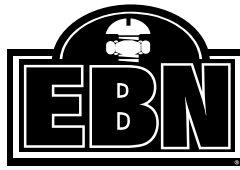


Evansville, IN
Jasper, IN
Vincennes, IN

812-477-0077
812-482-5105
812-882-4090



Henderson, KY
Owensboro, KY
Mt. Vernon, IL

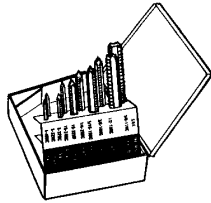
270-830-0077
270-684-0877
618-244-7156



Tap Sets

Inch • Metric • High Speed & Carbon Steel

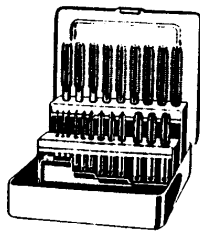
Most popular taps are organized in a durable metal case which fit conveniently in any toolbox. The Tap Set isolates each tap, prevents chipping and permits easy selection.



10 Pc. Hand Tap Sets In Metal Case NC & NF Threads

No. Of Pieces	Description	Part No. USA
High Speed Steel Tap Sets		
10 pc.	Plug Taps, 1 size each: 4-40NC, 6-32NC, 8-32NC, 10-24NC, 10-32NF, 1/4-20NC, 5/16-18NC, 3/8-16NC, 1/2-13NC, 5/8-11NC	/TDS66010
10 pc.	Metric Plug Taps, 1 size each: 3 x .5, 3.5 x .6, 4 x .7, 4.5 x .75, 5 x .8, 6 x 1.0, 8 x 1.25, 10 x 1.5, 12 x 1.75, 16 x 2.0,	/TDS66011
10 pc.	Plug Taps, 1 size each: 1/4-20, 1/4-28, 5/16-18, 5/16-24, 3/8-16, 3/8-24, 7/16-14, 7/16-20, 1/2-13, 1/2-20	/TDS66013

21 Pc. HSS Hand Tap Sets In Metal Case NC & NF Threads



Description	Part No. USA
Contains 3 each NC Hand Taps in Taper, Plug & Bottoming 6-32 1/4"-20 3/8"-16 1/2"-13	/TDS66021HC
10-24 5/16"-18 7/16"-14	
Contains 3 each NF Hand Taps in Taper, Plug & Bottoming 6-40 1/4"-28 3/8"-24 1/2"-20	/TDS66021HF
10-32 5/16"-24 7/16"-20	

HSS End Mills

Weldon Shank • 30° Right Hand Helix • Right Hand Cut Two Flute, Single End Center Cutting

Used for general purpose milling operations including profiling, slotting, keyways, pockets and plunge cutting.



Size	Shank Dia.	Flute Length	Overall Length	Part No. USA
1/8	3/8	3/8	2-5/16	/SE151301
3/16	3/8	7/16	2-5/16	/SE151302
1/4	3/8	1/2	2-5/16	/SE151303
5/16	3/8	9/16	2-5/16	/SE151304
3/8	3/8	9/16	2-5/16	/SE151305
7/16	3/8	13/16	2-1/2	/SE151306
1/2	3/8	13/16	2-1/2	/SE151307
1/2	1/2	1	3	/SE151308
9/16	1/2	1-1/8	3-1/8	/SE151309
5/8	1/2	1-1/8	3-1/8	/SE151310
5/8	5/8	1-5/16	3-7/16	/SE151311
11/16	1/2	1-5/16	3-5/16	/SE151312
11/16	5/8	1-5/16	3-7/16	/SE151313
3/4	1/2	1-5/16	3-5/16	/SE151314
3/4	5/8	1-5/16	3-7/16	/SE151315
3/4	3/4	1-5/16	3-9/16	/SE151316
13/16	3/4	1-1/2	3-3/4	/SE151317
7/8	5/8	1-1/2	3-5/8	/SE151318
7/8	3/4	1-1/2	3-3/4	/SE151319
7/8	7/8	1-1/2	3-3/4	/SE151320
15/16	3/4	1-1/2	3-3/4	/SE151321
1	1/2	1-1/2	3-5/8	/SE151322
1	5/8	1-1/2	3-5/8	/SE151323
1	3/4	1-1/2	3-3/4	/SE151324
1	1	1-5/8	4-1/8	/SE151325
1-1/8	3/4	1-1/2	3-7/8	/SE151326
1-1/8	1	1-5/8	4-1/8	/SE151327
1-1/4	3/4	1-1/2	3-7/8	/SE151328
1-1/4	1	1-5/8	4-1/8	/SE151329
1-1/4	1-1/4	1-5/8	4-1/8	/SE151330
1-3/8	3/4	1-1/2	3-7/8	/SE151331
1-3/8	1	1-5/8	4-1/8	/SE151332
1-1/2	3/4	1-1/2	3-7/8	/SE151334
1-1/2	1	1-5/8	4-1/8	/SE151335
1-1/2	1-1/4	1-5/8	4-1/8	/SE151336
1-5/8	1-1/4	1-5/8	4-1/8	/SE151338
1-3/4	3/4	1-1/2	3-7/8	/SE151339
1-3/4	1-1/4	1-5/8	4-1/8	/SE151340
1-7/8	1-1/4	1-5/8	4-1/8	/SE151341
2	3/4	1-1/2	3-7/8	/SE151342
2	1-1/4	1-5/8	4-1/8	/SE151344

1 per tube

All end mills available TiN, TiCN, TiAlN coated. Details on request.

Evansville, IN
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 812-882-4090



Henderson, KY
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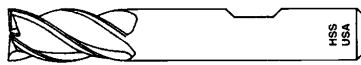


HSS End Mills (Cont.)

Weldon Shank • 30° Right Hand Helix • Right Hand Cut

Multi-Flute, Single End Non-Center Cutting

Used for general purpose milling including profile milling and producing open ended slots or pockets where a plunge feed-in is not required.



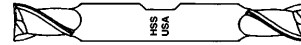
Mill Dia.	Shank Dia.	Flute Length	No. Of Flutes	Overall Length	Part No. USA
1/8	3/8	3/8	4	2-5/16	/SE150651
3/16	3/8	1/2	4	2-3/8	/SE150652
1/4	3/8	5/8	4	2-7/16	/SE150653
5/16	3/8	3/4	4	2-1/2	/SE150654
3/8	3/8	3/4	4	2-1/2	/SE150655
7/16	3/8	1	4	2-11/16	/SE150656
1/2	3/8	1	4	2-11/16	/SE150657
1/2	1/2	1-1/4	4	3-1/4	/SE150658
9/16	1/2	1-3/8	4	3-3/8	/SE150659
5/8	1/2	1-3/8	4	3-3/8	/SE150660
5/8	5/8	1-5/8	4	3-3/4	/SE150661
11/16	1/2	1-5/8	4	3-5/8	/SE150662
11/16	5/8	1-5/8	4	3-3/4	/SE150663
3/4	1/2	1-5/8	4	3-5/8	/SE150664
3/4	5/8	1-5/8	4	3-3/4	/SE150665
3/4	3/4	1-5/8	4	3-7/8	/SE150666
13/16	3/4	1-7/8	4	4-1/8	/SE150667
7/8	5/8	1-7/8	6	4	/SE150668
7/8	3/4	1-7/8	4	4-1/8	/SE150669
7/8	7/8	1-7/8	4	4-1/8	/SE150670
15/16	3/4	1-7/8	4	4-1/8	/SE150671
1	1/2	1-7/8	4	4	/SE150672
1	5/8	1-7/8	6	4	/SE150673
1	3/4	1-7/8	4	4-1/8	/SE150674
1	1	2	4	4-1/2	/SE150675
1-1/8	3/4	1-1/2	6	3-7/8	/SE150676
1-1/8	1	2	6	4-1/2	/SE150677
1-1/4	3/4	1-1/2	6	3-7/8	/SE150678
1-1/4	1	2	6	4-1/2	/SE150679
1-1/4	1-1/4	2	4	4-1/2	/SE150680
1-1/4	1-1/4	2	6	4-1/2	/SE150681
1-3/8	3/4	1-1/2	6	3-7/8	/SE150682
1-3/8	1	2	6	4-1/2	/SE150683
1-1/2	3/4	1-1/2	6	3-7/8	/SE150684
1-1/2	1	2	6	4-1/2	/SE150685
1-1/2	1-1/4	2	4	4-1/2	/SE150686
1-1/2	1-1/4	2	6	4-1/2	/SE150687
1-5/8	1-1/4	2	6	4-1/2	/SE150689
1-3/4	3/4	1-1/2	6	3-7/8	/SE150690
1-3/4	1-1/4	2	4	4-1/2	/SE150691
1-3/4	1-1/4	2	6	4-1/2	/SE150692
1-7/8	1-1/4	2	6	4-1/2	/SE150693
2	3/4	1-1/2	8	3-7/8	/SE150694
2	1-1/4	2	4	4-1/2	/SE150695
2	1-1/4	2	6	4-1/2	/SE150696

