

A DIVISION OF CHEMUNG SUPPLY

PRODUCT CATALOG







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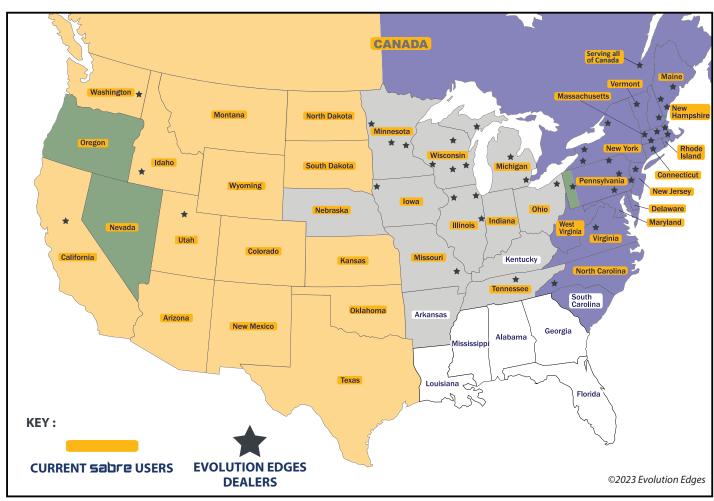
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ABOUT US

Evolution Edges was founded in 2009 in response to the snow plow industry's growing need for a streamlined parts-ordering process with fast delivery.

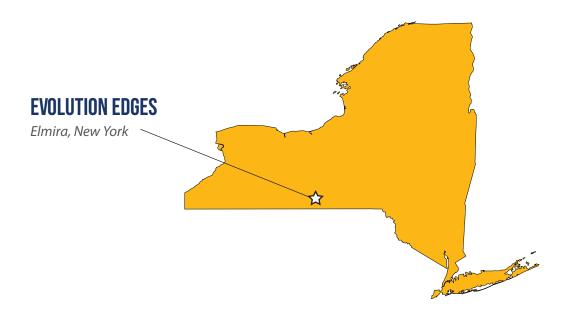
A Division of Chemung Supply Corporation, Evolution Edges is an authority on quality snowplow edges and wear parts for highway departments, municipalities and airports.

In November 2020, Evolution Edges acquired Built Blades, LLC and its U.S. patented Sabre® blade system. This acquisition has demonstrated Evolution Edges' dedication to continually improve snowplow cutting edge technology. In 2021 the Sabre® blade received its patent in Canada, as well.

With a strong commitment to innovation, our Evolution Edges products boost production and efficiency while reducing maintenance costs and repairs. We aim to provide quality parts that are Simple, Reliable, and Affordable.







FAST DELIVERY

Evolution Edges is headquartered in **Elmira, New York**. Centrally located in the northeast, we are able to quickly and efficiently ship our essential products to customers all year round. Our large warehouses are dedicated solely to servicing our growing customer needs.

We pride ourselves on shipping products that are neatly-packed, and freight-cost-effective. Coordinated efforts with local freight carriers ensures fast, reliable, and affordable shipping.

COOPERATIVE PURCHASING

Time is money, and you'll save both every time you make a purchase.

Our Cooperative Purchasing contracts offer you the ability to purchase snow plow wear parts (cutting edges, plow shoes, curb guards, grader blades and sander chains) from us without having to duplicate the bidding process, because NASPO (National), Onondaga (New York), and COSTARS (Pennsylvania) have already done it for their members.

NASPO - National Purchasing

Evolution Edges' awarded contract **#29533** with the National Association of State Procurement Officials (NASPO) ValuePoint for "Snow Plow Blade Cutting Edges" allows states and participating entities the ability to save time and money by streamlining the procurement process with cooperative purchasing.



For more information, visit: https://www.naspovaluepoint.org/portfolio/snowplow-cutting-edges-2015-2022/chemung-supply-company-dba-evolution-edges/

For those not familiar with NASPO ValuePoint's purchasing process, take these simple steps:

1. Become a NASPO ValuePoint Member

Those residing in Nevada and Utah can do so at: http://www.naspovaluepoint.org/emarket-center/Those residing elsewhere should contact their state's Central Procurement Office and ask for a login. An eMarket Center Adminstrator will then set up an account and provide login information. There are no fees to use the contracts, no commitment, and no obligation to purchase.

2. Contact Evolution Edges

Once you have a signed NASPO Participating Addendum, contact us and let us know you're interested in using the NASPO Valuepoint contract for Evolution Edges products – we'll do the rest!

ONONDAGA - New York Purchasing

Evolution Edges' awarded contract with Onondaga allows for the purchasing of our products without bidding. Please reference our Bid Number **#0010660** when placing your order.



COSTARS - Pennsylvania Purchasing

For Pennsylvania customers only, we are now a member of Pennsylvania's cooperative purchasing program COSTARS. You can purchase our products with no need for bidding by using our contract number #4600016620.







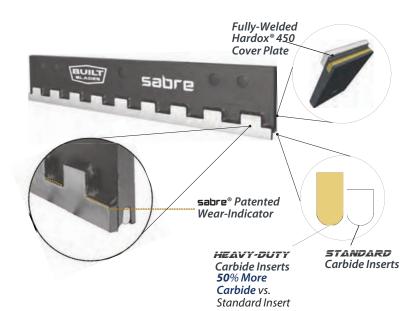


Secondary

ARMORED CARBIDE SNOWPLOW BLADE

KEY FEATURES

- A combination carbide blade with a built-in fully welded cover plate eliminates the need for full-length cover blades.
- Hardox® 450 impact resistant steel helps protect fragile tungsten carbide inserts.
- Hardox® 450 steel is nearly **2X More Abrasion**-**Resistant** and **3X More Impact-Resistant** than traditional cover blade steel.
- Bull-nose carbide inserts allow for a wide range of attack angles, spanning from 55°-90°.



WEAR INDICATORS

- Built-in primary and secondary wear indicators quickly and safely demonstrate remaining blade life and help identify uneven wear points.
- Primary wear-indicators represent the top of the tungsten-carbide inserts, and will serve for most of the blade's service life.
- Secondary wear-indicators represent the maximum level of blade wear before the blade needs to be changed.

(Works on moldboards descending no more than 3" from bolt holes.)

Wear-Indicator **Primary** Represents Wear-Indicator Maximum Wear Represents Carbide Wear

NON-INTERLOCKING BLADES

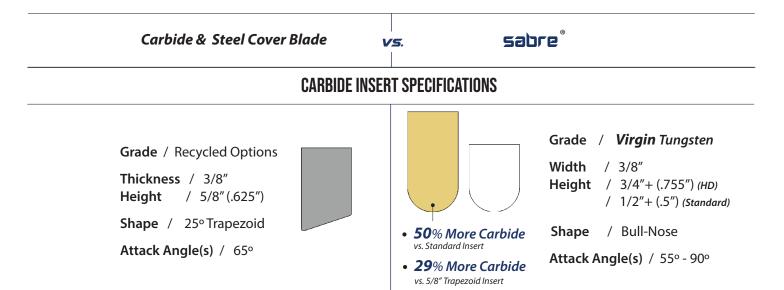
- 3 ft. and 4 ft. non-interlocking blade sections significantly reduce overall blade weight and waste.
- Less man power to ship, handle, and install.



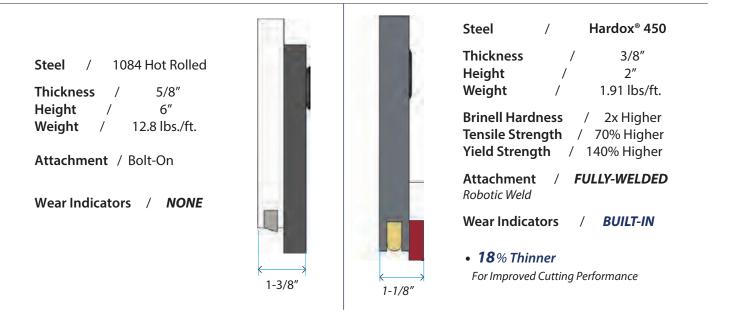
Non-Interlocking Blades allow for use on sectional trip plows.



