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APSE Cemeteries and Crematoria Seminar

Caring and Sharing—the changing roles and responsibilities of Bereavement Services Managers



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ISSDC

Cemeteries
& Crematoria

Discover what's beneath.

Electric Cremation No Going Back!

Justin Smith

APSE Conference – November 2020

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CDS Group the UK's largest cemetery and crematorium design and development company

CDS Group with its in house team of architects, engineers and planners are the UK's largest developers of cemeteries and crematorium.

CDS Group are working on new generation crematorium developments as well as refurbishments with electric cremation.

CDS Group are working with a number of councils on joint large scale cremation only facilities.



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CLEANING UP THE INDUSTRY

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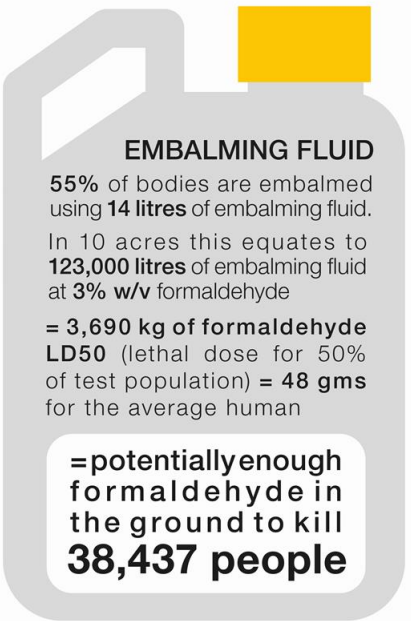
CDS Group the UK's largest cemetery and crematorium design and development company

CHIPBOARD/MDF COFFINS
Assuming most coffins are constructed from Chipboard/MDF:

42,000m²

of Chipboard/MDF would be used in a 10 acre cemetery

= that's four rugby pitches



EMBALMING FLUID

55% of bodies are embalmed using **14 litres** of embalming fluid.

In 10 acres this equates to **123,000 litres** of embalming fluid at **3% w/v** formaldehyde

= **3,690 kg of formaldehyde LD50** (lethal dose for 50% of test population) = **48 gms** for the average human

= potentially enough formaldehyde in the ground to kill 38,437 people

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BLACK
GRANITE
IMPORTED
HEADSTONES

