

*Engineering
Your
Competitive
Edge*



***SNOW REMOVAL &
ROAD MAINTENANCE***





Engineering
Your
Competitive
Edge



**Lasts up to
3x longer than standard
carbide-edged styles
in impact conditions!**



INTRODUCING

**Kennametal I.C.E.-Series™
Isolated Carbide-Edged
Blades...**

...engineered specifically to last exceptionally long in even the most challenging road conditions!

- Especially effective in applications involving imbedded lane markers and rumble strips — greatly reducing blade breakage!
- Ideal for high-speed plowing over roads with excessive joints and cracks — uneven surfaces, too!
- Ultra-durable, dome-shaped carbide inserts are securely mounted and strategically isolated from one another to provide optimum fracture resistance throughout the entire blade length!
- Available in 3' and 4' (7/8"-thick; 5"-high) sections that can be easily installed and rotated on the plow for balanced wear throughout a season!
- Patented design!

**ORDERING INFORMATION
I.C.E. Blades**

Blade Length (inch)	Catalog Number	Material Number	Blade Dimensions (inch)	Bolt Hole Distance from Top	Hole Spacing (inch)	Weight (lbs.)
SQUARE TOP EDGE FOR SNOWPLOWS						
36"	PB-536	1553693	7/8 x 5 x 36	1-1/2	3-3-12-12-3-3	45
48"	PB-548	1553694	7/8 x 5 x 48	1-1/2	3-3-12-12-12-3-3	62
TOP EDGE BEVELED FOR GRADERS						
36"	PB-636	2035932	7/8 x 5 x 36	1-1/2	3-3-12-12-3-3	45
48"	PB-648	2035931	7/8 x 5 x 48	1-1/2	3-3-12-12-12-3-3	62

Rounded-tip carbide inserts deliver exceptional penetration performance in even the hardest-packed snow!

I.C.E.
series
**ISOLATED
CARBIDE
EDGED
Snowplow Blades**

IN SNOW REMOVAL & ROAD MAINTENANCE

PRESENTING

Kennametal I.C.E.-Series Center and End Blade Savers

...featuring genuine Kennametal tungsten carbide at the point of impact — for ultimate wear resistance and moldboard protection!

- Position at the highest wear areas of your moldboard — to ensure substantially improved blade performance and a straight edge, in even the hardest-packed ice and snow!
- Simply mount over your blades — and use the same bolt holes...on either side of the moldboard!
- Vastly superior to competitive chrome-carbide hardfaced or hardened-steel offerings!
- Eliminates need for moldboard shoes!
- Dome-shaped (thus no sharp corners to chip), individually spaced carbide inserts deliver maximum breakage defense!
- End model incorporates KenCast™ tungsten carbide material to safeguard the blade end from curb contact — saving you on replacement inventory and labor...no matter what the cast angle of your plow!
- Available in a wide array of sizes and bolt patterns to fit virtually all plow and blade designs!

ORDERING INFORMATION

I.C.E. Blade Savers

Kennametal Part Number	Blade Height (inch)	Hole Spacing (inch)	Gauge Line (inch)	Length (inch)	Bolt Size (inch)
END BLADE SAVERS					
2040087	5"	3-3	1.5"	10.5"	5/8"
2040088	5"	3-3	1.5"	10.5"	3/4"
2040089	6"	3-3	1.5"	10.5"	5/8"
2040090	6"	3-3	1.5"	10.5"	3/4"
2040091	6"	3-3	2"	10.5"	5/8"
2040092	6"	3-3	2"	10.5"	3/4"
2040123	8"	3-3	1.5"	10.5"	5/8"
2040124	8"	3-3	1.5"	10.5"	3/4"
2040125	8"	3-3	2"	10.5"	5/8"
2402490	6"	2-8-2	2"	13.5"	5/8"
2402494	6"	3-3-12-2.25	2"	22.5"	5/8"
2402495	6"	3-3-12-2.25	1.5"	22.5"	5/8"
CENTER BLADE SAVERS					
2038043	6"	3-3-9-3-3	1.5"	21"	5/8"
2040864	6"	3-3-9-3-3	2"	21"	5/8"
2035512	6"	3-3-12-3-3	1.5"	24"	5/8"
2037952	6"	3-3-12-3-3	2"	24"	5/8"
2037951	5"	3-3-12-3-3	1.5"	24"	5/8"
2038044	6"	3-3-3	1.5"	9"	5/8"
2038045	8"	3-3-3	1.5"	9"	5/8"
2038046	6"	3-12-3	1.5"	18"	5/8"
2042998	8"	3-3-12-3-3	1.5"	24"	5/8"

End blade saver bolt holes countersunk on both sides of blade to facilitate use as a left-hand or right-hand part.

