



**LEADERCHUCKSYSTEMS**  
QUALITY, PRECISION AND RELIABILITY

**Stand 5304**

**MACH**  
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**Hall 5**

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### **Leader feeds the demand for increased efficiency**

Following extensive technical meetings and intense product training, Leader Chuck Systems has recently been appointed the sole UK and Eire agent for the advanced range of high quality single and multi-spindle bar feeding solutions designed and manufactured by Italy's Cucchi Giovanni. An example of the latest bar feeds will be exhibited for the first time at MACH 2016 (Hall 5 Stand 5304).

Managing Director, Mark Jones, says: "A bar feeder seems like a relatively simple device. It is the most common automation accessory for high volume turning, it provides a reliable way of delivering material to the machine tool for extended periods of time, saving an operator from continually loading stock into the chuck. However, in reality bar feeders differ from one to another, and the feeding solutions developed by Cucchi Giovanni make them more suitable to high efficiency workshop environments."

Based near Milan the company was established in the 1970s and since its inception has always developed innovative and sophisticated solutions that have advanced the automatic bar feeding field of machine tools. Its robust products, such as the DB-EVO bar feeder for single-spindle lathes, DMB/F and the CMSP units for multi-spindle turning machines, highlight the company's mantra of 'innovation and simplicity'.

Designed to support efficient unattended or minimally manned production operations the DB-EVO hydrostatic bar feed system offers continuous, controlled automatic feeding of bars/tubes of any profile, without the need for lubrication. The hydrostatic design allows raw stock material to rest in a series of guide supports, made of an advanced plastic material. The supports resemble clamshells, with a top half and a bottom half that close around the stock to hold it in place and provide stability during the turning operation. These guide supports will generally accept a wide range of sizes and are designed to be changed very quickly when required.

Standard stock material lengths of 1300, 1700 and 3300 mm can be accommodated without any bar preparation, in diameters from 10 mm incrementally up to 120 mm diameter, and are automatically loaded in just 3 to 6 seconds.

Matching the performance of modern turning centres the DB-EVO can rotate at high speed without damaging the surface of the stock material, irrespective of the type of material and its profile (round, hexagonal, square, rectangular, oval, and so on) thanks to the use of reduction tubes in the lathe spindle and polyurethane bar retaining sleeves that spin on ball bearings mounted on fixed and moving steadies.

The DBM and DBMF multiple channel bar feeders are the most popular systems supplied by Cucchi Giovanni. Developed to minimise the production floorspace required the bar feeders feature Siemens PLC systems and touch-screen display to control each function of the loader. Bar diameters range from 3 to 80 mm depending upon model specified, while the standard maximum bar lengths of 3,300 or 4,100 mm can be customised to suit specific applications.

The guideways for the raw material are manufactured from reinforced nylon with exceptional resistance to the wear and abrasion caused by the rotation of the raw material, even if the bars have an irregular profile. Another benefit of this nylon's properties means that the surface of soft materials are not marked or scored. A further new feature is the fact that the guideways are bayonet coupled and easily interchangeable with the aid of a special key, without having to disassemble the bases that anchor the drum. Replacing the guideways for smaller bar diameters is therefore considerably simplified and very quick to achieve. Finally, they enable

vibrations and the usual noise levels to be reduced by around 70 per cent. This is mostly due to the fact that the guideways are assembled by slotting together and therefore, with their ends crossing, form a perfectly cylindrical channel. So, the bar stock does not encounter any breaks or opening and can reach high rotation speeds without collisions.

Bar storage is a slant feed gravity rack for the DBM or a bundle for the DBMF with a 1,200 kg capacity. Bar loading time is just 6 to 14 seconds depending on the configuration of the system.

Also designed to enhance multi-spindle turning operations the company's CMSP multi-spindle feeder combines advanced technological solutions that rank it first in its class. Within a very small footprint, just 450 mm longer than the stock material length of 3.3 m or 4 m, the standard version of the loader has a tilted bar magazine in the upper part, with the optional possibility of a bar bundle magazine with a capacity of 1,200 kg.

Loading of the bar in the carrier channel and its subsequent feeding are fully automated. Feeding is performed by two hydraulic motors; the first inserts the bar in the spindle of the lathe and the second for feeding. The diameter of the bars which can be loaded can be changed in a few minutes, merely by replacing the bar feeder collets and adjusting the bar centring devices.

The pneumatically controlled bar centring device allows perfect alignment of the bar just before it enters the spindle of the lathe, eliminating impact and vibrations, and considerably reducing noise and increasing machining precision.

Supporting efficient operation a remnant pick-up device extracts the last crop end of the raw material from the collet of the bar feeder rod and unloads it into the rear part of the loader, checking whether it has been recovered and unloaded by the collet and stopping the lathe in the event of a fault.

Mark Jones concludes: "The selection of the right bar feeder is one of the most important decisions any workshop can make. Bar feed systems help improve productivity, throughput and quality, but in order to gain these benefits it is essential

that a bar feed system is matched to the particular needs of the turning operation. With the extensive range available from Cucchi Giovanni, Leader can match the raw material feeding exactly to the customers' specification."

***Images:***



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## **Note to Editors**

Based in Tamworth, Leader Chuck Systems has an enviable reputation for the in-house design and production of Leader chucking, stationary clamping, gripping and workholding products. A respected brand name for high quality equipment with more than 60 years' experience, the company also stocks products from the very best suppliers, such as AutoGrip, Bison, CARVEsmart, Cucchi Giovanni, Exact Machinery, Gamet, Hainbuch, Hewa, Iram, Lexair, Maprox, MicroCentric, Orange Vise, Posistop, Walmag Magnetics, ZeroClamp and Zweifel. Able to provide the right chuck or gripping solution for any application, Leader Chuck offers quality, precision, and reliability at competitive prices with reliable expert advice and a commitment to customer service.

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