



ROUTER & ACCESSORY CATALOG

SOLID CARBIDE



MISENHEIMER INC.

MISENHEIMERINC.COM





ESTABLISHED IN 1981, Charles and Judy Misenheimer had only one thing in mind—provide excellent service, quality, and technical support to the woodworking industry. Now, years later, this idea remains the main emphasis. Through the hand of their son, Kevin, Misenheimer, Inc. offers superior service to almost every aspect of the industry.

Having the right tool for the job is especially important when it comes to shaping wood. Considering all of the ingredients which are crucial in maximizing production, Misenheimer has the technology and experience to get the most from your machinery investment.

Misenheimer solid carbide spirals meet and exceed rigorous in-house manufacturing and inspection tolerances. Our state-of-the-art grinding equipment and knowledgeable staff ensures attention to detail for quick response, service and turnaround.

Built to last, our spirals are available with or without chipbreakers, one, two, three, or four flute styles with up-cut or down-cut and compression. In our factory in Morristown, TN, we stock thousands of tools in different styles and carbide grades to offer you the best tool for just about any application. We also offer technical support, advice and custom tooling to help increase production in special or specific applications. Let us increase the production of your plant with the best spiral router bits you will find—anywhere.

Need a source for standard and/or custom-profiled inserts, brazed cutters, insert cutters and much, much more...give us a call, we do it all.

Call for more information, or visit us online at www.misenheimerinc.com



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FEED & SPEED CHART

FEED RATE = RPM X NUMBER OF FLUTES X CHIP LOAD
 RPM = FEED RATE / (NUMBER OF FLUTES X CHIPLOAD)
 CHIP LOAD = FEED RATE (INCHES PER MINUTE) / (RPM X NUMBER OF FLUTES)

FEED RATE CHART USING SOLID CARBIDE ROUTERS IN WOOD

**Based on 1/2" Diameter Tool, Cutting 3/4" Stock at 18,000 RPM*
 Information below should be used as a guideline – results may vary

SERIES NUMBER	WOOD COMPOSITES	HARDWOODS	SOFTWOODS
110	400	325	275
120	400	350	300
150	400	300	275
160	400	325	300
205	425	350	325
215	425	375	325
225	400	375	325
235	425	400	350
250	600	400	450
265	650	450	500
275	700	500	550
300	650	450	500
390	575	600	625
400	600	625	650
410	550	550	475
420	550	575	500
430	550	575	600
440	550	600	625
450	550	550	475
460	550	575	500
495	1000	800	850
500	1000	800	850

ALL FIGURES ARE SHOWN AS IPM (INCHES PER MINUTE)

FEED RATE CHART USING SOLID CARBIDE ROUTERS IN PLASTICS

**Based on 1/4" Diameter Tool, Cutting 1/4" Stock at 18,000 RPM*
 Information below should be used as a guideline – results may vary

SERIES NUMBER	SOFT PLASTICS	HARD PLASTICS
130	250	225
140	275	250
170	275	250
180	300	275
540	350	300
550	300	275
560	225	200
570	250	200
590	250	225
610	275	250

ALL FIGURES ARE SHOWN AS IPM (INCHES PER MINUTE)

NOTE:

For smaller diameters than referenced in the charts above – Reduce feed rate.
 For Larger diameters – Increase feed rate

ITEM NUMBER	CUTTING EDGE DIAMETER	CUTTING EDGE LENGTH	SHANK	OVERALL LENGTH
110-0140	1/8"	1/2"	1/4"	2"
110-0160	5/32"	1/2"	1/4"	2"
110-0300	3/16"	5/8"	1/4"	2"
110-0320	3/16"	3/4"	1/4"	2"
110-0380	7/32"	3/4"	1/4"	2-1/2"
110-0540	1/4"	7/8"	1/4"	2-1/2"
110-0560	1/4"	1"	1/4"	2-1/2"
110-0600	1/4"	1-1/4"	1/4"	2-1/2"
110-0740	5/16"	1"	5/16"	3"
110-0780	5/16"	1-1/4"	5/16"	3"
110-1000	3/8"	1"	3/8"	3"
110-1020	3/8"	1-1/8"	3/8"	3"
110-1040	3/8"	1-1/4"	3/8"	3"
110-1060	3/8"	1-1/4"	1/2"	3"
110-1240	7/16"	1"	1/2"	3"
110-1260	7/16"	1-1/4"	1/2"	3"
110-1480	1/2"	1-1/4"	1/2"	3"
110-1580	1/2"	1-5/8"	1/2"	3-1/2"
110-1680	1/2"	2-1/8"	1/2"	4"
110-1800	17/32"	1"	1/2"	3"
110-1980	5/8"	1-5/8"	5/8"	3-1/2"
110-2020	5/8"	2"	5/8"	4"
110-2140	3/4"	1-1/2"	3/4"	4"
110-2160	3/4"	2"	3/4"	4"
110-2280	3/4"	3"	3/4"	6"
110-2300	3/4"	3-1/2"	3/4"	6"

DESIGNED FOR SOLID WOODS, WOOD COMPOSITES, AND SOME PLASTICS. THIS BIT IS USED WHERE A DOWNWARD CHIP REMOVAL IS REQUIRED. IT ALSO PROVIDES DOWNWARD PRESSURE ON MATERIAL AND LEAVES AN EXCELLENT FINISH ON THE TOP.

110 SERIES

TWO FLUTE DOWN-CUT SPIRALS





120 SERIES

TWO FLUTE UP-CUT SPIRALS



ITEM NUMBER	CUTTING EDGE DIAMETER	CUTTING EDGE LENGTH	SHANK	OVERALL LENGTH
120-0140	1/8"	1/2"	1/4"	2"
120-0160	5/32"	1/2"	1/4"	2"
120-0300	3/16"	5/8"	1/4"	2"
120-0320	3/16"	3/4"	1/4"	2"
120-0380	7/32"	3/4"	1/4"	2-1/2"
120-0540	1/4"	7/8"	1/4"	2-1/2"
120-0560	1/4"	1"	1/4"	2-1/2"
120-0600	1/4"	1-1/4"	1/4"	2-1/2"
120-0740	5/16"	1"	5/16"	3"
120-0780	5/16"	1-1/4"	5/16"	3"
120-1000	3/8"	1"	3/8"	3"
120-1020	3/8"	1-1/8"	3/8"	3"
120-1040	3/8"	1-1/4"	3/8"	3"
120-1060	3/8"	1-1/4"	1/2"	3"
120-1240	7/16"	1"	1/2"	3"
120-1260	7/16"	1-1/4"	1/2"	3"
120-1480	1/2"	1-1/4"	1/2"	3"
120-1580	1/2"	1-5/8"	1/2"	3-1/2"
120-1680	1/2"	2-1/8"	1/2"	4"
120-1800	17/32"	1"	1/2"	3"
120-1980	5/8"	1-5/8"	5/8"	3-1/2"
120-2020	5/8"	2"	5/8"	4"
120-2140	3/4"	1-1/2"	3/4"	4"
120-2160	3/4"	2"	3/4"	4"
120-2280	3/4"	3"	3/4"	6"
120-2300	3/4"	3-1/2"	3/4"	6"

DESIGNED FOR SOLID WOODS, WOOD COMPOSITES, AND SOME PLASTICS. THIS BIT IS USED WHERE AN UPWARD CHIP REMOVAL IS REQUIRED. CHIP REMOVAL IS OPTIMIZED BUT ADEQUATE HOLD DOWN IS NEEDED.

