KNAUF INSULATION
Technical Solutions

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THERMO-TEK FIRE-TEK POWER-TEK SEA-TEK

USER MANUAL

Exper-teK

challenge.
create.
care.

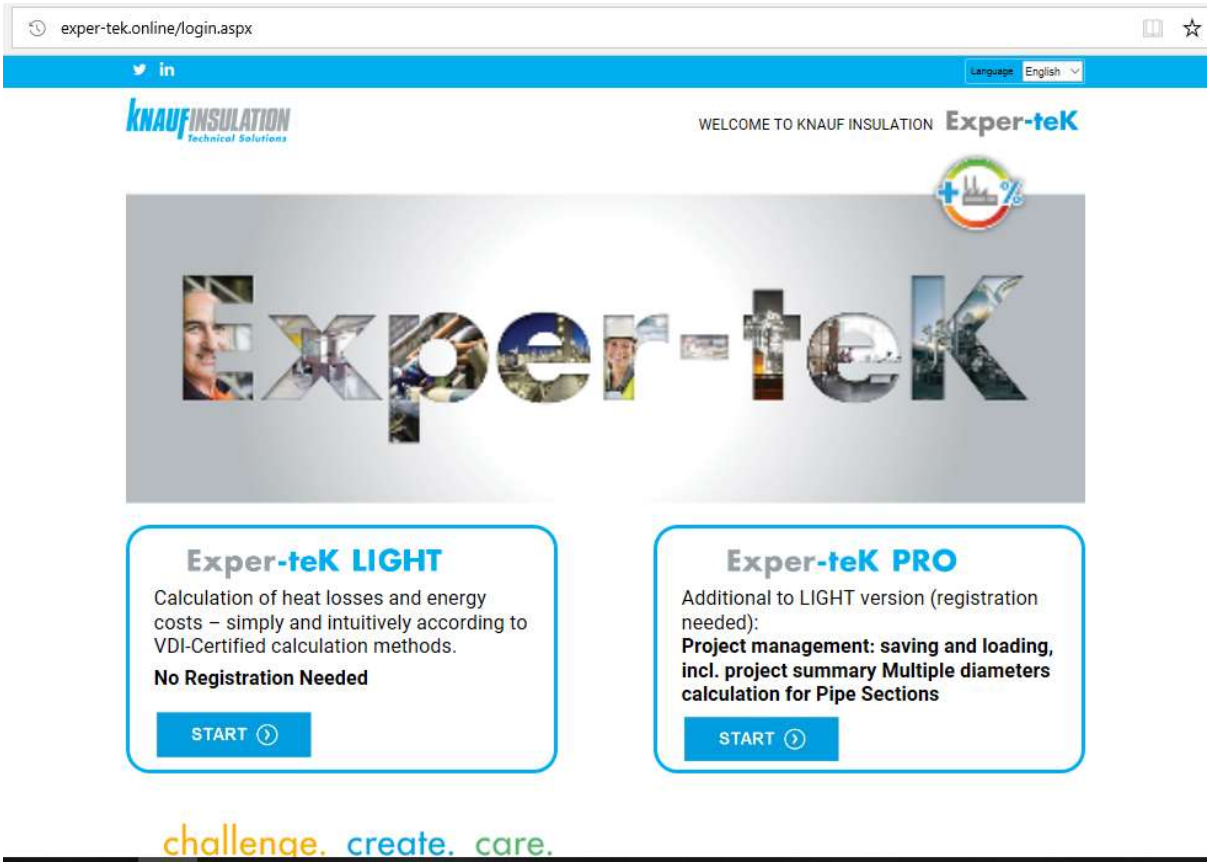
Please follow the instructions in order to successfully use this advanced Exper-teK tool.

