

INTERLOCKING SIDE MILLING CUTTERS



N300
PLAIN TYPE
Teeth out of line



N350
STAGGERED
TOOTH TYPE
Using two standards and grind hubs



N400
PLAIN TYPE
General purpose application



N500
STAGGERED TOOTH TYPE
For Heavy duty application and deep slotting operations



N600
HERRINGBONE TYPE
Recommended for widths exceeding 1 1/2 inches

These cutters are designed for general purpose slotting operations and can be adjusted to cut a desired width. A shim inserted between the two interlocking parts permits width adjustment and maintenance of that width after resharpening. Each cutter has a 10° rake and 10° spiral in diameters up to 12" and infinite width range.

PLAIN MILLING CUTTERS LIGHT DUTY ~ HIGH SPEED STEEL

These cutters are recommended for light milling or finishing cuts. Cutters less than 3/4" wide have straight teeth. Cutters 3/4" wide and over have spiral teeth and are regularly furnished with left hand spiral.



Catalog EDI-Number	Dia.	Width of Face	Hole Size	List Price
10501-A108	2 1/4	1/4	7/8	\$41.20
10502-A110	2 1/4	1/2	7/8	41.20
10503-A112	2 1/4	1	7/8	53.55
10504-A114	2 1/2	3/16	1	28.55
10505-A116	2 1/2	1/4	1	34.35
10506-A118	2 1/2	5/16	1	36.40
10507-A120	2 1/2	3/8	1	39.55
10508-A122	2 1/2	7/16	1	41.20
10509-A124	2 1/2	1/2	1	44.60
10510-A126	2 1/2	5/8	1	48.80
10511-A128	2 1/2	3/4	1	54.25
10513-A130	2 1/2	1	1	65.50
10515-A132	2 1/2	1 1/2	1	84.15
10516-A134	2 1/2	2	1	101.05
10518-A136	2 1/2	2 1/2	1	124.45
10520-A138	2 1/2	3	1	134.80
10522-A140	3	3/16	1	35.00
10523-A142	3	1/4	1	44.10
10524-A144	3	5/16	1	48.80
10525-A146	3	3/8	1	52.35
10526-A148	3	3/8	1 1/4	52.35
10527-A149	3	7/16	1	54.25
10528-A150	3	7/16	1 1/4	54.25
10529-A151	3	1/2	1	56.25
10530-A152	3	1/2	1 1/4	56.25

Catalog EDI-Number	Dia.	Width of Face	Hole Size	List Price
10531-A153	3	5/8	1	\$63.55
10532-A154	3	5/8	1 1/4	63.55
10533-A156	3	3/4	1 1/4	65.90
10534-A158	3	7/8	1 1/4	69.60
10535-A160	3	1	1 1/4	85.45
10536-A162	3	1 1/4	1 1/4	96.25
10538-A164	3	1 1/2	1 1/4	107.60
10540-A166	3	2	1 1/4	132.55
10542-A167	3	2 1/2	1 1/4	178.15
10543-A168	3	3	1 1/4	185.10
10545-A169	3	4	1 1/4	232.90
10546-A170	4	1/4	1	65.90
10547-A172	4	1/4	1 1/4	65.90
10548-A174	4	5/16	1	71.00
10549-A176	4	5/16	1 1/4	71.00
10550-A178	4	3/8	1	74.80
10551-A180	4	3/8	1 1/4	74.80
10552-A182	4	1/2	1 1/4	91.05
10553-A184	4	5/8	1 1/4	97.00
10554-A186	4	3/4	1 1/4	107.20
10555-A188	4	1	1 1/4	128.75
10557-A190	4	1 1/2	1 1/4	165.65
10559-A192	4	2	1 1/4	204.00
10561-A194	4	3	1 1/4	300.65
10563-A196	4	4	1 1/4	397.50

COATINGS AVAILABLE ON EVERY TOOL ** See Page 161 for details

PLAIN MILLING CUTTERS HEAVY DUTY ~ HIGH SPEED STEEL



- ~ Excellent for heavy stock removal
- ~ Regularly furnished with 45° L.H. spiral

Catalog EDI-Number	Dia.	Width of Face	Hole Size	List Price
10565-A210	2 1/2	2	1	\$107.20
10567-A212	2 1/2	4	1	180.90
10569-A213	3	1 1/4	1 1/4	116.10
10570-A213A	3	1 1/2	1 1/4	117.35
10571-A214	3	2	1 1/4	139.00
10573-A216	3	2 1/2	1 1/4	168.80
10575-A218	3	3	1 1/4	188.30
10577-A220	3	4	1 1/4	244.20
10579-A222	3	6	1 1/4	393.50
10581-A224	4	2	1 1/2	210.60
10583-A226	4	3	1 1/2	310.80
10585-A228	4	4	1 1/2	440.10
10587-A230	4	6	1 1/2	632.30
10589-A232	4 1/2	6	2	817.70
10590-A234	4 1/2	12	2	1886.65

PLAIN MILLING CUTTERS HELICAL ~ HIGH SPEED STEEL



Helical Milling Cutters can be run at high speeds and will produce a smooth finish. F&D Helical Milling Cutters will not "hog" in when entering or leaving a cut and for this reason are well suited for milling thin pieces of steel or other pieces of metal which cannot be held securely in the milling machine.

Catalog EDI-Number	Dia.	Width of Face	Hole Size	List Price
10591-A310	3	4	1 1/4	\$281.60
10593-A312	3	6	1 1/4	458.15
10595-A313	4	3	1 1/2	505.80
10596-A314	4	4	1 1/2	552.70
10597-A316	4	6	1 1/2	734.65
10598-A318	4	8	1 1/2	945.15
10599-A320	4	10	1 1/2	1470.10
10600-A322	4 1/2	6	2	1227.60
10601-A324	4 1/2	12	2	2097.40

STRAIGHT SHANK STUB MILLING MACHINE ARBORS

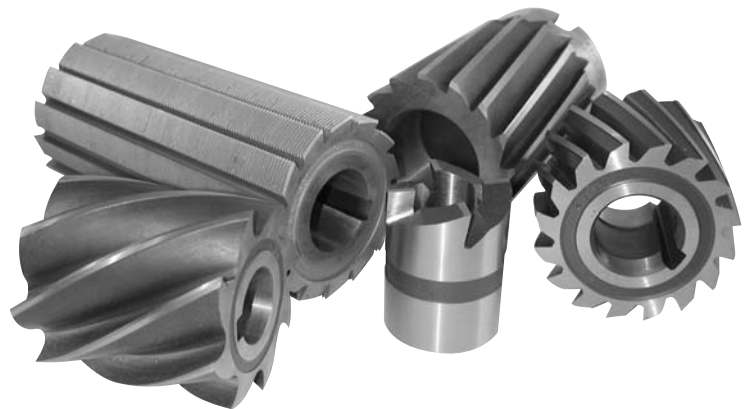
NEW!



FEATURES:

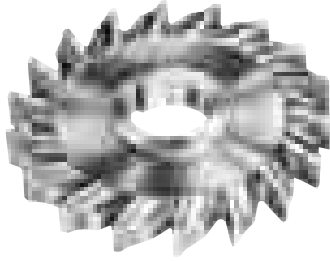
- ~ For holding saws or small cutters
- ~ These arbors are designed and made to fit directly into standard End Mill adapters
- ~ Includes Spacers and nut
- ~ Arbors furnished with standard keyways and L.H. Arbor nut
- ~ See our full stock of arbors & holders on pages 126-132.

Catalog EDI-Number	Arbor Dia.	Shank Dia.	Shoulder to Nut	List Price
31094	1/2	1/2	1	\$109.85
31095	5/8	1/2	1	117.00
31096	3/4	1/2	1	124.05
31096A	1/2	3/4	1	128.60
31096B	5/8	3/4	1	132.40
31097	3/4	3/4	1	135.00
31098	7/8	3/4	1	135.00
31099	1	3/4	1	140.20
31100	1 1/4	3/4	1	157.30

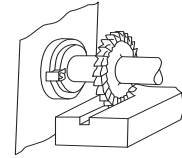


COATINGS AVAILABLE ON EVERY TOOL ** See Page 161 for details

SIDE MILLING CUTTERS HIGH SPEED STEEL



We have the largest and most varied range of sizes. Cutters can be ganged or used as straddle mills. Two different keyway locations permit interlocking. Cutters marked A & B will interlock when hubs are ground.



Catalog EDI-Number	Dia.	Width of Face	Hole Size	List Price
10701-A410	2	3/16	1/2	\$33.60
10702-A412	2	3/16	5/8	33.60
10703-A414	2	1/4	1/2	34.85
10704-A416	2	1/4	5/8	34.85
10705-A418	2	3/8	1/2	38.15
10706-A420	2	3/8	5/8	38.15
10706B-A380	2	5/8	1/2	47.90
10706C-A382	2	3/4	1/2	51.55
10706D-A384	2 1/2	3/16	1	44.70
10706E-A386	2 1/2	3/16	7/8	47.35
10707-A422	2 1/2	1/4	7/8	40.10
10708-A423	2 1/2	1/4	1	55.30
10709-A424	2 1/2	5/16	7/8	42.15
10710-A425	2 1/2	5/16	1	57.90
10711-A426	2 1/2	3/8	7/8	45.15
10712-A427	2 1/2	3/8	1	60.80
10713-A4275	2 1/2	7/16	1	63.25
10714-A428	2 1/2	1/2	7/8	45.70
10715-A429	2 1/2	1/2	1	65.30
10716-A4295	2 1/2	9/16	1	69.60
10717-A4305	2 1/2	5/8	1	75.15
10718-A5306	3	3/16	1	43.90
10719-A5307	3	3/16	1 1/4	43.90
10720-A3307	3	7/32	1	55.50
10721-A3308	3	7/32	1 1/4	55.50
10722-A430	3	1/4	1	41.40
10723-A5309	3	1/4	1 1/4	41.40
10724-A3309	3	9/32	1	59.30
10725-A3310	3	9/32	1 1/4	59.30
10726-A432	3	5/16	1	47.95
10727-A5311	3	5/16	1 1/4	47.95
10728-A3311	3	11/32	1	67.25
10729-A3312	3	11/32	1 1/4	67.25
10730-A434	3	3/8	1	52.05
10731-A5313	3	3/8	1 1/4	52.05
10732-A3313	3	13/32	1	68.20
10733-A3314	3	13/32	1 1/4	68.20
10734-A436	3	7/16	1	55.15
10735-A5315	3	7/16	1 1/4	55.15
10736-A438	3	1/2	1	52.80
10737-A5317	3	1/2	1 1/4	52.80