750-SERIES

TWO FLUTE UP-CUT BALL NOSE SPIRALS



ITEM NUMBER	CUTTING EDGE DIAMETER	CUTTING EDGE LENGTH	SHANK	OVERALL LENGTH
750-0120	1/8"	1/2"	1/8"	1-1/2"
750-0560	1/4"	1"	1/4"	2-1/2"
750-1000	3/8"	1"	3/8"	3"
750-1480	1/2"	1-1/4"	1/2"	3"
750-1980	5/8"	1-5/8"	5/8"	3-1/2"
750-2160	3/4"	2"	3/4"	4"

DESIGNED FOR CARVING AND MODELING OPERATIONS.



111 SERIES

TWO FLUTE MFC GRADE DOWN-CUT SPIRALS



121 SERIES

TWO FLUTE MFC GRADE UP-CUT SPIRAL



ITEM NUMBER	CUTTING EDGE DIAMETER	CUTTING EDGE LENGTH	SHANK	OVERALL LENGTH
111-1000	3/8"	1"	3/8"	3"
111-1480	1/2"	1-1/4"	1/2"	3"
111-1580	1/2"	1-5/8"	1/2"	3-1/2"

DESIGNED FOR MDF AND PRODUCTS WITH MELAMINE LAMINATE. DOWNWARD SPIRAL PROVIDES GOOD PART PRESSURE WITH EXCELLENT FINISH ON TOP.

ITEM NUMBER	CUTTING EDGE DIAMETER	CUTTING EDGE LENGTH	SHANK	OVERALL LENGTH
121-1000	3/8"	1"	3/8"	3"
121-1480	1/2"	1-1/4"	1/2"	3"
121-1580	1/2"	1-5/8"	1/2"	3-1/2"

DESIGNED FOR MDF AND PRODUCTS WITH MELAMINE LAMINATE. THIS BIT PULLS CHIPS AWAY FROM PART BUT REQUIRES GOOD HOLD DOWN PRESSURE. THIS TOOL LEAVES AN EXCELLENT FINISH ON THE BOTTOM.

130 SERIES

TWO FLUTE SLOW SPIRAL DOWN-CUT SPIRALS



140 SERIES

SINGLE FLUTE UP-CUT SPIRALS



ITEM NUMBER	CUTTING EDGE DIAMETER	CUTTING EDGE LENGTH	SHANK	OVERALL LENGTH
130-0460	1/4"	3/8"	1/4"	2-1/2"
130-0520	1/4"	3/4"	1/4"	2-1/2"
130-0620	1/4"	1-1/4"	1/4"	3"
130-1000	3/8"	1"	3/8"	3"
130-1500	1/2"	1-1/4"	1/2"	3-1/2"
130-1600	1/2"	1-5/8"	1/2"	4"

DESIGNED FOR HARDWOODS, ACRYLICS, AND PHENOLICS. THIS BIT IS USED WHERE A DOWNWARD CHIP REMOVAL AND A GOOD FINISH ON TOP IS REQUIRED.

ITEM NUMBER	CUTTING EDGE DIAMETER	CUTTING EDGE LENGTH	SHANK	OVERALL LENGTH
140-0460	1/4"	3/8"	1/4"	2-1/2"
140-0520	1/4"	3/4"	1/4"	2-1/2"
140-0600	1/4"	1-1/4"	1/4"	2-1/2"
140-1000	3/8"	1"	3/8"	3"
140-1480	1/2"	1-1/4"	1/2"	3"
140-1580	1/2"	1-5/8"	1/2"	3-1/2"

DESIGNED FOR HARDWOODS, ACRYLICS, AND PHENOLICS. THIS BIT IS USED WHERE AN UPWARD CHIP REMOVAL AND A GOOD FINISH ON BOTTOM IS REQUIRED.



205 SERIES

TWO FLUTE DOWN-CUT CHIPBREAKER SPIRALS



215 SERIES

TWO FLUTE UP-CUT CHIPBREAKER SPIRALS



ITEM NUMBER	CUTTING EDGE DIAMETER	CUTTING EDGE LENGTH	SHANK	OVERALL LENGTH
205-1040	3/8"	1-1/4"	3/8"	3"
205-1480	1/2"	1-1/4"	1/2"	3"
205-1580	1/2"	1-5/8"	1/2"	3-1/2"
205-1660	1/2"	2"	1/2"	4"
205-1980	5/8"	1-5/8"	5/8"	3-1/2"
205-2020	5/8"	2"	5/8"	4"
205-2140	3/4"	1-1/2"	3/4"	4"
205-2160	3/4"	2"	3/4"	4"

DESIGNED FOR HARDWOODS, PLYWOODS, AND DENSE MATERIALS. THIS BIT IS USED WHERE A DOWNWARD CHIP REMOVAL, SMOOTH CUT, HIGHER FEED RATES, AND A GOOD FINISH ON TOP IS REQUIRED.

ITEM NUMBER	CUTTING EDGE DIAMETER	CUTTING EDGE LENGTH	SHANK	OVERALL LENGTH
215-1040	3/8"	1-1/4"	3/8"	3"
215-1480	1/2"	1-1/4"	1/2"	3"
215-1580	1/2"	1-5/8"	1/2"	3-1/2"
215-1660	1/2"	2"	1/2"	4"
215-1980	5/8"	1-5/8"	5/8"	3-1/2"
215-2020	5/8"	2"	5/8"	4"
215-2140	3/4"	1-1/2"	3/4"	4"
215-2160	3/4"	2"	3/4"	4"

DESIGNED FOR HARDWOODS, PLYWOODS, AND DENSE MATERIALS. THIS BIT IS USED WHERE AN UPWARD CHIP REMOVAL, SMOOTH CUT, HIGHER FEED RATES, AND A GOOD FINISH ON BOTTOM IS REQUIRED.

150 SERIES

THREE FLUTE DOWN-CUT SPIRALS



160 SERIES

THREE FLUTE UP-CUT SPIRALS



ITEM NUMBER	CUTTING EDGE DIAMETER	CUTTING EDGE LENGTH	SHANK	OVERALL LENGTH
150-0520	1/4"	3/4"	1/4"	2-1/2"
150-1040	3/8"	1-1/4"	3/8"	3"
150-1480	1/2"	1-1/4"	1/2"	3"
150-1580	1/2"	1-5/8"	1/2"	3-1/2"
150-1660	1/2"	2"	1/2"	4"
150-1980	5/8"	1-5/8"	5/8"	3-1/2"
150-2020	5/8"	2"	5/8"	4"
150-2140	3/4"	1-1/2"	3/4"	4"
150-2160	3/4"	2"	3/4"	4"
150-2280	3/4"	3"	3/4"	6"
150-2300	3/4"	3-1/2"	3/4"	6"

DESIGNED FOR NATURAL WOODS AND MAN MADE COMPOSITES. THIS BIT IS USED WHERE A DOWNWARD CHIP REMOVAL, HIGH FEED RATES, AND AN EXTREMELY SMOOTH FINISH ON TOP IS REQUIRED.

ITEM NUMBER	CUTTING EDGE DIAMETER	CUTTING EDGE LENGTH	SHANK	OVERALL LENGTH
160-0520	1/4"	3/4"	1/4"	2-1/2"
160-1040	3/8"	1-1/4"	3/8"	3"
160-1480	1/2"	1-1/4"	1/2"	3"
160-1580	1/2"	1-5/8"	1/2"	3-1/2"
160-1660	1/2"	2"	1/2"	4"
160-1980	5/8"	1-5/8"	5/8"	3-1/2"
160-2020	5/8"	2"	5/8"	4"
160-2140	3/4"	1-1/2"	3/4"	4"
160-2160	3/4"	2"	3/4"	4"
160-2280	3/4"	3"	3/4"	6"
160-2300	3/4"	3-1/2"	3/4"	6"

DESIGNED FOR NATURAL WOODS AND MAN MADE COMPOSITES. THIS BIT IS USED WHERE AN UPWARD CHIP REMOVAL, HIGH FEED RATES, AND A EXTREMELY SMOOTH FINISH ON BOTTOM IS REQUIRED.



