Bison's hard and fast rule

Leader Chuck Systems is now offering a new high gripping force 4-jaw chuck manufactured by its Polish workholding partner, Bison-Bial. It adds to the company's wide range of 4-jaw independent chucks, made with steel bodies and designed for machining operations requiring high gripping forces, such as the production of large crankshafts and turbine rotors.

Thanks to a clamping force of over 20,000 daN per jaw, large cutting torques at relatively small clamping diameters can be achieved. The steel body ensures a longer lifetime, greater stiffness and resistance to wear, while the four independant jaws allow for precise centring of both round and rectangular workpieces with maximum gripping forces. Also, the T-slots machined in the chuck body permit the use of additional clamps. Installation on the machine tool spindle is direct with the use of a Type A short taper.

Leader Chuck Systems managing director, Mark Jones says: "The jaw guides produced in the steel body are hardened to 50 HRc. The master and top jaws are made from high quality stainless steel, and are casehardened and tempered to a hardness of 56 to 60 HRc. The material and manufacturing processes selected ensure a maximum working life for the chuck."

Extremely high gripping forces are obtained by adopting JAKOB power screws positioned in the jaws' guideways. These power screws assure the highest performance having the best technical parameters in the world. Optimal design of the chuck allows it to take full advantage of the technical features of the power screws. So, using relatively little torque on the wrench, just 110 Nm, it is possible to achieve a gripping force on each jaw of over 20,000 daN.

The precision centre, with run-out of just 0.003 mm, allows for exact centring of the workpiece before clamping it with the large gripping force, allowing for high precision operations at enormous weights while being extremely time-efficient. And, for parts with a large unbalance, such as crank shafts for example, the chuck has a system of



Thanks to a clamping force of over 20,000 daN per jaw, large cutting torques can be achieved with the new high gripping force 4-jaw chuck available from Leader

counterweights to provide additional stability and safety.

"The quality and range of the Bison's chucks is exceptional," says Mark Jones. "Offering a cost-effective workholding solution the products are extremely well engineered, accurate and robust. The development of the high gripping force chuck highlights just how effective the company is at listening to the needs of the various manufacturing industry sectors we support."

Founded in 1948, Bison is Poland's largest manufacturer of machine tool ancillary products. From inception the company manufactured both bench and machine vices and, in 1950, started to produce lathe chucks. Offering cost-effective solutions, Bison products are sold in more than 50 countries around the world and are renowned for high-quality, durability, precision and value-for-money.

Today, the ISO 9001 accredited company employs around 600 people and produces a wide range of standard manual chucks, many of which are available with cast iron or steel bodies. With diameters ranging from 80-1250mm the standard manual chucks are available with 2-, 3-, 4- and 6jaws, and various internal/external hard and soft jaw configurations are offered. Geared scroll self-centring, independent and combination models provide robust fixturing for the turning of raw material or

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

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