Catalog EDI-Number	Dia.	Width of Face	Hole Size	List Price
10738-A5318	3	9/16	1	\$65.50
10739-A5319	3	9/16	1 1/4	65.50
10740-A5320	3	5/8	1	68.70
10741-A5321	3	5/8	1 1/4	68.70
10742-A5322	3	11/16	1	68.15
10743-A5323	3	11/16	1 1/4	68.15
10744-A5324	3	3/4	1	72.45
10745-A5325	3	3/4	1 1/4	72.45
10746-A5326	3	13/16	1	79.15
10747-A5327	3	13/16	1 1/4	79.15
10748-A5328	3	7/8	1	86.90
10749-A5329	3	7/8	1 1/4	86.90
10750-A5330	3	15/16	1	90.05
10751-A5331	3	15/16	1 1/4	90.05
10752-A5332	3	1	1	91.80
10753-A5333	3	1	1 1/4	95.10
10754-A5346	3 1/2	3/16	1	52.40
10755-A5347	3 1/2	3/16	1 1/4	62.15
10756-A5348	3 1/2	1/4	1	64.30
10757-A5349	3 1/2	1/4	1 1/4	64.30
10758-A5350	3 1/2	5/16	1	73.85
10759-A5351	3 1/2	5/16	1 1/4	73.85
10760-A5352	3 1/2	3/8	1	75.05
10761-A5353	3 1/2	3/8	1 1/4	75.05
10762-A5354	3 1/2	7/16	1	77.90
10763-A5355	3 1/2	7/16	1 1/4	77.90
10764-A5356	3 1/2	1/2	1	78.20
10765-A5357	3 1/2	1/2	1 1/4	78.20
10766-A5358	3 1/2	9/16	1	80.15
10767-A5359	3 1/2	9/16	1 1/4	80.15
10768-A5360	3 1/2	5/8	1	85.55
10769-A5361	3 1/2	5/8	1 1/4	85.55
10770-A5362	3 1/2	11/16	1	87.80
10771-A5363	3 1/2	11/16	1 1/4	87.80
10772-A5364	3 1/2	3/4	1	88.55
10773-A5365	3 1/2	3/4	1 1/4	88.55
10774-A5366	3 1/2	13/16	1	90.55
10775-A5367	3 1/2	13/16	1 1/4	90.55
10776-A5368	3 1/2	7/8	1	95.20
10777-A5369	3 1/2	7/8	1 1/4	95.20
10778-A5370	3 1/2	15/16	1	96.50
10779-A5371	3 1/2	15/16	1 1/4	96.50
10780-A5372	3 1/2	1	1	98.65
10781-A5373	3 1/2	1	1 1/4	98.65

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SIDE MILLING CUTTERS HSS

Catalog EDI-Number	Dia.	Width of Face	Hole Size	List Price
10781B-A5407	4	3/16	1	\$50.20
10781C-A5408	4	3/16	1 1/4	74.75
10781D-A3407	4	7/32	1	76.05
10781E-A3408	4	7/32	1 1/4	76.05
10782-A440	4	1/4	1	59.20
10783-A5409	4	1/4	1 1/4	72.00
10784-A3409	4	9/32	1	78.00
10785-A3410	4	9/32	1 1/4	78.00
10786-A5410	4	5/16	1	74.20
10787-A5411	4	5/16	1 1/4	74.20
10788-A3411	4	11/32	1	79.30
10789-A3412	4	11/32	1 1/4	79.30
10790-A442	4	3/8	1	66.50
10791-A5413	4	3/8	1 1/4	81.90
10792-A3413	4	13/32	1	87.15
10793-A3414	4	13/32	1 1/4	87.15
10794-A5414	4	7/16	1	83.40
10795-A5415	4	7/16	1 1/4	83.40
10796-A3415	4	15/32	1	82.15
10797-A3416	4	15/32	1 1/4	82.15
10798-A444	4	1/2	1	74.65
10799-A446	4	1/2	1 1/4	74.65
10800-A5418	4	9/16	1	90.35
10801-A5419	4	9/16	1 1/4	90.35
10802-A448	4	5/8	1	85.60
10803-A450	4	5/8	1 1/4	85.60
10804-A5422	4	11/16	1	99.15
10805-A5423	4	11/16	1 1/4	99.15
10806-A452	4	3/4	1	92.65
10807-A454	4	3/4	1 1/4	92.65
10808-A5426	4	13/16	1	104.70
10809-A5427	4	13/16	1 1/4	104.70
10810-A456	4	7/8	1	101.75
10811-A458	4	7/8	1 1/4	101.75
10812-A5430	4	15/16	1	121.90
10813-A5431	4	15/16	1 1/4	121.90
10814-A5432	4	1	1	128.25
10815-A5433	4	1	1 1/4	128.25
10815B-A5446	4 1/2	3/16	1	71.50
10815C-A5447	4 1/2	3/16	1 1/4	89.15
10816-A5448	4 1/2	1/4	1	77.40
10817-A5449	4 1/2	1/4	1 1/4	77.40
10818-A5450	4 1/2	5/16	1	82.05
10819-A5451	4 1/2	5/16	1 1/4	82.05
10820-A5452	4 1/2	3/8	1	87.80
10821-A5453	4 1/2	3/8	1 1/4	87.80
10822-A5456	4 1/2	1/2	1	97.20

Catalog EDI-Number	Dia.	Width of Face	Hole Size	List Price
10823-A5457	4 1/2	1/2	1 1/4	\$97.20
10824-A5460	4 1/2	5/8	1	103.35
10825-A5461	4 1/2	5/8	1 1/4	103.35
10826-A5464	4 1/2	3/4	1	112.20
10827-A5465	4 1/2	3/4	1 1/4	112.20
10828-A5468	4 1/2	7/8	1	124.15
10829-A5469	4 1/2	7/8	1 1/4	124.15
10830-A5472	4 1/2	1	1	145.45
10831-A5473	4 1/2	1	1 1/4	145.45
10831B-A5506	5	3/16	1	69.10
10831C-A5507	5	3/16	1 1/4	87.15
10831D-A3507	5	7/32	1	87.85
10831E-A3508	5	7/32	1 1/4	87.85
10832-A5508	5	1/4	1	97.00
10833-A5509	5	1/4	1 1/4	97.00
10834-A3509	5	9/32	1	104.60
10835-A3510	5	9/32	1 1/4	104.60
10836-A5510	5	5/16	1	98.75
10837-A5511	5	5/16	1 1/4	98.75
10838-A3511	5	11/32	1	105.05
10839-A3512	5	11/32	1 1/4	105.05
10840-A5512	5	3/8	1	105.65
10841-A5513	5	3/8	1 1/4	105.65
10842-A3513	5	13/32	1	112.20
10843-A3514	5	13/32	1 1/4	112.20
10844-A5514	5	7/16	1	113.70
10845-A5515	5	7/16	1 1/4	113.70
10846-A3515	5	15/32	1	115.60
10847-A3516	5	15/32	1 1/4	115.60
10848-A460	5	1/2	1	101.85
10849-A462	5	1/2	1 1/4	101.85
10850-A5518	5	9/16	1	126.15
10851-A5519	5	9/16	1 1/4	126.15
10852-A464	5	5/8	1	112.70
10853-A466	5	5/8	1 1/4	112.70
10854-A5522	5	11/16	1	133.80
10855-A5523	5	11/16	1 1/4	133.80
10856-A468	5	3/4	1	128.00
10857-A470	5	3/4	1 1/4	128.00
10858-A5526	5	13/16	1	143.55
10859-A5527	5	13/16	1 1/4	143.55
10860-A5528	5	7/8	1	167.85
10861-A5529	5	7/8	1 1/4	167.85
10862-A5530	5	15/16	1	152.30
10863-A5531	5	15/16	1 1/4	152.30
10864-A5532	5	1	1	160.15
10865-A472	5	1	1 1/4	153.15

COATINGS AVAILABLE ON EVERY TOOL ** See Page 161 for details



SIDE MILLING CUTTERS HSS

Catalog EDI-Number	Dia.	Width of Face	Hole Size	List Price
10865B-A5546	5 1/2	3/16	1	\$89.95
10865C-A5547	5 1/2	3/16	1 1/4	102.55
10866-A5548	5 1/2	1/4	1	98.60
10867-A5549	5 1/2	1/4	1 1/4	98.60
10868-A5550	5 1/2	5/16	1	105.65
10869-A5551	5 1/2	5/16	1 1/4	105.65
10870-A5552	5 1/2	3/8	1	113.45
10871-A5553	5 1/2	3/8	1 1/4	113.45
10872-A5556	5 1/2	1/2	1	128.40
10873-A5557	5 1/2	1/2	1 1/4	128.40
10874-A5560	5 1/2	5/8	1	138.45
10875-A5561	5 1/2	5/8	1 1/4	138.45
10876-A5564	5 1/2	3/4	1	149.75
10877-A5565	5 1/2	3/4	1 1/4	149.75
10877B-A390	5 1/2	13/16	1	164.50
10877C-A392	5 1/2	13/16	1 1/4	164.50
10878-A5568	5 1/2	7/8	1	161.35
10879-A5569	5 1/2	7/8	1 1/4	161.35
10879B-A394	5 1/2	15/16	1	177.25
10879C-A396	5 1/2	15/16	1 1/4	177.25
10880-A5572	5 1/2	1	1	174.05
10881-A5573	5 1/2	1	1 1/4	174.05
10882-A5580	5 1/2	1 1/4	1	212.50
10883-A5581	5 1/2	1 1/4	1 1/4	212.50
10883B-A5606	6	3/16	1	89.60
10883C-A5607	6	3/16	1 1/4	89.60
10883D-A3607	6	7/32	1	120.20
10883E-A3608	6	7/32	1 1/4	120.20
10884-A5608	6	1/4	1	119.20
10885-A5609	6	1/4	1 1/4	119.20
10886-A3609	6	9/32	1	127.70
10887-A3610	6	9/32	1 1/4	132.85
10888-A5610	6	5/16	1	131.55
10889-A5611	6	5/16	1 1/4	136.80
10890-A3611	6	11/32	1	140.30
10891-A3612	6	11/32	1 1/4	145.95
10892-A5612	6	3/8	1	140.85
10893-A5613	6	3/8	1 1/4	146.45
10894-A3613	6	13/32	1	148.55
10895-A3614	6	13/32	1 1/4	154.50
10896-A5614	6	7/16	1	145.55
10897-A5615	6	7/16	1 1/4	148.75
10898-A3615	6	15/32	1	142.70
10899-A3616	6	15/32	1 1/4	142.70
10900-A474	6	1/2	1	131.10
10901-A476	6	1/2	1 1/4	131.10
10902-A5618	6	9/16	1	161.85
10903-A5619	6	9/16	1 1/4	158.90
10904-A5620	6	5/8	1	170.20
10905-A478	6	5/8	1 1/4	144.00
10906-A5622	6	11/16	1	178.55

