



Stabicad 23.05 release

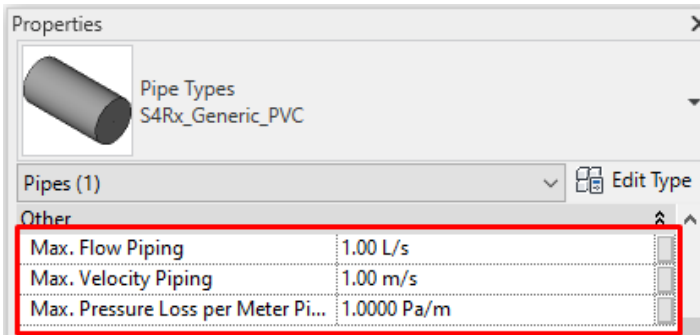
Release Notes United Kingdom (UK)

Highlights of the 23.05 release

- Revit shared parameters have been added for sanitary equipment that have a bidirectional link with the mechanical calculation parameters!
- The output mechanical calculation parameters have been updated. New parameters have been added and existing parameters have been modified.
- Stabicad now includes a complete set of CIBSE aligned lighting symbols!

Stabicad for Revit

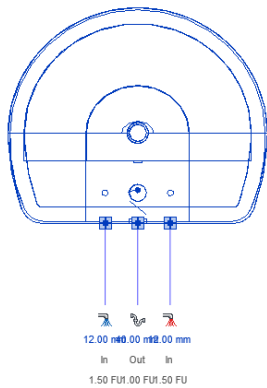
- **The output calculation parameters for the mechanical calculations have been updated!**



Stabicad for Revit | Mechanical engineering

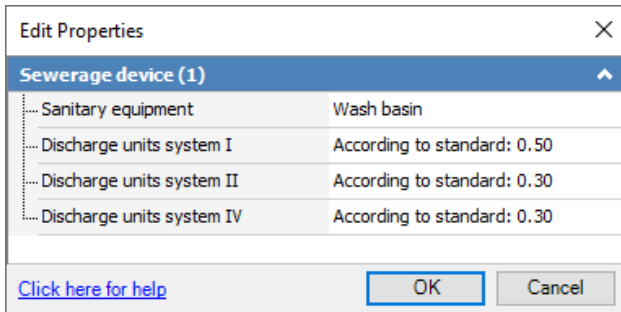
- **You can now use native Revit to control the calculation input values for sanitary equipment and you are able to tag & schedule these parameters.**

This is a follow up to the functionality released in 23.01 and 23.03.