Start on the home page: http://www.exper-tek.online/Home.aspx and follow the steps:

1. Choose your language

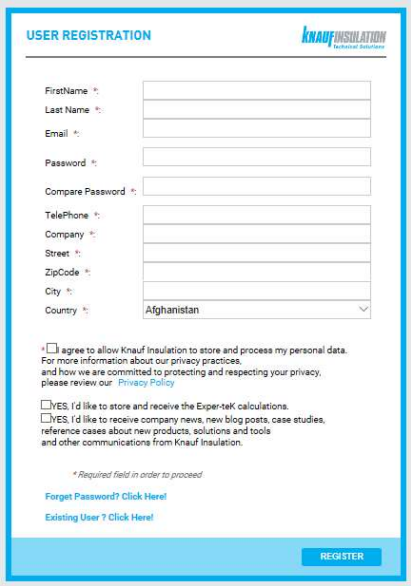
2. Choose the version you wish:

- Pro version is recommended: more features, project management and data saving, multiple diameter for pipes.
- Light version (if you do not want to register), this version lets you do simple calculations but you cannot save the calculation files.
  Warning: this version will not be maintained.



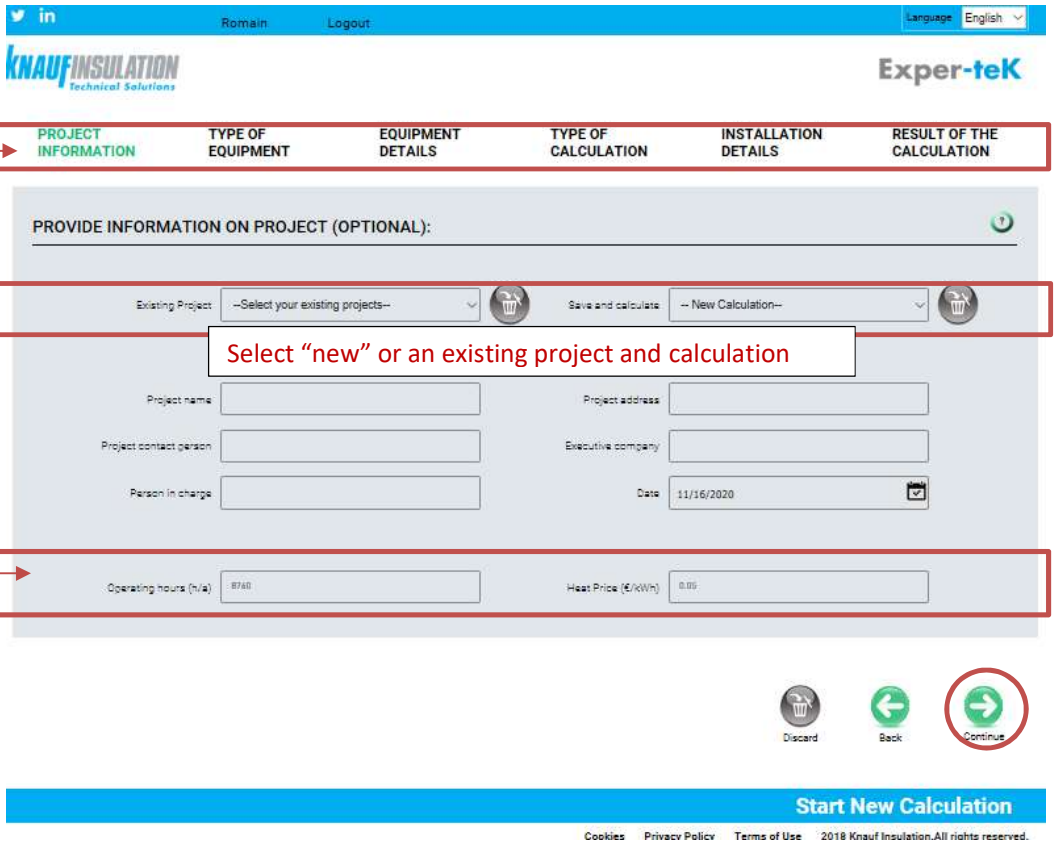
3. Registration :

Please fill in the fields and save.



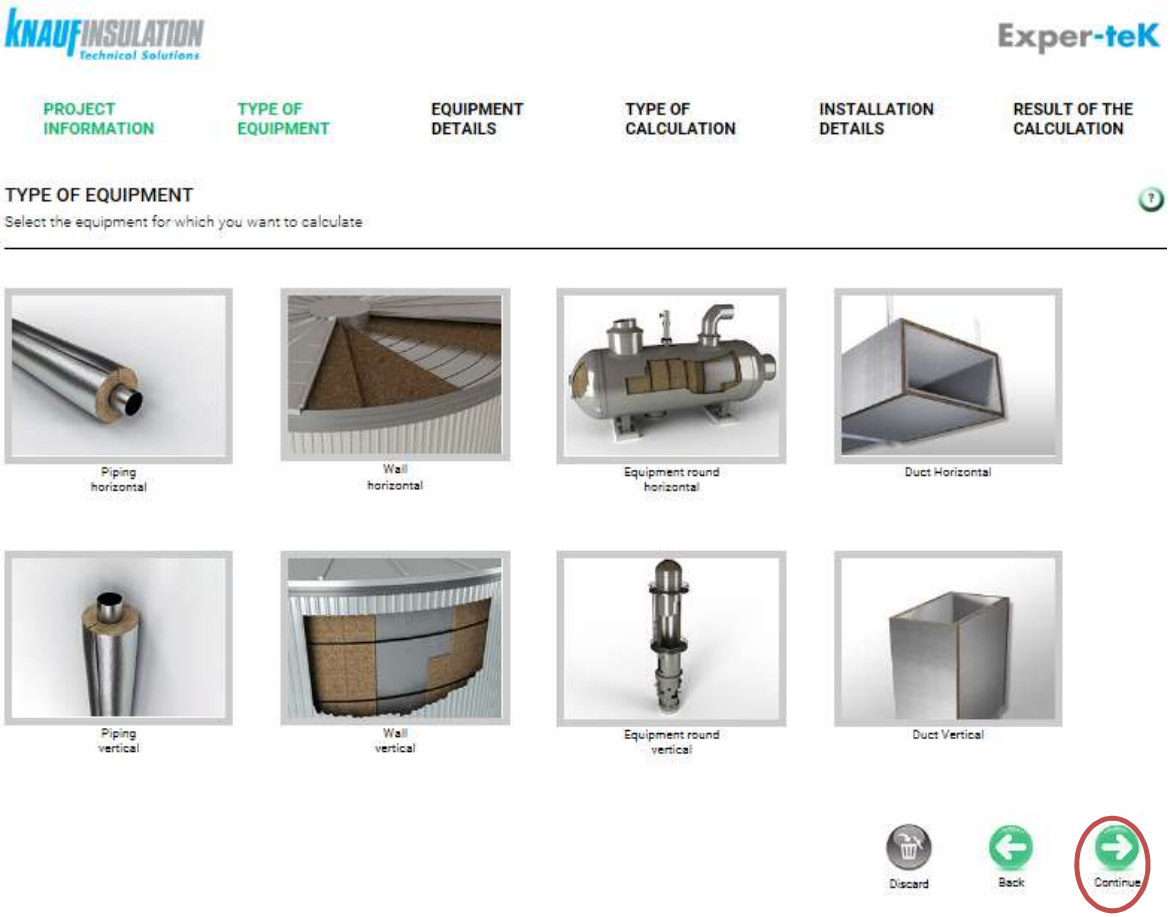
4. Project data tab

Navigation tabs between the different steps of the calculation



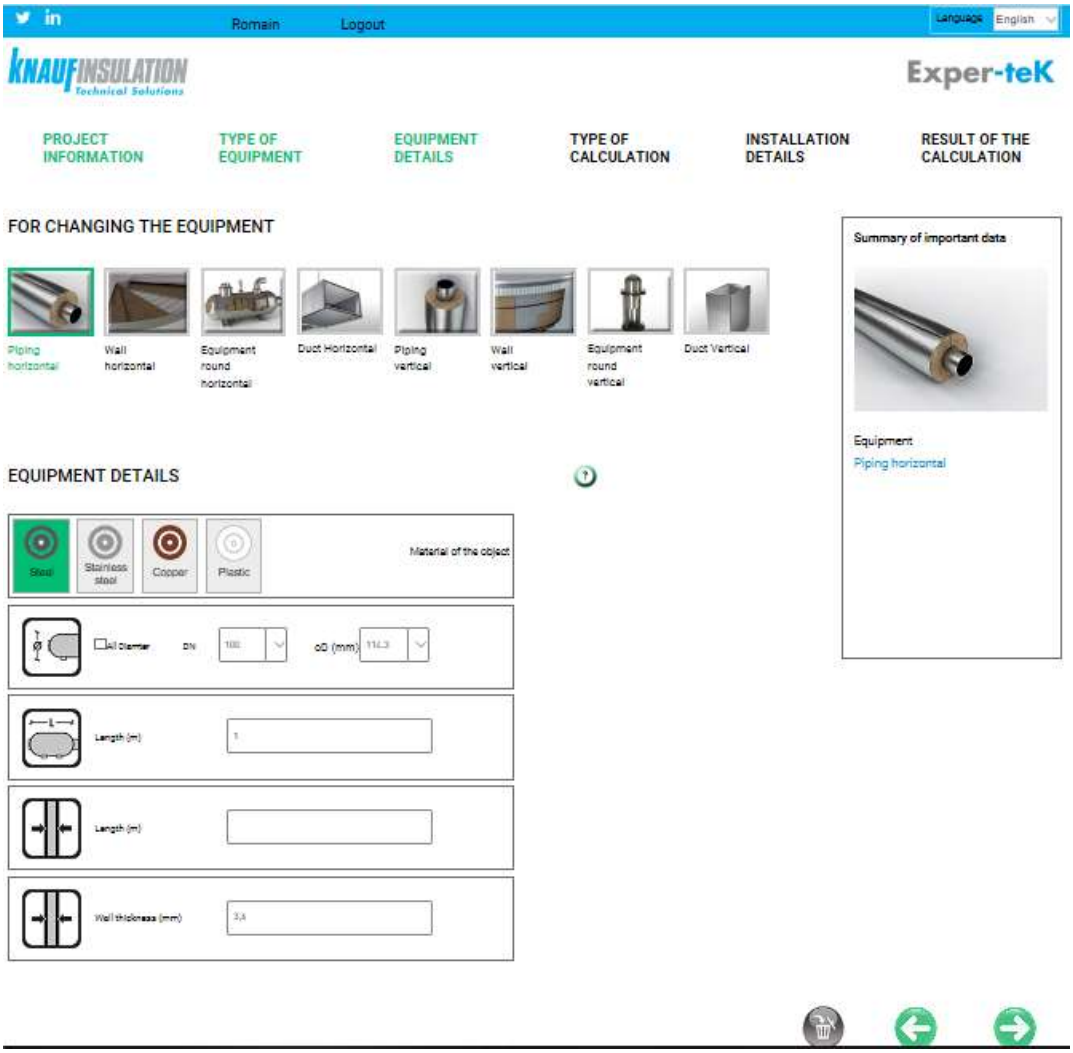
These data will be used to calculate the energy savings in €

5. Type of equipment tab



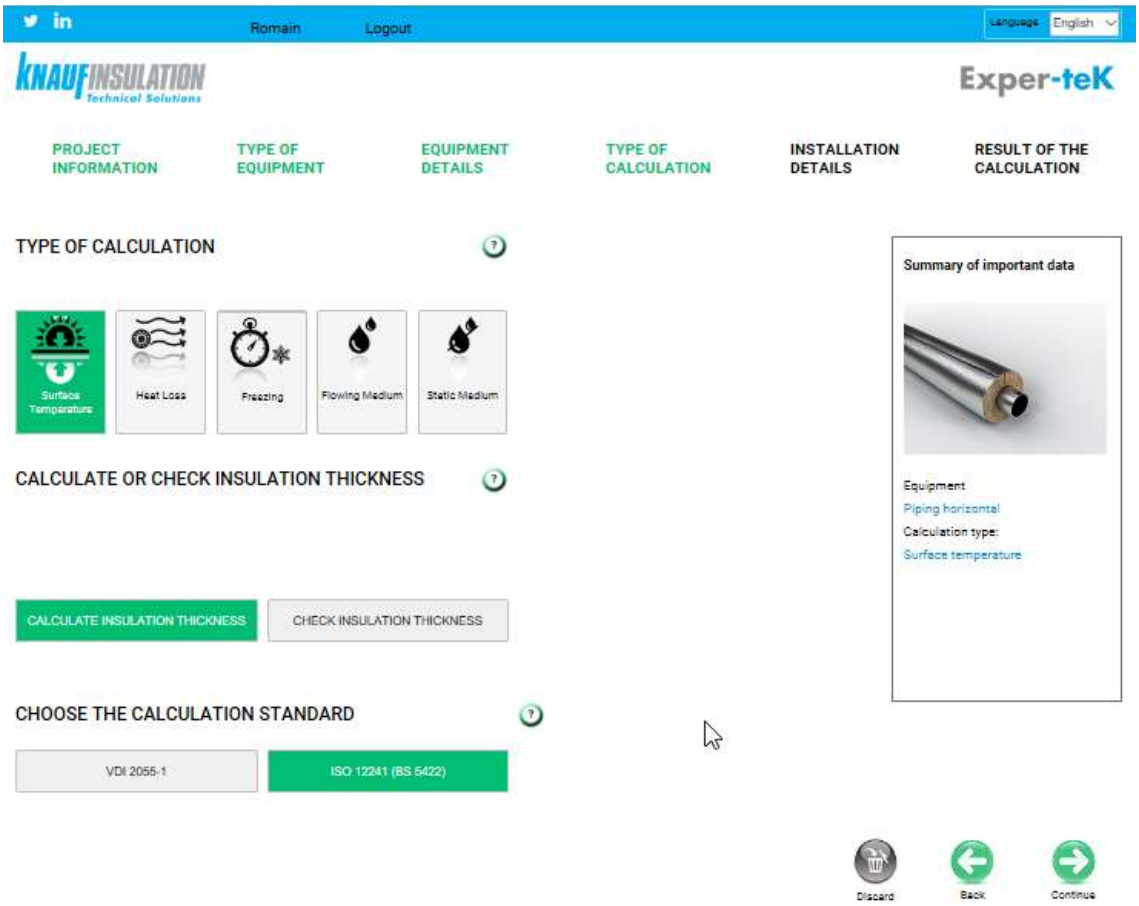
6. Equipment details tab

Select material and dimensions



Note : tick the "all diameters" box for multiple diameter calculation in pipes

7. Type of calculation tab



a. "Type of calculation"
   - Surface temperature : Calculation of the surface temperature.
   - Heat losses : Calculation of heat losses in W/m or W/m² for energy savings
   - Freezing : Calculation of the freezing time of water in a pipe
   - Flowing medium : Calculation of temperature change between start and end of a pipe or duct with flowing medium.
   - Static medium : Calculation of temperature change of a static medium in pipes, vessels and containers.

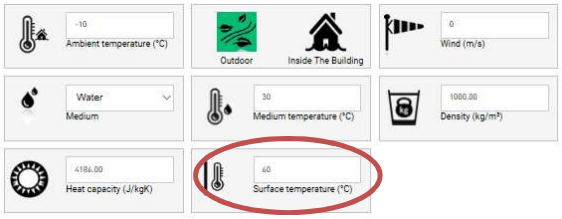
b. "Calculate or check insulation thickness"
   Are you looking for thickness optimization or do you want to calculate the losses and temperature with a given insulation thickness?

c. "Choose the calculation standard"
   VDI or EN ISO/BS : depending on the norm required in the country of your project.

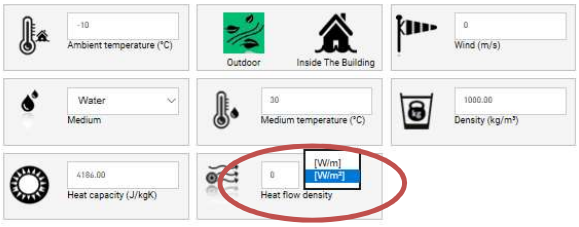
8. Installation details tab

a. Depending on the type of calculation, different data are needed.

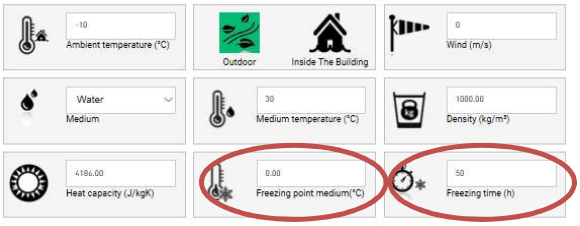
- Surface temperature :



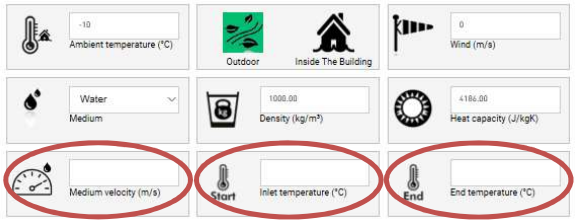
- Heat losses :



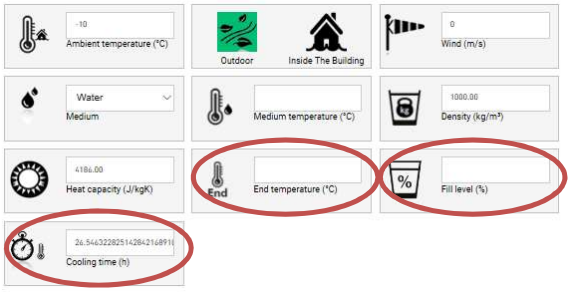
- Freezing :



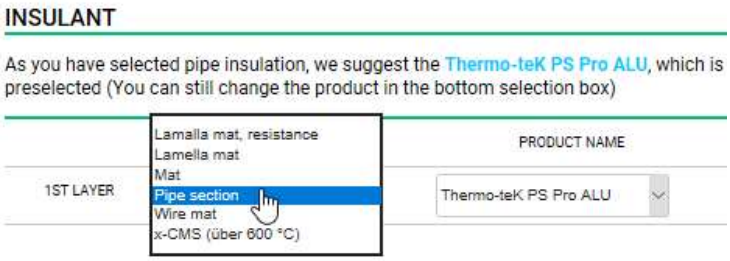
- Flowing medium :

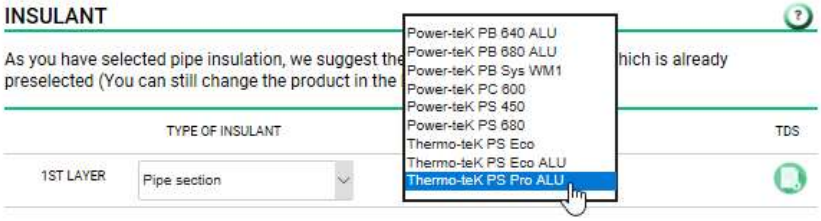


- Static medium :



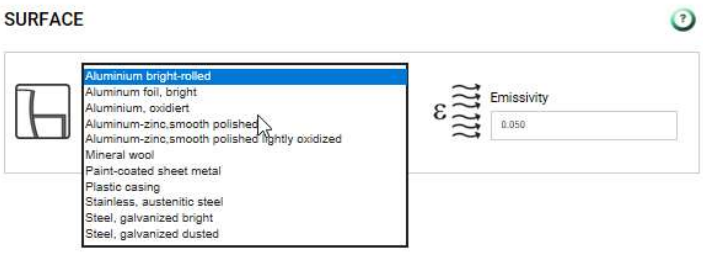
b. “Insulant” : Exper-tek suggests the most suitable product. You can change it if needed



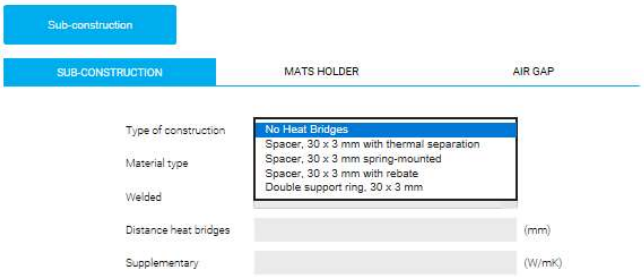


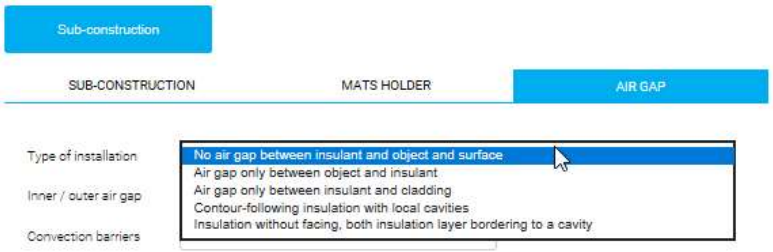
c. Surface and sub-construction

Enter the surface material if any, or ‘mineral wool’ if there is no cladding or facing



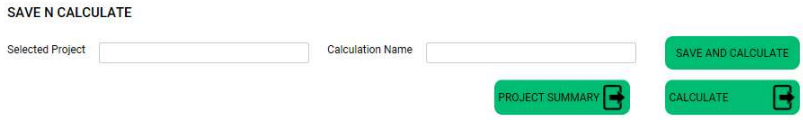
Then you can –if needed, enter the sub construction, mat holder or air gap data.





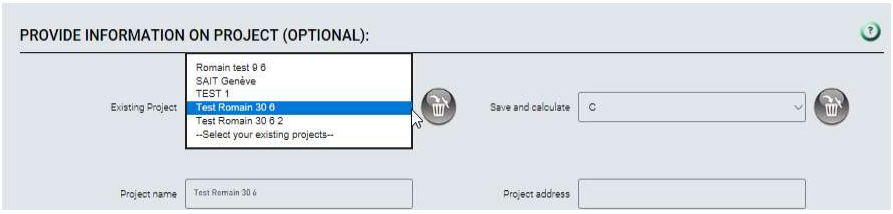
d. Project management

After entering all parameters, you have a choice to either "Calculate and save" or "Calculate"

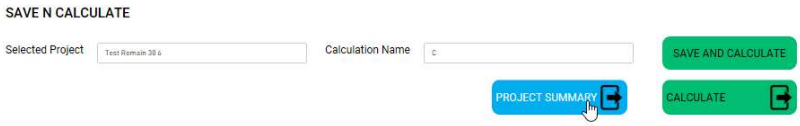


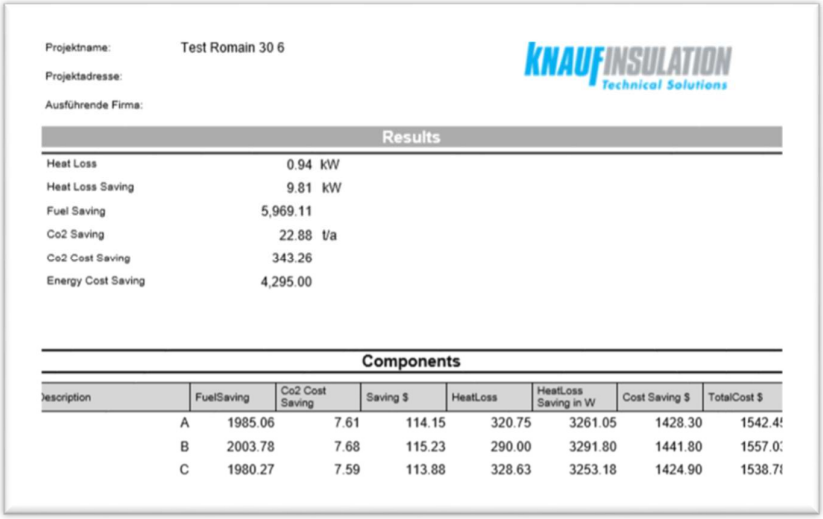
In the first option, If you enter a project name and calculation name, you will be able to restore your data later.

Coming back at the Project tab, you'll find all saved projects and calculations



You will be able to access a project summary with all calculations related to your project:





Projektname: Test Romain 30 6

Projektadresse:

Ausführende Firma:

KNAUF INSULATION Technical Solutions

Results

Heat Loss	0.94	kW
Heat Loss Saving	9.81	kW
Fuel Saving	5,969.11	
Co2 Saving	22.88	t/a
Co2 Cost Saving	343.26	
Energy Cost Saving	4,295.00	

Components

Description	FuelSaving	Co2 Cost Saving	Saving $	HeatLoss	HeatLoss Saving in W	Cost Saving $	TotalCost $
A	1985.06	7.61	114.15	320.75	3261.05	1428.30	1542.4
B	2003.78	7.68	115.23	290.00	3291.80	1441.80	1557.0
C	1980.27	7.59	113.88	328.63	3253.18	1424.90	1538.7

For further information and clarifications, don't hesitate to contact us on our general mail: expertek@knaufinsulation.com
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Romain Carayol; Romain.carayol@knaufinsulation.com (France / BELux)

Manual prepared by Romain Carayol, November 2020

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