

Monforts at EMO 2013

High accuracy in turning with flexible measuring technology

Mönchengladbach, July 2013 – Monforts Machine Tools is specialist for machining large workpieces. The machines with hydrostatic guide from Mönchengladbach can often be found where narrow tolerances are required even for materials that are difficult to machine and with heavy components - e.g. in the aviation industry or the manufacture of gearing components for wind power stations. The excellent stability and damping of the hydrostatic guide prove their worth every time. For extreme narrow tolerances the machines are often equipped with precise measuring technology in order to optimise production, for example the machine RNC 700 which can be viewed at EMO in Hannover from 16 to 21 September (Hall 17, Booth C169).

Machines from Monforts have an excellent reputation in industry - above all when it is a question of stability and high, long-term accuracy. With the hydrostatic column guide fitted as standard at Monforts, these machines are especially suited for processing heavy-duty machining tasks: large and heavy parts, large cutting cross-sections and materials that difficult to machine.

Monforts' presentation at the EMO fair focusses on the RNC 700 turret lathe which has proved itself particularly in the field of materials that are difficult to cut as well as large components. For extreme narrow tolerances the machines are equipped with precise measuring technology for measuring tools as well as workpieces. Process-intermittent measurements mean the machine can be adjusted permanently and so ensure optimised process results.

However, there is a catch with measuring tools inside the machine: if the workpiece is very large, it often blocks the path of an automatic swivelling measuring tool. In that case the process has to be interrupted and the setup of the measuring tool is to be done manually, or - in the worst case - the part has to be removed from the machine.

Monforts has many years experience with large workpieces and therefore has integrated a very flexible and accurate tool measuring system into the RNC 700 lathe. Combined measuring systems were developed from turn-mill-centres; these combi systems use a touch probe to measure turning tools and a laser to measure milling tools. The advantages are obvious: turning tools can be measured faster using a tactile system because only the highest point has to be measured. A laser would first have to identify the highest point. However, a laser can measure rotating milling tools. This has definite advantages in a turret lathe with tool drive. However, the decisive factor is that the engineers in Mönchengladbach have integrated the measuring system in the machine so that even very large parts can remain inside the machine for measuring. If the measuring system is not needed, it simply stows away behind a flap in the side wall of the casing to protect it from filings and cooling lubricants.

(Text length: 2,964 characters, we would be pleased to receive a specimen copy)

(Captions:)

Manufacturing large and heavy workpieces gains in accuracy with the in-process application of measuring technology - both for the workpiece and for the tool....

Photo: Redaktionsbüro Pyper

Laser-scanner combi tool measuring system - optimised measurements of turning tools and powered tools.

Photo: Monforts machine tools

Accurate, as close to the production point as possible and with automatic swing - past the large workpiece in the Monforts RNC 700.

Photo: Monforts machine tools

The secret of long-term, accurate heavy roughing: the hydrostatic mounting of the Z axis, a special feature of Monforts machines. It is non-wearing, very stable and provides damping - for the whole service life of the machine.

Photo: Monforts machine tools

Monforts Werkzeugmaschinen GmbH manufactures a comprehensive range of high performance CNC turning centres with various configuration options for machining with sub spindles or 4 axes and flexible turning and milling centres with 5 axis machining. A special feature of all machines is the hydrostatic guide with a 10 year warranty on wear. Almost all modern machining processes can be performed on Monforts turning centres.

For further information please contact:

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