

# FORESTRY

**Tungsten Carbide and Stellite™ Saw Tips**





## Our Mission

Through the skill and innovation of our people, we deliver industry-leading tools and technologies that solve customer challenges and enable exceptional performance.

Our mission is all about performance for our customers. Our tools and wear-resistant solutions enable customers to run longer, cut faster, and machine with greater precision. We aren't setting the performance standard for our industry... we're resetting it even higher.



## Kennametal Saw Tips Make the Cut

### Count on Kennametal for High-Performance Products

#### EXPERIENCE

Kennametal uses a collaborative approach to deliver an extensive saw tipping portfolio that best fits our partners' needs. Our knowledge and understanding of the timber industry leads to continually enhanced products and improved service.

Our partnerships with lumber mills, distributors, and equipment manufacturers facilitate ease of business, product availability, and breadth of portfolio.

#### QUALITY

Our tungsten carbide and Stellite materials are produced to the highest quality standards, ensuring saw sharpness and tip strength are never compromised. Our dedication to quality means reliable performance, longer run times, and no surprises.

#### CONSISTENCY

Kennametal offers a wide selection of sawmilling solutions to provide its users with consistent results even in the most inconsistent environments and with toughest species of wood.





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**Productivity in the Most Demanding Environments**





## From Logs to Lumber

Kennametal can help you. Our products are used in multiple steps of the lumber milling process for both circular and band saw applications. From logs to lumber, Kennametal has you covered with products to withstand demanding environments.

