

Series 3100 "The Viper"

TWO FLUTE COMPRESSION SPIRAL



Compression means the upcut and downcut spiral flutes compress the material being cut preventing chipping or fuzzing on the top and bottom of the cut. Our unique flute geometry allows the "Viper" to cut faster and longer than other compression spirals on the market today. It also allows for extended sharpening life with excellent performance throughout the tool's useful life. Compression spirals are used extensively for cutting double-sided laminates (melamine, vinyl, high pressure laminates, painted board, etc.). This series of compression spirals is not recommended for cutting materials thinner than 5/8".

RIGHT HAND PART #	LEFT HAND PART #	CED	CEL	SHK DIA	OAL	UPCUT LENGTH
3108	--	6mm	25mm	6mm	64mm	0.354
3122	--	8mm	28mm	8mm	64mm	0.433
3145	--	10mm	35mm	10mm	76mm	0.500
3155	--	12mm	35mm	12mm	76mm	0.650
3110	3110L	1/4	7/8	1/4	3	0.250
3130	3130L	3/8	1 1/8	3/8	3	0.500
3135	3135L	1/2	1	1/2	3	0.550
3152	3152L	1/2	1 3/8	1/2	3 1/2	0.650
3160	3160L	1/2	1 3/4	1/2	3 1/2	0.800
3162	3162L	1/2	2	1/2	4	0.800
3170	3170L	5/8	2	5/8	4	0.900
3179	--	3/4	1 5/8	3/4	4	0.750
3180	3180L	3/4	2	3/4	4	1.000
3183	3183L	3/4	2 1/2	3/4	5	1.250

Series 3100M "The Viper"

TWO FLUTE MORTISE COMPRESSION SPIRAL



This series of compression spirals is designed for doing mortise cuts or cutting material 5/8" thick or less. Designed with a 1/4" upcut or less preventing chipping and fuzzing on top and bottom of the material being cut. "Mortise cuts" are grooves cut in the material usually at a depth equal to or slightly less than the diameter of the tool.

Indicates 3/16" upcut for 1/4" groove cuts or 1/4" material thicknesses. (m) = upcut length 3/16". (m) = upcut length 1/4"

RIGHT HAND PART #	LEFT HAND PART #	CED	CEL	SHK DIA	OAL	UPCUT LENGTH
3105 (m*)	--	6mm	22mm	6mm	64mm	0.1875
3112*	--	1/4	7/8	1/4	3	0.1875
3115*	3115L	1/4	5/8	1/4	2 1/2	0.1875
3120	--	8mm	25mm	8mm	64mm	0.250
3140 (m)	--	10mm	30mm	10mm	76mm	0.250
3154 (m)	--	12mm	25mm	12mm	76mm	0.250
3184*	--	3/8	7/8	3/8	3	0.1875
3185	3185L	3/8	7/8	3/8	3	0.250
3187*	--	1/2	1	1/2	3	0.1875
3189	3189L	1/2	1	1/2	3	0.250
3188	--	1/2	1 1/4	1/2	3 1/2	0.250
3190	3190L	1/2	1 5/8	1/2	3 1/2	0.250
3168	3168L	9/16	1	1/2	3	0.250
3193	--	5/8	2	5/8	4	0.250
3198	--	3/4	1 1/2	3/4	4	0.250

Series 3100XP

TWO FLUTE “XTREME PERFORMANCE” COMPRESSION SPIRALS

“XP” — which stands for “Xtreme Performance” — are specifically manufactured to provide maximum tool life in melamine, high pressure laminated particle board and MDF materials. Users can expect 3-5 times more tool life as compared to standard compression spiral geometry. The compression geometry will provide a chip free edge on both sides of the material being cut.



