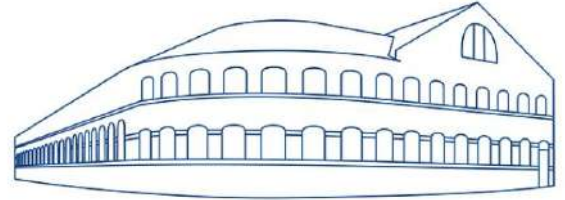


# TM65 Mid-Level Calculation

## HF3 - Hanger

Site name	Old West Gun Works
Site address	Savile Street East Sheffield, S9 7UQ
Products per year	1,192,956



Assessment date	29/07/2022
Assessor	Tasha Lyth
Organisation	Gripple Ltd
Contact	sustainability@gripple.com

Embodied carbon result with 'mid-level TM65 calculation' method total:

**0.160 (kg CO<sub>2</sub>e)\***

Type of product	MEP supports and bracketry
Capacity of equipment (M)	1.0 m
Product weight (kg)	0.02 kg
Material breakdown for at least 95% of the product weight (Y/N)	Y
Service life of the product (years)	25**
Types of refrigerant	N/A
Refrigerant GWP	0.00 kg
Energy consumption of the factory per unit of product (kWh)	0.01 kWh: Electricity, natural gas
Location of manufacture	Sheffield, UK
Product complexity	Category 1: See CIBSE TM65 table 4.3



\*Figure reached using 'Mid-Level' TM65 calculator

\*\*Product service life when installed in accordance with Gripple key recommendations, 25 year extended product warranty available at Technical Services discretion.

# TM65 Mid-Level Calculation

## HF3 - Hanger



Embodied carbon result with 'mid-level TM65 calculation' method total:

0.160 (kg CO<sub>2</sub>e)\*

### Embodied carbon results breakdown (kg CO<sub>2</sub>e)

A1: Material extraction	0.100 kg CO <sub>2</sub> e	TM65 assumption
A2: Transport	0.005 kg CO <sub>2</sub> e	TM65 assumption
A3: Manufacturing	0.003 kg CO <sub>2</sub> e	
A4: Transport to site	0.001 kg CO <sub>2</sub> e	TM65 assumption
B1: Use	0.000 kg CO <sub>2</sub> e	TM65 leakage type 0
B3: Repair	0.011 kg CO <sub>2</sub> e	TM65 assumption
C1: Deconstruction	0.000 kg CO <sub>2</sub> e	TM65 leakage type 0
C2: Transport	0.000 kg CO <sub>2</sub> e	
C3: Waste processing	0.003 kg CO <sub>2</sub> e	
C4: Disposal	0.000 kg CO <sub>2</sub> e	TM65 assumption

### Embodied carbon results - without refrigerant leakage (kg CO<sub>2</sub>e)

A1-C4 (excluding B1,C1)	0.123 kg CO <sub>2</sub> e
A1-C4 with Buffer Factor (excluding B1, C1)	0.160 kg CO <sub>2</sub> e

### Embodied carbon result - refrigerant leakage only (kg CO<sub>2</sub>e)

B1 (Refrigerant leakage during use) + C1 (Refrigerant leakage end of life)	0.000 kg CO <sub>2</sub> e
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### Assumptions

A1: Material carbon coefficient source	Source = CIBSE TM65 table 2.1
B1: Refrigerant annual leakage rate (%)	0%: Source = CIBSE TM65 table 4.13 type 2
C1: Refrigerant end of life recovery rate (%)	100%: Source = CIBSE TM65 table 4.13 type 2
B3: Materials replaced as part of repair (%)	10%: Source = CIBSE TM65
C4: Percentage of product going to landfill (%)	50%: Source = CIBSE TM65

\*Figure reached using 'Mid-Level' TM65 calculator \*\*25 years for project work as decided by Gripple Technical Services