

SUCCESS STORY

SBA New Roll Grinder – Bangkok Roller - Thailand

New roll grinder

Because of good experience with sba revamps and services the customer has decided to purchase a new roll grinding machine from SBA in year 2012. The new SBA grinding machine has been delivered and installed in year 2013 with the full satisfactory of Bangkok Roller.







TECHNICAL PERFORMANCE DATA

Basic Data

Machine bed length	13.000	mm
Maximum grinding length	10.000	mm
Maximum barrel length	9.000	mm
Maximum roll diameter	2.000	mm
Minimum roll diameter	200	mm
Maximum roll weight on bearing housing	80	to
Maximum roll weight on steady rest	50	to
Total machine weight	100	to
Space covered	16 x 6	meter

Grinding wheel

Maximum grinding wheel diameter	750	mm
Minimum grinding wheel diameter	450	mm
Bore of grinding wheel	304.8	mm
Maximum width of grinding wheel	100	mm
Grinding wheel motor	50	kW
Maximum grinding wheel speed	45	m/sec

Headstock

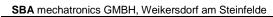
Headstock - speed	0 - 100	rpm
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X - Axis Grinding

Maximum travel length X-Axis	600	mm
In-feed speed	0 - 1500	mm/min
Torque	40	Nm
Resolution	0,1	μm

Control Specification

Power Rating	150 - 200	
Control System	SINUMERIK 840D SL on request Power Line	CNC
Drive system	SINAMICS S120	Servo





Roll Measurement System

Measurement device stationary	sbA – CP design	
Measuring range max. diameter	2000	mm
Measuring range min. diameter	100	mm
Measuring accuracy:	1	μm

Machine accuracy - Surface Quality

Cylindrical and crown grinding roll		
Shape tolerance:	1µm/m	max. 5 μm
Shape deviation, conicity:	1µm/m	max. 5 μm
Maximum crown diameter	+/- 10	mm
Roundness:	depends on roll shaft/bearing	
Surface quality of soft covers:	Depends on wheel quality and grinding technology	

Machine Software

Surfaces to be ground	cylinder, cone, cosine — convex, concave, multiple compound, up to 5 part curves, VALMET, point to point interpolation, variable resolution (empirical), taper with various profile, single, double and triple, CVC curves
Grinding wheel dressing	special shapes for complex grinding shapes and covers
Bed alignment correction	few different table are available (summer/winter)
Integrated safety feature	safety integrated Siemens

Auxiliaries

Filter system	Magnetic/Paper System
Venta-Nip Groove Milling	PU and Rubber Covers
Super finishing device	LÖSER
Grinding Wheel Dressing Device	Common wheels
Roll support	Steady rest on the roll necks or in chocks, without steady rests
Measuring device	CP Design



