
DECO 13a and DECO 20a: Machining complex parts for the human body

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The DECO [a-line] family of lathes comprises four machines, including the DECO 13a and DECO 20a, which are particularly well suited for the medical sector. Because of their kinematics and high output, these units are able to machine highly complex parts required for human implants, amongst others, with very short cycle times and without having to rework the part.

Both the DECO 13a and DECO 20a lathes will be presented at EMO in Hanover, from 4th to 21st September 2005. Clients and visitors will be able to witness the machining operations carried out on these two lathes directly. DECO 13a will demonstrate the machining operation of highly complex dental implants, which meet the ever growing requirements of this sector. As for the DECO 20a, clients and visitors will have the opportunity to see the machining of orthopaedic implants for hip screws. Specific operations, such as thread whirling can be seen directly on the machine or on the video screens provided.

These two highly versatile machines have 10 axes and a counter-spindle. They allow for a combination of more than twenty tools to be interchanged, with fifteen of them involved in turning. For the more complex milling operations, two C axes can be added to the main spindle and counter-spindle. In addition, the CNC, which controls the movement of axes, speeds and part feed, is part of the latest generation of Fanuc controls.

TORNOS has been specialising in the medical sector for more than fifteen years, developing machining processes and fully dedicated machining facilities. The experience gained over the years allowed the company to become a market leader for this industry.



DECO 13a – Technical characteristics

Main areas of application	Medical, electronics, automotive
Bar passage	13 (16) mm
Length of part for 1 clamp	180 mm
Spindle speed	100-10,000 rpm
Max. spindle power	3.7 kW
Max. number of tools in the guide bush	10
Max. number of tools on the end unit	4
Counter-spindle speed	100-10,000 rpm
Max. number of back operations	6
Max. number of axes	10 (12/axes C)
Strong points	-highly complex parts -high productivity -ideal for the medical / dental sector

DECO 20a – Technical characteristics

Main areas of application	Medical, equipment, automotive
Bar passage	20 (25.4) mm
Length of part for 1 clamp	200 mm
Spindle speed	100-10,000 rpm
Max. spindle power	5.5 kW
Max. number of tools in the guide bush	10
Max. number of tools on the end unit	4
Counter-spindle speed	100-8,000 rpm
Max. number of back operations	7
Max. number of axes	10 (12/axes C)
Strong points	- flexibility through modularity - good access - excellent performance for the medical engineering sector