BLADE MATERIALS COMPARISON CHART



COVER BLADE / COVER PLATE SPECIFICATIONS



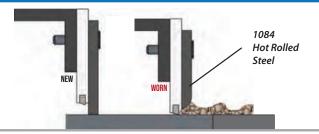
For Full sabre® Specifications, email a request to info@builtblades.com







sabre®





Hardox® 450

Heat-Treated Abrasion & Impact Resistant Steel

- 2x Abrasion Resistance
- 3x Impact Strength
- vs. 1084 hot rolled























Testimonials submitted from Municipal Users across 29 States, including these Departments:

STORAGE

INSTALLATION







"6,000 Plow Miles" (Sabre Heavy-Duty)

- State DOT Supervisor

"Only about 2,000 miles on so far, but seem to be wearing much longer than our current carbides." - State DOT Operator

"The Sabre blades are a good blade for interstate plowing, they clean the road surface well."

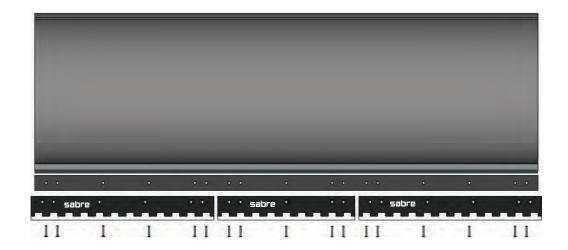
- State DOT Supervisor

"They cut better than carbide & steel blade combo." - State DOT Operator

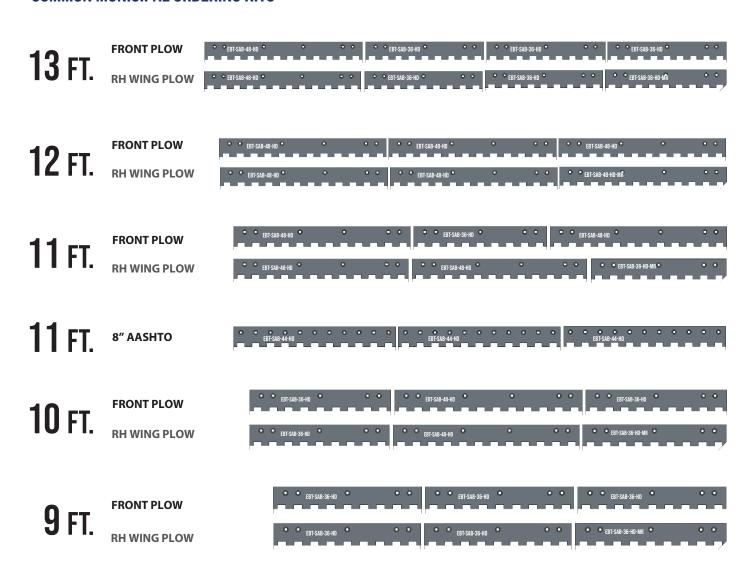








COMMON MUNICIPAL ORDERING KITS

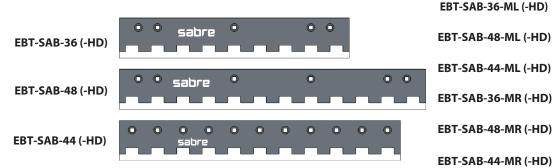


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EBT-SAB-48-ML (-HD)

EBT-SAB-44-ML (-HD)

EBT-SAB-36-MR (-HD)

EBT-SAB-36-MR (-HD)

EBT-SAB-48-MR (-HD)

Sabre of Standard

PART # / Description

EBT-SAB-36 / 36" Sabre / 3-3-12" EBT-SAB-48 / 48" Sabre / 3-3-12" EBT-SAB-44 / 44" Sabre / 2-4-4"

Mitered Options

EBT-SAB-36-ML /36" Sabre / 3-3-12" / LH Mitre EBT-SAB-48-ML /48" Sabre / 3-3-12" / LH Mitre EBT-SAB-44-ML / 44" Sabre / 2-4-4" / LH Mitre EBT-SAB-36-MR / 36" Sabre / 3-3-12" / RH Mitre EBT-SAB-48-MR / 48" Sabre / 3-3-12" / RH Mitre EBT-SAB-44-MR / 44" Sabre / 2-4-4" / RH Mitre

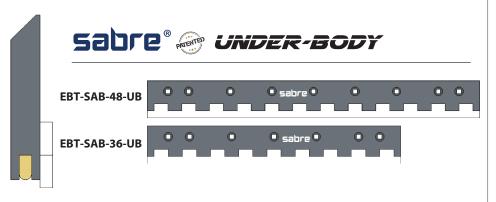
Sabre #EAVY-DUTY

PART # / Description

EBT-SAB-36-HD /36" Sabre_HD/3-3-12" EBT-SAB-48-HD /48" Sabre_HD/3-3-12" EBT-SAB-44-HD /44" Sabre_HD/2-4-4"

Mitered Options

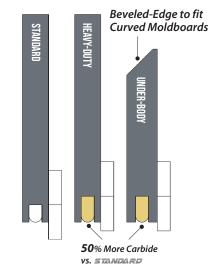
EBT-SAB-36-HD-ML /36" Sabre_HD/3-3-12"/LH Mitre EBT-SAB-48-HD-ML /48" Sabre_HD/3-3-12"/LH Mitre EBT-SAB-44-HD-ML /44" Sabre_HD/2-4-4"/LH Mitre EBT-SAB-36-HD-MR /36" Sabre_HD/3-3-12"/RH Mitre EBT-SAB-48-HD-MR /48" Sabre_HD/3-3-12"/RH Mitre EBT-SAB-44-HD-MR /44" Sabre_HD/2-4-4"/RH Mitre



PART # / Description

EBT-SAB-36-UB / 36" Sabre_Underbody / 3-3-6" **EBT-SAB-48-UB** / 48" Sabre_Underbody / 3-3-6"

For detailed ordering information, please visit our website: **www.BuiltBlades.com**There you can view further information including Product Videos, installation techniques, comparison charts, and more.



sabre WING

ARMORED CARBIDE SNOWPLOW BLADE

KEY FEATURES

- 3/4-Inch Hardox® 450 cover plates 2X the thickness of traditional Sabre blades
- 1-Inch tall carbide inserts 33% more carbide than the Sabre HD 3/4 inch insert

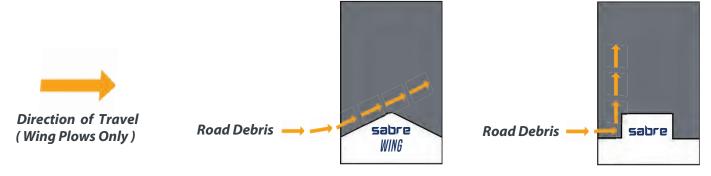
New Cover Plate Design *Improved discharge when* wing plowing. Wear-Indicators

More wear life, less blade changes.

1-Inch Tall Carbide Insert



footprint to prevent digging.



