

# MASTER ABRASIVES

## Micromatic grinding machines – the option for superior performance

As part of its precision package, Master Abrasives is offering a range of Hydraulic, CNC and special purpose precision grinding machines from the reliable Micromatic Grinding Technologies, whose machines are new to the UK through Master Abrasives distributorship. Micromatic's success in providing a superior performance whilst carrying out ethical work practices is evident in their numerous awards and achievements.

Micromatic's range of hydraulic grinding machines includes the eco 200 mini grinder for external, internal or face grinding applications which is highly precise and available with many accessories including the digital read out. This machine is available for demonstration at UK distributor Master Abrasives premises in Daventry,

Northamptonshire. It benefits from the advantage of a small footprint and is a low cost option with the ability to hold tight tolerances. The next series of hydraulic grinding machines model GC 350 is available with a grinding length of 500, 750, or 1150 and is designed for precision tool room and production applications for medium size components.

The heavy duty model GCH 440 series hydraulic cylindrical grinders are used in diverse heavy-duty applications and guarantee roundness accuracy of <2 microns as standard on live spindle grinding. For this series, the workhead spindle runs on precision antifriction bearings for both between centre and live spindle grinding. As an option, a 1 micron or 0.5 micron guaranteed roundness accuracy on a special hydrodynamic workhead is available where the application requires.

In its range of CNC grinding machines, the Micromatic brand offers a full variety of options to suit differing customer needs from the economical to the heavy duty series. For example, the two axis Simple Grind model series is a low-cost, simple cylindrical grinding solution available in angular and straight configurations. This machine is ideal for medium and small scale industry production in applications for components ground in multiple plunges or traverse grinding such as pump shafts and motor shafts.

On the other end of the scale, the h Grind 360 model of heavy duty CNC grinders by Micromatic is ideal for grinding heavy parts up to 250Kg between centre in single or



multiple plunges. This series is suitable for grinding gear end or flange end journals of large crankshafts, 6 cylinder or larger. In between the compact, low-cost machines and the heavy duty production grinding machines are a number of machine models which provide solutions to grinding small batches, grinding multiple diameters in one setting, achieving higher material removal rates and higher component accuracy, and others, all of which aim to provide a solution to customer requirements.

Also in this category, special purpose CNC machines have been developed in collaboration with customers to provide a tailored solution to their challenging applications. This includes Micromatic's Cam Lobe grinder developed with JTEKT Corp. (Toyota) of Japan, model GC20M-25S, which is a high production machine capable of high efficiency grinding with CBN wheel speeds up to 120m/sec. This machine has been designed for lobe profile grinding of small size (<250mm) cam shafts, eccentric shaft pin grinding, punch grinding and more. With developments such as this, Micromatic Grinding Technologies aims to provide solutions by incorporating the latest technology and manufacturing special purpose machines such as valve seat grinders, piston ring profile grinders, special grinders for grinding fuel injection parts, and automation solutions using Gantry or Robotic automation.

Micromatic's continual research and development has led to many outstanding awards for the company, including "Maximising Value to Customer" Supplier Award (Robert Bosch Award) in year 2009 by Bosch, Best supplier award from Honda Motor & Scooter, India, in 2012 and the award by Musashi Auto Parts, India, for recognition of sincere efforts and superior performance in the field of quality for the year of 2014-15.

Micromatic Grinding Technologies is also one of two companies, the other being Tata Motors, whose achievements have been published in the book Humanistic Management Practices by Ernst Kimakowitz (et al.) which demonstrates how businesses can succeed in generating social value whilst being profitable. The case study focuses on Micromatic's humanistic and ethical work practices and how the business has succeeded at maximising output through its management philosophy and its practices such as integrity through communication and fairness in sharing success.

"Our management team has been careful to nurture the basic values of ethics and humanism in its operating model right from the start in 1973." States N.K. Dhand, Chairman of Micromatic Grinding Technologies.

N.K. Dhand continues: "These founding principles have evolved into organisational values which have created a unique environment of trust amongst all stakeholders and the community which Micromatic operates in. This has contributed to our success in maximising output and resulted in the recognition of our superior quality performance from our customers such as Honda, Toyota, Bosch, Musashi and many more to name."

Paul Batson, Managing Director of Master Abrasives, comments "we are proud to be representing a grinding machine company that provides solutions to a gap in the UK machinery market whilst working on developments for its workforce and the wider community. Our management team carefully picks all our partners to ensure we are

associated with only the best in industry and we would welcome any visitors who want to see the high quality compact Micromatic machine we have available on our premises."

For more information, contact Master Abrasives to discuss your grinding application requirements and arrange a demonstration of Micromatic grinding machines.

**Ref – Micromatic grinding machines – the option for superior performance – July 2017**