



Lindab MagiCAD plugin for AutoCAD

User guide

11/04/2022

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About this document

This document is user guide for using Lindab MagiCAD plugin for AutoCAD. With plugin users is able to transfer devices from LindQST to MagiCAD for Revit application. The benefits are that you can use Lindabs advanced calculation and presentation methods in LindQST application.

The plugin supports also silencer transferring between DIMsilencer and MagiCAD for AutoCAD applications.

Installation

Requirements

To be able to use the plugin between the Lindab LindQST Software and MagiCAD for AutoCAD you need to have:

AutoCAD

- AutoCAD 2017 - 2023

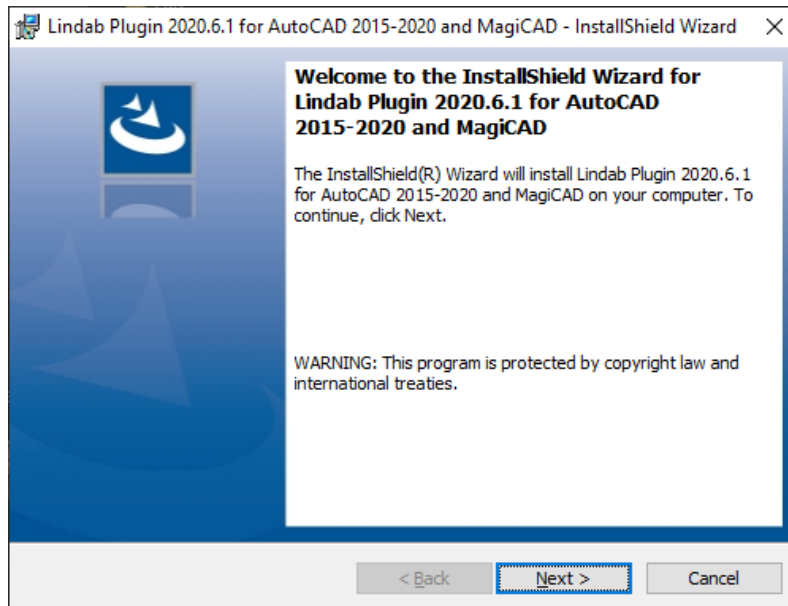
MagiCAD (optional)

- MagiCAD for AutoCAD 2022 (with AutoCAD 2017 - 2022)
- MagiCAD for AutoCAD 2023 (with AutoCAD 2019 - 2023)

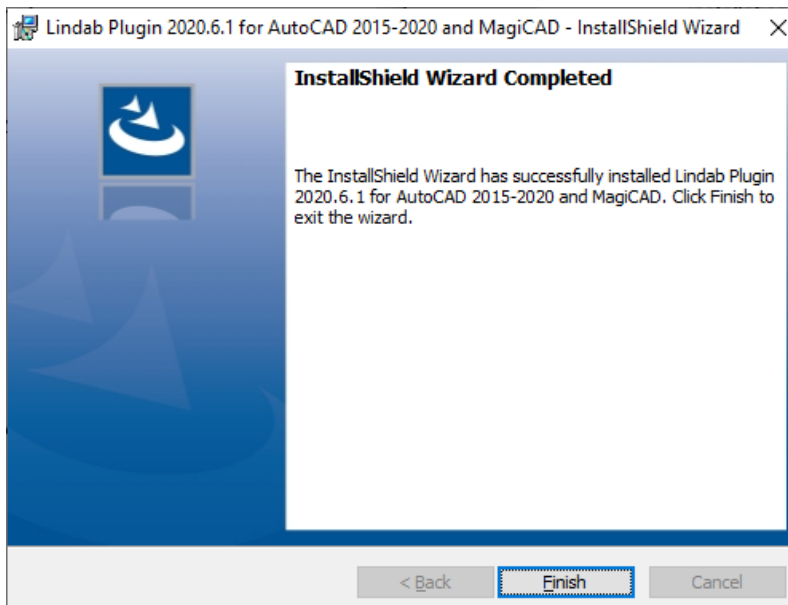
The 64-bit installer can be downloaded from:

<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.