1 per tube

HSS End Mills – Double End Weldon Shank • 30° Right Hand Helix • Right Hand Cut

Two Flute, Double End, Center Cutting

Used for general purpose milling operations including profiling, slotting, keyways and pockets. They will also plunge cut.



Mill Dia.	Shank Dia.	Flute Length	Overall Length	Part No. USA
1/8	3/8	3/8	3-1/16	/DE150731
5/32	3/8	7/16	3-1/8	/DE150732
3/16	3/8	7/16	3-1/8	/DE150733
7/32	3/8	1/2	3-1/8	/DE150734
1/4	3/8	1/2	3-1/8	/DE150735
9/32	3/8	9/16	3-1/8	/DE150736
5/16	3/8	9/16	3-1/8	/DE150737
11/32	3/8	9/16	3-1/8	/DE150738
3/8	3/8	9/16	3-1/8	/DE150739
13/32	1/2	13/16	3-3/4	/DE150740
7/16	1/2	13/16	3-3/4	/DE150741
15/32	1/2	13/16	3-3/4	/DE150742
1/2	1/2	13/16	3-3/4	/DE150743
9/16	5/8	1-1/8	4-1/2	/DE150744
5/8	5/8	1-1/8	4-1/2	/DE150745
11/16	3/4	1-5/16	5	/DE150746
3/4	3/4	1-5/16	5	/DE150747
13/16	7/8	1-9/16	5-1/2	/DE150748
7/8	7/8	1-9/16	5-1/2	/DE150749
15/16	1	1-5/8	5-7/8	/DE150750
1	1	1-5/8	5-7/8	/DE150751

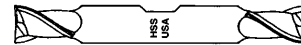
1 per tube

All end mills available TiN, TiCN, TiAlN coated. Details on request.

Weldon Shank • 30° Right Hand Helix • Right Hand Cut

Multi-Flute, Double End, Non-Center Cutting

Used for contour or pocket milling where the ball end is required to produce a radius in the work piece. They can be used for general purpose milling including slots, keyways pockets and plunge cutting



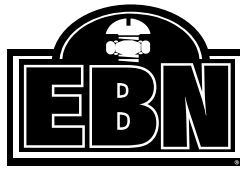
Mill Dia.	Shank Dia.	Flute Length	Overall Length	Part No. USA
1/8	3/8	3/8	3-1/16	/DE151401
5/32	3/8	7/16	3-1/8	/DE151402
3/16	3/8	1/2	3-1/4	/DE151403
7/32	3/8	9/16	3-1/4	/DE151404
1/4	3/8	5/8	3-3/8	/DE151405
9/32	3/8	11/16	3-3/8	/DE151406
5/16	3/8	3/4	3-1/2	/DE151407
11/32	3/8	3/4	3-1/2	/DE151408
3/8	3/8	3/4	3-1/2	/DE151409
13/32	1/2	1	4-1/8	/DE151410
7/16	1/2	1	4-1/8	/DE151411
15/32	1/2	1	4-1/8	/DE151412
1/2	1/2	1	4-1/8	/DE151413
9/16	5/8	1-3/8	5	/DE151414
5/8	5/8	1-3/8	5	/DE151415
11/16	3/4	1-5/8	5-5/8	/DE151416
3/4	3/4	1-5/8	5-5/8	/DE151417
13/16	7/8	1-7/8	6-1/8	/DE151418
7/8	7/8	1-7/8	6-1/8	/DE151419
15/16	1	1-7/8	6-3/8	/DE151420
1	1	1-7/8	6-3/8	/DE151421

1 per tube

All end mills available TiN, TiCN, TiAlN coated. Details on request.

Evansville, IN
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812-477-0077
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Henderson, KY
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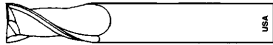


Solid Carbide End Mills

30° Right Hand Helix • Right Hand Cut

Two Flute, Single End, Center Cutting

The new line of Micro-grain solid carbide end mills provide outstanding performance and allow optimum cutting speeds and feeds, high rigidity and minimum tool deflection. Designed for aggressive milling of most materials.



Size	Shank Dia.	Flute Length	Overall Length	Part No. USA
1/16	1/8	1/4	1-1/2	/SC61301
5/64	1/8	1/4	1-1/2	/SC61302
3/32	1/8	3/8	1-1/2	/SC61303
7/64	1/8	3/8	1-1/2	/SC61304
1/8	1/8	1/2	1-1/2	/SC61305
9/64	3/16	9/16	2	/SC61306
5/32	3/16	9/16	2	/SC61307
11/64	3/16	9/16	2	/SC61308
3/16	3/16	5/8	2	/SC61309
13/64	1/4	5/8	2-1/2	/SC61310
7/32	1/4	5/8	2-1/2	/SC61311
15/64	1/4	3/4	2-1/2	/SC61312
1/4	1/4	3/4	2-1/2	/SC61313
17/64	5/16	7/8	2-1/2	/SC61314
9/32	5/16	7/8	2-1/2	/SC61315
19/64	5/16	7/8	2-1/2	/SC61316
5/16	5/16	7/8	2-1/2	/SC61317
21/64	3/8	1	2-1/2	/SC61318
11/32	3/8	1	2-1/2	/SC61319
23/64	3/8	1	2-1/2	/SC61320
3/8	3/8	1	2-1/2	/SC61321
25/64	7/16	1	2-3/4	/SC61322
13/32	7/16	1	2-3/4	/SC61323
27/64	7/16	1	2-3/4	/SC61324
7/16	7/16	1	2-3/4	/SC61325
29/64	1/2	1	3	/SC61326
15/32	1/2	1	3	/SC61327
31/64	1/2	1	3	/SC61328
1/2	1/2	1	3	/SC61329
9/16	9/16	1-1/4	3-1/2	/SC61330
5/8	5/8	1-1/4	3-1/2	/SC61331
11/16	3/4	1-1/2	4	/SC61332
3/4	3/4	1-1/2	4	/SC61333
7/8	7/8	1-1/2	4	/SC61334
1	1	1-1/2	4	/SC61335
Stub Length				
1/8	1/8	1/4	1-1/2	/SCS61343
5/32	3/16	5/16	1-1/2	/SCS61344
3/16	3/16	3/8	1-1/2	/SCS61345
7/32	1/4	7/16	2	/SCS61346
1/4	1/4	1/2	2	/SCS61347
5/16	5/16	1/2	2	/SCS61348
3/8	3/8	5/8	2	/SCS61349
7/16	7/16	5/8	2-3/4	/SCS61350
1/2	1/2	5/8	2-1/2	/SCS61351
5/8	5/8	3/4	3	/SCS61352
3/4	3/4	1	3	/SCS61353

1 per tube
All end mills available TiN, TiCN, TiAlN coated. Details on request.

