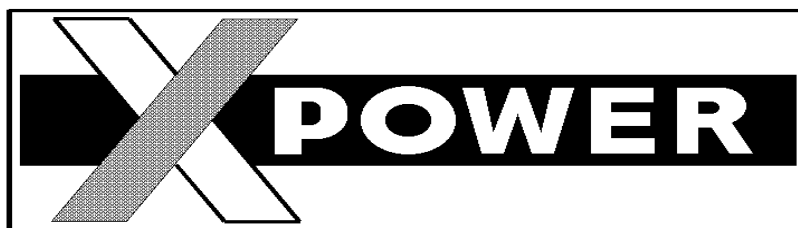


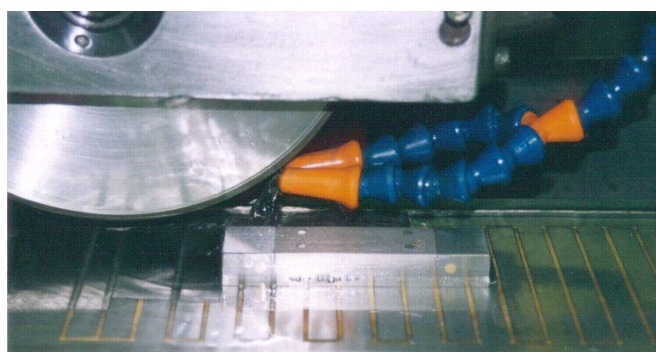
New Dresser for Super-abrasive Grinding Wheels



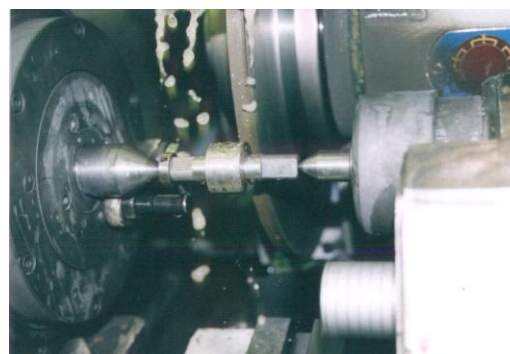
Both truing and dressing can now be easily accomplished by this new dresser (X power) without dismounting the wheel.