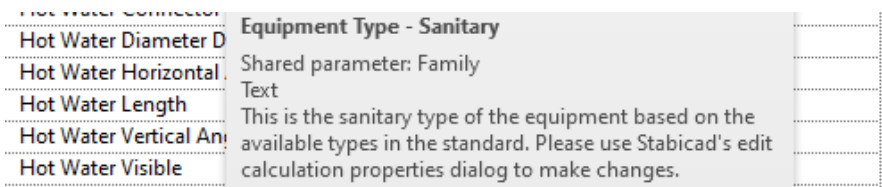


Mechanical	
Calculated Pressure Cold	0.000000 Pa
Calculated Pressure Hot	0.000000 Pa
Cold Water Connector Diameter	12.0
Cold Water Diameter Description	12
Cold Water Horizontal Angle	0.00°
Cold Water Length	10.0
Cold Water Vertical Angle	90.00°
Cold Water Visible	<input checked="" type="checkbox"/>
Description Consumer	
Discharge Units System I	0.50 L/s
Discharge Units System II	0.30 L/s
Discharge Units System IV	0.30 L/s
Draw-off Flow Rate Cold	0.15 L/s
Draw-off Flow Rate Hot	0.15 L/s
Equipment Type - Sanitary	Basin, 15mm separate taps
Equipment Type - Waste Water	Wash basin
Hot Water Connector Diameter	12.0
Hot Water Diameter Description	12
Hot Water Horizontal Angle	0.00°
Hot Water Length	10.0
Hot Water Vertical Angle	90.00°
Hot Water Visible	<input checked="" type="checkbox"/>
Loading Units High Cold	4.000000
Loading Units High Hot	4.000000
Loading Units Low Cold	1.000000
Loading Units Low Hot	1.000000
Loading Units Medium Cold	2.000000
Loading Units Medium Hot	2.000000
Maximum Operating Pressure	500000.000000 Pa
Minimum Service Pressure	100000.000000 Pa
Pressure loss Piping - Input	0.000000 Pa
Sewerage Connector Diameter	40.0
Sewerage Diameter Description	40
Sewerage Horizontal Angle	0.00°
Sewerage Length	10.0
Sewerage Vertical Angle	90.00°
Sewerage Visible	<input checked="" type="checkbox"/>
Zeta Piping - Input	0.000000
System Classification	Sanitary,Domestic Hot Water,Domestic Col...
System Type	Undefined
System Name	
System Abbreviation	
Code	

In order to make a proper mapping for standards that support multiple flow rates, these flow rates have been split into multiple parameters. E.g. there are now three different Discharge Unit parameters instead of one combined parameter:



Note that the parameters *Equipment Type - Sanitary & Equipment Type - Waste water* are one directional only: changes made in Edit Calculation Properties will be reflected in Revit but not the other way around. This is also indicated with a tooltip:



There are two equipment type parameters for sanitary equipment because the equipment types used in tap water calculations are different from the ones used in the waste water calculation.

Note that these parameters are standard dependent. That means if you set a different calculation standard for either tap water or wastewater in StabiBASE the family will receive a different parameter set. In order to facilitate this, standard specific families were created. For the sanitary equipment, which contain both tap water & waste water calculation parameters the following standard combinations are supported:

	Tapwater						
Waste water	NEN 1006 (2011) - ISSO55 (2013)	NBN 806 (2000)	DTU 60.11(2013)	DIN 1998-300 (2012)	CIPHE (2002) - CIBSE Guide C (2007)	BS EN 806-3 (2006) - CIBSE Guide C (2007)	BS 8558 (2015) - CIBSE Guide C (2007)
	EN 12056 (2000)						
DTU 60.11 (2013)							
DIN EN 12056-2 (2001) - DIN 1986-100 (2016)							
NTR 3216 (2012)							
BS EN 12056 (200)							

If you place a family in an unsupported combination then that family will not contain the newly added parameters (the old family will be placed).

■ **The output calculation parameters for the mechanical calculations have been updated!**

These parameters are added by Stabicad after running a calculation and are not present by default in the template. All of these parameters are shared Revit parameters.

First of all new shared parameters will be added to pipes after running a tap water calculation:

8558 / 806 / CIPHE

Shared Parameter Name	Discipline	Parameter Type	Parameter group
Σ Loading units	Common	Number	Other
Σ Continuous Water Flow	Piping	Flow	Other

ISSO / NBN

Shared Parameter Name	Discipline	Parameter Type	Parameter group
Σ Tap Units	Common	Number	Other
Σ Flush Units	Common	Number	Other
Σ Continuous Water Flow	Piping	Flow	Other

DTU

Shared Parameter Name	Discipline	Parameter Type	Parameter group
Σ Coefficient	Common	Number	Other
Σ Continuous Water Flow	Piping	Flow	Other

DIN

Shared Parameter Name	Discipline	Parameter Type	Parameter group
Σ Continuous Water Flow	Piping	Flow	Other

CIPHE example:

Other	
Section Code	
Velocity Range (m/s)	0,746
Pressure Loss per Meter Range (Pa/m)	619,298
Max. Flow Piping	0.15 L/s
End Pressure Piping	299479.790000 Pa
Total Pressure Loss Piping	520.210000 Pa
Max. Velocity Piping	0.75 m/s
Flow Range (l/s)	0,15
Initial Pressure Piping	300000.000000 Pa
Pressure Loss	520.209933 Pa
Max. Pressure Loss per Meter Piping	619.2980 Pa/m
Σ Continuous Water Flow	0.00 L/s
Σ Loading Units	2.000000