Solid Carbide End Mills

30° Right Hand Helix • Right Hand Cut

Four Flute, Single End, Center Cutting

The new line of Micro-grain solid carbide end mills provide outstanding performance and allow optimum cutting speeds and feeds, high rigidity and minimum tool deflection. Designed for aggressive milling of most materials.



Size	Shank Dia.	Flute Length	Overall Length	Part No. USA
1/16	1/8	1/4	1-1/2	/SC60601
5/64	1/8	1/4	1-1/2	/SC60602
3/32	1/8	3/8	1-1/2	/SC60603
7/64	1/8	3/8	1-1/2	/SC60604
1/8	1/8	1/2	1-1/2	/SC60605
9/64	3/16	9/16	2	/SC60606
5/32	3/16	9/16	2	/SC60607
11/64	3/16	9/16	2	/SC60608
3/16	3/16	5/8	2	/SC60609
13/64	1/4	5/8	2-1/2	/SC60610
7/32	1/4	5/8	2-1/2	/SC60611
15/64	1/4	3/4	2-1/2	/SC60612
1/4	1/4	3/4	2-1/2	/SC60613
17/64	5/16	7/8	2-1/2	/SC60614
9/32	5/16	7/8	2-1/2	/SC60615
19/64	5/16	7/8	2-1/2	/SC60616
5/16	5/16	7/8	2-1/2	/SC60617
21/64	3/8	1	2-1/2	/SC60618
11/32	3/8	1	2-1/2	/SC60619
23/64	3/8	1	2-1/2	/SC60620
3/8	3/8	1	2-1/2	/SC60621
25/64	7/16	1	2-3/4	/SC60622
13/32	7/16	1	2-3/4	/SC60623
27/64	7/16	1	2-3/4	/SC60624
7/16	7/16	1	2-3/4	/SC60625
29/64	1/2	1	3	/SC60626
15/32	1/2	1	3	/SC60627
31/64	1/2	1	3	/SC60628
1/2	1/2	1	3	/SC60629
9/16	9/16	1-1/4	3-1/2	/SC60630
5/8	5/8	1-1/4	3-1/2	/SC60631
11/16	3/4	1-1/2	4	/SC60632
3/4	3/4	1-1/2	4	/SC60633
7/8	7/8	1-1/2	4	/SC60634
1	1	1-1/2	4	/SC60635
Stub Length				
1/8	1/8	1/4	1-1/2	/SCS60643
5/32	3/16	5/16	1-1/2	/SCS60644
3/16	3/16	3/8	1-1/2	/SCS60645
7/32	1/4	7/16	2	/SCS60646
1/4	1/4	1/2	2	/SCS60647
5/16	5/16	1/2	2	/SCS60648
3/8	3/8	5/8	2	/SCS60649
7/16	7/16	5/8	2-3/4	/SCS60650
1/2	1/2	5/8	2-1/2	/SCS60651
5/8	5/8	3/4	3	/SCS60652
3/4	3/4	1	3	/SCS60653

1 per tube
All end mills available TiN, TiCN, TiAlN coated. Details on request.

Ball Nose Cobalt and Solid Carbide and Woodruff Keyseat Cutters Also Available

Evansville, IN
Jasper, IN
Vincennes, IN

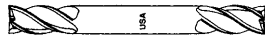
812-477-0077
812-482-5105
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Henderson, KY
Owensboro, KY
Mt. Vernon, IL
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Solid Carbide End Mills
30° Right Hand Helix • Right Hand Cut
Four Flute, Double End, Center Cutting



Regular Length

Mill Dia.	Shank Dia.	Flute Length	Overall Length	Part No. USA
1/8	1/8	3/8	2	/DEC66865
5/32	3/16	7/16	2-1/2	/DEC66867
3/16	3/16	1/2	2-1/2	/DEC66869
7/32	1/4	9/16	2-1/2	/DEC66871
1/4	1/4	5/8	3	/DEC66873
5/16	5/16	3/4	3-1/2	/DEC66875
3/8	3/8	3/4	3-1/2	/DEC66877
7/16	7/16	7/8	4	/DEC66879
1/2	1/2	1	4	/DEC66881

Stub Length

Mill Dia.	Shank Dia.	Flute Length	Overall Length	Part No.
1/8	1/8	1/4	1-1/2	/DEC66891
5/32	3/16	5/16	2	/DEC66892
3/16	3/16	3/8	2	/DEC66893
7/32	1/4	1/2	2-1/2	/DEC66894
1/4	1/4	1/2	2-1/2	/DEC66895
5/16	5/16	1/2	2-1/2	/DEC66896
3/8	3/8	1/2	2-1/2	/DEC66897
7/16	7/16	9/16	2-3/4	/DEC66898
1/2	1/2	5/8	3	/DEC66899

1 per tube

Carbide Tipped Tool Bits
Grade C2 For Cast Iron & Non Ferrous Metals • Grade C5 For Steel
Style "AR & AL"
Straight Turning Tool



Size Sq x Length	ANSI No.	Right Hand		ANSI No.	Left Hand	
		Part No.			Part No.	
		C2	C5		C2	C5
1/4" x 2"	AR4	/TBAR4C2	/TBAR4C5	AL4	/TBAL4C2	/TBAL4C5
5/16" x 2-1/4"	AR5	/TBAR5C2	/TBAR5C5	AL5	/TBAL5C2	/TBAL5C5
3/8" x 2-1/2"	AR6	/TBAR6C2	/TBAR6C5	AL6	/TBAL6C2	/TBAL6C5
7/16" x 3"	AR7	/TBAR7C2	/TBAR7C5	AL7	/TBAL7C2	/TBAL7C5
1/2" x 3-1/2"	AR8	/TBAR8C2	/TBAR8C5	AL8	/TBAL8C2	/TBAL8C5
5/8" x 4"	AR10	/TBAR10C2	/TBAR10C5	AL10	/TBAL10C2	/TBAL10C5
3/4" x 4-1/2"	AR12	/TBAR12C2	/TBAR12C5	AL12	/TBAL12C2	/TBAL12C5

1/4" to 3/8", 10 per pack
7/16" to 3/4", 5 per pack

Carbide Tipped Tool Bits
Grade C2 For Cast Iron & Non Ferrous Metals • Grade C5 For Steel



Style "BR & BL"
Lead Angle Turning Tool

Size Sq x Length	ANSI No.	Right Hand		ANSI No.	Left Hand	
		Part No.			Part No.	
		C2	C5		C2	C5
1/4" x 2"	BR4	/TBBR4C2	/TBBR4C5	BL4	/TBBL4C2	/TBBL4C5
5/16" x 2-1/4"	BR5	/TBBR5C2	/TBBR5C5	BL5	/TBBL5C2	/TBBL5C5
3/8" x 2-1/2"	BR6	/TBBR6C2	/TBBR6C5	BL6	/TBBL6C2	/TBBL6C5
7/16" x 3"	BR7	/TBBR7C2	/TBBR7C5	BL7	/TBBL7C2	/TBBL7C5
1/2" x 3-1/2"	BR8	/TBBR8C2	/TBBR8C5	BL8	/TBBL8C2	/TBBL8C5
5/8" x 4"	BR10	/TBBR10C2	/TBBR10C5	BL10	/TBBL10C2	/TBBL10C5
3/4" x 4-1/2"	BR12	/TBBR12C2	/TBBR12C5	BL12	/TBBL12C2	/TBBL12C5

