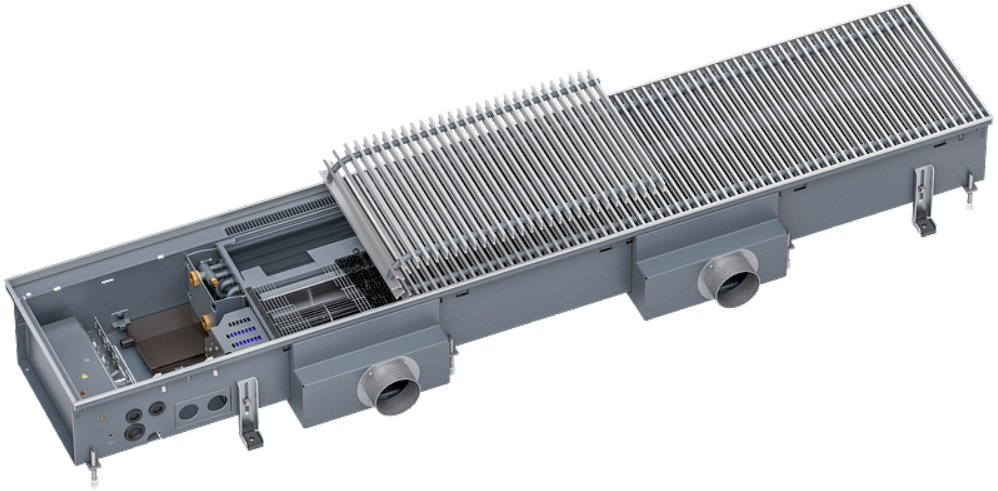
Articlenumber: 143614611134M1

Environmental Product Declaration - (EPD)
Katherm HK P



The EPD data presented here is based on a verified EPD from the program holder EPD International AB. The data contained therein has been converted to the above-mentioned article number. (Verified EPD: EPD-IES-0007771)

Table of Contents

Basic data 2
Resource use 3
Waste & Output Flows 3
Restriction Notice 4
List of terms 5