Catalog EDI-Number	Dia.	Width of Face	Hole Size	List Price
10907-A5623	6	11/16	1 1/4	\$174.00
10908-A480	6	3/4	1	169.05
10909-A482	6	3/4	1 1/4	169.05
10910-A5626	6	13/16	1	194.00
10911-A5627	6	13/16	1 1/4	187.05
10912-A5628	6	7/8	1	201.40
10913-A5629	6	7/8	1 1/4	193.20
10914-A5630	6	15/16	1	209.65
10915-A5631	6	15/16	1 1/4	204.95
10916-A5632	6	1	1	217.65
10917-A484	6	1	1 1/4	199.35
10918-A5708	7	1/4	1 1/4	188.90
10919-A5710	7	5/16	1 1/4	198.90
10920-A5712	7	3/8	1 1/4	217.40
10921-A5714	7	7/16	1 1/4	228.15
10922-A5716	7	1/2	1 1/4	244.40
10923-A5718	7	9/16	1 1/4	254.20
10924-A5720	7	5/8	1 1/4	262.80
10925-A5722	7	11/16	1 1/4	272.80
10926-A486	7	3/4	1 1/4	254.00
10927-A5726	7	13/16	1 1/4	291.45
10928-A5728	7	7/8	1 1/4	307.80
10929-A5730	7	15/16	1 1/4	317.95
10930-A488	7	1	1 1/4	326.30
10931-A5808	8	1/4	1 1/4	262.05
10932-A5810	8	5/16	1 1/4	274.80
10933-A5812	8	3/8	1 1/4	289.40
10934-A5814	8	7/16	1 1/4	303.70
10935-A5816	8	1/2	1 1/4	305.75
10936-A5818	8	9/16	1 1/4	324.30
10937-A5820	8	5/8	1 1/4	340.50
10938-A5822	8	11/16	1 1/4	367.20
10939-A490	8	3/4	1 1/4	301.40
10940-A5826	8	13/16	1 1/4	383.55
10941-A5828	8	7/8	1 1/4	400.00
10942-A5830	8	15/16	1 1/4	414.05
10943-A492	8	1	1 1/4	375.15
10944-A5908	9	1/4	1 1/4	336.25
10945-A5910	9	5/16	1 1/4	373.80
10946-A5912	9	3/8	1 1/4	377.75
10947-A5914	9	7/16	1 1/4	422.50
10948-A5916	9	1/2	1 1/4	424.30
10949-A5917	9	9/16	1 1/4	460.80
10950-A5918	9	5/8	1 1/4	467.05
10951-A5920	9	11/16	1 1/4	483.30

COATINGS AVAILABLE ON EVERY TOOL ** See Page 161 for details



SIDE & HALF SIDE MILLING CUTTERS

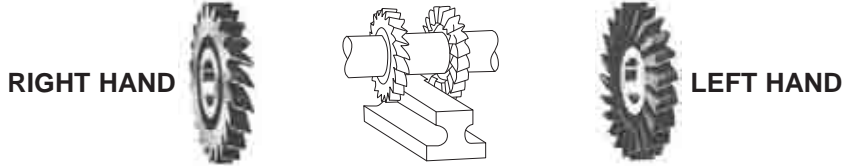


SIDE MILLING CUTTERS HSS

Catalog EDI-Number	Dia.	Width of Face	Hole Size	List Price
10952-A5924	9	3/4	1 1/4	\$499.35
10953-A5926	9	13/16	1 1/4	510.95
10954-A5928	9	7/8	1 1/4	515.95
10955-A5930	9	15/16	1 1/4	541.80
10956-A5932	9	1	1 1/4	525.15
10957-A6009	10	1/4	1 1/2	454.40
10958-A6011	10	5/16	1 1/2	496.10
10959-A6013	10	3/8	1 1/2	536.20
10960-A6015	10	7/16	1 1/2	566.10
10961-A6017	10	1/2	1 1/2	592.00
10962-A6019	10	9/16	1 1/2	613.35
10963-A6021	10	5/8	1 1/2	523.70
10964-A6023	10	11/16	1 1/2	662.80
10965-A6025	10	3/4	1 1/2	675.30
10966-A6027	10	13/16	1 1/2	694.05

Catalog EDI-Number	Dia.	Width of Face	Hole Size	List Price
10967-A6029	10	7/8	1 1/2	\$714.95
10968-A6031	10	15/16	1 1/2	783.75
10969-A6033	10	1	1 1/2	764.60
10970-A6209	12	1/4	1 1/2	596.45
10971-A6211	12	5/16	1 1/2	637.20
10972-A6213	12	3/8	1 1/2	677.95
10973-A6215	12	7/16	1 1/2	716.55
10974-A6217	12	1/2	1 1/2	748.50
10975-A6219	12	9/16	1 1/2	793.50
10976-A6221	12	5/8	1 1/2	793.50
10977-A6223	12	11/16	1 1/2	827.85
10978-A6225	12	3/4	1 1/2	842.90
10979-A6227	12	13/16	1 1/2	870.65
10980-A6229	12	7/8	1 1/2	894.20
10981-A6231	12	15/16	1 1/2	949.90
10982-A6233	12	1	1 1/2	956.25

HALF SIDE MILLING CUTTERS HIGH SPEED STEEL OR COBALT



HIGH SPEED STEEL

Specify whether left or right hand cutters are required

COBALT

Catalog EDI-Number	Dia.	Width of Face	Hole Size	List Price
11801-A610R	4	3/4	1 1/4	\$105.55
11802-A610L	4	3/4	1 1/4	105.55
11803-A612R	5	3/4	1 1/4	142.85
11804-A612L	5	3/4	1 1/4	142.85
11804B-A602R	5 1/2	7/16	1	122.30
10804C-A602L	5 1/2	7/16	1 1/4	122.30
10804D-A604R	5 1/2	9/16	1	145.60
10804E-A604L	5 1/2	9/16	1 1/4	145.60
10804F-A606R	5 1/2	11/16	1	151.60
10804G-A606L	5 1/2	11/16	1 1/4	151.60
11805-A614R	6	3/4	1 1/4	188.00
11806-A614L	6	3/4	1 1/4	188.00
11807-A616R	6	1	1 1/2	227.95
11808-A616L	6	1	1 1/2	227.95
11809-A618R	7	3/4	1 1/2	319.45
11810-A618L	7	3/4	1 1/2	319.45
11811-A620R	7	1	1 1/2	372.45
11812-A620L	7	1	1 1/2	372.45
11813-A622R	8	3/4	1 1/2	418.95
11814-A622L	8	3/4	1 1/2	418.95
11815-A624R	8	1	1 1/2	502.85
11816-A624L	8	1	1 1/2	502.85

Catalog EDI-Number	Dia.	Width of Face	Hole Size	List Price
11821-AX610R	4	3/4	1 1/4	\$154.25
11822-AX610L	4	3/4	1 1/4	154.25
11823-AX612R	5	3/4	1 1/4	208.05
11824-AX612L	5	3/4	1 1/4	208.05
11824B-AX602R	5 1/2	7/16	1	134.50
11824C-AX602L	5 1/2	7/16	1 1/4	134.50
11824D-AX604R	5 1/2	9/16	1	150.95
11824E-AX604L	5 1/2	9/16	1 1/4	150.95
11824F-AX606R	5 1/2	11/16	1	166.75
11824G-AX606L	5 1/2	11/16	1 1/4	166.75
11825-AX614R	6	3/4	1 1/4	274.75
11826-AX614L	6	3/4	1 1/4	274.75
11827-AX616R	6	1	1 1/2	333.05
11828-AX616L	6	1	1 1/2	333.05
11829-AX618R	7	3/4	1 1/2	466.40
11830-AX618L	7	3/4	1 1/2	466.40
11831-AX620R	7	1	1 1/2	544.90
11832-AX620L	7	1	1 1/2	544.90
11833-AX622R	8	3/4	1 1/2	612.60
11834-AX622L	8	3/4	1 1/2	612.60
11835-AX624R	8	1	1 1/2	735.70
11836-AX624L	8	1	1 1/2	735.70

COATINGS AVAILABLE ON EVERY TOOL ** See Page 161 for details



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STAG MILLING CUTTERS

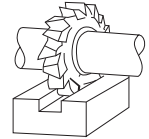


STAGGERED TOOTH SIDE MILLING CUTTERS HIGH SPEED STEEL

**NEW
SIZES!**



This type of cutter is recommended for slotting operations. The alternate spiral effectively counteracts all tendency to chatter. Keyways are located so that cutters of equal diameter and equal number of teeth can be interlocked by grinding hubs to required thickness.



Catalog EDI-Number	Dia.	Width of Face	Hole Size	List Price
11001-K114	2 1/8	3/16	3/4	\$51.00
11002-K116	2 1/8	1/4	3/4	51.55
11003-K118	2 1/8	5/16	3/4	55.30
11004-K120	2 1/8	3/8	3/4	57.65
11000-A509	2 1/2	3/16	1	49.05
11005-A510	2 1/2	1/4	7/8	50.90
11006-A511	2 1/2	1/4	1	63.15
11007-A512	2 1/2	5/16	7/8	50.30
11008-A513	2 1/2	5/16	1	67.75
11009-A514	2 1/2	3/8	7/8	57.75
11010-A515	2 1/2	3/8	1	70.85
11011-A515A	2 1/2	7/16	1	73.05
11012-A516	2 1/2	1/2	7/8	60.65
11013-A516A	2 1/2	1/2	1	75.20
11014-A517	2 1/2	9/16	1	85.05
11015-A517A	2 1/2	5/8	1	88.90
11016-K216	2 3/4	1/4	1	65.35
11017-K218	2 3/4	5/16	1	71.30
11018-K220	2 3/4	3/8	1	72.75
11019-K222	2 3/4	7/16	1	74.20
11020-K224	2 3/4	1/2	1	78.65
11021-A518	3	3/16	1	49.40
11022-A7307	3	3/16	1 1/4	59.20
11023-A2307	3	7/32	1	65.75
11024-A2308	3	7/32	1 1/4	65.75
11025-A520	3	1/4	1	53.00
11026-A7309	3	1/4	1 1/4	61.15
11027-A2309	3	9/32	1	66.85
11028-A2310	3	9/32	1 1/4	66.85
11029-A522	3	5/16	1	59.20
11030-A7311	3	5/16	1 1/4	66.30
11031-A2311	3	11/32	1	67.15
11032-A2312	3	11/32	1 1/4	67.15
11033-A524	3	3/8	1	60.25
11034-A7313	3	3/8	1 1/4	68.70
11035-A2313	3	13/32	1	72.45
11036-A2314	3	13/32	1 1/4	72.45
11037-A7314	3	7/16	1	72.35
11038-A7315	3	7/16	1 1/4	72.35
11039-A7316	3	1/2	1	72.85
11040-A526	3	1/2	1 1/4	64.40
11041-A7318	3	9/16	1	77.70
11042-A7319	3	9/16	1 1/4	77.70
11043-A7320	3	5/8	1	84.65