1/4" to 3/8", 10 per pack
7/16" to 3/4", 5 per pack

Style "D"
80° Pointed Nose Tool



Size Sq x Length	ANSI No.	Part No.	
		C2	C5
1/4" x 2"	D4	/TBD4C2	/TBD4C5
5/16" x 2-1/4"	D5	/TBD5C2	/TBD5C5
3/8" x 2-1/2"	D6	/TBD6C2	/TBD6C5
7/16" x 3"	D7	/TBD7C2	/TBD7C5
1/2" x 3-1/2"	D8	/TBD8C2	/TBD8C5
5/8" x 4"	D10	/TBD10C2	/TBD10C5
3/4" x 4-1/2"	D12	/TBD12C2	/TBD12C5

1/4" to 3/8", 10 per pack
7/16" to 3/4", 5 per pack

Style "C"
Square Nose Tool



Size Sq x Length	ANSI No.	Part No.	
		C2	C5
1/4" x 2"	C4	/TBC4C2	/TBC4C5
5/16" x 2-1/4"	C5	/TBC5C2	/TBC5C5
3/8" x 2-1/2"	C6	/TBC6C2	/TBC6C5
7/16" x 3"	C7	/TBC7C2	/TBC7C5
1/2" x 3-1/2"	C8	/TBC8C2	/TBC8C5
5/8" x 4"	C10	/TBC10C2	/TBC10C5
3/4" x 4-1/2"	C12	/TBC12C2	/TBC12C5

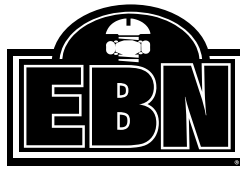
1/4" to 3/8", 10 per pack
7/16" to 3/4", 5 per pack

Style "E"
60° Threading Tool

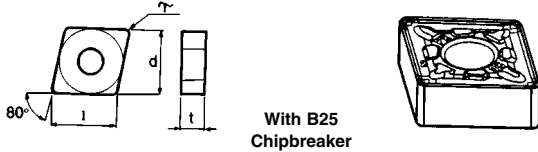


Size Sq x Length	ANSI No.	Part No.	
		C2	C5
1/4" x 2"	E4	/TBE4C2	/TBE4C5
5/16" x 2-1/4"	E5	/TBE5C2	/TBE5C5
3/8" x 2-1/2"	E6	/TBE6C2	/TBE6C5
7/16" x 3"	E7	/TBE7C2	/TBE7C5
1/2" x 3-1/2"	E8	/TBE8C2	/TBE8C5
5/8" x 4"	E10	/TBE10C2	/TBE10C5
3/4" x 4-1/2"	E12	/TBE12C2	/TBE12C5

1/4" to 3/8", 10 per pack
7/16" to 3/4", 5 per pack



**Carbide Indexable Inserts
CNMG
80° Diamond, Negative Double Sided**



Style	Inch Dimensions				Grade	Coating	Part No.
	L	D	T	R			
CNMG 432	0.508 (12.9)	1/2 (12.7)	3/16 (4.76)	1/32 (0.8)	C5	TiN	/CNA432L
				C6	-	/CNA4326	
				C5	-	/CNA4325	
				C2	-	/CNA4322	
CNMG 433	0.508 (12.9)	1/2 (12.7)	3/16 (4.76)	3/64 (1.2)	C5	TiN	/CNA433L
				C5	-	/CNA4335	
				C2	-	/CNA4332	
				C5	TiN	/CNA433L	
CNMG 643	0.76 (19.3)	3/4 (19.05)	1/4 (6.35)	3/64 (1.2)	C6	-	/CNA6436
				C5	-	/CNA6435	
				C2	-	/CNA6432	
				C5	TiN	/CNA643L	

With Coated Medium
Chipbreaker

Style	Inch Dimensions				Grade	Coating	Part No.
	L	D	T	R			
CNMG 431	0.508 (12.9)	1/2 (12.7)	3/16 (4.76)	1/64 (0.4)	C5	TiN	/CNM431L
CNMG 432	0.508 (12.9)	1/2 (12.7)	3/16 (4.76)	1/32 (0.4)	C5	TiN	/CNM432L

With Roughing
Chipbreaker

Style	Inch Dimensions				Grade	Coating	Part No.
	L	D	T	R			
CNMG 433	0.508 (12.9)	1/2 (12.7)	3/16 (4.76)	3/64 (1.2)	C6	TiN	/CNR433K
					C5	TiN	/CNR433L

SNMG

Square Negative, Double Sided

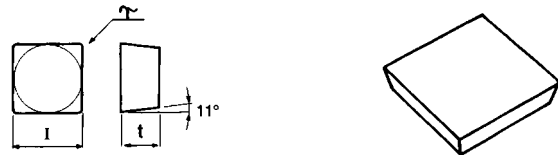


With B25
Chipbreaker
Control Inserts

Style	Inch Dimensions			Carbide Grade	Coating	Part No.
	L=D	T	R			
SNMG 433	3/8 (9.52)	1/8 (3.18)	1/32 (0.8)	C6	-	/SNM3226
SNMG 431	1/2 (12.7)	3/16 (4.76)	3/64 (1.2)	C6	-	/SNM4316
				C2	-	/SNM4312
SNMG 432	1/2 (12.7)	3/16 (4.76)	1/32 (0.8)	C5	TiN	/SNM432L
				C5	-	/SNM4326
				C2	-	/SNM4323
SNMG 433	1/2 (12.7)	3/16 (4.76)	1/32 (0.8)	C5	TiN	/SNM433L
				C5	-	/SNM4335
				C2	-	/SNM4332
SNMG 643	3/4 (19.05)	1/4 (6.35)	3/64 (1.2)	C5	TiN	/SNM643L
				C6	-	/SNM6436
				C5	-	/SNM6435
SNMG 644	3/4 (19.05)	1/4 (6.35)	1/16 (1.6)	C5	TiN	/SNM644L
				C5	-	/SNM6445
				C2	-	/SNM6442

SPG

Square Positive, Utility Ground



Style	Inch Dimensions			Carbide Grade	Coating	Part No.
	L=D	T	R			
SPG 321	3/8 (9.52)	1/8 (3.18)	1/64 (0.4)	C6	-	/SPG3216
				C2	-	/SPG3212
SPG 322	3/8 (9.52)	1/8 (3.18)	1/32 (0.8)	C6	-	/SPG3226
				C5	-	/SPG3225
				C2	-	/SPG3222
SPG 421	1/2 (12.7)	1/8 (3.18)	1/64 (0.4)	C6	TiN	/SPG421K
				C5	TiN	/SPG421L
				C6	-	/SPG4216
				C5	-	/SPG4215
SPG 422	1/2 (12.7)	1/8 (3.18)	1/32 (0.8)	C2	-	/SPG4212
				C5	TiN	/SPG422L
				C6	-	/SPG4226
SPG 423	1/2 (12.7)	1/8 (3.18)	3/64 (0.8)	C5	-	/SPG4225
				C2	-	/SPG4222
				C5	TiN	/SPG423L
SPG 424	1/2 (12.7)	1/8 (3.18)	1/16 (1.6)	C6	-	/SPG4236
				C5	-	/SPG4235
				C2	-	/SPG4232
SPG 633	3/4 (19.05)	3/16 (3.18)	3/64 (1.2)	C6	TiN	/SPG424K
				C5	-	/SPG4245
				C2	-	/SPG4242
SPG 634	3/4 (19.05)	3/16 (3.18)	1/16 (1.6)	C6	-	/SPG6336
				C5	-	/SPG6335
				C2	-	/SPG6332
SPG 635	3/4 (19.05)	3/16 (3.18)	1/16 (1.6)	C6	-	/SPG6346
				C5	-	/SPG6345
				C2	-	/SPG6342

10 per pack

“Always be nice to people on the way up;
because you’ll meet the same people on
the way down.”

