie** 

The *Arrange* command significantly speeds up e.g. placement of fire detectors, sprinklers, lighting, as well as objects such as photovoltaic panels and other objects.





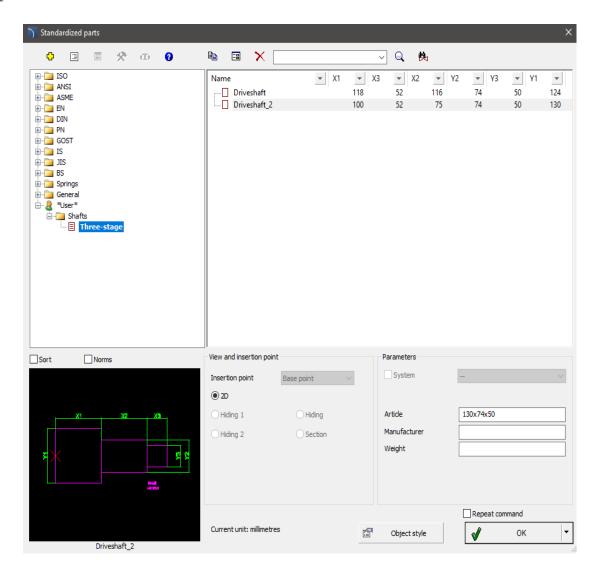
#### ✓ CADprofi – user parametrical objects

The possibility to add user parametric objects has been introduced to CADprofi.

A parametrical object is an object that can contain any number of parametric dimensions. By changing the parameters, you can insert objects of various sizes into the program without having to draw each of the variants. Parameters can be freely edited by the user and saved in program's libraries.



**Watch movie** 

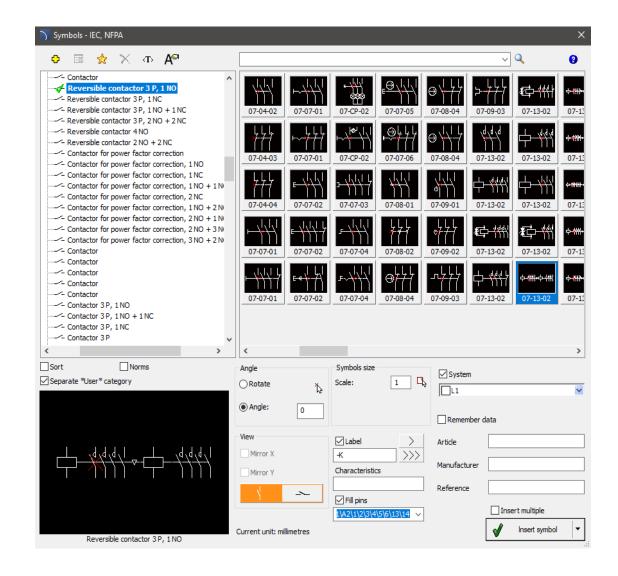




#### ✓ CADprofi Electrical – extension of IEC, NFPA library symbols

The Symbols - IEC, NFPA hibrary available in CADprofi Electrical has been extended with new symbols, including:

- reversible contactor 3- and 4-pole,
- moulded case circut breaker with motor operator,
- · mechanical block,
- twilight switches (additional variants),
- phase control relays (additional variants),
- multifunctional relays (additional variants),
- single-phase and three-phase electric meters (additional variants).





#### ✓ CADprofi HVAC & Piping – access doors for ventilation ducts

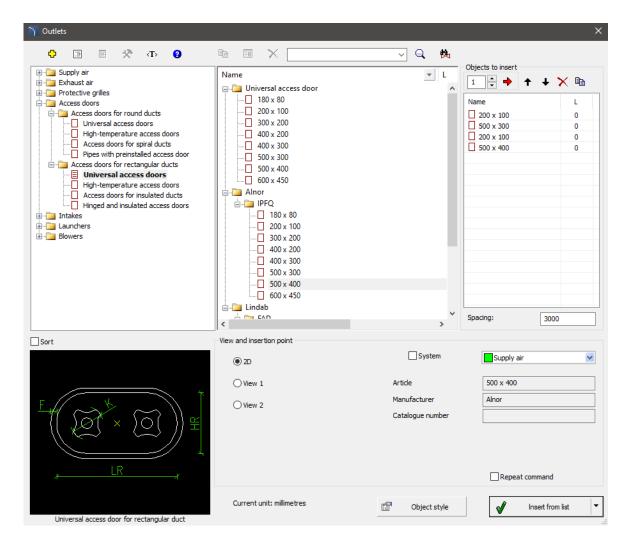
In the Outlets command, a new category – access doors has been added, which includes:

- access doors for round ducts,
- · access doors for rectangular ducts,

Newly created categories include:

- universal and high-temperature access doors,
- acces doors for spiro pipe,
- · pipes with preinstalled access doors,
- hinged and insulated access doors.

Products that were added are based on Alnor and Lindab catalogs.

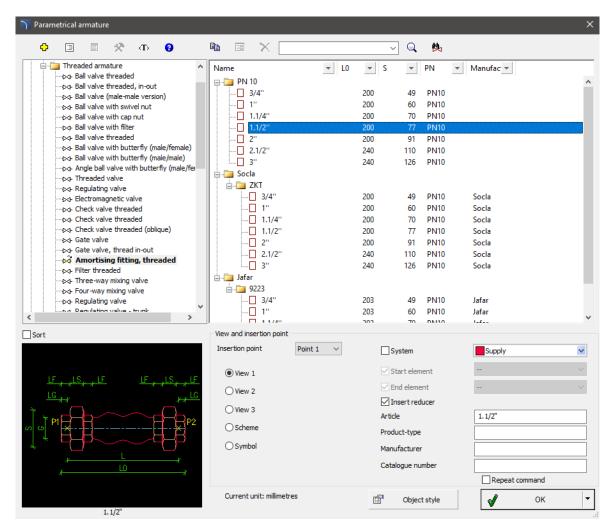




#### ✓ CADprofi HVAC& Piping – extension of threaded armature library

The Parametrical armature command has been extended with the following types of threaded fittings:

- amortising fitting, threaded based on two manufacturers - Socla and Jafar.
- antipolution valve (EA type male/female), based on Socia company specifications.



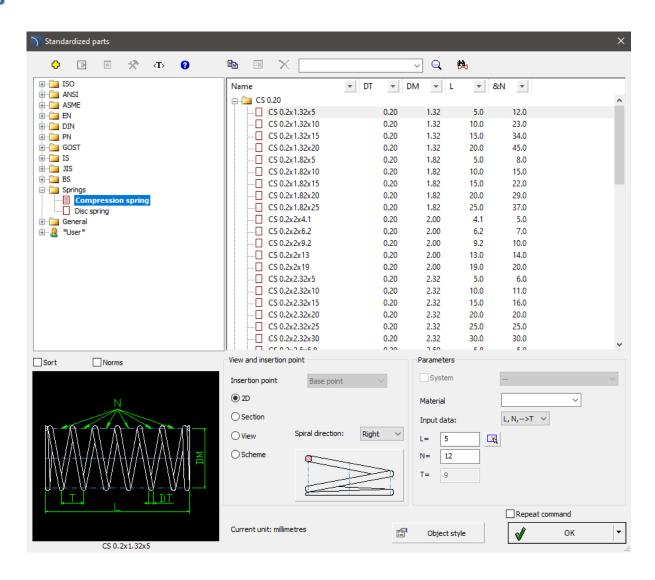


## ✓ CADprofi Mechanical – springs

The Standardized parts command has been extended with the Springs category (compression, disc).



**Watch movie** 

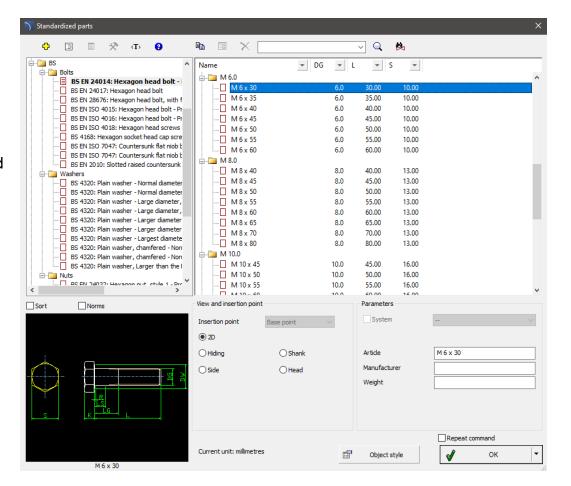




#### ✓ CADprofi Mechanical – British Standards (BS)

Standardized parts prepared according to British Standards (BS) have been added to CADprofi Mechanical, including:

- **BS EN 24014**: Hexagon head bolt (Product grade A and B),
- BS EN 24017: Hexagon head bolt,
- BS EN 28676: Hexagon head bolt, with fine pitch thread.
- **BS EN ISO 4015**: Hexagon head bolt, with reduced shank,
- **BS EN ISO 4016**: Hexagon head bolt (Grade C),
- BS EN ISO 4018: Hexagon head screw,
- BS EN 24032: Hexagon nuts, style 1, (Grade A and B),
- BS EN 24034: Hexagon nuts. (Grade C),
- BS EN 24033: Hexagon nuts (Grade A and B),
- **BS EN 24036**: Hexagon thin nuts unchamfered, style 0, (Grade B),
- **BS EN 28674**: Hexagon high nuts, with metric fine pitch thread,: (Grade A and B),
- **BS EN 28673**: Hexagon nuts, with metric fine pitch thread, style 1 (Grade A and B),
- **BS EN 24035**: Low hexagonal nut with a chamfer (Grade A and B),
- BS EN 28675: Hexagon thin nuts, chamfered. (Grade A and B),
- BS 4320 Plain washer.





