

Routing Tools

*Solid Wood & Wood
Composites*

Double-Sided Laminates

Hard Plastics

Soft Plastics

Nonferrous Metals

Specialty Tools

Profile Tooling

Insert Tooling



Routing Tools

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CNC Tooling Kits



Nestled-Based Manufacturing Tool Kit



Solid Wood Manufacturing Tool Kit

H25XAM-7866-01 - Nestled-Based Manufacturing Tool Kit (8 Pieces*)

Catalog Number	No. of Tools	Description	Cutting Edge Diameter	Cutting Edge Length	Shank Diameter	Overall Length
H25XAM-RC2257	1	Surface Cutter for Soft/Hard Plastics, Wood Composites and MDF Laminates	2-1/2	1/2	1/2	2-1/2
H25XAM-12	4	Surface Cutter Inserts	-		-	-
H25XAM-46172	2	Compression Bit for MDF and Laminates	3/8	1-1/4	3/8	3
H25XAM-46349	2	Downcut Spiral for Solid Wood	1/4	3/4	1/4	2-1/2
H25XAM-201005	2	Boring Drill Bit for Soft/Hard Wood	5 mm	27 mm	10 mm	57 mm
H25XAM-46170	1	Compression Bit for MDF Laminates	1/4	7/8	1/4	2-1/2

H25XAM-7866-02 - Solid Wood Manufacturing Tool Kit (10 Pieces*)

Catalog Number	No. of Tools	Description	Cutting Edge Diameter	Cutting Edge Length	Shank Diameter	Overall Length
H25XAM-46261	1	Upcut Spiral for Solid, Hard Woods	1/2	1-1/4	1/2	3
H25XAM-46359			3/8		3/8	
H25XAM-46361		Downcut Spiral for Solid, Hard Woods	1/2	1/2		
H25XAM-46355			3/8	1	3/8	2-1/2
H25XAM-46245	1	Upcut Spiral for Solid, Hard Woods	3/16	3/4	1/4	2
H25XAM-46345		Downcut Spiral for Solid, Hard Woods				
H25XAM-46241		Upcut Spiral for Solid, Hard Woods	1/8	1/2		
H25XAM-46376		Upcut Ball Nose for Solid, Hard Woods	1/4	1		2-1/2
H25XAM-43820	2	Straight Plunge for Solid, Hard Woods		3/4		

* All Techno Tooling Kits come standard in a wooden case storage box.

CNC Tooling Kits



Sign Manufacturing Tool Kit



Nonferrous Metal Upcut Tool Kit

H25XAM-7866-03 – Sign Manufacturing Tool Kit (16 pieces*)

Catalog Number	No. of Tools	Description	Cutting Edge Diameter	Cutting Edge Length	Shank Diameter	Overall Length
H25XAM-45726	1	90° V-Groove	1-1/4	3/4	1/2	2-1/2
H25XAM-45756		120° V-Groove		21/32		1-59/64
H25XAM-45751		90° V-Groove		15/16		2-13/64
H25XAM-45705		60° V-Groove	1/2	5/8		1-3/4
H25XAM-51404	2	O Flute Upcut for Acrylic, Plastic, Wood and Solid Surfaces	1/4	3/4	1/4	2
H25XAM-51504		Single O Flute Downcut for Acrylic, Plastic, Wood and Solid Surfaces				
H25XAM-43500		Straight O Flute for Acrylic, Plastic, Soft Plastic, PVC, Styrene	1/8	1/2		
H25XAM-43508		Straight O Flute for Acrylic Plastic, Soft Plastic, PVC, Styrene	1/4	3/4		2-1/2
H25XAM-51402		Spiral O Flute Upcut for Aluminum, Brass, Copper and Nonferrous Metals		5/8		2
H25XAM-51502		Spiral O Flute Downcut for Aluminum, Brass, Copper and Nonferrous Metals				

H25XAM-7866-04 – Nonferrous Metal Upcut Tool Kit (6 pieces*)

Catalog Number	No. of Tools	Description	Cutting Edge Diameter	Cutting Edge Length	Shank Diameter	Overall Length
H25XAM-51402	2	Single Flute Upcut for Aluminum, Brass, Copper, Nonferrous Metals	1/4	5/8	1/4	2
H25XAM-51406			1/8	5/16	1/8	1-1/2
H25XAM-51408			3/16	1/2	1/4	2

* All Techno Tooling Kits come standard in a wooden case storage box.

CNC Tooling Kits



Nonferrous Metal Downcut Tool Kit



Plastic Manufacturing Tool Kit

H25XAM-7866-05 – Nonferrous Metal Downcut Tool Kit (6 pieces*)

Catalog Number	No. of Tools	Description	Cutting Edge Diameter	Cutting Edge Length	Shank Diameter	Overall Length
H25XAM-51502	2	Single Flute Downcut for Aluminum, Brass, Copper, Nonferrous Metals	1/4	5/8	1/4	2
H25XAM-51506			1/8	5/16	1/8	1-1/2
H25XAM-51508			3/16	1/2	1/4	2

H25XAM-7866-06 – Plastic Manufacturing Tool Kit (12 pieces)*

Catalog Number	No. of Tools	Description	1Cutting Edge Diameter	Cutting Edge Length	Shank Diameter	Overall Length
H25XAM-51404	2	Single O Flute Upcut for Foam, Plastic, Wood and Solid Surfaces	1/4	3/4	1/4	2
H25XAM-51410			1/8	1/2	1/8	
H25XAM-51412			3/16	5/8	3/16	
H25XAM-51504		Single O Flute Downcut for Foam, Plastic, Wood and Solid Surfaces	1/4	3/4	1/4	
H25XAM-51510			1/8	1/2	1/8	
H25XAM-51512			3/16	5/8	3/16	

* All Techno Tooling Kits come standard in a wooden case storage box.

CNC Tooling Kits



9-Spindle Drill Bank Tool Kit



V-Groove Cutter Tool Kit

H25XAM-DBKIT – 9-Spindle Drill Bank Tool Kit (9 pieces*)

Catalog Number	No. of Tools	Description	Cutting Edge Diameter	Cutting Edge Length	Shank Diameter	Overall Length
H25XAM-301005	5	Right-Hand Rotation Drill Bit	5 mm	27 mm	10 mm	57 mm
H25XAM-201005	4	Left-Hand Rotation Drill Bit				

H25XAM-7866-07 – V-Groove Cutter Tool Kit (6 pieces*)

Catalog Number	No. of Tools	Description	Cutting Edge Diameter	Cutting Edge Length	Shank Diameter	Overall Length
H25XAM-45705	1	60° V-Groove Cutter for Plastic, Wood, Solid Surfaces, Foam and Acrylic	1/2	5/8	1/4	1-3/4
H25XAM-45700		90° V-Groove Cutter for Plastic, Wood, Solid Surfaces, Foam and Acrylic	3/8	7/16		1-5/8
H25XAM-45704		90° V-Groove Cutter for Plastic, Wood, Solid Surfaces, Foam and Acrylic	1/2	1/2		1/2
H25XAM-45712		90° V-Groove Cutter for Plastic, Wood, Solid Surfaces, Foam and Acrylic	5/8	5/8	2-1/8	
H25XAM-45716		90° V-Groove Cutter for Plastic, Wood, Solid Surfaces, Foam and Acrylic	3/4		2-1/4	
H25XAM-45724		90° V-Groove Cutter for Plastic, Wood, Solid Surfaces, Foam and Acrylic	1			

* All Techno Tooling Kits come standard in a wooden case storage box.

Solid Wood & Wood Composites

- Single Edge
- Carbide-Tipped
- Straight Plunge



For Use On:

Hardwood: Ash, Beech, Birch, Cherry, Mahogany, Maple, Oak, Poplar, Teak and Walnut
Composite Wood: MDF, Particle Board and Plywood

Designed for general usage where longer tool life over high speed steel are essential. Single edge tools for slower feed rates.

Catalog Number	Cutting Edge Dia.	Cutting Edge Length	Shank Dia.	Overall Length
H25XAM-45100	1/8	7/16	1/4	2
H25XAM-45102	3/16			
H25XAM-45104	1/4	1/2		2-1/4
H25XAM-45108	3/8	1	3/8	2-1/2
H25XAM-45300		1-1/4	1/2	2-7/8
H25XAM-45308	1/2	2-1/2	1/2	4-3/8
H25XAM-45313				

- Double Edge
- Carbide-Tipped
- Straight Plunge



For Use On:

Hardwood: Ash, Beech, Birch, Cherry, Mahogany, Maple, Oak, Poplar, Teak and Walnut
Composite Wood: MDF, Particle Board and Plywood

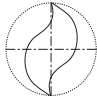
Designed for general usage where longer tool life over high speed steel are essential. Double edges tools for faster feed rates and smoother finish.

Catalog Number	Cutting Edge Dia.	Cutting Edge Length	Shank Dia.	Overall Length	
H25XAM-45190	1/16	3/16	1/4	1-5/8	
H25XAM-45200	1/8	7/16		2	
H25XAM-45239	3/16	5/8		2-3/16	
H25XAM-45204	1/4	1/2		2	
H25XAM-45211		1		2-7/8	
H25XAM-45216	3/8	3/4		2	
H25XAM-45402		1		2-1/2	
H25XAM-45404		1-1/4		3-3/8	
H25XAM-45419	1/2	3/4		3/8	2-1/4
H25XAM-45427		2-1/2		1/2	4-1/2

Production Down Shear - 3°

Solid Wood & Wood Composites

- Double Edge
- Solid Carbide
- Upcut Spiral Wood Rout



For Use On:

Softwood: Cedar, Cottonwood, Pine and Redwood

Hardwood: Ash, Beech, Birch, Cherry, Mahogany, Maple, Oak, Poplar, Teak and Walnut

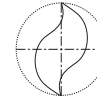
Composite Wood: MDF, Particle Board and Plywood

Designed for routing where upward chip removal, tool rigidity, long life and high quality finish is desired.