151 SERIES
THREE FLUTE MFC GRADE
DOWN-CUT SPIRALS



161 SERIES
THREE FLUTE MFC GRADE
UP-CUT SPIRAL



ITEM NUMBER	CUTTING EDGE DIAMETER	CUTTING EDGE LENGTH	SHANK	OVERALL LENGTH
151-1000	3/8"	1"	3/8"	3"
151-1480	1/2"	1"	1/2"	3"
151-1580	1/2"	1-5/8"	1/2"	3-1/2"

DESIGNED FOR MDF AND PRODUCTS WITH MELAMINE LAMINATE, WHERE FASTER FEED RATES CAN BE ACHIEVED. THIS BIT PROVIDES GOOD PART PRESSURE WITH EXCELLENT FINISH ON TOP.

ITEM NUMBER	CUTTING EDGE DIAMETER	CUTTING EDGE LENGTH	SHANK	OVERALL LENGTH
161-1000	3/8"	1"	3/8"	3"
161-1480	1/2"	1"	1/2"	3"
161-1580	1/2"	1-5/8"	1/2"	3-1/2"

DESIGNED FOR MDF AND PRODUCTS WITH MELAMINE LAMINATE, WHERE FASTER FEED RATES CAN BE ACHIEVED. THIS BIT PROVIDES GOOD CHIP REMOVAL AND LEAVES AN EXCELLENT FINISH ON BOTTOM.

170 SERIES
THREE FLUTE SLOW SPIRAL
DOWN-CUT SPIRALS



180 SERIES
THREE FLUTE SLOW SPIRAL
UP-CUT SPIRALS



ITEM NUMBER	CUTTING EDGE DIAMETER	CUTTING EDGE LENGTH	SHANK	OVERALL LENGTH
170-1040	3/8"	1-1/4"	3/8"	3"
170-1500	1/2"	1-1/4"	1/2"	3-1/2"
170-1600	1/2"	1-5/8"	1/2"	4"
170-1620	1/2"	1-3/4"	1/2"	4"
170-2161	3/4"	2"	3/4"	5"

DESIGNED FOR DENSE HARDWOODS, SOLID SURFACE, AND HARD PLASTICS. THIS BIT IS USED WHERE A DOWNWARD CHIP REMOVAL AND EXCELLENT FINISH ON TOP IS REQUIRED. FASTER FEED RATES CAN BE ACHIEVED WITH THIS TOOL.

ITEM NUMBER	CUTTING EDGE DIAMETER	CUTTING EDGE LENGTH	SHANK	OVERALL LENGTH
180-1040	3/8"	1-1/4"	3/8"	3"
180-1480	1/2"	1-1/4"	1/2"	3"
180-1580	1/2"	1-5/8"	1/2"	3-1/2"
180-1620	1/2"	1-3/4"	1/2"	4"
180-2160	3/4"	2"	3/4"	4"

DESIGNED FOR DENSE HARDWOODS, SOLID SURFACE, AND HARD PLASTICS. THIS BIT IS USED WHERE AN UPWARD CHIP REMOVAL AND EXCELLENT FINISH ON BOTTOM IS REQUIRED. FASTER FEED RATES CAN BE ACHIEVED WITH THIS TOOL.



225 SERIES
THREE FLUTE DOWN-CUT
CHIPBREAKER SPIRALS



235 SERIES
THREE FLUTE UP-CUT
CHIPBREAKER SPIRALS



ITEM NUMBER	CUTTING EDGE DIAMETER	CUTTING EDGE LENGTH	SHANK	OVERALL LENGTH
225-1040	3/8"	1-1/4"	3/8"	3"
225-1480	1/2"	1-1/4"	1/2"	3"
225-1580	1/2"	1-5/8"	1/2"	3-1/2"
225-1660	1/2"	2"	1/2"	4"
225-1980	5/8"	1-5/8"	5/8"	3-1/2"
225-2020	5/8"	2"	5/8"	4"
225-2140	3/4"	1-1/2"	3/4"	4"
225-2160	3/4"	2"	3/4"	4"

DESIGNED FOR PLYWOOD, HARDWOODS, AND DENSE MATERIALS. THIS BIT IS USED WHERE A DOWNWARD CHIP REMOVAL AND A GOOD FINISH ON TOP ARE REQUIRED. FASTER FEED RATES CAN BE ACHIEVED WITH THIS TOOL.

ITEM NUMBER	CUTTING EDGE DIAMETER	CUTTING EDGE LENGTH	SHANK	OVERALL LENGTH
235-1040	3/8"	1-1/4"	3/8"	3"
235-1480	1/2"	1-1/4"	1/2"	3"
235-1580	1/2"	1-5/8"	1/2"	3-1/2"
235-1660	1/2"	2"	1/2"	4"
235-1980	5/8"	1-5/8"	5/8"	3-1/2"
235-2020	5/8"	2"	5/8"	4"
235-2140	3/4"	1-1/2"	3/4"	4"
235-2160	3/4"	2"	3/4"	4"

DESIGNED FOR PLYWOOD, HARDWOODS, AND DENSE MATERIALS. THIS BIT IS USED WHERE AN UPWARD CHIP REMOVAL AND A GOOD FINISH ON BOTTOM IS REQUIRED. FASTER FEED RATES CAN BE ACHIEVED WITH THIS TOOL.

250 SERIES
SINGLE FLUTE
COMPRESSION SPIRALS



255 SERIES
SINGLE FLUTE MORTISE
COMPRESSION SPIRALS



ITEM NUMBER	CUTTING EDGE DIAMETER	CUTTING EDGE LENGTH	SHANK	OVERALL LENGTH
250-0540	1/4"	7/8"	1/4"	2-1/2"
250-1000	3/8"	1"	3/8"	3"
250-1480	1/2"	1-1/4"	1/2"	3"
250-1580	1/2"	1-5/8"	1/2"	3-1/2"
250-2020	5/8"	2"	5/8"	4"
250-2160	3/4"	2"	3/4"	4"

DESIGNED FOR DOUBLE SIDED LAMINATED OR VENEERED MATERIAL. THIS BIT IS USED WHERE AN EXCELLENT FINISH ON TOP AND BOTTOM AND STANDARD FEED RATE IS REQUIRED.

ITEM NUMBER	CUTTING EDGE DIAMETER	CUTTING EDGE LENGTH	SHANK	OVERALL LENGTH
255-0560	1/4"	1"	1/4"	2-1/2"
255-1040	3/8"	1-1/4"	3/8"	3"
255-1540	1/2"	1-3/8"	1/2"	3-1/2"
255-1580	1/2"	1-5/8"	1/2"	3-1/2"

DESIGNED FOR DOUBLE SIDED LAMINATED OR VENEERED MATERIAL. THIS BIT IS USED WHERE AN EXCELLENT FINISH WITH SHORT UP-CUT TO ALLOW MORTISE CUT WHERE DOWN-CUT IS REQUIRED.



265 SERIES

TWO FLUTE COMPRESSION SPIRALS



280 SERIES

TWO FLUTE MORTISE COMPRESSION SPIRALS



ITEM NUMBER	CUTTING EDGE DIAMETER	CUTTING EDGE LENGTH	SHANK	OVERALL LENGTH
265-0540	1/4"	7/8"	1/4"	2-1/2"
265-0560	1/4"	1"	1/4"	2-1/2"
265-0620	1/4"	1-1/4"	1/4"	3"
265-1040	3/8"	1-1/4"	3/8"	3"
265-1460	1/2"	1-1/8"	1/2"	3"
265-1480	1/2"	1-1/4"	1/2"	3"
265-1520	1/2"	1-3/8"	1/2"	3"
265-1540	1/2"	1-3/8"	1/2"	3-1/2"
265-1580	1/2"	1-5/8"	1/2"	3-1/2"
265-1640	1/2"	1-7/8"	1/2"	4"
265-1680	1/2"	2-1/8"	1/2"	4"
265-1980	5/8"	1-5/8"	5/8"	3-1/2"
265-2020	5/8"	2"	5/8"	4"
265-2160	3/4"	2"	3/4"	4"
265-2220	3/4"	2-1/2"	3/4"	5"

DESIGNED FOR DOUBLE SIDED LAMINATED OR VENEERED MATERIAL. THIS BIT IS USED WHERE AN EXCELLENT FINISH ON TOP AND BOTTOM AND STANDARD FEED RATE IS REQUIRED.

