

Mineral Ground Tools

Grading

RC500





Advanced brazing/heat treatment



Cutting force analysis



Engineering expertise

Productivity in Action

SANDVIK TOOLS

TOUGH TOOLS FOR TOUGH JOBS

Sandvik Mining and Construction manufactures a full line of tools and accessories for the trenching, road planing, reclaiming, tunneling, longwall mining and continuous mining industries. Our tools are manufactured globally to the highest quality standards, using the strongest materials and most stringent manufacturing processes.

Headquartered in Sandviken, Sweden, and established in 1862, Sandvik is a high-technology engineering group and the world's leading manufacturer of tungsten carbide tools for the construction, mining and drilling industries.

We take special care in the manufacturing process to ensure that the cemented tungsten carbide in Sandvik's tools will meet our customers' demanding needs. The tungsten carbide is processed through a proprietary method to maximize its strengths and brazing properties. A special brazing/heat treatment bonds the tungsten carbide to high-grade alloy steel to ensure the hardness of the steel – and the superior performance of these tools in the field.

You can be confident that Sandvik tools will always provide maximum productivity and efficiency and that we will back them with the most dedicated customer and technical support in the industry.

As the world's leading supplier of drilling, excavation, crushing and screening machinery, and equipment and tools for the mining and construction industries, only Sandvik can offer customers the entire package – products, service and expertise. We use our nearly 150 years of experience and our comprehensive product line to create value for our customers through relationships that combine hands-on knowledge of our customers' processes with our own real-world applications knowledge – proven around the world.

NOTE: This is the 2008 catalog for Sandvik grading tools and all data are current at time of printing. Visit our Web site at www.miningandconstruction.sandvik.com to learn more about our services and to check for any updates on the tools and products listed here. Periodic technical bulletins may be issued with updates.

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APPLICATIONS & PERFORMANCE

APPLICATIONS

The Sandvik System 2000 road grading maintenance system is designed to fit most motor graders and can handle a variety of applications.

- Gravel reclamation
- Gravel maintenance
- Oil road reclamation
- Asphalt planing
- Ice and snow removal
- Removal of potholes and washboards on dirt and gravel roads

PERFORMANCE

The System 2000 was developed to improve the performance and productivity of your motor grader. The System 2000...

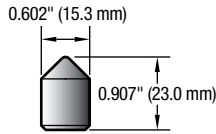
- Provides a better mix of materials
- Cuts out ruts and washboards
- Breaks up rocks in the roadway
- Rehabilitates oil and calcium chloride roads
- Cuts ice and snow
- Cuts through crust, rocks and ice easier and faster than conventional systems
- Offers easy field maintenance
- Reduces equipment costs
- Replacement tools last as long as 5-15 sets of conventional blades
- Greatly reduces downtime
- Incorporates the unique back-blading capability that is the only one of its kind in the marketplace

CARBIDE TIPS



INSERT CARBIDE TIPS

Insert carbide tips are best suited for penetration applications where steel wash is not an issue. These tips are ideal for use in hard, high-impact conditions.

