

Magma Heat Treatment Muffles



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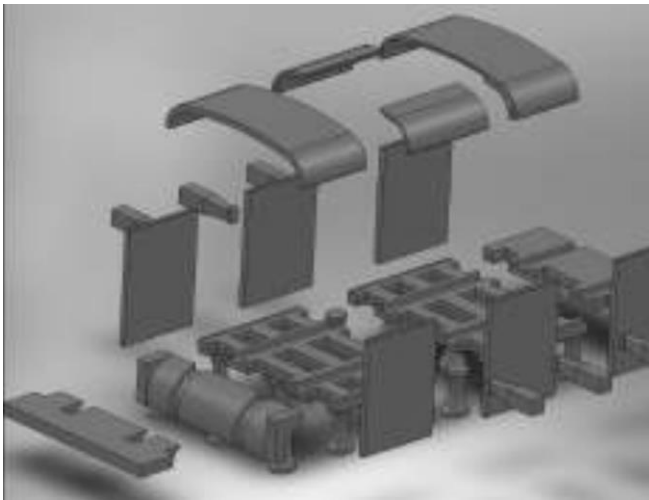


Fig. 1 Shows exploded diagram of component parts

Magma's site based in Wirral, UK, manufactures a complete range of muffle components for the atmosphere and sealed quench furnaces used in the Heat Treatment of metals industry.

Made in a specifically developed Silicon Carbide material, these muffles exhibit excellent resistance to attack by contaminants within the furnace, such as machine oils and inhibitors often present in the work load. With other muffles this results in "glazing" and fusing together of the muffles, resulting in premature failure. Magma Muffles are proven to greatly reduce this problem.

The Silicon Carbide material is also highly Abrasion resistant and has good thermal conductivity, making it an ideal grade of material for this application.

Key Features of Magma Muffles include:-

- ✓ Excellent abrasion resistance
- ✓ Good high temperature volume stability and shape retention
- ✓ Established proven design
- ✓ Complete range of furnaces sizes available
- ✓ Standard and non-standard sizes available

In summary, Magma Ceramics offer high quality, high performance muffles with a proven track record backed by a comprehensive technical and application support service.

Magma Muffles can be purchased as a complete set for a re-build or as separate components for a partial re-build or minor repair.

Material Properties

	63V Silicon Carbide
Bulk Density g/cm ³	2.52
Porosity %	20.0
Modulus of Rupture N/mm ²	18.5
Thermal Shock Resistance	V Good
Thermal Conductivity W/m/K	6.62
Thermal Expansion Coeff'. 10 ⁻⁶ /°C	4.9
SiO ₂	6.6
Al ₂ O ₃	28.8
SiC	63.5
ZrO ₂ + HfO ₂	-
Fe ₂ O ₃	<0.3
CaO / MgO	0.2
Na ₂ O / K ₂ O	0.2

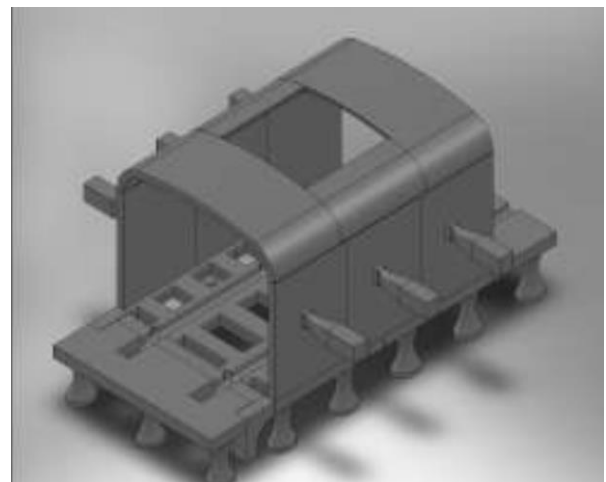


Fig 2. Shows assembly diagram of component parts



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