



Saws and V-Cutters

High-Speed Steel

Martindale Undercutting Saws

GENERAL

Martindale Undercutting Saws and V-Cutters are available in High-Speed Steel or Tungsten-Carbide. Both types are carefully designed as to tooth form, hollow grind, hardness, etc., and are manufactured to close tolerances in our own plant.

While used primarily for undercutting mica and slotting risers of commutators, Martindale Undercutting Saws and V-cutters are also used for cutting steel, aluminum, plastics, and other materials not requiring set teeth.

Undercutting differs from ordinary machining in that, instead of shearing, it is a combination of crushing, grinding, and conveying. Mica is very abrasive and varies in hardness, making necessary the very best design and production controls in the manufacture of undercutting saws.

HIGH-SPEED STEEL SAWS and V-CUTTERS

These can be used on either portable or stationary equipment with spindle speeds of 1,500 to 5,000 r.p.m.

(See Martindale Mica Undercutters for 16 Undercutters.)

SAWS ("U"-Slot)

Actual size illustrations at left; specifications below. Saws stocked in these thicknesses:

.015" .023" .028" .035" .043" .053" .060" (Other thicknesses .018" .025" .030" .038" .045" .055" .063" available at .020" .026" .032" .040" .050" .058" .065" extra cost.)

Be sure to specify thicknesses.

Type Number	O.D.	Hole	No. Teeth	Catalog Number
10-HS	1/4"	1/8"	14	HSMS10
9-HS	9/32"	1/8"	14	HSMS9
9 1/2-HS	5/16"	1/8"	16	HSMS9.5
32-HS	3/8"	1/8"	18	HSMS32
33-HS	3/8"	3/16"	18	HSMS33
12-HS	7/16"	1/8"	18	HSMS12
42-HS	1/2"	1/8"	18	HSMS42
16-HS	1/2"	3/16"	18	HSMS16
13-HS	11/16"	3/16"	28	HSMS13
14-HS	23/32"	5/16"	32	HSMS14
64-HS	3/4"	1/4"	22	HSMS64
65-HS	3/4"	5/16"	22	HSMS65
74-HS	7/8"	1/4"	24	HSMS74
3-HS	7/8"	9/32"	24	HSMS3
75-HS	7/8"	5/16"	24	HSMS75
84-HS	1"	3/8"	28	HSMS86
85-HS	1"	9/32"	28	HSMS5
86-HS	1"	5/16"	28	HSMS96
4-HS	1"	9/32"	28	HSMS4
84-HS	1"	5/16"	28	HSMS85
85-HS	1"	3/8"	28	HSMS86
86-HS	1"	9/32"	28	HSMS5
96-HS	1-1/8"	3/8"	28	HSMS97K
97-KHS	1-1/8"	7/16"	28	HSMS97K
6-HS	1-1/4"	9/32"	32	HSMS6
105-KHS	1-1/4"	5/16"	32	HSMS105K
106-HS	1-1/4"	3/8"	32	HSMS106
108-KHS	1-1/4"	1/2"	32	HSMS108K
116-HS	1-3/8"	3/8"	36	HSMS116

Metric Sizes
25 mm. O.D. x 7mm. I.D.
Saws in stock,
along with other metric
sizes upon request.

V-CUTTERS ("V"-Slot)

Actual size illustrations at left; specifications below. These cutters are all .045" thick and stocked with 40°, 50°, and 60° angles between cutting edges. 40° V-cutters are for thin mica, 50° for medium mica, 60° for thick mica.

Be sure to specify angle 40°, 50°, or 60°.

Type Number	O.D.	Hole	No. Teeth	Catalog Number
42-VHS	1/2"	1/8"	12	HSMSV42
17-VHS	1/2"	3/16"	12	HSMSV17
13-VHS	11/16"	3/16"	14	HSMSV13
15-VHS	23/32"	5/16"	14	HSMSV15
64-VHS	3/4"	1/4"	14	HSMSV64
65-VHS	3/4"	5/16"	14	HSMSV65
74-VHS	7/8"	1/4"	18	HSMSV74
3-VHS	7/8"	9/32"	18	HSMSV3
75-VHS	7/8"	5/16"	18	HSMSV75
84-VHS	1"	1/4"	22	HSMSV84
4-VHS	1"	9/32"	22	HSMSV4
85-VHS	1"	5/16"	22	HSMSV85
86-VHS	1"	3/8"	22	HSMSV86
5-VHS	1-1/8"	9/32"	24	HSMSV5
96-VHS	1-1/8"	3/8"	24	HSMSV96
97-KVHS	1-1/8"	7/16"	24	HSMSV97K
6-VHS	1-1/4"	9/32"	24	HSMSV6
105-KVHS	1-1/4"	5/16"	24	HSMSV105K
106-VHS	1-1/4"	3/8"	24	HSMSV106
108-KVHS	1-1/4"	1/2"	24	HSMSV108K
116-VHS	1-3/8"	3/8"	26	HSMSV116

Metric Sizes
25 mm. O.D. x 7mm. I.D.
V-Cutters in stock,
along with other metric
sizes upon request.

TUNGSTEN-CARBIDE SAWS and V-CUTTERS

The teeth of both saws and V-cutters have a slight land to give strength to the cutting edge. Saws are hollow-ground for clearance, V-cutters have ample radial relief. When Carbide Saws are used on other equipment than our undercutters, steel supporting washers are recommended to reduce breakage. Spindle speeds may vary from 3,000 to 12,000 r.p.m., depending on Saw O.D. Martindale Carbide Saw Blades are harder than High Speed Steel Saws, therefore more brittle and should not be subjected to applications where shock may shorten the service life. Use on rigid stationary equipment.

See Undercutters for 9 Martindale Undercutters for use with these saws: Close-Cut, Kut-Kwik, Utility, Bench-Type Model HV-3, Lathe-Type and Super Lathe-Type, Heavy-Duty Bench-Type Model H-9, Industrial Model HA-2, and Model UL Lathe Mounted Automatic.

SAWS ("U"-Slot)

Actual size illustrations; specifications below. Thickness ranges as follows:

1/4" - 9/16" O.D. from .010" to .045" thick
5/8" - 1-3/8" O.D. from .010" to .065" thick

Be sure to specify thicknesses.

Type Number	O.D.	Hole	No. Teeth	Catalog Number
10-TC	1/4"	1/8"	12	TUNS10
9-1/2-TC	5/16"	1/8"	14	TUNS9.5
32-TC	3/8"	1/8"	14	TUNS32
33-TC	3/8"	3/16"	14	TUNS33
12-TC	7/16"	1/8"	14	TUNS12
42-TC	1/2"	1/8"	14	TUNS42
16-TC	1/2"	3/16"	14	TUNS16
18-TC	9/16"	1/4"	16	TUNS18
54-TC	5/8"	1/4"	16	TUNS54
64-TC	3/4"	1/4"	18	TUNS64
65-TC	3/4"	5/16"	18	TUNS65
75-TC	7/8"	5/16"	20	TUNS75
4-TC	1"	9/32"	20	TUNS4
84-TC	1"	1/4"	20	TUNS84
85-TC	1"	5/16"	20	TUNS85
86-TC	1"	3/8"	20	TUNS86
95-TC	1-1/8"	5/16"	22	TUNS95
96-TC	1-1/8"	3/8"	22	TUNS96
105-TC	1-1/4"	5/16"	24	TUNS105
106-TC	1-1/4"	3/8"	24	TUNS106
108-TC	1-1/4"	1/2"	24	TUNS108
116-TC	1-3/8"	3/8"	24	TUNS116

COMPOUND-LAND SAWS

The compound-land feature, sketched at right, is available on tungsten-carbide "U"-slot saws 9/16" O.D. and up (#18-TC thru #116-TC) at a 30% premium in price. Because of this feature, each tooth cuts only 50% of full slot width, resulting in better chip clearance, cooler operation and production increases of up to 60% over the square-toothed Saw. To order, add "CL" to Catalog Number. Minimum thickness .015".

**V-CUTTERS ("V"-Slot)**

Actual size illustrations; specifications below. Thickness ranges as follows:

1/2" O.D. from .030" to .045" thick
3/4" - 1-3/8" O.D. from .030" to .065" thick

Angles between cutting edges can be 40°, 50°, and 60°. 40° V-cutters are for thin mica, 50° for medium mica, 60° for thick mica.

Be sure to specify thicknesses and angle, 40°, 50° or 60°.

Type Number	O.D.	Hole	No. Teeth	Catalog Number
42-VTC	1/2"	1/8"	12	TUNSV42
17-VTC	1/2"	3/16"	12	TUNSV17
65-VTC	3/4"	5/16"	14	TUNSV65
75-VTC	7/8"	5/16"	16	TUNSV75
4-VTC	1"	9/32"	18	TUNSV4
85-VTC	1"	5/16"	18	TUNSV85
86-VTC	1"	3/8"	18	TUNSV86
95-VTC	1-1/8"	5/16"	20	TUNSV95
96-VTC	1-1/8"	3/8"	20	TUNSV96
105-VTC	1-1/4"	5/16"	22	TUNSV105
106-VTC	1-1/4"	3/8"	22	TUNSV106
116-VTC	1-3/8"	3/8"	22	TUNSV116

SPECIALS — Your inquiries are invited for sizes not listed on the H.S.S. or Tungsten-Carbide Saw Pages.

