

M7002 / MA7002 Dual Plane-Balancing System



Deterministic balancing system for high precision grinding machines

Primarily developed for use on high precision grinding machines, the M7002/MA7002 units enable detection, evaluation and monitoring of the unbalance on two spindle bearings. Fast and precise compensation is performed by a dual plane external or internal non-contact balancing system - containing electromechanical adjustable compensating weights (balancing heads) - fully automatic and at high operating speed.

The new deterministic balancing algorithm will assist with the special designed balancing head and delivers the user a huge improved balancing process with impressive cycle time reduction. The unit controls the balancing heads directly, as well as in stationary position or in rotation.

All settings, display and operation of the unit is carried out at a PC integrated Automation System for machine tools or a standard PC based on Windows or Linux with the new developed software package USCC (Unified System Control Center).

The software USCC provides the complete Unicode-Support, to show languages with special signs to allow machine users worldwide the usage of a number of languages.

Predefined, individual adjustable user levels are provided. The display window can be specified individually as well with regard to symbolism, graphic representation or windows width. Over an Active-X-interface it is possible to implement the DITTEL-USCC into the surface provided by the customer himself.

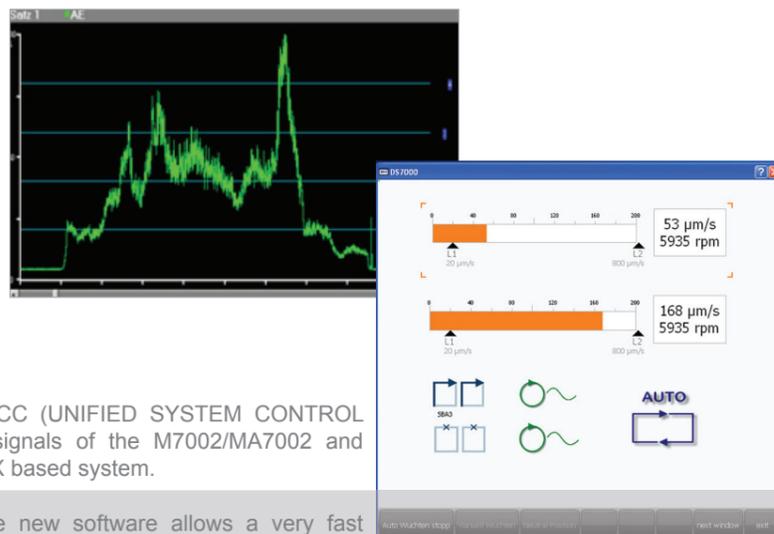
The hardware of the M7002 includes the necessary 2-plane-automatic balancing software while inside the MA7002 System is further on the known AE-process-control-software via Acoustic- Emission for process monitoring, crash-control, first contact detection and / or dressing monitoring for up to four sensors integrated.

For machine control is a digital I/O's interface and PROFIBUS available. The visualization takes place via an Ethernet connection. New are two digital interfaces (I / O's) which offer, in addition to analog outputs also "Fast Digital I / O's signals for rapid monitoring. Furthermore is a USB port for more applications at hand. By default, all data which are necessary will be operate graphically and digitally for the implementing of the balancing process.

Since the beginning DITTEL balancing systems are well known for precision, quality and reliability.

Advantages:

- RPMs up to 20,000 1/min possible (depending on the dimensions of the balancing heads)
- particularly suited for gear grinders (worm grinders), centerless, applications with wheel-packets and double spindle systems
- Compact design
- Maintenance free
- AE sensor can be integrated
- Contactless power transmission



The new programmed software USCC (UNIFIED SYSTEM CONTROL CENTER) visualizes the admitted signals of the M7002/MA7002 and show them on the WINDOWS / LINUX based system.

The comprehensible principle of the new software allows a very fast installation setup and is familiar in its handling.



Through the use of 2-planes auto balancing the unbalance is measured at two planes and thereby adjust - this will reduce the dynamic unbalance.

In this case the M7002/MA7002 are the suitable versions for Gear Grinders (worm wheels), Multi-Wheels and Centerless applications.

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