The installation Wizard will guide you through the installation; we recommend selecting the suggested installation paths.



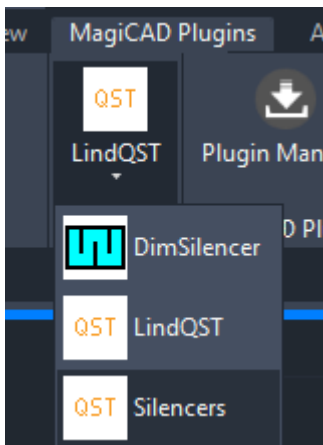
Starting the program

Now you can install the Lindab DIMsilencer software.

DIMsilencer: <http://www.lindab.com/global/pro/downloads/software/ventilation/pages/dimsilencer.aspx>



Using the features of the plugin:



Start a project on AutoCAD and select the “MagiCAD Plugins” tab.

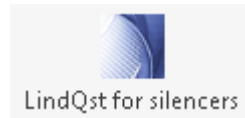
Connection to DIMsilencer



Connection to LindQST (Webbased Comfort Selection Tool)



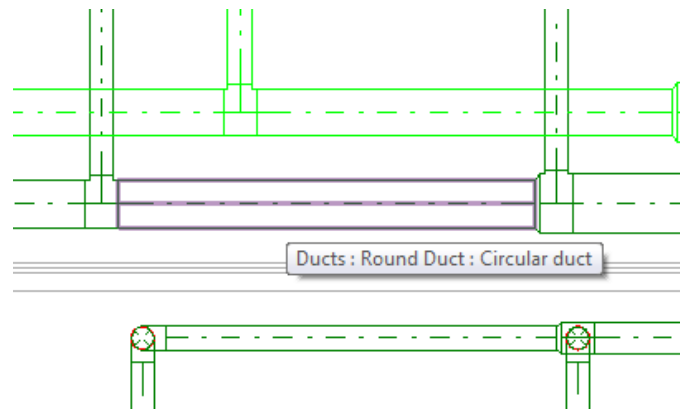
Connection to LindQST for silencers (Webbased Comfort Selection Tool)



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 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.

MagiCAD Vaj komponent

Markera ljuddamparens placering

Omgivning: Uteluft, Fore, Efter, Tilluft, Rum, Frankluft, Avluft

Krav for ljuddampare

Beskrivning av Lw fore

	Lw fore ljuddampare	Dampning	Max Ljudalstring	Lw efter ljuddampare
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
vagtt dB(A)	47		0	27

Luftflode: 0 l/s
Tryckfall: 0 Pa Kanalhastighet: 0,0 m/s

Ljuddampare

Kanaltyp: Cirkular Rektangular

Typ av ljuddampare: Rak Bojd

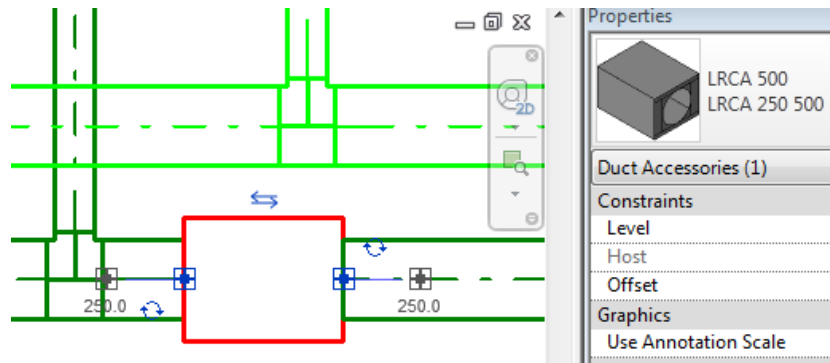
Ljuddampare: LRCA
Ansl. dim: 200 mm
Langd: 500