Blade is 1" thick on all blade savers.

To choose the optimum blade saver for your application, simply match blade height, hole spacing, hole size, and gage to the cutting edge you need to protect. Blade savers are available in various lengths to enable you to safeguard any size area on your main cutting-edge assembly.

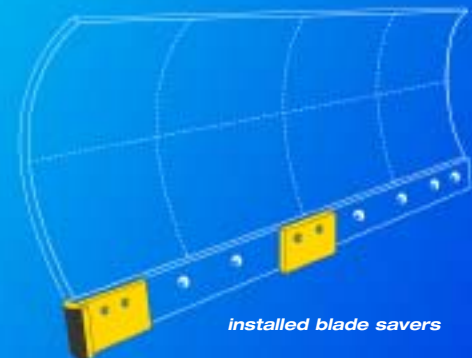
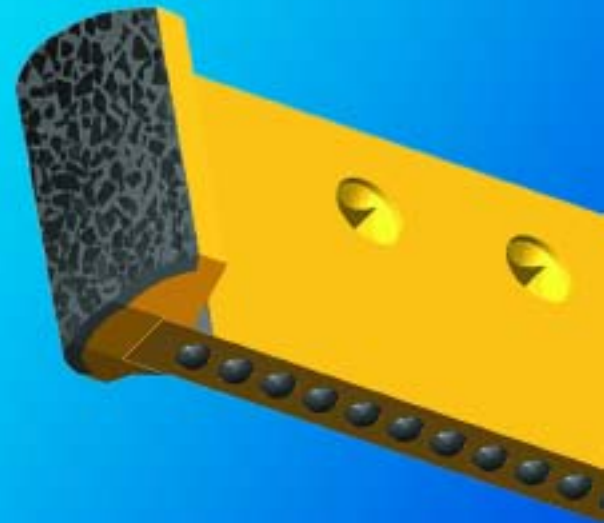
Custom hole-spacing available.

Drastically reduce downtime by extending blade life!

I.C.E. Center Blade Saver



I.C.E. End Blade Saver



installed blade savers

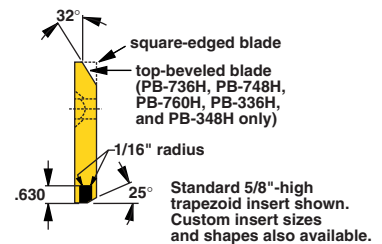
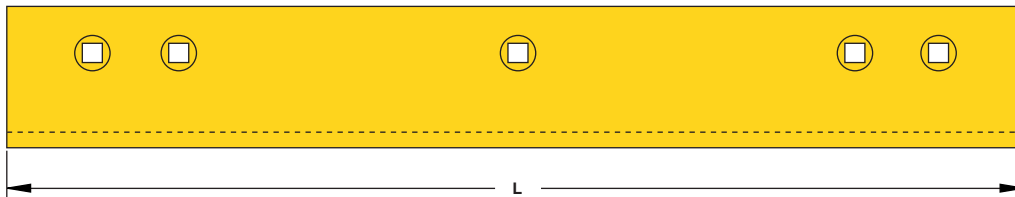
Engineering Your Competitive Edge

IN SNOW



Kennametal Tungsten Carbide-Edged Snowplow Blades and Accessories

- Equipped with genuine Kennametal tungsten carbide inserts!
- Unparalleled hardness and fracture/wear resistance!
- Our brazing expertise ensures that inserts stay firmly in place — dramatically lowering your replacement-part inventory and overall operating costs!
- Available in an unmatched variety of styles and sizes — each backed by the road maintenance industry's best quality assurance program!
- Sold in sections — so there's never a need to replace an entire blade...just the worn or damaged segment!



