



# **LK Systems Manifold Selection MagiCAD Plugin**

User guide

25/04/2019

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## 1 Chapter 1. General

### 1.1 About this document

This document contains instructions on using *LK Systems Manifolds MagiCAD plugin*. LK Systems Manifolds MagiCAD plug-in allows inserting of LK Systems Manifolds to the MagiCAD drawing.

### 1.2 Installing the software

#### 1.2.1 Required third-party software

LK Systems Manifolds MagiCAD plugin works with the following MagiCAD for AutoCAD versions

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

#### 1.2.2 Installation

1. Download setup file from  
<https://portal.magicad.com/download/ProductSearch?searchStr=LK&categoryId=3>
2. Install LK Systems Manifolds MagiCAD plug-in.

Administrator privileges are recommended for installation. **Note if you have several AutoCAD versions on your workstation:**

Before you run the installation program, start MagiCAD to make sure that *LK Systems Manifolds MagiCAD Plugin* installs on the same AutoCAD platform as MagiCAD.

### 1.3 Starting the program

Before you start using *LK Systems Manifolds MagiCAD plug-in*, (re)-start MagiCAD and open a Heating and piping project.

If AutoCAD 2013 or later is used, the plug-in is automatically loaded and is ready to be used once AutoCAD is started next time after installing the plug-in. For older AutoCAD versions plug-in CUI-file needs to be loaded manually.

Run **CUILOAD** in AutoCAD, and browse the customization file from following directory:

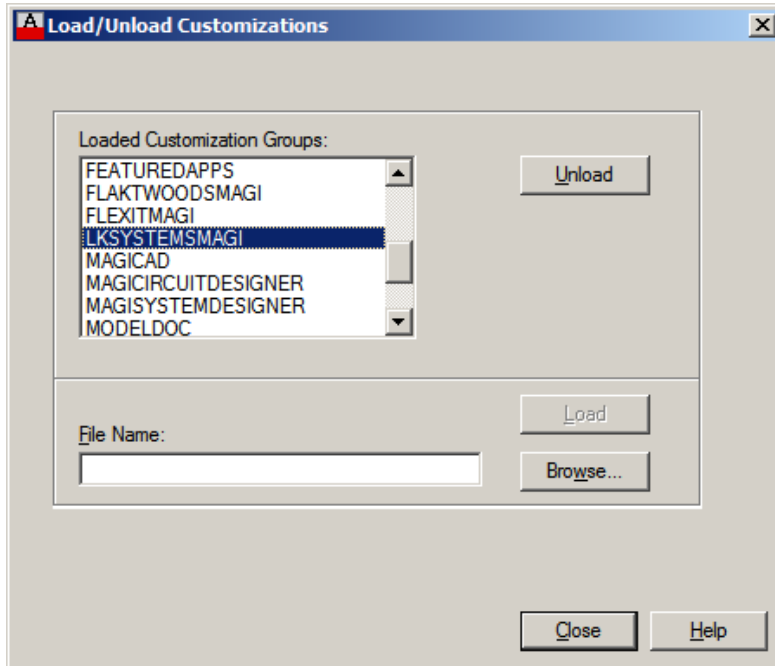
Directory for cui/cuix-file is by default for

**XP:** *C:\Documents and Settings\All Users\Application Data\LK Systems Manifolds  
MagiCAD plugin*

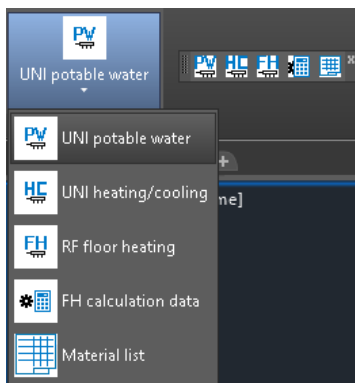
**Win7:** *C:\Users\All Users\LK Systems Manifolds MagiCAD plugin* or  
*C:\ProgramData\LK Systems Manifolds MagiCAD plugin*

**Win8/Win8.1:** *C:\ProgramData\LK Systems Manifolds MagiCAD plugin*

The CUILOAD steps are required only if you are running AutoCAD version older than 2013.



When you click *Load*, *LK Systems Manifolds ribbon bar* is loaded.



*LK Systems Manifolds Ribbon/Toolbar functions.*

## 2 Chapter 2. Functions

### 2.1 LK Systems Manifolds MagiCAD Plugin

Plug-in contains following functions:



UNI Potable water



UNI Heating/Cooling

- Open the LK Systems Manifolds Potable water or LK Systems Manifolds Heating/Cooling web page and insert new LK Systems UNI manifold to the MagiCAD drawing.



RF Floor heating

- Open the LK Systems Manifolds Floor heating web page and insert new LK Systems Floor heating manifold to the MagiCAD drawing.