—Wilson Mizner

Evansville, IN
Jasper, IN
Vincennes, IN

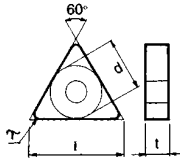
812-477-0077
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812-882-4090



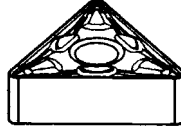
Henderson, KY
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Mt. Vernon, IL
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270-684-0877
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Carbide Indexable Inserts
TNMG
Triangular, Negative, Double Sided



B25
Chipbreaker
Control



Style	Inch Dimensions				Carbide Grade	Coating	Part No.
	D	T	R	L			
TNMG 321	3/8	1/8	1/64	0.650	C5	TiN	/TNM321L
	(9.52)	(3.18)	(0.4)	(16.50)	C5	-	/TNM3215
					C2	-	/TNM3212
TNMG 322	3/8 (9.52)	1/8 (3.18)	1/32	0.650	C5	TiN	/TNM322L
			(0.8)	(16.50)	C6	-	/TNM3226
			C5	-	/TNM3225		
			C2	-	/TNM3222		
TNMG 323	3/8 (9.52)	1/8 (3.18)	3/64	0.650	C5	TiN	/TNM323L
			(1.2)	(16.50)	C6	-	/TNM3236
			C5	-	/TNM3235		
			C2	-	/TNM3232		
TNMG 331	3/8 (9.52)	3/16 (4.76)	1/64 (0.4)	0.650 (16.50)	C5	TiN	/TNM331L
TNMG 332	3/8 (9.52)	3/16 (4.76)	1/32	0.650	C6	-	/TNM3326
			(0.8)	(16.50)	C5	-	/TNM3325
			C2	-	/TNM3322		
TNMG 333	3/8 (9.52)	3/16 (4.76)	3/64	0.650	C5	-	/TNM3335
			(1.2)	(16.50)	C2	-	/TNM3332
TNMG 432	1/2 (12.7)	3/16 (4.76)	1/32	0.866	C5	TiN	/TNM432L
			(0.8)	(22.00)	C6	-	/TNM4326
			C5	-	/TNM4325		
			C2	-	/TNM4322		
TNMG 433	1/2 (12.7)	3/16 (4.76)	3/64	0.866	C5	TiN	/TNM433L
			(1.2)	(22.00)	C6	-	/TNM4336
			C5	-	/TNM4335		
			C2	-	/TNM4332		
TNMG 434	1/2 (12.7)	3/16 (4.76)	1/16	0.866	C5	TiN	/TNM434L
			(1.6)	(22.00)	C6	-	/TNM4346
			C5	-	/TNM4335		
			C2	-	/TNM4342		

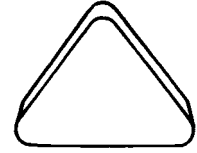
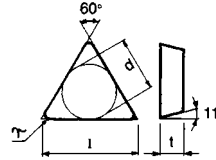
10 per pack

“Always do right. This will gratify some people and astonish the rest.”
—Mark Twain

Carbide Indexable Inserts

TPG

Triangular, Positive Insert, Precision Ground



Style	Inch Dimensions				Carbide Grade	Coating	Part No.
	D	T	R	L			
TPG 211	1/4 (6.35)	3/32 (2.38)	1/64 (0.4)	0.433 (11.00)	C5	-	/TPG2115
TPG 212	1/4 (6.35)	3/32 (2.38)	1/32 (0.8)	0.433 (11.00)	C5	-	/TPG2125
					C2	-	/TPG2122
TPG 221	1/4 (6.35)	1/8 (3.18)	1/64 (0.4)	0.433 (11.00)	C6	TiN	/TPG221K
					C6	-	/TPG2216
					C5	-	/TPG2215
					C2	-	/TPG2212
TPG 222	1/4 (6.35)	1/8 (3.18)	1/32 (0.8)	0.433 (11.00)	C6	TiN	/TPG222K
					C6	-	/TPG2226
					C5	-	/TPG2225
					C2	-	/TPG2222
TPG 321	3/8 (9.52)	1/8 (3.18)	1/64 (0.4)	.650 (16.5)	C6	TiN	/TPG321K
					C5	TiN	/TPG3216
					C6	-	/TPG3216
					C5	-	/TPG3215
TPG 322	3/8 (9.52)	1/8 (3.18)	1/32 (0.8)	.650 (16.5)	C6	TiN	/TPG322K
					C5	TiN	/TPG322L
					C6	-	/TPG3226
					C5	-	/TPG3225
TPG 323	3/8 (9.52)	1/8 (3.18)	3/64 (1.2)	.650 (16.5)	C6	TiN	/TPG323K
					C5	-	/TPG3235
					C5	-	/TPG3235
					C2	-	/TPG3232
TPG 324	3/8 (9.52)	1/8 (3.18)	1/16 (1.6)	.650 (16.5)	C6	TiN	/TPG324K
					C5	TiN	/TPG324L
					C6	-	/TPG3246
					C5	-	/TPG3245
TPG 431	1/2 (12.7)	3/16 (4.76)	1/64 (0.4)	.866 (22.0)	C6	TiN	/TPG431L
					C5	-	/TPG4316
					C5	-	/TPG4315
					C2	-	/TPG4312
TPG 432	1/2 (12.7)	3/16 (4.76)	1/32 (0.8)	.866 (22.0)	C5	TiN	/TPG432L
					C6	-	/TPG4326
					C5	-	/TPG4325
					C2	-	/TPG4322
TPG 433	1/2 (12.7)	3/16 (4.76)	3/64 (1.2)	0.866 (22.00)	C6	-	/TPG4336
					C5	-	/TPG4335
					C2	-	/TPG4332