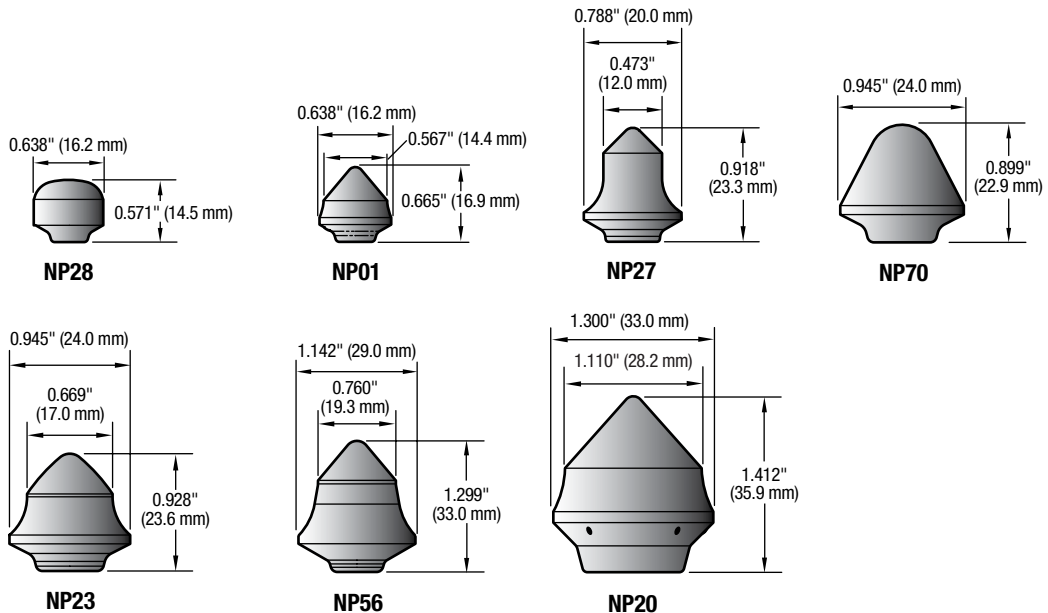


NP13



CAP CARBIDE TIPS

Cap carbide tips have a valve-seat braze joint for increased strength and shear resistance. The tips provide excellent penetration, and the large carbide shoulder gives excellent protection against steel wash. These tips are best suited for use in medium to hard conditions.



SYSTEM 2000

Sandvik System 2000 tools are available in shank diameter sizes from 19 mm to 35 mm for use on motor graders for the road grading industry.

These tools are manufactured globally, according to the highest quality standards.



S19 SYSTEMS (Available only in Europe)



STANDARD BOARDS* [1.50" (38.1 mm) Spacing – Angle 25°]

LENGTH	BOLT HOLE	TOOL CAPACITY	PART #
61.5 cm (2 ft.)	18 x 18 mm	16	S1AW-1924-1325
91.5 cm (3 ft.)	18 x 18 mm	24	S1AW-1936-1325
122.0 cm (4 ft.)	18 x 18 mm	32	S1AW-1948-1325

*Cannot work with H2/K2 tools

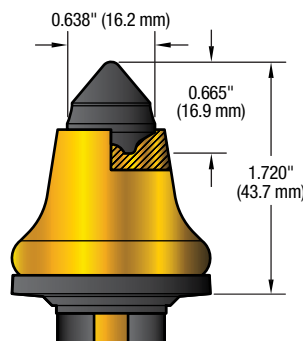
TRUCK BOARDS [1.50" (38.1 mm) Spacing – Angle 45°]

LENGTH	BOLT HOLE	TOOL CAPACITY	PART #
40.5 cm	18 x 18 mm	10	S1DW-1916-1345
45.6 cm	18 x 18 mm	12	S1DW-1918-1345
50.0 cm	18 x 18 mm	13	S1DW-1920-1345
61.0 cm (2 ft.)	18 x 18 mm	16	S1DW-1924-1345
91.5 cm (3 ft.)	18 x 18 mm	24	S1DW-1936-1345
122.0 cm (4 ft.)	18 x 18 mm	32	S1DW-1948-1345

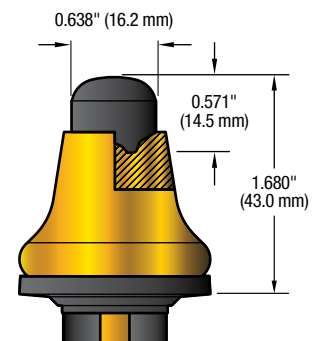


EU SHIPPING INFORMATION		
Pieces Per Box	Boxes Per Pallet	Pieces Per Pallet
50	63	3150

K6LS-1945-0169



K6LS-1945-2869

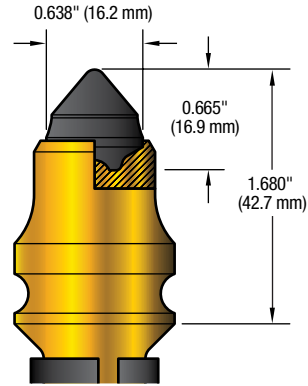


S19 SYSTEMS (Available only in Europe)