Catalog Number	Cutting Edge Dia.	Cutting Edge Length	Shank Dia.	Overall Length
Inch				
H25XOS-52-244	1/8	1/2	1/8	2
H24XAM-46100			1/4	
H25XOS-52-260	3/16	3/4	3/16	
H25XOS-52-264			1/4	
H25XAM-46102	1/4	1-1/8	1/4	2-1/2
H25XAM-46316			3/8	2-1/2
H25XAM-46103	3/8	1	3/8	2-1/2
H25XAM-46104			1-1/4	3
H25XAM-46106	1/2	1-1/8	1/2	3
H25XOS-52-360			1-5/8	3-1/2
H25XAM-46107			1-1/4	3
Metric				
mm				
H25XOS-52-410	4	16	6	64
H25XOS-52-411	5	20		
H25XOS-52-412	6	25	8	
H25XOS-52-414	8		10	
H25XOS-52-416	10	35	12	76
H25XOS-52-418	12		14	88
H25XOS-52-420	14	50	14	88
H25XOS-52-422	16	55	16	100
H25XOS-52-424	18	60	18	120
H25XOS-52-426	20		20	

Helix Angle ≈30°

- Double Edge
- Solid Carbide
- Downcut Spiral Wood Rout



For Use On:

Softwood: Cedar, Cottonwood, Pine and Redwood

Hardwood: Ash, Beech, Birch, Cherry, Mahogany, Maple, Oak, Poplar, Teak and Walnut

Composite Wood: MDF, Particle Board and Plywood

Designed for routing where downward chip removal, tool rigidity, long life and high quality finish is desired.

Catalog Number	Cutting Edge Dia.	Cutting Edge Length	Shank Dia.	Overall Length
Inch				
H25XAM-46200	1/8	1/2	1/4	2
H25XAM-46202	1/4	3/4		2-1/2
H25XAM-46416		1-1/8	1	3
H25XAM-46203	3/8	1	3/8	2-1/2
H25XAM-46204			1-1/4	3
H25XAM-46206	1/2	1-1/4	1/2	3-1/2
H25XAM-46207			1/2	
Metric				
mm				
H25XOS-57-410	4	16	6	64
H25XOS-57-411	5	20		
H25XOS-57-412	6	25	8	
H25XOS-57-414	8		10	
H25XOS-57-416	10	35	12	76
H25XOS-57-418	12		14	88
H25XOS-57-420	14	50	14	88
H25XOS-57-422	16	55	16	100
H25XOS-57-424	18	60	18	120
H25XOS-57-426	20		20	

Helix Angle ≈30°

Solid Wood & Wood Composites

- Double Edge
- Solid Carbide
- Straight Wood Rout



For Use On:

Softwood: Cedar, Cottonwood, Pine and Redwood

Hardwood: Ash, Beech, Birch, Cherry, Mahogany, Maple, Oak, Poplar, Teak and Walnut

Composite Wood: MDF, Particle Board and Plywood

Provides a superior finish in a variety of wood materials with a neutral cutting action.

Catalog Number	Cutting Edge Dia.	Cutting Edge Length	Shank Dia.	Overall Length
H25XOS-56-240	1/8	1/2	1/4	2
H25XAM-43808	3/16			
H25XAM-43812	1/4	1	1/4	2-1/2
H25XAM-43824				
H25XAM-43836	5/16	1-1/8	5/16	3
H25XOS-56-320	3/8		3/8	
H25XAM-43848	1/2		1/2	

- Three Edge
- Solid Carbide
- Low Helix Finisher



For Use On:

Softwood: Cedar, Cottonwood, Pine and Redwood

Hardwood: Ash, Beech, Birch, Cherry, Mahogany, Maple, Oak, Poplar, Teak and Walnut

Designed for perfect balance and ultrasmooth finish over a wide speed range.

UPCUT

Catalog Number	Cutting Edge Dia.	Cutting Edge Length	Shank Dia.	Overall Length
H25XOS-60-239	1/4	3/8	1/4	3
H25XOS-60-241		7/8		
H25XOS-60-243	3/8	5/8	3/8	
H25XOS-60-245	1/2	1-1/8	1/2	3-1/2
H25XOS-60-249				4
H25XOS-60-253				4-1/2
H25XOS-60-251	1/2	2-1/8	1/2	4-1/2

Helix Angle $\approx 10^\circ$

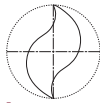
DOWNCUT

Catalog Number	Cutting Edge Dia.	Cutting Edge Length	Shank Dia.	Overall Length
H25XOS-60-240	1/4	3/8	1/4	3
H25XOS-60-242		7/8		
H25XOS-60-244	3/8	5/8	3/8	
H25XOS-60-246	1/2	1-1/8	1/2	4
H25XOS-60-250				4-1/2
H25XOS-60-252				4-1/2

Helix Angle $\approx 10^\circ$

Solid Wood & Wood Composites

- Double Edge
- Solid Carbide
- Chipbreaker Finisher



For Use On:

Softwood: Cedar, Cottonwood, Pine and Redwood

Hardwood: Ash, Beech, Birch, Cherry, Mahogany, Maple, Oak, Poplar, Teak and Walnut

Composite Wood: MDF, Particle Board and Plywood

For faster feed rates than a conventional two flute with a smooth finish.

UPCUT

Catalog Number	Cutting Edge Dia.	Cutting Edge Length	Shank Dia.	Overall Length
Inch				
H25XOS-60-307	3/8	1-1/8	3/8	3
H25XOS-60-311	1/2		1/2	
Metric				
		mm		
H25XOS-60-411	8	25	8	64
H25XOS-60-413	10	35	10	76
H25XOS-60-415	12		12	
H25XOS-60-417	16	55	16	100
H25XOS-60-419	18	65	18	120

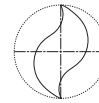
Helix Angle $\approx 30^\circ$

DOWNCUT

Catalog Number	Cutting Edge Dia.	Cutting Edge Length	Shank Dia.	Overall Length
Inch				
H25XOS-60-308	3/8	1-1/8	3/8	3
H25XOS-60-312	1/2		1/2	
Metric				
		mm		
H25XOS-60-412	8	25	8	64
H25XOS-60-414	10	35	10	76
H25XOS-60-416	12		12	
H25XOS-60-418	16	55	16	100
H25XOS-60-420	18	65	18	120

Helix Angle $\approx 30^\circ$

- Double Edge
- Solid Carbide
- Rougher



For Use On:

Softwood: Cedar, Cottonwood, Pine and Redwood

Hardwood: Ash, Beech, Birch, Cherry, Mahogany, Maple, Oak, Poplar, Teak and Walnut

Composite Wood: MDF, Particle Board and Plywood

Designed for use when faster feed rates cannot be achieved, or on low horsepower machines.

UPCUT

Catalog Number	Cutting Edge Dia.	Cutting Edge Length	Shank Dia.	Overall Length
H25XOS-60-815	3/8	1-3/8	3/8	3-1/2
H25XOS-60-825	1/2	1-3/8	1/2	3-1/2

Helix Angle $\approx 20^\circ$

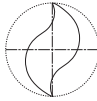
DOWNCUT

Catalog Number	Cutting Edge Dia.	Cutting Edge Length	Shank Dia.	Overall Length
H25XOS-60-816	3/8	1-3/8	3/8	3-1/2
H25XOS-60-826	1/2	1-3/8	1/2	3-1/2

Helix Angle $\approx 20^\circ$

Solid Wood & Wood Composites

■ **Rougher
Compression**



For Use On:

Softwood: Cedar, Cottonwood, Pine and Redwood

Laminated and Veneered Material

Hardwood: Ash, Beech, Birch, Cherry, Mahogany, Maple, Oak, Poplar, Teak and Walnut

Composite Wood: MDF, Particle Board and Plywood

Compression Rougher design allows for increased feedrates over a standard compression and provides a clean edge on the top and bottom surfaces. This tool excels in single- or stack-sheet plywood where the edge is hidden or covered.

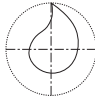
Catalog Number	Cutting Edge Dia.	Cutting Edge Length	Shank Dia.	Overall Length
H25XOS-60-855*	3/8	1-1/4	3/8	3-1/2
H25XOS-60-865*	1/2		1/2	4

Helix Angle $\approx 30^\circ$

*Mortise Compression

Double-Sided Laminates

- Single Edge
- Solid Carbide
- Compression Spiral



For Use On:

Laminated and Veneered

Double Sided Laminates and veneered materials.

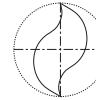
Composite Wood

MDF, Particle Board, Plywood

Compression design for optimum edge finish on both sides of laminated materials. Single edge designed for low speed applications.

Catalog Number	Cutting Edge Dia.	Cutting Edge Length	Shank Dia.	Overall Length
Inch				
H25XOS-60-102	1/8	3/8	1/4	2-1/2
H25XOS-60-106	3/16	5/8		
H25XAM-46140	1/4	7/8	3/8	3
H25XAM-46142	3/8			
H25XAM-46148	3/8	1-1/8	1/2	
H25XAM-46156	1/2			
Metric				
	mm			
H25XOS-60-132	6	25	6	64
H25XOS-60-134	8		8	
H25XOS-60-136	10	35	10	
H25XOS-60-138	12		12	

- Double Edge
- Solid Carbide
- Downcut Spiral Wood Rout



For Use On:

Laminated and Veneered

Double Sided Laminates and veneered materials.

Composite Wood

MDF, Particle Board, Plywood

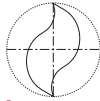
Compression design for optimum edge finish on both sides of laminated materials. Double edge design for faster feed rates and improved part finish.