New parameters are also added to pipes after running a wastewater calculation:

EN 120256 / BS EN 12056 / DTU / DIN

Shared Parameter Name	Discipline	Parameter Type	Parameter group
Σ Discharge units	Piping	Number	Other

Shared Parameter Name	Discipline	Parameter Type	Parameter group
Frequency Factor	Common	Number	Mechanical - Flow

BS EN 12056 example:

Other	
∑ Discharge Units	0.300000
Max. Flow Piping	0.30 L/s
Section Code	
Flow Range (l/s)	0.300000
Frequency Factor	0.700000

Changes were also made to existing parameters, these are listed below. Note the difference between *Max.* parameters and *Range* parameters. *Max.* parameters show the maximum value of an element. (e.g. when multiple saddles are connected to a single pipe, that pipe will have multiple flow rates. The *Max* parameter will contain the highest value). *Range* parameters are a text parameter that show the minimum value and the maximum value with a “-” in between.

The discipline and type of existing *Max.* parameters have been changed to allow for unit modification. For the piping calculations:

Shared Parameter Name	Discipline	Parameter Type	Parameter group
Max. Flow Piping	Piping	Flow	Other
Max. Pressure Loss per Meter Piping	Piping	Friction	Other
Max. Velocity Piping	Piping	Velocity	Other

For the ventilation calculation:

Shared Parameter Name	Discipline	Parameter Type	Parameter group
Max. Flow Ventilation	HVAC	Air Flow	Other
Max. Pressure Loss per Meter Ventilation	HVAC	Friction	Other
Max. Velocity Ventilation	HVAC	Velocity	Other

For the “Range” parameters the name is changed to reflect a fixed unit. Also all parameters are now grouped under the *Other* group and have the correct type. For the piping calculations:

Shared Parameter Name	Discipline	Parameter Type	Parameter group
Flow Range (l/s)	Common	Text	Other
Pressure Loss per Meter Range (Pa/m)	Common	Text	Other
Velocity Range (m/s)	Common	Text	Other
Section Code	Common	Text	Other
End Pressure Piping	Piping	Pressure	Other
Initial Pressure Piping	Piping	Pressure	Other
Total Pressure Loss Piping	Piping	Pressure	Other

Heating & Cooling pipe example:

Other	
Section Code	r2
Velocity Range (m/s)	0.15
Pressure Loss per Meter Range (Pa/m)	26.11
Max. Flow Piping	0.03 L/s
End Pressure Piping	5563.710000 Pa
Total Pressure Loss Piping	-5563.710000 Pa
Max. Velocity Piping	0.15 m/s
Flow Range (l/s)	0.029286
Initial Pressure Piping	0.000000 Pa
Max. Pressure Loss per Meter Piping	26.1100 Pa/m

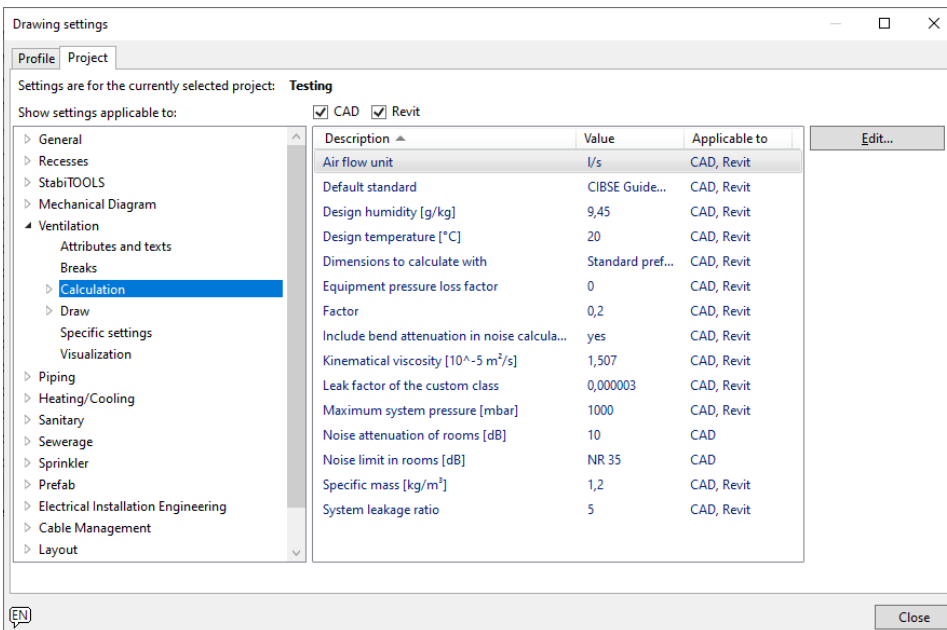
For the ventilation calculation:

Shared Parameter Name	Discipline	Parameter Type	Parameter group
Flow Range (m3/h)	Common	Text	Other
Flow Range (l/s)	Common	Text	Other
Pressure Loss per Meter Range (Pa/m)	Common	Text	Other
Velocity Range (m/s)	Common	Text	Other
Section Code	Common	Text	Other
End Pressure Ventilation	HVAC	Pressure	Other
Initial Pressure Ventilation	HVAC	Pressure	Other
Total Pressure Loss Ventilation	HVAC	Pressure	Other

Duct example:

Other	
Flow Range (m³/h)	300
Max. Pressure Loss per Meter Ventilation	2.1900 Pa/m
Section Code	1
End Pressure Ventilation	15.160000 Pa
Max. Flow Ventilation	1080.0000 m³/h
Velocity Range (m/s)	4.8
Total Pressure Loss Ventilation	5.460000 Pa
Pressure Loss per Meter Range (Pa/m)	2.19
Max. Velocity Ventilation	169.5104 Pa/m
Initial Pressure Ventilation	20.620000 Pa

Note that only one Flow Range parameter will be added by the calculation depending on the StabiBASE setting:



If the Air flow unit is set to l/s, the l/s Range parameter will be added and if set to m3/h, the m3/h Range parameter will be added.

As a consequence new tags have been created and existing tags have been updated. These are all part of the template by default.

M_Pipe_Calculation_Tag_MEPcontent Flow = Velocity * Pressure loss per meter	0.041 L/s 0.3 m/s 122.13 Pa/m	VE_Duct_Calculation_Tag_MEPcontent Flow = Velocity * Pressure loss per meter	360 m ³ /h 2.3 m/s 0.72 Pa/m
M_Pipe_Max Info_Tag_UK_MEPcontent Pipe info	0.041 L/s 122.13 Pa/m 0.3 m/s 15 mm	M_Duct_Max Info_Tag_UK_MEPcontent Pipe info	360 m ³ /h 0.72 Pa/m 2.3 m/s ø125
M_Pipe_Range Info Liters Sec_Tag_UK_MEPcontent Pipe info	0.041064 122.13 0.31 15 mm	M_Duct_Range Info Cubic Meter Hour_Tag_UK_MEPcontent Pipe info	100 0.72 2.3 ø125
M_Pipe_Range Info Cubic Meter Hour_Tag_UK_MEPcontent Pipe info	122.13 0.31 15 mm	M_Duct_Range Info Liters Sec_Tag_UK_MEPcontent Pipe info	100 0.72 2.3 ø125

In the template there are tags for:

- The range parameters, these have a fixed unit
 - There are two tags for flow. One for l/s and one for m³/h.
- The max parameters, these have a variable unit depending on the Revit settings

These are the tags that were newly introduced/modified:

- M_Pipe_Calculation_Tag_MEPcontent
- VE_Duct_Calculation_Tag_MEPcontent
- M_Duct_Max Info_Tag_UK_MEPcontent.rfa
- M_Duct_Range Info Cubic Meter Hour_Tag_UK_MEPcontent.rfa
- M_Duct_Range Info Liters Sec_Tag_UK_MEPcontent.rfa
- M_Pipe_Max Info_Tag_UK_MEPcontent.rfa
- M_Pipe_Range Info Cubic Meter Hour_Tag_UK_MEPcontent.rfa
- M_Pipe_Range Info Liters Sec_Tag_UK_MEPcontent.rfa

Note that:

On existing models, when a new calculation is run, you will see both old and new parameters. But just the new ones are going to be updated going forward.