Catalog EDI-Number	Dia.	Width of Face	Hole Size	List Price
11044-A528	3	5/8	1 1/4	\$74.50
11045-A7322	3	11/16	1	87.30
11046-A7323	3	11/16	1 1/4	87.30
11047-A7324	3	3/4	1	90.25
11048-A530	3	3/4	1 1/4	80.75
11049-A7326	3	13/16	1	92.80
11050-A7327	3	13/16	1 1/4	92.80
11051-A7328	3	7/8	1	96.15
11052-A7329	3	7/8	1 1/4	96.15
11053-A7330	3	15/16	1	103.15
11054-A7331	3	15/16	1 1/4	103.15
11055-A7332	3	1	1	101.00
11056-A7333	3	1	1 1/4	101.00
11057-A7335	3	1 1/4	1	139.40
11058-A7337	3	1 1/4	1 1/4	139.40
11059-A7340	3 1/4	1/4	1 1/4	87.85
11060-A7341	3 1/4	3/8	1 1/4	95.85
11061-A7342	3 1/4	1/2	1 1/4	106.00
11062-A7343	3 1/4	3/4	1 1/4	112.65
11063-A7348	3 1/2	1/4	1	90.75
11064-A7349	3 1/2	1/4	1 1/4	90.75
11065-A7350	3 1/2	5/16	1	96.05
11066-A7351	3 1/2	5/16	1 1/4	96.05
11067-K420	3 1/2	3/8	1	91.45
11068-A7353	3 1/2	3/8	1 1/4	91.45
11069-K422	3 1/2	7/16	1	95.77
11070-A7355	3 1/2	7/16	1 1/4	65.35
11071-K424	3 1/2	1/2	1	97.90
11072-A7357	3 1/2	1/2	1 1/4	108.40
11073-K426	3 1/2	9/16	1	107.65
11074-A7359	3 1/2	9/16	1 1/4	110.45
11075-K428	3 1/2	5/8	1	107.65
11076-A7361	3 1/2	5/8	1 1/4	110.70
11077-K430	3 1/2	11/16	1	115.05
11078-A7363	3 1/2	11/16	1 1/4	117.45
11079-K432	3 1/2	3/4	1	115.05
11080-A7365	3 1/2	3/4	1 1/4	120.00
11081-A7366	3 1/2	13/16	1	123.65
11082-A7367	3 1/2	13/16	1 1/4	123.65
11083-A7368	3 1/2	7/8	1	128.05
11084-A7369	3 1/2	7/8	1 1/4	128.05
11985-A7370	3 1/2	15/16	1	142.05
11086-A7371	3 1/2	15/16	1 1/4	142.05
11087-A7372	3 1/2	1	1	148.95
11088-A7373	3 1/2	1	1 1/4	148.95

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STAGGERED TOOTH SIDE MILLING CUTTERS HSS

Catalog EDI-Number	Dia.	Width of Face	Hole Size	List Price
11089-A7380	3 3/4	1/4	1 1/4	\$93.45
11090-A7381	3 3/4	3/8	1 1/4	101.35
11091-A7382	3 3/4	1/2	1 1/4	116.75
11092-A7383	3 3/4	3/4	1 1/4	130.75
11093-A7406	4	3/16	1	81.05
11094-A7407	4	3/16	1 1/4	81.05
11095-A2407	4	7/32	1	89.00
11096-A2408	4	7/32	1 1/4	89.00
11097-A7408	4	1/4	1	87.45
11098-A532	4	1/4	1 1/4	77.10
11099-A2409	4	9/32	1	90.65
11100-A2410	4	9/32	1 1/4	90.65
11101-A7410	4	5/16	1	90.95
11102-A534	4	5/16	1 1/4	78.35
11103-A2411	4	11/32	1	98.50
11104-A2412	4	11/32	1 1/4	98.50
11105-A7412	4	3/8	1	95.30
11106-A536	4	3/8	1 1/4	80.00
11107-A2413	4	13/32	1	101.15
11108-A2414	4	13/32	1 1/4	101.15
11109-A7414	4	7/16	1	102.30
11110-A538	4	7/16	1 1/4	86.80
11111-A2415	4	15/32	1	125.55
11112-A2416	4	15/32	1 1/4	125.55
11113-A7416	4	1/2	1	104.95
11114-A540	4	1/2	1 1/4	90.55
11115-A7418	4	9/16	1	112.90
11116-A7419	4	9/16	1 1/4	112.90
11117-A7420	4	5/8	1	116.80
11118-A542	4	5/8	1 1/4	104.30
11119-A7422	4	11/16	1	125.75
11120-A7423	4	11/16	1 1/4	125.75
11121-A7424	4	3/4	1	128.80
11122-A544	4	3/4	1 1/4	111.25
11123-A7426	4	13/16	1	134.00
11124-A7427	4	13/16	1 1/4	134.00
11125-A7428	4	7/8	1	134.10
11126-A546	4	7/8	1 1/4	117.45
11127-A7430	4	15/16	1	150.85
11128-A7431	4	15/16	1 1/4	150.85
11129-A7432	4	1	1	157.95
11130-A7433	4	1	1 1/4	157.95
11131-A7437	4	1 1/8	1 1/4	170.60
11132-A7439	4	1 3/16	1 1/4	170.60
11133-A7441	4	1 1/4	1 1/4	176.10
11134-A7440	4	1 3/8	1 1/4	200.80
11135-A7442	4	1 1/2	1 1/4	204.40

Catalog EDI-Number	Dia.	Width of Face	Hole Size	List Price
11136-A7443	4 1/4	1/4	1 1/4	\$103.45
11137-A7444	4 1/4	3/8	1 1/4	116.70
11138-A7445	4 1/4	1/2	1 1/4	129.65
11139-A7446	4 1/4	3/4	1 1/4	157.70
11140-A7447	4 1/2	7/32	1	104.10
11141-A2447	4 1/2	7/32	1 1/4	104.10
11142-A7448	4 1/2	1/4	1	115.05
11143-A7449	4 1/2	1/4	1 1/4	115.05
11144-A7450	4 1/2	5/16	1	109.25
11145-A7451	4 1/2	5/16	1 1/4	109.25
11146-A7452	4 1/2	3/8	1	117.65
11147-A7453	4 1/2	3/8	1 1/4	117.65
11148-A7456	4 1/2	1/2	1	131.10
11149-A7457	4 1/2	1/2	1 1/4	131.10
11150-A7460	4 1/2	5/8	1	148.55
11151-A7461	4 1/2	5/8	1 1/4	148.55
11152-A7464	4 1/2	3/4	1	158.00
11153-A7465	4 1/2	3/4	1 1/4	158.00
11154-A7468	4 1/2	7/8	1	201.50
11155-A7469	4 1/2	7/8	1 1/4	201.50
11156-A7472	4 1/2	1	1	216.55
11157-A7473	4 1/2	1	1 1/4	216.55
11158-A7480	4 1/2	1-1/4	1	257.45
11159-A7481	4 1/2	1-1/4	1 1/4	257.45
11160-A2507	5	7/32	1	127.40
11161-A2508	5	7/32	1 1/4	127.40
11162-A7508	5	1/4	1	121.40
11163-A7509	5	1/4	1 1/4	121.40
11164-A2509	5	9/32	1	136.40
11165-A2510	5	9/32	1 1/4	136.40
11166-A7510	5	5/16	1	133.15
11167-A7511	5	5/16	1 1/4	133.15
11168-A2511	5	11/32	1	144.00
11169-A2512	5	11/32	1 1/4	144.00
11170-A7512	5	3/8	1	142.00
11171-A7513	5	3/8	1 1/4	142.00
11172-A2513	5	13/32	1	153.65
11173-A2514	5	13/32	1 1/4	153.65
11174-A7514	5	7/16	1	155.70
11175-A7515	5	7/16	1 1/4	155.70
11176-A2515	5	15/32	1	158.50
11177-A2516	5	15/32	1 1/4	158.50
11178-A7516	5	1/2	1	156.75
11179-A548	5	1/2	1 1/4	125.00
11180-A7518	5	9/16	1	159.75
11181-A7519	5	9/16	1 1/4	159.75

COATINGS AVAILABLE ON EVERY TOOL ** See Page 161 for details



STAGGERED TOOTH SIDE MILLING CUTTERS HSS

Catalog EDI-Number	Dia.	Width of Face	Hole Size	List Price
11182-A7520	5	5/8	1	\$138.15
11183-A550	5	5/8	1 1/4	138.15
11184-A7522	5	11/16	1	171.50
11185-A7523	5	11/16	1 1/4	171.50
11186-A7524	5	3/4	1	151.85
11187-A552	5	3/4	1 1/4	151.85
11188-A7526	5	13/16	1	187.90
11189-A7527	5	13/16	1 1/4	187.90
11190-A7528	5	7/8	1	194.40
11191-A7529	5	7/8	1 1/4	194.40
11192-A7531	5	15/16	1 1/4	208.60
11193-A7533	5	1	1 1/4	208.60
11194-A7541	5	1 1/4	1 1/4	274.45
11195-A7545	5	1 1/2	1 1/4	284.25
11196-A7548	5 1/2	1/4	1	135.35
11197-A7549	5 1/2	1/4	1 1/4	135.35
11198-A7550	5 1/2	5/16	1	152.00
11199-A7551	5 1/2	5/16	1 1/4	152.00
11200-A7552	5 1/2	3/8	1	155.10
11201-A7553	5 1/2	3/8	1 1/4	155.10
11202-A7566	5 1/2	1/2	1	174.75
11203-A7557	5 1/2	1/2	1 1/4	174.75
11204-A7560	5 1/2	5/8	1	194.95
11205-A7561	5 1/2	5/8	1 1/4	194.95
11206-A7564	5 1/2	3/4	1	197.75
11207-A7565	5 1/2	3/4	1 1/4	197.75
11208-A7568	5 1/2	7/8	1	236.10
11209-A7569	5 1/2	7/8	1 1/4	236.10
11210-A7572	5 1/2	1	1	244.85
11211-A7573	5 1/2	1	1 1/4	244.85
11212-A7580	5 1/2	1 1/4	1	299.60
11213-A7581	5 1/2	1 1/4	1 1/4	299.60
11214-A2607	6	7/32	1	171.50
11215-A2608	6	7/32	1 1/4	171.50
11216-A4608	6	7/32	1 1/2	171.50
11217-A7608	6	1/4	1	164.10
11218-A7609	6	1/4	1 1/4	160.20
11219-A4609	6	1/4	1 1/2	168.55
11220-A2609	6	9/32	1	183.50
11221-A2610	6	9/32	1 1/4	183.50
11222-A4610	6	9/32	1 1/2	183.50
11223-A7610	6	5/16	1	171.05
11224-A7611	6	5/16	1 1/4	171.05
11225-A4611	6	5/16	1 1/2	171.05
11226-A2611	6	11/32	1	192.50