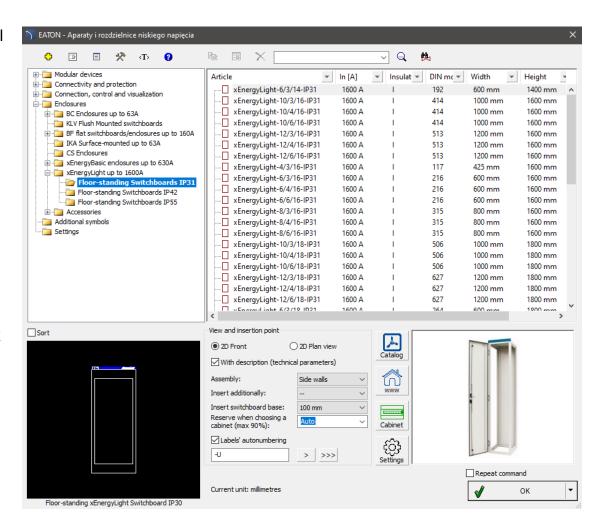
#### ✓ CADprofi – extension of Eaton product libraries

EATON library has been extended with additional enclosures:

- xEnergyBasic up to 630A (floor-standing switchboards IP30 and IP55),
- xEnergyLight do 1600A (floor-standing switchboards IP31, IP42 and IP55),
- accessories to xEnergyBasic and xEnergyLight.



In the new version of the program, the dialog box of floor-standing switchgears xEnergyBasic and xEnergyLight has been extended with additional selection lists specifying the assembly method, plinth type or a variant with a door view.



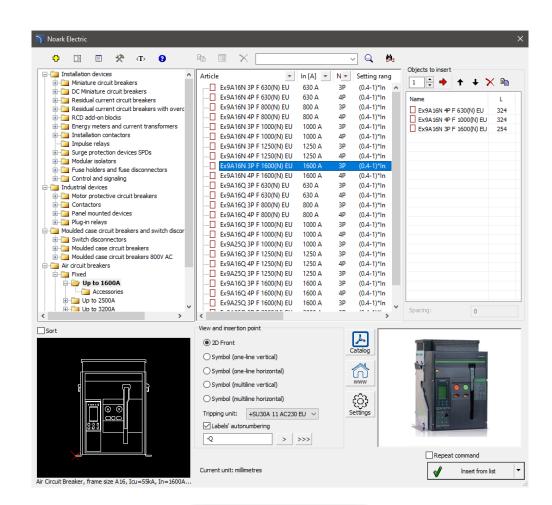


#### ✓ CADprofi – extension of Noark Electric product libraries

Noark Electric library has been updated and extended with:

- slim type overcurrent circuit breakers,
- overcurrent circuit breakers for PV applications,
- single-module electronic residual current devices with overcurrent protection,
- modular bells,
- control clocks,
- dusk and stair switches,
- · plug-in, timer monitoring relays,
- control cassettes,
- power supplies,
- installation contactors with the possibility of manual control,
- miniature reversing contactors,
- industrial reversing contactors,
- · energy meters,
- compact air circuit breakers,
- compact disconnectors,
- accessories for installation devices, industrial apparatus and power switches.

In addition, the product library dialog windows were completely rebuilt, a new classification tree layout was created, real views of devices were added, and personalized technical and identification data of the products were adapted to device series.







# ✓ Update of product libraries



























## ✓ CADprofi – extension of Noark Electric product libraries

Program CADprofi 2023.12 is adapted to work with latest versions of programs CAD, w tym: ARES Mechanical 2024, INTERsoft -INTELLICAD 2023, ZWCAD2024, CADdirect 2024 and AviCAD 2024.

Program CADprofi 2023 works with many programs CAD, eg.: AutoCAD (from version 2004), BricsCAD, GstarCAD, IntelliCAD, progeCAD, ZWCAD, ARES Commander 2024 and other.



















**CADprofi 2023.09** 



#### ✓ CADprofi – dynamic connections between objects

Dynamic connections between objects have been introduced in CADprofi, which allows for mutual interaction, and changing one object may affect others. This allows user to automatically and instantly update the related object after any edit.

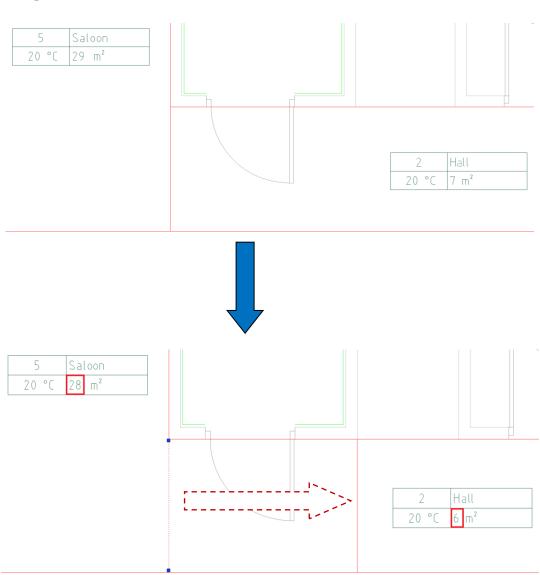
#### Examples:

- changing the area of the room outline will automatically update the room descriptions associated with it,
- changing the reference point will automatically update the level marks associated with it.

Dynamic object connections are available in the latest versions of AutoCAD, BricsCAD, GstarCAD, and ZWCAD.



**Watch movie** 

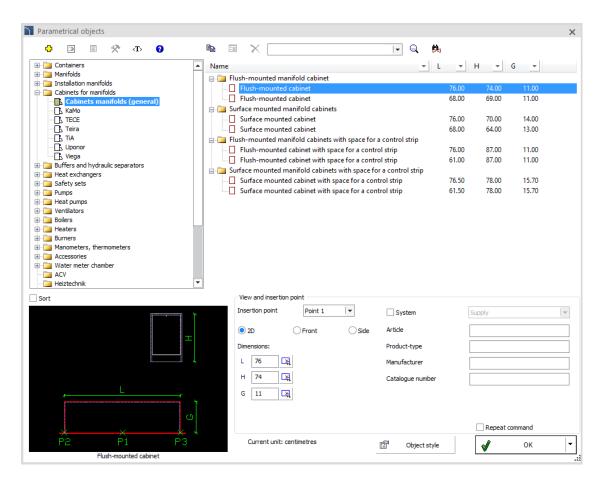


#### ✓ CADprofi HVAC & Piping – cabinets for installation manifolds

Objects command has been extended with surface and flush cabinets for installation manifolds (e.g. for central heating, radiator, floor, tap water, etc.). Cabinets from the following manufacturers are available:

- KaMo,
- TECE,
- Teira,
- TiA,
- Uponor,
- Viega.

The command also includes general cabinets for manifolds, which allow the designer to quickly and easily modify dimensions and create his own type of series of products from selected manufacturers.

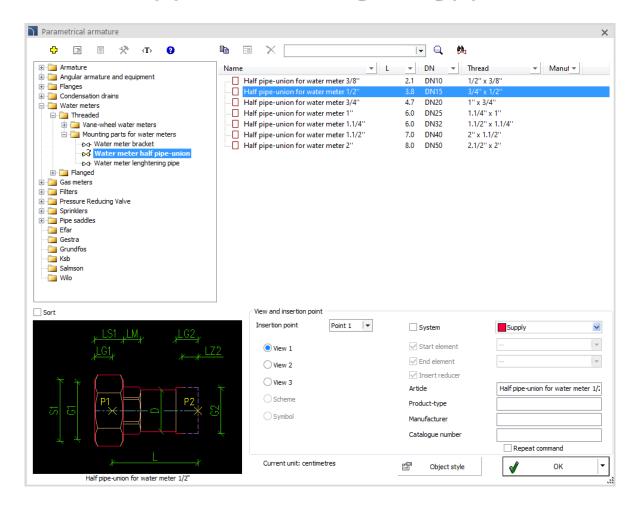




#### ✓ CADprofi HVAC & Piping – water meters half pipe-unions and lengthening pipes

Parametrical armature command has been extended with water meters half pipe-unions and water meters lengthening pipes.

Additionally the *Parametrical armature* command has been extended with new types of threaded armature, including *angle and straight butterfly valves*.

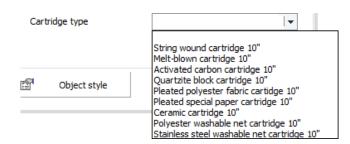


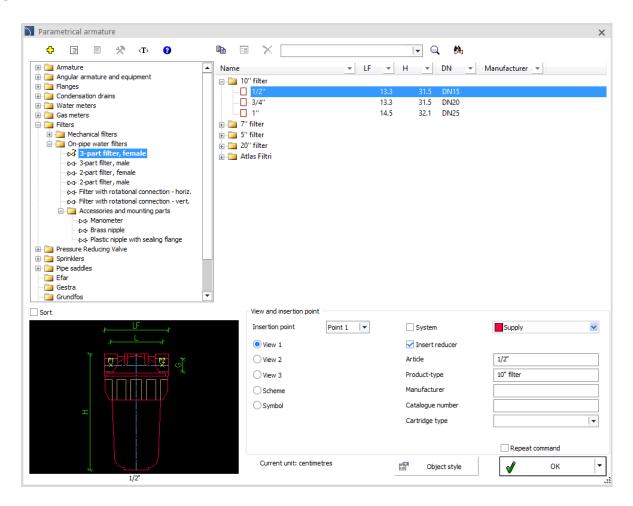


#### ✓ CADprofi HVAC & Piping – on-pipe water filters

Parametrical armature command has been extended with on-pipe water filters together with accessories and mounting elements.