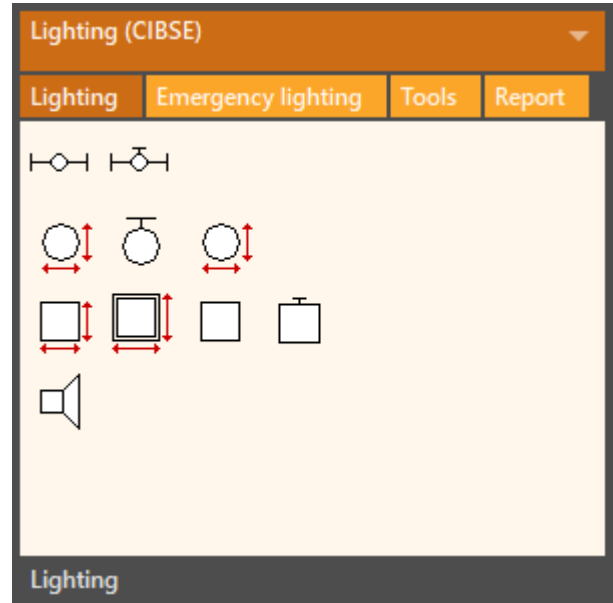
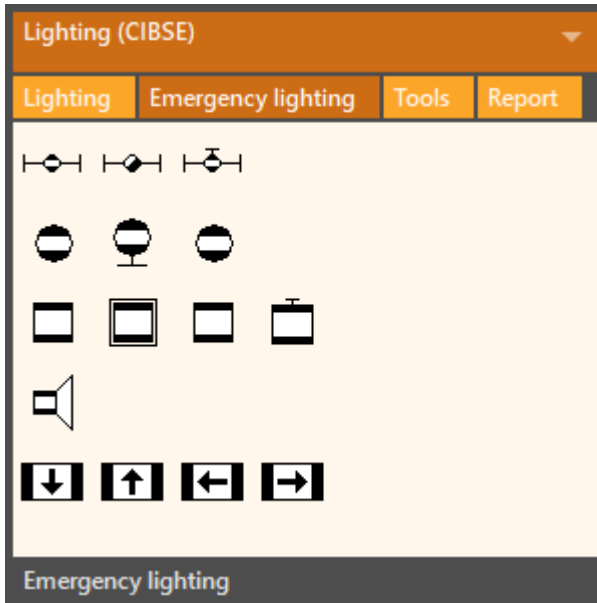
When modeling a new pipe or duct in an existing model that already has the old parameters on existing pipes/ducts, the newly modeled pipe/duct is going to contain the old parameters. This is because they are already present as project parameters for pipes and ducts.

For either case you can remove the old project parameters manually.

- An issue has been fixed in the functionality "Assign mechanical calculation properties". Previously you could only assign the family interpretation of a "Fan" to an element which had 1 duct connector. This has been corrected so that any family with 2 duct connectors can be interpreted as a "Fan" and used in the calculation as such.
- An issue was fixed for the air leakage calculation. In some cases there could be a mismatch between the result reported in the calculation overview and the result reported in the Revit model when the air leakage calculation was enabled. This has now been corrected.
- An issue was fixed that caused saddles / shoes connections to be disconnected after running a redimensioning calculation. Now saddles / shoes will be properly connected after the calculation.

Stabicad for Revit | Electrical engineering

- Stabicad's Lighting (CIBSE) Palette Center section has now been updated to be fully aligned with CIBSE regulations.



- Stabicad's Small Power (CIBSE) Palette Center section has been updated to align with CIBSE naming.