Catalog Number	Cutting Edge Dia.	Cutting Edge Length	Shank Dia.	Overall Length
Inch				
H25XAM-46170	1/4	7/8	1/4	2-1/2
H25XAM-46174	3/8	1	1/2	3
H25XAM-46186	1/2	1-1/8		
Metric		mm		
H25XOS-60-133	6	25	6	64
H25XOS-60-135	8		8	
H25XOS-60-137	10	35	10	
H25XOS-60-139	12		12	

Helix Angle $\approx 30^\circ$

Double-Sided Laminates

- Double Edge
- Solid Carbide
- Chipbreaker/Finisher
- Compression Spiral



For Use On:

Laminated and Veneered:

Double Sided Laminated and Veneered Materials

Hardwood: Ash, Beech, Birch, Cherry, Mahogany, maple, Oak, Poplar, Teak and Walnut

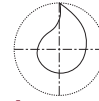
Composite Wood: MDF, Particle Board, Plywood

Compressed design for optimum edge finish on both sides of laminated materials. Chipbreaker/finisher designed for increased feed rates in hard and dense materials.

Catalog Number	Cutting Edge Dia.	Cutting Edge Length	Shank Dia.	Overall Length
Inch				
H25XOS-60-123C	3/8	7/8	3/8	3
H25XOS-60-124C		1-1/8		
H25XOS-60-163C	1/2	7/8	1/2	
H25XOS-60-169C		1-1/8		
Metric		mm		
H25XOS-60-135C	8	25	8	64
H25XOS-60-137C	10	35	10	76
H25XOS-60-139C	12		12	

Helix Angle ≈30°

- Single Edge
- Solid Carbide
- Mortise Compression Spiral



For Use On:

Laminated and Veneered:

Double Sided Laminated and Veneered Materials

Composite Wood: MDF, Particle Board, Plywood

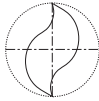
Mortise compression design for optimum edge finish on both sides of laminated materials. Short upcut design offers reduced small part movement and allows for mortise and rabbit cuts with same tool. Single edge design for low-speed applications.

Catalog Number	Cutting Edge Dia.	Cutting Edge Lgth.	Upcut Cutting Edge Lgth.	Shank Dia.	Overall Lgth.
Inch					
H25XOS-60-111	1/4	7/8	.175	1/4	2-1/2
H25XOS-60-121	3/8		.188	3/8	3
H25XOS-60-161	1/2	1-5/8	.200	1/2	3-1/2
H25XOS-60-166					
Metric		mm			
H25XOS-60-152	6	22	4	6	64
H25XOS-60-154	8			8	
H25XOS-60-156	10			10	
H25XOS-60-158	12			12	

Helix Angle ≈30°

Double-Sided Laminates

- Double Edge
- Solid Carbide
- Mortise Compression Spiral



For Use On:

Laminated and Veneered:

Doubled Sided Laminated and Veneered Materials

Composite Wood: MDF, Particle Board, Plywood

Mortise compression design for optimum edge finish on both sides of laminated materials. Short upcut design offers reduced small part movement and allows for mortise and rabbit cuts with same tool. Double edge design for faster feed rates and improved part finish.

Catalog Number	Cutting Edge Dia.	Cutting Edge Lgth.	Upcut Cutting Edge Lgth.	Shank Dia.	Overall Lgth.
Inch					
H25XOS-60-113	1/4	7/8	.188	1/4	2-1/2
H25XOS-60-123	3/8			3/8	3
H25XOS-60-127L		1-1/8	.200	1/2	3-1/2
H25XOS-60-173	1/2	1-3/8			
Metric					
mm					
H25XOS-60-152	10	22	4	10	76
H25XOS-60-154	12			12	

L = Left Rotation Tool

Hard Plastics

- Double Edge
- Solid Carbide
- Upcut Spiral O Flute



For Use On:

Hard Plastic: Cast and extruded acrylic, Melamine, Nylon, Polycarbonate, ABS, Acetal
Solid Surface

Low helix geometry designed to cut hard plastic with a smooth finish and upward chip flow.

Catalog Number	Cutting Edge Dia.	Cutting Edge Length	Shank Dia.	Overall Length
Inch				
H25XOS-52-622	1/4	3/8	1/4	2-1/2
H25XOS-52-624		3/4		
H25XOS-52-638	3/8	1	3/8	3
H25XOS-52-650	1/2	1-1/8	1/2	3-1/2
Metric				
H25XOS-52-626	6	25	6	64
H25XOS-52-640	8		8	76
H25XOS-52-642	10		10	88
H25XOS-52-644	12		12	

Helix Angle $\approx 11^\circ$

- Double Edge
- Solid Carbide
- Downcut Spiral O Flute



For Use On:

Hard Plastic: Cast and extruded acrylic, Melamine, Nylon, Polycarbonate, ABS, Acetal
Solid Surface

Designed to cut plastic with a smooth finish and downward chip flow.

Catalog Number	Cutting Edge Dia.	Cutting Edge Length	Shank Dia.	Overall Length
Inch				
H25XOS-57-623	1/4	3/8	1/4	2-1/2
H25XAM-46413		3/4		
H25XOS-57-637	3/8	1	3/8	3
H25XOS-57-651	1/2	1-1/8	1/2	3-1/2
Metric				
H25XOS-57-627	6	25	6	64
H25XOS-57-639	8		8	76
H25XOS-57-643	10		10	88
H25XOS-57-645	12		12	

Helix Angle $\approx 10-11^\circ$

Hard Plastics

- Double Edge
- Solid Carbide
- Straight

For Use On:

Hard Plastic: Cast and extruded acrylic, Melamine, Nylon, Polycarbonate, ABS, Acetal

Designed specifically to rout harder, more rigid plastics. The straight flute design helps to reduce part lifting in thin sheet applications



Catalog Number	Cutting Edge Diameter	Cutting Edge Length	Shank Diameter	Overall Length
Inch				
H25XOS-56-041	1/8	1/4	1/4	2
H25XOS-56-061	3/16	3/8		
H25XOS-56-081	1/4	3/4	3/8	2-1/2
H25XOS-56-082		7/8		
H25XOS-56-122	1/2	1	1/2	3
Metric				
		mm		
H25XOS-56-450	4	16	6	64
H25XOS-56-451	5	20		
H25XOS-56-452	6	25	8	76
H25XOS-56-454	8			
H25XOS-56-456	10	35	10	88
H25XOS-56-458	12			

Hard Plastics

- Three Edge
- Solid Carbide
- Low Helix Finisher

For Use On:

Hard Plastic: Cast and extruded acrylic, Melamine, Nylon, Polycarbonate, ABS, Acetal

Solid Surface

Designed for perfect balance and ultrasmooth finish over a wide speed range.



UPCUT

Catalog Number	Cutting Edge Dia.	Cutting Edge Length	Shank Dia.	Overall Length
Inch				
H25XOS-60-239	1/4	3/8	1/4	3
H25XOS-60-241		7/8		
H25XOS-60-243	3/8	5/8	3/8	
H25XOS-60-245		1-1/8		
H25XOS-60-249	1/2	2-1/8	1/2	3-1/2
H25XOS-60-251				4-1/2
Metric				
H25XOS-60-481	6	25	6	76
H25XOS-60-471	8		8	
H25XOS-60-473	10	35	10	
H25XOS-60-475	12		12	
H25XOS-60-483	14	45	14	110

Helix Angle $\approx 10^\circ$

DOWNCUT

Catalog Number	Cutting Edge Dia.	Cutting Edge Length	Shank Dia.	Overall Length
Inch				
H25XOS-60-240	1/4	3/8	1/4	3
H25XOS-60-242		7/8		
H25XOS-60-244	3/8	5/8	3/8	
H25XOS-60-246		1-1/8		
H25XOS-60-250	1/2	2-1/8	1/2	3-1/2
H25XOS-60-252				4-1/2
Metric				
H25XOS-60-482	6	25	6	76
H25XOS-60-472	8		8	
H25XOS-60-474	10	35	10	
H25XOS-60-476	12		12	
H25XOS-60-484	14	45	14	110

Helix Angle $\approx 10^\circ$

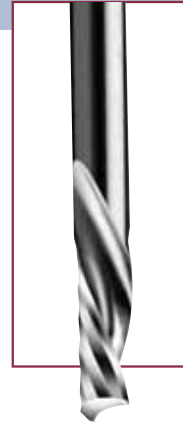
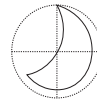
Hard Plastics

- Single Edge
- Solid Carbide
- Downcut Spiral O Flute

For Use On:

Hard Plastic: Cast and extruded acrylic, Melamine, Nylon, Polycarbonate, ABS, Acetal

Designed to provide a smooth finish in hard plastics. The down cut spiral helps maximize part holding.



METRIC

Catalog Number	Cutting Edge Dia.	Cutting Edge Length	Shank Dia.	Overall Length
H25XAM-51510	1/8	1/2	1/8	2
H25XOS-62-712			1/4	
H25XOS-62-719	3/16	5/8	3/16	
H25XAM-51504	1/4	3/4	1/4	
H25XOS-62-727		1-1/2		3
H25XOS-62-733		3/8		
H25XOS-62-740	1/2	1-5/8	1/2	3-1/2

Helix Angle ≈21°

Catalog Number	Cutting Edge Dia. mm	Cutting Edge Length mm	Shank Dia. mm	Overall Length mm
H25XOS-62-802	2	8	2	50
H25XOS-62-804			6	64
H25XOS-62-806	2.5	8	2.5	50
H25XOS-62-808			6	64
H25XOS-62-810			3	50
H25XOS-62-812	3	12	6	64
H25XOS-62-814			3	
H25XOS-62-816			6	
H25XOS-62-818	4	8	4	
H25XOS-62-820		12		
H25XOS-62-822		20		
H25XOS-62-824		30		
H25XOS-62-826	5	16	4	
H25XOS-62-828			5	
H25XOS-62-830			6	
H25XOS-62-832	6	30	6	
H25XOS-62-834		8		
H25XOS-62-836		12		
H25XOS-62-838		20		
H25XOS-62-840	8	30	8	
H25XOS-62-842		38		
H25XOS-62-844		25		
H25XOS-62-846	10	38	10	
H25XOS-62-848		30		
H25XOS-62-849		35		
H25XOS-62-847		38		

Helix Angle ≈21°

Hard Plastics

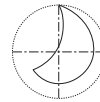
- Single Edge
- Solid Carbide
- Upcut Spiral O Flute

For Use On:

Hard Plastic: Cast and extruded acrylic, Melamine, Nylon, Polycarbonate, ABS, Acetal

Solid Surface

Designed to provide a smooth finish in hard plastics with upward chip removal.