PART # / Description

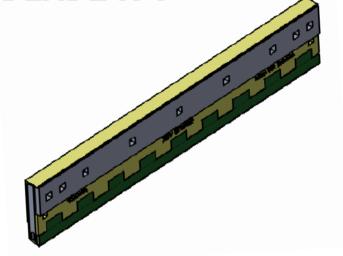
EBT-SAB-36-WING / Sabre Wing Blade 3/4"/6"H/36"/3-3-12 **EBT-SAB-48-WING** / Sabre Wing Blade 3/4"/6"H/48"/3-3-12



sabre STEALTH VST BLADE KIT

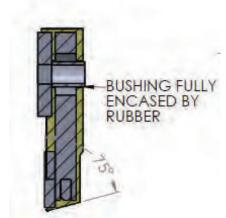
HOW THE BLADE COMPONENTS WORK

At the heart of the Sabre Stealth VST blade is our ultra-tough Sabre Heavy-Duty Armored Carbide Blade, proven, tested, and durable enough to handle virtually any plowing scenario. The Sabre HD blade is encased in a high-quality rubber compound specifically engineered for use in colder temperatures and to to withstand the conditions of municipal plowing. The patented bolt hole system on the Sabre Stealth blade incorporates a built-in clamp bar and cleverly designed bushings which allow the user to bolt on and torque the blade down without the need for extra parts and without restricting the blades ability to flex and absorb vibrations.

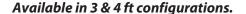


FEATURES & BENEFITS

- Simple 3' and 4' blade sections. Besides bolts, no extra parts or adapter blades needed for installation.
- Suppresses vibrations by 50%, helping reduce both driver fatigue and wear and tear on equipment.
- Fully-Armored Sabre_HD blade at the core for extreme durability.
- Incorporated Wear-Indicators to help operators better time blade changes.



VST ENDURANCE™ KIT ORDERING INFORMATION - 3/4" CARBIDE INSERT





EVST-SAB-3615 / Sabre Stealth VST - 3' Rubber Encased Sabre 1.5GA SHP

EVST-SAB-4815 / Sabre Stealth VST - 4' Rubber Encased Sabre 1.5 GA SHP

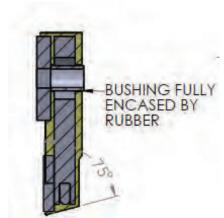
EVSTKIT-SAB-120 / Sabre Stealth VST 10' Kit - Encased Carbide & Cover Edge Kit

EVSTKIT-SAB-132 / Sabre Stealth VST 11' Kit - Encased Carbide & Cover Edge Kit

EVSTKIT-SAB-144 / Sabre Stealth VST 12' Kit - Encased Carbide & Cover Edge Kit

(KIT = BLADE ASSEMBLY + HEAVY DUTY CAST CARBIDE CURB GUARDS + HARDWARE BOX)

Sabre Stealth VST Kits include Evolution Edges Curb Armor™ curb quard systems. See page 23 for more information.



SPECIALITY BLADE KITS

EVOLUTION EDGES BLADE KITS

Ordering Evolution Edges blade kits have become the preferred method for many of our customers, and can be done with ease by ordering through just one part number. Save yourself time when ordering and rest assured that you will have the correct blades, curb guards, and hardware, all packaged together neatly inside one kit.

Our blade kits ship to you inside wooden shipping crates that are easy to store and handle. Each crate includes a weather resistant crate cover to accommodate both indoor and outdoor storage. These crates are also designed for mobility in mind. With the use of a hand pallet jack, crates can easily be moved or stacked. Each shipping crate includes a complete hardware kit.





Our custom crates are available for:

- Reliant™ Carbide Blade Kit (a JOMA Alternative)
- Sabre VST Rubber-Encased Blade Kits

Through a partnership with our local not-for-profit organization Capabilities in Elmira, New York, our hardware kit assembly process has empowered individuals with disabilities the rewarding opportunity to be part of our packaging process.



STANDARD FEATURE WITH ALL BLADE KITS!

CURB ARMOR™ CAST CARBIDE CURB GUARD (WEAR PLATE INCLUDED)

Evolution Edges blade kits include our Curb Armor $^{\mathsf{m}}$ curb guard, made of a continuous molded piece of special formulated carbide with one of the longest trailing edges offered on the market today.

Specifications:

- Heavy Duty Carbide Cast Curb Guard
- Proprietary hard surfacing weldment of 1/2" on curb guard facing
- Reinforced bottom wear plate measuring 23.5" in length for greater longevity
- 1.0 inch thickness, allowing for double the amount of contact with the road
- Continuously rounded corners to minimize snow spray and stone fragments from entering the opposing lane

PART # / Description

EGRD-PWRFLEX-L / Curb Armor 1x6x21 Left - Heavy Duty Cast Carbide Curb Guard **EGRD-PWRFLEX-R** / Curb Armor 1x6x21 Right - Heavy Duty Cast Carbide Curb Guard **EGRD-PWRFLEX-S** / Curb Armor 1x6x22 Straight - Heavy Duty Cast Carbide Curb



RELIANT™ FLEX OSCILLATING KIT

(JOMA BLADE ALTERNATIVE)

KEY FEATURES

- Improved strength and extended wear life over that of standard carbide blades.
- A flex oscillating design with tungsten carbide inserts brazed into steel segments and encased in rubber
- Ships in a wood crate that is easy to store, stack and handle.
- Comes with a complete hardware kit.
- Curb Armor™ cast carbide curb quards included.

Reliant^m is a JOMA Alternative. JOMA^{∞} is a registered trademark, any reference to this mark is solely for functional or descriptive purposes, for reference only, and are not that of the respective manufacture.

RELIANT™ KIT ORDERING INFORMATION

PART # / Description

EFLEXKIT- 8'SHP / 8 ft Reliant - Full Kit (Formerly TXS) - (4', 4')

EFLEXKIT- 9'SHP / 9 ft Reliant - Full Kit (Formerly TXS) - (3', 3', 3')

EFLEXKIT-10'SHP / 10 ft Reliant - Full Kit (Formerly TXS) - (3', 3', 4')

EFLEXKIT-11'SHP / 11 ft Reliant - Full Kit (Formerly TXS) - (3', 4', 4')

EFLEXKIT-12'SHP / 12 ft Reliant - Full Kit (Formerly TXS) - (4', 4', 4')

EFLEXKIT-14'SHP / 14 ft Reliant - Full Kit (Formerly TXS) - (4', 4', 3', 3')

EFLEXKIT- 8'REPLKT / 8 ft Reliant - Replacement Kit (Formerly TXS) - (4', 4') **EFLEXKIT- 9'REPLKT** / 9 ft Reliant - Replacement Kit (Formerly TXS) - (3', 3', 3') **EFLEXKIT-10'REPLKT** / 10 ft Reliant - Replacement Kit (Formerly TXS) - (3', 3', 4') **EFLEXKIT-11'REPLKT** / 11 ft Reliant - Replacement Kit (Formerly TXS) - (4', 4', 4') **EFLEXKIT-12'REPLKT** / 12 ft Reliant - Replacement Kit (Formerly TXS) - (4', 4', 4') **EFLEXKIT-14'REPLKT** / 14 ft Reliant - Replacement Kit (Formerly TXS) - (4', 4', 3', 3')

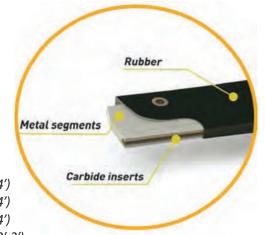
(KIT = BLADE ASSEMBLY + HEAVY DUTY CAST CARBIDE CURB GUARDS + HARDWARE BOX)

