

Mini-mum effort provides maximum rewards

The recently extended TOPlus Mini range features significant real-world benefits. Available from Leader Chuck Systems, the new chuck features a mass reduction of 38 percent, is one third shorter and one third smaller in diameter. This means reduced energy consumption during operation and better cutting tool accessibility.

Thanks to the reduced mass and size the choice of suitable tools is much broader. Also, the tools used can be shorter and therefore more stable, for both the main and sub-spindles. This is particularly key where installation space is limited and in batch production operations where part-to-part consistency is vital. TOPlus Mini is ideal for lowering energy consumption, providing dynamic spindle acceleration and shorter cycle times to lower the cost-per-workpiece.

Managing director, Mark Jones states: "A typical CNC lathe has a 20 to 30 kW spindle motor, which costs around £1,000 per month to run. By reducing the mass of the chuck you can directly reduce the power drawn, which will result in ongoing energy savings. With industrial electricity costs only going up, every step you take towards energy efficiency is rewarded within the business profits. The TOPlus Mini range supports these business goals."

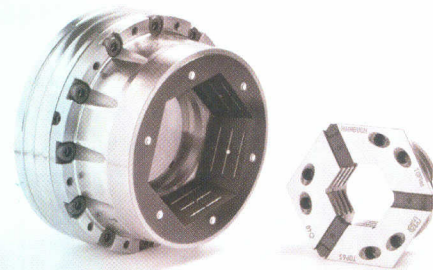
The TOPlus Mini is available in two variants: pull-back and deadlength. The pull-back TOPlus Mini features a vulcanised clamping head with pull-back and hexagonal geometry for optimum chuck sealing and a 25 percent higher clamping force. The fixed base end-stop for clamping with pull-back effect or central mounting thread for component-specific end-stops makes it perfect for clamping workpieces with shorter collars or shoulders. Additionally, this can be removed when necessary to facilitate a through-bore for bar work. A bespoke mounting thread for drawtube connection is also provided.

For radial clamping without axial movement of the clamping head the deadlength TOPlus Mini is suitable for component transfer between spindles such as horizontally opposed twin spindle lathes, also known as kissing-spindle lathes, and for vertical turning pick-up spindles. Again, the chuck can be used for through-bore work with bar fed raw material.

Providing a concentricity of 0.025 mm there are five TOPlus Mini deadlength chucks in the range, 26, 40, 52, 65 and 100, the figure

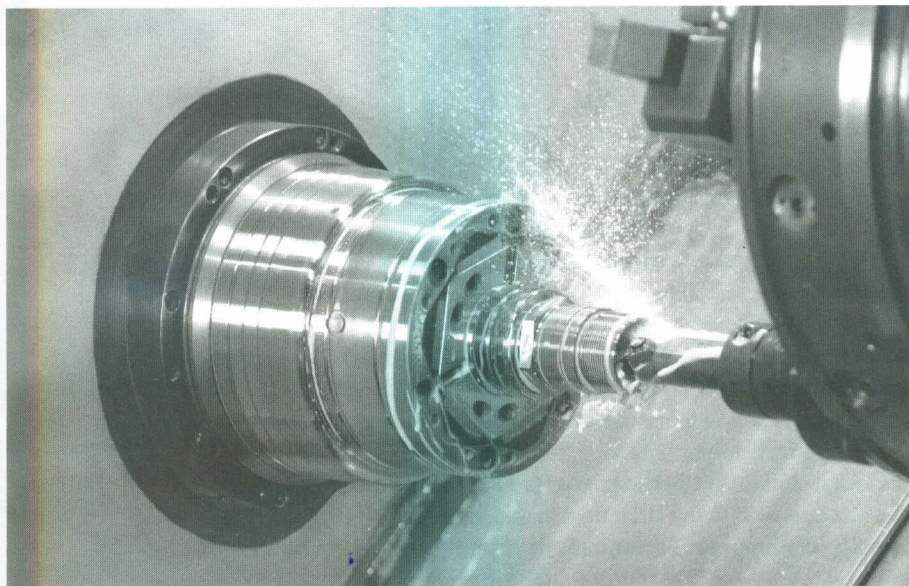
denoting the maximum workpiece diameter. The smallest chuck is rated up to 10,000 rpm and a radial clamping force of 35 kN. The Mini 40 and 52 are rated to 7,000 rpm, and offer radial clamping forces of 103 kN and 108 kN and axial compression force of 33 kN and 40 kN respectively. The rotational mass of much larger workpiece capacity of the TOPlus Mini 65 and 100 means these chucks are rated at 6,000 rpm and 5,000 rpm, and accordingly the clamping forces have also been increased. The 65 has a radial clamping force of 120 kN and an axial compression force of 45 kN, while the largest chuck in the range has a radial clamping forces of 172 kN and an axial compression force of 65 kN.

Covering the same five workpiece diameter ranges, with equivalent speed ratings, radial and compression forces, the TOPlus Mini pull-back chuck range increases concentricity to 0.015 mm.



Featuring a reduced mass the TOPlus Mini chuck range offers energy efficiency rewards for precision engineering businesses

such as AutoGrip, Bison, CARVEsmart, Gamet, Hainbuch, Hewa, Iram, Lexair, Maprox, MicroCentric, Posistop, ZeroClamp and Zweifel. Able to provide the right chuck or gripping solution for any application, Leader Chuck offers quality, precision, and reliability



TOPlus Mini chuck in action

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,

at competitive prices with reliable expert advice and a commitment to customer service.

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