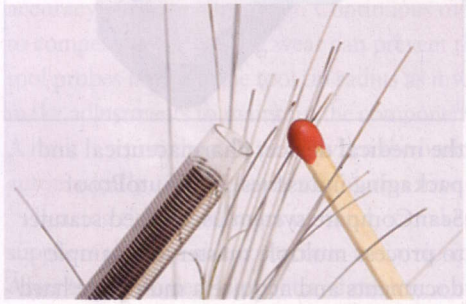
package, the motor uses high-energy permanent magnets that produce high efficiency and acceleration and a peak torque as great as 1.44 N·m. The 10-pole configuration of the motor's stator enables the torque constant value to top out at 0.054 N·m/A.

Delta Line SpA
Basiglio, Italy +39 0 292 276 400
www.delta-line.it

Semifinished products

Zapp Medical Alloys GmbH is a global supplier of semifinished products for medical applications. The manufacturer

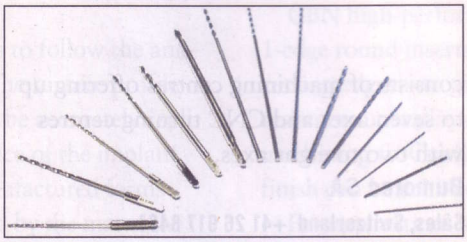


offers a range of wires, bars, near-net shape profiles, precision strips, plates, blanks and tubes. Its products are manufactured to meet stringent quality demands and comply with relevant international standards for medical semifinished products. Grades included in the company's portfolio include stainless steel, pure titanium, titanium alloys, nickel- and cobalt-based alloys and a number of special grades for implants and medical tooling. The company has recently acquired Ferdinand Wagner GmbH and has since enlarged its product range for the medical field.

Zapp Medical Alloys GmbH
Schwerte, Germany +49 2304 79540
www.zapp.com

Orthopaedic drill bit

A manufacturer of orthopaedic and surgical instruments offers a nonbreakable orthopaedic drill bit (NBODB) designed to ensure safety for both patient and surgeon. The NBODB can serve as a disposable or single-use product and is available to disposable-device manufacturers and distributors to be purchased, packaged, sterilised and distributed as such. Manufactured in a facility whose quality management system



has been certified to ISO 9001 and ISO 13485, and carrying the CE mark, the drill bit can withstand any conventional sterilisation process. It is constructed from a material meeting ISO 9714 specifications and is under registered patent.

Eximp Holland
Apeldoorn, Netherlands +31 55 355 3795
www.eximpholland.nl

Machining equipment

A company that has been producing automatic lathe machines for more than 120 years has accumulated more than 30 years of experience in medical and dental applications. Machines from Switzerland-based Tornos deliver precision, productivity and flexibility and they can handle bar stock up to 32 mm in diameter. The Deco Sigma 20 and Sigma 32 feature a counter-spindle that is as powerful as the main spindle. The Sigma 20 II is also equipped with a thread-whirling attachment, which the company pioneered on an automatic sliding headstock turning machine 15 years ago. The thread-whirling process ensures machining quality while improving productivity and tool lifecycles.

Tornos SA
Moutier, Switzerland +41 32 494 4444
www.tornos.com

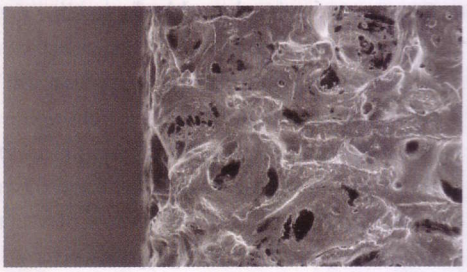
Contract manufacturing

A company specialising in the production of implants and instruments for orthopaedic and spinal surgery provides a full range of contract manufacturing services. In manufacturing hip, knee, shoulder and elbow prostheses, the company designs and implements laboratory tests, makes prototypes, and performs engineering, manufacturing, finishing, assembly and packaging, the last of these operations taking place in an ISO Class 7 cleanroom. It manufactures surgical implants for traumatology, such as intramedullary nails, plates and screws for osteosynthesis, and designs and produces drills, inserter guides and broaches for femoral stems. Metals and alloys the company uses routinely include implantable steels, titanium alloys, chrome cobalt alloys, and special steels for surgical instruments.

Hofmann Srl
Monza, Italy +39 0 329 321 180
www.hofmann.it

Bone regeneration technology

A three-dimensional scaffold for bone tissue engineering, particularly in oral surgery applications, has been developed from a novel concept in biomaterial assembly. The scaffold has a composite structure based on a trabecular bovine bone graft reinforced with biodegradable polymers and bioactive agents. The bone



graft maintains a suitable 3-D structure and porosity for strength; the biopolymers enhance mechanical properties, ensuring elasticity; and the bioactive agents promote cell adhesion and proliferation. Morphological analysis of the scaffold has shown that it has a well-diffused open porosity and microstructure that are comparable to human cortical bone. The scaffold is suitable for applications in oral surgery because it is easy to shape and provides the necessary resistance to screws and surgical fixation apparatus.

Industrie Biomediche Insubri SA
Mezzovico, Switzerland
www.ibi-sa.com