METRIC

Catalog Number	Cutting Edge Dia.	Cutting Edge Length	Shank Dia.	Overall Length
H25XOS-63-701	1/16	1/4	1/8	2
H25XOS-63-700			1/4	
H25XOS-63-711	1/8	1/2	1/8	
H25XAM-51410			1/4	
H25XOS-63-743*			3/16	
H25XOS-63-716	3/16	3/8	3/16	
H25XOS-63-718		5/8		
H25XOS-63-724	1/4	3/8	1/4	
H25XOS-63-744*		3/4		
H25XAM-51404		1-1/2		
H25XOS-63-727		3		
H25XOS-63-730	3/8	5/8	3/8	2-1/2
H25XOS-63-733		1-1/8	3	
H25XOS-63-745*		1-5/8	3-1/2	
H25XOS-63-746*	1/2		1/2	

Helix Angle ≈21°

*Special point for improved bottom finish.

Catalog Number	Cutting Edge Dia. mm	Cutting Edge Length mm	Shank Dia. mm	Overall Length mm	
H25XOS-63-802	2	8	2	50	
H25XOS-63-804			6	64	
H25XOS-63-806	2.5		2.5	50	
H25XOS-63-808			6	64	
H25XOS-63-810	3		3	50	
H25XOS-63-812			6		
H25XOS-63-814	3		12	3	64
H25XOS-63-816				6	
H25XOS-63-818	4		8	4	
H25XOS-63-820			12		
H25XOS-63-822	4	20	6		
H25XOS-63-824		30		4	
H25XOS-63-826	5	16	5	76	
H25XOS-63-828			6		
H25XOS-63-830	5	30	5		
H25XOS-63-832		30			
H25XOS-63-834	6	8	6		
H25XOS-63-836		12			
H25XOS-63-838	6	20	6		
H25XOS-63-840		30			
H25XOS-63-842	8	38	8		64
H25XOS-63-844		25			
H25XOS-63-846	8	38	8	76	
H25XOS-63-848		30			10
H25XOS-63-849	10	35	10		
H25XOS-63-847		38		12	

Helix Angle ≈21°

Hard Plastics

- Single Edge
- Solid Carbide
- Downcut Spiral O Flute



For Use On:

Hard Plastic: Cast and extruded acrylic, Melamine, Nylon, Polycarbonate, ABS, Acetal
Solid Surface

The polished flute allows for a razor sharp cutting edge finish. The down cut spiral helps improve part holding.

Catalog Number	Cutting Edge Dia.	Cutting Edge Length	Shank Dia.	Overall Length
H25XOS-64-000	1/16	1/4	1/8	2
H25XOS-64-012	1/8	1/2	1/4	
H25XOS-64-016	3/16	3/8	3/16	
H25XOS-64-018		5/8	1/4	
H25XOS-64-024	1/4	3/8		3
H25XOS-64-025		3/4		
H25XOS-64-026	3/8	1-1/4		3/8
H25XOS-64-031		3/4		
H25XOS-64-033		1-1/8		

Helix Angle ≈21°

- Single Edge
- Solid Carbide
- Upcut Spiral O Flute



For Use On:

Hard Plastic: Cast and extruded acrylic, Melamine, Nylon, Polycarbonate, ABS, Acetal
Soft Plastic: ABS, Polycarbonate, Polyethylene, PVC, Polypropylene, HDPE, Polystyrene, UHMW, and Extruded Acrylic
Solid Surface

The polished flute allows for razor sharp cutting edge and easy chip evacuation.

Catalog Number	Cutting Edge Dia.	Cutting Edge Length	Shank Dia.	Overall Length
H25XOS-65-000	1/16	1/4	1/8	2
H25XOS-65-010	1/8		1/4	
H25XOS-65-013		3/16	1/2	
H25XOS-65-012	1/4			
H25XOS-65-019	3/16	5/8	1/4	3
H25XOS-65-018		1-1/4		
H25XOS-65-020	1/4	5/8	1/4	2
H25XOS-65-023		7/8		
H25XOS-65-025		1-1/4		3
H25XOS-65-026		1-1/2		
H25XOS-65-027	3/8	1-1/8	3/8	3
H25XOS-65-033		1-1/8		

Helix Angle ≈21°

Soft Plastics

- Double Edge
- Solid Carbide
- Upcut Spiral O Flute



For Use On:

Soft Plastic: ABS, Polycarbonate, Polyethylene, PVC, Polypropylene, HDPE, Polystyrene, UHMW, Foam, and Extruded Acrylic
Foam

High helix geometry designed to cut soft plastic with a smooth finish and upward chip flow. Special point geometry for improved bottom finish.

Catalog Number	Cutting Edge Dia.	Cutting Edge Length	Shank Dia.	Overall Length
Inch				
H25XAM-46313	1/4	3/4	1/4	2-1/2
H25XOS-52-701	3/8	1-1/2	3/8	4
H25XOS-52-702	1/2	1-1/4	1/2	
H25XOS-52-704		1-3/4		
H25XOS-52-706		2-1/8		
Metric		mm		
H25XOS-52-742	12	35	12	100
H25XOS-52-744		45		
H25XOS-52-746		55		

Helix Angle ≈22°

- Double Edge
- Solid Carbide
- Downcut Spiral O Flute



For Use On:

Soft Plastic: ABS, Polycarbonate, Polyethylene, PVC, Polypropylene, HDPE, Polystyrene, UHMW, and Extruded Acrylic
Solid Surface

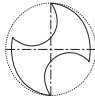
Designed to cut plastic with a smooth finish and downward chip flow.

Catalog Number	Cutting Edge Dia.	Cutting Edge Length	Shank Dia.	Overall Length
Inch				
H25XOS-57-623	1/4	3/8	1/4	2-1/2
H25XAM-46413		3/4		
H25XOS-57-637	3/8	1	3/8	3
H25XOS-57-651	1/2	1-1/8	1/2	3-1/2
Metric		mm		
H25XOS-57-627	6	25	6	64
H25XOS-57-639	8		8	76
H25XOS-57-643	10		10	
H25XOS-57-645	12		35	12

Helix Angle ≈10-11°

Soft Plastics

- Double Edge
- Solid Carbide
- Straight O Flute

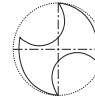


For Use On:

Soft Plastic: Acrylic, Melamine, Nylon, Polycarbonate, ABS, PE, Acetal, PET, HDPE and UHMW

Designed with free cutting O flute geometry along with a double flute design for smooth finish.

- Double Edge
- Solid Carbide
- Straight O Flute



For Use On:

Soft Plastic: ABS, Polycarbonate, Polyethylene, PVC, Polypropylene, HDPE, Polystyrene, UHMW, and Extruded Acrylic

Designed with free cutting O flute geometry along with a double flute for improved part finish. The straight flute design helps to reduce part lifting in thin sheet applications.

METRIC

Catalog Number	Cutting Edge Dia. mm	Cutting Edge Length mm	Shank Dia. mm	Overall Length mm
H25XOS-56-430	4	16	6	64
H25XOS-56-431	5	20		
H25XOS-56-432	6	25		
H25XOS-56-434	8		8	76
H25XOS-56-436	10	35	10	88
H25XOS-56-438	12		12	

Catalog Number	Cutting Edge Dia.	Cutting Edge Length	Shank Dia.	Overall Length	
H25XOS-56-610	1/8	5/16	1/4	2	
H25XAM-43600		1/2			
H25XAM-43604	3/16	5/8			
H25XOS-56-624	1/4	3/8			2-1/2
H25XAM-43608		1			
H25XOS-56-628		1-1/4			
H25XAM-43612	3/8	1	3/8	2-1/2	
H25XAM-43616	1/2		2-1/8	1/2	3
H25XOS-56-655		2-1/8	6		

Soft Plastics

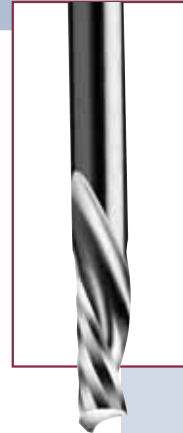
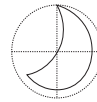
- Single Edge
- Solid Carbide
- Downcut Spiral O Flute

For Use On:

Soft Plastic: ABS, Polycarbonate, Polyethylene, PVC, Polypropylene, HDPE, Polystyrene, UHMW, and Extruded Acrylic

Solid Surface

Designed to provide a smooth finish in soft plastic with downward chip removal.



METRIC

Catalog Number	Cutting Edge Dia.	Cutting Edge Length	Shank Dia.	Overall Length
H25XAM-51510	1/8	1/2	1/8	2
H25XOS-62-762			1/4	
H25XAM-51512	3/16	5/8	3/16	
H25XAM-51504			3/4	
H25XOS-62-777	1/4	1-1/2	1/4	3
H25XOS-62-783			3/8	
H25XOS-62-790	1/2	1-5/8	1/2	

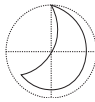
Helix Angle ≈21°

Catalog Number	Cutting Edge Dia. mm	Cutting Edge Length mm	Shank Dia. mm	Overall Length mm	
H25XOS-62-852	2	8	2	50	
H25XOS-62-854			6	64	
H25XOS-62-856	2.5	8	2.5	50	
H25XOS-62-858			6	64	
H25XOS-62-860	3	8	3	50	
H25XOS-62-862			6		
H25XOS-62-864	3	12	3	64	
H25XOS-62-866			6		
H25XOS-62-868	4	8	4		
H25XOS-62-870			12		
H25XOS-62-872	4	20	6		
H25XOS-62-874			30		
H25XOS-62-876	5	16	4		
H25XOS-62-878			5		
H25XOS-62-880	5	30	6		
H25XOS-62-882			5		
H25XOS-62-884	6	8	6		76
H25XOS-62-886			12		
H25XOS-62-888	6	20	6		
H25XOS-62-890			30		
H25XOS-62-892	8	38	6		
H25XOS-62-894			25		
H25XOS-62-896	8	38	8	64	
H25XOS-62-898			10		
H25XOS-62-899	10	35	10	76	
H25XOS-62-897			12		

Helix Angle ≈21°

Soft Plastics

- Single Edge
- Solid Carbide
- Straight O Flute



For Use On:

Soft Plastic: ABS, Polycarbonate, Polyethylene, PVC, Polypropylene, HDPE, Polystyrene, UHMW, and Extruded Acrylic

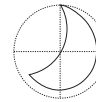
Designed to combine the fast free cutting of O flute geometry with the tool life available from solid carbide particularly in small diameters.

