



Lindab MagiCAD Plugin for DIMcomfort, DIMsilencer and LindQST

Lindab supports its Comfort Selection Tools integrated in MagiCAD. The benefits are that you can now use Lindabs advanced calculation and presentation methods and transfer the result into MagiCAD.

Installation of MagiCAD Plugin

Installation of Lindab MagiCAD Plugin 2018.6.1

Installation requirements

To be able to use the plugin between the Lindab Software and MagiCAD you need to have in

64-bit operating system:

- MagiCAD 2019 and AutoCAD 2015-2019
- MagiCAD 2020 and AutoCAD 2015-2020

The Plugin can be downloaded from:

<https://portal.magicad.com/download/ProductSearch?searchStr=lindab&categoryId=3>

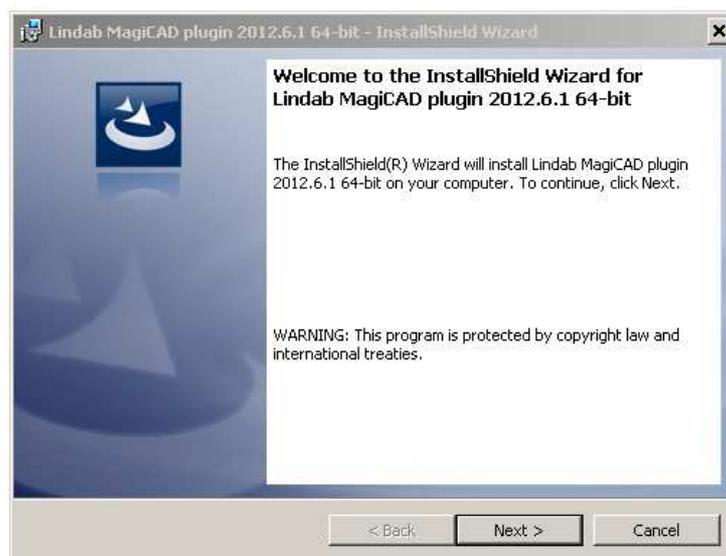
NOTE: You need to have local administrator rights to install the Plugin on your computer.



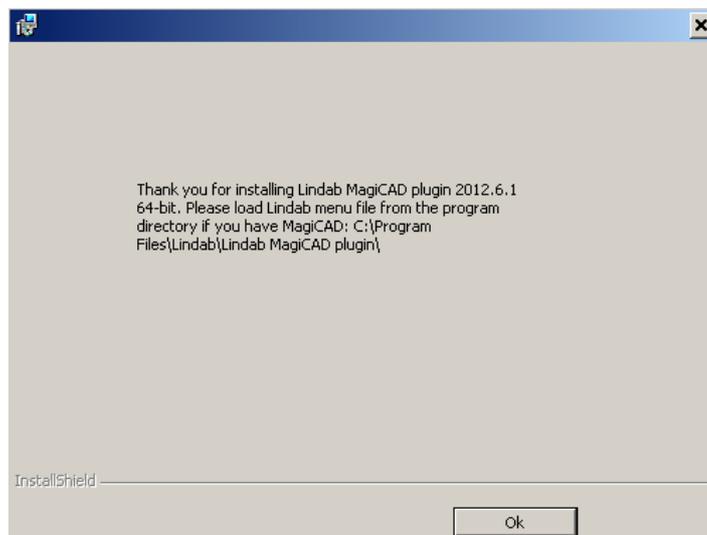
Information for network administrators:

Plugin requires connection to Lindab web site. Internet Explorer control is used to browse web pages from <http://www.lindqst.com/>.

Standard HTTP GET (TCP, default port 80 should be used) method is used to retrieve files from the server. GET response includes file (mime application/octet-stream). Your network firewall should allow such connections.



After the installation is completed you will see the screen below prompting you to load the menus manually for the first time from the link shown in the dialog. The menus can be loaded using the AutoCAD MENULOAD function or through the CUI interface.