Vald produkt: LRCA 200 1000

OK Avbryt

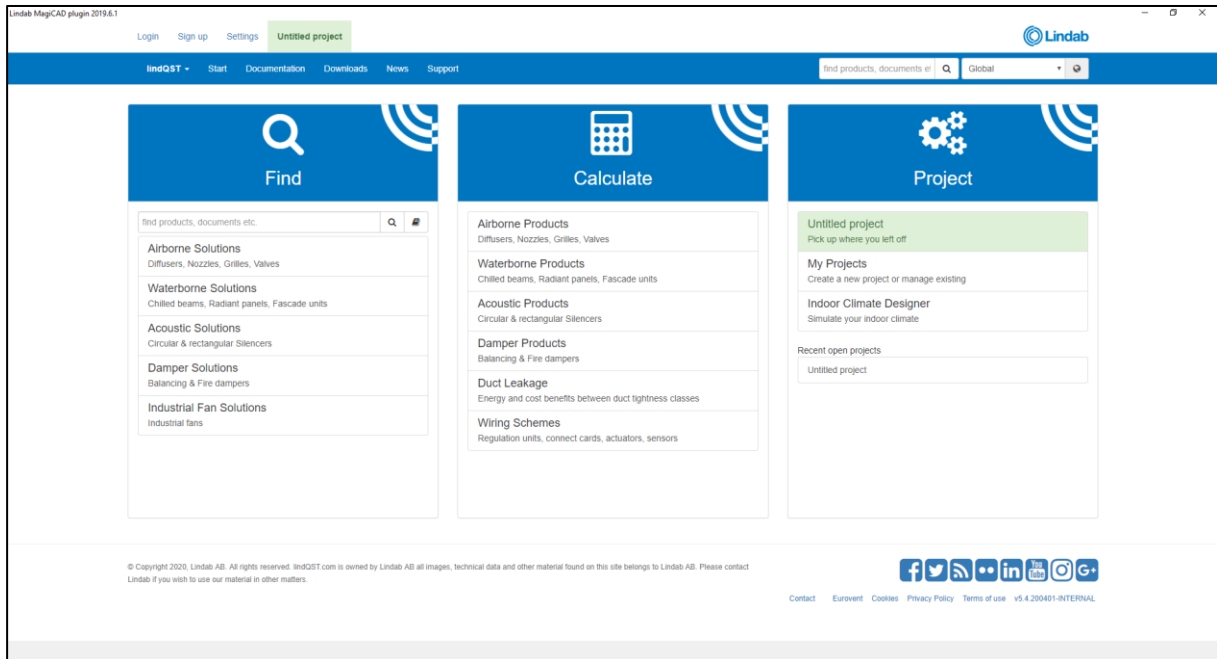
When you selected a silencer you press the "OK"-button. DIMsilencer will then close and MagiCAD dialog asks you to state a User Code.

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 webbased selection tool for Lindabs Comfort product range including documentation.

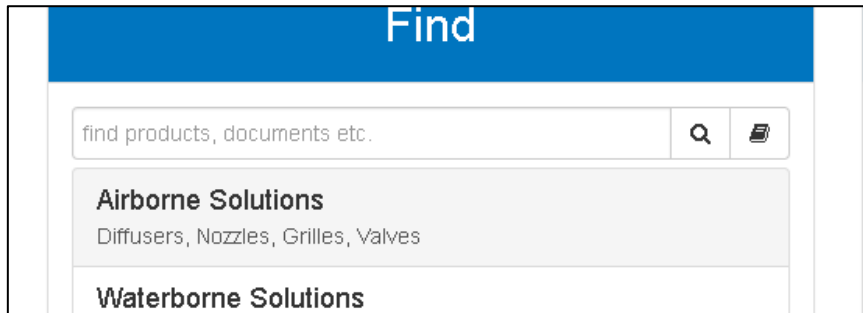


Push the LindQST button in MagiCAD to open a plugin browser and start LindQST.

