



A new **force** in powder milling


m-series[®]


c-series[®]


s-series[®]

Introducing IIT Ltd and its range of high output mills, classifiers and cyclones:




Powder Milling has come a long way in a very short time thanks to the groundbreaking technologies and innovative expertise of the team at IIT Ltd and their partners.

Recent advances made by IIT with the **m-series** mill and milling process innovation have ensured that the future of powder milling technology has moved radically away from traditional mills to compact sized, high output, modular units that are both economical to build into existing processes and highly versatile for a range of industries.



No longer is in house milling limited to cumbersome and power hungry mills that absorb precious factory square footage. IIT systems are compact and can be easily integrated into previously inaccessible infrastructure.




Advanced powder milling machines and complete process solutions

As a technology development company, IIT's latest innovations have opened up entirely new market opportunities for a range of commercial enterprises from recycling, construction, mineral and many more. Indeed, wherever the requirement for milling is foremost, IIT technology provides an energy efficient, dynamic and compact solution.



*Through dynamic collaboration with internationally renowned partners such as Siemens, IIT is now innovating and building exciting new 'complete process solutions' for a spectrum of end users bringing a range of complementary products alongside the **m-series** range to expedite single-site efficiencies. IIT's facility in Gateshead demonstrates the ease of integration of this new technology.*



Volume powder milling efficiencies are ably demonstrated at the state-of-the-art sampling plant located within IIT's manufacturing facility in Gateshead, Tyne and Wear.