Filters have the ability to quickly select predefined filter cartridges, such as: string filter, carbon filter, ceramic filter, etc.







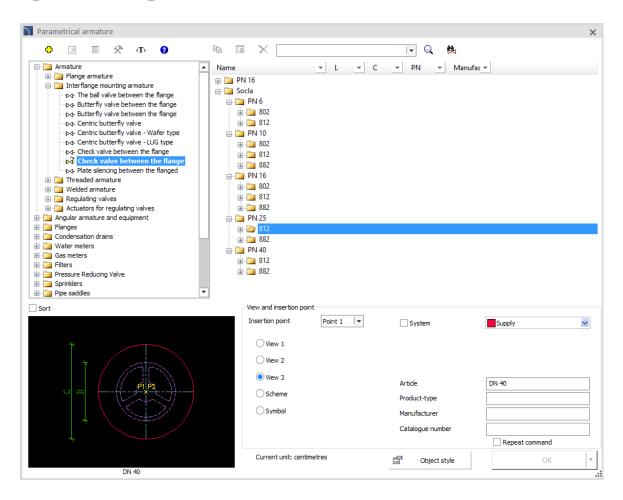
#### ✓ CADprofi HVAC & Piping – interflange mounting armature

Parametrical armature command has been extended with SOCLA company valves.



Additionally the *Parametrical armature* command has been extended with centric butterfly valves, including:

- Centric butterfly valve Wafer type,
- Centric butterfly valve LUG type.





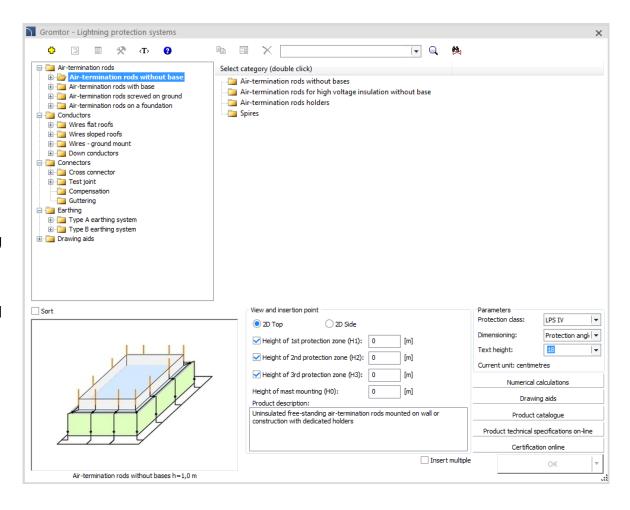
#### ✓ CADprofi OEM – new Gromtor library

A system for designing lightning protection systems by using *Gromtor* products has been introduced to the CADprofi program. The library includes:

- masts and spiers,
- lightning wires, insulating wires,
- various types of joints (cross, control, gutter, etc.),
- type A (pin) and type B (hoop iron) earthing systems,
- · additional drawing aids,
- dimensioning of protection zones by using the cone and rolling sphere method.

Gromtor CAD program has received an award at the Elektrotechnika 2023 Fair in the category "Best product of the Fair".



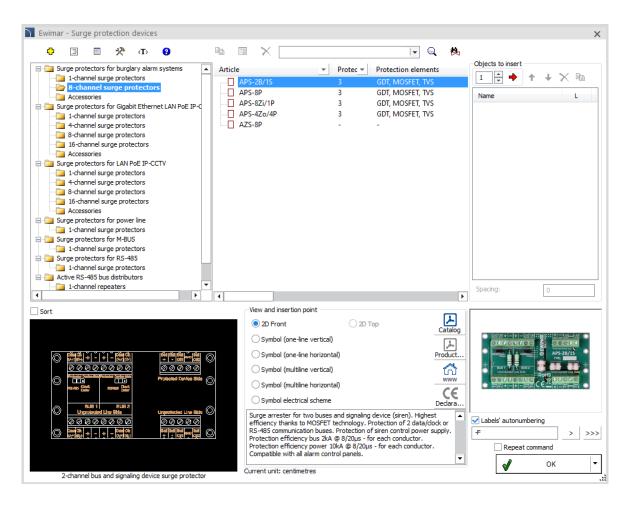


#### ✓ CADprofi OEM – new Ewimar library

A library of *Ewimar* surge protection devices has been added to CADprofi. The library includes:

- Surge protectors for burglary alarm systems (1 and 8 channel) with accessories.
- Surge protectors for Gigabit Ethernet LAN (1, 4, 8 and 16 channel) with accessories.
- Surge protectors for LAN (1, 4, 8 and 16 channel) with accessories.
- Surge protectors for power line (1 channel).
- Surge protectors for M-BUS (1 channel).
- Surge protectors for RS-485 (1 channel).
- Active RS-485 bus distributors (1 and 4 channel repeaters).





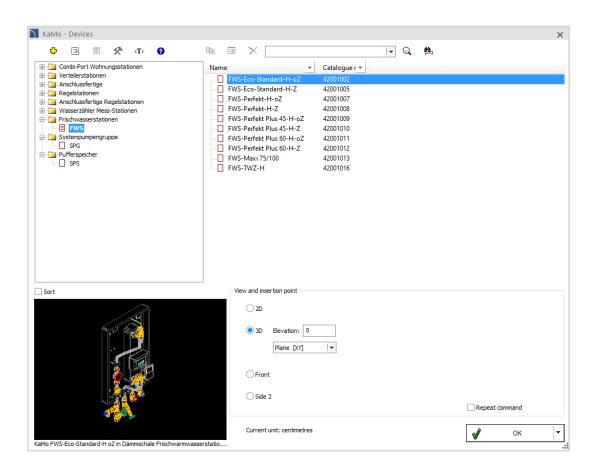


# ✓ CADprofi OEM – extension of KaMo library

*KaMo* library has been extended with the following products:

- Fresh water stations (FWS-Eco-Standard, FWS-Perfekt, FWS-Perfect Plus, FWS-Maxi, FWS-TWZ).
- Pump groups (SPG 32 M4, M6, M10, TM, UM).
- Buffer tanks (SPS 500, 750, 1000, 1500, 200).







#### ✓ CADprofi OEM – extension of EATON library

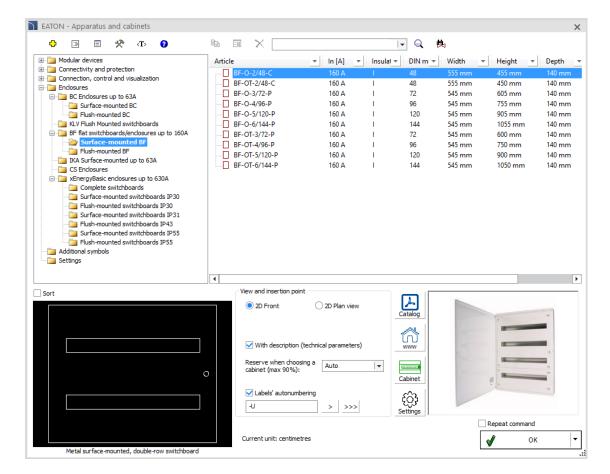
*EATON* library has been extended with the following products:

- BC enclosures up to 63A (surface and flush mounted).
- KLV flush mounted switchboards.
- IKA surface mounted up to 63A.
- BF flat switchboards/enclosures up to 160A (surface and flush mounted).
- CS enclosures.
- xEnergyBasic enclosures up to 630A (complete switchboards, surface mounted – IP30, IP31, IP55, flush mounted – IP30, IP43, IP55).



In addition, the library has been extended with the option of selecting the appropriate cabinet based on the apparatus selected from the drawing.







# ✓ Update of product libraries:









#### ✓ Adjustment to many base CAD programs

CADprofi 2023.09 has been adjusted to work with latest CAD programs, including: AutoCAD 2024, Ares Commander 2024, CADian 2023, CMS IntelliCAD 11.1 and progeCAD 2024.

CADprofi 2023 currently works with many base CAD programs including: AutoCAD (od wersji 2004), BricsCAD, GstarCAD, IntelliCAD, progeCAD, ZWCAD, ARES Commander and others.



















