













## PREPARATION METHOD

### TITANIUM (COMMERCIAL PURE: GRADE 1-4)

 <b>CUTTING</b>		<b>Equipment</b> QATM Qcut / Brillant	<b>Consumable</b> Cut-off wheel: silicon carbide, resin bond Anti-corrosion coolant			
 <b>MOUNTING</b>		<b>Equipment</b> QATM Qpress / Opal	<b>Consumable</b> EPO black, EPO-Max  KEM 20, KEM 15 plus	<b>Method</b> Hot mounting  Cold mounting		
 <b>GRINDING/ POLISHING</b>		<b>Equipment</b> QATM Qpol / Saphir Sample size $\varnothing$ 40 mm				
STEP	MEDIUM		 rpm		 N	 min
 Planar grinding	SiC-paper/foil P320 (280)	H <sub>2</sub> O	250-300	▶▶ Synchronous rotation	25	Until plane
 Pre-polishing	ALPHA/BETA	Dia Complete Poly, 9 $\mu$ m	120-150	◀▶ Counter rotation	30	10:00
 Final polishing	LAMBDA	Eposil F, 0.1 $\mu$ m*	120-150	◀▶ Counter rotation	40	10:00-15:00** (H <sub>2</sub> O during final 0:30)
 Optional: Etching (chemical)	Kroll's reagent					Approx. 0:45

\* Eposil F has to be mixed with hydrogen peroxide (35%) in a ratio of 5:1 (safety advice: use personal protective equipment)

\*\* Depends on grade of titanium