ITEM NUMBER	CUTTING EDGE DIAMETER	CUTTING EDGE LENGTH	SHANK	OVERALL LENGTH
280-0560	1/4"	1"	1/4"	2-1/2"
280-1040	3/8"	1-1/4"	3/8"	3"
280-1480	1/2"	1-1/4"	1/2"	3"
280-1540	1/2"	1-3/8"	1/2"	3-1/2"
280-1580	1/2"	1-5/8"	1/2"	3-1/2"

DESIGNED FOR DOUBLE SIDED LAMINATED OR VENEERED MATERIAL. THIS BIT IS USED WHERE AN EXCELLENT FINISH WITH SHORT UP-CUT TO ALLOW MORTISE CUT WHERE DOWN-CUT IS REQUIRED.

340 SERIES
TWO FLUTE MFC GRADE
COMPRESSION SPIRALS



345 SERIES
TWO FLUTE MFC GRADE
MORTISE COMPRESSION SPIRALS



ITEM NUMBER	CUTTING EDGE DIAMETER	CUTTING EDGE LENGTH	SHANK	OVERALL LENGTH
340-1040	3/8"	1-1/4"	3/8"	3"
340-1460	1/2"	1-1/8"	1/2"	3"
340-1480	1/2"	1-1/4"	1/2"	3"
340-1540	1/2"	1-3/8"	1/2"	3-1/2"
340-1580	1/2"	1-5/8"	1/2"	3-1/2"

DESIGNED FOR MDF AND PRODUCTS WITH MELAMINE LAMINATE. THIS BIT IS USED WHERE AN EXCELLENT FINISH ON TOP AND BOTTOM AND STANDARD FEED RATE IS REQUIRED.

ITEM NUMBER	CUTTING EDGE DIAMETER	CUTTING EDGE LENGTH	SHANK	OVERALL LENGTH
345-1040	3/8"	1-1/4"	3/8"	3"
345-1480	1/2"	1-1/4"	1/2"	3"
345-1540	1/2"	1-3/8"	1/2"	3-1/2"
345-1580	1/2"	1-5/8"	1/2"	3-1/2"
345-2160	3/4"	2"	3/4"	4"

DESIGNED FOR MDF AND PRODUCTS WITH MELAMINE LAMINATE. THIS BIT IS USED WHERE AN EXCELLENT FINISH ON TOP AND BOTTOM WITH SHORT UP-CUT TO ALLOW MORTISE CUT WITH DOWN-CUT IS REQUIRED.



275 SERIES THREE FLUTE COMPRESSION SPIRALS



290 SERIES THREE FLUTE MORTISE COMPRESSION SPIRALS



ITEM NUMBER	CUTTING EDGE DIAMETER	CUTTING EDGE LENGTH	SHANK	OVERALL LENGTH
275-1040	3/8"	1-1/4"	3/8"	3"
275-1480	1/2"	1-1/4"	1/2"	3"
275-1520	1/2"	1-3/8"	1/2"	3"
275-1580	1/2"	1-5/8"	1/2"	3-1/2"
275-2020	5/8"	2"	5/8"	4"
275-2160	3/4"	2"	3/4"	4"

DESIGNED FOR MDF AND PRODUCTS WITH MELAMINE LAMINATE. THIS BIT IS USED WHERE AN EXCELLENT FINISH ON TOP AND BOTTOM AND HIGHER FEED RATE IS REQUIRED.

ITEM NUMBER	CUTTING EDGE DIAMETER	CUTTING EDGE LENGTH	SHANK	OVERALL LENGTH
290-1040	3/8"	1-1/4"	3/8"	3"
290-1480	1/2"	1-1/4"	1/2"	3"
290-1520	1/2"	1-3/8"	1/2"	3"
290-1580	1/2"	1-5/8"	1/2"	3-1/2"
290-2020	5/8"	2"	5/8"	4"

DESIGNED FOR MDF AND PRODUCTS WITH MELAMINE LAMINATE. THIS BIT IS USED WHERE AN EXCELLENT FINISH WITH SHORT UP-CUT TO ALLOW MORTISE CUT WITH DOWN-CUT IS REQUIRED.

360 SERIES
THREE FLUTE MFC GRADE
COMPRESSION SPIRALS



365 SERIES
THREE FLUTE MFC GRADE MORTISE
COMPRESSION SPIRALS



ITEM NUMBER	CUTTING EDGE DIAMETER	CUTTING EDGE LENGTH	SHANK	OVERALL LENGTH
360-1040	3/8"	1-1/4"	3/8"	3"
360-1480	1/2"	1-1/4"	1/2"	3"
360-1540	1/2"	1-3/8"	1/2"	3-1/2"
360-1580	1/2"	1-5/8"	1/2"	3-1/2"
360-2020	5/8"	2"	5/8"	4"

DESIGNED FOR MDF AND PRODUCTS WITH MELAMINE LAMINATE. THIS BIT IS USED WHERE AN EXCELLENT FINISH ON TOP AND BOTTOM AND HIGHER FEED RATES ARE REQUIRED.

ITEM NUMBER	CUTTING EDGE DIAMETER	CUTTING EDGE LENGTH	SHANK	OVERALL LENGTH
365-1040	3/8"	1-1/4"	3/8"	3"
365-1480	1/2"	1-1/4"	1/2"	3"
365-1540	1/2"	1-3/8"	1/2"	3-1/2"
365-1580	1/2"	1-5/8"	1/2"	3-1/2"
365-2020	5/8"	2"	5/8"	4"

DESIGNED FOR MDF AND PRODUCTS WITH MELAMINE LAMINATE. THIS BIT IS USED WHERE AN EXCELLENT FINISH WITH SHORT UP-CUT TO ALLOW MORTISE CUT WITH DOWN-CUT IS REQUIRED.



THE MFC+ SERIES

341 SERIES
TWO FLUTE **MFC+**
COMPRESSION SPIRALS



347 SERIES
TWO FLUTE **MFC+**
MORTISE COMPRESSION SPIRALS



ITEM NUMBER	CUTTING EDGE DIAMETER	CUTTING EDGE LENGTH	SHANK	OVERALL LENGTH
341-1000	3/8"	1"	3/8"	3"
341-1040	3/8"	1-1/4"	3/8"	3"
341-1480	1/2"	1-1/4"	1/2"	3"
341-1540	1/2"	1-3/8"	1/2"	3-1/2"
341-1580	1/2"	1-5/8"	1/2"	3-1/2"
341-1640	1/2"	1-7/8"	1/2"	4"

ITEM NUMBER	CUTTING EDGE DIAMETER	CUTTING EDGE LENGTH	SHANK	OVERALL LENGTH
347-1000	3/8"	1"	3/8"	3"
347-1040	3/8"	1-1/4"	3/8"	3"
347-1480	1/2"	1-1/4"	1/2"	3"
347-1540	1/2"	1-3/8"	1/2"	3-1/2"
347-1580	1/2"	1-5/8"	1/2"	3-1/2"
347-1640	1/2"	1-7/8"	1/2"	4"