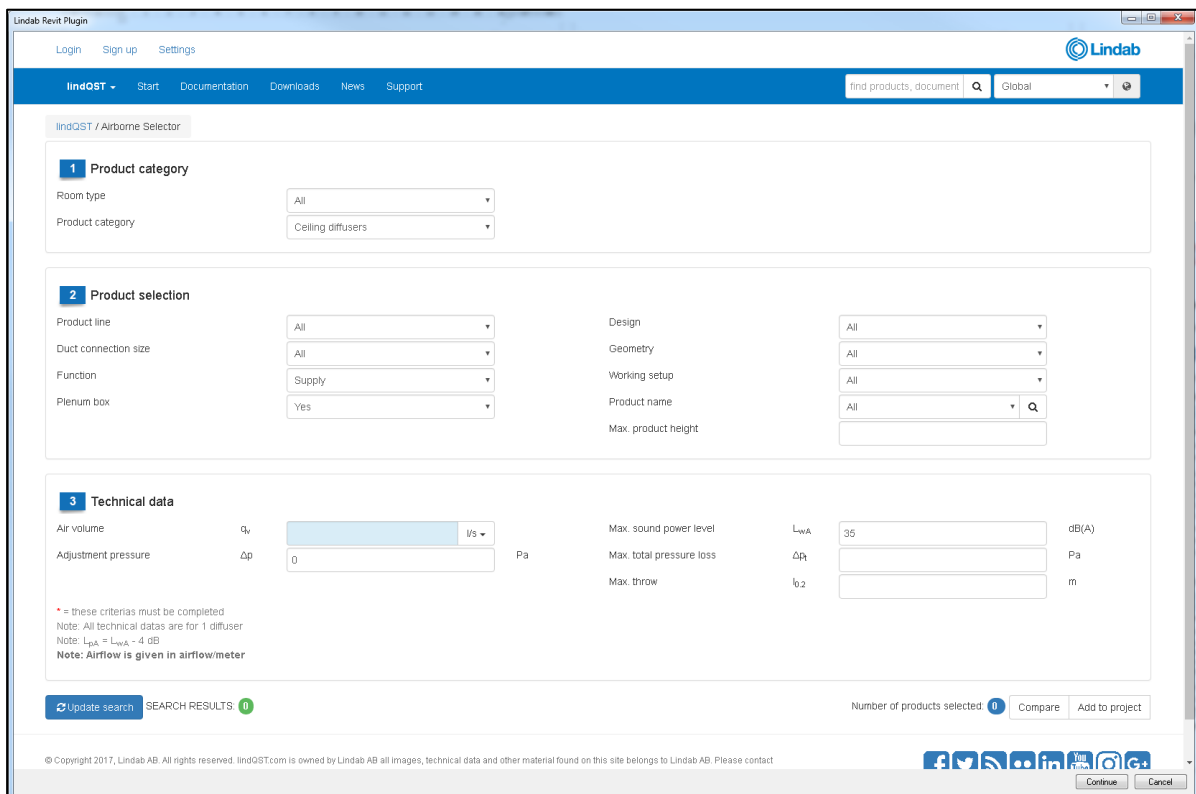
NOTE: You must start LindQST with the button in AutoCAD to be able to use the transfer function into MagiCAD for AutoCAD.

Example for a diffuser selection

1. Select a Airborne Solutions or find suitable products with search



2. Select a product or define the search parameters for the diffuser you want to select. Enter the technical requirements, but at least airflow and sound.



1 Product category

Room type: All

Product category: Ceiling diffusers

2 Product selection

Product line: All

Duct connection size: All

Function: Supply

Plenum box: Yes

Design: All

Geometry: All

Working setup: All

Product name: All

Max. product height:

3 Technical data

Air volume: q_v [] l/s

Adjustment pressure: Δp [] Pa

Max. sound power level: L_{wA} [35] dB(A)

Max. total pressure loss: ΔP_1 [] Pa

Max. throw: $l_{0.2}$ [] m

* = these criterias must be completed
 Note: All technical dates are for 1 diffuser
 Note: $L_{wA} = L_{wA} + 4$ dB
 Note: Airflow is given in airflow/meter