Summary of main changes made in the program since the CADprofi 2022.01 version



#### **Table of contents:**

- What's new in the program?
- General functions (all modules)
- CADprofi Architectural
- CADprofi Electrical
- CADprofi HVAC & Piping
- CADprofi Mechanical
- Product library
- Compatibility with CAD programs



#### ✓ What's new in CADprofi 2023?

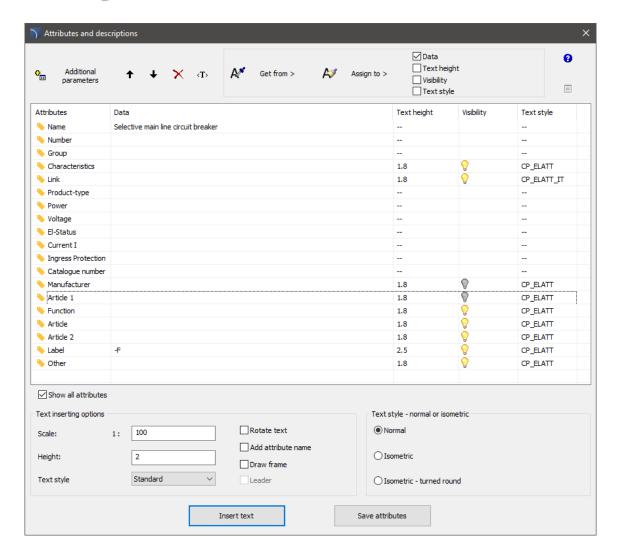
- Extended functionality, including:
  - the possibility of quickly converting schematic lines to any 2D-installation using the option to draw along multiple infolines,
  - extended functioning of the following commands:
     Attributes and Descriptions, Isolate..., Divide..., Flanges of general elements and Bill of Materials,
  - new drawing styles by polyline in schematic lines,
  - additional automatic markings and letter numbering,
  - simplified selection of pipe diameters, thanks to calculation of flow velocities.
- Extension of object libraries, including:
  - central vacuum cleaning systems (HVAC & Piping),
  - additional parametric objects (Architectural, HVAC & Piping, Mechanical, Electrical),
  - additional duct types (HVAC & Piping),
  - extended catalog of wall types and wall culverts (Architectural),
  - selection of mounting panel based on apparatus (Electrical).
- New and updated product libraries (e.g. ABB, BCS, EATON, Elko-Bis, Hager, Reflex).
- Compatibility with the latest versions of CAD programs.





#### ✓ CADprofi – additional options for working with attributes

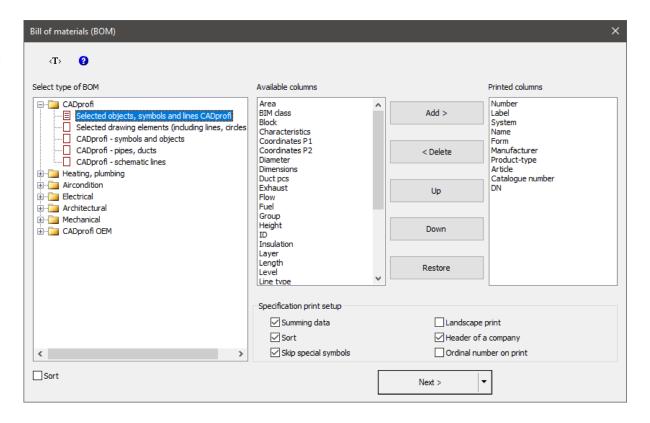
An enhanced attribute management has been introduced to CADprofi. It is now possible to individually or collectively set the height, visibility and text style of individual attributes, as well as to simultaneously change attribute data or options for multiple objects at once. It is also possible to assign and get data and properties for individual attributes. All these functions are now available in the *Attributes* and descriptions command.





## ✓ CADprofi – changes in the Bill of materials command

In the *Bill of materials* command the list of available specifications has been extended. In addition, categories have been introduced in the selection of list types, thanks to which it is easier to select the appropriate type of bill of material. For each list type, program saves the width and arrangement of columns set by the user.



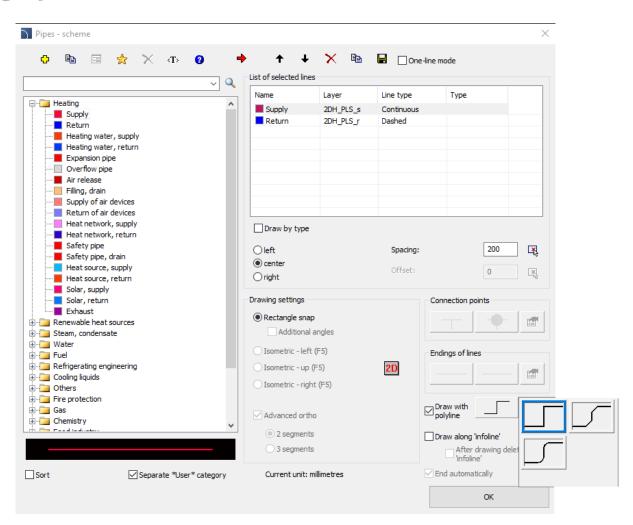


## ✓ CADprofi – new polyline drawing styles for schematic lines

The possibility of drawing rounded and chamfered polylines for schematic lines has been added to CADprofi.



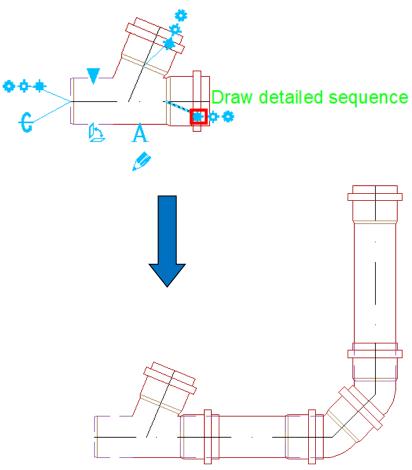
Watch movie





# ✓ CADprofi – Quick edit: drawing pipe sequences in detailed views

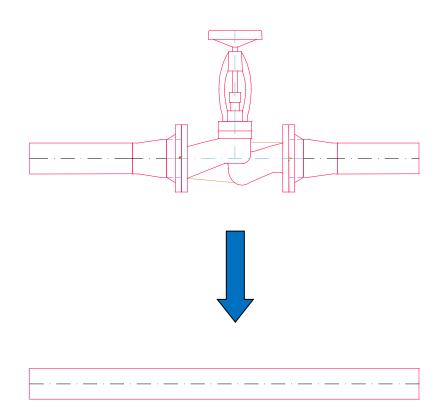
New program version allows user to instantly draw pipes in detailed views directly from selected objects. After clicking on the *Draw detailed sequence* mark, a dialog box will be displayed where user can select the type of pipe and define its parameters.





# ✓ CADprofi – connecting pipes after removing while removing the entire set of armature

CADprofi has so far automatically connected pipes/ducts together when a single, inserted in the pipe object was removed. This functionality has now been extended. When removing an entire set of armature at once, the program examines the proximity of these objects and connects the pipes together.

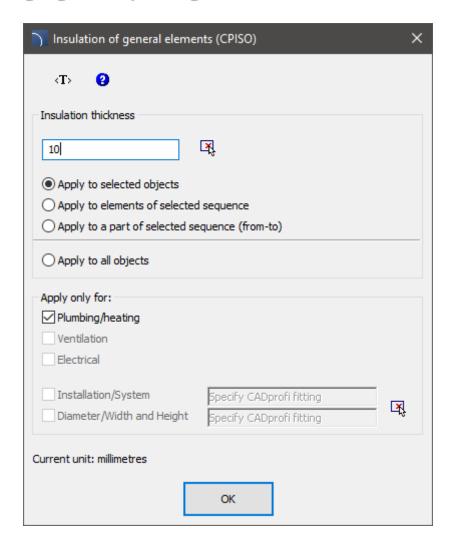




#### ✓ CADprofi – new options for insulating, flanging and splitting

A new way of selecting objects in the insulation, flange and pipes/ducts splitting commands has been added to CADprofi.

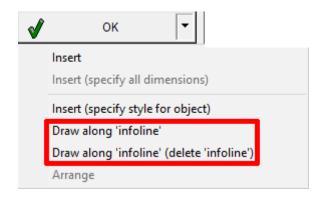
Currently, these commands can be applied not only to selected elements, but also to the indicated sequence or its selected fragment.





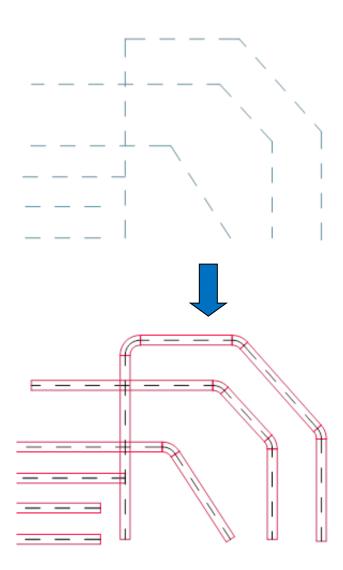
## ✓ CADprofi – drawing pipes/ducts along multiple infolines

In the program it is now possible to quickly convert schematic lines into any installation in 2D view. Previously it was possible to draw pipes/ducts along "infoline", but only one polyline or one string of lines could be selected. This functionality has now been extended to add the possibility of selecting multiple "infolines" and converting them into installation strings.



Select line or polyline or [Multiple]: Multiple

Watch movie



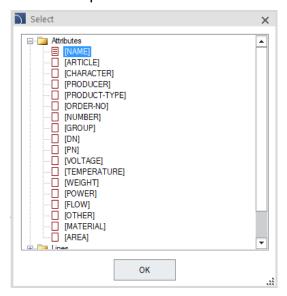


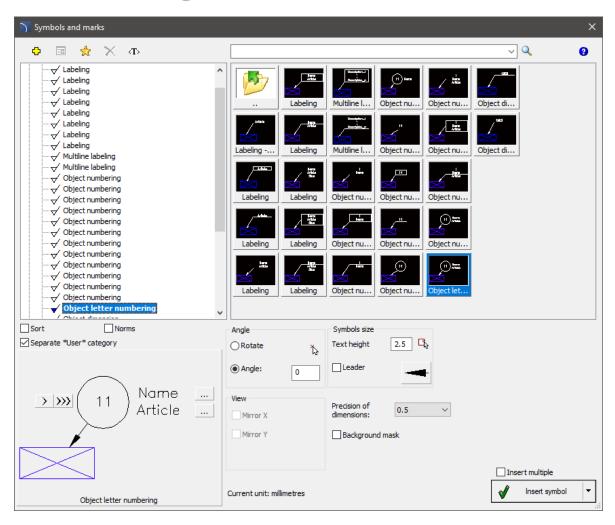
#### ✓ CADprofi – automatic marks and letter numbering

New types of automatic markings have been added to the marking command in all CADprofi modules, and the letter numbering have been introduced.

