

September 2006 - Application of the month

**Drilling of titanium Ti6AL4V**  
**Application field: Medical instrument.**



**Step drill**  
**DIXI 1502**  
**Ø6 x 12 x Ø7.50 x 21.50 x Ø8 x 79, Z=2**

**Automatic lathe with sliding headstock**

**Stepped drills with internal coolant**

**Cutting conditions**

**Material** Titan Ti6AL4V

**Cutting data**  $V_c = 40 \text{ m/min}$   
 $n = 1'800 \text{ min}^{-1}$   
 $V_f = 108 \text{ mm/min}$

**Lubricant** Cutting oil

Pre-drilling with DIXI 1106 Ø6.  
Drilling in one single penetration (pass)

**Comments** *Tool life is about 1'500 holes per drill.*