Catalog EDI-Number	Dia.	Width of Face	Hole Size	List Price
11227-A2612	6	11/32	1 1/4	\$192.50
11228-A4612	6	11/32	1 1/2	192.50
11229-A7612	6	3/8	1	181.30
11230-A554	6	3/8	1 1/4	141.80
11231-A4613	6	3/8	1 1/2	194.40
11232-A2613	6	13/32	1	194.40
11233-A2614	6	13/32	1 1/4	194.40
11234-A4614	6	13/32	1 1/2	194.40
11235-A7614	6	7/16	1	190.85
11236-A7615	6	7/16	1 1/4	190.85
11237-A4615	6	7/16	1 1/2	196.25
11238-A2615	6	15/32	1	201.05
11239-A2616	6	15/32	1 1/4	201.05
11240-A4616	6	15/32	1 1/2	201.05
11241-A7616	6	1/2	1	189.25
11242-A556	6	1/2	1 1/4	158.55
11243-A4617	6	1/2	1 1/2	192.90
11244-A557	6	17/32	1	211.20
11245-A7617	6	17/32	1 1/4	211.20
11246-A4618	6	17/32	1 1/2	211.20
11247-A7618	6	9/16	1	203.70
11248-A7619	6	9/16	1 1/4	203.70
11249-A4619	6	9/16	1 1/2	213.10
11250-A7620	6	5/8	1	185.90
11251-A558	6	5/8	1 1/4	185.90
11252-A4622	6	5/8	1 1/2	222.80
11253-A7622	6	11/16	1	231.90
11254-A7623	6	11/16	1 1/4	231.90
11255-A4623	6	11/16	1 1/2	231.90
11256-A7624	6	3/4	1	204.75
11257-A560	6	3/4	1 1/4	204.75
11258-A4626	6	3/4	1 1/2	245.05
11259-A7626	6	13/16	1	248.50
11260-A7627	6	13/16	1 1/4	248.50
11261-A4627	6	13/16	1 1/2	262.00
11262-A7628	6	7/8	1	239.00
11263-A562	6	7/8	1 1/4	239.00
11264-A4631	6	7/8	1 1/2	264.25
11265-A7631	6	15/16	1 1/4	303.50
11266-A4632	6	15/16	1 1/2	307.45
11267-A564	6	1	1 1/4	256.25
11268-A4637	6	1	1 1/2	292.40
11269-A7635	6	1 1/16	1 1/4	316.00
11270-A7637	6	1 1/8	1 1/4	323.00
11271-A7639	6	1 3/16	1 1/4	331.50
11272-A7641	6	1 1/4	1 1/4	331.10

COATINGS AVAILABLE ON EVERY TOOL ** See Page 161 for details



STAGGERED TOOTH SIDE MILLING CUTTERS HSS

Catalog EDI-Number	Dia.	Width of Face	Hole Size	List Price
11273-A7708	7	1/4	1 1/4	\$245.05
11274-A4708	7	1/4	1 1/2	245.05
11275-A7710	7	5/16	1 1/4	259.60
11276-A4710	7	5/16	1 1/2	259.60
11277-A7712	7	3/8	1 1/4	266.60
11278-A4712	7	3/8	1 1/2	266.60
11279-A7714	7	7/16	1 1/4	276.50
11280-A4714	7	7/16	1 1/2	276.50
11281-A7716	7	1/2	1 1/4	288.65
11282-A4716	7	1/2	1 1/2	288.65
11283-A7718	7	9/16	1 1/4	300.75
11284-A4718	7	9/16	1 1/2	300.75
11285-A7720	7	5/8	1 1/4	310.60
11286-A4720	7	5/8	1 1/2	310.60
11287-A7722	7	11/16	1 1/4	332.35
11288-A4722	7	11/16	1 1/2	332.35
11289-A7724	7	3/4	1 1/4	345.05
11290-A4724	7	3/4	1 1/2	345.05
11291-A7726	7	13/16	1 1/4	361.60
11292-A4726	7	13/16	1 1/2	361.60
11293-A7728	7	7/8	1 1/4	375.60
11294-A4728	7	7/8	1 1/2	375.60
11295-A7730	7	15/16	1 1/4	385.85
11296-A4730	7	15/16	1 1/2	385.85
11297-A7732	7	1	1 1/4	396.15
11298-A4732	7	1	1 1/2	396.15
11299-A7808	8	1/4	1 1/4	294.30
11300-A7809	8	1/4	1 1/2	304.10
11301-A7810	8	5/16	1 1/4	322.40
11302-A7811	8	5/16	1 1/2	322.40
11303-A7812	8	3/8	1 1/4	338.90
11304-A566	8	3/8	1 1/2	308.30
11305-A7814	8	7/16	1 1/4	365.35
11306-A7815	8	7/16	1 1/2	365.35
11307-A7816	8	1/2	1 1/4	374.25
11308-A568	8	1/2	1 1/2	348.65
11309-A7818	8	9/16	1 1/4	404.35
11310-A7819	8	9/16	1 1/2	404.35
11311-A7820	8	5/8	1 1/4	406.40
11312-A570	8	5/8	1 1/2	374.00
11313-A7822	8	11/16	1 1/4	426.80
11314-A7823	8	11/16	1 1/2	426.80
11315-A7824	8	3/4	1 1/4	441.85
11316-A572	8	3/4	1 1/2	404.20
11317-A7826	8	13/16	1 1/4	469.55
11318-A7827	8	13/16	1 1/2	469.55
11319-A7828	8	7/8	1 1/4	479.90

Catalog EDI-Number	Dia.	Width of Face	Hole Size	List Price
11320-A574	8	7/8	1 1/2	\$460.95
11321-A7830	8	15/16	1 1/4	491.90
11322-A7831	8	15/16	1 1/2	491.90
11323-A7832	8	1	1 1/4	507.25
11324-A576	8	1	1 1/2	498.70
11325-A582	8	1 1/4	1 1/4	678.45
11326-A584	8	1 1/4	1 1/2	678.45
11327-A7908	9	1/4	1 1/4	378.00
11328-A7909	9	1/4	1 1/2	378.00
11329-A7912	9	3/8	1 1/4	426.70
11330-A7913	9	3/8	1 1/2	426.70
11331-A7916	9	1/2	1 1/4	487.30
11332-A7917	9	1/2	1 1/2	487.30
11333-A7920	9	5/8	1 1/4	535.80
11334-A7921	9	5/8	1 1/2	535.80
11335-A7924	9	3/4	1 1/4	578.55
11336-A7925	9	3/4	1 1/2	578.55
11337-A7932	9	1	1 1/4	648.65
11338-A7933	9	1	1 1/2	648.75
11339-A8009	10	1/4	1 1/2	490.20
11340-A8011	10	5/16	1 1/2	490.20
11341-A8013	10	3/8	1 1/2	586.05
11342-A8015	10	7/16	1 1/2	633.15
11343-A8017	10	1/2	1 1/2	653.20
11344-A8019	10	9/16	1 1/2	683.25
11345-A8021	10	5/8	1 1/2	710.80
11346-A8023	10	11/16	1 1/2	733.20
11347-A8025	10	3/4	1 1/2	736.00
11348-A8027	10	13/16	1 1/2	793.35
11349-A8029	10	7/8	1 1/2	869.30
11350-A8031	10	15/16	1 1/2	853.20
11351-A8033	10	1	1 1/2	871.10
11352-A8209	12	1/4	1 1/2	762.10
11353-A8211	12	5/16	1 1/2	726.65
11354-A8213	12	3/8	1 1/2	741.30
11355-A8215	12	7/16	1 1/2	799.80
11356-A8217	12	1/2	1 1/2	787.30
11357-A8219	12	9/16	1 1/2	855.00
11358-A8221	12	5/8	1 1/2	873.35
11359-A8223	12	11/16	1 1/2	879.55
11360-A8225	12	3/4	1 1/2	909.70
11361-A8227	12	13/16	1 1/2	981.60
11362-A8229	12	7/8	1 1/2	989.70
11363-A8231	12	15/16	1 1/2	1024.65
11364-A8233	12	1	1 1/2	1039.20

COATINGS AVAILABLE ON EVERY TOOL ** See Page 161 for details



STAGGERED TOOTH FOR ALUMINUM CUTTING WITH 20° DEGREE HELIX

Catalog EDI-Number	Dia.	Width of Face	Hole Size	No. of Teeth	List Price
11718-AL2408	4	7/32	1 1/4	10	\$125.70
11701-AL532	4	1/4	1 1/4	10	96.45
11719-AL2410	4	9/32	1 1/4	10	126.35
11702-AL534	4	5/16	1 1/4	10	127.85
11721-AL2412	4	11/32	1 1/4	10	136.80
11703-AL536	4	3/8	1 1/4	10	106.60
11722-AL538	4	7/16	1 1/4	10	149.10
11704-AL540	4	1/2	1 1/4	10	119.30
11723-AL7419	4	9/16	1 1/4	10	161.85
11705-AL542	4	5/8	1 1/4	10	162.55
11724-AL7423	4	11/16	1 1/4	10	169.55
11706-AL544	4	3/4	1 1/4	10	177.35
11707-AL7433	4	1	1 1/4	10	184.35
11725-AL2608	6	7/32	1 1/4	16	209.10
11708-AL7609	6	1/4	1 1/4	16	199.00

Catalog EDI-Number	Dia.	Width of Face	Hole Size	No. of Teeth	List Price
11726-AL2610	6	9/32	1 1/4	16	\$210.20
11709-AL7611	6	5/16	1 1/4	16	220.40
11728-AL2612	6	11/32	1 1/4	16	226.80
11710-AL554	6	3/8	1 1/4	16	189.65
11729-AL7615	6	7/16	1 1/4	16	250.70
11711-AL556	6	1/2	1 1/4	16	214.60
11730-AL7619	6	9/16	1 1/4	16	258.45
11712-AL558	6	5/8	1 1/4	16	254.00
11731-AL7623	6	11/16	1 1/4	16	294.45
11713-AL560	6	3/4	1 1/4	16	275.85
11714-AL564	6	1	1 1/4	16	346.90
11715-AL566	8	3/8	1 1/2	20	404.95
11716-AL568	8	1/2	1 1/2	20	457.60
11717-AL572	8	3/4	1 1/2	20	534.70

Form Relieve Work That is Second to None

Concave, convex, corner rounding, involute gear, spur gear, serration...you name it! When it comes to form relieve work, **F & D TOOL CO.** can make you a quality form cutter in a fraction of the time. Let us quote you your form relieved specials. Call us at **(800) 338-6650** for a quote!



