

GALA Preparation for Steel Samples

Sample diameter: 30 mm, 40 mm, 50 mm
with multiple pressure systems for individual sample pressure

Process	Medium / Grit size	Rotation direction	rpm (min ⁻¹)	Pressure per sample 30 mm (N)	Pressure per sample 40 mm (N)	Pressure per sample 50 mm (N)	Time (min)
Planarizing	Apollo-S 125 μm ¹	⇒ or ⇽	300	35	60	100	1-2
(The Planarization step is necessary only for large samples > 40mm)							
Grinding I	APOLLO-S 54 μm ¹	⇒ or ⇽	300	35	60	100	2
Grinding II	APOLLO-S 18 μm ¹	⇒ or ⇽	300	35	60	100	2
Polishing I	Pad STEP-PLUS MAGNUM-GREEN 3 μm ²	⇒	150	35	50	80	5
	- or - MAGNUM-TOP-DUO 3 μm ³						
Polishing II	Pad STEP-PLUS MAGNUM-GREEN 1 μm ²	⇒	150	25	40	70	2
	- or - MAGNUM-TOP-DUO 3 μm ³						
Alternative: Polishing II	Pad MAMBO O.P.S. oxide slurry 50 nm ⁴	⇒	150	20	30	55	30 s O.P.S. 10 s water

Notes

¹ Use water as coolant/lubricant

² MAGNUM-GREEN: alcohol-based suspension for manual dosage - spray 5x only before polishing. During polishing use only LUBRICANT-BLUE. Not for use with automatic dosing systems.

³ MAGNUM-TOP-DUO: water-based suspension for manual or automatic dosage. Use without lubricants.

⁴ Moisten MAMBO pad before usage with de-ionized water. After O.P.S. polishing rinse with de-ionized water for 10 s.

Unhardened steel samples or silicon-stabilized steel samples: Do not clean with water after the grinding steps. Use alcohol for cleaning.