Catalog Number	Cutting Edge Dia.	Cutting Edge Length	Shank Dia.	Overall Length
H25XAM-43500	1/8	1/2	1/4	2
H25XOS-61-045			1/8	3
H25XOS-61-043	3/16	5/8	1/4	4
H25XOS-61-064			3/16	2-1/2
H25XAM-43504				2
H25XOS-61-081	1/4	3/8	1/4	2-1/2
H25XAM-43508		3/4		
H25XOS-61-084*		1-1/4		
H25XOS-61-121	3/8	5/8	3/8	2-1/2
H25XAM-43156				
H25XAM-43520		1		

Helix Angle $\approx 22^\circ$

*This tool is designed and toleranced for air routers with guide bushings.

- Single Edge
- Solid Carbide
- Downcut Spiral O Flute



For Use On:

Soft Plastic: ABS, Polycarbonate, Polyethylene, PVC, Polypropylene, HDPE, Polystyrene, UHMW, and Extruded Acrylic

Solid Surface

The polished flute allows for razor sharp cutting edge and easy chip evacuation. The down cut spiral helps improve part holding.

Catalog Number	Cutting Edge Dia.	Cutting Edge Length	Shank Dia.	Overall Length
H25XOS-64-000	1/16	1/4	1/8	2
H25XOS-64-012	1/8	1/2	1/4	
H25XOS-64-016	3/16	3/8	3/16	
H25XOS-64-018		5/8		
H25XOS-64-024		3/8		
H25XOS-64-025	1/4	3/4	1/4	
H25XOS-64-026		1-1/4		
H25XOS-64-031	3/8	3/4	3/8	3
H25XOS-64-033		1-1/8		

Helix Angle $\approx 21^\circ$

Nonferrous Metals

- Single Edge
- Solid Carbide
- Downcut Spiral O Flute



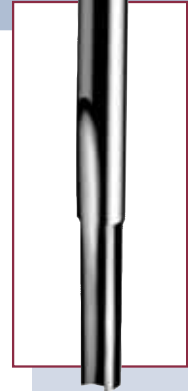
For Use On:
Aluminum

High-speed cutters for machining aluminum sheet material. These tools are optimized for use on high-speed CNC mills, high-speed machining centers and CNC routers.

Catalog Number	Cutting Edge Dia.	Cutting Edge Length	Shank Dia.	Overall Length
H25XOS-62-602	1/16	1/4	1/8	1-1/2
H25XAM-51506	1/8	5/16		
H25XOS-62-610			1/2	1/4
H25XOS-62-612	3/16	3/8	3/16	1-1/2
H25XAM-51508		1/2	1/4	2
H25XOS-62-620	3/8			
H25XAM-51502	5/8			
H25XOS-62-624	1/4	1-1/4	3/8	3
H25XOS-62-625	3/8	3/4		

Helix Angle $\approx 22^\circ$

- Single Edge
- Solid Carbide
- Straight



For Use On:
Aluminum

Designed to combine the fast free-cutting of O flute geometry with a neutral cutting action when fixturing and top finish are primary considerations.

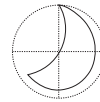
Catalog Number	Cutting Edge Dia.	Cutting Edge Length	Shank Dia.	Overall Length
H25XAM-43500	1/8	1/2	1/4	2
H25XAM-43504	3/16	5/8		
H25XAM-43508	1/4	3/4		
H25XOS-61-100	5/16	13/16	3/8	2-1/2
H25XOS-61-120	3/8	7/8		

Nonferrous Metals

- Single Edge
- Solid Carbide
- Upcut Spiral O Flute

For Use On:
Aluminum

High-speed cutters for machining aluminum sheet and block material. These tools are optimized for use on high-speed CNC mills, high-speed machining centers and CNC routers.



METRIC

Catalog Number	Cutting Edge Dia.	Cutting Edge Length	Shank Dia.	Overall Length
H25XOS-63-602	1/16	1/4	1/8	1-1/2
H25XOS-63-603	3/32			2
H25XAM-51406	1/8	5/16	1/8	1-1/2
H25XOS-63-610		1/2	1/4	2
H25XOS-63-612	3/16	3/8	3/16	1-1/2
H25XAM-51408		1/2	1/4	2
H25XOS-63-620	3/8			
H25XAM-51402	5/8			
H25XOS-63-624	1-1/4	3		
H25XOS-63-629	5/16	9/16	5/16	2-1/2
H25XOS-63-626	3/8	1-1/8	3/8	3

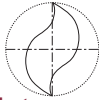
Helix Angle ≈22°

Catalog Number	Cutting Edge Dia. mm	Cutting Edge Length mm	Shank Dia. mm	Overall Length mm
H25XOS-63-902	2	6	2	50
H25XOS-63-904			6	64
H25XOS-63-906	2.5	6	2.5	50
H25XOS-63-908			6	64
H25XOS-63-910	3	8	3	50
H25XOS-63-912			6	
H25XOS-63-914	3	12	3	64
H25XOS-63-916			6	
H25XOS-63-918	4	8	4	64
H25XOS-63-920				
H25XOS-63-922	4	20	6	64
H25XOS-63-924				
H25XOS-63-926	5	16	5	64
H25XOS-63-928				
H25XOS-63-930	6	8	6	76
H25XOS-63-932				
H25XOS-63-934	6	20	6	64
H25XOS-63-936				
H25XOS-63-938	6	30	8	64
H25XOS-63-940				
H25XOS-63-942	8	25	8	76
H25XOS-63-944				
H25XOS-63-946	10	30	10	64
H25XOS-63-948				
H25XOS-63-950	12	38	12	76

Helix Angle ≈22°

Nonferrous Metals

- Double Edge
- Solid Carbide
- Upcut Spiral O Flute



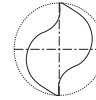
For Use On:
Aluminum
Solid Surface

Designed as a general purpose spiral with several times the life of their high-speed counterparts. They are used when upward chip flow is preferred.

Catalog Number	Cutting Edge Dia.	Cutting Edge Length	Shank Dia.	Overall Length
H25XAM-46100	1/8	1/2	1/4	2
H25XAM-46101	3/16	3/4		
H25XOS-52-100	5/16	13/16	3/8	2-1/2
H25XOS-52-120	3/8	7/8		

Helix Angle $\approx 30^\circ$

- Double Edge
- Solid Carbide
- Upcut Spiral O Flute



For Use On:
Aluminum
Solid Surface

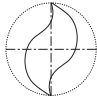
Designed as a general purpose spiral with several times the life of their high-speed counterparts. They are used when upward chip flow is preferred.

Catalog Number	Cutting Edge Dia.	Cutting Edge Length	Shank Dia.	Overall Length
H25XAM-46200	1/8	1/2	1/4	2
H25XAM-46201	3/16	3/4		
H25XOS-57-100	5/16	13/16	3/8	2-1/2
H25XOS-57-120	3/8	7/8		

Helix Angle $\approx 30^\circ$

Specialty Tools

- Double Edge
- Solid Carbide
- Foam Cutters



For Use On:
Foam

Foam cutters for thick material with upward chip flow.

Catalog Number	Cutting Edge Dia.	Cutting Edge Length	Shank Dia.	Overall Length
H25XOS-52-554	1/8	1-1/8	1/4	2-1/2
H25XOS-52-558	3/16	1-5/8	3/16	
H25XOS-52-560				3
H25XOS-52-564	1/4	2-1/4	1/4	4
H25XOS-52-570	5/16	3-1/8	5/16	4-1/2
H25XOS-52-574	3/8	3-1/2	3/8	5

Helix Angle $\approx 25^\circ$

- Four Edge
- High-Speed Steel
- Upcut Spiral Foam Cutters



For Use On:
Foam

Designed to cut thick foam with upward chip flow.

Catalog Number	Cutting Edge Dia.	Cutting Edge Length	Shank Dia.	Overall Length
H25XOS-40-562	1/2	3-5/8	1/2	6
H25XOS-40-564		4-1/8		6-1/2

Helix Angle $\approx 25^\circ$

Specialty Tools

■ Solid Carbide Edge Rounding

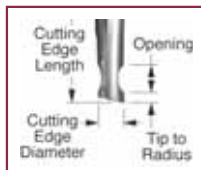
For Use On:

Soft Plastic: ABS, Polycarbonate, Polyethylene, PVC, Polypropylene, HDPE, Polystyrene, UHMW, and Extruded Acrylic

Hard Plastic: Cast Acrylic, Melamine, Nylon, PVC and Vinyl

Solid Surface

Designed for rounding the edge of sheets or parts. They come in both single edge and double edge.