Standard Upcut Length



Mortise Upcut Length (m)

RIGHT HAND PART #	LEFT HAND PART #	CED	CEL	SHK DIA	OAL	UPCUT LENGTH
3130XP	3130LXP	3/8	1 1/8	3/8	3	0.500
3184XP (m*)	--	3/8	7/8	3/8	3	0.1875
3185XP (m)	3185LXP (m)	3/8	7/8	3/8	3	0.250
3135XP	--	1/2	1	1/2	3	0.550
3187XP (m*)	--	1/2	1	1/2	3	0.1875
3189XP (m)	--	1/2	1	1/2	3	0.250
3150XP (m)	--	1/2	1 3/8	1/2	3 1/2	0.250
3152XP	--	1/2	1 3/8	1/2	3 1/2	0.650
3158XP	3158LXP	1/2	1 5/8	1/2	3 1/2	0.650
3179XP	--	3/4	1 5/8	3/4	4	0.750
3180XP	--	3/4	2	3/4	4	1.000

(m*) = 3/16” upcut length for 1/4” material or dado cuts
(m) = 1/4” upcut for mortise cuts or thin materials

Series 3200XP

THREE FLUTE “XTREME PERFORMANCE” COMPRESSION SPIRALS

Our three flute “Xtreme Performance” series will provide the same tool life as our two flute XP series, however, the three flute design allows for faster feed rates. This series of tools will provide a chip free edge on both sides of the material being cut. Designed for today’s high speed routers.



Mortise Upcut Length (m)

PART #	CED	CEL	SHK DIA	OAL	UPCUT LENGTH
3284XP (m*)	3/8	7/8	3/8	3	0.1875
3285XP (m)	3/8	7/8	3/8	3	0.250
3289XP (m)	1/2	1	1/2	3	0.250
3252XP	1/2	1 3/8	1/2	3 1/2	0.650

(m*) = 3/16” upcut length for 1/4” material or dado cuts
(m) = 1/4” upcut for mortise cuts or thin materials

Series 3200

THREE FLUTE COMPRESSION SPIRALS

One of our more popular tool designs. The three flute compression spiral allows for faster feed rates and excellent finishes on both sides of the material being cut. Designed for today's high speed routers.



Standard Upcut Length

RIGHT HAND PART #	LEFT HAND PART #	CED	CEL	SHK DIA	OAL	UPCUT LENGTH
3230	--	3/8	1 1/8	3/8	3	0.500
3284 (m*)	--	3/8	7/8	3/8	3	0.1875
3285 (m)	3285L (m)	3/8	7/8	3/8	3	0.250
3235	3235L	1/2	1	1/2	3	0.550
3287 (m*)	--	1/2	1	1/2	3	0.1875
3289 (m)	3289L (m)	1/2	1	1/2	3	0.250
3252	3252L	1/2	1 3/8	1/2	3 1/2	0.650
3290 (m)	--	1/2	1 5/8	1/2	3 1/2	0.250
3260	--	1/2	1 3/4	1/2	3 1/2	0.800
3270	--	5/8	2	5/8	4	0.900
3280	3280L	3/4	2	3/4	4	1.000

(m*) = 3/16" upcut length for 1/4" material or dado cuts
 (m) = 1/4" upcut for mortise cuts or thin materials

Series 3200C

THREE FLUTE COMPRESSION SPIRAL WITH CHIPBREAKERS

Three flute compression design with the addition of chipbreakers which reduce fuzzing and scaling on plywoods and hardwoods while allowing for higher feed rates.



Standard Upcut Length

PART #	CED	CEL	SHK DIA	OAL	UPCUT LENGTH
3230C	3/8	1 1/8	3/8	3	0.500
3285C (m)	3/8	7/8	3/8	3	0.250
3235C	1/2	1	1/2	3	0.550
3289C (m)	1/2	1	1/2	3	0.250
3252C	1/2	1 3/8	1/2	3 1/2	0.650
3280C	3/4	2	3/4	4	1.000

(m) = 1/4" upcut for mortise cuts or thin materials
 Please note: Tools with an (m) have chipbreakers ground in downcut flutes only
 CED = Cutting Edge Diameter
 CEL = Cutting Edge Length
 SHK DIA = Shank Diameter
 OAL = Overall Length

Series 3300

FOUR FLUTE COMPRESSION SPIRAL

Four flutes up and four flutes down! These tools were manufactured for users who want to run at extremely high feed rates. Compression spirals are used extensively for cutting double sided laminates (melamine, vinyl, high pressure laminate, painted board, etc).