Update search SEARCH RESULTS: 0

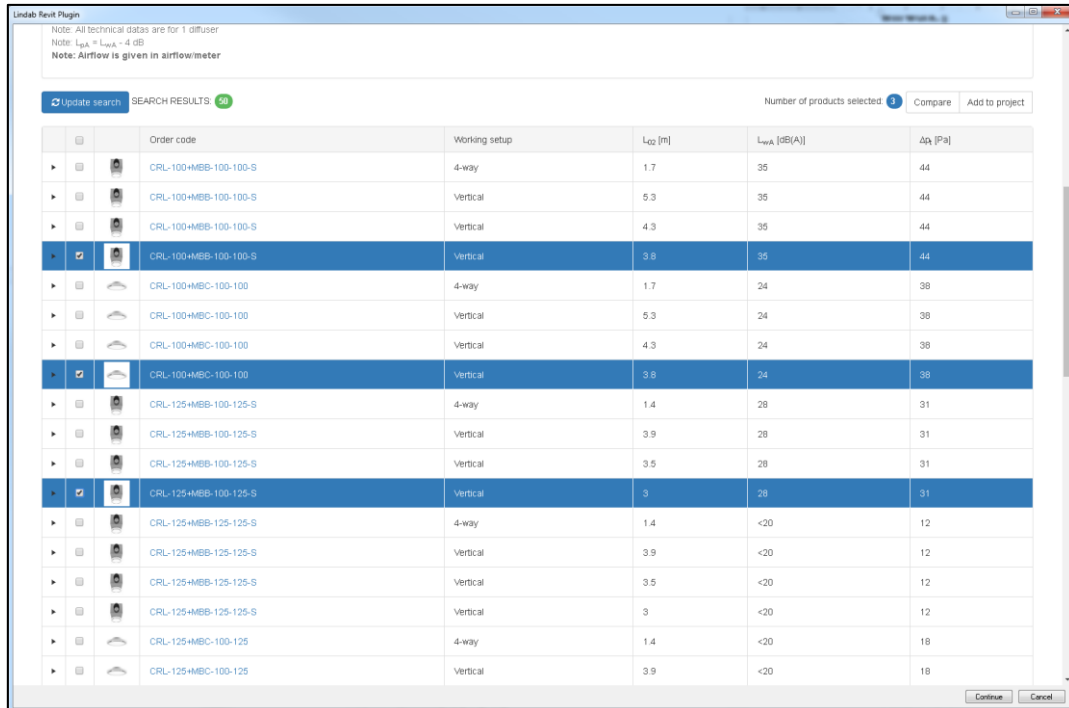
Number of products selected: 0 Compare Add to project

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Continue Cancel

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

- LindQST calculates all diffusers which fulfill the requirements. Push on "Update Search" to get a list of calculated diffusers. In the selection you can even compare 2 or more products to each other for detailed information.