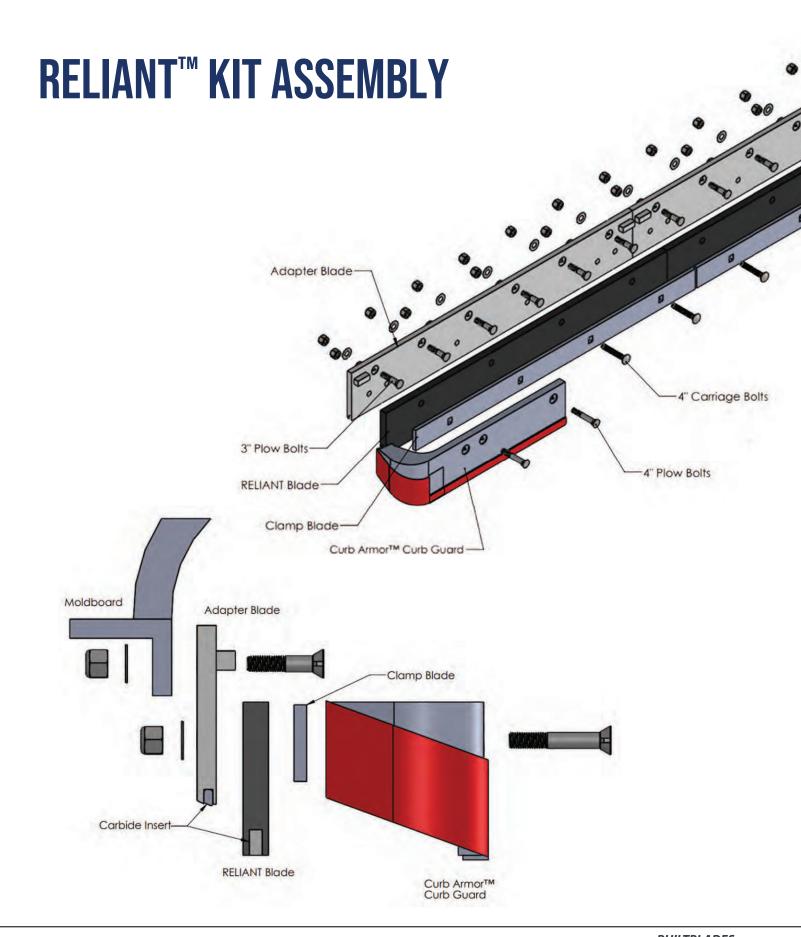
RELIANT™ Oscillating Flex Kits include Evolution Edges Curb Armor™ curb guard systems. See page 23 for more information.



CARBIDE INSERTS

Improved Strength Longer Wear Life





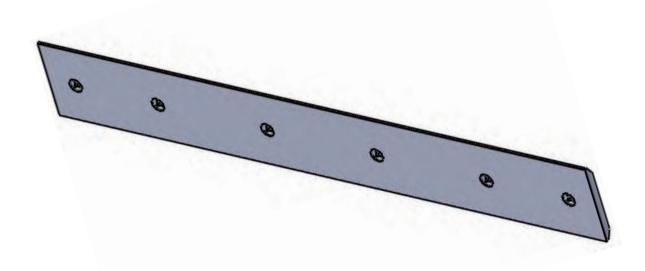


LOADER CUTTING EDGES

FOR ALL MAKES AND MODELS OF WHEEL LOADERS

A WIDE RANGE OF BOLT ON AND WELD ON CUTTING EDGES ARE AVAILABLE

- Single bevel weld on cutting edges available in flat and half arrow styles.
- Double bevel bolt on edges available in multiple widths and thickness to suit your needs.



Loaders are the most varied product we offer. Each equipment manufacturer has its own system and spacing, with spacing varying for different sized models across a given manufacturers offering. This means edges are unique for almost each and every manufacturer and model.

Bolt on loader edges and segments have the most options available and are some of our most often customized products. Because there is very little interference on the bottom of a bucket, there is an almost endless possibility for customizations.

EVOLUTIONEDGES.com

STANDARD BLADES

A VARIETY OF OPTIONS TO SUIT YOUR NEEDS

In addition to our specialty blade kits, we manufacture an extensive line of replacement standard blades to suit the needs of your plowing. For winter, we inventory **abrasion-resistant steel, carbide,** and **rubber cutting edges** for all types of snow plow equipment.

For spring and summer, we inventory replacement edges for most graders. We also stock or have immediate access to scarifier blades and related parts, bolt-on or weld-on edges for loads, dozers, and other earth-moving equipment.

EPBTPSQA-20401 / Steel Blade



ECBTPSCA-21360 / Carbide Blade



ERBL10A0000002 / Rubber Blade



EBLGRD00047 / Grader Blade



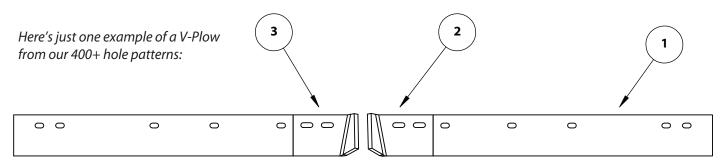


PICK-UP BLADES

MANUFACTURING OVER 400 PICK-UP BLADES

We have custom capabilities to manufacture over **400** combinations of pick-up blades (steel, carbide or rubber) for your V-. .ow, Straight Plow, or Rear Mounted Drag Plow. If you don't see the right blade for you listed, contact us to discuss ho \bar{A} . e're certain we can meet your needs through our large variety of offerings.





ITEM#	PART NUMBER	DESCRIPTION	QTY.
1	EPUKTPOVE-00005-1	5/8x6x40.75" EDGE	2
2	EPU-EXTV-R	EXT-V CENTERPIECE RIGHT	1
3	EPU-EXTV-L	EXT-V CENTERPIECE LEFT	1

EVOLUTIONEDGES.com 17

sabre V-BLADE PICK-UP KIT

KEY FEATURES

- The Sabre® V-Blade kits are designed for simple bolt-on replacement, and built for municipal and heavy commercial plowing applications.
- Tungsten-Carbide inserts provide extended wear life up to 10:1 over OEM Steel.
- Impact-sensitive carbide inserts are protected by the Sabre®'s lightweight full welded Hardox® 450 cover plate.



KIT ORDERING INFORMATION

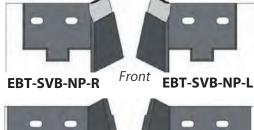
PART# / Description

EBT-SVB-96 / 8'6" Sabre-V Blade Kit EBT-SVB-96 / 9'6" Sabre V-Blade Kit EBT-SVB-106 / 10'6" Sabre V-Blade Kit

*BOSS V-Blade Kits Available Upon Request

V-BLADE KIT PARTS:





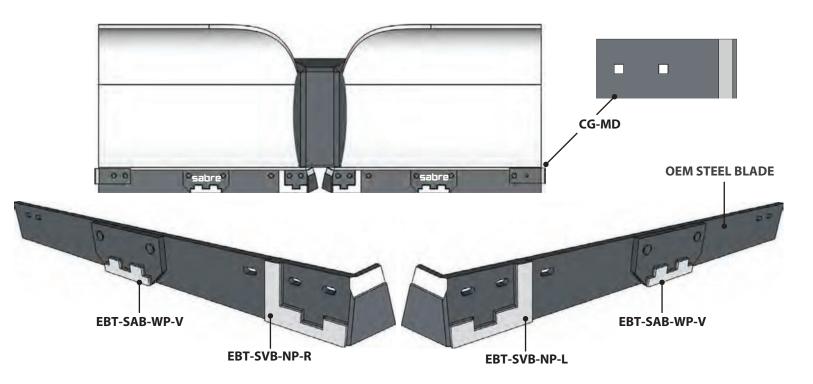


Included
Grade 8
Hardware



V-BLADE WEAR PARTS

Upgrade an OEM steel blade with available **Sabre**[®] **¥** Wear Parts.



