

# CADprofi 11.12



# NEW!!! Hydraulic calculations and automatic drawing of diagrams in KaMo/Delta

- $\checkmark$ 
  - Instant selection of receivers (hydraulic interface units) in the dialog window where user can specify up to 16 risers and 11 storeys.

12

13 -14

9 10 . 11

X

Hydraulic Interface unit

15 - 16

- Determination of central heating power and efficiency of hot tap water for receivers.
- Determination of way of calculation and general installation parameters.
- Possibility to choose the type of pipes for risers and power cables.
- Full hydraulic calculations with specifying the pressure drop, flow and pipe diameters.
- · Calculation of the power of the heating source and the power peak for the need of the hot tap water. Choice of the buffer size.
- Choice of the optional mixing valve.
- Automatic drawing of installations diagrams.
- Specifications of the quantity of pipes.



1475 Pa 0.9 m/s



## ✓ CADprofi HVAC & Piping – extension of the library of symbols

The possibility to easily edit the line intersections has been added to the program. Appropriate intersection symbols "with connection" and "without connection" can be found in the *Cross symbols* library in the *Connection line* category. In case of selecting the *Into many lines* option it is possible to quickly edit multiple intersecting lines.



Additional symbols that are used for central heating installations have been also added to the program.





#### ✓ Joining elements of installations from manufacturers libraries and CADprofi catalogs

In earlier versions of CADprofi it was possible to automatically connect elements that were inserted with the help of the 2D Cables, Pipes or Ducts commands. New version also allows to easily connect various elements from manufacturers libraries or general CADprofi catalogs. It is possible to connect electrical cable trays, ventilation ducts, sewage systems etc.

Connections can be implemented in several ways:

- During the insertion of the selected fitting to the drawing. In this case after attaching the fitting to the selected element (P1) it is possible to indicate another element (P2). If the indicated elements are "compatible" then the program will connect them.
- With the help of the 2D Join pipes/ducts command. In this case program automatically selects the appropriate elbow and connects indicated elements.
- With the help of the "Legrand Couple cable trays". After indicating the first element program will display dialog window with the matching fittings. After selecting the desired fitting user must indicate element for which the connection will be made.







## ✓ Drawing installation sequences along the polyline

New program version allows to quickly draw installations sequences along the selected polylines. This option is very useful, e.g. in the case of creating detailed technical projects on the basis of initial drawn "single-line" project with the help of polyline.







# ✓ CADprofi Electrical – extension of the library of symbols and the modular apparatus

Additional symbols and elements from the modular apparatus has been added to the program, including:

- 1-phase and 3-phase electricity meter.
- Meter and dial boards.
- Mounting rails DIN TH35.
- Busbars.
- Terminal blocks.
- Telecomunication parallel joint.

🗘 🗉 🗮 🛠 🕁 😮	🗈 🗉 🗙	•	Q,	恸			
	Name			Α	в	С	D
	- CU 15x3			0.0	15.0	0.0	0
	- CU 20x3			0.0	20.0	0.0	0
Contactors	- CU 20x5			0.0	20.0	0.0	0
Inverters	CU 20x10			0.0	20.0	0.0	0
	- CU 25x3			0.0	25.0	0.0	0
	- CU 25x5			0.0	25.0	0.0	0
	- CU 25x10			0.0	25.0	0.0	0
Copper bars				0.0	30.0	0.0	0
Copper bar - perforated				0.0	30.0	0.0	0
Copper bar - non-perforated	CU 30x10			0.0	30.0	0.0	0
Cam switches	CU 40x5			0.0	40.0	0.0	0
Measures				0.0	40.0	0.0	0
	CU 50x5			0.0	50.0	0.0	0
	E CU 50x10			0.0	50.0	0.0	0
	- CU 60x5			0.0	60.0	0.0	0
Transformer				0.0	60.0	0.0	0
Relays	CU 80x5			0.0	80.0	0.0	0
- Automatic phase switches	CU 80x10			0.0	80.0	0.0	0
Digital time switches for distribution board	CU 100x5			0.0	100.0	0.0	0
	CU 100x10			0.0	100.0	0.0	0
4 III							
Sort	View and insertion point						
	② 2D						
	L = 500						
D1	L1= 20						
$\langle \circ \circ \circ \circ \rangle$	L2= 20						
	D1= 5						
L2   L1							
• • •	Collect style						
		Labe	1		>	Insert	multiple
					>		manapic



#### CADprofi Mechanical – additional PN, EN, DIN, ISO and GOST standards

New standardized elements have been added to the program, including:

- Slotted set screws with flat point
- Slotted set screws with cup point
- Steel round head rivets
- Centering hole type A, B, C, R, D
- Seal type O (O-rings)
- Radial Oil Seal type A, AS
- Flanged and cylindrical bushing
- Rolling bearing Locknuts
- Slotted Round Nut
- Parts ending with outer thread