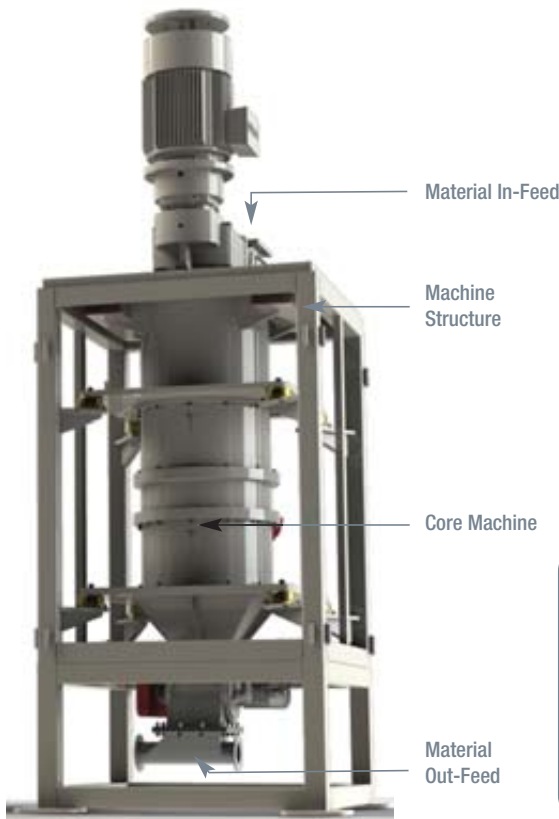
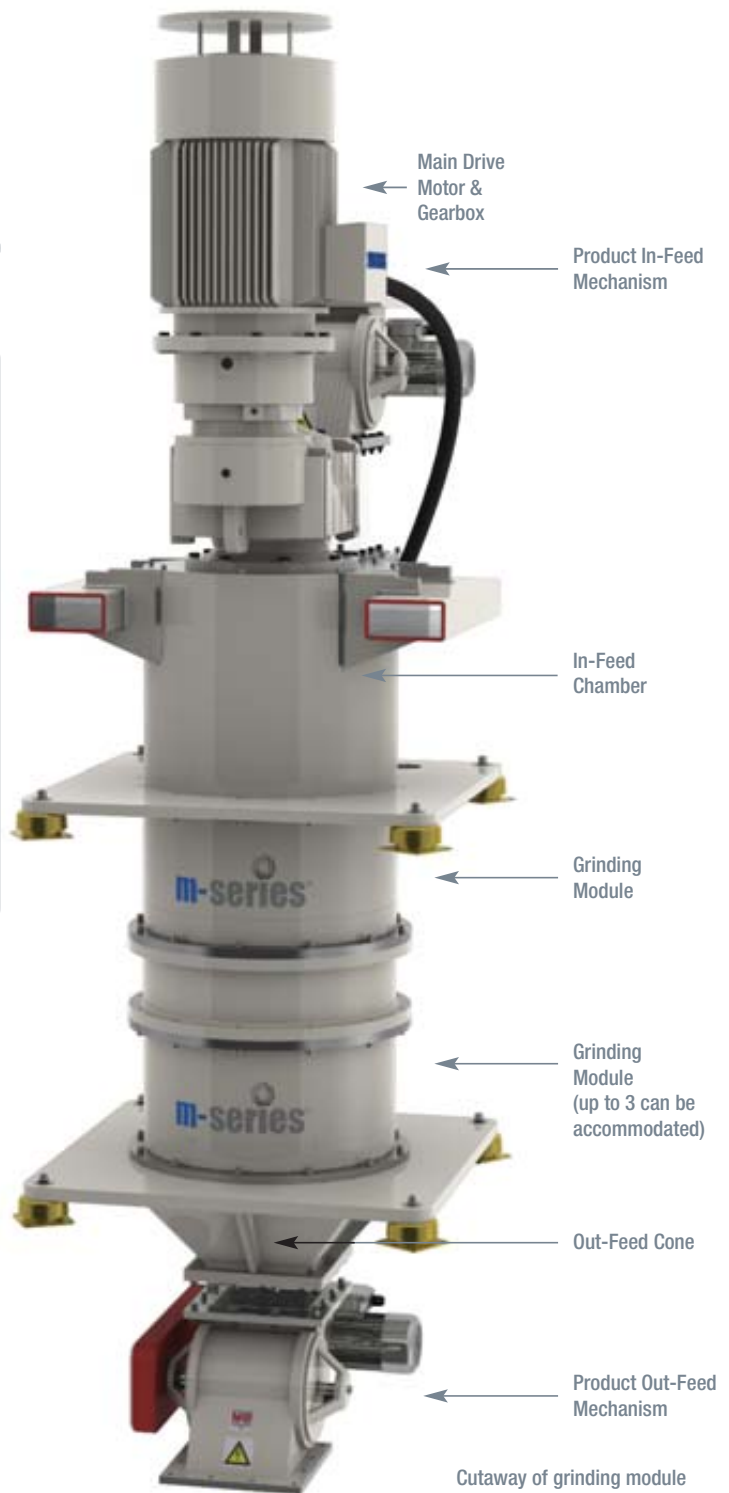
The m-series mill M600

Ultimate grinding output from low energy input

The **m-series** can grind a range of materials of various hardness from limestone to silicon carbide to 90% passing 45 microns and below with specific energy consumption circa 10kWh/T, making the **m-series** highly efficient against traditional milling comparisons.

Benefits:

- High throughput
- Lower cost than traditional mills
- Energy efficient
- Fine particle size
- Many applications



Cutaway of grinding module

Atex Compliance

Where required, the mill can be supplied fully ATEX rated and can safely process flammable/ potentially explosive substances and materials such as coal, petcoke, plastics etc.



The patented powder milling process employed in the m-series range of mills is based upon a centrifugal grinding mechanism meeting with the material flow path and roller pattern which maximises grinding efficiency. In essence, low electrical energy input relative to fineness and volume of powder output.