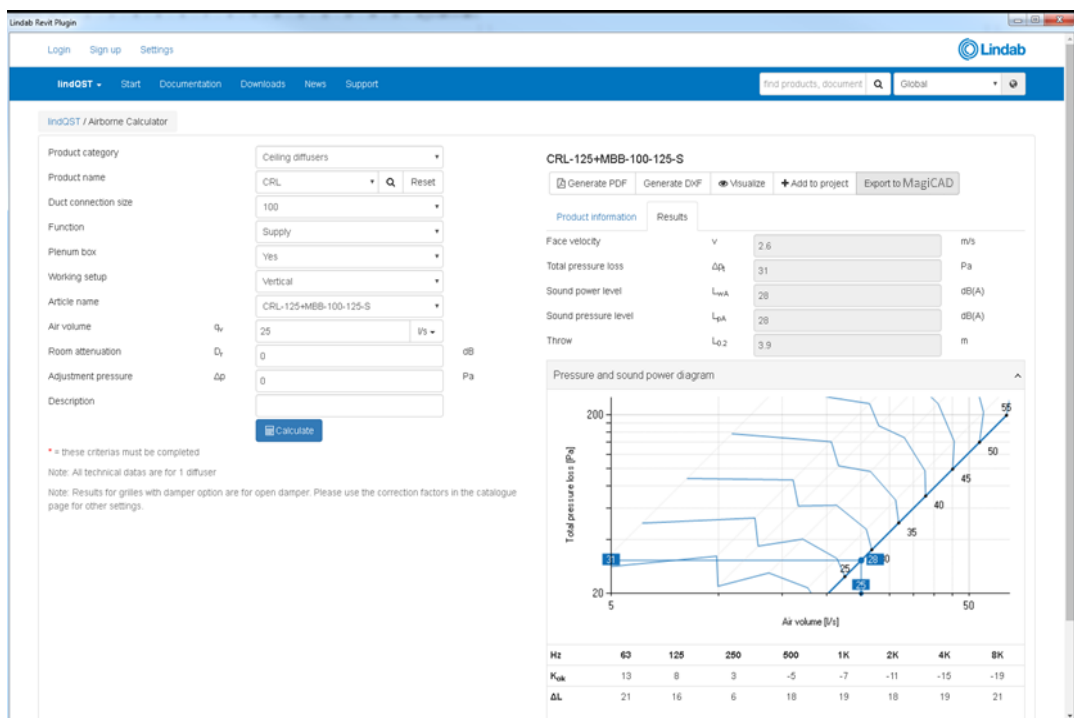


NOTE: All technical datas are for 1 diffuser
NOTE: $L_{wA} \neq L_{wR} - 4$ dB
NOTE: Airflow is given in airflowmeter

Update search SEARCH RESULTS 24 Number of products selected 1 Compare Add to project

	Order code	Working setup	L_{eq} [m]	L_{wA} [dB(A)]	Δp_1 [Pa]
<input type="checkbox"/>	CRL-100+MBB-100-100-S	4-way	1.7	35	44
<input type="checkbox"/>	CRL-100+MBB-100-100-S	Vertical	5.3	35	44
<input type="checkbox"/>	CRL-100+MBB-100-100-S	Vertical	4.3	35	44
<input checked="" type="checkbox"/>	CRL-100+MBB-100-100-S	Vertical	3.9	35	44
<input type="checkbox"/>	CRL-100+MBC-100-100	4-way	1.7	24	38
<input type="checkbox"/>	CRL-100+MBC-100-100	Vertical	5.3	24	38
<input type="checkbox"/>	CRL-100+MBC-100-100	Vertical	4.3	24	38
<input checked="" type="checkbox"/>	CRL-100+MBC-100-100	Vertical	3.9	24	38
<input type="checkbox"/>	CRL-125+MBB-100-125-S	4-way	1.4	28	31
<input type="checkbox"/>	CRL-125+MBB-100-125-S	Vertical	3.9	28	31
<input type="checkbox"/>	CRL-125+MBB-100-125-S	Vertical	3.5	28	31
<input checked="" type="checkbox"/>	CRL-125+MBB-100-125-S	Vertical	3	28	31
<input type="checkbox"/>	CRL-125+MBB-125-125-S	4-way	1.4	<20	12
<input type="checkbox"/>	CRL-125+MBB-125-125-S	Vertical	3.9	<20	12
<input type="checkbox"/>	CRL-125+MBB-125-125-S	Vertical	3.5	<20	12
<input type="checkbox"/>	CRL-125+MBB-125-125-S	Vertical	3	<20	12
<input type="checkbox"/>	CRL-125+MBC-100-125	4-way	1.4	<20	18
<input type="checkbox"/>	CRL-125+MBC-100-125	Vertical	3.9	<20	18

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



Lindab Revit Plugin

Product category: Ceiling diffusers

Product name: CRL

Duct connection size: 100

Function: Supply

Plenum box: Yes

Working setup: Vertical

Article name: CRL-125+MBB-100-125-S

Air volume: Q_v 25 m³/s

Room attenuation: D_r 0 dB

Adjustment pressure: Δp 0 Pa

Description:

* = these criterias must be completed
NOTE: All technical datas are for 1 diffuser
NOTE: Results for grilles with damper option are for open damper. Please use the correction factors in the catalogue page for other settings.