🗘 🙌 (т.) 😮							
ASME B 18.3.3M	~	Article	D	D1	D2	в	
ASME B 18.6.3		A 1 x 3 x 6	1.0	3.0	6.0	6.0	
Connection		A 1 x 3 x 9	1.0	3.0	6.0	9.0	
i∰ <mark></mark> DIN 124 i∰ <mark></mark> DIN 125-1A		A 1.8 x 4 x 6	1.8	4.0	7.0	6.0	
DIN 125-1A		A 1.8 x 4 x 9	1.8	4.0	7.0	9.0	
		A 2.6 x 5 x 6	2.6	5.0	8.0	6.0	
DIN 125		A 2.6 x 5 x 9	2.6	5.0	8.0	9.0	
DIN 137		A 3.3 x 6 x 8	3.3	6.0	9.0	8.0	
DIN 1440		A 3.3 x 6 x 12	3.3	6.0	9.0	12.0	
. DIN 1441		A 3.3 x 6 x 16	3.3	6.0	9.0	16.0	
🗈 🛅 DIN 1587		A 4 x 7 x 8	4.0	7.0	10.0	8.0	
🖶 🫅 DIN 172		A 4 x 7 x 12	4.0	7.0	10.0	12.0	
DIN 172: Flanged bushing type A		A 4 x 7 x 16	4.0	7.0	10.0	16.0	
DIN 172: Flanged bushing type B		A 5 x 8 x 8	5.0	8.0	11.0	8.0	
🗄 🔁 DIN 179		A 5 x 8 x 12	5.0	8.0	11.0	12.0	
DIN 1804		A 5 x 8 x 16	5.0	8.0	11.0	16.0	
ie⊡ DIN 1850 ie⊡ DIN 315		A 6 x 10 x 10	6.0	10.0	13.0	10.0	
		A 6 x 10 x 16	6.0	10.0	13.0	16.0	
. DIN 332 B		A 6 x 10 x 20	6.0	10.0	13.0	20.0	
⊞ DIN 332 C		A 8 x 12 x 10	8.0	12.0	15.0	10.0	
DIN 332 D	*	A 8 x 12 x 16	8.0	12.0	15.0	16.0	
Sort Show norms		System					
T C		-			~		
	T I	Layers				Obj	ject style
· · · · · · · · · · · · · · · · · · ·		Axes	Detai	ls, hatch		1	Insert as block
		Hidings	V Texts	5			With attributes
		Wipeout (covers)					With attributes
웹		View					
		@ 2D	) 3D	0			
		0					
I		Front	Section	on			
	*	Inserting	View				
						E	Enter all dimensions



## ✓ Dynamic extension of steel profiles

In the new program version it is possible to dynamically edit steel profiles with the help of the *Edit symbols* command. After running the command and selecting the steel profile (point 1) it is possible to dynamically change the position and the length of the steel profiles (point 2).

In the selected CAD programs it is possible to visually track the current location of the object (ie. "visualize" the edition process).





Image: Steel Shapes         Image: Steel Shap	Steel shapes			
Steel Shapes   Steel Steel Shapes   Steel Steel Shapes   Steel S	∬ 🗘 🖄 ⊲⊳ 😮			
Sort     System       Sort     Show norms       Layers     Ø betals, hatch       Ø Axes     Ø betals, hatch       Ø Hidings     Texts       Ø Wipeout (covers)     Ø with attributes       View     2D       Ø Wew 1     Ø Wew 2       Ø View 3     Ø Wew 4	B-     Steel Stages       B-     Steel Tubes       B-     Steel Tubes       B-     Steel Stages       B-     Steel Bars       B-     Steel Rads       B-     Steel Tubes       B-     Steel Rads       B-     Steel Stapes       B-     Steel Stapes       B-     Steel Stapes	Steel Shapes Steel Shapes Aluminium Shape Steel Bars Steel Rods Steel Tubes		
Column 2		System		
PT L L P2 View 1 View 2 View 3 View 4 Enter all dimensions Enter all dimensions View 1				✓
PL PL L C P2 C P2 C P2 C P2 C P2 C P2 C		Layers		Object style
PT C C C C C C C C C C C C C C C C C C C		Axes	🔽 Details, hatch	Insert as block
View 2D 30 @ View 1 O View 2 O View 3 O View 4 Enter all dimensions			V Texts	With attributes
C     C	м <u>-</u> ·_·_·	Wipeout (covers)		
P     2D     3D        •     •     •     •       •     •     •     •       •     •     •     •       •     •     •     •       •     •     •     •       •     •     •     •       •     •     •     •       •     •     •     •       •     •     •     •	• P2			
○ View 3 ○ View 4 Enter all dimensions	PI	2D	🔘 3D 🛛	
Enter all dimensions	••	View 1	O View 2	
		C View 3	O View 4	
Eletated by (Vetrolled) Ourgent unit milimetres OK				Enter all dimensions
		Ourrest units millimetre		OK



#### ✓ New library of Heiztechnik products

New library of *Heiztechnik* contains heating boilers used for solid fuel combustion. Boilers for wood, biomass and pellets, as well as, tanks for pellets are available.

Library also contains ready-made boiler schemes with selection depending on the used controller.









# ✓ New library of BCS products

New library of *BCS* helps in designing of IP video monitoring installations.









## ✓ New libraries of KaMo and Delta Systemtechnik

Kamo and Delta Systemtechnik libraries allow for complex design of installations with usage of housing stations. Program performs hydraulic calculations and automatically draws installations.

Library also contains boilers and heat centers diagrams with the ability of choosing the heat buffers that are linked in series or in a Tichelmann system (reverse-return system).



deta





✓ Update of manufacturers' libraries:











## ✓ Windows 10

Current CADprofi version has been tested in the latest Windows 10 operating system. Users who plan to move to the latest Microsoft system can do it without any fear of working with CADprofi.





# ✓ Adjustment to many base CAD programs

CADprofi 11.12 has been adjusted to work with latest CAD programs, including: ZWCAD Classic and BricsCAD V16.

CADprofi 11 currently works with many base CAD programs including: AutoCAD (since the 2000 version), BricsCAD, GstarCAD, IntelliCAD, progeCAD, ZWCAD, ARES Commander Edition and others.















# Table of contents – list of new features in CADprofi 11.07:

- CADprofi Architectural
- CADprofi Electrical
- CADprofi Mechanical
- CADprofi HVAC & Piping
- General commands (affects all modules)
- Manufacturers libraries
- Adjustment to CAD programs



## CADprofi Architectural – new command Roofs

The *Roofs* command allows to insert roofs views with the most commonly used shapes. For each roof the tracts surface is calculated, as well as, roof slope or height.





