

S. VARIO GRINDING WHEELS



● S. Vario Abrasive

The abrasive used for S. Vario wheels is special abrasive manufactured by surface-treatment and heat-treatment various abrasive grains such as alumina ceramic or monocrystal ones.

The grinding wheels can be manufactured with a desired abrasive retention force using a small amount of bond as far as the bond melted at a higher temperature is firmly combined with the abrasive.

Because the high gripping strength of grain, the S. Vario wheels can be produced with higher porosity. The S. Vario wheels are capable of high efficiency grinding with low grinding heat.

● Characteristics of S. Vario Wheels

Capable of high efficiency grinding any type of steels and less likely loading chips, resulting in improved grinding performance and longer dressing intervals.

● Example Applications

SCM material centerless grinding, angular grinding, high-speed steel groove grinding (drilling, tapping, etc.) stainless steel cylindrical grinding

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● Example Applications

● Piston Shafts

Centerless grinding
infeed

	S. Vario Grinding Wheel	Conventional
Wheels	SV 150 K 8 V 455x80x229	SA 100 L 8 V 455x80x229
Material	SCM440Hφ24x80L	
Wheel speed	45m/s	
Dressing interval	40 shafts	25 shafts
Surface finish	0.18 - 0.25 Rz (within 0.3 Rz)	0.2 - 0.3 Rz
Remarks	Surface finish stability	Unstable surface finish

● Stepped shafts

Cylinder angular
grinding

	S. Vario Grinding Wheel	Conventional
Wheels	SV 80 J 8 V 510x42x203.2	PA 80 J 9 V 510x42x203.2
Material	SCM435H	
Wheel speed	45m/s	
Work rotation	270 - 280min ⁻¹	
Infeed speed	0.2mm/min	
Dressing interval	40 shafts	6 shafts
Surface finish	0.20~0.25 Ra (within 0.4 Ra)	0.2~0.3 Ra
Remarks	Stable shape and surface finish, dress interval extended to 700%	Quickly deforms

● Gear shafts

Cylindrical angular
grinding

	S. Vario Grinding Wheel	Conventional
Wheels	SV 80 J 7 V 510x25x203.2	SA 80 J 7 V 510x25x203.2
Material	Sintered alloy	
Wheel speed	45m/s	
Infeed speed	0.20~0.25 mm/min	
Dressing interval	75 shafts	50 shafts
Surface finish	2.0 Rz (within 3.2S)	2.0 Rz
Remarks	Scratches reduced, dress interval extended to 150%	Scratches occur