INDIVIDUAL PARTS ORDERING INFORMATION

PART # / Description

EBT-SVB-NP-R / Sabre_V Nose Piece / Right

EBT-SVB-NP-L / Sabre_V Nose Piece / Left

EBT-SVB-NP-R-C / Sabre_V Carbide Nose Piece / Right

EBT-SVB-NP-L-C / Sabre V Carbide Nose Piece / Left

EBT-SVB-106-W / (2) 6" Sabre Wing Pieces / + 9'6" = 10'6"

EBT-SAB-WP-V / 12" Sabre_V Blade Wear Plate

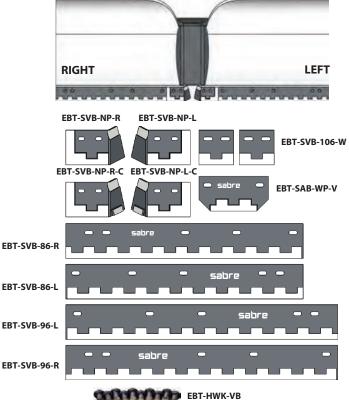
EBT-SVB-86-L / 8'6" Sabre_V Blade / Left

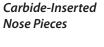
EBT-SVB-86-R / 8'6" Sabre V Blade / Right

EBT-SVB-96-R / 9'6" Sabre_V Blade / Right

EBT-SVB-96-L / 9'6" Sabre_V Blade / Left

EBT-WK-VB / V-Blade Hardware Kit (14x Bolts, Nuts, Washers)

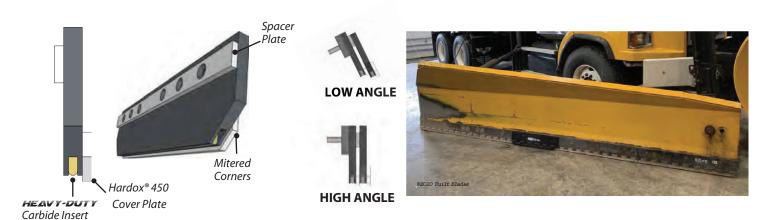




Optional



sabre WEAR PLATES



WEAR PLATE ORDERING INFORMATION

12" AASHTO PUNCH

PART # / Description

EBT-SAB-WP-24-L /24" Sabre Wear Plate / Low Angle

EBT-SAB-WP-24-H /24" Sabre Wear Plate / High Angle

EBT-SAB-WP-L / 18" Sabre Wear Plate / Low Angle

EBT-SAB-WP-H / 18" Sabre Wear Plate / Low Angle

8" AASHTO PUNCH

PART # / Description

EBT-SAB-WP-24-8-L / 24" Sabre Wear Plate / Low Angle / 8" **EBT-SAB-WP-24-8-H** / 24" Sabre Wear Plate / High Angle / 8"

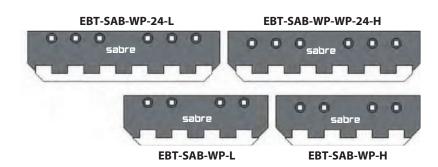
EBT-SAB-WP-8-H / 18" Sabre Wear Plate / High Angle / 8"

CUSTOM WEAR PLATES

PART # / Description

EBT-SAB-WP-UB / 18" Sabre Underbody Wear Plate / -22° Angle **EBT-SAB-WP-BOSS** / 18" Sabre Wear Plate / 12" Slotted Holes

EBT-SAB-WP-V / 12" Sabre Wear Plate / for Sabre V





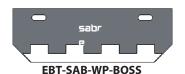




EBT-SAB-WP-8-H







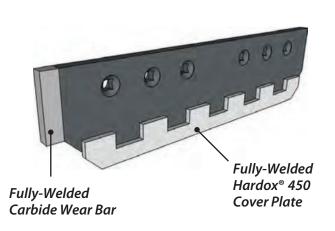


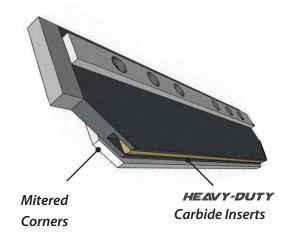
^{*8&}quot; Low Angle Available Upon Request

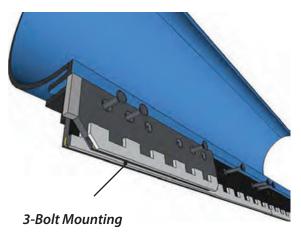
^{*}Custom Wear Plates Available Upon Request

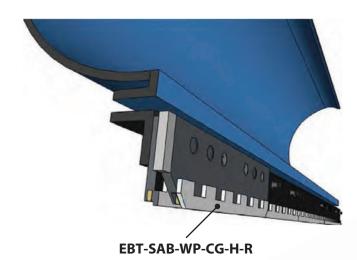


Sabre WEAR PLATE CURB GUARDS









WEAR PLATE ORDERING INFORMATION

PART # / Description

EBT-SAB-WPCG-H-R

24" Sabre Wear Plate Curb Guard / High Angle / Right **EBT-SAB-WPCG-H-L**

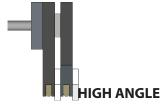
24" Sabre Wear Plate Curb Guard / High Angle / Left



24" Sabre Wear Plate Curb Guard / Low Angle / Right EBT-SAB-WPCG-L-L

24" Sabre Wear Plate Curb Guard / Low Angle / Left









EBT-SAB-WPCG-H-L



EBT-SAB-WPCG-L-R



EBT-SAB-WPCG-L-L

sabre CURB GUARDS

sabre® MEDIUM-DUTY CURB GUARD

A simple (2) bolt design that incorporates a fully-welded carbide wear bar for curb protection.

MEDIUM DUTY ORDERING INFORMATION

PART # / Description

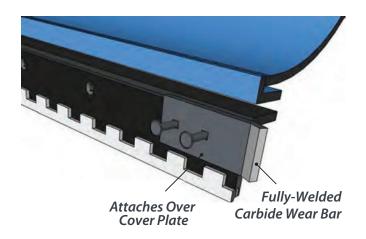
EBT-CG-MD / Medium-Duty Curb Guard / 3-3"

(Works Left or Right)



EBT-CG-MD





sabre° HEAVY-DUTY CURB GUARD

A sturdy (3) bolt wrap-around design that features carbide hardfacing as a curb wear surface.



Carbide Hardfacing



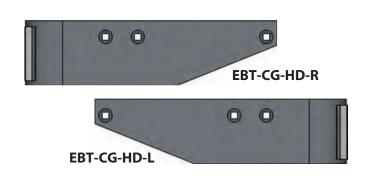
HEAVY-DUTY ORDERING INFORMATION

PART # / Description

EBT-CG-HD-R / Heavy-Duty Curb Guard/Right

EBT-CG-HD-L / Heavy-Duty Curb Guard/Left

*8" AASHTO Punch Available Upon Request





CURB ARMOR™ CURB GUARDS

CURB ARMOR™ CAST CARBIDE CURB GUARD (WEAR PLATE INCLUDED)

Evolution Edges blade kits include our Curb Armor™ curb guard, made of a continuous molded piece of special formulated carbide with one of the longest trailing edges offered on the market today.