# ✓ CADprofi Mechanical – extended content of the Holes command

Additional elements have been added to the command:

- The hole in the corner.
- Plate with holes.
- Plate with holes in the corner.
- Holes in the circle.
- Holes in the hub with a groove for the inlet.





# ✓ CADprofi Mechanical – additional standards

Additional standards have been added to the program:

- DIN 705 A Retaining ring type A.
- DIN 705 B Retaining ring type B.
- PN 85101 Adjusting rings.
- DIN 332 Centering hole type D.

⊡ DIN ⊡ ⊡ Bolts	^	Article	D1	D2		
₩ Bolts Washers		- 2	2.0	6.0		
uniters 		2.5	2.5	7.0		
Countersinks		- 3	3.0	7.0		
Holes - (through) for screws and bolts		- 3.5	3.5	8.0		
Taped holes		- 4	4.0	8.0		
⊕ 🛅 Screws		4.5	4.5	10.0		
Rivets		- 5	5.0	10.0		
Shafting Collars		- 5.5	5.5	12.0		
DIN 471: External Retaining Ring	E	- 6	6.0	12.0		
DIN 472: Internal Retaining Ring	-	7	7.0	12.0		
DIN 6799: Circlip For Shafts		- 8	8.0	16.0		
DIN 705 A: Adjusting rings		10	10.0	20.0		
DIN 705 B: Adjusting rings		- 12	12.0	22.0		
i∰ini Pins i∰ini Parallel keys		- 14	14.0	25.0		
ters Hers		- 15	15.0	25.0		
Entering hole		- 16	16.0	28.0		
		- 18	18.0	32.0		
		- 20	20.0	32.0		
		- 22	22.0	36.0		
Screw plugs	*	- 24	24.0	40.0		
Sort Show norms		System				
<u>_D3</u> _	Ŀ	Layers			~	Object style
		Axes	V Detai	e batch		
				1 - C		Insert as block
		Hidings	Texts			With attributes
		Wipeout (cover	s)			
		View				
╡╢╌╢╕		© 2D	🔘 3D	o		
		O	Section	on		
		©	View			
		©	Section			Enter all dimensions



## ✓ CADprofi HVAC & Piping – new command Sewage piping system

A Sewage piping system A, which allows for convenient drawing of PCV installations for both internal and external sewage with automatic insertion of appropriate fittings (DN32 - DN500) has been added to the program.

Sewage piping system can be drawn in precise 2D views and in different schematic views.







## ✓ CADprofi HVAC & Piping – steel pipes and fittings system

A System of steel pipes and fittings which allows for convenient drawing of installations with automatic insertion of appropriate elbows (12 - 108 mm.) has been added to the program.

This system can be used in drinking water, heating, cooling and solar installations.

In addition, a possibility to connect the steel pipes system with other installations (by using the threaded or flanged fittings) has been added to the program.







## ✓ Drawing strings of installations with an offset

Until now it was possible to draw installations only along the axis. Currently, the program allows user to specify the reference edge (axis, left, right) and an offset of the drawn string from the actually indicated points. This facilitates the design of such strings along the walls or other installations.







## ✓ Drawing strings of installations with connection to the specified object

Currently when user starts drawing a new installation string he can specify an existing object from the drawing. If this object "fit" to the newly created string then program will automatically connect the string to the indicated object and will continue drawing the installation with an appropriate angle.







#### ✓ Extended content of the Quick tools command

The *Quick tools* command has been extended with the opportunity to insert construction lines (straight and rays) to the drawing.

Additionally, a possibility to quickly insert into the drawing squares and rectangles (with a convenient determination of dimensions and the insertion point) has been added to the command.





## ✓ New BKT Elektronik library

New library of *BKT Elektronik* that enables the design of data telecom (ITC) cabinets with elements of structured cabling has been added to the program.

The manufacturer has got in his offer elements in both copper and fiber technology.

Such elements like data telecom (ICT) cabinets, panels and structured cabling, as well as elements of fiber optic equipment can be found in the library.







Update of manufacturers' libraries:











## ✓ Adjustment to many base CAD programs

CADprofi 11.07 has been adjusted to work with latest CAD programs, including: AutoCAD 2016, ARES Commander Edition 2015 and progeCAD 2016.

CADprofi 11 currently works with many base CAD programs including: AutoCAD (since the 2000 version), BricsCAD, GstarCAD, IntelliCAD, progeCAD, ZWCAD, ARES Commander Edition and others.













Summary of main changes made to the program since the CADprofi 10.01 version.



# Table of contents – list of new features in CADprofi 11:

- CADprofi Architectural
- CADprofi Electrical
- CADprofi Mechanical
- CADprofi HVAC & Piping
- General commands (affects all modules)
- Manufacturers libraries
- Adjustment to CAD programs

We recommend to read all new features, because some of the features described in one module may also apply to other modules.



# ✓ CADprofi Architectural – extension of the woodwork library

Additional types of windows and doors have been added to the library, including:

- Quadruple, corner, roof windows.
- Roof hatches.
- Pocket doors.
- Sliding doors.
- Double folding doors.
- Swing doors.
- Folding doors.
- Interior doors with a doorstep.
- Doors with fixed side elements.
- Balcony doors.
- Revolving doors.
- Garage doors.

For doors and windows views used on sections were also added.

In the dialog window it is possible to determine the number and designation of inserted elements. These data is afterwards used during insertion of marks and specifications.