- Open dialog where user may to edit floor heating manifold data



Material list

- Export the list of materials for the selected LK Systems manifolds.

### 2.2 Insert UNI manifold



UNI Potable water



UNI Heating/Cooling

Click the UNI Potable water or UNI Heating/Cooling button on AutoCAD LK Systems Manifolds Ribbon/Toolbar.

Follow these steps for Inserting LK Systems UNI manifold to the MagiCAD drawing:

1. Add products to Cold potable water / Supply manifold / Lower manifold and Hot potable water / Return manifold / Upper manifolds by repeating the following steps
  - 1.1. Select appropriate manifold type.
  - 1.2. Select appropriate manifold from the list of products of selected manifold type.
  - 1.3. Specify size and type of outlet connections.
  - 1.4. Press Add button to add manifold to supply or return to manifold. The product on the top of the list will be most left in the manifold.

2. Select feed pipe position and possible ball valve for the manifold.
  - If the feed pipe is not straight and valve is not selected - the angle would be a part is a part of the manifold as on a picture below.
  - If the feed pipe is not straight and a valve selected - the angle on a picture below is just a schematic and angle valve will be inserted.
3. Cabinet and cabinet's frame can be removed if needed.
4. Enter the amount of accessories for the manifolds. For the automatically generated accessories the amount is read-only.
5. Select the MagiCAD system for the manifolds.
6. Select pipe series for the pipes if manifold valves are selected
7. Enter the installation height.
8. Enter the user code for MagiCAD.
9. Enter description for MagiCAD and material list.
10. Press Install button to install the manifold or cancel to close the dialog.



**LK Systems Manifold Selection**

**LK Systems**

POTABLE WATER

**MANIFOLD**

Manifold type: UNI 1/2"  
 Manifold: UNI 2-1/2" / Up  
 Outlet connections: 1 2  
 Size: 16 (selected), 20  
 Type: Press (selected), Compress

**COLD POTABLE WATER MANIFOLD / LOWER**

UNI 2-1/2" / Up  
 Add  
 Feed pipe position: [Left/Right/Center]  
 Ball valve:   
 Manifold preview: Click on image to open dimensional drawing.

**HOT POTABLE WATER MANIFOLD / UPPER**

UNI 2-1/2" / Up  
 UNI 2-1/2" / Up  
 Add  
 Feed pipe position: [Left/Right/Center]  
 Ball valve:   
 Manifold preview: Click on image to open dimensional drawing.

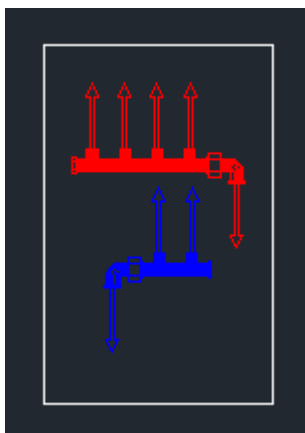
**CABINET**

Cabinet:   
 LK Manifold Cabinet UNI 350  
 Frame:   
 If you need pre-assembled or customized cabinets with manifolds, with or without water meter, please contact LK Prefab at [info@lkprefab.se](mailto:info@lkprefab.se)

**ACCESSORIES**

Cap	
LK Cap 1/2"	0
LK Cap 3/4"	0
Plain adapter	
Plain adapter 15	0
Plain adapter 20	0
Pipe inlet	

MagiCAD system: W1 "Tap water 1"  
 Installation height (mm): 400  
 User code: LKPW1  
 Pipe serie: LKPEX "LK PE-X Universal"  
 Description: LK Potable water manifold  
 [Install] [Cancel]



**LK Systems Manifold Selection**

**LK Systems**

HEATING/COOLING

**MANIFOLD**

Manifold type: UNI 1/2"  
 Manifold: UNI 2-1/2" / Up  
 Outlet connections: 1 2  
 Size: 16 (selected), 20  
 Type: Press (selected), Compress

**SUPPLY MANIFOLD / LOWER**

UNI 2-1/2" / Up  
 Add  
 Feed pipe position: [Left/Right/Center icons]  
 Ball valve:   
 Manifold preview: Click on image to open dimensional drawing.

**RETURN MANIFOLD / UPPER**

UNI 2-1/2" / Up  
 UNI 2-1/2" / Up  
 Add  
 Feed pipe position: [Left/Right/Center icons]  
 Ball valve:   
 Manifold preview: Click on image to open dimensional drawing.