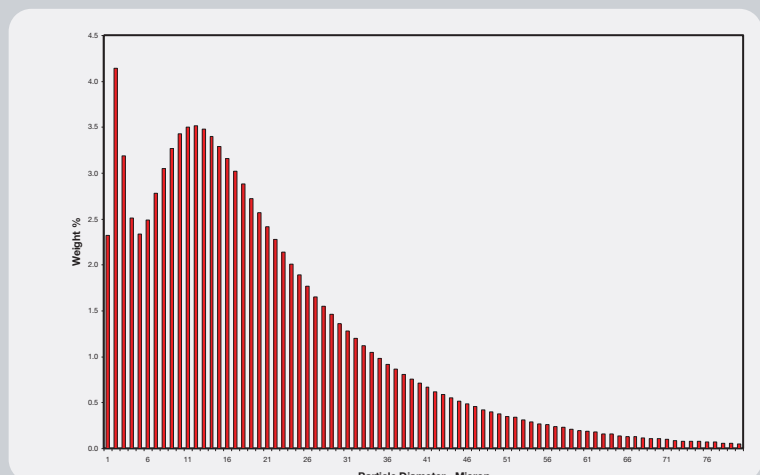
Modular construction - built for easy maintenance



Range: 1, 5 and 10 tonnes per hour
Multi machine configuration up to 50 tonnes per hour



More energy efficient than traditional mills, the innovative centrifugal mechanism develops very high grinding forces. The grinding force is dictated by the speed of rotation, typically 300 RPM i.e., the higher the speed and hence force, the finer the powder.



Delivering innovative solutions for traditional and new markets

What makes IIT's product range so talked about is that it has expanded milling possibilities worldwide. Originally designed to mill hard materials such as metal oxide, bauxite, blast furnace slag, granite, glass, etc., the mill is equally versatile for soft materials including Biomass and GRP.

Indeed, where once milling technology could not efficiently handle non-economic materials the **m-series** has opened up a vista of opportunities in the area of recycling scrap. GRP recycling is a case in point, where **m-series** mills demonstrate cost effective and environmentally efficient grinding of waste GRP. In the construction industry, **m-series** mills enable surplus limestone (below 6mm) to be used as a cement replacement in concrete production.



Compact size, low power requirements and portability make m-series mills ideal for a range of applications. Unprecedented opportunities are clearly demonstrated for recycling in G.R.P., glass and construction materials.



In this photo the compact **m-series** mill is shown neatly integrated into existing plant.



Portable standalone systems

IIT milling systems can be taken to the raw material sources and locally milled to reduce transport costs and carbon footprints, or integrated into existing processes.

An easy to operate, self-contained, safe, cost effective, milling system that can be delivered to site and wired into the electrical supply to commence operations.

Full project engineering capability



IIT's project engineering team can design and install a complete standalone system into your existing infrastructure efficiently and cost effectively.



As a vital technical support for our customers, IIT's project engineering team provide effective and economical turnkey solutions from design and planning stage to final installation and commissioning.