Doors, windows						<b>—</b> ×
🖞 🗇 🗉 🛠 🗇 😢		- Q #	4			
Uindows	Name	w	W2	R	BR	
E Plan ⊡ □ □ By dimensions of hole window	>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>					
Window - single	60+60	60	60	5	5	
Window - double	60+90	60	90	5	5	
- Nindow - triple	60+120	60	120	5	5	
	··· 60+150	60	150	5	5	
- 🔂 Window - single for public building const		90	90	5	5	
- 🔂 Window - double for public building cons	90+120	90	120	5	5	
Corner window	90+150	90	150	5	5	
- B Roof window B Roof hatch	120+120	120	120	5	5	
	120+150	120	150	5	5	
	150+150	150	150	5	5	
Doors	180+180	180	180	5	5	
	210+210	210	210	5	5	
	- 60+60 - 60+90	60 60	60 90	5 5	5	
	60+120	60	120	5	5	
	60+120	60	120	5	5	
	90+150	90	90	5	5	
	90+120	90	120	5	5	
	90+120	90	120	5	5	
	120+120	120	120	5	5	
4 III >>>	120 1120	120	120		-	
Sort Sort	View and insertion point					
<del>k W k</del>	In Plan	System				~
	External window jamb	Insertion poir	nt	Point 1		•
	Internal window jamb					
	Number			<b>F</b>	Object style	
S HAR	Number					
	Mark -					
┥						
<del>∦ <sup>B</sup> ∕</del>	Current unit: centimetres				01/	
	Current unit: centimetres			✓	ок	
60+60						



## CADprofi Architectural – improved procedure of inserting windows and doors on plans





# ✓ CADprofi Architectural – extension of evacuation symbols library

Evacuation library has been extended with the following standards:

- ISO 23601
- ASR A1.3
- ÖNORM TRVB 121 O

Safety and evacuation symbols		<u> </u>
🗘 🖃 🚖 🗙 «Т»		- 🤍 💡
ISO 23601 → Table A3 → Table A3 → Table A4 → Table A4 → Table A4 → Table A4 → Table A4 → Site Plan → Legend → Behaviour in case of fire → Behaviour in case of accident → Normal → Normal → Normal → Normal → Left/Right → Left/Right → Left/Right → Left/Right → Left and right → Left and right	Site Plan       Normal       Left/Right       Left and          Site Plan       Normal       Left/Right       Left and         Table A3       Legend       Normal       Left/Right       Evacua         Table A3       Behaviou       Normal       Left and r       Here you         Table A3       Behaviou       Left/Right       Left and r       Here you         Table A4       Behaviou       Left/Right       Left and r       Here you         Table A4       Behaviou       Left/Right       Left and r       Here you         Table A4       Behaviou       Left/Right       Left and r         Table A4       Behaviou       Left/Right       Left and r	• tio
Sort Show norms	Angle Symbols size	
Separate *User* category	Rotate Text height 1	
Behaviour in case of accident Keep calm	Angle:     0	
1. Report accident Education Education	Mirror Telephone: 112	
2. First aid Terming for user of automotion Compared for user of automotion form and store	Mirror Y	
3. Other measures		
Participang di katapat kanton Partané na basi at hang Bana di katawa	Current unit: millimetres	Insert multiple
Behaviour in case of accident		



# ✓ CADprofi Architectural – new command *Ducts and chimneys*

The *Ducts and chimneys* C command has been added to the program.





#### ✓ CADprofi Electrical – sensors and cameras with field of view

x Symbols - other Sensors and cameras from the "alarm and security systems" installations with the possibility - Q 🕂 🖂 🧙 🗙 «т» 0 to specify the field of view have been added to 🗄 🛅 Switchgear, controlgear and protective devices 🗄 🛅 Architectural and topographical installation plans a the program. This function facilitates the 🗄 🛅 Lighting . Measuring instruments Czuika po. Czuika lini. Czuika pl. Czuika da. Smoke De. distribution of elements in the project. Production and conversion of electrical energy industrial automation and measurement Equipment for fire protection and fire fighting 🖻 🛅 Detectors Field of view sensors can be easily hidden by Czuika po. Czujnik n. Czuika dv. Czuika pl. Czuika bl. Smoke de. ---- Alarm-initiating device (point type, manual - Smoke detector (point type) turning off the visibility of the corresponding ---- Gas detector (point type) ----- Heat detector (linear type) layer. Czuika ci. Czuika pl. ----- Czujka pozarowa, kroploszczelna Zuika po Czuika fa ----- Czujka pozarowa, iskroszczelna Jadainik czuinika dvr ----- Czujka pozarowa, koncowa Czujka pozarowa z zestykiem sterujacym Czujka po. Czujka ci. Czujka wi ----- Czujnik pozarowy z izolatorem zwarc ----- Odbiornik czujnika dymu Czujka pl... Multise Heat det. Czujka po... Zwierciadl. Czujka isk. Heat Det. Heat Det. Sort Show norms Angle V System Separate \*User\* category 200 × 🔿 Rotate Scale: ~ Angle: 0 Remember data Mirror Smoke detector - point • Mark Mirror X Characteristics Article Mirror Y With range Manufacturer Filled range Insert multiple Insert Current unit: millimetres Smoke detector (point type)



## ✓ CADprofi Electrical – changes in the *Objects and lighting* command

A new list, thanks to which users can insert many lighting fixture with a chosen spacing has been introduced.





# ✓ CADprofi Electrical – drawing sequences of linear lighting fixtures




# ✓ CADprofi Electrical – changes in installation boxes schemes

New sockets and switches views, as well as new system of elements configuration have been added to the program.





### ✓ CADprofi Electrical – changes in line templates and circuits

New line templates and circuits for A3 and A4 formats with the possibility to determine their dimensions have been added to the program.