680 tonnes
of granite headstones
in 10 acres

=

282 tonnes
of carbon

=

2,311,475

carbon kilometres for
an average family car

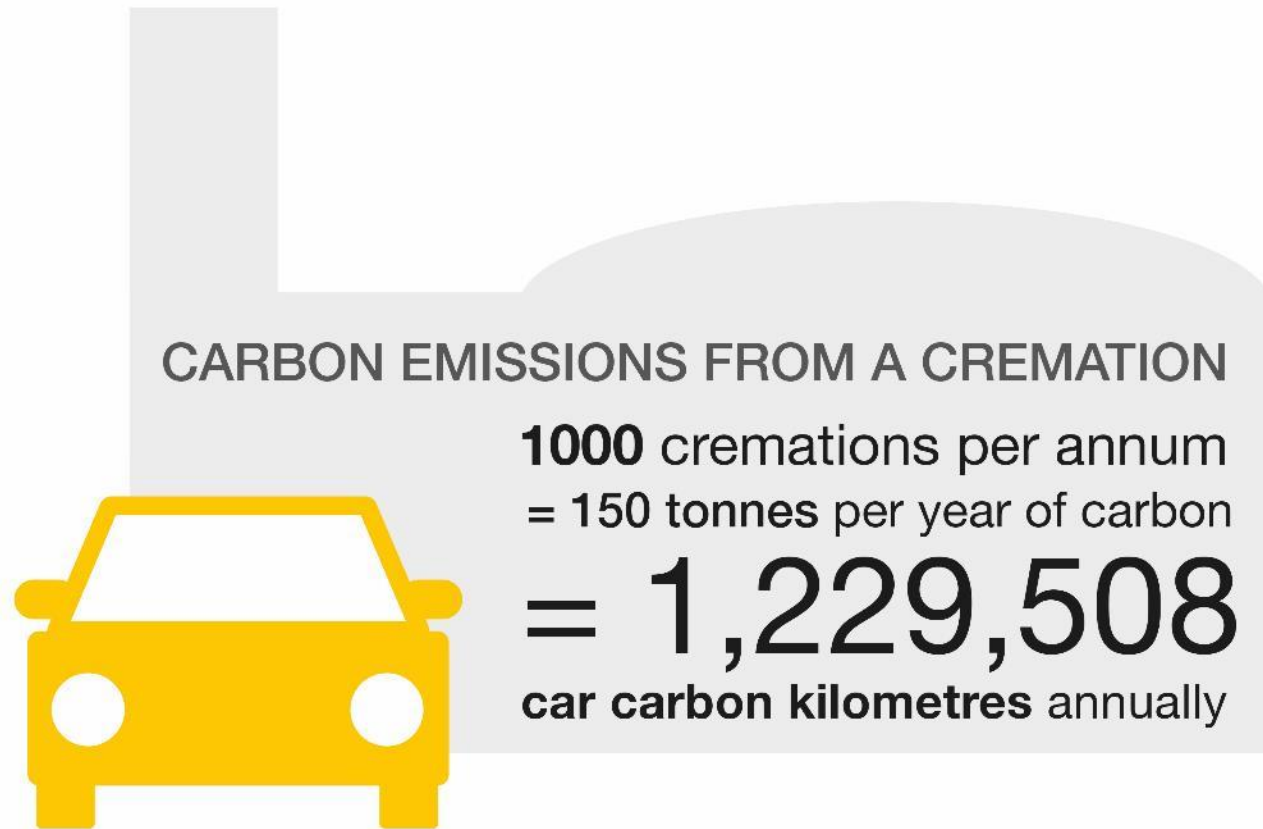


NITROGEN IN THE BODY

Approx **2 kg** per body
assume 16,000
burials in 10 acres =
32 tonnes of nitrogen =
sufficient to fertilise
392 acres of wheat



Electric cremation and the carbon crisis



Electric cremation and the carbon crisis

- In 2018 in the UK there were 481,712 cremations
- Each cremation produces on average 150kg of CO₂ from gas consumption
 - = **72,256** tonnes of CO₂ PA
 - = **592,268,852** carbon car kilometres (14,807 times around the world)
- = **272,045 kg (NOX)** PA from chipboard coffins
- = **1,787,159,227** car kilometre equivalents of NOX (44,680 times around the world)

Electric cremation and the carbon crisis

- Electric cremation using zero carbon energy from sustainable sources will reduce carbon production from fuel consumption by **100%**!
- The remaining carbon is resultant from the body and the coffin, approximately 40kg.



Electric – cremation and the carbon crisis



24.08.2020

Whole life costs for electric cremator KFX200E

Assuming 1000 cremations p.a.

	total	per cremation, assuming 10 years depreciation period
Cremation line purchasing costs	£1.100.000,00	£110,00
Annual costs	total per year	per cremation
Energy consumption 50 kWh/cremation @0.05 GBP/kWh	£2.500,00	£2,50
Service	£20.000,00	£20,00
Reserve for refractory repairs	£18.000,00	£18,00
Reserve for other miscellaneous repairs	£8.000,00	£8,00
Additive supply, based on 300g/cremation	£1.500,00	£1,50
Additive disposal, ditto	£2.500,00	£2,50
Total running costs per cremation		£52,50
Total costs per cremation including purchase costs		£162,50

Electric cremation and the carbon crisis

ELECTRIC CREMATOR NEWS FLASH



Electric cremation and the carbon crisis

CDS have received over 30 enquiries for electric cremator feasibilities this year

Under installation or installed

- **Hambleton**
- **Huntingdon**
- **Memoria North Oxford**

Due for install

- **15 Electric cremators due to be installed in next two years in the UK**

IFZW to have their latest electric cremator installed in Holland this summer

Electric cremation and the carbon crisis

Huntingdon Crematorium first of two DFW electric cremators being installed



Electric cremation and the carbon crisis

Huntingdon Crematorium first and second DFW electric cremators being installed



Electric cremation and the carbon crisis

Heat from the cremators will go to help heat the Town Council's glasshouses to grow plants and flowers for the planting around town and for the public to buy for the cemetery.



Electric cremation and the carbon crisis

COVID-19 bereavement sector dodged a bullet.

Next time we might not be so lucky.

Electric cremation and the carbon crisis

What if we had the same infection rate as Covid-19, currently around **1:55**, but with a mortality rate similar to MERS-COV?

Instead of **60,000** deaths we would be seeing numbers above **500,000** and more. This is not an unlikely if but a likely when.

Electric cremation and the carbon crisis

Covid has taught us we need to review a new way in how we respectfully manage the deceased.

We should adopt a more environmentally sensitive, a more resilient and centric approach to cremation and indeed burial

Electric cremation and the carbon crisis

Should we consider simple single room facilities where the service and cremation in same room.

Build price <£2.6 million including cremators and landscaping



Electric cremation and the carbon crisis

Should we consider large scale out of town crematories and just have the chapel/service facilities locally.

These efficiencies if using electric cremation could reduce running costs down <£45 per cremation*

* Excludes capital purchase price depreciation.



The background of the slide is a soft-focus photograph of green foliage. In the center-right, a single white flower with five petals is in focus, surrounded by various shades of green leaves. The overall lighting is bright and natural, creating a fresh and clean aesthetic.

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THANK YOU

Part of the CDS Group

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Caring and Sharing—the changing roles and responsibilities of Bereavement Services Managers



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Panel 1:

Wayne Priestley, APSE

Paul Wright, Halton Borough Council

Adrian Pickersgill, Doncaster Council

Justin Smith, CDS

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Now:

Virtual coffee break

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