COATINGS AVAILABLE ON EVERY TOOL ** See Page 161 for details

M-42 COBALT SIDE MILLING CUTTERS

Below, find our M-42 staggered and straight tooth side milling cutters. Today's electronic controlled heat treat and laboratory facilities produce a high hardness cutting tool material that possesses excellent resistance to cutting temperature and wear with toughness that was previously unattainable.



STRAIGHT TOOTH

Catalog EDI-Number	Cutter Dia.	Width of Face	Hole Size	# of Teeth	List Price
11551-AX5306	3	3/16	1	20	\$76.05
11552-AX430	3	1/4	1	20	59.10
11553-AX432	3	5/16	1	20	64.05
11554-AX434	3	3/8	1	20	69.85
11555-AX438	3	1/2	1	20	71.05
11556-AX5317	3	1/2	1 1/4	20	87.25
11557-AX440	4	1/4	1	24	79.45
11558-AX5409	4	1/4	1 1/4	24	79.45
11559-AX5410	4	5/16	1	24	99.40
11560-AX5411	4	5/16	1 1/4	24	99.40
11561-AX442	4	3/8	1	24	99.85
11562-AX5413	4	3/8	1 1/4	24	99.85
11563-AX444	4	1/2	1	24	101.30
11564-AX446	4	1/2	1 1/4	24	101.30
11565-AX452	4	3/4	1	24	126.60
11566-AX454	4	3/4	1 1/4	24	126.60
11567-AX5508	5	1/4	1	26	138.55
11568-AX5509	5	1/4	1 1/4	26	138.55
11569-AX5510	5	5/16	1	26	147.25
11570-AX551	5	5/16	1 1/4	26	147.25
11571-AX5512	5	3/8	1	26	158.20
11572-AX5513	5	3/8	1 1/4	26	158.20
11573-AX460	5	1/2	1	26	152.55
11574-AX462	5	1/2	1 1/4	26	152.55
11575-AX468	5	3/4	1	26	190.45
11576-AX470	5	3/4	1 1/4	26	190.45
11577-AX5609	6	1/4	1 1/4	30	160.25
11578-AX5611	6	5/16	1 1/4	30	179.40
11579-AX5613	6	3/8	1 1/4	30	179.40
11580-AX476	6	1/2	1 1/4	30	190.40
11581-AX482	6	3/4	1 1/4	30	253.95
11582-AX484	6	1	1 1/4	30	300.65

~ Increase Tool Life
~ Higher Metal Removal Rates
~ Lower Inventory Costs



STAGGERED TOOTH

Catalog EDI-Number	Cutter Dia.	Width of Face	Hole Size	# of Teeth	List Price
11501-AX518	3	3/16	1	16	\$65.70
11502-AX520	3	1/4	1	16	70.20
11503-AX522	3	5/16	1	16	79.00
11504-AX524	3	3/8	1	16	80.20
11505-AX7316	3	1/2	1	16	97.60
11506-AX526	3	1/2	1 1/4	16	97.60
11507-AX7408	4	1/4	1	18	101.80
11508-AX532	4	1/4	1 1/4	18	101.80
11509-AX7410	4	5/16	1	18	103.65
11510-AX534	4	5/16	1 1/4	18	103.65
11511-AX7412	4	3/8	1	18	152.35
11512-AX536	4	3/8	1 1/4	18	106.25
11513-AX7416	4	1/2	1	18	167.75
11514-AX540	4	1/2	1 1/4	18	120.80
11515-AX7424	4	3/4	1	18	199.80
11516-AX544	4	3/4	1 1/4	18	149.55
11517-AX7433	4	1	1 1/4	18	252.20
11518-AX7441	4	1 1/4	1 1/4	18	286.40
11519-AX7442	4	1 1/2	1 1/4	18	298.15
11520-AX7508	5	1/4	1	22	200.20
11521-AX7509	5	1/4	1 1/4	22	200.20
11522-AX7510	5	5/16	1	22	223.30
11523-AX7511	5	5/16	1 1/4	22	223.30
11524-AX7512	5	3/8	1	22	226.50
11525-AX7513	5	3/8	1 1/4	22	226.50
11526-AX7516	5	1/2	1	22	257.65
11527-AX548	5	1/2	1 1/4	22	257.65
11528-AX7524	5	3/4	1	22	289.20
11529-AX552	5	3/4	1 1/4	22	289.20
11530-AX7533	5	1	1 1/4	22	344.95
11531-AX7609	6	1/4	1 1/4	24	206.05
11532-AX7611	6	5/16	1 1/4	24	270.90
11533-AX554	6	3/8	1 1/4	24	185.65
11534-AX556	6	1/2	1 1/4	24	209.30
11535-AX560	6	3/4	1 1/4	24	272.50
11536-AX564	6	1	1 1/4	24	382.40

COATINGS AVAILABLE ON EVERY TOOL ** See Page 161 for details

SUPERIOR T-15 STAGGERED TOOTH CUTTERS



F & D performance - oriented premium cutters are manufactured from superior T-15 steel and are the realistic answer to machining Hastelloy, Waspalloy stainless steels and most other super alloys.

Catalog EDI-Number	Dia.	Width of Face	Hole Size	List Price
11601-AV7306	3	3/16	1	\$80.75
11601B-AV7307	3	7/32	1	99.15
11602-AV7308	3	1/4	1	88.45
11602B-AV7309	3	9/32	1	102.90
11603-AV7310	3	5/16	1	101.10
11603B-AV7311	3	11/32	1	105.55
11604-AV7312	3	3/8	1	104.95
11604B-AV7313	3	13/32	1	117.25
11605-AV7314	3	7/16	1	125.25
11605B-AV7315	3	15/32	1	121.10
11606-AV7316	3	1/2	1	128.35
11606B-AV7317	4	7/32	1 1/4	134.40
11607-AV7409	4	1/4	1 1/4	130.40
11607B-AV7410	4	9/32	1 1/4	140.75
11608-AV7411	4	5/16	1 1/4	136.35
11608B-AV7412	4	11/32	1 1/4	155.70
11609-AV7413	4	3/8	1 1/4	142.80

Catalog EDI-Number	Dia.	Width of Face	Hole Size	List Price
11609B-AV7414	4	13/32	1 1/4	\$163.85
11610-AV7415	4	7/16	1 1/4	157.55
11610B-AV7416	4	15/32	1 1/4	165.55
11611-AV7417	4	1/2	1 1/4	168.30
11611B-AV7418	4	9/16	1 1/4	190.25
11612-AV7421	4	5/8	1 1/4	197.40
11612B-AV7422	4	11/16	1 1/4	216.10
11613-AV7425	4	3/4	1 1/4	216.60
11613B-AV7508	5	7/32	1 1/4	190.00
11614-AV7509	5	1/4	1 1/4	200.15
11614B-AV7510	5	9/32	1 1/4	209.10
11615-AV7511	5	5/16	1 1/4	224.10
11615B-AV7512	5	11/32	1 1/4	244.45
11616-AV7513	5	3/8	1 1/4	244.20
11616B-AV7514	5	13/32	1 1/4	245.45
11617-AV7515	5	7/16	1 1/4	263.60
11617B-AV7516	5	15/32	1 1/4	258.25
11618-AV7517	5	1/2	1 1/4	245.65
11618B-AV7518	5	9/16	1 1/4	271.15
11619-AV7521	5	5/8	1 1/4	269.40
11619B-AV7519	5	11/16	1 1/4	300.35
11620-AV7525	5	3/4	1 1/4	303.60
11620B-AV7520	5	13/16	1 1/4	335.50
11620C-AV7522	5	7/8	1 1/4	348.40
11620D-AV7523	5	15/16	1 1/4	363.65
11621-AV7526	5	1	1 1/4	383.55
11621B-AV7608	6	7/32	1 1/4	263.05
11622-AV7609	6	1/4	1 1/4	262.45
11622B-AV7610	6	9/32	1 1/4	275.45
11623-AV7611	6	5/16	1 1/4	288.65
11623B-AV7612	6	11/32	1 1/4	299.75
11624-AV7613	6	3/8	1 1/4	290.40
11624B-AV7614	6	13/32	1 1/4	312.40
11625-AV7615	6	7/16	1 1/4	327.10
11625B-AV7616	6	15/32	1 1/4	331.05
11626-AV7617	6	1/2	1 1/4	304.10
11626B-AV7618	6	9/16	1 1/4	349.65
11627-AV7621	6	5/8	1 1/4	361.65
11627B-AV7619	6	11/16	1 1/4	406.00
11628-AV7625	6	3/4	1 1/4	413.95
11628B-AV7620	6	13/16	1 1/4	447.20
11629-AV7629	6	7/8	1 1/4	480.25
11629B-AV7622	6	15/16	1 1/4	512.05
11630-AV7633	6	1	1 1/4	522.20

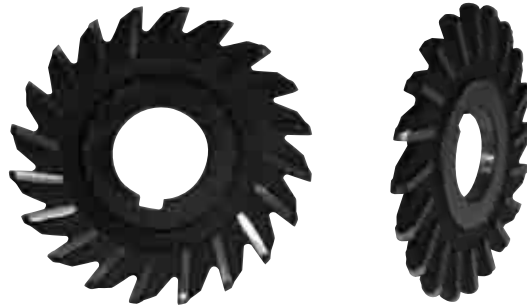
COATINGS AVAILABLE ON EVERY TOOL ** See Page 161 for details