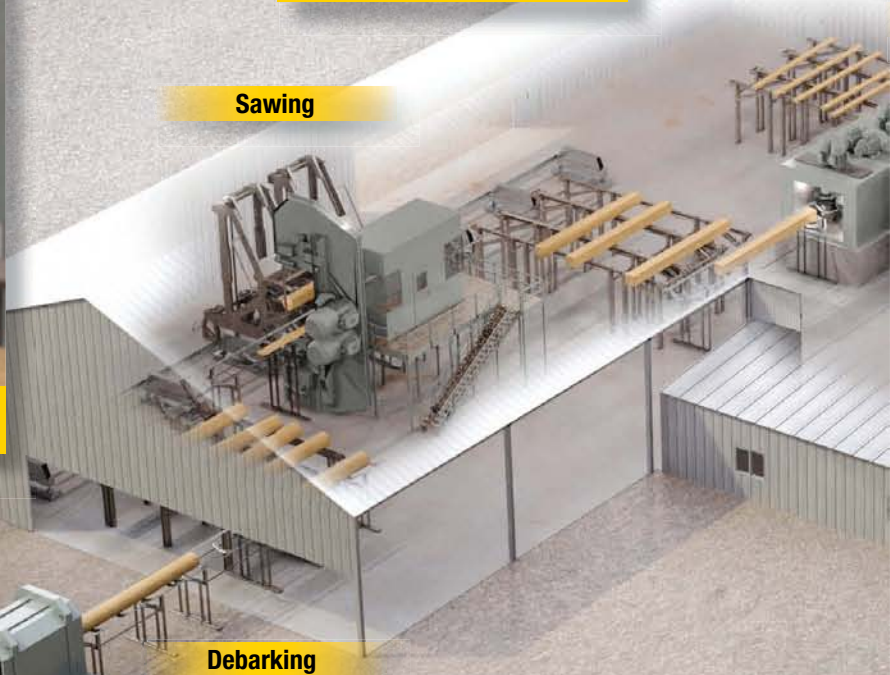


Band Saw

Sawing



2 Sawing



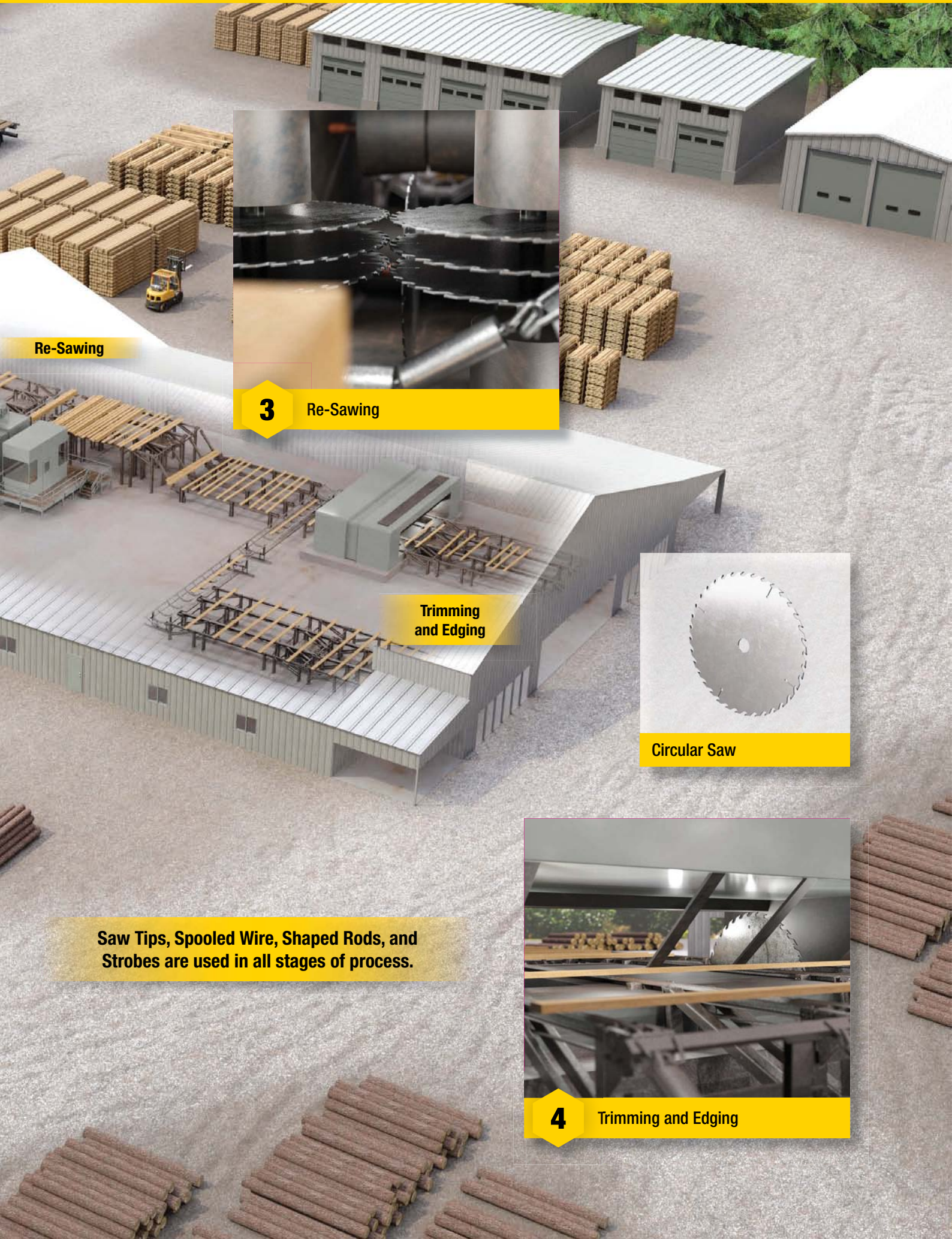
Debarking



1 Debarking







**Re-Sawing**



**3**

**Re-Sawing**

**Trimming  
and Edging**



**Circular Saw**

**Saw Tips, Spooled Wire, Shaped Rods, and Strobes are used in all stages of process.**



**4**

**Trimming and Edging**





## Kennametal's Saw Tips Are a Cut Above the Rest

With an extensive product portfolio, Kennametal continually delivers a variety of high-quality and consistent saw tips and other products for sawmill cutting applications.