CRL-125+MBB-100-125-S

Generate PDF Generate DWF Visualize Add to project Export to MagiCAD

Product information Results

Face velocity v 2.6 m/s

Total pressure loss Δp_t 31 Pa

Sound power level L_{wA} 28 dB(A)

Sound pressure level L_{pA} 28 dB(A)

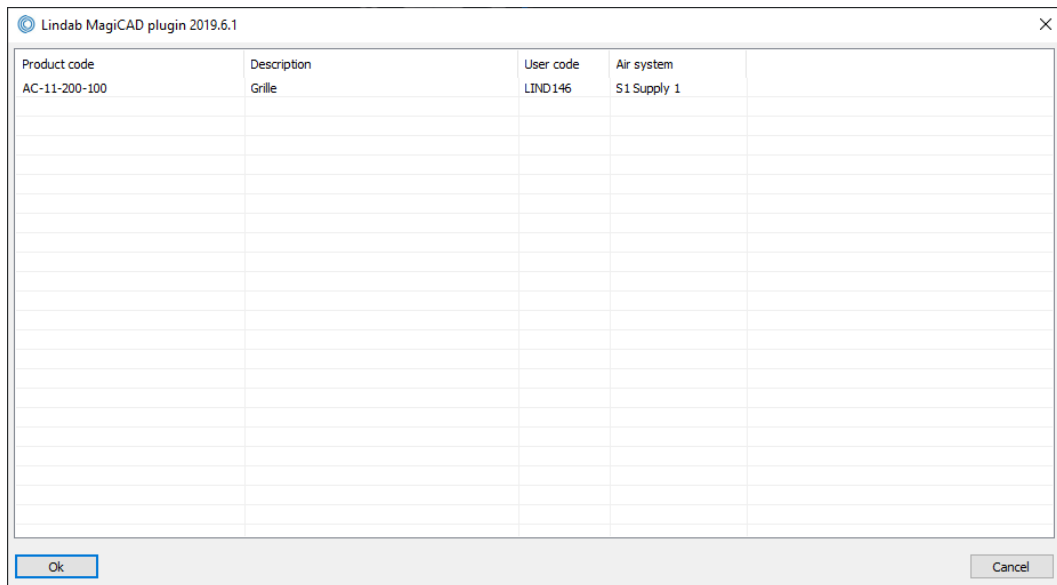
Throw $L_{0.2}$ 3.9 m

Pressure and sound power diagram

Total pressure loss [Pa] vs Air volume [m³/s]

Hz	63	125	250	500	1K	2K	4K	8K
K_{dA}	13	9	3	-5	-7	-11	-15	-19
ΔL	21	16	6	18	19	18	19	21

5. Insert the product into the AutoCAD project (with MagiCAD)
 If plugin is used together with MagiCAD plugin adds the selected product to the MagiCAD project at first. Therefore user code and air system is asked from designer in the following dialog:



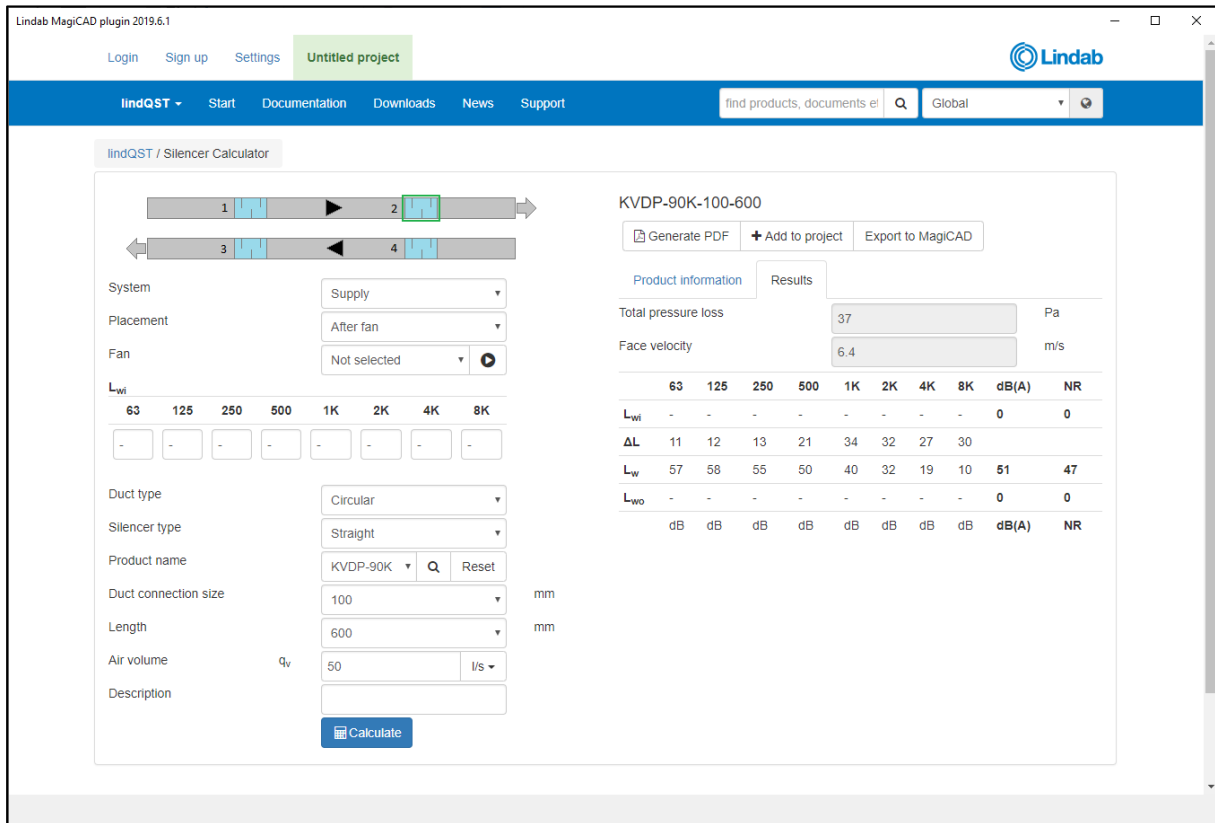
Then installation point of product is requested to shown at the plan.

LindQST for silencers

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

Push the “LindQST for silencers” button in AutoCAD to open a web browser and point out duct where silencer will be installed to. If user selects some duct, dimensions and sound data values are transferred to LindQST. User can continue also without pointing out the duct but then the values are not transferred to LindQST.

Plugin directs user to Silencer Calculator in Lindqst:



lindQST / Silencer Calculator

System: Supply
 Placement: After fan
 Fan: Not selected

L_{wi}

	63	125	250	500	1K	2K	4K	8K
-	-	-	-	-	-	-	-	-

Duct type: Circular
 Silencer type: Straight
 Product name: KVDP-90K
 Duct connection size: 100 mm
 Length: 600 mm
 Air volume: 50 l/s

KVDP-90K-100-600

Generate PDF | Add to project | Export to MagiCAD

Product information | Results

Total pressure loss: 37 Pa
 Face velocity: 6.4 m/s

	63	125	250	500	1K	2K	4K	8K	dB(A)	NR
L _{wi}	-	-	-	-	-	-	-	-	0	0
ΔL	11	12	13	21	34	32	27	30		
L _w	57	58	55	50	40	32	19	10	51	47
L _{wo}	-	-	-	-	-	-	-	-	0	0
	dB	dB	dB	dB	dB	dB	dB	dB	dB(A)	NR

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

When silencer is selected press “Export to MagiCAD” button.

User code is asked in the following dialog for each silencers:

