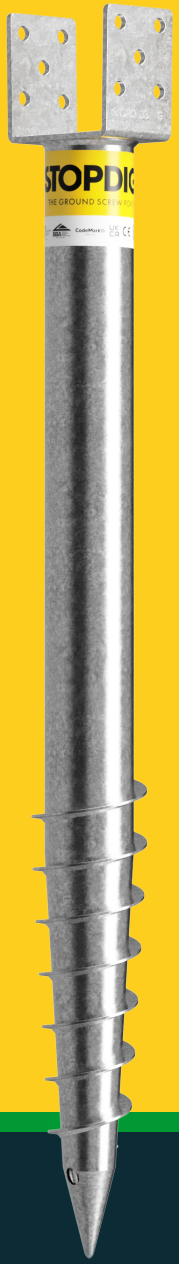
LCA
Life Cycle Assesment

ground screw VS concrete plinth

STOPDIGGING!®
THE GROUND SCREW FOR SOLID FOUNDATIONS

LCA - Life-Cycle Assesment

It’s a way of assessing environmental impacts of products and services - all the way from the raw mineral extraction, manufacturing, storage to distribution usage and finally recycling or destruction.

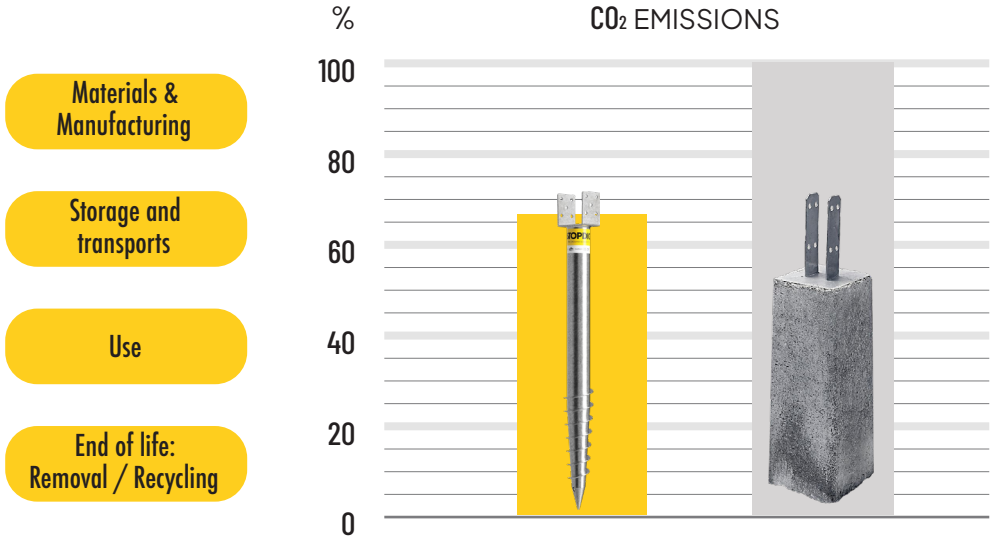


LCA - Life-Cycle Assesment is a way of assessing environmental impacts of products and services - all the way from the raw mineral extraction, manufacturing, storage to distribution usage and finally recycling or destruction.

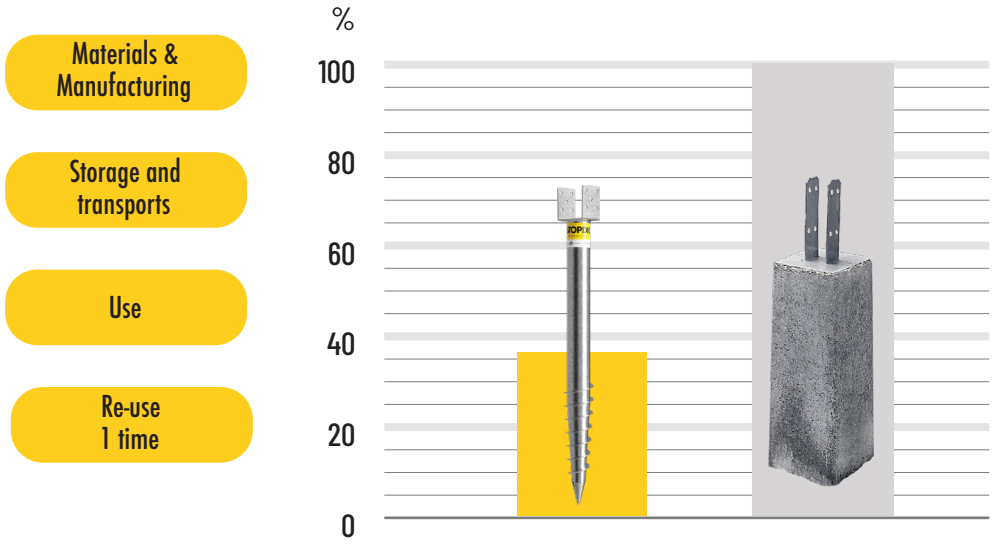
LCA conducted and verified by:

Thinking Here Is a New Growing Earth
Sustainability Concultancy

A ground screw only produces 64 % of the emissions of an equivalent concrete plinth



With one added re-use, only available with the ground screw solution, the total emission is reduced to 34% an equivalent solution using concrete plinths.

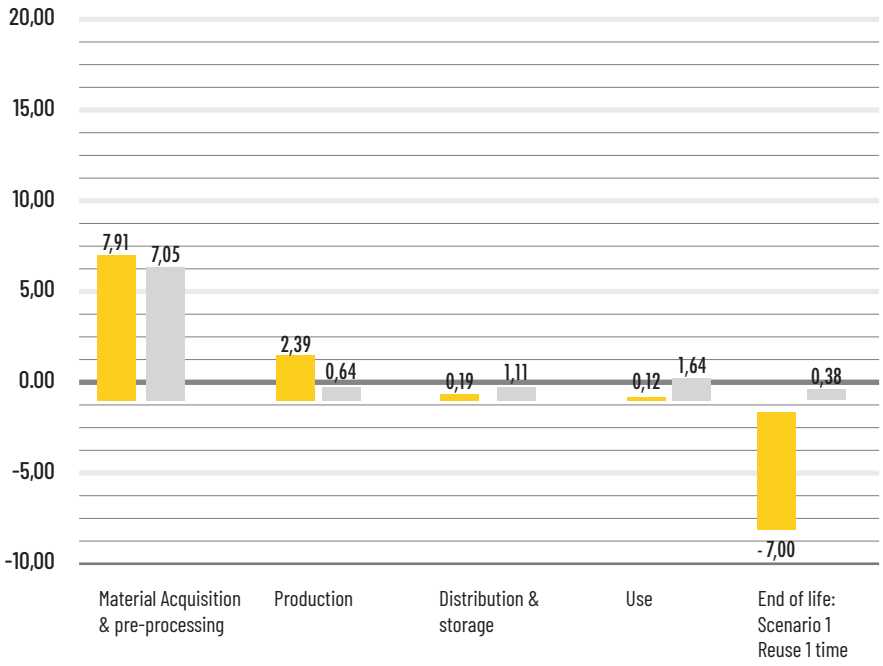


A more detailed view of CO_2 emission in the GHG calculation

A mission among all of us is to handle the resources of our planet in respectful way and by re-use and recycle material we are comply to this. We need to compare, not only actual production and distrubution of material, but also the possibility to re-use and recycle material once brought up from the ground. We need to do all this with a little emission of CO2 as possible.

Producing and distribute a groundscrew can be re-used time after time and in the end re-cycled like any other steel while the concrete plinth is not reused or recycled but you need to produce a new concrete plinth with more CO2 emission.

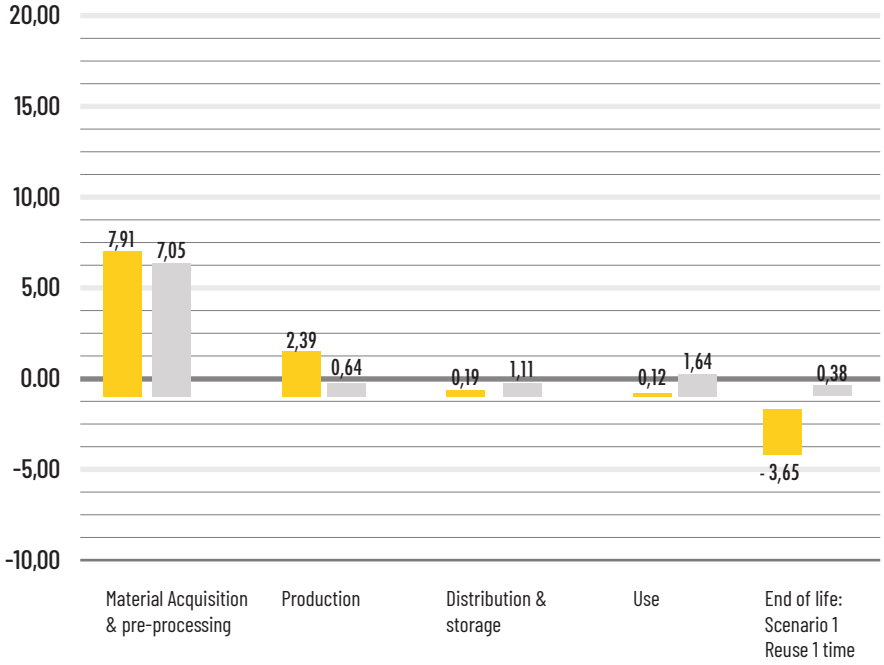
Summary of results per life cycle phase according to the GHG protocol



In the table you follow details of the different steps from ”cradle to grave” from left to right and by time of ”use” the amount of CO2 is roughly the same but when re-use of the groundscrew the difference appears.

In the table you follow details of the different steps from ”cradle to grave” from left to right and by time of ”use” the amount of CO2 is roughly the same but when recycle the groundscrew the difference appears.

Summary of results per life cycle phase according to the GHG protocol with recycle in the end



An even more detailed look for different versions of producing, reuse and recycle

Production, distribution and re-using the groundscrew - 7,2 kg lower emission using groundscrew

Summary of results per life cycle phase according to the GHG protocol with reuse 1 time in the end-of-life

Phase	Steel Screw Sluta Gräv	Beton plinth	Less kg CO2e of steel screw
Material acquisition & pre-processing	7,91	7,05	0,86
Production	2,39	0,64	1,74
Distribution & storage	0,19	1,11	-0,92
Use	0,12	1,64	-1,52
End-of-life, scenario 1: Reuse 1 time	-7,00	0,38	-7,38
TOTAL	**3,6**	**10,8**	**-7,2**

Production, distribution and recycle (instead of re-use) the groundscrew - 3,8 kg lower emission using groundscrew

Summary of results per life cycle phase according to the GHG protocol with recycling in the end

Phase	Steel Screw Sluta Gräv	Beton plinth	Less kg CO2e of steel screw
Material acquisition & pre-processing	7,91	7,05	0,86
Production	2,39	0,64	1,74
Distribution & storage	0,19	1,11	-0,92
Use	0,12	1,64	-1,52
End-of-life, scenario 1: Recycling	-3,65	0,38	-4,02
TOTAL	**7,0**	**10,8**	**-3,8**

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