Now you can install the Lindab software. Please note that you must have the version numbers below or newer to use the Plugin.

DIMcomfort:

<http://itsolution.lindab.com/downloads/dimcomfort/5.1/install.exe>



DIMsilencer:

<http://itsolution.lindab.com/downloads/dimsilencer/latest/install.exe>



Using the plugins



When you have loaded the menu file you will have 3 additional buttons available:



Plugin to DIMcomfort



Plugin to DIMsilencer



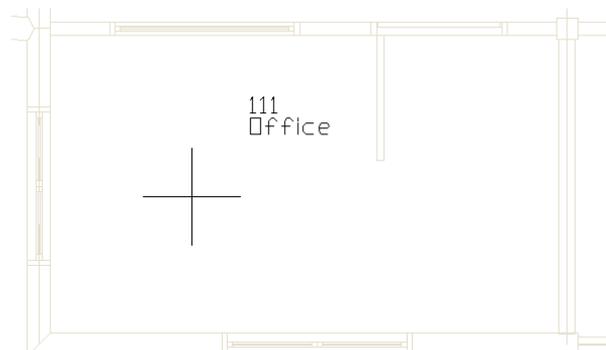
Plugin to LindQST (New webbased Comfort Selection Tool)

DIMcomfort

The DIMcomfort plugin contains 2 methods:

- Importing rooms to DIMcomfort using MagiCAD Room module
- Import freely using AutoCAD POLYLINE command

If you have MagiCAD Room module installed you click first on the DIMcomfort button and then in the MagiCAD Room you want to transfer. In this case the room geometry as well as airflows for supply and extract air are transferred.





If you use the MagiCAD Room transfer, the airflows for supply and extract will be read only in DIMcomfort.

Otherwise you can always draft a Polyline to transfer the room boundaries into DIMcomfort. Press “m” to select room boundaries manually, close the Polyline and press Enter, then you will be asked to enter a room height. Press Enter again if you have stated the room height or use the default height.

NOTE: DIMcomfort allows only square angles, other angles can be calculated, but you can get a warning that the representation can be wrong.

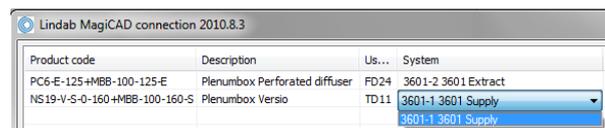
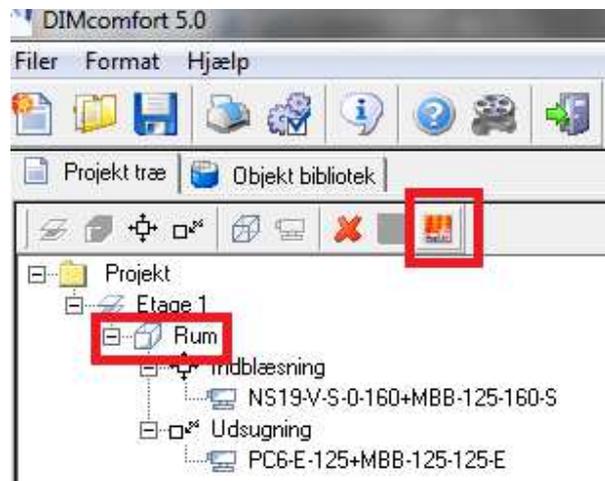
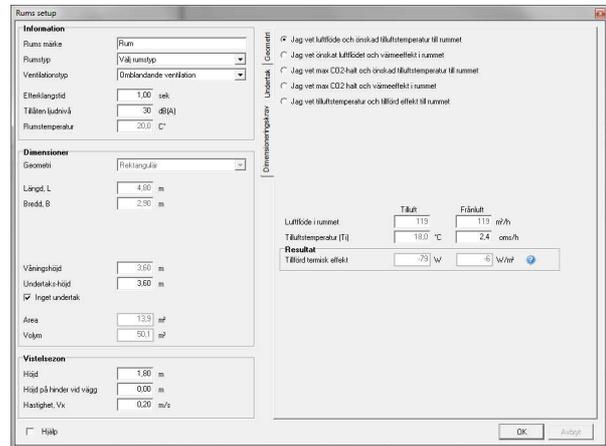
After your selection DIMcomfort will open. You can now use DIMcomfort as usual, select and insert diffusers, place them in your room and visualize throw pattern, air velocity and sound in the comfort zone.