Trench Technology - Katherm HK P

Articlenumber: 143614611134M1

Basic data

impact category	unit	A1	A2	A3	A1-A3	A4	A5	B2	B3	B4	B6	C1	C2	C3	C4	D
GWP - Total	kg CO2 eq	9.78E+01	2.73E+00	1.20E+00	1.02E+02	4.02E+00	4.88E-01	2.35E-01	6.26E-02	1.14E+00	7.93E+00	0.00E+00	1.37E-01	4.59E+00	6.83E-02	-5.52E+01
GWP - fossil	kg CO2 eq	9.77E+01	2.71E+00	4.36E+00	1.05E+02	4.00E+00	4.82E-01	2.20E-01	5.50E-02	1.12E+00	6.96E+00	0.00E+00	1.37E-01	4.59E+00	6.83E-02	-5.46E+01
GWP - Biogenic	kg CO2 eq	-5.73E-01	5.69E-03	-3.17E+00	-3.74E+00	5.69E-03	3.79E-03	9.49E-03	-5.69E-03	9.49E-03	9.64E-01	0.00E+00	3.31E-04	8.73E-04	6.83E-04	-2.66E-02
GWP - Luluc	kg CO2 eq	7.54E-01	1.90E-03	7.59E-03	7.63E-01	6.49E-04	4.82E-04	3.79E-03	1.33E-02	5.69E-03	9.49E-03	0.00E+00	5.12E-05	1.15E-04	6.85E-05	-3.97E-01
ODP	kg CFC-11 eq	6.52E-06	6.77E-07	2.28E-07	7.42E-06	9.34E-07	2.07E-08	1.88E-08	5.22E-09	6.77E-08	4.72E-07	0.00E+00	3.42E-08	3.95E-08	2.07E-08	-3.68E-06
AP	mol H+ eq	1.31E+00	9.49E-03	9.49E-03	1.33E+00	2.09E-02	1.90E-03	9.03E-04	4.19E-04	4.55E-02	2.09E-02	0.00E+00	4.36E-04	9.45E-04	5.71E-04	-8.01E-01
EP - fresh water	kg P eq	1.07E-01	1.76E-04	5.69E-03	1.12E-01	1.21E-04	1.46E-04	4.53E-05	1.90E-05	3.79E-03	1.90E-03	0.00E+00	8.88E-06	3.32E-05	1.97E-05	-6.64E-02
EP - marine	kg P eq	1.21E-01	1.90E-03	3.79E-03	1.26E-01	7.59E-03	5.45E-04	2.37E-04	9.30E-05	1.90E-03	5.69E-03	0.00E+00	9.75E-05	3.66E-04	1.97E-04	-6.83E-02
EP - country	mol N eq	1.36E+00	2.28E-02	2.47E-02	1.41E+00	7.40E-02	3.79E-03	1.90E-03	6.17E-04	3.42E-02	5.69E-02	0.00E+00	1.90E-03	3.79E-03	1.90E-03	-7.93E-01
POCP	kg NMVOC	3.96E-01	5.69E-03	5.69E-03	4.07E-01	1.90E-02	1.90E-03	4.71E-04	1.94E-04	9.49E-03	1.33E-02	0.00E+00	2.71E-04	8.67E-04	5.27E-04	-2.30E-01
ADPE	kg Sb eq	1.91E-02	6.49E-06	7.91E-06	1.91E-02	3.83E-06	2.96E-06	1.44E-06	9.22E-07	1.90E-03	1.97E-05	0.00E+00	3.26E-07	9.39E-07	2.22E-07	-1.52E-02
ADPF	MJ	1.28E+03	4.42E+01	6.30E+01	1.39E+03	5.88E+01	1.04E+01	5.26E+00	7.25E-01	1.51E+01	1.86E+02	0.00E+00	2.22E+00	1.08E+00	1.59E+00	-6.74E+02
WDP	m³ depriv.	4.62E+01	1.48E-01	1.80E-01	4.66E+01	9.68E-02	6.22E-01	6.83E-02	3.23E-02	9.85E-01	2.49E-01	0.00E+00	7.59E-03	7.40E-02	6.83E-02	-1.18E+01
GWP-GHG	kg CO2 eq	9.57E+01	2.69E+00	4.36E+00	1.03E+02	3.98E+00	4.71E-01	2.18E-01	6.64E-02	1.10E+00	6.91E+00	0.00E+00	1.37E-01	4.59E+00	6.64E-02	-5.31E+01
PM	disease inc.	6.68E-06	2.37E-07	7.44E-08	6.99E-06	1.33E-07	3.26E-08	6.11E-09	3.93E-09	1.35E-07	9.85E-08	0.00E+00	1.20E-08	6.64E-09	1.11E-08	-4.16E-06
IR	kBq U-235 eq	9.21E+00	2.24E-01	6.89E-01	1.01E+01	2.75E-01	3.42E-02	1.57E-01	1.90E-03	1.46E-01	6.53E+00	0.00E+00	1.14E-02	9.49E-03	7.59E-03	-5.83E+00
ETP - FW	CTUe	8.10E+03	3.45E+01	3.26E+01	8.17E+03	3.64E+01	1.13E+01	4.33E+00	1.87E+00	3.62E+02	8.65E+01	0.00E+00	1.74E+00	1.71E+01	1.13E+00	-5.86E+03
HTP - C	CTUh	5.10E-07	9.47E-10	9.56E-10	5.12E-07	6.87E-10	4.93E-09	9.64E-11	9.56E-11	1.40E-08	1.75E-09	0.00E+00	4.74E-11	5.37E-10	4.88E-11	-3.11E-07
HTP - NC	CTUh	1.24E-05	3.61E-08	3.05E-08	1.25E-05	5.14E-08	2.45E-08	2.71E-09	2.16E-09	6.05E-07	4.99E-08	0.00E+00	1.82E-09	7.59E-09	7.55E-10	-9.15E-06
SQP	-	5.99E+02	5.22E+01	2.33E+02	8.84E+02	2.85E+01	1.32E+00	2.43E+00	1.11E+00	1.80E+01	7.00E+01	0.00E+00	2.64E+00	3.68E-01	3.95E+00	-3.21E+02

