

ur customers around the world have recognized the woodworking knives manufactured by SuperSource Tooling for their reliability and variability for decades. SuperSource Tooling is committed to providing the best user experience through advanced processing technologies, specialized manufacturing equipment, and comprehensive quality control management. We offer a wide range of woodworking cutting tools with various options of material and dimension to meet customers' needs for processing all types of wood and wood-derived materials.

Our woodworking knives consist of planer knives, quick-lock planer knives, corrugated knives, SuperHelic™ knives, Williams & Hussey (W&H) knives, and other custom knives. We offer not only common base materials, such as D2 high-carbon high-chromium steel, various high-speed steel (HSS) materials, TCT inlaid, and solid carbides, but also a variety of coating applications such as WR, BNv, ER+, etc. Our world-class quality woodworking cutting tools, which provide a much finer cutting finish and longer service life than other similar products in the market, have been sold globally and have won unanimous praise from all customers.

# **Material Selection and Performance**

#### High Carbon and High Chrome (HCHC) Steel

**D2** 

D2-HCHC (AISI) is one of the commonly used base materials of knives for many moulding producers and planer mills. With a Rockwell C hardness (HRC) of 58, it is easy to grind and resist nicks in knotty softwoods. D2-HCHC contains 12% chromium to resist chemical erosion when cutting wet cedar or redwood. Great for softwoods and shorter runs in hardwoods.

#### High Speed Steel (HSS)

**V2** 

V2 grade high-speed steel is a special steel blend with extra Vanadium designed for woodworking tools. With an increased level of Vanadium to replace more expensive Molybdenum, V2-HSS provides excellent tool life and a lower price than any other HSS in the market. At a moderate feeding speed, V2-HSS offers similar wear life and performance as M2-HSS. V2-HSS has a 63 HRC and is great for most long runs in soft or hardwoods.

M2

Our M2 grade high-speed steel (AISI) offers 25% longer run times than D2-HCHC grade. Our premium M2-HSS offers high levels of Tungsten (6% W), Molybdenum (5.5% Mo), and Vanadium (2.2%V). M2-HSS is hardened to 63 HRC for better wear resistance in harder woods. Great for long runs in most soft and hardwoods.

T1

Our T1 (AISI) steel offers 25% longer run times than M2-HSS. T1-HSS is a popular European grade made of 18% Tungsten (W) for extra long runs and better resistance to abrasive glue lines. T1 is preferred by mills that primarily run hardwoods or softwood mills that want the ultimate cutting performance.

M3

M3+ high-speed Steel (AISI) offers up to 100% longer tool life over M2-HSS. This superalloy steel is excellent for long runs or on tough hardwoods. M3+ HSS contains high levels of Vanadium, Tungsten, Molybdenum, and Chromium for extended wear life. Treated to 66 HRC, which is one of the hardest HSS offered.

#### High Speed Steel with Coatings



BNv high-speed steel is our premium HSS with case hardened (carbon nitride) and black oxide to resist pitch build-up. BNv-HSS offers up to 100% tool life increases over standard HSS without being harder to profile shape. BNv-HSS features a long-wearing cutting edge of 0.01" deep with a hardness of more than 72 HRC. Excellent for long runs and stubborn hardwoods.



Our WR-HSS provides ultimate value and long tool life. It offers a 72 HRC at the cutting edge, increasing wear life without increasing grinding time. Applying the hard long-wearing diamond dust chrome coating to the face of HSS increases wear life by 100% at a low additional cost. This line of steel is excellent for most hardwoods and can triple tool life in wet woods that contain tannic acids (oak, cedar, redwood).



Our "Endurance" super run (ER+ Grade) moulder steel is the best option for extended production time and tool life. An excellent choice for cutting problematic hardwoods and for super-long production runs. Tool life is increased up to 800% over standard HSS without the inconvenience associated with using carbide knives. This proprietary knife coating process uses the latest European technology for metalworking tools. Anion sputtering magnetron chamber applies a P.V.D. (Physical Vapor Deposit), 6-layer film of Titanium, Ceramic crystals, and other elements to the knife surface to form an extremely hard and heat-resistant cutting edge. The hardness of the coating is greater than 3500 HV – about twice as hard as C2 grade carbide. As the coating is so thin, normal vitrified or CBN grinding wheels can be used to profile and sharpen the knives. Excellent for short runs (500 to 1000 feet) cutting of MDF, Teak, Ipe, and even Angire.