EU SHIPPING INFORMATION		
Pieces Per Box	Boxes Per Pallet	Pieces Per Pallet
60	63	3780

H1MA-1944-0169



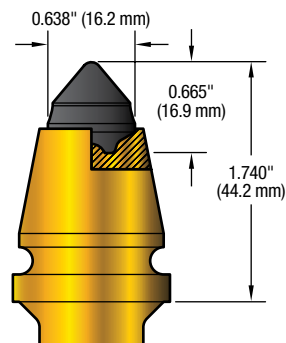
19 mm Systems



EU SHIPPING INFORMATION		
Pieces Per Box	Boxes Per Pallet	Pieces Per Pallet
65	63	4095

FEATURES:
 – Ideal for high speed truck grading

H2MA-1946-0169*



* Only works with S1DW boards

S19 SYSTEMS (Available only in Europe)

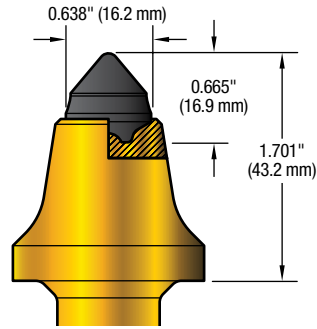
19 mm Systems



EU SHIPPING INFORMATION		
Pieces Per Box	Boxes Per Pallet	Pieces Per Pallet
50	63	3150

FEATURES:
– Ideal for high speed truck grading

K2LA-1943-0169*



* Only works with S1DW boards



S22 SYSTEMS



STANDARD BOARDS (1.50" Spacing)

LENGTH	BOLT SIZE	TOOL CAPACITY	PART #
3 FT.	.5/8"	24	S1BA-2236-1930
3 FT.	.3/4"	24	S1BB-2236-1930
4 FT.	.5/8"	32	S1BA-2248-1930
4 FT.	.3/4"	32	S1BB-2248-1930

UNDERBODY BOARDS (1.50" Spacing)

LENGTH	BOLT SIZE	TOOL CAPACITY	PART #
3 FT.	.5/8"	24	PS2036NR
4 FT.	.5/8"	32	PS2048NR

END PROTECTORS*

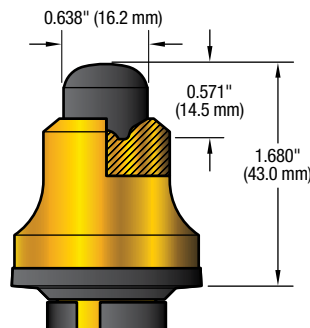
LEFT	S4PX-2203-1030
RIGHT	S5PX-2203-1030

* For 22 mm Standard & Underbody boards only

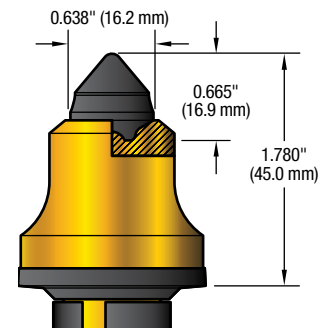
SHIPPING INFORMATION		
Pieces Per Box	Boxes Per Pallet	Pieces Per Pallet
50	45	2250

EU SHIPPING INFORMATION		
Pieces Per Box	Boxes Per Pallet	Pieces Per Pallet
50	63	3150

K1LW-2244-2869



K1LW-2244-0169



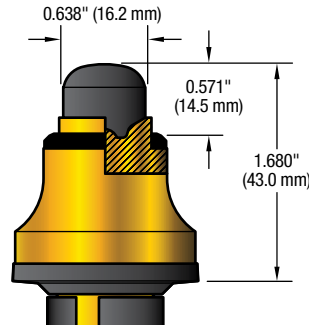
S22 SYSTEMS



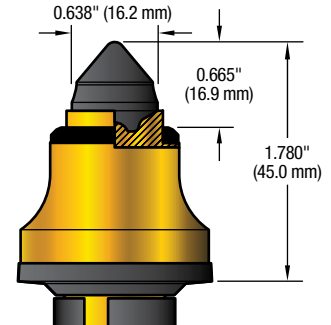
SHIPPING INFORMATION		
Pieces Per Box	Boxes Per Pallet	Pieces Per Pallet
50	45	2250

EU SHIPPING INFORMATION		
Pieces Per Box	Boxes Per Pallet	Pieces Per Pallet
50	63	3150

K1LT-2244-2869



K1LT-2244-0169



S22 SYSTEMS



* For tools with friction or bump type retainers.