EXTENDED LIFE + PERFORMANCE + EFFICIENCY + PRODUCTION

361 SERIES
 THREE FLUTE **COMPRESSION SPIRALS**



367 SERIES
 THREE FLUTE **MORTISE COMPRESSION SPIRALS**



ITEM NUMBER	CUTTING EDGE DIAMETER	CUTTING EDGE LENGTH	SHANK	OVERALL LENGTH
361-1000	3/8"	1"	3/8"	3"
361-1040	3/8"	1-1/4"	3/8"	3"
361-1480	1/2"	1-1/4"	1/2"	3"
361-1540	1/2"	1-3/8"	1/2"	3-1/2"
361-1580	1/2"	1-5/8"	1/2"	3-1/2"
361-1640	1/2"	1-7/8"	1/2"	4"

ITEM NUMBER	CUTTING EDGE DIAMETER	CUTTING EDGE LENGTH	SHANK	OVERALL LENGTH
367-1000	3/8"	1"	3/8"	3"
367-1040	3/8"	1-1/4"	3/8"	3"
367-1480	1/2"	1-1/4"	1/2"	3"
367-1540	1/2"	1-3/8"	1/2"	3-1/2"
367-1580	1/2"	1-5/8"	1/2"	3-1/2"
367-1640	1/2"	1-7/8"	1/2"	4"



300 SERIES
TWO FLUTE CHIPBREAKER
CHIPBREAKER SPIRALS



320 SERIES
TWO FLUTE ROUGHING
COMPRESSION SPIRALS



ITEM NUMBER	CUTTING EDGE DIAMETER	CUTTING EDGE LENGTH	SHANK	OVERALL LENGTH
300-1040	3/8"	1-1/4"	3/8"	3"
300-1460	1/2"	1-1/8"	1/2"	3"
300-1480	1/2"	1-1/4"	1/2"	3"
300-1640	1/2"	1-7/8"	1/2"	4"
300-1980	5/8"	1-5/8"	5/8"	3-1/2"
300-2020	5/8"	2"	5/8"	4"
300-2160	3/4"	2"	3/4"	4"

DESIGNED FOR PLYWOOD, SOLID WOOD, AND MDF. THIS BIT IS USED WHERE EXCELLENT FINISH AND HIGHER FEED RATE IS REQUIRED.

ITEM NUMBER	CUTTING EDGE DIAMETER	CUTTING EDGE LENGTH	SHANK	OVERALL LENGTH
320-1460	1/2"	1-1/8"	1/2"	3"
320-1480	1/2"	1-1/4"	1/2"	3"
320-1660	1/2"	2"	1/2"	4"
320-2020	5/8"	2"	5/8"	4"
320-2160	3/4"	2"	3/4"	4"

DESIGNED FOR PLYWOOD, SOLID WOOD, AND MDF WHERE FINISH IS NOT IMPORTANT BUT HIGH FEED RATES AND EXTENDED LIFE ARE REQUIRED.

310 SERIES
THREE FLUTE CHIPBREAKER
COMPRESSION SPIRALS



330 SERIES
THREE FLUTE ROUGHING
COMPRESSION SPIRALS



ITEM NUMBER	CUTTING EDGE DIAMETER	CUTTING EDGE LENGTH	SHANK	OVERALL LENGTH
310-1040	3/8"	1-1/4"	3/8"	3"
310-1480	1/2"	1-1/4"	1/2"	3"
310-1580	1/2"	1-5/8"	1/2"	3-1/2"
310-2020	5/8"	2"	5/8"	4"
310-2160	3/4"	2"	3/4"	4"

DESIGNED FOR PLYWOOD AND SOLID WOOD. THIS BIT IS USED WHERE EXCELLENT FINISH AND VERY HIGH FEED RATES ARE REQUIRED.

ITEM NUMBER	CUTTING EDGE DIAMETER	CUTTING EDGE LENGTH	SHANK	OVERALL LENGTH
330-1040	3/8"	1-1/4"	3/8"	3"
330-1480	1/2"	1-1/4"	1/2"	3"
330-1580	1/2"	1-5/8"	1/2"	3-1/2"
330-2020	5/8"	2"	5/8"	4"
330-2160	3/4"	2"	3/4"	4"

DESIGNED FOR PLYWOOD, SOLID WOOD, AND MDF WHERE FINISH IS NOT IMPORTANT BUT VERY HIGH FEED RATES AND EXTENDED LIFE ARE REQUIRED.



390 SERIES TWO FLUTE DOWN-CUT ROUGHER



400 SERIES TWO FLUTE UP-CUT ROUGHER



ITEM NUMBER	CUTTING EDGE DIAMETER	CUTTING EDGE LENGTH	SHANK	OVERALL LENGTH
390-1040	3/8"	1-1/4"	3/8"	3"
390-1480	1/2"	1-1/4"	1/2"	3"
390-1500	1/2"	1-1/4"	1/2"	3-1/2"
390-1580	1/2"	1-5/8"	1/2"	3-1/2"
390-1680	1/2"	2-1/8"	1/2"	4"
390-2020	5/8"	2"	5/8"	4"
390-2160	3/4"	2"	3/4"	4"

DESIGNED FOR SOLID WOODS, PLYWOODS, AND WOOD COMPOSITES. THIS BIT IS USED FOR FAST ROUTING OR HOGGING WITH HIGH FEED RATES. DOWN-CUT TOOL PROVIDES BETTER HOLD DOWN.

ITEM NUMBER	CUTTING EDGE DIAMETER	CUTTING EDGE LENGTH	SHANK	OVERALL LENGTH
400-1040	3/8"	1-1/4"	3/8"	3"
400-1480	1/2"	1-1/4"	1/2"	3"
400-1500	1/2"	1-1/4"	1/2"	3-1/2"
400-1580	1/2"	1-5/8"	1/2"	3-1/2"
400-1680	1/2"	2-1/8"	1/2"	4"
400-2020	5/8"	2"	5/8"	4"
400-2160	3/4"	2"	3/4"	4"

DESIGNED FOR SOLID WOODS, PLYWOOD, AND WOOD COMPOSITES. THIS BIT IS USED FOR FAST ROUTING OR HOGGING WITH HIGH FEED RATES. UP-CUT TOOL PROVIDES BETTER CHIP REMOVAL.

410 SERIES

THREE FLUTE DOWN-CUT ROUGHER



420 SERIES

THREE FLUTE UP-CUT ROUGHER



ITEM NUMBER	CUTTING EDGE DIAMETER	CUTTING EDGE LENGTH	SHANK	OVERALL LENGTH
410-0980	3/8"	1"	3/8"	2-1/2"
410-1000	3/8"	1"	3/8"	3"
410-1040	3/8"	1-1/4"	3/8"	3"
410-1480	1/2"	1-1/4"	1/2"	3"
410-1580	1/2"	1-5/8"	1/2"	3-1/2"
410-1640	1/2"	1-7/8"	1/2"	4"
410-1680	1/2"	2-1/8"	1/2"	4"
410-2020	5/8"	2"	5/8"	4"
410-2160	3/4"	2"	3/4"	4"

DESIGNED FOR SOLID WOODS AND WOOD COMPOSITES. THIS BIT IS USED FOR FAST ROUTING OR HOGGING WITH VERY HIGH FEED RATES. DOWN-CUT TOOL PROVIDES BETTER HOLD DOWN.

ITEM NUMBER	CUTTING EDGE DIAMETER	CUTTING EDGE LENGTH	SHANK	OVERALL LENGTH
420-0980	3/8"	1"	3/8"	2-1/2"
420-1000	3/8"	1"	3/8"	3"
420-1040	3/8"	1-1/4"	3/8"	3"
420-1480	1/2"	1-1/4"	1/2"	3"
420-1580	1/2"	1-5/8"	1/2"	3-1/2"
420-1640	1/2"	1-7/8"	1/2"	4"
420-1680	1/2"	2-1/8"	1/2"	4"
420-2020	5/8"	2"	5/8"	4"
420-2160	3/4"	2"	3/4"	4"

DESIGNED FOR SOLID WOODS AND WOOD COMPOSITES. THIS BIT IS USED FOR FAST ROUTING OR HOGGING WITH VERY HIGH FEED RATES. UP-CUT TOOL PROVIDES BETTER CHIP REMOVAL.