#### Carbide

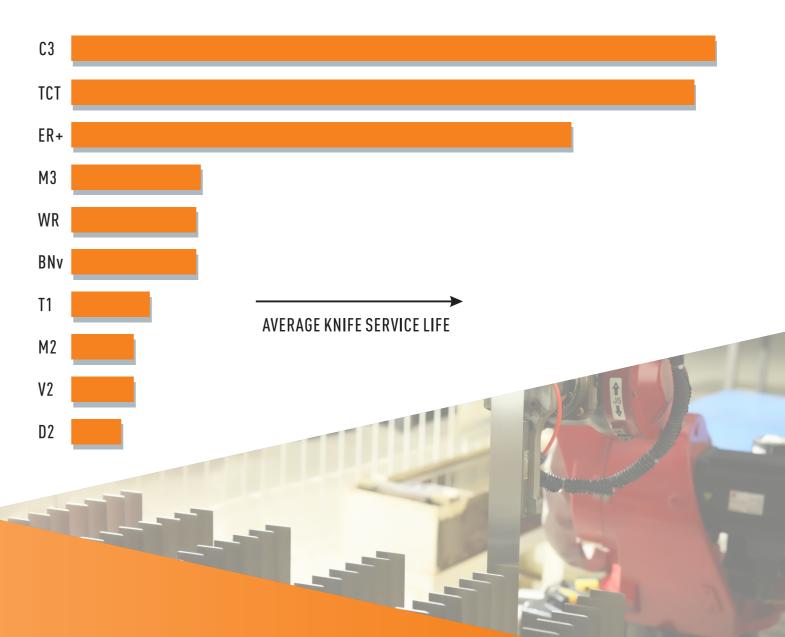


TCT inlaid knives use advanced welding technology to weld the cemented carbide blade to the ordinary steel substrate. It is commonly used for processing medium-density board, particleboard, hardwood, plywood, and solid wood. It provides similar cutting performance to carbide tools at a moderate price.



C3 carbide has HRC as high as 93. This material provides various favorable properties such as excellent red hardness, wear resistance, high strength, and high corrosion resistance. It is suitable for processing hardwood, mineral-containing wood, high-impurity wood, artificial glued materials, etc.

SuperSource Tooling has long been committed to the R&D of innovative materials and coating techniques. In addition to the materials introduced above, we currently have a variety of advanced materials testing in the mass production stage. Inquires for details are greatly welcomed. We aim to continuously explore the material technologies to ensure our customers can obtain the most cost-effective woodworking tools, and operators can work in a more healthy environment with lower noise and dust.







# **Product Description**

We offer corrugated knives in various grades of HSS and inhouse HSS coating options to accommodate different wood materials. This series of knives are suitable for cutting and planning softwoods and hardwoods.

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#### **Highlight Features**

- 1. High-quality base materials ensure the outstanding cutting performance of the knives;
- 2. Advanced heat treatment processes ensure the physical and mechanical homogeneity within the knives;
- 3. Machined with advanced CNC equipment, along with comprehensive quality control management (CNC program verification, online correction, offline inspection, etc.) to ensure a highly precise and smooth knife surface;
- 4. Precise corrugations ensure knife interchangeability, finish consistency, and operation safety;
- 5. Standard knife lengths are 25" or 650 mm, custom lengths available upon request, knife corrugation available at 60° 90° angles or combing corrugation;
- 6. We offer made-to-order custom profile knives.

# **Product Specifications**

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SKU	Product Type	Material St	andard Knife Length	L* Knife Width W	Knife Thickness T
K011 01-21	Corrugated Knives	D2, HSS, Coated HSS, or TCT	650 mm or 25"	30 to 70 mm or 1-1/4" to 3-1/2"	4 to 8 mm or 5/32" to 5/16"
K012 01-18	Corrugated Knives	D2, HSS, Coated HSS, or TCT	650 mm or 25"	30 to 70 mm or 1-1/4" to 3-1/2"	4 to 8 mm or 5/32" to 5/16"
K013 01-05	Corrugated Knives	D2, HSS, Coated HSS, or TCT	650mm or 25"	30 to 70 mm or 1-1/4" to 3-1/2"	4 to 8 mm or 5/32" to 5/16"



### **Product Description**

These carbide knife systems are designed for massive cutting applications of plywood, medium-density fiberboard (MDF), and stubborn hardwoods at a high feeding rate.

# **Highlight Features**

- 1. Designed for massive cutting applications of plywood, MDF, and stubborn hardwoods;
- 2. Extremely long service life makes our products very costeffective;
- 3. Machined with advanced CNC equipment, along with comprehensive quality control management (CNC program verification, online correction, offline inspection, etc.) to ensure a highly precise and smooth knife surface;
- 4. Ultrafine micro C3 carbide grain and mirror polish ensure superfine wood finishes at longer production runs;
- 5. knife corrugation available at 60° / 90° angles.



### **Product Specifications**

SKU	Product Type	Material	Knife Length L	Knife Width W	Knife Thickness T
K021 01-03	CK	C3+HSS	≤310 mm	38 to 70 mm	3.20+7.10 mm
K022 01-03	CE	C3+HSS	≤300 mm	38 to 70 mm	2.50+7.75 mm
K031 01-03	CS	C3+HSS	≤300 mm	38 to 70 mm	3.00+7.36 mm



# SUPERHELIC<sup>™</sup> KNIFE





# **Product Description**

Designed as cost-effective replacement planer blades for quick-change planer/moulder heads.