“2100” BOARDS* (1.75" Spacing)

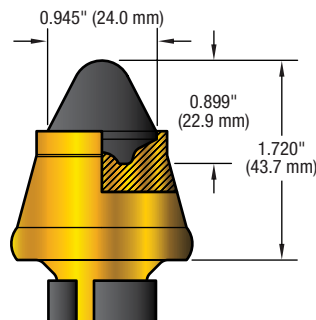
LENGTH	BOLT SIZE	TOOL CAPACITY	PART #
3 FT.	5/8"	21	S1EA-2236-1930
3 FT.	3/4"	21	S1EB-2236-1930
4 FT.	5/8"	28	S1EA-2248-1930
4 FT.	3/4"	28	S1EB-2248-1930



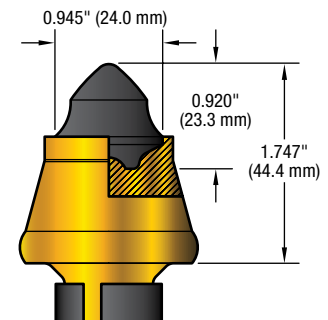
SHIPPING INFORMATION		
Pieces Per Box	Boxes Per Pallet	Pieces Per Pallet
50	45	2250

EU SHIPPING INFORMATION		
Pieces Per Box	Boxes Per Pallet	Pieces Per Pallet
50	63	3150

K1LA-2244-7062



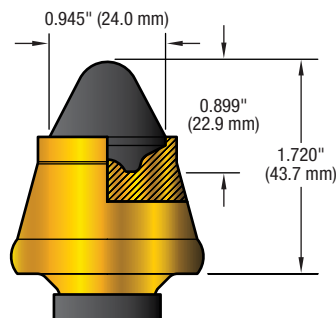
K1LA-2244-2362



SHIPPING INFORMATION		
Pieces Per Box	Boxes Per Pallet	Pieces Per Pallet
50	45	2250

EU SHIPPING INFORMATION		
Pieces Per Box	Boxes Per Pallet	Pieces Per Pallet
50	63	3150

K9LA-2244-7062



S25 SYSTEMS



HEAVY-DUTY BOARDS (1.72" Spacing)

LENGTH	BOLT SIZE	TOOL CAPACITY	PART #
3 FT.	.3/4"	21	S1CB-2536-2530
4 FT.	.3/4"	28	S1CB-2548-2530



END PROTECTORS*

LEFT	S4PX-2504-2530
RIGHT	S5PX-2504-2530

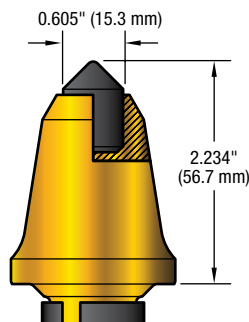
* For 25 mm boards only



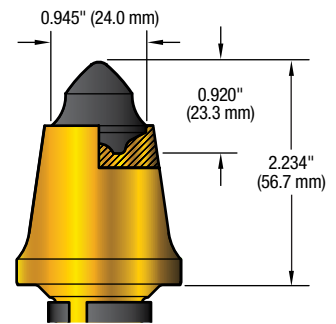
SHIPPING INFORMATION		
Pieces Per Box	Boxes Per Pallet	Pieces Per Pallet
30	45	1350

EU SHIPPING INFORMATION		
Pieces Per Box	Boxes Per Pallet	Pieces Per Pallet
30	63	1890