450 SERIES THREE FLUTE SLOW SPIRAL DOWN-CUT ROUGHER



460 SERIES THREE FLUTE SLOW SPIRAL UP-CUT ROUGHER



ITEM NUMBER	CUTTING EDGE DIAMETER	CUTTING EDGE LENGTH	SHANK	OVERALL LENGTH
450-1000	3/8"	1"	3/8"	3"
450-1540	1/2"	1-3/8"	1/2"	3-1/2"
450-1600	1/2"	1-5/8"	1/2"	4"
450-1620	1/2"	1-3/4"	1/2"	4"
450-2021	5/8"	2"	5/8"	5"
450-2161	3/4"	2"	3/4"	5"

DESIGNED FOR SOLID WOODS AND WOOD COMPOSITES. THIS BIT IS USED FOR FAST ROUTING OR HOGGING WITH VERY HIGH FEED RATES. DOWN-CUT TOOL PROVIDES BETTER HOLD DOWN. SLOW SPIRAL DESIGN REQUIRES LESS HORSEPOWER.

ITEM NUMBER	CUTTING EDGE DIAMETER	CUTTING EDGE LENGTH	SHANK	OVERALL LENGTH
460-1000	3/8"	1"	3/8"	3"
460-1540	1/2"	1-3/8"	1/2"	3-1/2"
460-1580	1/2"	1-5/8"	1/2"	3-1/2"
460-1640	1/2"	1-7/8"	1/2"	4"
460-2020	5/8"	2"	5/8"	4"
460-2160	3/4"	2"	3/4"	4"

DESIGNED FOR SOLID WOODS AND WOOD COMPOSITES. THIS BIT IS USED FOR FAST ROUTING OR HOGGING WITH VERY HIGH FEED RATES. UP-CUT TOOL PROVIDES BETTER CHIP REMOVAL. SLOW SPIRAL DESIGN REQUIRES LESS HORSEPOWER.

495 SERIES
FOUR FLUTE FINISH/ROUGHER
DOWN-CUT SPIRAL



500 SERIES
FOUR FLUTE FINISH/ROUGHER
UP-CUT SPIRAL



ITEM NUMBER	CUTTING EDGE DIAMETER	CUTTING EDGE LENGTH	SHANK	OVERALL LENGTH
495-1480	1/2"	1-1/4"	1/2"	3"
495-1580	1/2"	1-5/8"	1/2"	3-1/2"
495-2020	5/8"	2"	5/8"	4"
495-2160	3/4"	2"	3/4"	4"

DESIGNED FOR SOLID WOODS, WOOD COMPOSITES, AND SOME PLASTICS. THIS BIT IS USED WHERE A DOWNWARD CHIP REMOVAL, SUPERIOR FINISH ON TOP, AND EXTREMELY FAST FEED RATES ARE REQUIRED.

ITEM NUMBER	CUTTING EDGE DIAMETER	CUTTING EDGE LENGTH	SHANK	OVERALL LENGTH
500-1480	1/2"	1-1/4"	1/2"	3"
500-1580	1/2"	1-5/8"	1/2"	3-1/2"
500-2020	5/8"	2"	5/8"	4"
500-2160	3/4"	2"	3/4"	4"

DESIGNED FOR SOLID WOODS, WOOD COMPOSITES, AND SOME PLASTICS. THIS BIT IS USED WHERE AN UPWARD CHIP REMOVAL, SUPERIOR FINISH ON BOTTOM, AND EXTREMELY FAST FEED RATES ARE REQUIRED.



510 SERIES

SINGLE FLUTE STRAIGHT Z FLUTE



520 SERIES

TWO FLUTE STRAIGHT Z FLUTE



ITEM NUMBER	CUTTING EDGE DIAMETER	CUTTING EDGE LENGTH	SHANK	OVERALL LENGTH
510-0140	1/8"	1/2"	1/4"	2"
510-0300	3/16"	5/8"	1/4"	2"
510-0320	3/16"	3/4"	1/4"	2"
510-0540	1/4"	7/8"	1/4"	2-1/2"
510-0560	1/4"	1"	1/4"	2-1/2"
510-1000	3/8"	1"	3/8"	3"
510-1440	1/2"	1"	1/2"	3"
510-1620	1/2"	1-3/4"	1/2"	4"

DESIGNED FOR SOLID WOODS, WOOD COMPOSITES, ACRYLICS, PLASTICS, AND SOLID SURFACE. THIS BIT IS USED TO PROVIDE FAST, FREE CUTTING AND LONG EDGE LIFE.

ITEM NUMBER	CUTTING EDGE DIAMETER	CUTTING EDGE LENGTH	SHANK	OVERALL LENGTH
520-0140	1/8"	1/2"	1/4"	2"
520-0180	5/32"	3/8"	1/4"	2"
520-0300	3/16"	5/8"	1/4"	2"
520-0320	3/16"	3/4"	1/4"	2"
520-0540	1/4"	7/8"	1/4"	2-1/2"
520-0620	1/4"	1-1/4"	1/4"	3"
520-1000	3/8"	1"	3/8"	3"
520-1440	1/2"	1"	1/2"	3"
520-1580	1/2"	1-5/8"	1/2"	3-1/2"
520-1620	1/2"	1-3/4"	1/2"	4"

DESIGNED FOR SOLID WOODS, WOOD COMPOSITES, ACRYLICS, PLASTICS, AND SOLID SURFACE. THIS BIT IS USED TO PROVIDE FAST, FREE CUTTING AND LONG EDGE LIFE IN HARDER MATERIALS.

540 SERIES

SINGLE FLUTE STRAIGHT O FLUTE



550 SERIES

TWO FLUTE STRAIGHT O FLUTE



ITEM NUMBER	CUTTING EDGE DIAMETER	CUTTING EDGE LENGTH	SHANK	OVERALL LENGTH
540-0140	1/8"	1/2"	1/4"	2"
540-0300	3/16"	5/8"	1/4"	2"
540-0480	1/4"	1/2"	1/4"	2-1/2"
540-0560	1/4"	1"	1/4"	2-1/2"
540-0620	1/4"	1-1/4"	1/4"	3"
540-0940	3/8"	7/8"	3/8"	2-1/2"
540-1000	3/8"	1"	3/8"	3"
520-1440	1/2"	1"	1/2"	3"
520-1580	1/2"	1-5/8"	1/2"	3-1/2"

DESIGNED FOR SOFT PLASTICS. THIS BIT IS USED WHERE A GOOD FINISH IS REQUIRED WITHOUT CHIPPING OR TEARING THE PLASTIC.

ITEM NUMBER	CUTTING EDGE DIAMETER	CUTTING EDGE LENGTH	SHANK	OVERALL LENGTH
550-0140	1/8"	1/2"	1/4"	2"
550-0300	3/16"	5/8"	1/4"	2"
550-0480	1/4"	1/2"	1/4"	2-1/2"
550-0560	1/4"	1"	1/4"	2-1/2"
550-0620	1/4"	1-1/4"	1/4"	3"
550-0940	3/8"	7/8"	3/8"	2-1/2"
550-1000	3/8"	1"	3/8"	3"
550-1440	1/2"	1"	1/2"	3"
550-1580	1/2"	1-5/8"	1/2"	3-1/2"

DESIGNED FOR MEDIUM PLASTICS. THIS BIT IS USED WHERE A GOOD FINISH IS REQUIRED WITHOUT CHIPPING OR TEARING THE PLASTIC.