# ✓ CADprofi Electrical – new schemes

New schemes have been added to the *Scheme templates* command:

- lighting control schemes with a dimmer,
- lighting control schemes with a digital time switch.





# ✓ CADprofi Electrical – extended *Frames and tables* command content

On the users request, new electrical circuit tables and a new frame in A4 format have been introduced.

Frames and tables				×
] 🖕 🗃 🚖 🗙 Ф				- Q. Ø
□       ISO         □       Frames         □       ▷ A4 - vertical         □       ▷ A3         □       ▷ Front page         □       □         □       ▷ Title tables A4 - ISO 1         □       ▷ Title table A4 - ISO 2         □       ▷ Title table A4				
		D	Date 2014-05-26	Title
è- 🚰 ANSI			Created	
	2014-05	-26 🔻 🔻 C	Checked	
	No. Revision Date	Name N	lorm	Origin: Replac
			Distribution	
	Owner		Distribution	+
			Other	DWG No Sheet 1
	Replac. for:	Sheet name	•	
		5	Tal poe: Brand	Produce on the second s
Sort Show norms				
✓ Separate *User* category Angle	Symbols size			
© Rotate ↓ Mirror X	Scale: 1	□ <sub>b</sub>		Insert multiple
Angle: 0		Current unit:	millimetres	Insert symbol



### ✓ CADprofi Mechanical – new procedure of inserting screws, pins, bolts, rivets etc.

During insertion of elements to the drawing it is possible to dynamically select the length from the type of series. Thanks to this feature it is much easier to choose the right element that meets the project requirements.

Thanks to the *Quick edit* command user can easily change the length of elements that are already inserted in the drawing.



¢	槸	<t></t>	0							
<b>-</b>	Bolts			^ ^	Article	DG	L	S		
			: Hexagon head bolt - Hexagon head bolt - Prod	-	M 5.0 x 30	0.5	3	0.8		
			Hexagon head bolt	uct grade /	M 5.0 x 35	0.5	3.5	0.8		
			Hexagon head screws		<sup></sup> M 5.0 x 40	0.5	4	0.8		_
	_		Hexagon head bolt, with	fine pitch tł ≡	<sup></sup> M 5.0 x 45	0.5	4.5	0.8		
	I	SO 4162:	Hexagon flange head bolt		<sup></sup> M 5.0 x 50	0.5	5	0.8		
	IS	SO 10642	: Hexagon socket counter	sunk head	🦾 M 6.0					
	_		Hexagon head bolt - Prod	-	M 6.0 x 30	0.6	3	1		5
			Hexagon head bolt - Prod		M 6.0 x 35	0.6	3.5	1		
			Hexagon socket head cap Countersunk flat niob bolt		M 6.0 x 40	0.6	4	1		
			Countersunk flat niob bol		M 6.0 x 45	0.6 0.6	4.5 5	1		
			Slotted raised countersun		M 6.0 x 50	0.6	5.5	1		
			Countersunk raised head		M 6.0 x 55	0.6	5.5	1		
	I	SO 7046:	Countersunk raised head	screw - wit	M 8.0	0.0	0	1		
			Slotted countersunk flat h		M 8.0 x 40	0.8	4	1.3		
	=		Slotted set screw with cor		M 8.0 x 45	0.8	4.5	1.3		
			Hexagon socket set screv Hexagon socket set screv		M 8.0 x 50	0.8	5	1.3		
			Hexagon socket set screv Hexagon socket set screv		M 8.0 x 55	0.8	5.5	1.3		
			Hevanon socket set screw		M 8.0 x 60	0.8	6	1.3		
		III		+	M 8.0 x 65	0.8	6.5	1.3		•
Sort			Show norms	[	System					
								~		
					Layers				Object style	
					🗸 Axes	Details	s, hatch		Insert as block	
					Hidings	Texts			With attributes	
	Y			ित २	Wipeout (covers)				with attributes	
	1			- 뭐 김	View					
$\checkmark$		Ľ	R	,	<ul> <li>2D</li> </ul>	) 3D	2D/3	D		
					Hidina	Side	0 = /-			
2	_	<u>K</u>		-	Shank	C Head				
									Enter all dimensions	
									ОК	



### ✓ CADprofi Mechanical – drawing sequences of pipes

The possibility to draw sequences of pipes with automatic insertion of appropriate bends has been added to the program. sequences of pipes can be drawn in DIN and ASME standards (in these standards the bends libraries are available).







### CADprofi Mechanical – additional standards

Additional standards have been added to the program, including:

- DIN 1441 Washers for clevis pins.
- DIN 6914 High-strength hexagon head bolts with large widths.
- DIN 6915 Steel hexagon nuts width large width.
- DIN 6917 Square taper washers for high strength.
- DIN 6918 Square taper washers for highstrength.
- DIN 66 Countersink for countersunk head screw.
- EN ISO 4033 Hexagon nuts.
- EN ISO 4036 Hexagon thin nuts unchamfered.
- EN ISO 8674 Hexagon high nuts.
- ISO 4018 Hexagon head screws.
- The DIN 1025-3 has been updated Hot rolled I-beams HEA-serie.