Standard Types



Surface Grinding



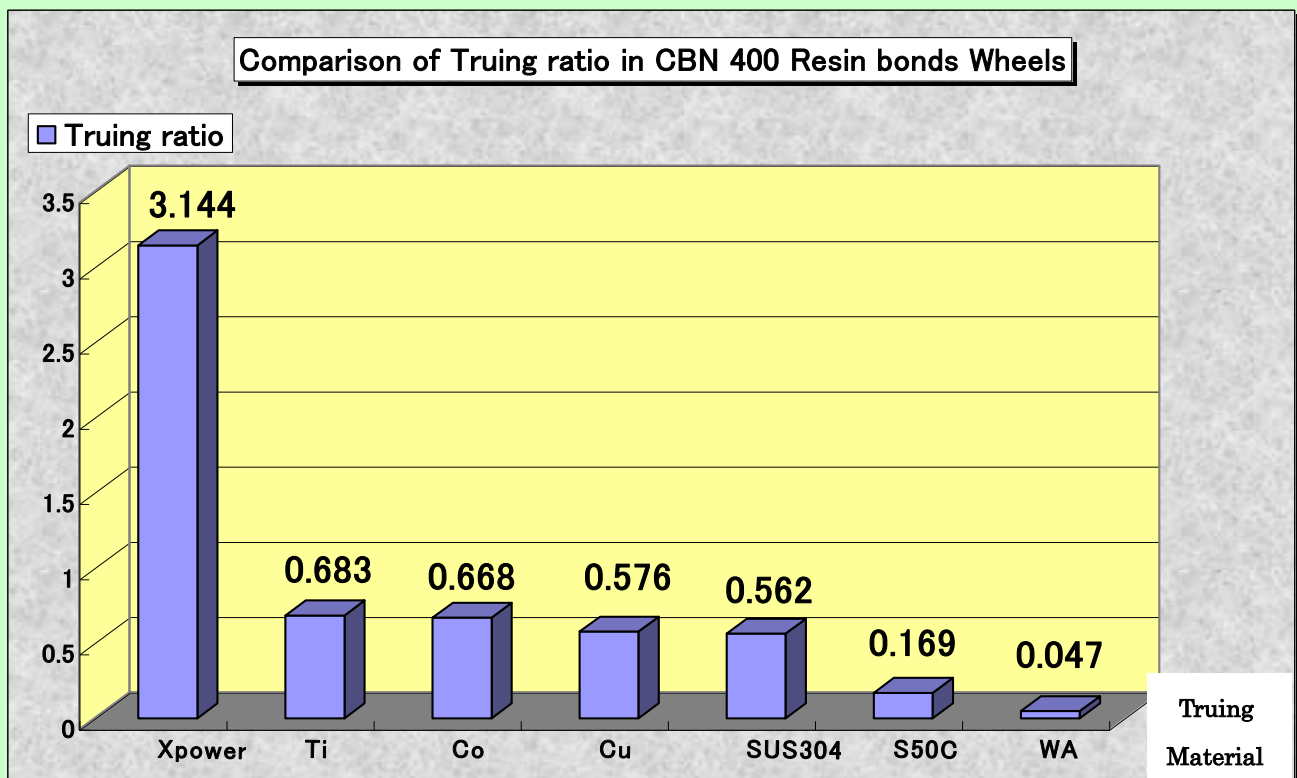
Cylindrical Grinding

SAN-EI SEIKO CO., LTD.

New Dresser 'X power'


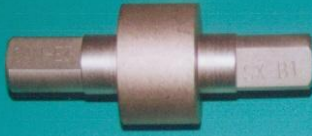




FEATURES

1. Both truing and dressing are accomplished at the same time.
2. Rapid completion.
3. No special equipment or processing is required.
4. High accuracy wheel (run-out, shape, etc) is obtained.
5. High truing efficiency is assured.



$$\text{Truing ratio} = \frac{\text{Abrasion loss of grinding wheels (mm}^3\text{)}}{\text{Abrasion loss of truing material (mm}^3\text{)}}$$

XPOWER Standard Specification

Model number	Dimensions (mm)	Applications	Forms
SX-A1	24W×15H×100L	Surface Grinding	
SX-A2	24W×20H×155L		
SX-A3	24W×23H×220L		
SX-B1	φ 30×20W×80L	Cylindrical Grinding	
SX-B2	φ 30×30W×130L		
SX-C1	φ 30× φ 12×20W	Internal Grinding	
SX-C2	φ 48× φ 24×20W		
SX-C3	φ 70× φ 40×20W		
SX-D1	φ 20× φ 11×55L	Tool grinding Universal grinding	
SX-E1	45W×15H×90L	Side-face Grinding	
SX-F1	φ 11×20W×50L	Tool grinding Universal grinding	
SX-Z		Special forms.	

Upon receiving order

- Please specify model number.
- Special specifications are also acceptable. Please consult San-ei Seiko .

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Example

A computerized numerical control (CNC) surface grinding machine having a super-abrasive grinding wheel was used for the truing test.

Truing condition

The super-abrasive grinding wheel was trued by grinding the truing device SX-A1.

The super-abrasive grinding wheel was a straight type and had an outer diameter of 200mm and a width of 10mm.

Estimation

A truing ratio was determined by the following formula.

$$\text{Truing ratio} = \frac{\text{Abrasion loss of grinding wheel (mm}^3\text{)}}{\text{Abrasion loss of truing material (mm}^3\text{)}}$$

Grinding Conditions		
Dresser	S50C	Xpower (SX-A1)
Wheel speed	10.5 m/s (1000rpm)	
Table speed	15 m/min	
Traverse speed	215 mm/min	
Total depth of cut	0.200 mm	
Wheel dimentions	φ 198.902 × 15	φ 199.000 × 15
Depth of cut/pass	0.004 mm	0.005 mm
Results		
Wheel wear	0.005 mm	0.049 mm
Dresser wear	0.190 mm	0.147 mm
Truing time	10.5 min	7.5 min
Truing ratio	0.098	1.25
Motor current	5A	5A
Workpiece : SKH51 (HRC63)		
Surface Roughness	Ra 0.723	Ra 0.648
Straightness	1.0μ m	0.6μ m

Recommended truing conditions				
Wheel grain size	Depth of cut	Wheel speed	Table speed	Traverse speed
170	0.005 mm	10 m/s	10 m/min	200 mm/min
270	0.004 mm			
400	0.002 mm	13 m/s	15 m/min	300 mm/min