An additional symbol for letter numbering has been added to the Architectural module, which can be used, for example, for planar grid axis designations.

In addition, the attribute selection basis has been updated.





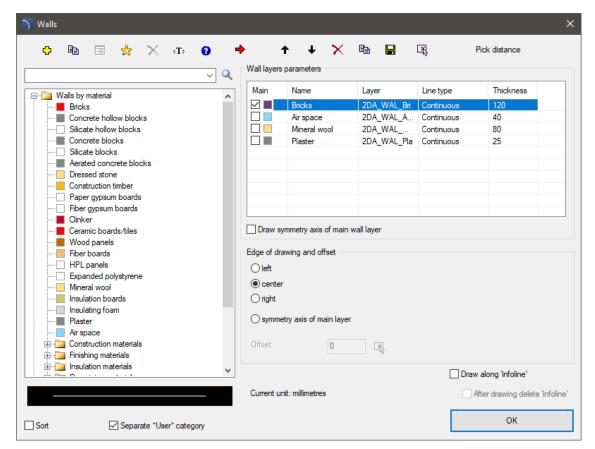


#### ✓ CADprofi Architectural – new and extended wall type catalogs

Standard wall type catalogs, that is available in the program, have been extended with many materials and types of walls/insulations used in construction.

Catalogs have been divided into walls by materials, construction materials, construction purpose and building forms. Examples of the most commonly used structural walls are also included.

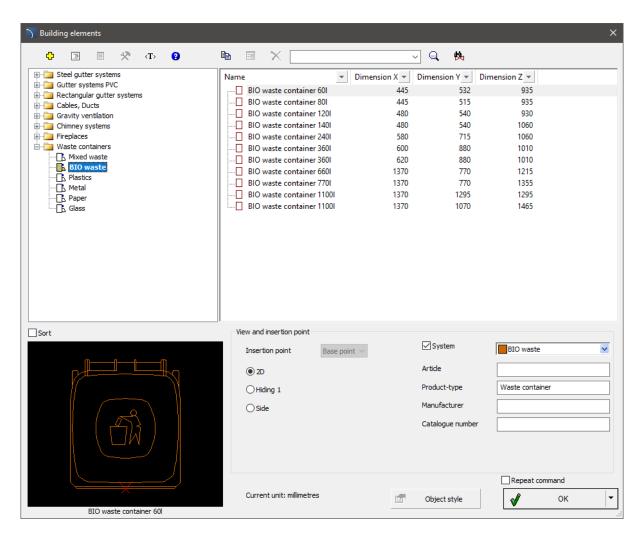
The standards used in construction may differ depending on the country/region, so users have the possibility to expand the available catalogs with their own types of walls or create their own catalogs.





# ✓ CADprofi Architectural – waste containers

A library of waste containers has been added to CADprofi Architectural.

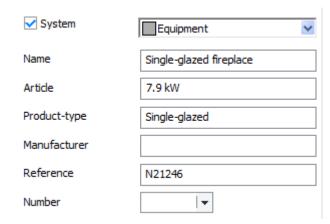


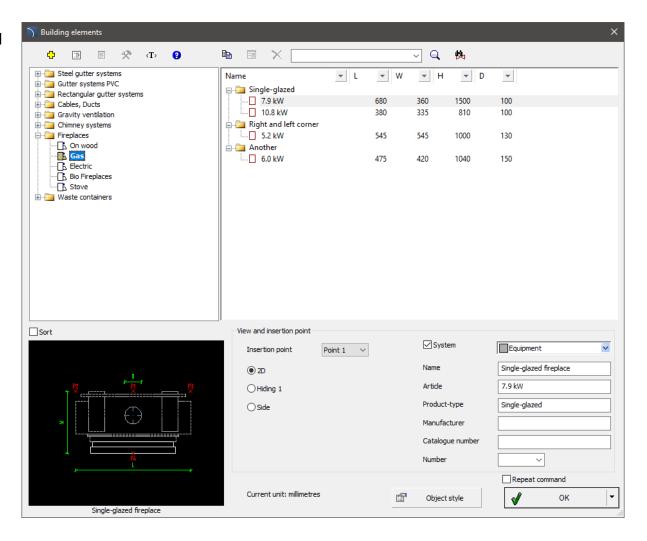


#### ✓ CADprofi Architectural – parametric fireplaces

Fireplaces available in CADprofi Architectural program have been parameterized.

Additionally, a new set of attributes has been added (including name, article, product-type, manufacturer, reference, number). These attributes are used when creating specifications.

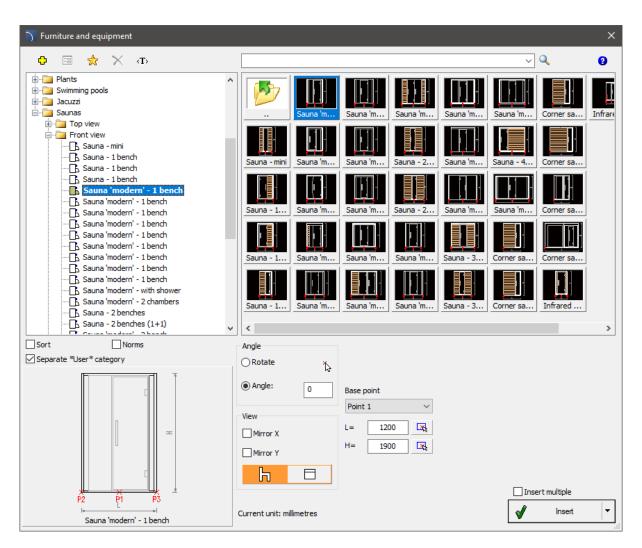






#### ✓ CADprofi Architectural – saunas

A library of saunas with equipment has been added to CADprofi Architectural.

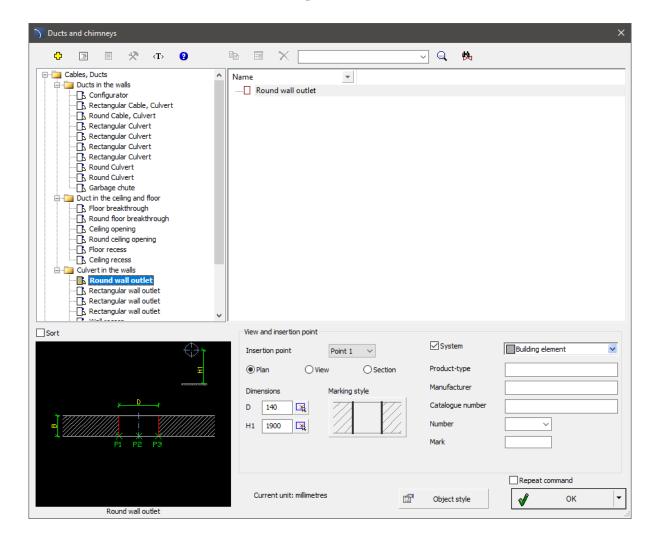




# ✓ CADprofi Architectural – update of culvert and recess library

Ducts and chimneys command have been updated with additional recesses and culverts in wall, including:

- round wall outlets,
- · floor and ceiling recesses,
- floor and ceiling furrows.

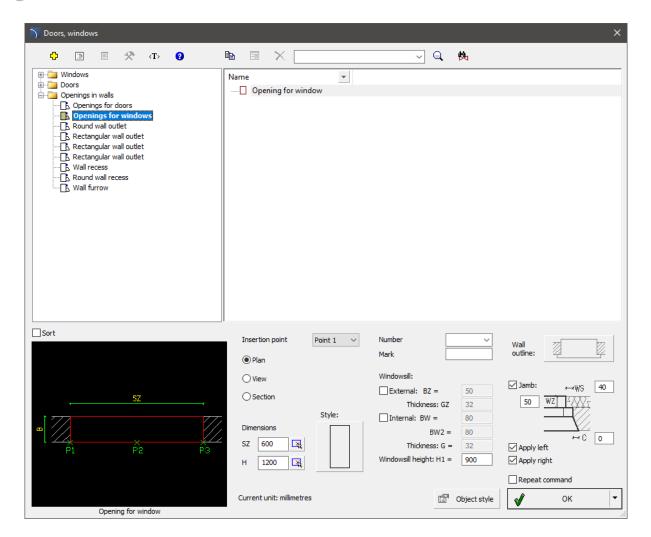




# ✓ CADprofi Architectural – openings in walls

Doors, windows command have been extended with rectangular wall outlets, recesses and furrows.

User can define their dimensions and marking style.

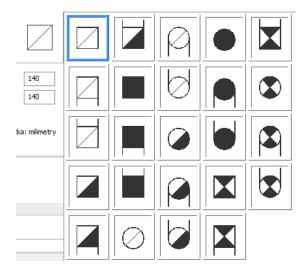


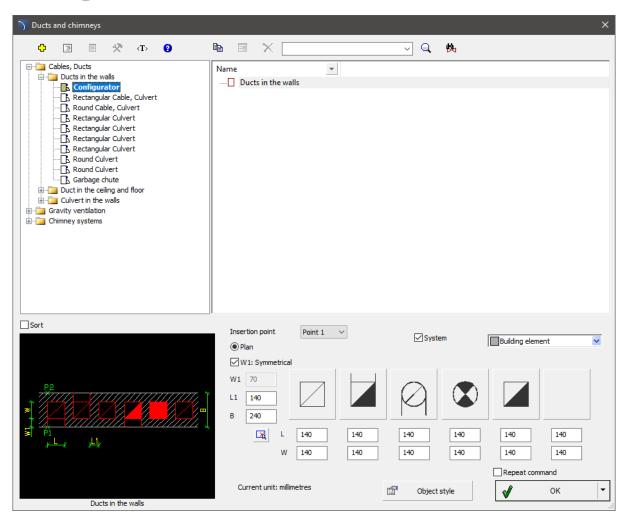


#### ✓ CADprofi Architectural – wall duct configurator

Ducts and chimneys command available in CADprofi Architectural has been extended with ventilation and exhaust ducts, culverts, gas chimneys, recesses, chutes.