다 (현 dī) 😮				
in - 1 → 1 → 1 → 1 → 1 → 1 → 1 → 1 → 1 → 1	<ul> <li>Article</li> </ul>	A B	G	
≟ <mark>⊡</mark> DIN 6797A ≟ <sup>™</sup> DIN 6798J	- M 12.0	2.60 3.00	0.41	
IIII 6798J IIII 6798A	M 16.0	3.20 3.60	0.50	
	M 20.0	4.00 4.40	0.61	
🗉 🛅 DIN 434	M 22.0	4.40 5.00	0.65	
	- M 24.0	5.60 5.60	0.69	
DIN 6796	<sup></sup> M 27.0	5.60 5.60	0.69	
🗆 🛅 DIN 6319	M 30.0	6.20 6.20	0.75	
DIN 1440	M 36.0	6.80 6.80	0.80	
DIN 6917: Square taper washers for high-st	b			
DIN 93				
🗉 🛅 DIN 963				
DIN 988				
	-			
4 11				
Sort Show norms	System			
Sort Show norms	System		~	
Sort Show norms	 Layers		~	Object style
Sort Show norms		🔽 Details, hatch	~	Object style Insert as block
Sort Show norms	 Layers	<ul> <li>✓ Details, hatch</li> <li>✓ Texts</li> </ul>	~	✓ Insert as block
Sort Show norms	 Layers V Axes V Hidings		~	
	 Layers V Axes Hidings V Wipeout (covers)		×	✓ Insert as block
Sort Show norms	 Layers V Axes V Hidings V Wipeout (covers) View	V Texts		✓ Insert as block
	 ↓ Axes ↓ Hidings ↓ Wipeout (covers)			✓ Insert as block
	 Layers V Axes V Hidings V Wipeout (covers) View	Texts		✓ Insert as block
	Layers Axes Hidings Wipeout (covers) View 2D 	Texts 3D 2D/3 Section		✓ Insert as block
	 Layers V Axes View © 2D	Texts		✓ Insert as block



# ✓ CADprofi Mechanical – modular aluminum profiles

Elements of modular aluminum profiles have been added to the program. They can be used to prepare different constructions, including:

- workstations (furniture),
- single and multi-axis linear guides,
- machinery and equipment bodies,
- transport systems.

eria ASTM eria ASTM	Artide Open on four sides Open on three sides Open on two sides Open on two sides at 90° Angular profile Angular profile	45.00         29.30           45.00         29.30           45.00         29.30           45.00         11.70	C D 13.60 8.20 13.60 8.20 13.60 8.20 13.60 8.20 13.60 8.20 13.60 8.20 13.60 8.20
Sort Show norms	System		
	 Layers	tails, hatch kts	Object style Insert as block With attributes
	 Layers V Axes V De V Hidings V Tet Wipeout (covers) View	tails, hatch xts 2D/3D w 2	Object style           Image: Wight of the style



# ✓ CADprofi Mechanical – additional standards regarding apparatus construction

Extension of standards regarding the apparatus construction:

- DIN 2440 threaded steel pipes,
- DIN 2462 stainless steel pipes,
- DIN 2618 branch saddles,
- DIN 2617 dished ends.

🗘 🗉 🗮 🛠 (1)	🗈 🗉 🗙				- 🔍 🙌		
ANSI	Name	D	G	н			_
	21.3						
	21.3 x 2.0	21.3	2	32			
Enges	21.3 x 2.9	21.3	2.9	32			
Dished ends	26.9						
i from 29.6 to 1150	30.0						
in from 1200 to 4000	33.7						
Steel butt-welding pipe fittings DI Hel butt-welding pipe fittings	42.4						
	44.5						
🗄 🛅 Steel pipes (two points)	48.3						
	57.0						
	57.0 x 2.9	57.0	2.9	38			
🛅 PN   🛅 Heat exchangers DIN 28184-1	60.3						
Heat exchangers DIN 28184-2	60.3 x 2.9 60.3 x 4.0	60.3 60.3	2.9 4	38 38			
-	60.3 x 4.0 60.3 x 5.6	60.3 60.3	4 5.6	38 38			
	76.1	00.5	5.0	50			
	<b>2</b> 88.9						
	88.9 x 3.2	88.9	3.2	50			
	88.9 x 5.6	88.9	5.6	50			
	▶ 88.9 x 8.0	88.9	8	50			
Sort Foto	View and insertion p	oint			Parameters		
	Insertion point	Base po	int	-	System		
	② 2D				Dimension X:		
	) 3D	Plane [	XY]	-	Dimension Y:		
	2D/3D				Dimension Z:		
	Hiding	0:	2D Vertica	I	Level:	1	
	© Section	0	/iew				
	Ŭ						
	G Object sty	le					
D						Insert multiple	
	Current unit: millime					ОК	_



# ✓ CADprofi HVAC & Piping – a system of threaded pipes and fittings

A system of threaded pipes and fittings that been added to the program.

This command allows to draw sequences of piping installations with automatic insertion of fittings in a convenient way. It is possible to insert a variety of fittings, including tees, reductions, joints, pipe joints and others from 1/8" to 4".







# CADprofi HVAC & Piping – copper (CU) pipes and fittings

A system of copper (CU) pipes P with automatic insertion of bends with a diameter of 6 - 108 mm has been added to the program. It is also possible to draw installations of soft copper.

This command contains all necessary copper fittings, as well as fittings that allow connection with steel threaded pipes.



Parametrical armature		×
🛛 🗗 🗮 🛠 Ф 😮	<b>b</b> = X	▼ Q 機
Copper connectors     Pipes     Pipe     Pipe	Hame         L         DZ           12x 1/2         4.4         1.4           15x 1/2         4.6         1.7           15x 1/2         4.6         1.7           15x 1/2         4.6         1.7           15x 1/2         5.0         2.0           18x 3/4         6.0         2.0           22x 3/8         5.2         2.4           -22x 3/4         6.4         2.4           -22x 3/4         6.6         3.1           -28x 1/2         6.6         3.1           -28x 1         7.8         3.1           -35x 1/2         7.2         3.8           -35x 1/4         9.8         3.8           -42x 11/2         10.6         4.5	
Gondensation drains		
■Sort	View and insertion point Insertion point Point 1	System
	View 1	✓ Start element v
	◎ Hiding 1	✓ End element ▼
	◎ Hiding	✓ Insert reducer
*0	Side 1	
	Side 2	
۲ ۲ ۲/2	Current unit: centimetres	🖺 Object style 🛛 🗸 OK



# ✓ CADprofi HVAC & Piping – a system of pipes, fittings and polypropylene armature

A system of polypropylene pipes that allow to easily draw sequences of PP installations with automatic insertion of bends with a diameter of 16 to 110 mm has been added to the program.