K1LS-2557-1362



K1LS-2557-2362



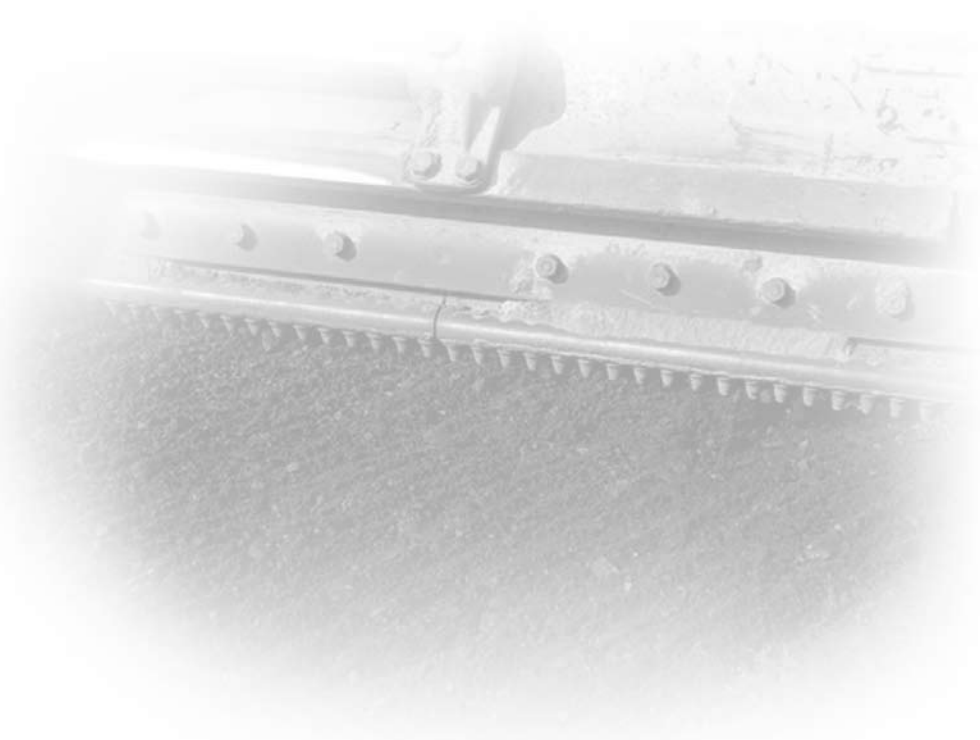
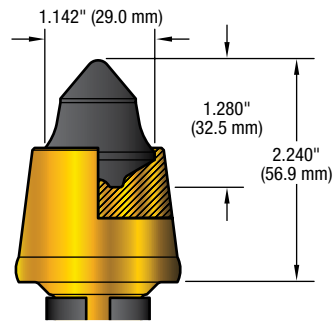
S25 SYSTEMS



SHIPPING INFORMATION		
Pieces Per Box	Boxes Per Pallet	Pieces Per Pallet
30	45	1350

EU SHIPPING INFORMATION		
Pieces Per Box	Boxes Per Pallet	Pieces Per Pallet
30	63	1890

K1HS-2557-5662



S35 SYSTEM



SUPER-DUTY BOARDS* (2.50" Spacing)

LENGTH	BOLT SIZE	TOOL CAPACITY	PART #
4 FT.	1"	19	S1FC-3548-4435

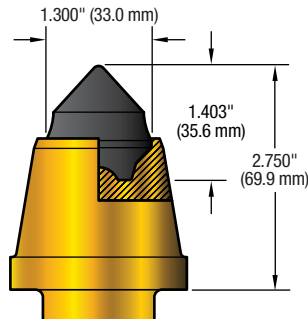
* For use on extra-large motor graders only



SHIPPING INFORMATION		
Pieces Per Box	Boxes Per Pallet	Pieces Per Pallet
8	45	360

EU SHIPPING INFORMATION		
Pieces Per Box	Boxes Per Pallet	Pieces Per Pallet
8	63	504

Q7JP-3569-2062P



ACCESSORIES

Sandvik provides accessories to assist with tool and machine maintenance.



CURVED KNOCK-OUT PUNCH

Tool remover with carbide tip for extended life.

PART NUMBER

M8T-0004



MAGNETIC PROTRACTOR

Provides proper board alignment, so tools are at the correct angle to cut instead of scrape, minimizing wear on the carbide (*see next page*).