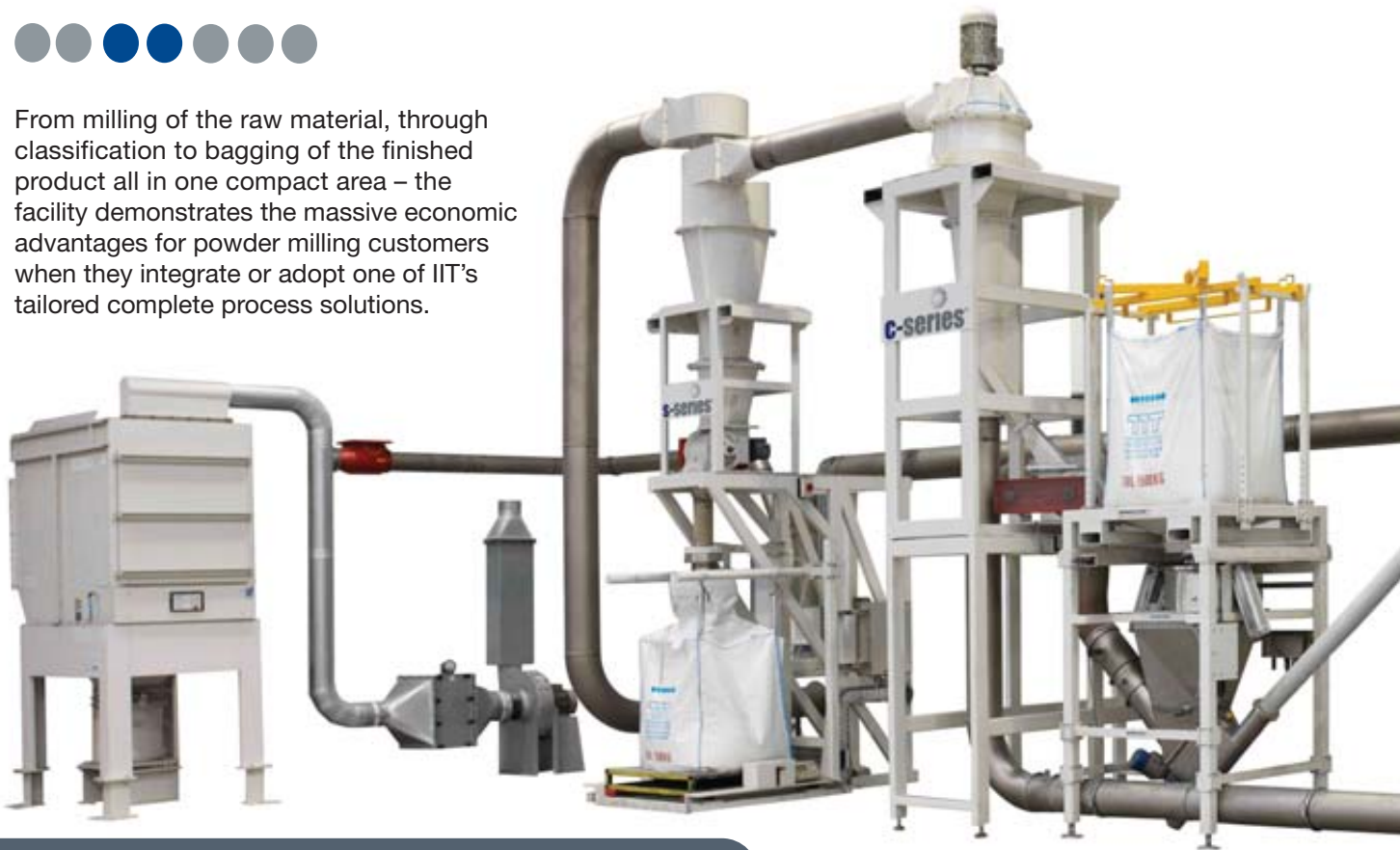
- Schedule preparation and project management
- Design and planning
- State-of-the-art 3d modelling
- Training
- Technical documentation
- Installation
- Commissioning
- After sales support and maintenance

Complete process solutions in action

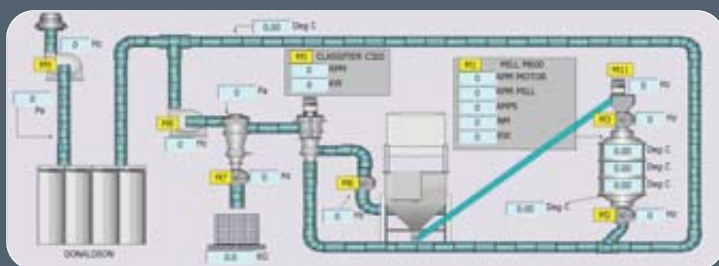
Demonstration and sampling



From milling of the raw material, through classification to bagging of the finished product all in one compact area – the facility demonstrates the massive economic advantages for powder milling customers when they integrate or adopt one of IIT's tailored complete process solutions.



Milling technology at its finest in one of the most innovative demonstration and test facilities for powder milling.



Our Gateshead facility comprises:

- In house demonstration & sampling plant
- In house material analysis lab
- Classification plant
- GRP recycling plant

Complementary products from IIT

The **m-series** range is extremely versatile and can easily be incorporated into existing infrastructure. IIT innovation also enables highly efficient complete process solutions with our range of dynamic products designed to work alongside our mills. These solutions integrate IIT's state of the art classifiers and cyclones.