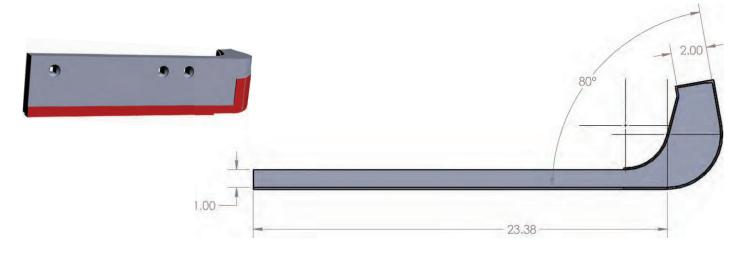
SPECIFICATIONS:

- Heavy Duty Carbide Cast Curb Guard
- Proprietary hard surfacing weldment of 1/2" on curb guard facing
- Reinforced bottom wear plate measuring 23.5" in length for greater longevity
- 1.0 inch thickness, allowing for double the amount of contact with the road
- Continuously rounded corners to minimize snow spray and stone fragments from entering the opposing lane

CURB ARMOR™ ORDERING INFORMATION

PART # / Description

EGRD-PWRFLEX-L / Curb Armor 1x6x21 Left - Heavy Duty Cast Carbide Curb Guard **EGRD-PWRFLEX-R** / Curb Armor 1x6x21 Right - Heavy Duty Cast Carbide Curb Guard **EGRD-PWRFLEX-S** / Curb Armor 1x6x22 Straight - Heavy Duty Cast Carbide Curb

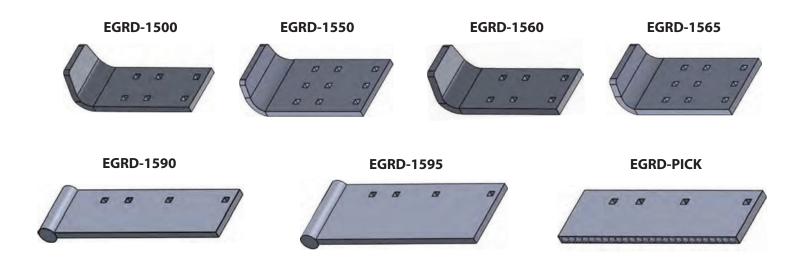


EVOLUTIONEDGES.com

ADDITIONAL CURB GUARD OPTIONS

Curb Guards are a very popular request with our customers, as they add an additional level of protection to their snow plows. In addition to our Sabre $^{\circ}$ and Curb Armor $^{\top}$ Curb Guards, we have a variety of additional types:

	TYPE	LENG	GTH (EA) STEE	L	LENGTH	(EA) STEEL W/ INSERTS	CARBIDE	
SERIES	DESCRIPTION							
EGRD-1500	3/4X6" CURVED GUARD	SHORT (10-15")	SHORT (10-15")					
EGRD-1550	3/4X8" CURVED GUARD			STANDARD	10116	SHORT	STANDARD	10116
EGRD-1560	7/8X6" CURVED GUARD			(15-21")	LONG (22-24")	(10-15")	(15-21")	LONG (22-24")
EGRD-1565	7/8X8" CURVED GUARD	, ,	, ,	, ,	, ,	, ,	, ,	
EGRD-1590	3/4X6" STRAIGHT GUARD							
EGRD-1595	3/4X8" STRAIGHT GUARD							
EGRD-PICK	7/8X6" STRAIGHT GUARD PICK							



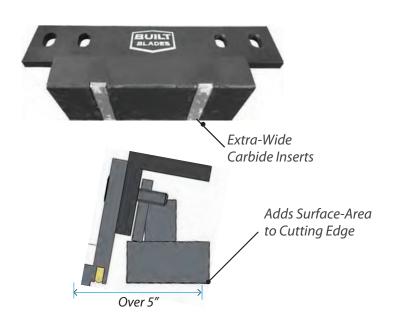
OTHER OPTIONS

- Hard-Facing (curb side, front face, or both)
- Front Face
- Both

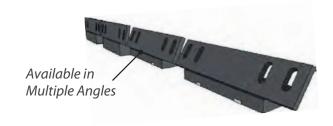


sabre PLOW SHOES

CARBIDE MOLDBOARD SHOES







CARBIDE FRAME SHOES



Carbide Inserts Aligned with Travel Direction



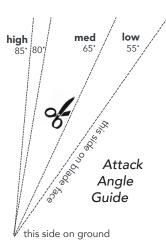
ORDERING INFORMATION

PART # / Description

EBT-CWS-55 / 55° Carbide Wear Shoe EBT-CWS-65 / 65° Carbide Wear Shoe EBT-CWS-80 / 80° Carbide Wear Shoe EBT-CWS-85 / 85° Carbide Wear Shoe

EBT-CFS-UNI / Universal Carbide Frame Shoe **EBT-CFS-BOAT** / "Boat" Style Carbide Frame Shoe





ADDITIONAL PLOW SHOES

STEEL WING SHOES

Steel Wing Shoe OST-400

Steel Wing Shoe Compatible with 8" and 12" Centers



Steel Wing Shoe OST-425

Steel Wing Shoe: Same as OST-400 with 25° Offset Flange Compatible with 8" and 12" Centers



Steel Wing Shoe OST-410

Steel Wing Shoe: Same as OST-400 with 10° Offset Flange Compatible with 8" and 12" Centers



Steel Wing Shoe OST-2400

Dual-base Steel Wing Shoe Compatible with 8" and 12" Centers Used on 8" Top-punched Blades



Steel Wing Shoe OST-415

Steel Wing Shoe: Same as OST-400 with 15° Offset Flange Compatible with 8" and 12" Centers



Steel Wing Shoe OST-2410

Dual-base Steel Wing Shoe: Same as OST-2400 with 10° Offset Flange Compatible with 8″ and 12″ Centers Used on 8″ Top-punched Blades



FRAME SHOE ADAPTERS

Frame Shoe Adapters OST-100 Flat Frame Shoe Bracket Used on

Flat Frame Shoe Bracket Used on Viking Plows before 2001 4" x 10" Shaft



FrameShoe Adapters OST-100N

Flat Frame Shoe Bracket Used on Viking Plows after 2000 3" x 10" Shaft



Frame Shoe Adapters OST-120

Flat Frame Shoe Bracket Used on Frink/Everest Plows 3" x 15" Shaft



Frame Shoe Adapters OST-110

Flat Frame Shoe Bracket Used on Tenco Plows 3" x 15" Shaft





STEEL / CARBIDE FRAME SHOES

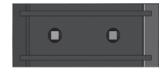
Steel Frame Shoe OST-900

Flat Steel Frame Shoe Uses 3/4" Plow Bolts 1-3/4" x 8" x 14"



Carbide Frame Shoe OCS-100

Carbide Flat Frame Shoe Uses OST-110, OST-100N or OST-120 Shoe Bracket



Carbide Frame Shoe OCS-910

Carbide Boat Frame Shoe Uses OST-110 Shoe Bracket



STEEL MOLDBOARD SHOES

Steel Moldboard Shoe OST-600

Steel Moldboard Shoe 3/4" Base Compatible with 8" and 12" Centers



Steel Moldboard Shoe OST-610/60

Steel Moldboard Shoe 1/4" Base with 60° Angle Compatible with 8" and 12" Centers



Steel Moldboard Shoe OST-635

Steel Moldboard Shoe (Heavy Duty) Flange has 25° Angle Compatible with 8" and 12" Centers



Steel Moldboard Shoe OST-675

Steel Moldboard Shoe (Heavy Duty) One Way, Fits 12" Centers



Steel Moldboard Shoe OST-605

Steel Moldboard Shoe 1" Base Compatible with 8" and 12" Centers



Steel Moldboard Shoe OST-620, 620A

Steel Moldboard Shoe Compatible with 8" and 12" Centers Optional Slots for Height Adjustment



Steel Moldboard Shoe OST-645

Steel Moldboard Shoe 1 - 1/4" Base Fits 8" Center-punched Blades



Steel Moldboard Shoe OST-680

Steel Moldboard Shoe (Heavy Duty) One Way, Fits 8" and 12" Blades



Steel Moldboard Shoe OST-610

Cast Wing Shoe 1-1/4" Base Compatible with 8" and 12" Centers



Steel Moldboard Shoe OST-625 Steel

Moldboard Shoe Flange has 15° Angle Compatible with 12" Centers



Steel Moldboard Shoe OST-660

Steel Moldboard Shoe One Way, Fits 12" Centers



Steel Moldboard Shoe OST-2600

Steel Moldboard Shoe - Double Optional 60° Angle Compatible with 8" and 12" Centers Used on 8" Top-punched Blades



sabre NOSE PIECES



EBT-SAB-NP-810

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ORDERING INFORMATION

PART # / Description

EBT-SAB-NP-880 / Sabre Nose Piece / Everest

EBT-SAB-NP-840 / Sabre Nose Piece / Tenco (Post 1984)