Trench Technology - Katherm HK P

Articlenumber: 143614611134M1

Resource use

impact category	unit	A1	A2	A3	A1-A3	A4	A5	B2	B3	B4	B6	C1	C2	C3	C4	D
PERE	MJ	2.93E+02	5.62E-01	4.91E+01	3.42E+02	3.97E-01	3.61E-01	1.12E+00	1.75E-01	3.28E+00	3.38E+01	0.00E+00	2.85E-02	1.04E-01	2.66E-02	-1.29E+02
PERM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PERT	MJ	2.93E+02	5.62E-01	4.91E+01	3.42E+02	3.97E-01	3.61E-01	1.12E+00	1.75E-01	3.28E+00	3.38E+01	0.00E+00	2.85E-02	1.04E-01	2.66E-02	-1.29E+02
PENRE	MJ	1.28E+03	4.42E+01	6.30E+01	1.39E+03	5.88E+01	1.04E+01	5.26E+00	7.40E-01	1.51E+01	1.86E+02	0.00E+00	2.22E+00	1.08E+00	1.59E+00	-6.74E+02
PENRM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PENRT	MJ	1.28E+03	4.42E+01	6.30E+01	1.39E+03	5.88E+01	1.04E+01	5.26E+00	7.40E-01	1.51E+01	1.86E+02	0.00E+00	2.22E+00	1.08E+00	1.59E+00	-6.74E+02
SM	kg	6.87E-02	0.00E+00	0.00E+00	6.87E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RSF	MJ	4.66E-04	0.00E+00	0.00E+00	4.66E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NRSF	MJ	3.00E-02	0.00E+00	0.00E+00	3.00E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW	m³	9.36E-01	9.49E-03	2.09E-02	9.66E-01	7.59E-03	1.14E-02	3.79E-03	0.00E+00	3.42E-02	4.55E-02	0.00E+00	4.55E-04	3.79E-03	1.90E-03	-3.74E-01

Waste & Output Flows

impact category	unit	A1	A2	A3	A1-A3	A4	A5	B2	B3	B4	B6	C1	C2	C3	C4	D
HWD	kg	3.63E+00	0.00E+00	0.00E+00	3.63E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NHWD	kg	2.36E+00	0.00E+00	6.70E+00	9.06E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RWD	kg	3.02E-03	0.00E+00	0.00E+00	3.02E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MFR	kg	1.17E-03	0.00E+00	0.00E+00	1.17E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.03E+01	0.00E+00	0.00E+00
MER	kg	5.17E-06	0.00E+00	0.00E+00	5.17E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.60E+00	0.00E+00	0.00E+00
EE (Electrical)	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Trench Technology - Katherm HK P

Articlenumber: 143614611134M1

impact category	unit	A1	A2	A3	A1-A3	A4	A5	B2	B3	B4	B6	C1	C2	C3	C4	D
EE (Thermal)	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Restriction Notice

Restriction Notice 1	IR	This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator.
Restriction Notice 2	ADPE, ADPF, WDP, ETP - FW, HTP - C, HTP - NC, SQP	The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator.
Restriction Notice 3	GWP-GHG	The indicator includes all greenhouse gases included in GWP-total but excludes biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. This indicator is thus equal to the GWP indicator originally defined in EN 15804:2012+A1:2013

Trench Technology - Katherm HK P

Articlenumber: 143614611134M1

List of terms

GWP - Total Climate change - total
GWP - fossil Climate change - fossil
GWP - Biogenic Climate change - biogenic
GWP - Luluc Climate change - land use and land use change
ODP Ozone Depletion
AP Acidification
EP - fresh water Eutrophication aquatic freshwater
EP - marine Eutrophication aquatic marine
EP - country Eutrophication terrestrial
POCP Photochemical ozone formation
ADPE Depletion of abiotic resources - minerals and metals
ADPF Abiotic resource depletion - fossil fuels
WDP Water use
GWP-GHG Global Warming Potential total excl. biogenic carbon following IPCC AR5 methodology
PM Particulate Matter emissions
IR Ionizing radiation, human health
ETP - FW Ecotoxicity (fresh water)
HTP - C Human toxicity, cancer effects
HTP - NC Human toxicity, non-cancer effects
SQP Land use related impacts/Soil quality
PERE Use of renewable primary energy excluding resources used as raw materials
PERM Use of renewable primary energy resources used as raw materials
PERT Total use of renewable primary energy
PENRE Use of non-renewable primary energy excluding resources used as raw materials
PENRM Use of non-renewable primary energy resources used as raw materials
PENRT Total use of non-renewable primary energy
SM Secondary material
RSF Renewable secondary fuels
NRSF Non-renewable secondary fuels
FW Net use of fresh water
HWD Hazardous waste disposed
NHWD Non-hazardous waste disposed
RWD Radioactive waste disposed
CRU Components for reuse
MFR Material for recycling
MER Materials for energy recovery
EE (Electrical) Exported energy electrical
EE (Thermal) Exported energy thermal
A1 Raw Material Supply
A2 Raw Material Transport
A3 Manufacturing
A1-A3 A1-A3
A4 Transport to Site
A5 Installation
B2 Maintenance
B3 Repair
B4 Replacement
B6 Operational Energy Use
C1 Deconstruction / Demolition
C2 Transport
C3 Waste Processing
C4 Disposal
D Future reuse, recycling orenergy recovery potentials

This is how you can reach us

www.kampmann.ca | info@kampmann.ca | +1 250 826 0284 | Kampmann Heating, Cooling, Ventilation Ltd.