C400 Classifier

- 7.5 kW Drive
- 550kg installed weight
- Variable fine size cut

C630 Classifier

- 15 kW Drive
- 2,000kg installed weight
- Variable fine size cut

Standalone classification systems can also be provided, incorporating IIT's classifiers, cyclones and ancillary equipment





IIT designed control system utilising Siemens equipment



s-series cyclone

- High efficiency separator
- Typical limestone throughputs of 5,000-10,000 kg/hour



c-series classifiers



Materials analysis testing laboratory

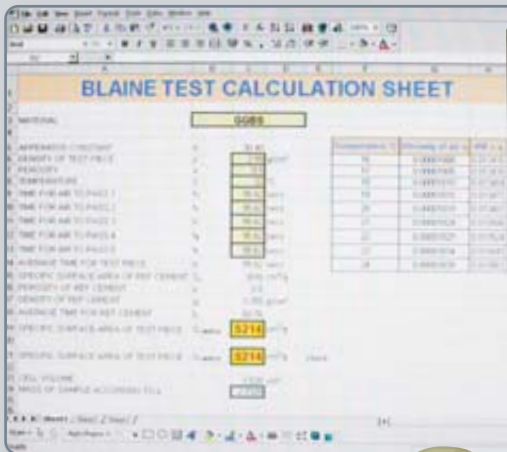


Whatever your milling requirement IIT provides the in-house expertise and resources to tailor-make a solution for your business. A substantial investment has gone into developing a high technology and fully equipped materials testing laboratory within the Gateshead facility which incorporates the very latest analytical equipment, delivering a working system that exactly meets specific client requirements.



Malvern laser analysis

Air jet sieve system



Blaine testing kit



IIT recognises customer preferences when it comes to testing and assessing milled powder performance. For that reason the laboratory is fully equipped to provide a range of sampling techniques and analysis, including air jet sieving, Blaine testing, Malvern laser analysis and digital microscopic analysis.

- Laser particle analysis (Malvern)
- Air jet sieving
- Blaine testing
- Digital microscope
- Moisture content analysis





Dynamic partnerships - **Global excellence together in one complete turnkey system**

IIT Ltd brings together a range of internationally renowned blue chip companies in a dynamic grouping to provide individually tailored process solutions which meet specific industry needs. IIT can help customers create state-of-the-art processing facilities incorporating the latest milling, classifying and cyclone technologies working cost effectively and above all, profitably.



Exporting solutions worldwide

Our strong partnerships with our suppliers including our main supplier, Siemens enables IIT to compete and operate on a global scale.

Because of the world-wide local support this partnership offers our customers we can provide technical support services quickly and cost effectively so that wherever you are in the world you can rely on total solutions. For example our remote diagnostic capability enables our maintenance team to monitor machine performance and expedite equipment maintenance before any downtime occurs.

For more information telephone our sales team on + 44 (0)191 491 3136.



A new **force** in powder milling

Mill product range



M1200 mill

- 90 kW drive (motor can be side mounted to reduce overall height)
- Typical limestone output of 10,000kg/hour
- Typical limestone product size of 92% under 45 μm , median size of 16 μm
- Installed dry weight approx: 9,000kg

M600 mill

- 45 kW drive
- Typical limestone output of 5,000kg/hour
- Typical limestone product size of 92% under 45 μm , median size of 16 μm
- Installed dry weight approx: 4,200kg

M300 mill

- 30 kW drive
- Typical limestone output of 2,500 kg/hour
- Typical limestone product size of 92% under 45 μm , median size of 16 μm
- Installed dry weight approx: 3,000kg

Individual product brochures are available on request by telephoning our sales team on + 44 (0)191 491 3136, via email: enquiries@iituk.com, or can be downloaded in pdf format from www.IITUK.com



Classification systems brochure also available.



Unit 5 Queens Court, Third Avenue,
Team Valley Trading Estate,
Gateshead NE11 0BU
T +44 (0)191 491 3136
F +44 (0)191 487 4409
E enquiries@iituk.com
www.IITUK.com