Additionally, the wall duct configurator has been added to the command. Thanks to the configurator, user can quickly insert selected symbols of wall ducts into the drawing and define their basic dimensions.





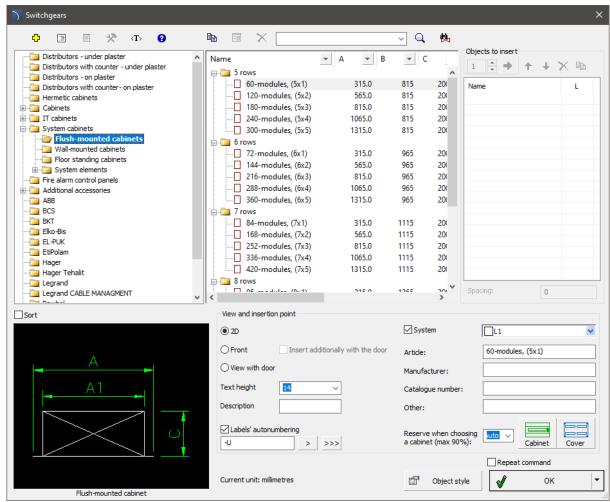


#### ✓ CADprofi Electrical – cover selection based on the apparatus used in the project

Switchgear command has been extended with the option of automatic selection of the assembly cover (cabinet system) based on the apparatus used in the project.



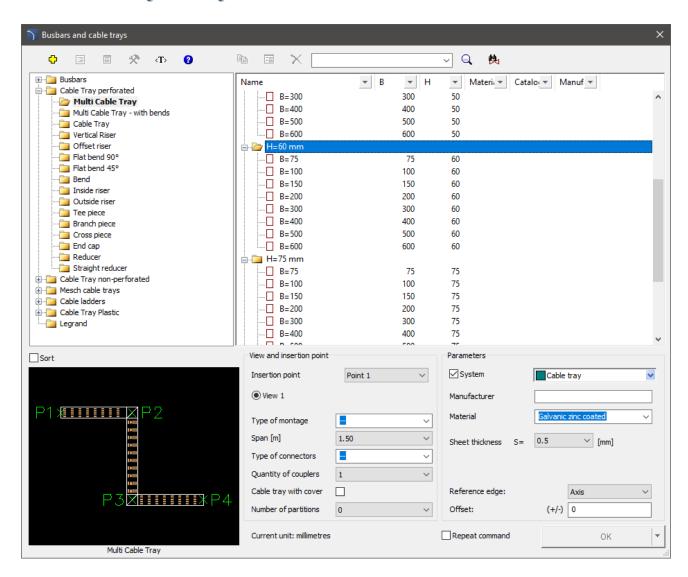
Additionally, the *Switchgears* command has been extended with new elements of the system cabinets - plain modules with DIN rails (vertical and horizontal rails).





#### ✓ CADprofi Electrical – extended cable tray library

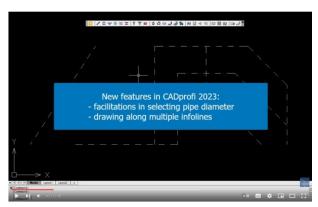
In the command *Busbars and cable trays*, the catalogues *Cable tray perforated* and *non-perforated* have been extended with additional type series with height H=60 mm.



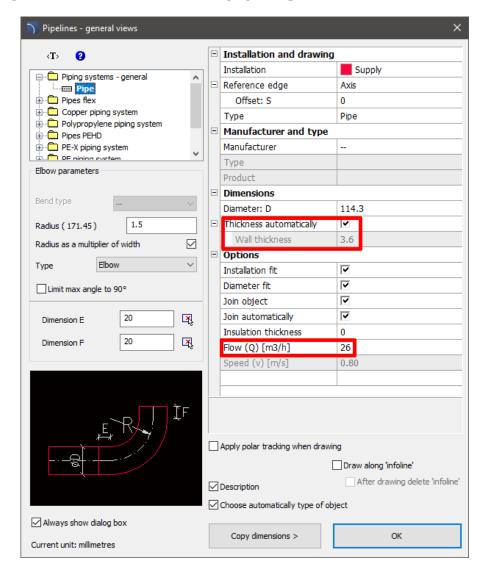


#### ✓ CADprofi HVAC & Piping – possibility to calculate flow in pipe systems

In CADprofi, the possibility to calculate flows in pipe systems has been added. This makes it easier for the designer when selecting the appropriate pipe diameter, while taking into account the thickness of the pipe wall.



**Watch movie** 

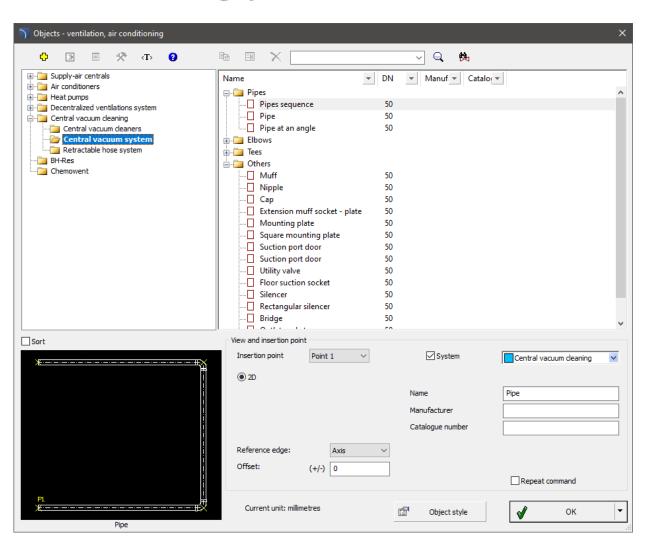


#### ✓ CADprofi HVAC & Piping – central vacuum cleaning systems

Objects – ventilation, air conditioning command has been extended with central vacuum cleaners and two installation systems. The library contains all necessary installation components, i.e.:

- vacuum cleaners,
- pipes,
- elbows,
- tees.
- mounting plates,
- · sucktion sockets,
- muffs,
- · silencers etc.

Thanks to this, the program allows to quickly design a complete central vacuum cleaning installation.



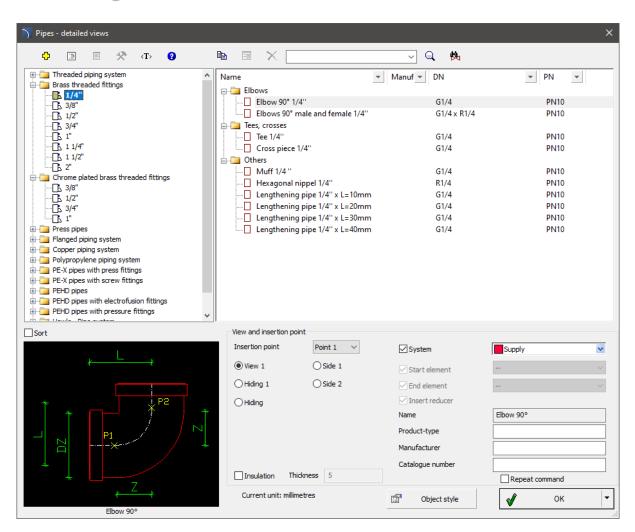


### ✓ CADprofi HVAC & Piping – additional fittings

Pipes – detailed views 

display="block" command has been extended with Brass threaded fittings and Chrome plated brass threaded fittings.

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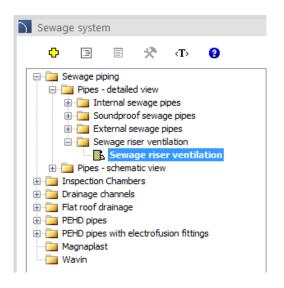


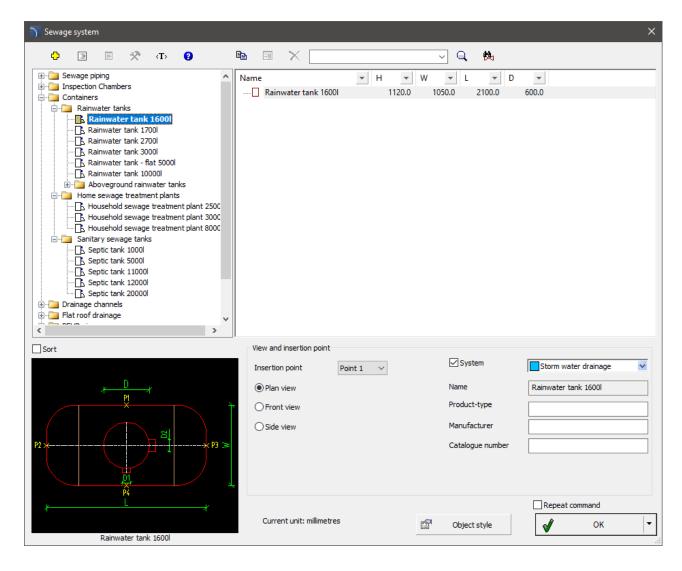


#### ✓ CADprofi HVAC & Piping – changes in the Sewage system command

Sewage system command has been extended with deaeration of sewage risers. Other added objects include:

- rainwater tanks,
- home sewage treatment plants,
- · sanitary sewage tanks.