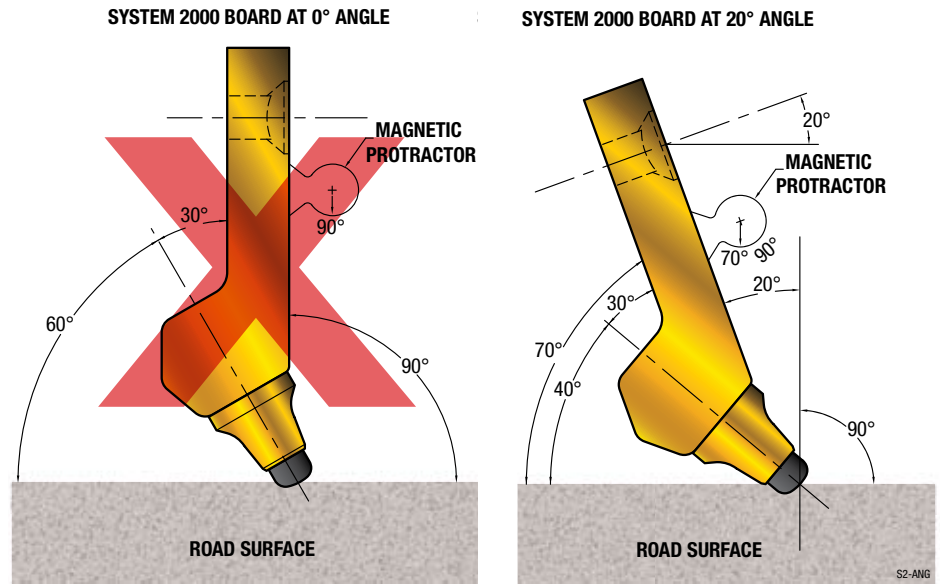
PART NUMBER

M8T-0058

SYSTEM 2000 GRADING TOOLS GUIDELINES

INSTALLATION

1. Remove old blades from your moldboard and clean off all dirt on bolting surface.
2. Bolt grading tools to board and then retighten.
3. Move to flat, level surface. Apply forward and downward pressure. Using a magnetic protractor, set the board at 90° from the level surface. Tilt the moldboard back until the protractor reads 70° . Measure both ends of the moldboard. If different, split the difference. Mark the tilt quadrant and circle frame for future reference.
4. If angle is not correct, chattering or vibration will occur. If this happens, adjust adapter back to 70° .



GENERAL OPERATION

1. Ensure all tools are rotating freely and System 2000 is at the correct operating angle. (see INSTALLATION)
2. Check rotation of tools periodically. A tool not rotating will leave a “drag mark” and should be freed as soon as possible. Failure to do this will cause premature wear of the carbide tip.
3. In oil road reclamation and asphalt planing, take up only 1/2 of the material on the first pass. This will break the crust and make it possible to plane the desired depth.
4. When mixing calcium chloride, the tools should be pressure washed to prevent the mix from setting up between the tool shank and the spring retainer. Punch tool out 3/4 of the way and rotate by hand to free the tool. Then knock the tool back in place.
5. For ice and snow removal, put the blade in “float” position with no down pressure. Recommended travel speed is third gear (low range). Higher speeds could cause premature tool wear.
6. The one-piece board design has the ability to back-drag material from unwanted surfaces, such as manhole covers, driveways and curbs.
7. The unique design requires that the board be positioned at a 20° angle. This allows material to roll up the blade, providing superior mixing characteristics.

MAINTENANCE

1. If tools are not rotating freely, pressure wash all sides of the tools. After washing, rotate the tools by hand. Those not rotating, punch out and clean the bore hole and sleeve, then punch back into adapter. Lubricate with any lightweight oil.
2. When center tools are worn down to 1/2 to 2/3 of their original size, rotate them with less worn outside tools.
3. Replace tool if carbide wears to a flat spot, breaks or wears off.
4. If the end of the adapter on the outside of the grader moldboard shows wear, rotate with center section adapter.

Contact your Grading Tools representative for more detailed instructions for your applications.

Partners in Action

Superior performance



Handles tough applications



Maximum productivity



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