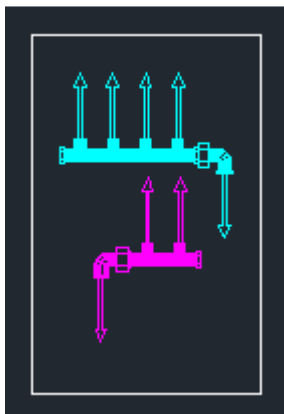
**CABINET**

Cabinet:   
 LK Manifold Cabinet UNI 350  
 Frame:   
 If you need pre-assembled or customized cabinets with manifolds, with or without water meter, please contact LK Prefab at [info@lkprefab.se](mailto:info@lkprefab.se)

**ACCESSORIES**

Cap	
LK Cap 1/2"	0
LK Cap 3/4"	0
Plain adapter	
Plain adapter 15	0
Plain adapter 20	0
Pipe inlet	

MagiCAD system: C1 "Cooling 1"  
 Installation height (mm): 400  
 User code: LKHC1  
 Pipe serie: LKPEX "LK PE-X Universal"  
 Description: Lk Heating-Cooling manifold  
 [Install] [Cancel]



## 2.3 Insert Floor Heating Manifold



RF Floor heating

Click the Floor button on AutoCAD LK Systems Manifolds Ribbon/Toolbar.

Follow these steps for Inserting LK Systems RF floor heating manifold to the MagiCAD drawing:

1. Select appropriate manifold type
2. Select the size of outlet dimension.
3. Select LK Manifold Shunt VS or Flow or Return ball valves.
4. Select feed pipe position.
5. Cabinet can be removed if necessary.
6. The base for the Cabinet can be selected if the Cabinet is selected.
7. Enter the amount of accessories for the manifolds. For the automatically generated accessories the amount is read-only.
8. Select the MagiCAD system for the supply and return sides.
9. Select pipe series for the pipes if manifold valves are selected.
10. Enter the installation height.
11. Enter the user code for MagiCAD.
12. Enter description for MagiCAD and material list.
13. Press Install button to install the manifold or cancel to close the dialog.
14. Input Flow and Pressure drop for manifold. You may also select if manifold will use system temperature difference or input different one.

Note that there is no connections for supply/return floor heating pipes.

LK Systems Manifold Calculati... X

MagiCAD system  
FH1 "FloorHeating 1"

Flow  
0 l/h

Heating power  
0 W

Pressure drop  
0 kPa

Use given temperature difference  
7 °C

Finish Cancel

LK Systems Manifold Selection

LK Systems

FLOOR HEATING

MANIFOLD

Manifold  
LK Manifold RF - 2 Outlet dimension  12  16  20

LK Manifold Shunt VS

Flow  
 Ball valve

Return  
  Ball valve  OptiFlow EVO II

Feed pipe position → ←

CABINET

Cabinet   
LK Cabinet WP RF 550

Base  Only for outside wall mounting

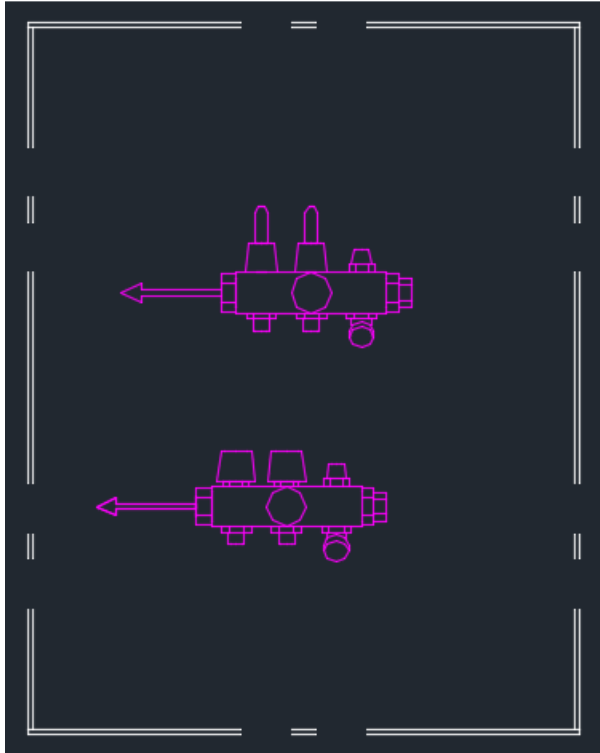
ACCESSORIES

By-Pass	
LK By-Pass RF	0
Connection Set	
LK Connection Set Straight 1"m x 25x2,3	0
LK Connection Set Straight 1"m x 32x2,9	0
LK Connection Set Angle 1"m x 25x2,3	0
LK Connection Set Angle 1"m x 32x2,9	0

MagiCAD system H1 "Heating 1" Installation height (mm) 250 User code LKFH1

Pipe serie LKPEX "LK PE-X Universal" Description Floor heating manifold

Install Cancel



## 2.4 FH Calculation data



Click the FH calculation data button on AutoCAD LK Systems Manifolds Ribbon/Toolbar and select then floor heating manifold in drawing. Easy to check values and change those.