10 per pack

**Call for Sizes
Not Listed**

Evansville, IN
 Jasper, IN
 Vincennes, IN

812-477-0077
 812-482-5105
 812-882-4090



Henderson, KY
 Owensboro, KY
 Mt. Vernon, IL

270-830-0077
 270-684-0877
 618-244-7156



Heavy-Duty Endurance® Carbide Circular Saw Blades

Part No.	No. Of Teeth	Max. RPM	Tooth Material	Description	Kerf Thickness
5-3/8" BLADE-LEFT					
/48-40-4100†	18	7000	Carbide	Framing/Ripping	.063"
/48-40-4104†	36	7000	Carbide	Trim/Finish	.063"
6-1/2" BLADE-LEFT					
/48-40-4108*	24	7000	Carbide	Framing/Ripping	.063"
/48-40-4112*	40	7000	Carbide	Trim/Finish	.063"
7-1/4" BLADE-LEFT					
/48-40-4115<>	16	7000	Carbide	Framing/Ripping	.071"
/48-40-4119<>	24	7000	Carbide	Rip/Crosscut	.071"
/48-40-4125<>	40	7000	Carbide	Trim/Finish	.071"
7-1/4" BLADE-RIGHT					
/48-40-4116<>	16	7000	Carbide	Framing/Ripping	.071"
/48-40-4120<>	24	7000	Carbide	Rip/Crosscut	.071"
/48-40-4126<>	40	7000	Carbide	Trim/Finish	.071"
/48-40-4128<>	24	7000	Carbide	Rip/Crosscut	.106"
/48-40-4130<>	40	7000	Carbide	Trim/Finish	.106"
/48-40-4132<>	48	7000	Carbide	Non-Ferrous Metal Cut	.106"
/48-40-4134	26	7000	Steel	Rip/Crosscut	.106"
/48-40-4136	40	7000	Steel	Rip/Crosscut	.106"
/48-40-4138	140	7000	Steel	Plywood/Paneling	.106"
/48-40-4140<>	—	7000	Steel	Ferrous Metal Cut	.106"
8-1/4" BLADE-RIGHT					
/48-40-4148<>	18	7000	Carbide	Framing/Ripping	.071"
/48-40-4150<>	24	7000	Carbide	Rip/Crosscut	.071"
/48-40-4152<>	40	7000	Carbide	Trim/Finish	.071"
/48-40-4154<>	24	7000	Carbide	Rip/Crosscut	.122"
/48-40-4156<>	40	7000	Carbide	Trim/Finish	.122"
/48-40-4158	60	7000	Carbide	Trim/Finish	.122"
10" BLADE-RIGHT					
/48-40-4160	24	6000	Carbide	Framing/Ripping	.122"
/48-40-4162	40	6000	Carbide	Trim/Finish	.122"
/48-40-4164	60	6000	Carbide	Trim/Finish	.122"
/48-40-4166	80	6000	Carbide	Trim/Finish	.122"
/48-40-4168	80	6000	Carbide	Non-Ferrous Metal Cut	.122"
10-1/4" BLADE-RIGHT					
/48-40-4170	28	6000	Carbide	Rip/Crosscut	.122"
/48-40-4172	40	6000	Carbide	Trim/Finish	.122"

<> Includes Diamond Knockout

† 10mm arbor hole. All others have 5/8" arbor holes

* Alternate Top Bevel (ATB) produces a high quality finish cut



Part No.	Description
/48-40-4123	7-1/4", 24 Carbide Teeth, 7000 Max. RPM For rip/crosscut applications



- Extra Long Life
- Fast Cutting
- Straight Accurate Cuts
- Regular Or Thin Kerf
- Resists Bending And Twisting



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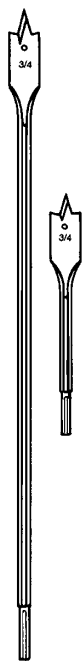


Henderson, KY
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Wood Spade Bits 1/4" Hex Shank



Dia.	Part No. Pouched
6-1/8" Overall Length	
1/4"	/WSB61155P
5/16"	/WSB61156P
3/8"	/WSB61157P
7/16"	/WSB61158P
1/2"	/WSB61159P
9/16"	/WSB61160P
5/8"	/WSB61161P
11/16"	/WSB61162P
3/4"	/WSB61163P
13/16"	/WSB61164P
7/8"	/WSB61165P
15/16"	/WSB61166P
1"	/WSB61167P
1-1/8"	/WSB61168P
1-1/4"	/WSB61169P
1-3/8"	/WSB61170P
1-1/2"	/WSB61171P
16" Overall Length	
1/4"	/WSB61172P
3/8"	/WSB61173P
1/2"	/WSB61174P
5/8"	/WSB61175P
3/4"	/WSB61176P
7/8"	/WSB61177P
1"	/WSB61178P
1-1/8"	/WSB61178AP

1 per pouch

Bit Extensions

Features

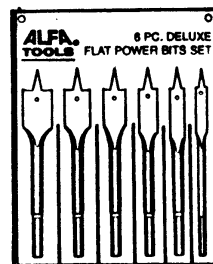
- Adds extra reach to wood boring bit.
- Extension head will follow 5/8" and larger bits through hole.
- Two set screws secure bit into extension.
- 1/8" hex key included with extension.

Hex Shank	Overall Length	Part No.
1/4"	6"	/EXT61289
1/4"	12"	/EXT61290
1/4"	18"	/EXT61291



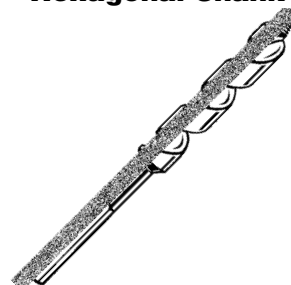
1 per pack

Wood Spade Bit Sets Packaged in reusable vinyl pouches



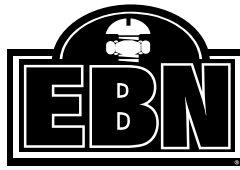
Description	Part No.
4 Pc. Set Size: 3/8", 1/2", 5/8", 3/4" All 6-1/8" OAL Bits	/WSB61191
6 Pc. Set Size: 3/8", 1/2", 5/8", 3/4", 7/8", 1" All 6-1/8" OAL Bits	/WSB61192

Ship Auger Bits Hexagonal Shank

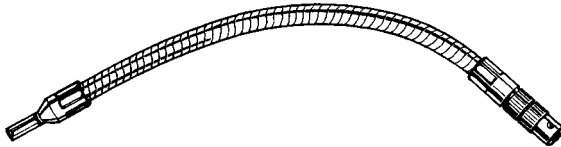


Bore Dia.	Hex Shank	Part No.	
		6" Flute 8" OAL	12" Flute 18" OAL
3/8"	5/16"	-	/AUG61308P
1/2"	5/16"	/AUG61209P	/AUG61309P
9/16"	7/16"	/AUG61211P	/AUG61311P
5/8"	7/16"	/AUG61216P	/AUG61316P
11/16"	7/16"	/AUG61221P	/AUG61321P
3/4"	7/16"	/AUG61226P	/AUG61326P
13/16"	7/16"	/AUG61231P	/AUG61331P
7/8"	7/16"	/AUG61236P	/AUG61336P
15/16"	7/16"	/AUG61241P	/AUG61341P
1"	7/16"	/AUG61246P	/AUG61346P
1-1/8"	7/16"	/AUG61251P	/AUG61351P
1-1/4"	7/16"	/AUG61256P	/AUG61356P
1-3/8"	7/16"	/AUG61261P	/AUG61361P
1-1/2"	7/16"	/AUG61266P	/AUG61366P

1 per pouch



Flexible Bit Holder



Flexible Extensions have heavy duty spiral ring construction that retain flexibility for a longer tool life.

Part No.	Description
/HSB16050	7-1/2" long for 1/4" Hex Inserts

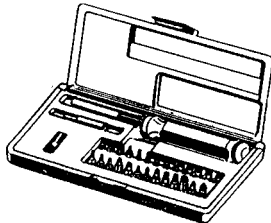
Hex Socket Extensions



Hex Shank	Square Drive	Overall Length	Lock Type	Part No.
1/4" Shank To Fit 1/4" Square Drive				
1/4"	1/4"	2"	Ball	/SE053
1/4"	1/4"	4"	Ball	/SE057

10 per pack

29 Pc. Security Bit Set (Tamper Proof)



A complete security tool kit in compact tool box.

