EED-Simulation

We offer you the corresponding parameters for the EED simulation of separatus geothermal heat exchanger. These parameters have been compared with measurements from our test systems and therefore represent a reliable basis for calculation. In addition, we offer you the appropriate EED program files with the pipe data and information. These data and files are for **version EED 4 and higher.**

Installation Programmdateien

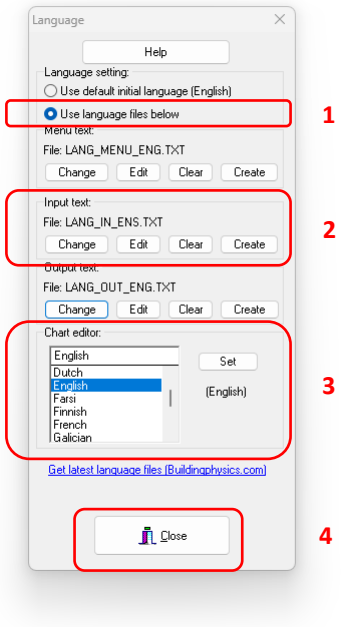
1. Open the file folder "....\BLOCON\EED4" on your computer. Here you will find the "Languages" folder and the "pipe" file.

2. Download the file "Lang_in_ENs.txt and pipe.txt from our site.

3. Save the file "Lang_in_ENs.txt in the file folder "Languages". Please replace the file pipe.txt, which is located in the "EED4" folder, with the new file.

4. Select file - Open the "Language" item under the "Settings" menu item and click on the "Edit/add languages" button. If you have already selected the English language, you can select the "Language" item under "Settings".

5. The "Language" window will then open. Select (1) "Use language files below" and click on the "Change" button under (2) "Input Text". Another window opens and here please select the file "Lang_in_ENs.txt" and press the "Open" button. Finally, if this is not already selected, select the language "English" under (3) "Chart editor" and press the "Set" button. Once all the steps have been completed, you can then press the "Close" button (4).



This completes the first step in setting up the program.

Input for the simulation of separatus heat exchanger

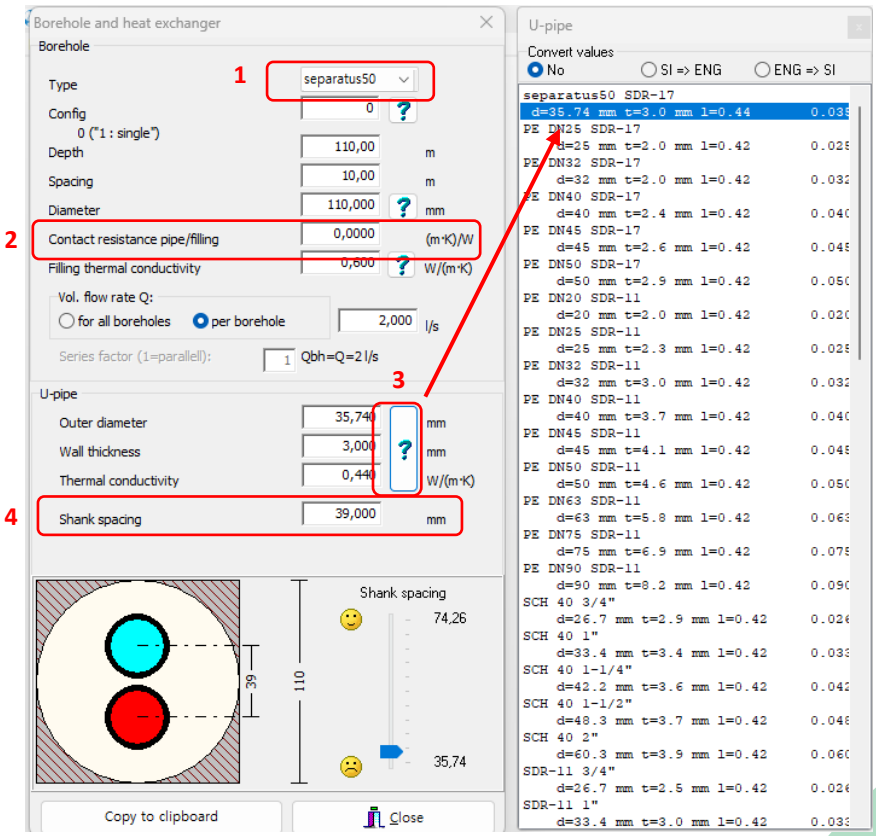
The following entries must be made under the menu item "Borehole and borehole heat exchanger":

1. Select "separatus50" under item (1) heat exchanger type.

2. Under the point (2) Contact resistance pipe/filling enter the value **0.03 (m*K)/W**. This value is used for the thermal correction for the intermediate wall in the probe. If you also want to take a contact resistance into account, this must be added.

3. Under the "U-pipe" item, please press the (3) "?" button, a window will then open on the left-hand side and select "separatus50" here. You have now selected the correct pipe parameters for the simulation.

4. Finally, enter the value **36** under point (4) "Shank spacing".



5. Finally, the remaining entries must be made as usual.

RECOMMENDATION:

- We recommend a borehole diameter of 90 mm
- Furthermore, a "thermally improved backfill" >2.0 W/(m*K) is recommended.
- The volume flow of the system should be selected so that a turbulent flow prevails.
- The separatus system allows intelligent series connection of probes. This makes it possible to influence the hydraulics or flow of the brine.