EBT-SAB-NP-880

EBT-SAB-NP-840

EBT-SAB-NP-810 / Sabre Nose Piece / Frink / Henderson

EBT-SAB-NP-800 / Sabre Nose Piece / Viking (Post 2000)

* FOR CUSTOM SABRE NOSE PIECE REQUESTS, Please E-Mail: Info@builtblades.com

EBT-SAB-NP-800



STEEL NOSE PIECES

Steel Nosepiece OST-700

Steel Nosepiece Used on Frink Models 8" Top-punched Blades



Steel Nosepiece OST-800

Steel Nosepiece Used on Viking Plows, Pre-2001



Steel Nosepiece OST-820

Steel Nosepiece Used on Tenco Plows, Pre-1985



Steel Nosepiece OST-850

Steel Nosepieces (Heavy Duty) Used on Viking Plows 8" Top-punched Blades



Steel Nosepiece OST-750

Steel Nosepiece (Heavy Duty) Used on Frink Models 8" Top-punched Blades



Steel Nosepiece OST-800N

Steel Nosepiece Used on Viking Plows, Post-2000



Steel Nosepiece OST-830

Steel Nosepiece (Heavy Duty) Used on Tenco Plows, Pre-1985 8" Top-punched Blades



Steel Nosepiece OST-880

Steel Nosepiece Used on Everest Plows



Steel Nosepiece OST-780

Steel Nosepiece Used on LaRochelle Models 8" Top-punched Blades



Steel Nosepiece OST-810

Steel Nosepiece Used on Frink Model #640 Plows



Steel Nosepiece OST-840

Steel Nosepiece Used on Tenco Plows, Post-1984



Steel Nosepiece OST-890

Steel Nosepiece (Heavy Duty) Used on Everest Plows 8" Top-punched Blades





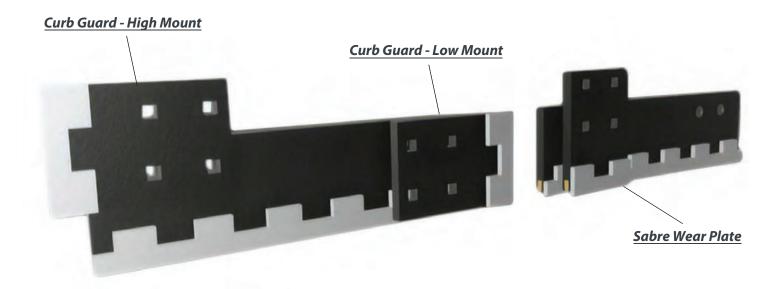
NEW PRODUCT!

A MULTI-FUNCTION TOOL WITH SEVERAL KEY USES

- Left Curb Guard High Mount
- Left Curb Guard Low Mount
- Right Curb Guard High Mount
- Right Curb Guard Low Mount
- Sabre Wear Plate



EXAMPLES OF THE MULTI-TOOL INSTALLED:



ORDERING INFORMATION

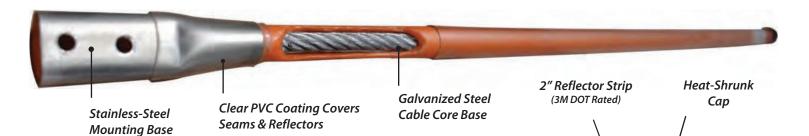
PART # / Description

EBT-SAB-MULTITOOL / Sabre Multitool 3/4x8x6 5/8 Bolt



PLOW MARKERS









Included Stainless-Steel Mounting Hardware





Each Kit Includes: (2) Plow Markers (1) Hardware Kit





ORDERING INFORMATION

PART # / Description

EBT-PM-30-LD / 30" Plow Marker Kit / Screw Base **EBT-PM-30** / 30" Plow Marker Kit / Municipal Base **EBT-PM-36** / 36" Plow Marker Kit / Municipal Base **EBT-PM-48** / 48" Plow Marker Kit / Municipal Base

sabre HARDWARE







ORDERING INFORMATION

PART # / Description

EBT-HWK-SAB-36 / 36" Sabre / 5 Bolt Kit EBT-WK-SAB-48 / 48" Sabre / 6 Bolt Kit EBT-WK-SAB-WP / Sabre Wear Plate / 4 Bolt Kit

EBT-WK-CG-HD / Heavy-Duty Curb Guard / 3 Bolt Kit **EBT-WK-CG-LD** / Light/Medium-Duty Curb Guard / 2 Bolt Kit **EBT-WK-VB** / Sabre_V Blade / 14 Bolt Kit



REPLACEMENT SPREADER CHAINS



SPREADER CHAINS

- All Replacement Chains Manufactured In-House
- Substantial Savings Over Other Manufactured Replacement Chains
- Special Double Welded Process With a Quality Guarantee
- Overnight Shipping Available

MEASUREMENTS

(Use Illustration on the right)

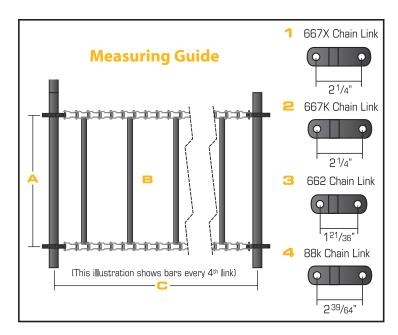
A	Center to Center
В	Bar Type
C	Bar Spacing
D	Chain Link Style
E	Pitch Size
F	Hopper Length
G	Weld Type (Circle One) Single / Double



CUSTOM CAPABILITIES

Please contact us today to discuss how our value added product can meet your needs.

Direct Phone: 800.733.5508



SPREADER CHAINS

PREADER CHAINS		DOUBLE WELD		SINGLE WELD		
		Every Other Link	Every Link	Every Other Link	Every Link	
PINTLE TYPE	Center to Center			1/4X1.0 1/4X1.0		
	10					
	12					
8	14					
995	16			17-12(1)		
	18					
	20					
	22					

		DOUBLE WELD		SINGLE WELD			
		Every Other Link	Every Link	Every Other Link	Every Link		
PINTLE TYPE	Center to Center	3/8X1.5 3.8X1.5					
	16						
	18						
	20			5			
×	22						
667%	24						
	26						
	28						
	30						

		DOUBLE WELD		SINGLE WELD		
		Every Other Link	Every Link	Every Other Link	Every Link	
PINTLE TYPE	Center to Center			nter to Center 16		
	16					
	18					
	20	3/8X1.5 3/8X1.5				
X	22			X1.5		
667K	24					
	26					
	28					
	30					

		DOUBLE WELD		SINGLE WELD			
		Every Other Link	Every Link	Every Other Link	Every Link		
PINTLE TYPE	Center to Center	3/8X1.5 3/8X1.5		Center to Center		Eenter to Center	·
	16						
	18						
	20						
88K	22			5			
88	24						
	26						
	28						
	30						

PRODUCT SPECIFICATIONS



WEBSITE / www.EvolutionEdges.com
PHONE / 800-733-5508

FAX / 607-732-5379

ADDRESS / 2420 Corning Road

Elmira, NY 14903

PRODUCT SPECIFICATIONS

TUNGSTEN CARBIDE TIPPED SNOW PLOW BLADES

The following specifications are being used by Evolution Edges in our manufacturing process to assure the carbide tipped snowplow blades we produced are of a superior quality.

1. Blade

- a. The blade shall be hot-rolled finished steel to meet or exceed the grade requirements of A36 or 1026 type steel.
- b. Holes shall be 11/16" square holes with countersink to receive 5/8" diameter plow bolts. Hole locations will be determined by the end user.
- c. Center of the holes shall be within 1/32" of the established horizontal centerline and 1/16" of established vertical centerline.