ORDERING INFORMATION Snowplow Blades

Length (inch)	Catalog Number	Material Number	Blade Dimensions (inch)	Bolt Hole Distance from Top	Hole Spacing (inch)	Weight (lbs.)
STANDARD-SIZE 5/8" CARBIDE INSERTS						
24"	PB-124	1011840	3/4 x 6 x 24	2	3-3-12-3-3	31
28"	PB-128C	1011805	3/4 x 6 x 28	2	6-8-8-6	36
36"	PB-136	1011807	3/4 x 6 x 36	2	3-3-12-12-3-3	47
36"	PB-136H	1011848	7/8 x 5 x 36	1-1/2	3-3-12-12-3-3	45
36"	PB-236	1011842	3/4 x 6 x 36	1-1/2	3-3-12-12-3-3	47
36"	PB-436	1011859	3/4 x 5 x 36	1-1/2	3-3-12-12-3-3	38
36"	PB-736H top beveled	1011883	7/8 x 5 x 36	1-1/2	3-3-12-12-3-3	40
42"	PB-142	1011815	3/4 x 6 x 42	2	3-3-12-12-6-3-3	53
44"	PB-144E	1011811	3/4 x 6 x 44	2	2-8-8-8-8-2	57
44"	PB-144C	1011809	3/4 x 6 x 44	2	6-8-8-8-8-6	57
48"	PB-148	1011813	3/4 x 6 x 48	2	3-3-12-12-12-3-3	62
48"	PB-148H	1011854	7/8 x 5 x 48	1-1/2	3-3-12-12-12-3-3	60
48"	PB-248	1011844	3/4 x 6 x 48	1-1/2	3-3-12-12-12-3-3	62
48"	PB-448	1011861	3/4 x 5 x 48	1-1/2	3-3-12-12-12-3-3	51
48"	PB-748H top beveled	1011885	7/8 x 5 x 48	1-1/2	3-3-12-12-12-3-3	55
60"	PB-160C	1011819	3/4 x 6 x 60	2	6-8-8-8-8-8-8-6	77
60"	PB-760H top beveled	1011887	7/8 x 5 x 60	1-1/2	3-3-12-12-12-12-3-3	70
HEAVY-DUTY 3/4" CARBIDE INSERTS						
36"	PB-336H top beveled	1011924	7/8 x 5 x 36	1-1/2	3-3-12-12-3-3	47
36"	PB-336	1011968	3/4 x 6 x 36	1-1/2	3-3-12-12-3-3	47
48"	PB-348	1011970	3/4 x 6 x 48	1-1/2	3-3-12-12-3-3	62
48"	PB-348H top beveled	1011926	7/8 x 5 x 48	1-1/2	3-3-12-12-12-3-3	62
60"	PB-360	1011972	3/4 x 6 x 60	1-1/2	3-3-12-12-12-12-3-3	77
72"	PB-372	1011974	3/4 x 6 x 72	1-1/2	3-3-12-12-12-12-3-3	92



REMOVAL & ROAD



Extend snowplow blade life by as much as 30%!

Kennametal Tungsten Carbide-Reinforced Snowplow Shoes

- Improve blade life!
- Prevent blade dig-ins during road-shoulder work!
- Protect moldboards against premature failure!
- Kennametal's unique high-hardness KenCast material provides unsurpassed wear resistance versus competitive mild-steel/brazed designs!
- Custom shoes also available — just provide us your drawing or a sample!



KCWB-0167



KCWB-0154



KCWB-0295



KCWB-0062



PBS-1212*



PBS-1211*



KCWB-0187

Use long-life, weldable KenCast bars to rebuild your worn all-steel shoes!

Inexpensive insurance against major moldboard repair!



KCWB-0157L**



KCWB-0157R**



KCWB-0145



KCWB-0307-A (for standard 12" punching)
KCWB-0307-B (for 8" punching)

*Please specify hole size, bracket thickness, distance from shoe top to center of hole, and distance between brackets.

Other shoes are available upon request. To ensure proper fit, we need to know the specific style, make, model number, hole spacing, and hole size.

Kennametal Tungsten Carbide-Reinforced Curb Guards

- Guard moldboard ends and blades from extensive impact and abrasion!
- Feature the same tough KenCast material as on our ICE blade guards!
- Offered in easy-to-attach/easy-to-change wrap-around and mushroom-cap styles!

**Used with blades punched 1-1/2" from blade top to center of hole. Our curb bumpers fit most snowplow makes and models.

D MAINTENANCE



Outlast OEM-style steel models by at least 20-to-1!