When you are finished you click on the room node in the tree view and then select the export button to MagiCAD.

DIMcomfort will then exit and a dialog in MagiCAD will pop up prompting you to state a User Code and select a system.

Now the diffusers will be shown in the same position, height and rotation as

Select a MagiCAD room or [select room borders Manually]:





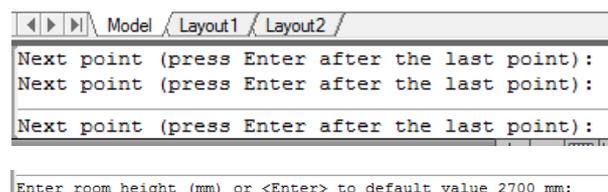
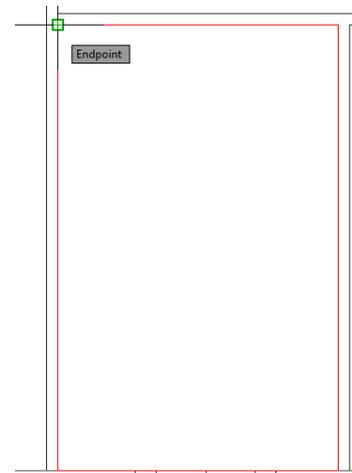
selected in DIMcomfort.



If you don't have the MagiCAD Room module you must draw the rooms boundaries manually using the AutoCAD Polyline function.

Press "Enter" or "Return" to exit the Polyline function and state the height of the room.

Then continue in DIMcomfort as described before. Don't forget to enter airflows for supply and exhaust manually in DIMcomfort when you use this type of transfer.





DIMSilencer

In DIMsilencer you can select Lindab silencers. DIMsilencer is an advanced software to state requirements, calculate results and compare Lindab silencers with each other are of great benefit to detect and solve sound problems in your duct design. Especially the possibility to use parametrical, will say non-standard sizes, for rectangular silencers and transfer them to MagiCAD are unique.

Push the DIMsilencer button in MagiCAD and select the circular or rectangular duct for which you want to calculate and insert a silencer.



DIMSilencer will now open and you can enter the sound values before the silencer and the designated result after the silencer.

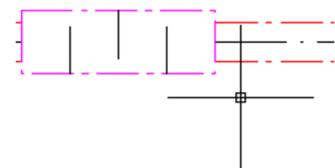
If you ran flow summation in MagiCAD before, the airflow will be transferred as well to calculate the sound generation; otherwise you can enter these values also manually.

	Lw före ljuddämpare	Dämpning	Max Ljudbelastning	Lw efter ljuddämpare
63 Hz (dB)	45	11		34
125 Hz (dB)	50	13		37
250 Hz (dB)	48	15		33
500 Hz (dB)	47	30		17
1000 Hz (dB)	40	46		-6
2000 Hz (dB)	35	36		-1
4000 Hz (dB)	28	14		14
8000 Hz (dB)	14	12		2
vsgt dB(A)	47		0	27

When you selected a silencer you press the "OK"-button. DIMsilencer will then close and MagiCAD dialog asks you to state a User Code.

Product code	Description	User code
LRCA 200 1000	Circular straight low-built silencer	LD23

In the last step you click on the duct you want to insert your silencer into. You can even select larger or smaller ducts than the size of the selected silencer. MagiCAD will in this case insert reductions automatically.





LindQST

LindQST is a new web based selection tool for Lindabs Comfort product range including documentation.