2. Tungsten Carbide Inserts

- a. The insert shall be a high shock WC grade of tungsten carbide with 11% to 12.5% cobalt content.
- b. Our tungsten carbides are made of 100% virgin carbide material. No recycled materials are used.
- c. The density of the carbide shall be 14.3 minimum to 14.6 maximum.
- d. The hardness of the carbide shall be 88.0 minimum to 89.0 maximum
- e. The transverse rupture strength shall be 350,000 psi minimum.
- f. Porosity shall conform to A06, B00, C00
- g. The shape and size of the insert shall be determined by the individual product. The tolerance on each dimension shall be as follows:
 - 1. 0.635 Height +/- .005"
 - 2. 0.365 Width +/- .005"
 - 3. Length 1" nominal
 - 4. Bottom Angle = 25 degrees(+/- 1 degree), with a nose radius of 1/16 inch (.0625)

3. Brazing

- a. Brazing material shall be a high strength high temp alloy type, with minimum shear strength of 30,000 psi
- b. Inserts will be placed next to each other in the milled slot along the entire length of the cutting edge.
- c. Inserts shall be braised on all sides consistent with sound brazing practice with no evidence of voids or use of shims.
- d. Each blade shall contain one insert, one inch nominal length for each inch of the blade sections overall length. Several inserts in each blade may be slightly longer or shorter to ensure there will be no inserts extending from the ends of the steel portion of the blade.

Milled Slot

- a. Slot Width .375" +/- .005
- b. Slot Depth .635" +/- .005

5. Additional Specifications

- a. The difference between the highest and lowest tip point on any two adjacent inserts is not to exceed 1/32" on any given blade assembly.
- b. Longitudinal deviation will not exceed 1/8" in a 4' blade section.



ADDRESS / 2420 Corning Road Elmira, NY 14903

PRODUCT SPECIFICATIONS

RUBBER SNOW PLOW BLADES

Physical Properties:

ASTM D 412 ---

TENSILE - 2400 psi (15.9 MPa) minimum

Modulus @ 100% – 500 psi (typical)

Modulus @ 200% - 900 psi (typical)

Modulus @ 300% - 1200 psi (typical)

Elongation @ Break - 450 % minimum

ASTM D2240: Hardness – 60 ± 5 Durometer (Shore A)

ASTM D 624: Tear Resistance (Die C) – 229 ppi (lbs per inch)

minimum ASTM D 297: Density / Specific Gravity - 1.135 typical

ASTM D 395: Compression Set:

22 hrs. @ 158º F - 15% typical (25% max)

22 hrs. @ 212º F - 25% typical (50% max.)

ASTM D 573: Deterioration of Properties (% Difference from Originals) (Heat Aging – Air Oven)

70 hrs. 158º F T ensile - - - 20% max.

Elongation – -35% max.

Durometer – ± 6 pts. max

ASTM D 2137: Low Temperature Brittleness (- 40° F) --- Pass

ASTM D 2137: Ozone Resistance (3 days @ 25 pphm) — Pass



FAX / 607-732-5379 ADDRESS / 2420 Corning Road Elmira, NY 14903

PRODUCT SPECIFICATIONS AND TOLERANCES

EVOLUTION EDGES STEEL BLADES

1. Blade Material:

1084 flat hot rolled steel. Brinell hardness range is 277-331.

2. Material Composition:

.80 - .86 Carbon -.60 - .80 Manganese -Phosphorous - .03 maximum Sulfur -.04 maximum Silicon -.25 maximum

3. General Blade Tolerances:

Width:

Width tolerance for 6" width or less: +1/16" (.125")/-3/32 (-.094") from defined blade width.

Width tolerance for 8" width or more: +1/16" (.125")/-3/16" (.188") Thickness: Blade Thickness tolerances are +/- .020.

Overall Blade Length:

Blade length will be held to + 0.00 and - 1/8" (-.125") from defined blade length.

Straightness:

1/4" (.250") over a 5' length.

Flatness:

1/4" (.250") over a 5' length.

Cutoff:

Cutoff to be square, measured over the width of the blade, to:

For 6" width or less: 1/16" (.0625"). For greater than 8" widths: 1/8" (.125").

Square Holes:

11/16" (.688") or 9/16" (.563") square holes

Punched holes to be placed in the blade at locations defined by the punch pattern.



WEBSITE / www.EvolutionEdges.com
PHONE / 800-733-5508

FAX / 607-732-5379

ADDRESS / 2420 Corning Road

Elmira, NY 14903

PRODUCT SPECIFICATIONS AND TOLERANCES

EVOLUTION EDGES STEEL BLADES

Camber Tolerances:

Maximum Camber shall not exceed the below tolerances.

CUT LENGTH, FEET (M)	CAMBER TOLERANCES, INCH (MM)
To 4 (1.2) incl.	1/16 (1.6)
Over 4 (1.2) to 6 (2.4) incl.	1/8 (3.2)
Over 6 (2.4) to 10 (3.7) incl.	3/16 (4.8)
Over 10 (3.7) to 14 (4.3) incl.	1/4 (6.4)
Over 14 (4.3) to 16 (4.9) incl.	5/16 (8.0)
Over 16 (4.9) to 18 (5.5) incl.	3/8 (9.5)
Over 18 (5.5) to 20 (6.1) incl.	7/16 (11.0)
Over 20 (6.1) to 30 (9.1) incl.	5/8 (16.0)
Over 30 (9.1) to 40 (12.2) incl.	3/4 (19.0)

Position of Holes:

From top of blade:

Print dimension +/- 1/16" (+/-.0625")

From left side of blade:

First punched hole: print dimension +0/-1/16" (-.0625")

First punched hole is to be measured from the left edge of the blade. Balance of

punched holes: print dimension +/- 1/16" (+/- .0625")

Balance of punched holes to be measured from the actual position of the first hole. The print tolerance is not cumulative between holes.

Counter-Sink for Holes:

Depth of the counter-sink hole shall be adequate so the top of the bolt is flush or slightly under the surface of the blade. Countersunk square holes shall meet the requirements of SAE standard J740.

Paint:

Each blade will receive one coat of rust resistant paint.



WEBSITE / www.EvolutionEdges.com PHONE / 800-733-5508 ADDRESS / 2420 Corning Road Elmira, NY 14903

PRODUCT SPECIFICATIONS

HIGH CARBON STEEL GRADER BLADES

- **Brinell Hardness of HB 300-350**
- Chemical Composition provided below

N	C80	
	C (%)	0.75-0.85
	Si (%)	0.17-0.37
	Mn (%)	0.5-0.8
	P (%)	≤0.035
Chemical Composition	S (%)	≤0.035
	Cr (%)	≤0.25
	Ni (%)	≤0.30
	Cu (%)	≤0.25
	B (%)	-
	Hardness (HRC)	>=25
	Yielding point (MPa)	≥930
Mechanical properties	Breaking point (MPa)	≥1080
	Elongation (%)	≥6
	Impact test (room temp.)	8



PRODUCT SPECIFICATIONS

HEAT TREATED GRADER BLADES

- Heat Treated Grader Blade Brinell Hardness of HB 440-500
- Chemical Composition provided below

N	laterial	30MnB
	C (%)	0.25-0.35
	Si (%)	0.2-1.0
		1.1-1.8
	P (%)	≤0.03
Chemical Composition	S (%)	≤0.03
		≤0.050
	Ni (%)	≤0.025
	Cu (%)	≤0.03
	B (%)	0.001-0.005
	Hardness (HRC)	>= 45
	Yielding point (MPa)	≥1440
Mechanical properties	Breaking point (MPa)	≥1630
	Elongation (%)	≥9
	Impact test (room temp.)	25