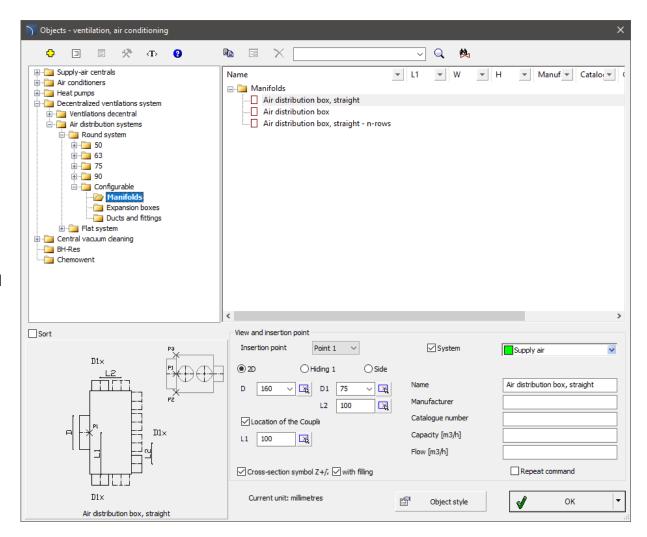


#### ✓ CADprofi HVAC & Piping – recuperation

Objects – ventilation, air conditioning words command has been extended with decentralized ventilation systems used in recuperation, including:

- distributors,
- expansion boxes,
- ducts and fittings with circular crosssection,
- flat ducts and fittings with oval crosssection.

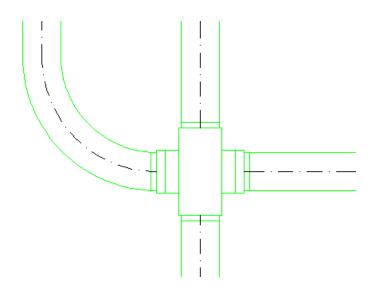
General recuperators and Komfovent's Domekt recuperators have also been added to the command.

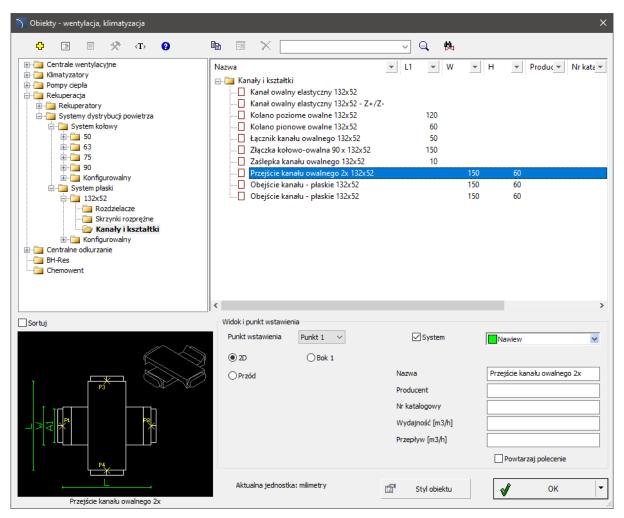




#### ✓ CADprofi HVAC & Piping – cross-over pieces

Cross-over pieces (channel bypasses) have been added to the *Objects – ventilation, air conditioning* wo command.



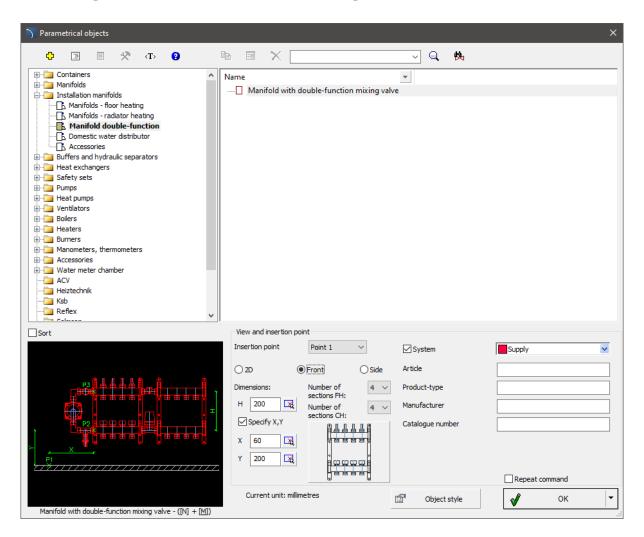




#### ✓ CADprofi HVAC & Piping – additional objects in the Parametric objects command

Parametric objects <sup>♀</sup> command has been extended with installation manifolds, including:

- floor heating manifolds,
- · radiator heating manifolds,
- double-function manifolds (mixing),
- domestic water distributors,
- equipment (blanking plug, ball valve, venting and draining valve etc.),
- electric controllers (room sensor, thermostat etc.).

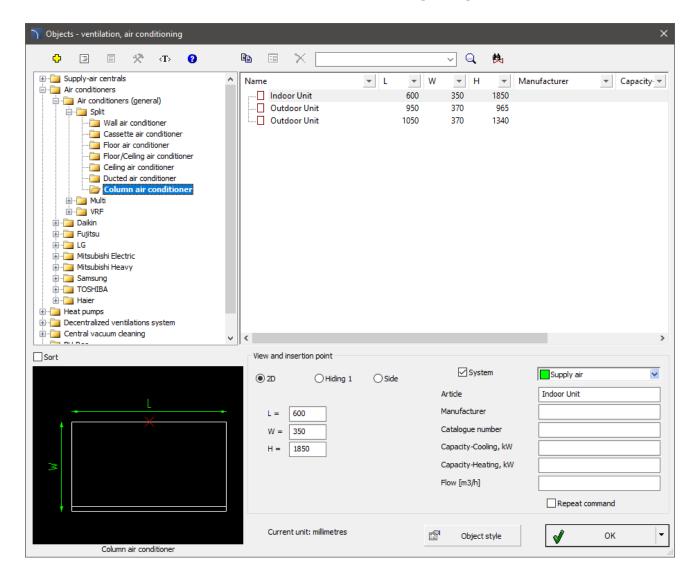




#### ✓ CADprofi HVAC & Piping – additionional air conditioners and heat pumps

In the Objects - ventilation, air conditioning command the Heat pumps and Air conditioners catalogs have been extended with additional manufacturer products (e.g. Panasonic, Kaisai, Viessmann, De Dietrich or Haier). Additionally new device types have been added:

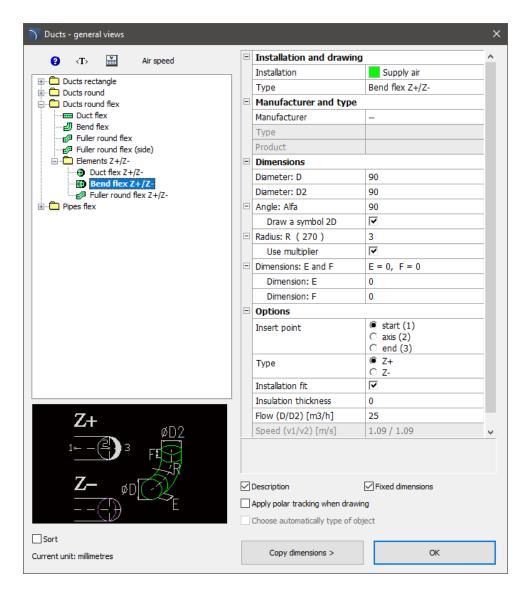
- buffer tanks for heat pumps (hanging and standing),
- column air conditioners.





# ✓ CADprofi HVAC & Piping – flex round ducts

Ducts – general views □ command has been extended with flex round ducts. These ducts are used in recuperation installations.





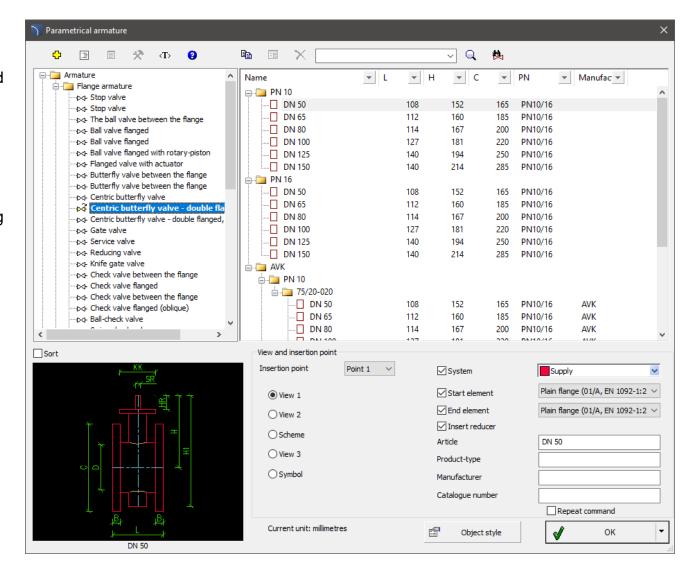
# ✓ CADprofi HVAC & Piping – additional objects in the libraries of the Parametric armature command

The Parametric armature command has been extended.
The following objects has been added to the Flange Armature category:

- gate valves based on the offer of the manufacturer AVK,
- double-flanged centric butterfly valves (including AVK).