560 SERIES

SINGLE FLUTE DOWN-CUT O FLUTE



570 SERIES

SINGLE FLUTE UP-CUT O FLUTE



ITEM NUMBER	CUTTING EDGE DIAMETER	CUTTING EDGE LENGTH	SHANK	OVERALL LENGTH
560-0140	1/8"	1/2"	1/4"	2"
560-0300	3/16"	5/8"	1/4"	2"
560-0540	1/4"	7/8"	1/4"	2-1/2"
560-1020	3/8"	1-1/8"	3/8"	3"
560-1460	1/2"	1-1/8"	1/2"	3"

DESIGNED FOR SOFT AND HARD PLASTICS. THIS BIT IS USED WHERE A DOWNWARD CHIP REMOVAL AND A GOOD FINISH ON TOP IS REQUIRED. DOWN-CUT TOOL PROVIDES BETTER HOLD DOWN.

ITEM NUMBER	CUTTING EDGE DIAMETER	CUTTING EDGE LENGTH	SHANK	OVERALL LENGTH
570-0140	1/8"	1/2"	1/4"	2"
570-0300	3/16"	5/8"	1/4"	2"
570-0540	1/4"	7/8"	1/4"	2-1/2"
570-1020	3/8"	1-1/8"	3/8"	3"
570-1460	1/2"	1-1/8"	1/2"	3"

DESIGNED FOR SOFT AND HARD PLASTICS. THIS BIT IS USED WHERE AN UPWARD CHIP REMOVAL IS REQUIRED.

590 SERIES

TWO FLUTE DOWN-CUT O FLUTE



610 SERIES

TWO FLUTE UP-CUT O FLUTE



ITEM NUMBER	CUTTING EDGE DIAMETER	CUTTING EDGE LENGTH	SHANK	OVERALL LENGTH
590-0560	1/4"	1"	1/4"	2-1/2"
590-0620	1/4"	1-1/4"	1/4"	3"
590-0740	5/16"	1"	5/16"	3"
590-1000	3/8"	1"	3/8"	3"
590-1580	1/2"	1-5/8"	1/2"	3-1/2"

DESIGNED FOR HARDER PLASTICS AND ALUMINUM. THIS BIT IS USED WHERE A DOWNWARD CHIP REMOVAL AND A GOOD FINISH ON TOP IS REQUIRED. DOWN-CUT TOOL PROVIDES BETTER HOLD DOWN.

ITEM NUMBER	CUTTING EDGE DIAMETER	CUTTING EDGE LENGTH	SHANK	OVERALL LENGTH
610-0560	1/4"	1"	1/4"	2-1/2"
610-0620	1/4"	1-1/4"	1/4"	3"
610-0740	5/16"	1"	5/16"	3"
610-1000	3/8"	1"	3/8"	3"
610-1580	1/2"	1-5/8"	1/2"	3-1/2"

DESIGNED FOR HARDER PLASTICS AND ALUMINUM. THIS BIT IS USED WHERE AN UPWARD CHIP REMOVAL IS REQUIRED.



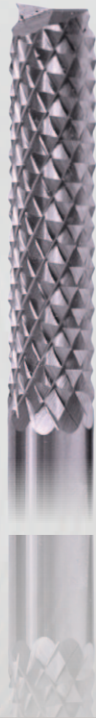
670 SERIES EDGE ROUNDING-TWO FLUTE STRAIGHT O-FLUTE



ITEM NUMBER	CUTTING EDGE DIAMETER	CUTTING EDGE LENGTH	SHANK	OVERALL LENGTH	OPENING	RADIUS	SD
670-7050	1/4"	3/8"	1/4"	2.5"	5/32"	1/8"	.195
670-7060	1/4"	3/8"	1/4"	2.5"	9/32"	1/4"	.163
670-7100	3/8"	3/8"	3/8"	2.5"	5/32"	1/8"	.320
670-7110	3/8"	3/8"	3/8"	2.5"	9/32"	1/4"	.288
670-7120	1/2"	3/8"	1/2"	3"	5/32"	1/8"	.445
670-7130	1/2"	3/8"	1/2"	3"	9/32"	1/4"	.413
670-7140	1/2"	5/8"	1/2"	3"	27/64"	3/8"	.370

DESIGNED FOR EDGE ROUNDING OF PLASTIC SHEETS OR PARTS.

665-SERIES
 FIBERGLASS ROUTER-MEDIUM
 BURR W/END MILL POINT



ITEM NUMBER	CUTTING EDGE DIAMETER	CUTTING EDGE LENGTH	SHANK	OVERALL LENGTH
665-0561	1/4"	1"	1/4"	3"
665-1081	3/8"	1-1/2"	3/8"	4"
665-1700	1/2"	2-1/4"	1/2"	4"

DESIGNED TO ROUTE FIBERGLASS MATERIALS.

660 SERIES
 SINGLE FLUTE VEINING BIT

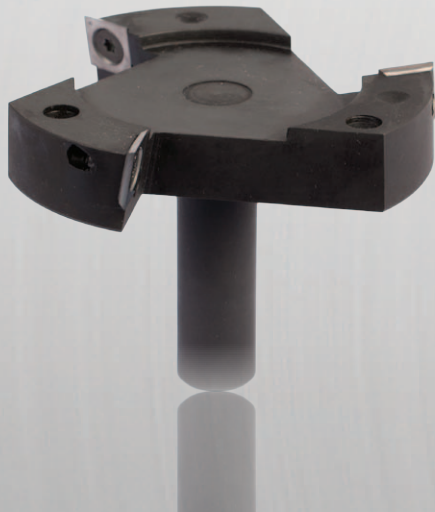


ITEM NUMBER	CUTTING EDGE DIAMETER	CUTTING EDGE LENGTH	SHANK	OVERALL LENGTH
660-0040	1/16"	3/8"	1/4"	2"

DESIGNED FOR SOLID WOODS, WOOD COMPOSITES, PLASTICS, AND LAMINATED OR VENEERED MATERIALS. THIS BIT IS USED FOR ENGRAVING OR CREATING DECORATIVE CUTS IN MATERIALS.



1500 SERIES CNC SPOILBOARD SURFACING CUTTERS



1501 SERIES HSK63F INTEGRATED SPOILBOARD SURFACING CUTTER



ITEM NUMBER	CUTTING EDGE DIAMETER	CUTTING EDGE LENGTH	SHANK	OVERALL LENGTH
1500-212	2-1/2"	1/2"	2"	2"
1500-400	4"	3/4"	2-1/4"	3"

DESIGNED FOR SURFACING MDF AND PARTICAL BOARD.

ITEM NUMBER	DESCRIPTION
1500-SCREW	M6-10 SCREW
1500-INSERT	14 x 14 x 2 (10PK)
1500-WRENCH	WRENCH T-20 TORX

ITEM NUMBER	CUTTING EDGE DIAMETER	CUTTING EDGE LENGTH	SHANK	OVERALL LENGTH
1501-400	4"	HSK63F	4"	3"

DESIGNED FOR SURFACING MDF AND PARTICAL BOARD.