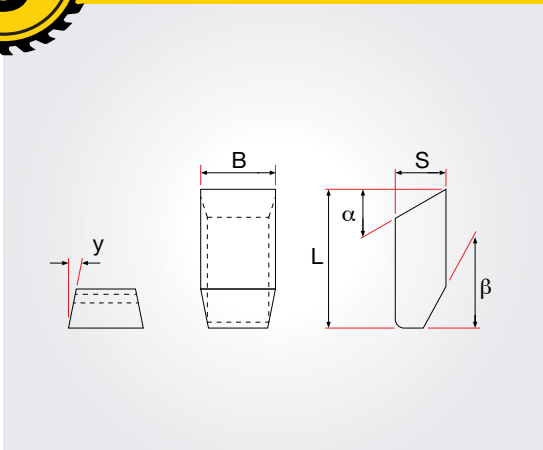
**1 CHOOSE A MATERIAL AND GRADE**



**2 SELECT A PRODUCT AND PRODUCT STYLE**



**3 DETERMINE THE DIMENSIONS (LENGTH, THICKNESS, KERF)**



**4 SELECT ANY TREATMENTS (TINNING, SHARPENING, ETC.)**




**CHOOSE A MATERIAL AND GRADE**

## Grade Overview

**CEMENTED TUNGSTEN CARBIDE**

Grade Name	Average WC Grain Size (µm)	Industry Classification	Cobalt Binder (wt%)	HARDNESS		APPLICATIONS		
				HRA		Primary / Trim	Edger	High Impact
<b>KFF05</b>	Fine	C2 K20	5.5%	92.1		•		
<b>KFS64</b>	Submicron	C1/C2 K30	10.0%	91.8		•	•	
<b>KWH</b>	Medium	C1/C2 K30	8.6%	90.3		•	•	
<b>KFM65</b>	Medium	C1 K40	11.5%	89.8			•	
<b>K3030C</b>	Coarse	C11 K30	11.4%	88.5			•	
<b>KW115</b>	Medium	C13 K40	15.0%	87.6			•	•

**STELLITE ALLOYS**

Grade Name	Description	HARDNESS		APPLICATIONS		
		(HRC)		Primary / Trim	Edger	High Impact
<b>KST12PM</b>	Stellite 12 is a weldable alloy composed of cobalt, chrome, and tungsten with high toughness and excellent corrosion resistance, and appropriate for use in circular and band saws when cutting green, frozen, and kiln-dried lumber.	48		•	•	•
<b>KST1PM</b>	Stellite 1 has a higher proportion of primary carbides dispersed in the alloy and is therefore harder than Stellite 12. Stellite 1 is appropriate for use when cutting harder species and is available in spooled wire form.	58		•	•	•

**CEMENTED TUNGSTEN CARBIDE**

Kennametal has been manufacturing cemented carbide products since our inception. Often just called “carbide”, this material is a mixture of tungsten carbide (WC) 94–80% and a cobalt binder used to “cement” the carbide grains together. Tungsten carbide particles are what give this material its extreme hardness and wear resistance. By tailoring the WC particle size and metal binder ratio, we can offer grades to suit most cutting conditions.

Kennametal offers a portfolio of tips to support the production of new saws as well as re-tipping. This portfolio includes pre-tinned tips and grades for circular saws used in primary, trim, and edger applications across all types of wood species. Custom tips and a pre-sharpening service are available by special order.


**STELLITE**

Our Stellite saw-tipping grades have been designed for optimal performance in woodcutting applications and have become the material of choice for many lumber mills. Stellite is most often welded to the saw plate, resulting in strong bonds, and offers reliable cutting performance, even on fine kerf saws. Stellite excels in applications with corrosive wood and when toughness and reliability across species is most valued. We offer Stellite in a variety of tips, rods, and spooled wire to help saw filers facilitate the use of equipment with band saws and circular saws.