Kennametal Tungsten Carbide Pick-Up Plow Blades

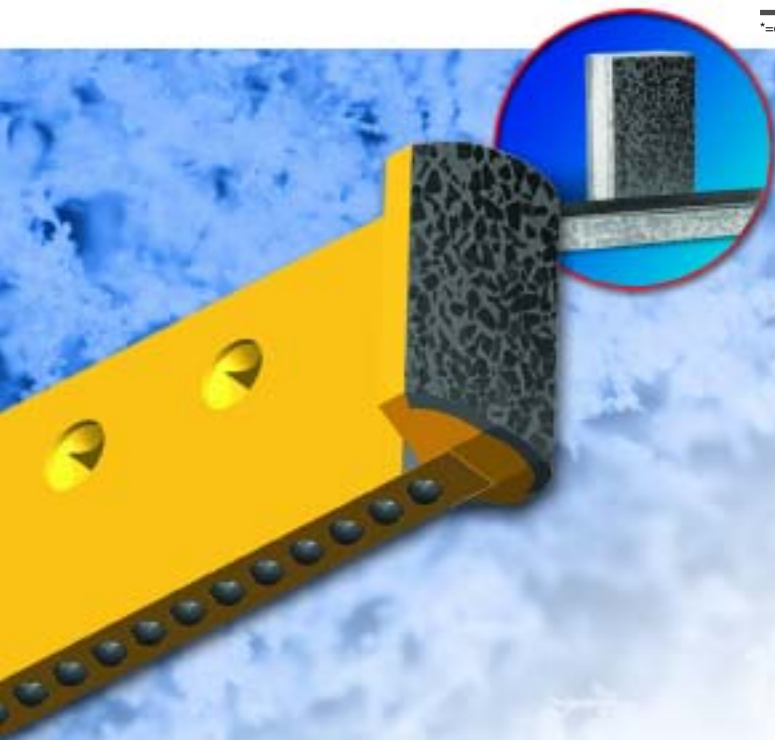
- Specially engineered for your Meyer™, Western™, The Boss™, or Fisher™ snowplow — no matter what the hole pattern!
- Sold in sections — for convenient installation and replacement...and economy!
- Use the same square-hole style carriage bolts as your original plow blade!

ORDERING INFORMATION Pick-Up Plow Blades

Plow Type & Length	Material Number	Kenametal Replacement Blade Length	Blade Weight (lbs.)	Quantity Replacement Blades Needed
STRAIGHT PLOWS				
90" Meyer/Fisher*	1826114	45"	58	2 pieces
96" Meyer/Fisher*	1826115	48"	62	2 pieces
102" Meyer/Fisher*	1826116 end section	34"	44	2 pieces
	1826117 center section	34"	44	1 piece
96" Western	1826118	48"	62	2 pieces
102" Western/Fisher#	1826124	51"	66	2 pieces
90" The Boss	2263063	90"	56	2 pieces
96" The Boss	2263064	96"	62	2 pieces
102" The Boss	2263065	102"	64	2 pieces
108" The Boss	2263066	108"	68	2 pieces
120" The Boss	1011842	120"	47	2 pieces
	1011844		62	1 piece
V PLOWS				
90" The Boss VRTII	2263008	38-1/4"	47 lbs.	2 pieces
90" The Boss VRT3	N/A	38-1/4"	47 lbs.	2 pieces
98" The Boss VRTII	2263009	48"	60 lbs.	2 pieces
98" The Boss VRT3I	1961521	48"	60 lbs.	2 pieces
110" The Boss VRTII	2263010	54"	66 lbs.	2 pieces
110" The Boss VRT3	2263011	54"	66 lbs.	2 pieces
120" The Boss VRT3	2263012	59"	72 lbs.	2 pieces

*=old-style Fisher

#=new-style Fisher



KenCast™ Tungsten Carbide Wear Material

- specially engineered to guard against premature and costly wear on your valuable heavy equipment — saving you on downtime and replacement parts
- made with tungsten carbide particles metallurgically bonded in air-hardening steel to withstand extremes of abrasion and impact
- easy to weld, economical
- particularly effective on curb bumpers, snowplow shoes, moldboard shoes, plow blade end protectors...



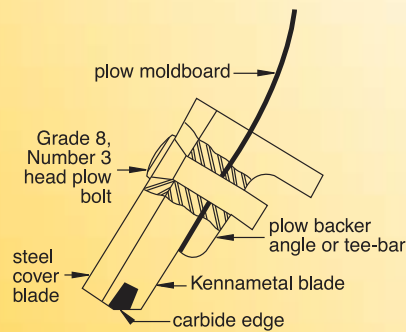
Kennametal Snowplow Blades & Shoes Operating Tips

To significantly reduce blade chatter and bolt failure, we highly recommend Grade 8, Number 3 head plow bolts, with self-locking nuts, for mounting our blades.