Standard Upcut Length

PART #	CED	CEL	SHK DIA	OAL	UPCUT LENGTH
3335	1/2	1	1/2	3	0.550
3389 (m)	1/2	1	1/2	3	0.250
3352	1/2	1 3/8	1/2	3 1/2	0.650
3390 (m)	1/2	1 5/8	1/2	3 1/2	0.250
3360	1/2	1 3/4	1/2	3 1/2	0.800
3380	3/4	2	3/4	4	1.000

(m) = 1/4" upcut for mortise cuts or thin materials

Series 3400

TWO FLUTE COMPRESSION SPIRAL WITH CHIPBREAKERS

The "Viper Plus" incorporates the compression spiral design with chipbreakers ground in the cutting edge. The chipbreakers are staggered to produce a clean edge cut. Recommended for hardwoods and plywoods (such as baltic birch) where edge fuzzing or scaling is a problem.



Standard Upcut Length

RIGHT HAND PART #	LEFT HAND PART #	CED	CEL	SHK DIA	OAL	UPCUT LENGTH
3422	--	8mm	27mm	8mm	64mm	0.433
3430	--	3/8	1 1/8	3/8	3	0.500
3485 (m)	--	3/8	7/8	3/8	3	0.250
3445	--	10mm	30mm	10mm	76mm	0.500
3455	--	12mm	35mm	12mm	88mm	0.625
3435	--	1/2	1	1/2	3	0.550
3489 (m)	--	1/2	1	1/2	3	0.250
3452	--	1/2	1 3/8	1/2	3 1/2	0.650
3460	--	1/2	1 3/4	1/2	3 1/2	0.800
3470	--	5/8	2	5/8	4	0.900
3480	3480L	3/4	2	3/4	4	1.000
3483	3483L	3/4	2 1/2	3/4	5	1.250

(m) = 1/4" upcut for mortise cuts or thin materials

Please note: Tools with an (m) have chipbreakers ground in downcut flutes only

CED = Cutting Edge Diameter

CEL = Cutting Edge Length

SHK DIA = Shank Diameter

OAL = Overall Length

Series 3400XP

TWO FLUTE “XTREME PERFORMANCE” COMPRESSION SPIRAL W/CHIPBREAKERS



“XP” — which stands for “Xtreme Performance” — are specifically designed to provide as much as 3-5 times more tool life than standard compression geometry. The chipbreaker design allows for free cutting action in solid wood and plywood materials.

PART #	CED	CEL	SHK DIA	OAL	UPCUT LENGTH
3430XP	3/8	1 1/8	3/8	3	0.500
3485XP (m)	3/8	7/8	3/8	3	0.250
3435XP	1/2	1	1/2	3	0.550
3487XP (m*)	1/2	1	1/2	3	0.1875
3489XP (m)	1/2	1	1/2	3	0.250
3452XP	1/2	1 3/8	1/2	3 1/2	0.650

(m*) = 3/16” upcut for 1/4” material or dado cuts

(m) = 1/4” upcut for mortise cuts or thin materials

Please note: Tools with an (m) or (m*) have chipbreakers ground in downcut flutes only

Series 3500

FOUR FLUTE “TORNADO” COMPRESSION



Another Industry First!!! The Vortex “Tornado” roughing/finishing tool is the fastest cutting router bit in the world. If you have the machine to do it, we’ve got the tool. With increased feed speeds (as much as 3500 IPM), this tool will provide a clean cut on double-sided materials such as melamine and formica laminated particle board. Not recommended to operate under 600 inches per minute.

RIGHT HAND PART #	LEFT HAND PART #	CED	CEL	SHK DIA	OAL	UPCUT LENGTH
3535	--	1/2	1	1/2	3	0.550
3589 (m)	--	1/2	1	1/2	3	0.250
3552	3552L	1/2	1 3/8	1/2	3 1/2	0.650
3560	--	1/2	1 3/4	1/2	3 1/2	0.800
3570	--	5/8	2	5/8	4	0.900
3580	3580L	3/4	2	3/4	4	1.000
3583	--	3/4	2 1/2	3/4	5	1.250

(m) = 1/4” upcut for mortise cuts or thin materials

CED = Cutting Edge Diameter

CEL = Cutting Edge Length

SHK DIA = Shank Diameter

OAL = Overall Length