ITEM NUMBER	DESCRIPTION
1501-SCREW	M6-10 SCREW
1501-INSERT	14 x 14 x 2 (10PK)
1501-WRENCH	WRENCH T-20 TORX

ROUTER SHANK	ER 25	ER 32	ER 40
1/8"	04225-1/8	04232-1/8	04240-1/8
5/32"		04232-5/32	
3/16"	04225-3/16	04232-3/16	04240-3/16
7/32"		04232-7/32	
1/4"	04225-1/4	04232-1/4	04240-1/4
9/32"		04232-9/32	
5/16"	04225-5/16	04232-5/16	04240-5/16
11/32"		04232-11/32	
3/8"	04225-3/8	04232-3/8	04240-3/8
13/32"		04232-13/32	
7/16"	04225-7/16	04232-7/16	04240-7/16
15/32"		04232-15/32	
1/2"	04225-1/2	04232-1/2	04240-1/2
17/32"		04232-17/32	
9/16"	04225-9/16	04232-9/16	04240-9/16
19/32"		04232-19/32	
5/8"	04225-5/8	04232-5/8	04240-5/8
21/32"		04232-21/32	
11/16"		04232-11/16	04240-11/16
23/32"		04232-23/32	
3/4"		04232-3/4	04240-3/4
7/8"			04240-7/8
1"			04240-1

ACCESSORIES
ER PRECISION COLLETS – INCH SIZE





ACCESSORIES

ER STANDARD COLLET NUTS



SHODA COLLETS



ITEM NUMBER	DESCRIPTION
SD-C001-NUT	Shoda Piggyback Collet Nut
SD-20MM-NUT	Shoda (Old Style) Collet Nut
SD-C015-NUT	Shoda (New Style) Collet Nut
SS-22-NUT	Super Shoda Collet Nut

ITEM NUMBER	DESCRIPTION
SD-20MM-.250	Shoda 20MM (Old Style) 1/4" Collet
SD-20MM-.312	Shoda 20MM (Old Style) 5/16" Collet
SD-20MM-.375	Shoda 20MM (Old Style) 3/8" Collet
SD-20MM-.500	Shoda 20MM (Old Style) 1/2" Collet
SD-20MM-.625	Shoda 20MM (Old Style) 5/8" Collet
SD-C001-.125	Shoda Piggyback 1/8" Collet
SD-C001-.187	Shoda Piggyback 3/16" Collet
SD-C001-.250	Shoda Piggyback 1/4" Collet
SD-C001-.312	Shoda Piggyback 5/16" Collet
SD-C001-.375	Shoda Piggyback 3/8" Collet
SD-C001-.500	Shoda Piggyback 1/2" Collet
SD-C015-.125	Shoda 24MM (New Style) Collet 1/8"
SD-C015-.250	Shoda 24MM (New Style) Collet 1/4"
SD-C015-.312	Shoda 24MM (New Style) Collet 5/16"
SD-C015-.375	Shoda 24MM (New Style) Collet 3/8"
SD-C015-.500	Shoda 24MM (New Style) Collet 1/2"
SD-C015-.625	Shoda 24MM (New Style) Collet 5/8"
SD-C015-.750	Shoda 24MM (New Style) Collet 3/4"
SS-22-1/4	Super Shoda 1/4" Collet
SS-22-3/8	Super Shoda 3/8" Collet
SS-22-10	Super Shoda 10MM Collet
SS-22-1/2	Super Shoda 1/2" Collet

ER COATED COLLET NUTS



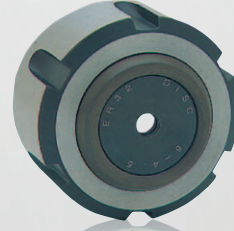
ITEM NUMBER	DESCRIPTION
30000	HSK 63F x ER 32 - 70MM
40050	HSK 63F x ER 32 - 80MM
30001	HSK 63F x ER 40 - 76MM
30002	HSK 63F x ER 40 - 90MM

ACCESSORIES

STANDARD ER DUST COVERS

ROUTER SHANK	ER 25	ER 32	ER 40
1/4"	08525-03.5	08532-03.5	08540-03.5
5/32"	08525-04.0	08532-04.0	08540-04.0
3/16"	08525-05.0	08532-05.0	08540-05.0
7/32"	08525-06.0	08532-06.0	08540-06.0
1/4"	08525-06.5	08532-06.5	08540-06.5
9/32"	08525-07.5	08532-07.5	08540-07.5
5/16"	08525-08.0	08532-08.0	08540-08.0
11/32"	08525-09.0	08532-09.0	08540-09.0
3/8"	08525-09.5	08532-09.5	08540-09.5
13/32"	08525-10.5	08532-10.5	08540-10.5
7/16"	08525-11.5	08532-11.5	08540-11.5
15/32"	08525-12.0	08532-12.0	08540-12.0
1/2"	08525-13.0	08532-13.0	08540-13.0
17/32"	08525-13.5	08532-13.5	08540-13.5
9/16"	08525-14.5	08532-14.5	08540-14.5
19/32"	08525-15.5	08532-15.5	08540-15.5
5/8"	08525-16.0	08532-16.0	08540-16.0
21/32"		08532-17.0	08540-17.0
11/16"		08532-17.5	08540-17.5
23/32"		08532-18.5	08540-18.5
3/4"		08532-19.0	08540-19.0
25/32"		08532-20.0	08540-20.0
13/16"			08540-21.0
27/32"			08540-21.5
7/8"			08540-22.5
29/32"			08540-23.0
15/16"			08540-24.0
31/32"			08540-25.0
1"			08540-25.5

ER STANDARD COLLET NUTS



ITEM NUMBER	DESCRIPTION
21325	ER 25 Standard Collet Nut
21332	ER 32 Standard Collet Nut
21340	ER 40 Standard Collet Nut

ER COATED COLLET NUTS



ITEM NUMBER	DESCRIPTION
41625	ER 25 Coated Collet Nut RU25B
41632	ER 32 Coated Collet Nut RU32B
41640	ER 40 Coated Collet Nut RU40B

COLLET BRUSHES

ITEM NUMBER	DESCRIPTION
1407B	1/4" Brass Collet Brush
1409B	3/8" Brass Collet Brush
1411B	1/2" Brass Collet Brush
1413B	3/4" Brass Collet Brush



NOTES



MISSION STATEMENT

Service, quality, and support are the keys to our mission of servicing the woodworking industry. Through these steps we hope to offer the easiest, most effective, and profitable products and support to our customers.

SERVICE – Misenheimer offers only top notch service to our customers. We create this by quick response to all orders, quotation inquiries, and all other types of requests. Lots of inventory kept in stock to keep backorders to an absolute minimum. Whether items are available from stock, or temporarily out of stock, turn around time is exceptionally better than the competition because all items are manufactured in house, in the U.S.A.

QUALITY – Misenheimer quality is unsurpassed. We begin with top quality carbide, use only state-of-the-art equipment, and maintain rigorous manufacturing and inspection tolerances throughout production. There should never be a concern with your order(s) because items are checked after manufacturing and again before shipping to ensure that you are receiving only the best the industry has to offer.

SUPPORT – Misenheimer offers all aspects of support, such as technical advice (over the phone) to ensure you are purchasing the right tool for the job and application. We also make recommendations for different tool usage to increase production, speeds, improve material finish, and/or lowering costs whenever possible. If the proper technical support cannot be completely resolved over the phone, we also offer on-site assistance at no charge to the customer.

Call us today and see for yourself!



TERMS & CONDITIONS

Effective June 1, 2004

- The terms hereafter written shall supersede the terms of customer's order in the event of contradiction or inconsistency and no understanding, agreement, term, condition, or trade custom at variance here-within shall be binding on the parties.
- Prices are subject to change without prior notice. Price changes are effective on a specific date and all orders received by us on or after that date will be billed at the revised price.
- Term are net thirty (30) days.
- Misenheimer retains the right to refuse to sell to distributors who do not pay their bills within the stated terms or do not satisfactorily meet Misenheimer's qualification for distribution.
- All shipments of products are F.O.B. our warehouse.
- Any claims for package shortages must be made within thirty (30) days of invoice date.
- Misenheimer ships via UPS Ground. When instructed to ship in a manner other than stated, the customer shall be responsible for any additional cost(s).
- No returns shall be accepted without the prior written or verbal authorization from Misenheimer, Inc. Returns of improperly ordered goods are subject to a 20% restocking fee, must be in original packaging, and in new/resalable condition.

GUARANTEE

MISENHEIMER, INC. guarantees our products against defects in workmanship, materials, and performance; provided the tool has not been incorrectly applied or misused.





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