The *Flanges* category has been extended with *Plain flanges* according to EN 1092-1:2013 and divided into:

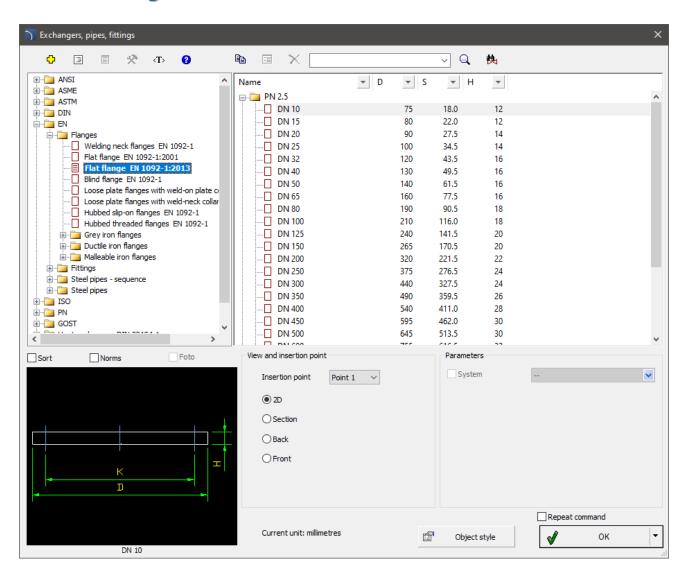
- · plain flanges,
- plain flanges with raised face.





#### ✓ CADprofi Mechanical – extension of flange libraries

In the Exchangers, pipes, fittings from command the Flanges category has been extended with additional flat flanges according to EN 1092-1:2013.





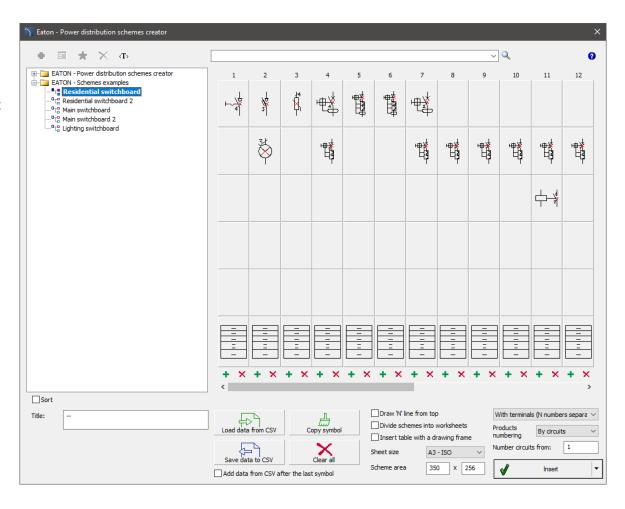
#### ✓ CADprofi OEM – new EATON library

The new library available in CADprofi includes EATON products.

Program includes the following libraries:

- Low voltage apparatus and switchgears from the EATON product library, including: modular, connectivity and protection, control, signaling and visualisation apparatus.
- Power distribution schemes creator that allows to easily create an electrical installation project with EATON products.



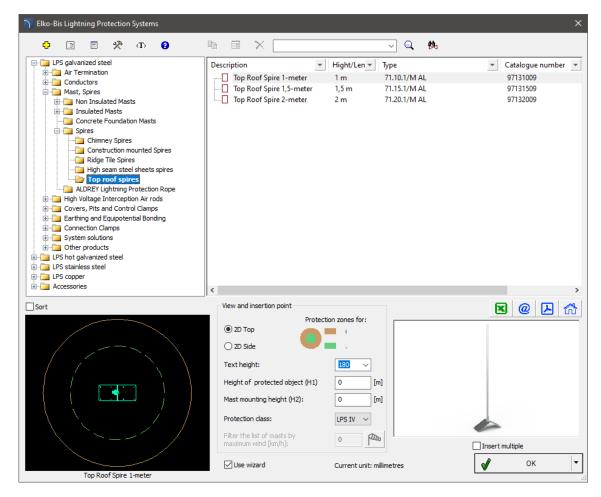


#### ✓ CADprofi OEM – update of the Elko-Bis library

Elko-Bis library available in CADprofi has been updated with:

- eight-legged lighting masts,
- top roof spires,
- new types of connectors (pin, slant, marker, control, compensation connections, hoophoop, hoop-wire, hoop-bar, wire-wire, etc.),
- a system for routing lightning wires and hoops on ceilings, structures or walls,
- holders for grounding wire and hoop iron,
- uziomy szpilowe ELKONOMIC,
- additional accessories: earthing clamps and bands, adjustment kits, etc.,
- drawings of details.

In addition, new spreadsheets for the calculation of separation distances and the dimensioning of protection zones have been added to the library.



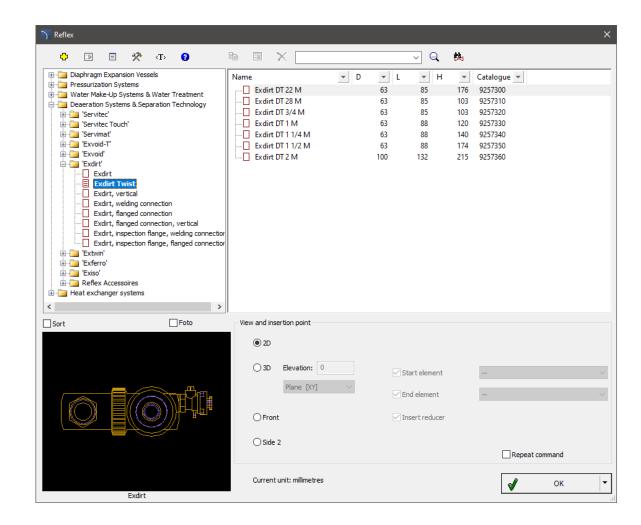


#### ✓ CADprofi OEM – extension of the Reflex library

Reflex library has been extended with thermal insulation for separators:

- Exiso Exvoid Twist 3/4", 1", 22, 28mm
- Exiso Exdirt Twist 3/4", 1", 22, 28mm
- Exiso Extwin Twist 3/4", 1", 22, 28mm
- Exiso Exvoid Twist 1 1/4", 1 1/2"
- Exiso Exdirt Twist 1 1/4", 1 1/2"
- Exiso Extwin Twist 1 1/4", 1 1/2"



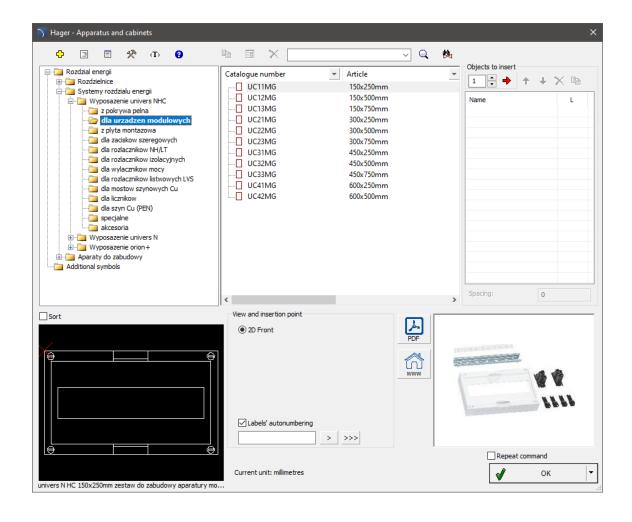




#### ✓ CADprofi OEM – Hager library extension

The Apparatus and cabinets library has been extended with a new range of h3+ power circuit breakers and disconnectors, a set of additional accessories and the univers NHC/N building system. This library is available in the polish version of program.





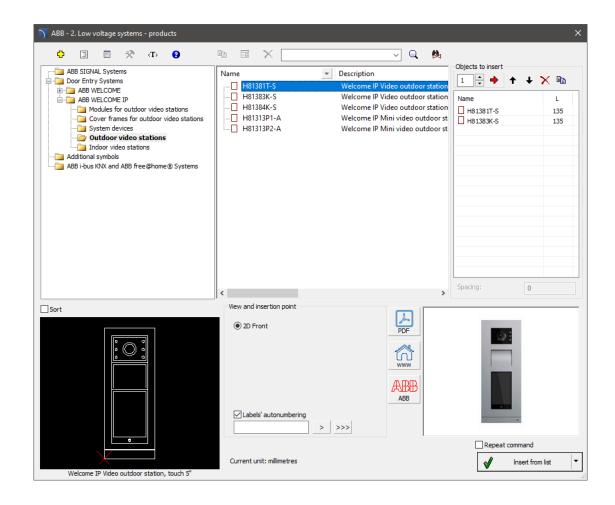


#### ✓ CADprofi OEM – extension of ABB library

The library of *Apparatus and cabinets* has been extended with new products from the ABB i-bus KNX and ABB *free* @home systems.

Low voltage systems library has been extended with a new ABB WELCOME IP video intercoms system.







# ✓ Update of product libraries:



























#### ✓ Adjustment to many base CAD programs

CADprofi 2023.01 has been adjusted to work with latest CAD programs, including: AutoCAD 2023, ActCAD 2022, ARES Commander 2023, AviCAD 2022, BricsCAD V23, CADian 2022, CADopia 22, CADMATE 2022, IBSCAD 2022, InterSOFT IntelliCAD 2022, GstarCAD 2023, progeCAD 2022, SilicaCAD 2022, ZWCAD 2023.

CADprofi 2023 currently works with many base CAD programs including: AutoCAD (od wersji 2004), BricsCAD, GstarCAD, IntelliCAD, progeCAD, ZWCAD, ARES Commander and others.