**2**

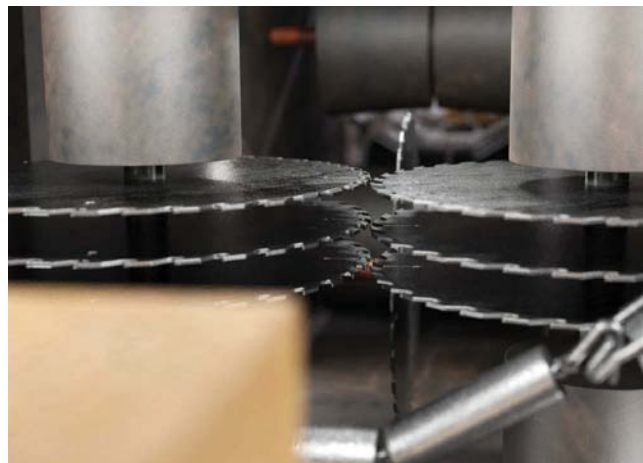
**SELECT A PRODUCT AND PRODUCT STYLE**

## Tungsten Carbide Saw Tip Solutions

FOR BAND SAW AND CIRCULAR SAW APPLICATIONS

Kennametal offers a wide range of North American manufactured products with standard sizes, treatment options, and custom grinding for sharpening and alternative tops.

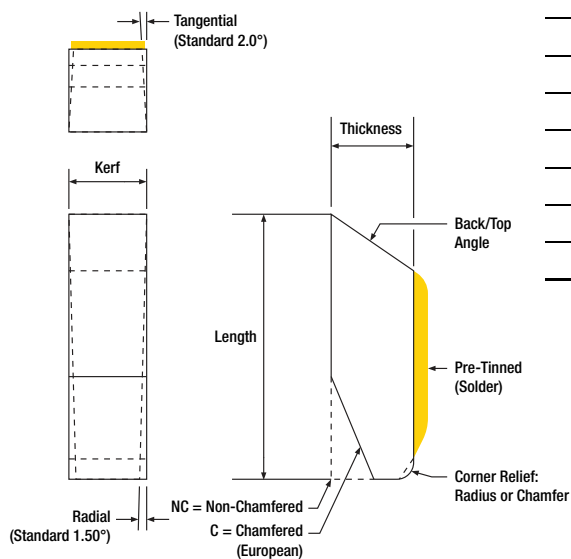
Contact your local Kennametal representative for custom options.



<b>EUROPEAN-STYLE SAW TIPS</b>	<b>TRIANGLE-STYLE SAW TIPS</b>	<b>RECTANGLE-STYLE SAW TIPS</b>	<b>OTHER PRODUCTS</b>
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**3**

**DETERMINE THE DIMENSIONS (LENGTH, THICKNESS, KERF)**



EUROPEAN STYLE	LENGTH X THICKNESS		TANGENTIAL ANGLE	KERF RANGE	
	STANDARD	METRIC		STANDARD	METRIC
WN	.630" x .165"	16,0mm x 4,2mm	5°	.100-.350"	2,5-8,9mm
WR	.535" x .125"	13,6mm x 3,2mm	0°	.100-.350"	2,5-8,9mm
WGZ	.500" x .156"	12,7mm x 4,0mm	0°	.100-.350"	2,5-8,9mm
WG	.500" x .125"	12,7mm x 3,2mm	0°	.100-.350"	2,5-8,9mm
WX	.438" x .125"	11,1mm x 3,2mm	0°	.080-.300"	2,0-7,6mm
WET	.375" x .125"	9,5mm x 3,2mm	0°	.100-.350"	2,5-8,9mm
WE	.375" x .098"	9,5mm x 3,2mm	0°	.100-.350"	2,5-8,9mm
WD	.312" x .098"	7,9mm x 2,4mm	0°	.130-.350"	3,3-8,9mm
WB	.285" x .082"	7,2mm x 2,0mm	0°	.100-.350"	2,5-6,0mm
WA	.250" x .062"	6,4mm x 1,6mm	0°	.080-.165"	2,0-4,2mm



\*Please inquire about any sizes not shown



**2**

**SELECT A PRODUCT AND PRODUCT STYLE**

# Stellite™ Saw Tip Solutions

**FOR BAND SAW AND CIRCULAR SAW APPLICATIONS**

Kennametal offers a wide range of North American manufactured products with standard sizes, and custom grinding for sharpening and alternative tops.