In addition, a possibility to connect various system diameters of pipes and fittings with threaded pipes by using welded-threaded fittings have been introduced.



	2D Pipes - sequer	ice					×	
	⟨T> 🔞		E	Installation	and drav	ving		
				Installation	Supply			
	Plumbing/hea	ating	E	Reference ed	Axis			
				Offset: S		0		
				Туре		Pipe		
			E	Manufactur	er and ty	pe		
				Manufacturer	Manufacturer			
	Elbow parameters			Туре				
	cibow parameters			Product				
				Dimensions				
	Radius (171.45)	1.5		Diameter: D		114.3		
Pipe							×	
Turner								
Types	aal pipes	Article			D			
		16			16.0			
	inches	20	20 25 25 25.0					
🖃 🧰 Pla								
		40			32.0 40.0			
	pper pipes	50			50.0 63.0			
·	Cu	63						
		75 90			75.0 90.0			
					110.0			
					11010			
			ОК					



# ✓ CADprofi HVAC & Piping – an additional type of a circular line

An additional style of drawing pipes (with hidden endings) has been added to the program. This style can be used for example when drawing installations with folded pipes.






# ✓ CADprofi HVAC & Piping – oil and gas burners

Various burners (oil, gas and dual fuel), as well as the gas pressure regulator have been added to the program.

						Q	换			
	Name	L	L3	81	B2	H1				
Distributors	WM-G10/1-A ZM	813	178	307	279	445	weishaupt			
	WM-G10/2-A ZM	813	178	307	279	445	weishaupt			
in - in the second sec	WM-G10/3-A ZM	833	224	307	279	445	weishaupt			
Heaters		833	224	307	279	445	weishaupt			
Burners	WM-G10/1-A ZM-LN	793	144	307	279	445	weishaupt			
i Oil burners	WM-G10/2-A ZM-LN	813	143	307	279	445	weishaupt			
<ul> <li>Iow power</li> <li>Bedium power</li> <li>Bedium power</li> <li>Gas burners</li> <li>Iow power</li> <li>Iow power</li></ul>	WM-G10/3-A ZM-LN	833	197	307	279	445	weishaupt			
Sort	View and insertion poin	t								
	© 2D					V Sys	stem	Supply		1
	Hiding 1				√ Start	element				
	Side 1				⊡ Start		·			
	🔘 Side 2				⊡ End e	ement				
					√ Insert	t reduce	r			
	Current unit: millim	etres			<b>P</b>	Objec	t style	I √	ОК	



# ✓ Dynamic determination of objects insertion "direction"

For certain elements (such as elbows, tees) it is possible to dynamically determine the direction of insertion. This option makes it much easier to draw installation sequences.







#### ✓ Improved 'in extension' option

When inserting multiple objects (e.g. symbols, fittings, windows etc.) user can use the "in extension" option, which makes it easier to determine the position of objects that lie along the selected line. After indicating the line, user can determine the object insertion distance from the beginning of the line or from any reference point. This feature speeds up precision insertion of elements without the need of drawing construction lines or using editing commands.





#### ✓ User symbols - adding symbols to the libraries

Program allows user to define his own symbols and add them to standard CADprofi libraries. So far, the symbols creator allowed to add symbols to a separate library. Currently symbols are added directly to each individual program commands, and their operation is similar to the operation of all program symbols.

To add user own symbols, a special creator is being used, which allows user to create and expand the database of their blocks in a simple way.

Additionally, there is a possibility to create "scalable" symbols i.e. those for which user can independently determine the X, Y and Z dimensions.





# ✓ User symbols – edition

Symbols that are defined by the user can be edited in a simple way. In the edit window, user can adjust many symbols parameters, including insertion method, break line points (if the symbols is inserted in the line) and others.

Parameter	Value	
Name	Symbol 1	
Category Norm	Symbols ANSI\Exchangers	
Type of symbol	Inserting in line	
Layer	2DH_SYM	•
Symbol parameters		
Angle correction	Angle 90	Explode symbol after inserting      Break line
Scale	Any scale	X-1         X+1
Attributes angle	As block	▼ Y- 0 > Y+ 0
Attributes editing	Without attributes window	All points X, Y



# ✓ Organizing user databases

In parametrical libraries user has got the possibility to expand the database with their own product types. Parameters of these products can be freely edited, and currently also organized (it is possible to specify their order appearance in the library).