# **Highlight Features**

- Cutting edges on both sides of the blade, can be re-grinded many times to significantly increase the service life of the blade and reduce cost;
- Machined with advanced CNC equipment to ensure highly precise and smooth knife surface, resulting in a superfine surface finish;
- With strong interchangeability and high positioning accuracy, our products are compatible with most quickchange cutterheads in the market, especially those with centrifugal structures;
- 4. Designed for quick and easy assembly;
- 5. We offer both T1-HSS and Micro-Grain C3 carbide knives for extremely long service life.

# **Product Specifications**

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SKU	Product Type	Material	Knife Length L	Knife Width W	Knife Thickness T
K051 04	DT	T1	≤720 mm	14 mm	2.56 mm
K052 04	DC	T1	≤720 mm	16 mm	3.00 mm
K051 09	DT	C3	<600 mm	14 mm	2.56 mm
K052 09	DC	C3	≤600 mm	16 mm	3.00 mm

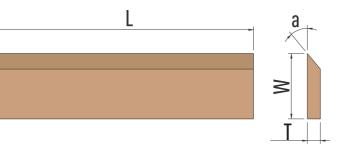


### **Product Description**

Designed to be used together with our SuperHelic<sup>TM</sup> cutterheads, SuperHelic<sup>TM</sup> knives provide the ultimate solutions for applications that require superfine surface finishes.

### **Highlight Features**

- Our patented products enable a unique continuous compound shear cutting action that slices the wood with low tool pressure and vibration;
- Eliminate fuzzy and chipped-out grain defects for crossgrain and knotted hardwood, leading to a superfine surface finish that requires less or no sanding processing;
- 3. Our seamless SuperHelic<sup>™</sup> corrugated knives are interchangeable, grindable, and easy to assemble.



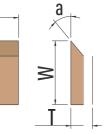
#### **Product Specifications**

SKU	Product Type	Material	Knife Length L	Knife Width W	Knife Thickness T
K082 02/04	SuperHelic Knife	HSS	≤310 mm	16 mm	3 mm
K082 06/08	SuperHelic Knife	Coated HSS	≤310 mm	16 mm	3 mm









# **Product Description**

Designed as cost-effective replacement planer knives for Williams & Hussey (W&H) planer/moulder heads.

**SuperSource** 

# **Highlight Features**

- High-quality base materials ensure the outstanding cutting performance;
- 2. Advanced heat treatment processes ensure the physical and mechanical homogeneity within the knives;
- Machined with advanced CNC equipment to ensure
  accurate bolt hole locations and highly precise and smooth
  knife surface, leads to perfect clamping and superfine
  surface finish;
- 4. We offer a full range of products with various materials and knife length up to 25";
- 5. We offer W&H knives with square (90°) edge or bevel (40°) edge, and corrugated back.

# **Product Specifications**

SKU	Product Type	Material	Knife Length L	Knife Width W	Knife Thickness T
K042 02-09	W&H Knife	HSS	≤25"	1-3/4" to 2-1/2"	1/4" or 5/16"

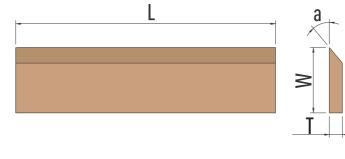


# **Product Description**

We offer a wide selection of precision-made planer knives cut and packed in balanced sets.

# **Highlight Features**

- High-quality base materials ensure the outstanding cutting performance;
- 2. Advanced heat treatment processes ensure the physical and mechanical homogeneity within the knives;
- We offer planer knives in various dimensions and materials for different applications;
- 4. Supplied in pieces or balanced sets, custom knives (not edged or with bolt holes/grooves) are also available upon request.



### **Product Specifications**

SKU	Product Type	Material	Knive Length L	Knife Width W	Knife Thickness T
K031/K032/K033	Planer Knife	D2	≤1010 mm	30 to 35 mm or 5/8" to 2"	3 to 4 mm or 1/8" to 5/32"
K031/K032/K033	Planer Knife	HSS	≤1050 mm	30 to 35 mm or 5/8" to 2"	3 to 4 mm or 1/8" to 5/32"
K031/K032/K033	Planer Knife	Coated HSS	≤700 mm	30 to 35 mm or 1-1/4" to 2"	3 to 4 mm or 1/8" to 5/32"
K031/K032/K033	Planer Knife	TCT	≤1020 mm	30 to 35 mm	3 to 4 mm
K031/K032/K033	Planer Knife	C3	≤470 mm	30 mm	3 to 4 mm