Lindab quick selection tool



LindQST

Lindab Quick Selection Tool gives you the flexibility and overview in everyday life. lindQST optimizes the documentation and helps you finding the right indoor climate solution products. With lindQST you will quick and easy find the product that fits your construction project. We simplify construction.

lindQST



Push the LindQST button in MagiCAD to open a webbrowser and start LindQST and select a product selector.



NOTE: You must start LindQST with the button MagiCAD to be able to use the transfer function into MagiCAD.



Example for a diffuser selection:

Use "Product selector air"

1. Select a Product category or a room type to find suitable products.

1

Product category

Roomtype

Product category

Ceiling diffusers Visible diffusers
 Industrial diffusers Wall diffusers
 Wall grilles Nozzles
 Ventiduct Grilles
 Displacement diffusers Theatre diffusers
 Lowimpulse diffusers VAV diffusers
 VAV dampers VAV accessories
 Airflow regulators Control valves
 Fresh air valves Overflow units
 Clean room difusers

2. Select a product or define the search parameters for the diffuser you want to select.

2

Product selection

Product line

Product name

Connection size

Function

Plenum box

Design

Geometry

Spread pattern

3. Enter the technical requirements, but at least airflow and sound.

NOTE: the more parameter you define the quicker and more selective the calculations will work.

3

Technical requirements

Air flow unit l/s m³/h

Air flow q_v^*

Sound power L_{wA} to dB (A)

Adjustment pressure Δp

Total pressure loss Δp_t

Max. throw $l_{0,2}$

* = these criterias must be completed
 Note: All technical datas are for 1 diffuser
 Note: $L_{pA} = L_{wA} - 4$ db

4. LindQST calculates all diffusers which fulfils the requirements. Push "Show Results" to get a list of calculated diffusers. In the selection you can even compare 2 or more products to each other for detailed information.

Show Results SEARCH RESULTS: 6



5. Select a diffuser to get a detailed report including the "Export to MagiCAD" button.

Number of products selected: 0

Article name▲	Spread pattern	Product height	$l_{0,2}$	L_{wA}	Δp_t
LKA-160+MBB-125-160-S	4-way	265	3,6	34	42
LKA-160+MBB-160-160-S	4-way	299	3,6	34	53
LKA-200+MBB-125-200-S	4-way	265	2,9	33	61
LKA-200+MBB-160-200-S	4-way	299	2,9	28	32
PKA-160+MBB-160-160-S	4-way	299	2,2	34	35
PKA-200+MBB-160-200-S	4-way	299	2	27	27

Complete

LKA-160+MBB-125-160-S
4-way

Pressure and sound power diagram

Hz	63	125	250	500	1K	2K	4K	8K
$K_{s,k}$	13	9	1	-3	-6	-12	-17	-25
Att.	13	13	9	10	10	10	10	20

Documentation

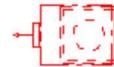
Technical data

Export to MagiCAD

6. Push the button to close the web browser and enter a User Code in MagiCAD. Then place the diffuser into the drawing.

Lindab MagiCAD connection 2010.8.3

Product code	Description	User code
LKA-160+MBB-125-160-S	Ceiling diffusers	TD34





Example for a supply air beam selection:

Use "Product selector water"

1. Select a Product category or a room type to find suitable products.

Limit the product category list by deactivating the product group.

2. Select a product or define the search parameters for the beam you want to select.

3. Enter the technical requirements, but at least airflow, pressure, capacities and sound.

NOTE: the more parameter you define the quicker and more selective the calculations will work.

4. LindQST calculates all supply air beams which fulfil the requirements. Push on "Show Results" to get a list of calculated beams. In the selection you can even compare 2 or more products to each other for detailed information.