Parametrical armature									
📙 🗘 🗉 🗮 🛠 💶 😮	🗈 🗆 🗙				•	Q 😣			
Armature	Name	L	н	с	в				_
🖃 🦢 Flange armature	DN25	132	175	100	14				
Stop valve	- DN32	148	237	120	14				
Stop valve	DN40	168	237	130	14				
	DN50	198	273	140	14				
Ball valve flanged	- DN65	258	307	160	14				
Ball valve flanged with rotary-piston	DN80	274	365	190	16				
Flanged valve with actuator		314	383	210	16				
Butterfly valve between the flange	DN125	360	522	240	18				
Butterfly valve between the flange	DN150	440	540	265	18				
R Gate valve	DN200	556	688	320	20				
Check valve between the flange	PN 16	550	000	520	20				
Check valve flanged	& *User*								
Check valve between the flange	Default catego								
Check valve flanged (oblique)	DN15	106	175	80	12				
	DN15	556	688	320	20				
	DN200	556	688	320					
		550	666	320	20				
	DN200	Expand all			2				
Gas pressure regulator	DN200	Collapse all			P				
🗈 🛅 Threaded armature	DN150				B				
🕀 🚞 Welded armature 🗸 🗸	DN 130	Translate th	is eleme	nt					
	DN130	Remove			в				
	View and in	Edit							_
Sort Sort	View and ins								
<b>*</b>	Insertio	Сору				🔽 System	Supply		
	Inscruc	Move up							
		Move down							
	Viev				Start	element	Neck flanges		
					July Start	element	Neck lianges		_
山田	O View 2				🗸 End e	lomont	Neck flanges		
<mark>⊬∦B</mark> /¦\					I Enu e	iement	Neck hanges		
	Scheme				✓ Insert				
					Insert	treducer			
	O View 3								
	Symbol								
	Ourrentum	t: millimetres			~				_
* • *	Current un	it; minimetres			s an	Object style		OK	
DN200									



# ✓ New layer option - layer colour depends on the selected system

In the program it is possible to use the automated layers management. Extended layer structure allows user to place objects from different systems on different layers. Currently it is possible to match the objects colour to the system colour.

CADprofi - Options	×
<t> Translate the program ③ Check a new ver</t>	sion 💡 Activation 😢 Help
Units	Standards
Unit of drawing millimetres	Standards available in the program Select
Format for inches <b>fractional</b>	
Units in dialog box	Block layer <ul> <li>automatic</li> </ul>
Set the global linetype scale factor for unit (variable _ltscale)	Extended layer name     Layer color from system
Scale factor variable (_ltscale)	© current © fixed 0
Thumbnails	Isometric style
Thumbnails size: 70	Angle
I 3D style thumbnails	© 45
Thumbnails labels	◎ Other 30
General settings	
Enable visual inserting style	
☑ On-line update reminder	every 15 days 👻
Set high level of warnings	
€	OK



# Changes in the creation of bill of materials

Currently columns that are used to print can be organized by the "drag and drop" method and they can be deleted with the Delete key.

New types of specifications have been added to the *Bill of materials* command thanks to which user can quickly add them to the drawing.

New direct printing modules of specifications, working in both 32 and 64 bit CAD programs have been added to the program.

		Neck flanges	2pcs.		
		Neck flanges	2pcs.		
		Neck flanges	2pcs.		
		Neck flanges	2pcs.		
S-4		Butterfly valve between the flange	1pcs.		
S-3		Gate valve	1pcs.		
S-2		Filter flanged	1pcs.		
S-1		Stop valve	1pcs.		
No	Mark	Name	Sume	Weight	Note

Bill of materials (BOM)						
Select type of BOM						
Available columns	Printed columns					
Area Block Characteristics Diameter Dimensions	Add > Number Name Manufacturer Article DN					
Duct pcs Flow Group Height Layer	E < Delete PN					
Length Level No Other						
Power Reference System	Down					
Specification print setup						
Summing data	Landscape print					
Sort	Header of a company					
V Skip special symbols	Ordinal number on print					
Next >						



#### ✓ Extended Frames and tables command content

Additional elements have been added in the *Frames and tables* command, including:

- frames,
- tables,
- specifications (tables used for quick creation of different lists),
- front pages.

In addition, the *Frames and tables* command introduced the possibility to enter multiline texts.





#### ✓ Extended Bill of materials command content

Additional specifications which automate the creation of specification tables have been added to the *Bill of materials* command.





### ✓ User manual is available in Czech language

Full documentation in the Czech language, including the manual in the pdf format and program help system has been prepared for the new program version. Additionally online help is also available at <u>www.cadprofi.com</u>.







# ✓ Wavin library – improved drawing of plumbing installations

Until now during the plumbing designing it was necessary to insert individual elements from the library. Currently, in the Wavin library there is a possibility to automatically draw sequences of installations.

This option greatly improves drawing, because the program automatically inserts all the necessary pipes and elbows along the indicated points.

During drawing program will adjust the drawn angle to the existing bends (15°, 22°30', 30°, 45°, 67°30', 87°30').





#### ✓ New library of Chemowent products

Chemowent products, that are used in the chemical resistant ventilation systems have been added to the program. The library contains a set of elements that allow to design any installations:

- ventilation lines with a circular and rectangular cross-sections,
- fittings, including: bends, tees, reducers, air intakes and others,
- armature (deflectors, flaps),
- various types of chemical resist fans.







# ✓ New library of BH-Res products

BH-Res products that are used to design ventilation with the Climaver mats have been added to the program. The library contains a set of BH-Res products, including:

- ventilation ducts with a rectangular crosssection,
- elbows,
- departures,
- double branch bend and simple tees with rectangular or circular departure,
- symmetric and asymmetric reductions,
- offsets,
- caps,
- circular connectors,
- Plenum boxes with side nipple or upper nipple,
- H profiles (that allows to connect Climaver ducts with cables made of sheet metal).







# Update of manufacturers' libraries:





#### ✓ Adjustment to many base CAD programs

CADprofi 11.05 has been adjusted to work with latest CAD programs, including: AutoCAD 2015, BricsCAD V15, GstarCAD 2015, ZWCAD 2015+ Professional and others.

CADprofi 11 currently works with many base CAD programs including: AutoCAD (since the 2000 version), BricsCAD, GstarCAD, IntelliCAD, progeCAD, ZWCAD, ARES Commander Edition and others.