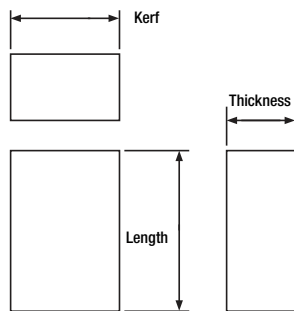
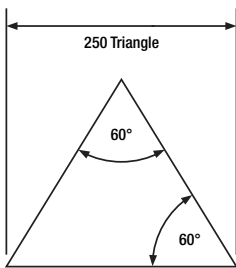
Contact your local Kennametal representative for custom options.



<b>EUROPEAN-STYLE SAW TIPS</b>	<b>TRIANGLE-STYLE SAW TIPS</b>	<b>RECTANGLE-STYLE SAW TIPS</b>	<b>OTHER PRODUCTS</b>
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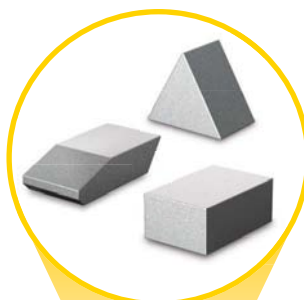
**3**

**DETERMINE THE DIMENSIONS (LENGTH, THICKNESS, KERF)**



EUROPEAN STYLE	DIMENSIONS
WG	*Please inquire about sizes
WET	*Please inquire about sizes

TRIANGLE STYLE	KERF RANGE	
	STANDARD	METRIC
160	.100-.130"	2,5-3,3mm
180	.085-.180"	2,2-4,6mm
205	.130-.150"	3,3-3,8mm
250	.105-.250"	2,7-6,4mm



RECTANGLE STYLE	LENGTH X THICKNESS		KERF RANGE	
	STANDARD	METRIC	STANDARD	METRIC
C100	.130" x .075"	3,3 x 1,9mm	.100"	2,5mm
C125	.180" x .090"	4,6 x 2,3mm	.125"	3,2mm
C125-240	.240" x .090"	6,1 x 2,3mm	.125"	3,2mm
C138-180	.180" x .090"	4,6 x 2,3mm	.138"	3,5mm
C140-300	.300" x .125"	7,6 x 3,2mm	.140"	3,6mm
C150	.180" x .090"	4,6 x 2,3mm	.150"	3,8mm
C150-240	.240" x .120"	6,1 x 3,0mm	.150"	3,8mm
C150-300	.300" x .125"	7,6 x 3,2mm	.150"	3,8mm
C150-325	.325" x .125"	8,3 x 3,2mm	.150"	3,8mm
C165	.205" x .105"	5,2 x 2,7mm	.165"	4,2mm
C165-300	.300" x .125"	7,6 x 3,2mm	.165"	4,2mm
C165-325	.325" x .125"	8,3 x 3,2mm	.165"	4,2mm
C175	.240" x .120"	6,1 x 3,0mm	.175"	4,4mm
C175-300	.300" x .125"	7,6 x 3,2mm	.175"	4,4mm
C187	.240" x .120"	6,1 x 3,0mm	.187"	4,7mm
C200	.240" x .120"	6,1 x 3,0mm	.200"	5,1mm
C200-205	.205" x .105"	5,2 x 2,7mm	.200"	5,1mm
C200-300	.300" x .125"	7,6 x 3,2mm	.200"	5,1mm
C225	.300" x .150"	7,6 x 3,8mm	.225"	5,7mm
C250	.300" x .150"	7,6 x 3,8mm	.250"	6,4mm

\*Please inquire about any sizes not shown

**2**

SELECT A PRODUCT AND PRODUCT STYLE

## Other Sawmilling Products

FOR BAND SAW AND CIRCULAR SAW APPLICATIONS

Kennametal offers a wide range of North American manufactured products with standard sizes, and custom grinding for sharpening and alternative tops.

