



## Contract Manufacturing Production

Over 30 years manufacturing experience and competency based expertise has allowed Magma Ceramics to develop a strong understanding of the catalyst industry and deliver improved real value and a commitment to speed of response.

A trusted supplier of sorbents and ceramic supports, Magma Ceramics & Catalysts is accredited to ISO 9001, ISO 14001 and OHSAS 18001. We boast an extensive range of products, manufactured at our plants in the UK and Brazil. These include base metal catalysts for hydrogenation reactions, hydrodesulphurisation, steam reforming, contaminant removal and specialist refining and petrochemical catalysts.

## Contract Manufacturing Solutions

We offer individual contract process steps or whole process and bespoke process lines, with 'in process' quality control inspections/measurements (to specification levels determined by the customer).

Arm's length, periodic or daily quality involvement is available, to meet your requirements.

## Magma's Processing Capacity

• Material Mixing	20,000 Kg/day
• Granulation	6,500 Kg/day
• Pan Mixing	6,000 Kg/day
• Gelation Casting	3,000 Kg/day
• Extrusion	5,000 Kg/day
• Tableting	2,000 Kg/day
• Spray Drying	2,000 Kg/day
• Forced Air Drying to 400°C	12,000 Kg/day
• Calcination from 250-1500°C	12,000 Kg/day

Magma also offers several impregnation techniques for the synthesis of heterogeneous catalysts, including:

- Metal salts to oxides
- Incipient wetness impregnation
- Vacuum impregnation

## Metals

The base metal catalysts that we produce are manufactured on a variety of supports; including alumina, silica, titania, zirconia, clays, zeolites and mixtures thereof, in a range of different sizes and shapes.

Metal Oxides may be incorporated by catalyst shaping and impregnation processes. These include:

- Aluminium
- Calcium
- Cobalt
- Copper
- Chromium
- Lanthanum  
(and other rare earths)
- Magnesium
- Manganese
- Molybdenum
- Nickel
- Potassium
- Silicon
- Sodium
- Tungsten
- Zinc
- Zirconium

## Storage & Shipping

- Variable packing/storage options
- 1kg-1000kg, Land, Air and Sea transportation
- Dangerous goods trained shipment staff
- We work with your own shipping departments, or can arrange shipment as required
- Storage space (up to 1000 tonnes) is available, as required

## Term Options

- Product call off
- Long term
- Capacity reservation
- Consignment
- Easy in, easy out

## Bespoke Catalyst Development

Development and manufacturing of bespoke catalysts to customers specific requirements – please ask for details.

**For more information about any of the products we offer, please call: +44 (0)1924 468201 or email us: [info@mamacatalysts.com](mailto:info@mamacatalysts.com)**



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## About Magma Ceramics & Catalysts

**Magma Ceramics & Catalysts is a privately owned, specialist manufacturer of high quality, precision cast, refractory ceramic components and catalysts.**

Formed in February 2010, following a management buyout of Dyson Precision Ceramics and Dytech, Magma Ceramics & Catalysts has become a major manufacturer and supplier of a range of refractory ceramics and catalyst products throughout the world. The amalgamation of Dyson Precision Ceramics and the expertise and equipment from Dytech has helped Magma Ceramics & Catalysts to create a strong catalyst manufacturing facility, offering standard product compositions, as well as the use of our facilities on flexible, toll manufacturing terms.

Magma offers its knowledge, expertise and production facilities to customers for the manufacture of their own developed catalyst formulations. An ever increasing range of manufacturing capabilities are constantly being brought online.

We currently operate a manufacturing plant from our head office in the UK and have recently acquired an 11,000m<sup>2</sup> contract manufacturing facility located approximately 20km from Rio de Janeiro in Brazil.



## Our Solutions include

- Manufacture and supply of catalyst media including:
  - o Guard bed media
  - o Vessel support media
  - o Ceramic packing balls
  - o Catalyst carriers
- Absorbents/Adsorbents
- Contract manufacturing (for full details please see overleaf), including:
  - o Production
  - o Blending
  - o Distribution
- Full testing and development facilities
- Development & manufacture of custom designed catalysts

## Guard Bed Materials

The purification and ultra-purification of feedstocks to many chemical and catalytic processes becomes increasingly important in improving performance, economics and environmental emissions at customer plant locations.

## Sorbents (Absorbents/Adsorbents)

Magma offers a range of sorbents for the removal of sulphur, chlorine, phosphorous, arsenic, mercury and carbon dioxide, for example.

## Research & Development

**Our R&D team work to continuously provide contract manufacturing developmental support solutions to meet the increasingly complex challenges faced by catalyst suppliers working within the refining and petrochemical industries.**

Magma understands that customers require the highest priority with regards to research and development. We have recently improved our R&D facilities with the addition of pilot/lab scale reactors specifically designed for the testing and development of catalysts. By utilising Magma's pilot plants, the properties of the catalyst can be assessed under realistic operating conditions. This, combined with manufacturing facilities, strategically located in the UK and Brazil, enables us to provide customers with a flexible, adaptable and increasingly geographically significant approach to ensure their requirements are met.