Product selector air
Product selector water

1

Product category

Roomtype

Placement

Product category

Supply air beams

Architect Plafond Plexus

Polaris I Polaris S Premax

Premum Professor

Passive beams

Facade units

Cooling/Heating panels

2

Product selection

Function

Spread pattern

Cooling

Room air temperature t_r °C

Temperature gradient in room t_g K

Primary air temperature t_{ai} °C

Water inlet temperature t_{wi} °C

Temperature difference water circuit Δt_w K

3

Technical requirements

Air flow unit l/s m³/h

Primary air flow rate q_a l/s

Static nozzle pressure loss Δp_{stat} Pa

Required capacity_{cooling}* P W

Max. sound power* L_{wA} dB(A)

Max. allowed pressure drop loss in water circuit_{cooling} Δp_w kPa

* = these criterias must be completed

Advanced search

Show Results SEARCH RESULTS: 11



Number of products selected: 3

<input checked="" type="checkbox"/>		Plexus (type)S60-12-125	1	0.6	<20	475	0.028	1.7
<input checked="" type="checkbox"/>		Plexus (type)S60-12-125	1	0.6	<20	475	0.028	1.7
<input checked="" type="checkbox"/>		Polaris I-60-15-125	1	1.2	27	558	0.034	1.2
<input type="checkbox"/>		Polaris S-30-15-100	1	1.5	25	472	0.028	0.5
<input checked="" type="checkbox"/>		Premax (type)-15-125	1	1.2	22	471	0.028	0.3
<input checked="" type="checkbox"/>		Premium (type)-12-125	1	1.2	22	470	0.027	0.9

Compare

5. Select a beam to get a detailed report including the "Export to MagiCAD" button.

Premax I-60-15-125-A1-1.2

Product selection

Product list: Premax
 Function: Cooling
 Type: I-60
 Water connection: 15 mm
 Connection type: A1
 Product length: 1.2 m
 AirGuide: 0
 Standard lengths: 1.2m, 1.8m, 2.4m, 3.0m

Technical requirements

		Cooling						
Room air temperature	t_r	25.0	°C					
Temperature gradient in room	t_g	3.0	K					
Primary air temperature	t_{pa}	18.0	°C					
Water inlet temperature	t_{wi}	14.0	°C					
Δt Flow								
Primary air flow rate	q_v	15.0	l/s					
Primary air flow rate (total)	$q_{v,tot}$	15.0	l/s					
Result								
Number of beams required: 1								
Temp. difference between room air temp. and mean water temp.:								
	$\Delta t_{m,w}$	9.50	K					
Nominal water capacity 0.028 l/s:								
	P_{nom}	591	W					
Water flow rate	q_w	0.028	l/s					
Corrected water capacity	P_w	385	W					
Capacity air	P_a	126	W					
Total Capacity	P	471	W					
Pipe pressure drop loss	Δp_{p}	0.3	kPa					
Sound power level	$L_{w,k}$	22	dB(A)					
Additional results								
Hz	63	125	250	500	1K	2K	4K	8K
K_{ik}	7	4	-6	-5	-5	-9	-13	

Documentation

Regula Connect can all be built into the Premax beam.
 Premax is Lindab's highest performing supply air beam for extreme cooling demands.
 Premax also feature the Lindab SetCone, an innovative way of regulating air volume. The air volume can easily be adjusted without having to worry about pressure and noise issues. And with the new adjustable AirGuide system, altering the flow pattern is simpler than ever.

- Powerful - exceptional cooling performance
- Flexibility - suited to the individual workspace
- Control - innovations eliminating draughts

Documentation | Select a document:

Export to MagiCAD | Add to project | View groups | Generate list

6. Push the button to close the web browser.

7. Supply air beams can be used for the air or the water design. Choose the system you like to design. The beam will be transferred with the technical data of the chosen system.



8. A successful data transfer will be confirmed by a pop up window "Device export OK"



9. Close the Browser with OK

10. Accept the User Code or change it and quit the product transfer window with OK.

Product code	Description	User code
Premium I-60-12-125-A1-1.2 - 2-way	2-way Supply air beam	LIND3

11. Place the beam in the drawing.