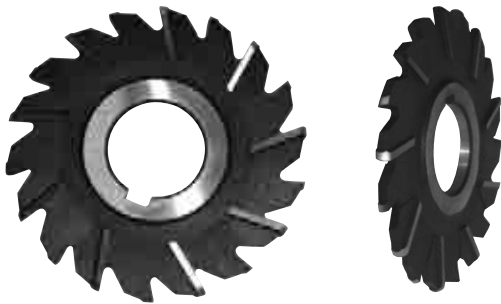
FULL RADIUS SIDE MILLING CUTTERS

Diameter	Width of Face	Hole Size	Cobalt EDI-#	Cobalt Price	HSS EDI-#	HSS Price
3	1/4	1	11740	\$125.40	11640	\$109.40
3	1/4	1 1/4	11741	125.40	11641	109.40
3	3/8	1	11742	138.60	11642	122.70
3	3/8	1 1/4	11743	138.60	11643	122.90
3	1/2	1	11744	145.15	11644	126.10
3	1/2	1 1/4	11745	145.15	11645	126.10
4	1/4	1	11746	153.10	11646	133.05
4	1/4	1 1/4	11747	153.10	11647	133.05
4	3/8	1	11748	173.10	11648	145.25
4	3/8	1 1/4	11749	173.10	11649	145.25
4	1/2	1	11750	180.30	11650	158.55
4	1/2	1 1/4	11751	180.30	11651	158.55
6	1/4	1 1/4	11752	261.50	11652	186.35
6	3/8	1 1/4	11753	295.60	11653	209.90
6	1/2	1 1/4	11754	308.30	11654	218.65

STRAIGHT TOOTH



STAGGERED TOOTH



Diameter	Width	I.D.	Cobalt EDI-#	Cobalt Price	HSS EDI-#	HSS Price
3	1/4	1	11755	\$167.30	11655	\$138.45
3	1/4	1 1/4	11756	167.30	11656	138.45
3	3/8	1	11757	186.05	11657	154.35
3	3/8	1 1/4	11758	186.05	11658	154.35
3	1/2	1	11759	209.70	11659	166.15
3	1/2	1 1/4	11760	209.70	11660	166.15
4	1/4	1	11761	215.85	11661	171.60
4	1/4	1 1/4	11762	215.85	11662	171.60
4	3/8	1	11763	258.85	11663	177.10
4	3/8	1 1/4	11764	258.85	11664	177.10
4	1/2	1	11765	262.30	11665	191.55
4	1/2	1 1/4	11766	262.30	11666	191.55
6	1/4	1 1/4	11767	294.05	11667	257.90
6	3/8	1 1/4	11768	306.10	11668	272.20
6	1/2	1 1/4	11769	317.80	11669	291.00

FULL RADIUS SLITTING SAWS

HSS STRAIGHT TOOTH SIDE CHIP SLITTING SAW



Diameter	Width	I.D.	Catalog EDI-#	Price
2 1/2	1/8	7/8	11670	\$118.80
3	1/16	1	11671	132.70
3	3/32	1	11672	132.70
3	1/8	1	11673	132.70
3	5/32	1	11674	132.70
3	3/16	1	11675	167.55
3	1/4	1	11676	172.80
4	1/16	1	11677	161.30
4	1/16	1 1/4	11678	161.30
4	3/32	1	11679	189.30
4	3/32	1 1/4	11680	189.30
4	1/8	1	11681	189.30
4	1/8	1 1/4	11682	189.30

Diameter	Width	I.D.	Catalog EDI-#	Price
4	5/32	1	11683	\$189.30
4	5/32	1 1/4	11684	189.30
4	3/16	1	11685	189.30
4	3/16	1 1/4	11686	189.30
4	1/4	1	11687	205.40
4	1/4	1 1/4	11688	205.40
6	1/8	1	11689	233.60
6	1/8	1 1/4	11690	233.60
6	5/32	1	11691	298.05
6	5/32	1 1/4	11692	298.05
6	3/16	1	11693	305.10
6	3/16	1 1/4	11694	305.10
6	1/4	1	11695	312.55
6	1/4	1 1/4	11696	312.55

COATINGS AVAILABLE ON EVERY TOOL ** See Page 161 for details



Tel: (800) 338-6650 • Fax: (413) 289-1701 • www.fdtool.com

CARBIDE TIPPED SIDE MILLING CUTTERS

Reap the benefits of faster speeds and feeds, maximum chip removal and longer tool life with these competitively priced, top quality, American-made F&D cutters. They're made from hardened tool steel with precision ground hubs and bores. In fact, hubs and ODs are ground to $+.015''$, widths to $+.001''$. (Not $+.015''$ or $+.001''$.) Carbide tips are brazed on, can be easily resharpened, removed and replaced. And, as with all F&D quality cutting tools, they're available "off-the-shelf" for immediate delivery.



TOLERANCE ON CARBIDE TIPPED CUTTERS

Cutter Diameter: $+.015''/-0.000''$
 Face Width: $+.001''/-0.000''$
 Arbor Hole: $+.001''/-0.000''$



**FOR CAST IRON, MALLEABLE IRON,
BRASS, COPPER**

NON-FERROUS

Catalog EDI-Number 1" Arbor Hole	EDI-Number 1-1/4" Arbor Hole	Dia.	Width of Face	# of Teeth	List Price
12001-AC3081	-	3	1/4	4	\$91.95
12002-AC3101	-	3	5/16	4	95.75
12003-AC3121	-	3	3/8	4	99.80
12004-AC3141	-	3	7/16	4	102.75
12005-AC3161	-	3	1/2	4	108.00
12006-AC4081	-	4	1/4	4	115.75
12007-AC4101	-	4	5/16	4	120.25
12008-AC4121	12009-AC4122	4	3/8	4	124.90
12010-AC4141	-	4	7/16	4	125.45
12011-AC4161	12012-AC4162	4	1/2	4	125.45
12013-AC4181	-	4	9/16	4	136.80
12014-AC4201	12015-AC4202	4	5/8	4	146.90
12016-AC4241	12017-AC4242	4	3/4	4	162.60
12017B-AC5081	-	5	1/4	6	159.60
12017D-AC5101	-	5	5/16	6	163.80
-	12017G-AC5122	5	3/8	6	167.45
-	12018-AC5142	5	7/16	6	172.55
12019-AC5161	12020-AC5162	5	1/2	6	174.45
-	12021-AC5182	5	9/16	6	180.95
-	12022-AC5202	5	5/8	6	184.20
12023-AC5241	12024-AC5242	5	3/4	6	188.55
-	12024C-AC5262	5	1	6	206.90
12024D-AC6121	-	6	3/8	6	182.25
12025-AC6161	12026-AC6162	6	1/2	6	189.15
-	12027-AC6202	6	5/8	6	208.55
12028-AC6241	12029-AC6242	6	3/4	6	227.50
-	12029C-AC6262	6	1	6	247.30
-	12030-AC7242	7	3/4	8	281.00
-	12031-AC8242*	8	3/4	8	302.65
-	12031C-AC8262*	8	1	8	323.25

Catalog EDI-Number 1" Arbor Hole	EDI-Number 1-1/4" Arbor Hole	Dia.	Width of Face	# of Teeth	List Price
12033-MC3081	-	3	1/4	6	\$115.00
12034-MC3101	-	3	5/16	6	116.30
12035-MC3121	-	3	3/8	6	119.95
12036-MC3141	-	3	7/16	6	132.80
12037-MC3161	-	3	1/2	6	134.95
12038-MC4081	-	4	1/4	8	146.50
12039-MC4101	-	4	5/16	8	161.35
12040-MC4121	12041-MC4122	4	3/8	8	166.15
12042-MC4141	-	4	7/16	8	170.85
12043-MC4161	12044-MC4162	4	1/2	8	182.30
12045-MC4181	-	4	9/16	8	205.20
12046-MC4201	12047-MC4202	4	5/8	8	214.55
12048-MC4241	12049-MC4242	4	3/4	8	220.05
12049B-MC5081	-	5	1/4	10	163.75
12049D-MC5101	-	5	5/16	10	175.75
-	12049G-MC5122	5	3/8	10	195.55
-	12050-MC5142	5	7/16	10	223.30
12051-MC5161	12052-MC5162	5	1/2	10	236.30
-	12053-MC5182	5	9/16	10	247.40
-	12054-MC5202	5	5/8	10	253.95
12055-MC5241	12056-MC5242	5	3/4	10	272.40
-	12056C-MC5262	5	1	10	300.00
12056D-MC6121	-	6	3/8	12	231.05
12057-MC6161	12058-MC6162	6	1/2	12	245.20
-	12059-MC6202	6	5/8	12	263.15
12060-MC6241	12061-MC6242	6	3/4	12	272.95
-	12061C-MC6202	6	1	12	309.95
-	12062-MC7242	7	3/4	12	291.95
-	12063-MC8242*	8	3/4	12	301.30
-	12063C-MC8262*	8	1	12	336.25

* Also available with 1-1/2" Arbor Hole

COATINGS AVAILABLE ON EVERY TOOL ** See Page 161 for details



CARBIDE TIPPED SIDE MILLING CUTTERS



TOLERANCE ON ALL CARBIDE TIPPED CUTTERS

Cutter Diameter: +.015"/-.000"
 Face Width: +.001"/-.000"
 Arbor Hole: +.001"/-.000"



FOR STEEL

Catalog EDI-Number 1" Arbor Hole	Catalog EDI-Number 1-1/4" Arbor Hole	Dia.	Width of Face	# of Teeth	List Price
12084-SC3081	-	3	1/4	6	\$147.10
12085-SC3101	-	3	5/16	6	148.45
12086-SC3121	-	3	3/8	6	149.85
12087-SC3141	-	3	7/16	6	161.20
12088-SC3161	-	3	1/2	6	168.25
12089-SC4081	-	4	1/4	8	171.45
12090-SC4101	-	4	5/16	8	189.00
12091-SC4212	12092-SC4122	4	3/8	8	206.95
12093-SC4121	-	4	7/16	8	215.40
12094-SC4161	12095-SC4162	4	1/2	8	220.15
12096-SC4181	-	4	9/16	8	230.45
12097-SC4201	12098-SC4202	4	5/8	8	234.75
12098B-SC4241	12098C-SC4242	4	3/4	8	250.85
12098D-SC5081	-	5	1/4	10	253.05
12098F-SC5101	-	5	5/16	10	253.05
-	12098J-SC5122	5	3/8	10	258.95
-	12099-SC5142	5	7/16	10	274.15
12100-SC5161	12101-SC5162	5	1/2	10	275.95
-	12102-SC5182	5	9/16	10	281.75
-	12103-SC5202	5	5/8	10	293.85
12103B-SC5241	12103C-SC5242	5	3/4	10	313.05
-	12103E-SC5262	5	1	10	341.15
12103F-SC6121	-	6	3/8	12	302.00
12104-SC6181	12105-SC6182	6	1/2	12	309.55
-	12106-SC6202	6	5/8	12	319.50
12106B-SC6241	12106C-SC6242	6	3/4	12	338.80
-	12106E-SC6262	6	1	12	344.20
-	12106G-SC7242	7	3/4	12	371.60
-	*12106J-SC8242	8	3/4	12	402.60
-	*12106K-SC8262	8	1	12	420.00