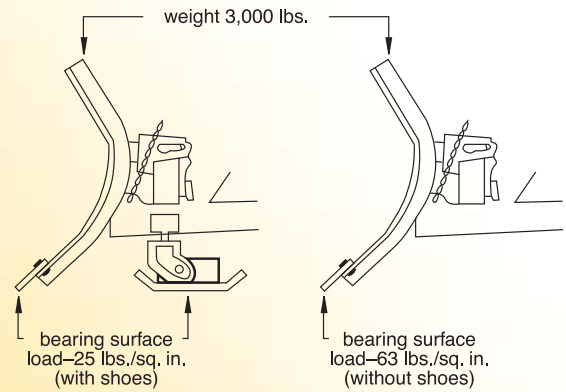
We also recommend use of a “cover blade” — a steel section bolted to the front of the carbide blade — to reinforce your moldboard, absorb shock, and greatly diminish steel erosion around the carbide insert area. Such practice can improve blade life by as much as 30%.

Snowplow shoes can be employed with our snowplow blades...to provide uniform plow frame weight distribution.

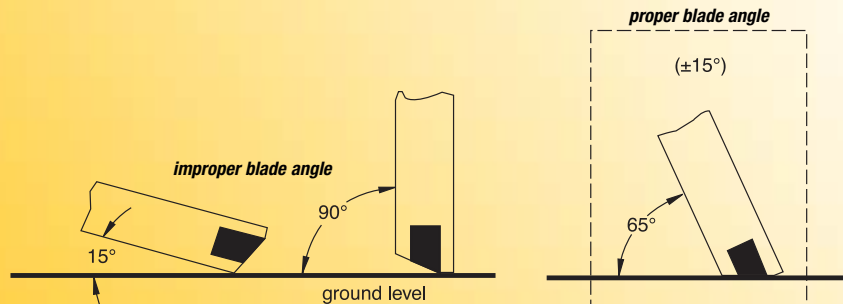
Lastly, we strongly suggest that you set your snowplow blade attack angle approximately 65° from the ground. A higher or lower angle could produce increased vibration and far less wear life.



Cover Blade



Snowplow Shoes



Snowplow Blade Attack Angles

For unparalleled service life on underbody plows!

Kennametal wear grade carbide insert here resists deterioration caused by blade downpressure and abrasion.

Kennametal mining grade carbide insert on face resists impact and erosion.

Unsurpassed in ice removal!

Long-life Kennametal carbide-tipped conicals rotate as they cut — sharpening themselves and providing a uniform wear pattern. Worn teeth can be quickly changed, by one person, at site!

Kennametal Tungsten Carbide Grader and Scarifier Blades

- Our patented dual-carbide-edge grader blades stay straight, maintain a clean/sharp cutting edge, and stop crowning!
- Kennametal scarifier blades feature replaceable carbide tools that rotate as they cut — to easily penetrate ice and hard-packed gravel roads, enabling you to quickly bring back embedded rock onto the surface!

Engineering Your Competitive Edge

Safety Note

Kennametal Inc. is concerned with the safe use of its products. To help avoid personal injury or damage to equipment, please:

- wear all appropriate and approved personal protection equipment
- be sure to use proper blade size
- use Grade 8, Number 3 head plow bolts; use proper size and torque
- inspect blades and moldboard prior to each plowing run
- do not plow at excessive speeds



MARKETING & CONTRACT ADMINISTRATION

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National Association of County Engineers

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Printed in USA

B03-45(5)A4



KENNAMETAL

THE PROVEN GLOBAL LEADER IN
THE DESIGN, MANUFACTURE,
IMPLEMENTATION, AND SALE OF
PREMIUM-QUALITY TOOLING SYSTEMS
FOR UNDERGROUND AND SURFACE MINING,
ROAD REHABILITATION, ROAD MAINTENANCE,
AGGREGATES PRODUCTION, AND
WASTE RECYCLING!

KENNAMETAL

UNQUESTIONED TECHNICAL EXPERTISE
IN THE PRODUCTION AND APPLICATION
OF CEMENTED TUNGSTEN CARBIDE!

KENNAMETAL

**ENGINEERING YOUR COMPETITIVE
EDGE IN SNOW AND ICE REMOVAL!**