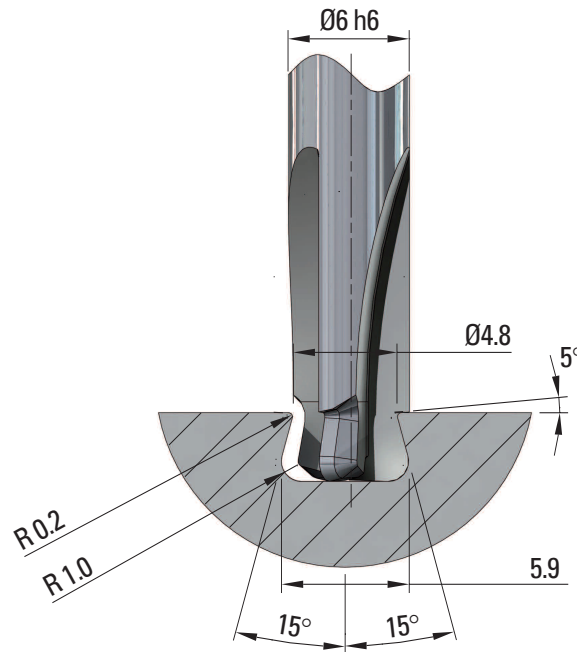


September 2007 - Application of the month

Milling of a groove Application field: nuclear research



Tools:

DIXI 7543 XIDUR end mill Ø4 x Ø6 x 57 mm, Z=3

DIXI 7653 form tool Ø5.90 x Ø6 x 57 mm, Z=3, R=1.00, R=0.20 15° SP

Cutting conditions

Workpiece	Structure element for the "Mégajoule" Laser
Material	Aluminium UNI 5083 - 5086
Machine	Horizontal jig boring machine
Attachment	SA50 in EPB ER 32 collet
Machining	30° finishing of the shape + 1 and 0.20 mm radius
Lubrication	Cutting oil
Cutting data	Vc = 114 m/min fz = 0.01 mm
Method	Roughing with DIXI 7543 end mill (ap=1.2 mm, f= 420, N=10'000 min ⁻¹). Finishing of the groove in 3 passes with DIXI 7653. 1° first pass central in the axis (finishing of the base). 2° and 3° passes left and right (milling allowance 0.20 mm).
Result	Machined length = 22'368 mm