Part No.	Description	
/HSB16010	Hand Drive	Magnetic Storage Handle - 8"
	Bit Holder	1/4" Hex Drive - 1-7/8" Long
	Adapter	1/4" Sq. to 1/4" Hex - 1" Long
	Tip Style	Tip Sizes
	Spanner	#6, #8, #10
	Pozidriv®	#0, #1
	Tri-Wing	#1, #2, #3
	Hex Socket	3/32", 1/8", 9/64", 5/32", 3/16", 7/32", 1/4", 5/16"
	Torx®	TT8, TT9, TT10, TT15, TT20, TT25, TT30, TT40

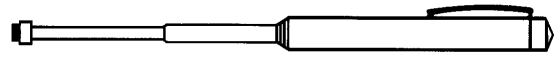
1 per pack

See Page 290

For Nut Drivers & Bit Tips

Magnetic Retriever

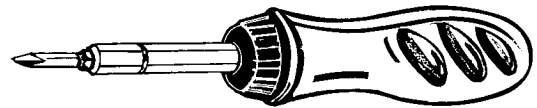
Part No. /MRO32C



- Heavy Duty Magnet picks up metal objects from hard to reach places.
- 6" Collapsed length can be extended to 32".
- 1 per card

Ratchet Screwdriver

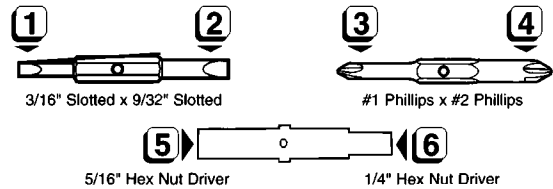
Silent Smooth Operation



6-In-One Ratchet Screwdriver

Part No. /SCD6RA

- Unbreakable ratchet mechanism.
- Reversible shaft nut driver 1/4" and 5/16"
- High torque capability
- Heavy duty grip

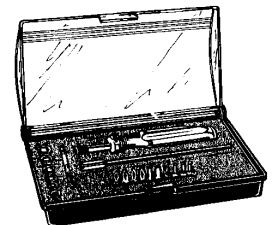


The 19 Pc. Vari-Driver Kit

In Fitted Plastic Case

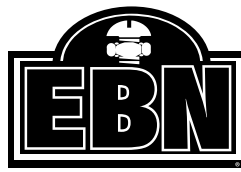
A versatile multi-use kit for both close and far reach jobs.

Part No.	Description
/VD13	The 19 pc. Vari-Driver kit
Kit contains the following:	
/VD12	Vari-Driver with extension Screw Insert Bits:
/HSB15808	Slotted # 4-5
/HSB15809	Slotted # 6-8
/HSB15810	Slotted # 8-10
/HSB15811	Slotted # 10-12
/HSB15801	Phillips # 1
/HSB15802	Phillips # 2
/HSB15803	Phillips #
/HSB15815	Square Recess # 1
/HSB15816	Square Recess # 2
/HSB15817	Square Recess # 3
Socket - 1" OAL	
/SDS018	1/4" Square Drive x 3/16" Hex
/SDS020	1/4" Square Drive x 3/16" Hex
/SDS022	1/4" Square Drive x 3/16" Hex
/SDS024	1/4" Square Drive x 3/16" Hex
/SDS026	1/4" Square Drive x 3/16" Hex
/SDS028	1/4" Square Drive x 3/16" Hex
/SE051	Extension 1/4" x 1/4" 1-3/8"



Part No. /VD13

* Individually Boxed



**American Pattern Files
Flat Files**



Shape: Rectangular in cross section and tapers towards the point in width. Double cut on both sides, single cut on edges.
Usage: Used primarily in plants, machine shops and garages where rapid stock removal of iron and metal is called for.

Length	Size	Box Qty.	Part No.		
			Bastard Cut	Second Cut	Smooth Cut
6"	5/8" x 5/32"	12	/F65001A	/F65006A	/F65011A
8"	13/16" x 7/32"	12	/F65002A	/F65007A	/F65012A
10"	1" x 1/4"	12	/F65003A	/F65008A	/F65013A
12"	1-13/16" x 9/32"	6	/F65004A	/F65009A	/F65014A
14"	1-3/8" x 5/16"	6	/F65005A	/F65010A	-

Hand Files



Shape: Edges parallel in width and tapered slightly in thickness. Double cut, one safe (uncut) edge.
Usage: For work on high alloy tool steels. The safe (uncut) edge allows filing right up to corners.

Length	Size	Box Qty.	Part No.		
			Bastard Cut	Second Cut	Smooth Cut
6"	5/8" x 5/32"	12	/F65001	/F65006	/F65011
8"	13/16" x 7/32"	12	/F65002	/F65007	/F65012
10"	1" x 1/4"	12	/F65003	/F65008	/F65013
12"	1-13/16" x 9/32"	6	/F65004	/F65009	/F65014
14"	1-3/8" x 5/16"	6	/F65005	/F65010	-

Aluminum Files



Shape: Rectangular in cross section and tapers towards the point. Double cut on both sides, and single cut on edges.
Usage: Fast cutting tooth design for use on aluminum and other soft materials.

Length	Size	Box Qty.	Part No.
6"	5/8" x 5/32"	12	/F65221
8"	13/16" x 7/32"	12	/F65222
10"	1" x 1/4"	12	/F65223
12"	1-13/16" x 17/64"	6	/F65224

Mill Files



Shape: Rectangular shape. Tapers slightly in width. Sides and edges are single cut.
Usage: This is the most commonly used file for a multitude of applications. It is suitable for sharpening various types of saws and tools, draw filing, and finishing metals. A Mill File is similar to a Flat File except a Mill is single cut and a Flat is double cut.

Length	Size	Box Qty.	Part No.		
			Bastard Cut	Second Cut	Smooth Cut
6"	5/8" x 1/8"	12	/F65087	/F65092	/F65097
8"	13/16" x 5/32"	12	/F65088	/F65093	/F65098
10"	1" x 3/16"	12	/F65089	/F65094	/F65099
12"	1-3/16" x 7/32"	6	/F65090	/F65095	/F65100
14"	1-11/32" x 1/4"	6	/F65091	/F65096	/F65101

Diamond Cut™ Flat Files



This file is a very versatile tool. The exclusive Diamond Cut™ design features two sets of chip breakers which form a diamond pattern. Achieve almost any finish required by simply changing feed pressure. Coarse teeth remove metal faster while the chip breakers leave a smooth finish.

Shape: Rectangular in cross section and tapers towards the point in width. Double cut on both sides, single cut on edges.
Usage: Used primarily in plants, machine shops and garages where rapid stock removal of iron and metal is called for.

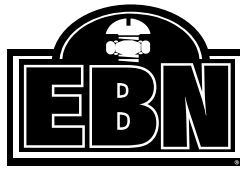
Length	Size	Box Qty.	Part No.
6"	5/8" x 5/32"	12	/F65001DC
8"	13/16" x 7/32"	12	/F65002DC
10"	1" x 1/4"	12	/F65003DC
12"	1-3/16" x 9/32"	6	/F65004DC

Diamond Cut™ Half Round Files



Shape: The Diamond Cut™ features on the flat side and the "Spiral" cut on the half round side, tapering towards the point in width.
Usage: This combination offers rapid stock removal and smooth finishes on either flat or concave surfaces.

Length	Size	Box Qty.	Part No.
8"	3/4" x 7/32"	12	/F65049DC
10"	15/16" x 9/32"	12	/F65050DC
12"	1-1/8" x 11/64"	6	/F65051DC



American Pattern Files Half Round Files



Shape: Rounded on one side and flat on the opposite. Both sides are double cut and taper towards the point in width.

Usage: The half round side makes this file ideal for rounding out holes. Also used on concave, convex and flat surfaces.

Length	Size	Box Qty.	Part No.		
			Bastard Cut	Second Cut	Smooth Cut
6"	5/8" x 5/32"	12	/F65048	/F65053	/F65058
8"	3/4" x 7/32"	12	/F65049	/F65054	/F65059
10"	15/16" x 9/32"	12	/F65050	/F65055	/F65060
12"	1-1/8" x 11/32"	6	/F65051	/F65056	/F65061
14"	1-5/16" x 13/32"	6	/F65052	/F65057	/F65062

Round Files - "Rat Tails"



Shape: Tapers slightly towards the point.