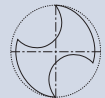
**Single Edge
Straight O Flute**



**Single Edge
Spiral O Flute**



**Double Edge
Straight O Flute**



SINGLE EDGE

Catalog Number	Cutting Edge Dia.	Cutting Edge Length	Shank Dia.	Overall Length	Opening	Radius	SM Cutting Edge Dia.	Tip to Radius	Plastic Size
Straight O Flute									
H25XOS-66-082	1/4	3/8	1/4	2-1/2	5/32	1/8	.195	1/16	1/8
H25XOS-66-083					7/32	3/16	.180		3/16
H25XOS-66-084					9/32	1/4	.163		1/4
Spiral O Flute									
H25XOS-66-085	1/4	3/8	1/4	2-1/2	5/32	1/8	.195	1/16	1/8
H25XOS-66-086					7/32	3/16	.180		3/16
H25XOS-66-087					9/32	1/4	.163		1/4

Helix Angle ≈22°

DOUBLE EDGE STRAIGHT O FLUTE

Catalog Number	Cutting Edge Dia.	Cutting Edge Length	Shank Dia.	Overall Length	Opening	Radius	SM Cutting Edge Dia.	Tip to Radius	Plastic Size
Inch									
H25XOS-66-092	1/4	3/8	1/4	2-1/2	5/32	1/8	.195	1/16	1/8
H25XOS-66-093					7/32	3/16	.180		3/16
H25XOS-66-094					9/32	1/4	.163		1/4
Metric									
mm									
H25XOS-66-073	6	10	6	64	4	3	4.47	1.5	3
H25XOS-66-074					5	4	4.24		4
H25XOS-66-075					6	5	3.96		5
H25XOS-66-076					7	6	3.73		6

Specialty Tools

■ **Solid Carbide Edge Rounding**

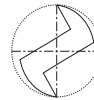
For Use On:

Soft Plastic: ABS, Polycarbonate, Polyethylene, PVC, Polypropylene, HDPE, Polystyrene, UHMW, and Extruded Acrylic

Hard Plastic: Cast Acrylic, Melamine, Nylon, PVC and Vinyl

Solid Surface

Designed for rounding the edge of sheets or parts. They come in both single edge and double edge.



DOUBLE EDGE STRAIGHT V FLUTE

Catalog Number	Cutting Edge Dia.	Cutting Edge Length	Shank Dia.	Overall Length	Opening	Radius	SM Cutting Edge Dia.	Tip to Radius	Plastic Size
Inch									
H25XOS-66-120	3/8	3/8	3/8	2-1/2	5/32	1/8	.320	1/16	1/8
H25XOS-66-121					3/8	3/16	.305		3/16
H25XOS-66-122		1/4			.288	1/4			
H25XOS-66-123	1/2	3/8	1/2	3	13/32	3/8	.255		3/8
H25XOS-66-160	1/2	3/8	1/2	3	5/32	1/8	.445		1/8
H25XOS-66-161					3/8	3/16	.430		3/16
H25XOS-66-162		1/4			.413	1/4			
H25XOS-66-163		5/8			1/2	.347	1/2		
Metric									
mm									
H25XOS-66-077	8	12	8	64	9	8	5.21	1.5	8
H25XOS-66-078	10	14	10	70	11	10	6.68		10
H25XOS-66-079	12	16	12	76	13	12	8.18		12

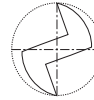
Specialty Tools

- Double Edge
- Solid Carbide
- Rout & Chamfer

For Use On:

Soft Plastic: ABS, Polycarbonate, Polyethylene, PVC, Polypropylene, HDPE, Polystyrene, UHMW, and Extruded Acrylic

Hard Plastic: Cast Acrylic, Melamine, Nylon, PVC and Vinyl



Designed to provide up to a 1/16 top face chamfer and a finished side edge on plastic sheets or parts.

Catalog Number	Cutting Edge Diameter	Cutting Edge Length	Shank Diameter	Overall Length	Material Thickness
H25XOS-66-200	1/4	3/16	3/8	2-1/4	1/8
H25XOS-66-202	3/8		1/2	3	
H25XOS-66-204	1/4	1/4	3/8	2-1/4	3/16
H25XOS-66-206	3/8		1/2	3	
H25XOS-66-208	1/4	5/16	3/8	2-1/4	1/4
H25XOS-66-210	3/8		1/2	3	

Helix Angle ~0°

Specialty Tools

- Double Edge
- Solid Carbide
- Upcut Bottom Surfacing

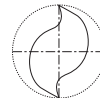
For Use On:

Soft Plastic: ABS, Polycarbonate, Polyethylene, PVC, Polypropylene, HDPE, Polystyrene, UHMW, and Extruded Acrylic

Hard Plastic: Cast Acrylic, Melamine, Nylon, PVC and Vinyl

Aluminum

Solid Surface



Designed for pocketing applications where the bottom of the pocket must be smooth.

Catalog Number	Cutting Edge Diameter	Corner Radius	Cutting Edge Length	Shank Diameter	Overall Length
H25XOS-66-306	1/8	.020	1/4	1/8	2
H25XOS-66-307		.002			
H25XOS-66-308		.020			
H25XOS-66-309		.002			
H25XOS-66-314	1/4	.030	3/8	1/4	
H25XOS-66-315		.002			
H25XOS-66-320	3/8	.030	5/8	3/8	2-1/2
H25XOS-66-321		.002			
H25XOS-66-326	1/2	.030	7/8	1/2	3
H25XOS-66-327		.002			
H25XOS-66-328	3/4	.040	1-1/8	3/4	

Helix Angle ≈30°

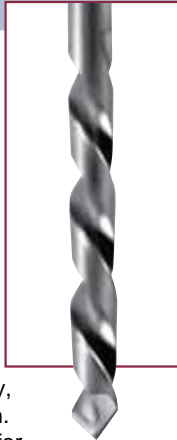
Specialty Tools

■ Plastic Drills with Special Point

For Use On:

Soft Plastic: ABS, Polycarbonate, Polyethylene, PVC, Polypropylene, HDPE, Polystyrene, UHMW, and Extruded Acrylic

Hard Plastic: Cast Acrylic, Melamine, Nylon, PVC and Vinyl



Special tool steel, surface-treated body, flute and point for maximum lubrication. Point is precision ground at 60° angle for gradual penetration to minimize cracking and chipping of plastic materials. 0° rake angle on the cutting edge eliminates grabbing as the drill comes through the plastic surface.

Catalog Number	Cutting Edge Dia.	Cutting Edge Length	Shank Dia.	Overall Length
Fractional Drills				
H25XOS-70-502	1/8	1-1/2	1/8	2-3/4
H25XOS-70-503	9/64	1-3/4	9/64	2-7/8
H25XOS-70-506	5/32	1-15/16	5/32	3-1/8
H25XOS-70-509	11/64	1-3/4	11/64	3-1/4
H25XOS-70-510	3/16	2-1/8	3/16	3-1/2
H25XOS-70-511	13/64	2-7/16	13/64	3-5/8
H25XOS-70-512	7/32	2-1/2	7/32	3-3/4
H25XOS-70-513	15/64	2-5/8	15/64	3-7/8
H25XOS-70-514*	1/4	2-7/16	1/4	4
H25XOS-70-515	17/64	2-7/8	17/64	4-1/8
H25XOS-70-516	9/32	2-15/16	9/32	4-1/4
H25XOS-70-517	19/64	3-1/16	19/64	4-3/8
H25XOS-70-520*	5/16	1-3/4	5/16	3-1/8
H25XOS-70-521	21/64	3-5/16	21/64	4-5/8
H25XOS-70-522	11/32	3-7/16	11/32	4-3/4
H25XOS-70-523	23/64	3-1/2	23/64	4-7/8
H25XOS-70-524*	3/8	2-1/4	3/8	4-3/8
H25XOS-70-525	25/64	3-3/4	25/64	5-1/8
H25XOS-70-526	13/32	3-7/8	13/32	5-1/8
H25XOS-70-527	27/64	3-15/16	27/64	5-3/8
H25XOS-70-528*	7/16	2-1/2	7/16	4-3/4
H25XOS-70-529	29/64	4-3/16	29/64	5-5/8
H25XOS-70-530	15/32	4-5/16	15/32	5-3/4
H25XOS-70-531	31/64	4-3/8	31/64	5-7/8

*Shank length 7/8

Catalog Number	Cutting Edge Dia.	Cutting Edge Length	Shank Dia.	Overall Length
H25XOS-70-532*	1/2	2-5/8	1/2	5-1/8
H25XOS-70-533	33/64	3-1/8	1/2	6
H25XOS-70-534	17/32			
H25XOS-70-535	35/64			
H25XOS-70-536	9/16			
H25XOS-70-537	37/64			
H25XOS-70-538	19/32			
H25XOS-70-539	39/64	3-1/8	1/2	6
H25XOS-70-540	5/8			
H25XOS-70-541	41/64			
H25XOS-70-542	21/32			
H25XOS-70-543	43/64			
H25XOS-70-544	11/16			
H25XOS-70-545	45/64			
H25XOS-70-546	23/32			
H25XOS-70-547	47/64			
H25XOS-70-548	3/4	25/32	3-1/8	1/2
H25XOS-70-549	49/64			
H25XOS-70-550	51/64			
H25XOS-70-551	13/16	3-1/8	1/2	6
H25XOS-70-552	53/64			
H25XOS-70-553	27/32			
H25XOS-70-554	55/64			
H25XOS-70-555	7/8			
H25XOS-70-557	57/64			
H25XOS-70-558	29/32			
H25XOS-70-559	59/64			
H25XOS-70-560	61/64			
H25XOS-70-561	31/32			
H25XOS-70-562	63/64			
H25XOS-70-563	63/64			

Specialty Tools

■ Engraving Tools

For Use On:

Softwood: Cedar, Cottonwood, Pine and Redwood

Hardwood: Ash, Beech, Birch, Cherry, Mahogany, Maple, Oak, Poplar, Teak and Walnut

Soft Plastic: ABS, Polycarbonate, Polyethylene, PVC, Polypropylene, HDPE, Polystyrene, UHMW, and Extruded Acrylic

Hard Plastic: Cast Acrylic, Melamine, Nylon, PVC and Vinyl

Aluminum

Solid Surface



The engraving tools are offered with a wide range of tip sizes and angles to accommodate many engraving styles.