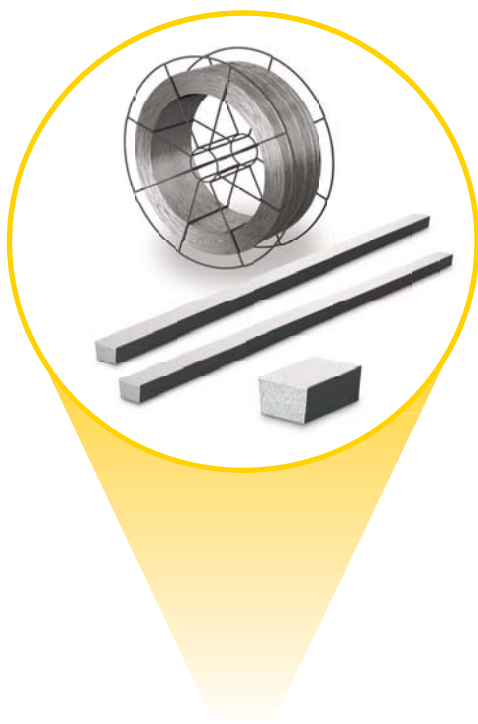
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EUROPEAN-STYLE SAW TIPS	TRIANGLE-STYLE SAW TIPS	RECTANGLE-STYLE SAW TIPS	OTHER PRODUCTS
WIRE	SHAPED ROD		STROBES

**3**

DETERMINE THE DIMENSIONS (LENGTH, THICKNESS, KERF)



STELLITE WIRE	DIAMETER	SPOOL SIZE	
		STANDARD	METRIC
Stellite 12	.080" / 2.0mm	30 lbs	20 kg
Stellite 12	.062" / 1.6mm	30 lbs	20 kg
Stellite 1	.080" / 2.0mm	30 lbs	20 kg
Stellite 1	.062" / 1.6mm	30 lbs	20 kg

STELLITE SHAPED ROD	KERF RANGE	
	STANDARD	METRIC
Trapezoid	.079-.256"	2,0-6,5mm
Triangle	.181-.339"	4,6-8,6mm
Diamond	.197-.252"	5,0-6,4mm
Hollow Back	.098-.217"	2,5-5,5mm

TUNGSTEN CARBIDE STROBES	KERF RANGE	
	STANDARD	METRIC
1" Length	.130-.280"	3,3-7,1mm
1-1/4" Length	.130-.280"	3,3-7,1mm

STELLITE STROBES	KERF RANGE	
	STANDARD	METRIC
Sized-To-Length	.130-.300"	3,3-7,6mm

\*Strobes standard thickness: .125"

\*\*All strobes are pre-tinned





**SELECT ANY TREATMENTS  
(TINNING, SHARPENING, ETC.)**

## Saw Tip Options

### TREATMENT: UNTINNED

- CTR treated (ready to braze)
- Ensures highest possible bond strength

### TREATMENT: PRE-TINNED AND EXTRA PRE-TINNED

- Uses a premium cadmium-free silver alloy
- Improves solderability
- Each tip must pass two 100% inspection procedures

### CUSTOM GRINDING: PRE-SHARPENED

- +/- 0.001" on kerf
- No side grinding needed
- +/- 5 degrees on all angles

### CUSTOM GRINDING: ALTERNATE TOPS

- Reduce grinding up to 75%
- Save on grinding labor
- Reduce wheel consumption
- Save on coolant changes
- Available in 0–30 degrees

### CUSTOM GRADES

- Optimum impact resistance
- Reduce dulling





## **Kennametal Is the Global Leader for Wear Protection Solutions.**

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