**LK** LK Systems Manifold Calculati... ✕

MagiCAD system  
 FH1 "FloorHeating 1" ▼

Flow  
 l/h

Heating power  
 W

Pressure drop  
 kPa

Use given temperature difference  
 °C

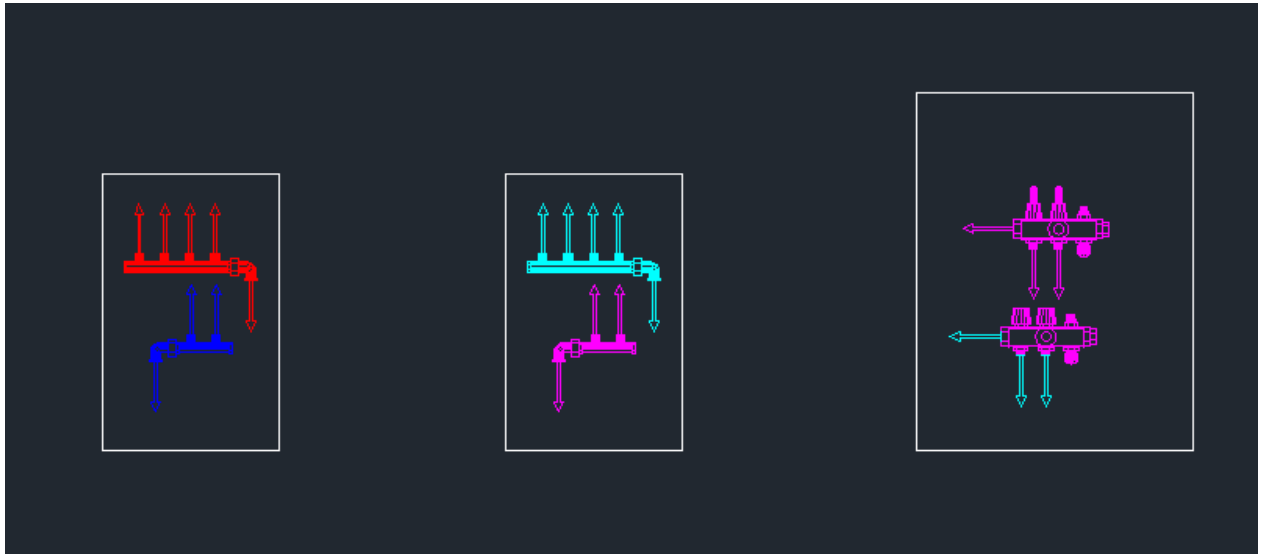
## 2.5 Material list



Material list

Click the Material list button on AutoCAD LK Systems Manifolds Ribbon/Toolbar.

Select the manifolds to export to material list.

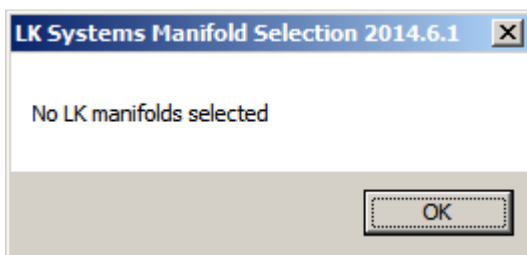


Press Enter when all the manifolds are selected.

If LK Systems manifolds were found in selected entities, "LK Material list is copied to clipboard" message will appear.



If LK Systems Manifolds were not found in selected entities, "No LK manifolds selected" message will appear.



Exported material list can be pasted to Microsoft Excel.

	A	B	C	D
1	Description	RSK	Product	Quantity
2	Heating/Cooling manifold	187 06 88	UNI 2-1/2"	3
3	Heating/Cooling manifold	187 44 77	LK Manifold Cabinet UNI 350	1
4	Heating/Cooling manifold	187 44 80	LK Frame with lid for UNI cabinet 350	1
5	Heating/Cooling manifold	187 66 08	LK Press Connection 1/2" x AX16	6
6	Heating/Cooling manifold	187 06 86	LK End cap 3/4"	2
7	Potable water manifold	187 06 88	UNI 2-1/2"	3
8	Potable water manifold	187 44 77	LK Manifold Cabinet UNI 350	1
9	Potable water manifold	187 44 80	LK Frame with lid for UNI cabinet 350	1
10	Potable water manifold	187 66 08	LK Press Connection 1/2" x AX16	6
11	Potable water manifold	187 06 86	LK End cap 3/4"	2
12	Floor heating manifold	241 93 50	LK Manifold RF - 2	1
13	Floor heating manifold	241 92 96	LK Cabinet WP RF 550	1