Catalog Number	Cutting Edge Diameter	Overall Length	Shank Diameter	Cut Type	Suggested Use
H25A00-18112005	0.005"	1-1/2	1/8	30° From Vertical	General Engraving
H25A00-18112010	0.010"				
H25A00-18112020	0.020"				
H25A00-18112005B	0.005"			15° From Vertical	Engraving Brass/Aluminum
H25A00-18112010B	0.010"				
H25A00-18112005F	0.005"				
H25A00-18112010F	0.010"				
H25X00-ENGRAVE	14-Bit Solid Carbide Engraving Kit Includes 2-pieces of each bit in the table above.				



Available 14-Bit Solid Carbide Engraving Kit

Profile Tooling

- Single Edge
- Solid Carbide
- V Bottom

For Use On:

Softwood: Cedar, Cottonwood, Pine and Redwood

Hardwood: Ash, Beech, Birch, Cherry, Mahogany, Maple, Oak, Poplar, Teak and Walnut

Composite Wood: MDF, Particle Board and Plywood

Soft Plastic: ABS, Polycarbonate, Polyethylene, PVC, Polypropylene, HDPE, Polystyrene, UHMW, and Extruded Acrylic

Hard Plastic: Cast Acrylic, Melamine, Nylon, PVC and Vinyl

Solid Surface

Laminated and Veneered



Designed for V grooving or beveling 90°.

Catalog Number	Cutting Edge Dia.	Cutting Edge Lgth.	Shank Dia.	Overall Length	Bevel Angle
Solid Carbide					
H25XOS-37-50	3/16	5/8	1/4	2	90°
H25XAM-45780		1/2			82.5°
H25XOS-37-51	1/4	3/4		1-1/2	60°
H25XAM-47782		3/16			
H25XOS-37-52	3/8	3/4	3/8	2-1/2	90°
H25XAM-45733	9/16	7/16	1/2	2-1/4	60°

- Double Edge
- Solid Carbide
- Upcut Spiral Ball Nose



For Use On:

Softwood: Cedar, Cottonwood, Pine and Redwood

Hardwood: Ash, Beech, Birch, Cherry, Mahogany, Maple, Oak, Poplar, Teak and Walnut

Composite Wood: MDF, Particle Board and Plywood

Soft Plastic: ABS, Polycarbonate, Polyethylene, PVC, Polypropylene, HDPE, Polystyrene, UHMW, and Extruded Acrylic

Hard Plastic: Cast Acrylic, Melamine, Nylon, PVC and Vinyl

Aluminum

Solid Surface



Designed for carving and modeling operations. Their improved tip geometry gives a superior cut compared to most ball nose end mills.

Catalog Number	Cutting Edge Dia.	Cutting Edge Lgth.	Shank Dia.	Overall Lgth.	
H25XOS-52-235B	1/16	1/4	1/8	2	
H25XOS-52-244B	1/8	1/2			
H25XOS-52-240B		3/4	1/4		
H25XOS-52-260B	3/16				3/4
H25XAM-46376	1/4	1	1/2	3	
H25XAM-52-360B	1/2	1-1/8			
H25XAM-46378	3/8	1-1/4	3/8		
H25XAM-46380					1/2
H25XAM-46384	1/2	2-1/8	3/4		
Extended Length					
H25XOS-52-235BL	1/16	1/4		1/8	3
H25XOS-52-244BL	1/8	1/2			
H25XOS-52-240BL		3/4		1/4	
H25XOS-52-260BL	3/16				
H25XOS-52-280BL	1/4	1		3/8	5
H25XOS-52-320BL	3/8	1-1/4			
H25XOS-52-360BL	1/2	1-1/2		1/2	
H25XOS-52-386BL	5/8	2-1/2		5/8	
H25XOS-52-397BL	3/4	3	3/4	6	

Helix Angle ≈30°

Profile Tooling

- Double Edge
- Carbide-Tipped
- Round & Rout

For Use On:

Softwood: Cedar, Cottonwood, Pine and Redwood

Hardwood: Ash, Beech, Birch, Cherry, Mahogany, Maple, Oak, Poplar, Teak and Walnut

Foam



This bit creates a flat-bottom groove between two quarter-round shapes. Short vertical walls extending below the radius lend extra depth to the appearance. Depending upon the cut depth adjustment, the radii can be flush with the work surface or recessed. The profile can be formed on an edge using an edge guide.

Catalog Number	Overall Diameter	Cutter Diameter	Radius	Cutting Edge Length	Overall Length	Max. Cutter Length	Shank Diameter
H25XAM-56100	3/8	3/16	3/32	5/16	2	5/16	1/4
H25XAM-56170	1/2	1/4	1/8	3/8	1-7/8	3/8	
H25XAM-49700	3/4	.240	1/4	1/2	2	3/16	1/2
H25XAM-49701	.615		3/16		2-1/8		
H25XAM-49702	7/8	.245	5/16	9/16	2-1/6	7/16	
H25XAM-49704	1	.250	3/8	5/8	2-1/8	15/32	
H25XAM-56178	1-1/8	1/2	5/16	9/16	2-3/4	9/16	
H25XAM-49706	1-3/8	.363	1/2	1	2-1/2	3/4	
H25XAM-49708	1-3/4	.500	5/8	1-1/4	2-3/4	1	
H25XAM-49710	2		3/4	1-7/16	2-15/16	1-1/8	

Profile Tooling

- Double Edge
- Carbide-Tipped
- V-Groove Cutter

For Use On:

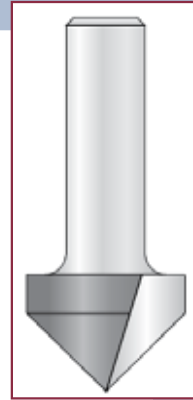
Softwood: Cedar, Cottonwood, Pine and Redwood

Hardwood: Ash, Beech, Birch, Cherry, Mahogany, Maple, Oak, Poplar, Teak and Walnut

Plastic

Foam

Designed for cutting decorative 'V' grooves and lettering on signs with these 'V' Groove bits. Use with an edge guide to chamfer and bevel edges.



Catalog Number	Overall Diameter	Tool Cut Angle	Maximum Cutter Length	Angle Length	Shank Diameter	Overall Length
H25XAM-45726	1-1/4	90°	3/4	5/8	1/2	2-1/2
H25XAM-45754		110°	47/64	7/16	1/4	2
H25XAM-45756		120°	21/32	23/64		1-59/64
H25XAM-45758		130°	31/64	13/64		1-3/4
H25XAM-45764		140°		15/64		1-47/64
H25XAM-45770		150°	7/16	11/64		1-11/16
H25XAM-45728*	1-1/2	90°	1	3/4		1/2
H25XAM-45732*	2		1-3/4	1	3-1/4	

*Maximum rpm 18,000.

Profile Tooling

- Double Edge
- Carbide-Tipped
- Elongated Core Box

For Use On:

Softwood: Cedar, Cottonwood, Pine and Redwood

Hardwood: Ash, Beech, Birch, Cherry, Mahogany, Maple, Oak, Poplar, Teak and Walnut

Foam

Ideal for fluting wood mouldings and columns. This cutter can be used for 3-D sculpting in foam materials



Catalog Number	Overall Diameter	Radius	Cutting Edge Length	Shank Diameter	Overall Length
H25XAM-45930	3/8	3/16	1	1/2	2-3/4
H25XAM-45932	1/2	1/4	1-1/4		
H25XAM-45936	5/8	5/16			
H25XAM-45938	3/4	3/8			
H25XAM-45942	1	1/2			
H25XAM-45946*	1-1/2	3/4			
H25XAM-45949**	2-1/4	1-1/8			3

*Maximum rpm 18,000.

**Maximum rpm 14,000.

Profile Tooling

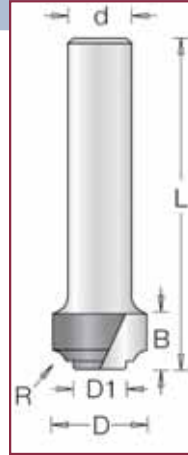
- Double Edge
- Carbide-Tipped
- Traditional & Classical Groove

For Use On:

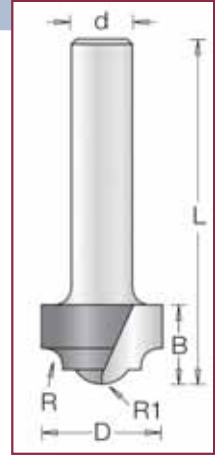
Hardwood: Ash, Beech, Birch, Cherry, Mahogany, Maple, Oak, Poplar, Teak and Walnut.

Softwood

Designed for bead-sided routing on solid wood surfaces. The "traditional" profile is a more delicate profile that includes a step between the quarter-round and the flat bottom to the groove. The "classical" profile is used to form a bead-sided groove with a rounded bottom, embellishing solid wood surfaces.



Traditional Groove



Classical Groove

Catalog Number	Cutting Edge Dia.	SM Cutting Edge Dia.	Radius	Cutting Edge Length	Shank Diameter	Overall Length
Traditional Groove	(D)	(D1)	(R)	(B)	(d)	(L)
H25XAM-56102	1/2	.270	5/64	13/32	1/4	2-1/16
H25XAM-56106	3/4	.394	9/64	7/16	1/2	2-5/8

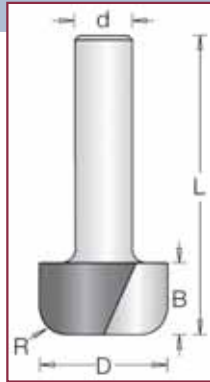
Catalog Number	Cutting Edge Dia.	Cutting Edge Radius	Radius	Cutting Edge Length	Shank Diameter	Overall Length
Classical Groove	(D)	(R1)	(R)	(B)	(d)	(L)
H25XAM-56108	1/2	3/32	9/64	7/16	1/4	2
H25XAM-56112	3/4	9/64	5/32	1/2	1/2	2-3/4
H25XAM-56114	1	13/64	1/4	11/16		3
H25XAM-56115	1-1/2	1/4		3/4		

Profile Cutters

- Double Edge
- Carbide-Tipped
- Bowl and Tray

For Use On:
Solid Wood

Designed for routing solid wood serving trays, flat dishes, shallow bowls and similar objects. 3 in 1 specialty plunging bit that cuts flat, smooth bottom surfaces, walls and a transition radius between them, all in one pass.