Usage: Primarily used to enlarge circular holes, moldings, concave surfaces and rounded grooves. Tapered point adapts to numerous hole sizes.

Length	Size	Box Qty.	Part No.		
			Bastard Cut	Second Cut	Smooth Cut
6"	1/4"	12	/F65020	/F65025	/F65030
8"	5/16"	12	/F65021	/F65026	/F65031
10"	3/8"	12	/F65022	/F65027	/F65032
12"	1/2"	6	/F65023	/F65028	/F65033
14"	5/8"	6	/F65024	-	-

Knife Files

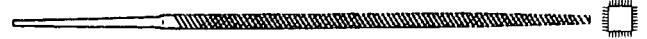


Shape: Knife blade shaped, double cut on both sides, single cut on the knife edge with safe back (uncut).

Usage: This file features a long wedge section for working in slots. Primarily used by tool and die makers dealing with acute angles.

Length	Size	Box Qty.	Part No.		
			Bastard Cut	Second Cut	Smooth Cut
6"	21/32" x 5/32"	12	/F65078	/F65081	/F65084
8"	27/32" x 3/16"	12	/F65079	/F65082	/F65085
10"	1-1/32" x 1/4"	12	/F65080	/F65083	/F65086

Square Files



Shape: The cross-section is square. It is double cut and tapers towards the point.

Usage: For filing square holes, slots, keyways, inside corners and general surface filing. All four sides are equal filing surfaces.

Length	Size	Box Qty.	Part No.		
			Bastard Cut	Second Cut	Smooth Cut
6"	1/4"	12	/F65063	/F65068	/F65073
8"	5/16"	12	/F65064	/F65069	/F65074
10"	3/8"	12	/F65065	/F65070	/F65075
12"	1/2"	6	/F65066	/F65071	/F65076
14"	5/8"	6	/F65067	/F65072	/F65077

Three Square Files



Shape: Triangular tapered files, double cut on both sides and single cut on edges. Angles are 60° and taper towards the point.

Usage: For use in corners and holes, filing angles, taps and cutters.

Length	Size	Box Qty.	Part No.		
			Bastard Cut	Second Cut	Smooth Cut
6"	1/2"	12	/F65035	/F65040	/F65044
8"	5/8"	12	/F65036	/F65041	/F65045
10"	3/4"	12	/F65037	/F65042	/F65046
12"	27/32"	6	/F65038	/F65043	/F65047

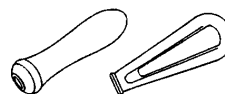
File Cleaner



Sharp steel bristles dig and quickly remove filings from grooves of files to restore their clean cutting capacity. For machinists, mechanics and others in cutting, cleaning and roughing applications.

Part No.	Length	Qty./Pack
/F65190	8-1/4"	12

File Grips



Part No.	Size
Plastic	
/F65171	4"
/F65172	6" - 8"
/F65173	10" - 14"
Wooden	
/F65181	4" - 6"
/F65182	6" - 8"
/F65183	8" - 10"
/F65184	10" - 14"

5 per pack

Evansville, IN
 Jasper, IN
 Vincennes, IN

812-477-0077
 812-482-5105
 812-882-4090

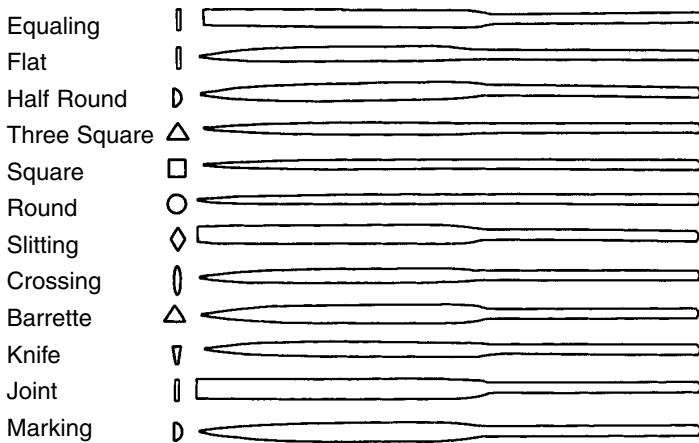


Henderson, KY 270-830-0077
 Owensboro, KY 270-684-0877
 Mt. Vernon, IL 618-244-7156



Special Files & Accessories
Swiss Pattern Files

Swiss Pattern Needle Files are primarily used by jewelers, watchmakers and fine tool and die makers. These are the finest files available. Each 12 piece set is furnished in its own plastic protective case. Available in the following cuts: coarse (0), medium (2), or fine (4) in 6-1/4" length. Sets contain 1 each of the following styles: Round, Half Round, Flat, Crossing, Knife, Square, Three Square, Equaling, Barrette, Joint, Slitting and Marking.



Style	Overall Length	Cut	Part No.
Individual Files			
Equaling	6 1/4"	2	/F62251
Flat/Warding	6 1/4"	2	/F62252
Half Round	6 1/4"	0	/F62253
Half Round	6 1/4"	2	/F62254
Three Square	6 1/4"	2	/F62255
Square	6 1/4"	2	/F62256
Round	6 1/4"	2	/F62257
Slitting	6 1/4"	0	/F62258
Crossing	6 1/4"	2	/F62259
Barrette	6 1/4"	2	/F62260
Knife	6 1/4"	0	/F62261
Knife	6 1/4"	2	/F62262
Knife	6 1/4"	4	/F62263
Joint	6 1/4"	0	/F62264
Marking	6 1/4"	0	/F62265

12 per pack

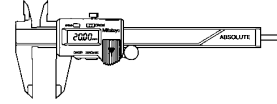
12 Pc. File Wallet Set

#0 Cut – Coarse	/F65158
#2 Cut – Medium	/F65159

1 per pack

Nicholson Brand Files Available

Precision Electronic Calipers
Mitutoyo MyCal Absolute
Digimatic Calipers



Applications:

- Allows direct measurements from power on.

Features:

- Accuracy: ± .001" (0-12": ± .0015").
- LCD Resolution: .0005" (0.01mm).
- Zero-setting of the display is possible at any slider position for easy comparison measurements.
- Inch/metric conversion.
- Battery life 3.5 years.
- With or without SPC.
- Zero/ABS allows the display to be Zero-set at any point along the slider for incremental comparison measurements. This switch will also allow return to the absolute.

Part No.	Range	Output
/MC500196	0-6" (0-150mm)	non SPC output
/MC500197	0-8" (0-200mm)	non SPC output
/MC500193	0-12" (0-300mm)	non SPC output
/MC500171	0-6" (0-150mm)	with SPC output
/MC500172	0-8" (0-200mm)	with SPC output
/MC500173	0-12" (0-300mm)	with SPC output
/MC959149	Optional SPC output cable	
/MC541980	Replacement battery	

Starrett® Electronic Digital Calipers
Inch/Metric
The only American-made
electronic digital caliper!



Basic Model Features:

- Inch/mm conversion.
- Zero at any position.
- Hold readout at any position.
- Automatic shutoff.

Full Function Model Features:

- Easy keyboard control by use of a shift button.
- "Limits" button, enters high/low dimensional limits-out of limits readings will flash on display
- Manual on/off.
- Inch/mm conversion.
- Zero at any position.
- Hold readout at any position.
- Output capability to Starrett computer hardware and data collection systems for SPC analysis and documentation.

Features:

- 6" Accuracy: ± .001" (± 0.03mm).
- Resolution .0005" (0.01mm).
- Hardened, stainless steel body.
- Fine adjustment for tighter measurement.
- Slide lock for holding position.

Part No.	Range
Basic Model	
/MC721A	0-6" (150mm)
Full Function Model with Output	
/MC721B	0-6" (150mm)