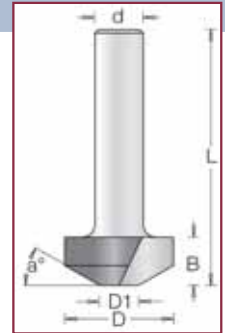


Catalog Number	Cutting Edge Dia.	Radius	Cutting Edge Lgth.	Shank Dia.	Overall Lgth.
	(D)	(R)	(B)	(d)	(L)
H25XAM-45981	1/2	1/8	1/2	1/4	2-1/8
H25XAM-45984	3/4	1/4	5/8	1/2	2-5/8
H25XAM-45986	1-1/8				

- Double Edge
- Carbide-Tipped
- Raised Panel 1/2" Shank

For Use On:
Solid Wood
Composite Wood: MDF, Particle Board, Plywood

Designed to rout decorative grooves on solid wood or panels. This cutter produces raised panels with a narrow bevel using a hand router equipped with an edge guide or on a router table.



Catalog Number	Overall Cutting Edge Dia.	SM Cutting Edge Dia.	Angle Degree	Cutting Edge Lgth.	Overall Lgth.
	(D)	(D1)	(a°)	(B)	(L)
H25XAM-56116	1-1/8	.454	30°	1/2	2-3/4
H25XAM-56117	2-23/32	7/32	25°	3/4	2-1/4

Profile Tooling

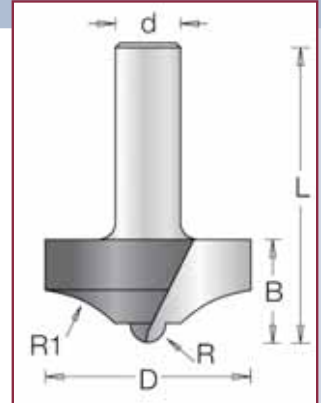
- Double Edge
- Carbide-Tipped
- Round and Ogee Groove

For Use On:

Solid Wood

Composite Wood: MDF, Particle Board, Plywood

Designed to rout decorative grooves on solid wood or MDF panels and surfaces with a handheld or CNC Router. Cutters form edges with a edge guide.



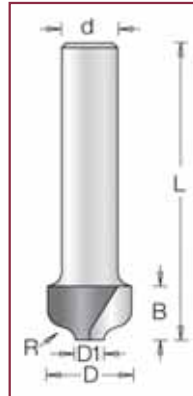
Catalog Number	Cutting Edge Dia.	SM Cutting Radius	LG Cutting Radius	Cutting Edge Length	Shank Diameter	Overall Length
	(D)	(R)	(R1)	(B)	(d)	(L)
Ogee Groove						
H25XAM-49230	1-9/16	5/32	7/8	7/8	1/2	2-9/32
Round Groove						
H25XAM-49232	1-5/8	3/8	3/4	23/32	1/2	2-3/16
H25XAM-49234	1-31/32	5/8	1-3/16			

Profile Tooling

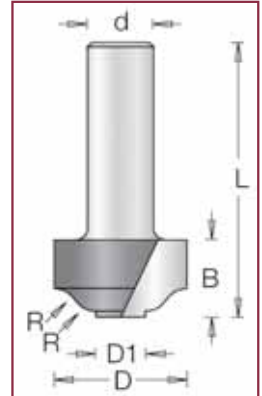
- Double Edge
- Carbide-Tipped
- Ogee Groove

For Use On:
Solid Wood

Designed to rout flat-bottom grooves with ogee shoulders that decorate any solid wood surface. Reverse ogees rout a flat-bottom groove with a step profile for the shoulders.



Ogee Groove



Reverse Ogee Groove

Catalog Number	Overall Cutting Edge Dia.	SM Cutting Edge Diameter	Cutting Edge Radius	Cutting Edge Length	Shank Diameter (d)	Overall Length (L)
	(D)	(D1)	(R)	(B)		
Ogee Groove						
H25XAM-56118	3/4	.256	9/64	1/2	1/4	2-3/4
H25XAM-56122	1/2	.157	5/64	3/8		
H25XAM-56124	3/8	.123	1/16	5/16	1/4	2
Reverse Ogee Groove						
H25XAM-56204	15/16	5/16	5/32	21/32	1/2	1-7/8
H25XAM-56208	1	3/8	3/16	19/32		
H25XAM-56210	1-3/16	15/32	15/64			

Insert Tooling

■ Spoilboard Surfacing Cutters

For Use On:

Soft Plastic: ABS, Polycarbonate, Polyethylene, PVC, Polypropylene, HDPE, Polystyrene, UHMW, and Extruded Acrylic

Hard Plastic: Cast Acrylic, Melamine, Nylon, PVC and Vinyl

Composite Wood: MDF, Particle Board and Plywood



Designed for surfacing MDF, particle board and balsa core where “flow through” or “high flow” fixturing is employed using large capacity vacuum pumps. This method of surfacing spoilboards allows for much faster table planing.

Catalog Number	Cutting Edge Diameter	Cutting Edge Length	Shank Diameter	Overall Length
Straight				
H25XAM-RC2257	2-1/2	1/2	1/2	2-1/2
H25XAM-RC2258	4		3/4	4

ACCESSORIES

Description	
H25XAM-12	Replacement Blade
H25XAM-67115	Replacement Screw
H25XAM-5005	Replacement Wrench

NOTES:

- 1) These tools are dynamically balanced and approved for use on CNC routers. Max rpm 18,000, 1/8 in. depth of cut max.
- 2) Spoilboard surfaces: 2-1/2 in. diameter tools should be fed at 200-600 ipm at 12,000-16,000 rpm. 4 in. diameter tools should be fed at 200-600 ipm at 12,000-14,000 rpm. Do not exceed 1/8 in. depth per pass.

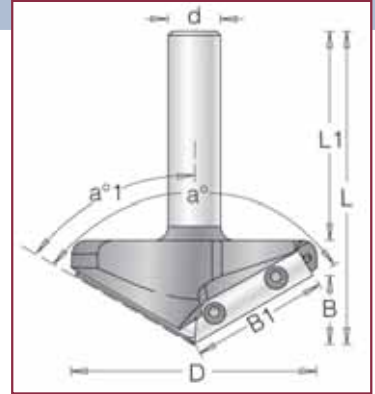
Insert Tooling

- Single & Double Edge
- Carbide-Tipped, 1/2" Shank
- Miter Fold & Sign Making Insert Router Bit

For Use On:

Composite Wood: MDF, Particle Board, Melamine

Designed to miter fold MDF, melamine and wood to a perfect joint.



Catalog Number	Overall Cutting Edge Dia.	Cutter Angle	Cutting Edge Angle	Angle Length	Max. Cutting Edge Lgth.	Overall Length	Shank Length	Replacement Blades
	(D)	(a°)	(a°1)	(B1)	(B)	(L)	(L1)	
Single Edge								
H25XAM-RC1045	13/16	45°	22.5°	1-1/16	1	2-3/8	1-3/8	H25XAM-RCK56
H25XAM-RC1046	7/8	50°	25°		31/32	2-9/16	1-1/2	
H25XAM-RC1108	1-1/32	60°	30°		29/32	2-7/16	1-3/8	
H25XAM-RC1048	1-7/32	70°	35°		7/8	2-9/16	1-1/2	
H25XAM-RC1102	1-1/2	90°	45°		3/4	3	1-25/32	H25XAM-RCK134
H25XAM-RC1100		91°	45.5°		11/16	3-3/16	2	H25XAM-RCK119
H25XAM-RC1103	1-5/8	100°	50°					
Dual Edge								
H25XAM-RC1105	1-3/4	110°	55°	1-1/16	5/8	3-1/16	2	H25XAM-RCK119
H25XAM-RC1104	2-1/32	120°	60°	1-5/32	9/16			H25XAM-RCK136
H25XAM-RC1107	2-1/8	130°	65°		1/2	3	H25XAM-RCK137	
H25XAM-RC1106	2-1/4	150°	75°		9/32	2-15/16		
H25XAM-RC1109	2-5/16	160°	80°		3/16	2-25/32		

Notes:

- 1) Maximum RPM for H25XAM-RC1106 and H25XAM-RC1109 is 14,000.
- 2) Maximum RPM for H25XAM-RC1107 is 16,000.
- 3) Maximum RPM for H25XAM-RC1045, H25XAM-RC1046, H25XAM-RC1048, H25XAM-RC1104 and H25XAM-RC1108 is 18,000.
- 4) Maximum RPM for H25XAM-RC1100, H25XAM-RC1102, H25XAM-RC1103 and H25XAM-RC1105 is 22,000.

Insert Tooling

- Double Edge
- Solid Carbide
- Insert Straight Router Bit

For Use On:

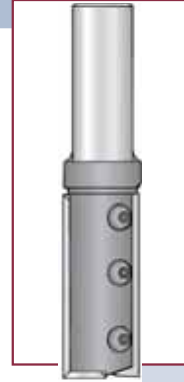
Wood

Wood Composites

Soft/Hard Plastics

PVC

Designed to yeild cuts which are cleaner than typical insert bits, offering high speed cuts with super clean finish. They also are channel set, double edge knives. Each blade has a double sided cutting edge for economy.



Catalog Number	Cutting Edge Diameter	Cutting Edge Length	Shank Diameter	Overall Length	Flutes	Replacement Blades	Retainer Clips
H25XAM-RC3100*	3/8	20 mm	1/2	2-7/8	1	H25XAM-RCK32	H25XAM-67104
H25XAM-RC3110*	1/2	30 mm		3-1/8	1	H25XAM-RCK34	H25XAM-67105

*Maximum RPM 18,000

Notes:

- 1) Replacement 3 x .5mm set screwsfor RC3100 use 67015 (4mm long); RC-3110 use 67016 (5mm long); all others use 67017 (6mm long).
- 2) Replacement 1.5mm special hex key 5011.