* Also available with 1-1/2" Arbor Hole

FOR STAINLESS STEEL

Catalog EDI-Number 1" Arbor Hole	Catalog EDI-Number 1-1/4" Arbor Hole	Dia.	Width of Face	# of Teeth	List Price
12122-SSC3081	-	3	1/4	8	\$182.75
12123-SSC3101	-	3	5/16	8	191.25
12124-SSC3121	-	3	3/8	8	194.05
12125-SSC3161	-	3	1/2	8	217.00
12126-SSC4081	-	4	1/4	10	227.65
12127-SSC4101	-	4	5/16	10	240.55
12128-SSC4121	12129-SSC4122	4	3/8	10	245.30
12130-SSC4141	-	4	7/16	10	266.25
12131-SSC4161	12132-SSC4162	4	1/2	10	268.65
12133-SSC4201	12134-SSC4202	4	5/8	10	282.05
12135-SSC4241	12136-SSC4242	4	3/4	10	291.30
12137-SSC5161	12138-SSC5162	5	1/2	12	308.00
-	12139-SSC5202	5	5/8	12	336.55
12140-SSC5241	12141-SSC5242	5	3/4	12	354.00
12142-SSC6161	12143-SSC6162	6	1/2	14	398.15
-	12144-SSC6202	6	5/8	14	402.10
12145-SSC6241	12146-SSC6242	6	3/4	14	408.10
-	12147-SSC8242	8	3/4	14	434.65



COATINGS AVAILABLE ON EVERY TOOL ** See Page 161 for details



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Catalog EDI-Number	Dia.	Thick	Hole Size	Included Angle	List Price
11945-A910-45	2 3/4	1/2	1	45	\$72.55
11946-A910-60	2 3/4	1/2	1	60	65.90
11947-A910-90	2 3/4	1/2	1	90	65.90
11948-A912-45	4	1/2	1 1/4	45	152.45
11949-A912-60	4	1/2	1 1/4	60	138.45
11950-A912-90	4	1/2	1 1/4	90	138.45
11951-A914-45	4	3/4	1 1/4	45	168.40
11952-A914-60	4	3/4	1 1/4	60	150.85
11953-A914-90	4	3/4	1 1/4	90	150.85
11954-A916-60	4	1	1 1/4	60	186.05
11955-A916-90	4	1	1 1/4	90	186.05
11956-A918-45	5	3/4	1 1/4	45	234.30
11957-A918-60	5	3/4	1 1/4	60	210.50
11958-A918-90	5	3/4	1 1/4	90	210.50
11959-A920-45	5	1	1 1/4	45	285.05
11960-A920-60	5	1	1 1/4	60	255.55
11961-A920-90	5	1	1 1/4	90	255.55
11962-A922-45	6	1	1 1/4	45	352.85
11963-A922-60	6	1	1 1/4	60	317.55
11964-A922-90	6	1	1 1/4	90	317.55
11965-A923-45	6	1 1/4	1 1/4	45	452.90
11966-A923-60	6	1 1/4	1 1/4	60	407.35
11967-A923-90	6	1 1/4	1 1/4	90	407.35
11968-A924-45	6	1 1/2	1 1/4	45	478.75
11969-A924-60	6	1 1/2	1 1/4	60	431.25
11970-A924-90	6	1 1/2	1 1/4	90	431.25



Carbide Tipped Angle Cutters Also Available - Page 26

DOUBLE ANGLE CUTTERS HIGH SPEED STEEL

Double angle cutters are available in 45°, 60°, and 90° included angles. They are stocked in diameters from 2 3/4" through 6" and widths from 1/2" to 1 1/2".



RIGHT HAND

LEFT HAND

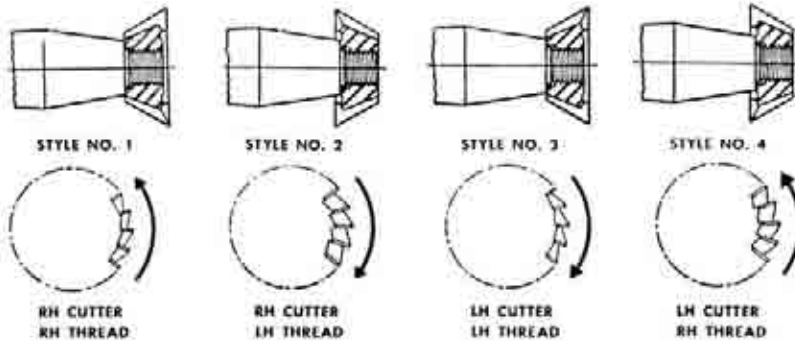
SINGLE ANGLE CUTTERS HIGH SPEED STEEL

Catalog EDI-Number	Dia.	Thick	Hole Size	Included Angle	List Price
11901-A810-45R	2 1/2	1/2	7/8	45 RH	\$62.60
11902-A810-45L	2 1/2	1/2	7/8	45 LH	62.60
11903-A810-60R	2 1/2	1/2	7/8	60 RH	62.60
11904-A810-60L	2 1/2	1/2	7/8	60 LH	62.60
11905-A812-45R	2 3/4	1/2	1	45 RH	65.90
11906-A812-45L	2 3/4	1/2	1	45 LH	65.90
11907-A812-60R	2 3/4	1/2	1	60 RH	65.90
11908-A812-60L	2 3/4	1/2	1	60 LH	65.90
11909-A814-45R	3	1/2	1 1/4	45 RH	78.15
11910-A814-45L	3	1/2	1 1/4	45 LH	78.15
11911-A814-60R	3	1/2	1 1/4	60 RH	78.15
11912-A814-60L	3	1/2	1 1/4	60 LH	78.15
11913-A816-45R	4	1/2	1 1/4	45 RH	138.45
11914-A816-45L	4	1/2	1 1/4	45 LH	138.45
11915-A816-60R	4	1/2	1 1/4	60 RH	138.45
11916-A816-60L	4	1/2	1 1/4	60 LH	138.45
11917-A818-45R	4	3/4	1 1/4	45 RH	150.85
11918-A818-45L	4	3/4	1 1/4	45 LH	150.85
11919-A818-60R	4	3/4	1 1/4	60 RH	150.85
11920-A818-60L	4	3/4	1 1/4	60 LH	150.85
11921-A820-45R	4	1	1 1/4	45 RH	186.35
11922-A820-45L	4	1	1 1/4	45 LH	186.35

Catalog EDI-Number	Dia.	Thick	Hole Size	Included Angle	List Price
11923-A820-60R	4	1	1 1/4	60 RH	\$186.35
11924-A820-60L	4	1	1 1/4	60 LH	186.35
11925-A822-45R	5	3/4	1 1/4	45 RH	210.60
11926-A822-45L	5	3/4	1 1/4	45 LH	210.60
11927-A822-60R	5	3/4	1 1/4	60 RH	210.60
11928-A822-60L	5	3/4	1 1/4	60 LH	210.60
11929-A824-45R	5	1	1 1/4	45 RH	255.55
11930-A824-45L	5	1	1 1/4	45 LH	255.55
11931-A824-60R	5	1	1 1/4	60 RH	255.55
11932-A824-60L	5	1	1 1/4	60 LH	255.55
11933-A826-45R	6	3/4	1 1/4	45 RH	283.05
11934-A826-45L	6	3/4	1 1/4	45 LH	283.05
11935-A826-60R	6	3/4	1 1/4	60 RH	283.05
11936-A826-60L	6	3/4	1 1/4	60 LH	283.05
11937-A828-45R	6	1	1 1/4	45 RH	317.45
11938-A828-45L	6	1	1 1/4	45 LH	317.45
11939-A828-60R	6	1	1 1/4	60 RH	317.45
11940-A828-60L	6	1	1 1/4	60 LH	317.45
11941-A830-45R	6	1 1/4	1 1/4	45 RH	407.30
11942-A830-45L	6	1 1/4	1 1/4	45 LH	407.30
11943-A830-60R	6	1 1/4	1 1/4	60 RH	407.30
11944-A830-60L	6	1 1/4	1 1/4	60 LH	407.30

COATINGS AVAILABLE ON EVERY TOOL ** See Page 161 for details

THREADED HOLE ANGLE CUTTERS



Catalog EDI-Number	Dia.	Width	Threaded Hole	List Price
12217-A1010-1	1 1/4	7/16	3/8 24 N.F.	\$46.45
12218-A1010-2	1 1/4	7/16	3/8 24 N.F.	46.45
12219-A1010-3	1 1/4	7/16	3/8 24 N.F.	46.45
12220-A1010-4	1 1/4	7/16	3/8 24 N.F.	46.45
12221-A1012-1	1 5/8	9/16	1/2 20 N.F.	53.75
12222-A1012-2	1 5/8	9/16	1/2 20 N.F.	53.75
12223-A1012-3	1 5/8	9/16	1/2 20 N.F.	53.75
12224-A1012-4	1 5/8	9/16	1/2 20 N.F.	53.75

These cutters can be furnished either right or left hand and with either right or left hand threaded hole. They have an included angle of 60°

WHEN ORDERING SPECIFY STYLE NUMBER DETERMINING THE HAND OF AN ANGLE CUTTER

THREADED ARBORS FOR ANGLE CUTTERS



TAPER SHANK



STRAIGHT SHANK

Catalog EDI-Number	Size N.F. Thread on Arbor	Taper	Dia. of Cutter	List Price
12225-A1110R	3/8-24	7	1 1/4	\$35.25
12226-A1110L	3/8-24	7	1 1/4	35.25
12227-A1112R	1/2-20	9	1 5/8	54.75
12228-A1112L	1/2-20	9	1 5/8	54.75

Catalog EDI-Number	Size N.F. Thread on Arbor	Shank	Dia. of Cutter	List Price
12229-A1120R	3/8-24	1/2	1 1/4	\$32.00
12230-A1120L	3/8-24	1/2	1 1/4	32.00
12231-A1122R	1/2-20	1/2	1 5/8	40.55
12232-A1122L	1/2-20	1/2	1 5/8	40.55

COATINGS AVAILABLE ON EVERY TOOL ** See Page 161 for details

CARBIDE TIPPED ANGLE CUTTERS

Single Angle & Double Angle cutters manufactured with carbide tips are used for higher speeds & feeds, cutting tougher materials and increased tool life.

Catalog EDI-Number	Dia.	Width	Arbor Hole	# of Teeth	Included Angle °	List Price
11850	3	1/2	1	8	45 RH	\$285.80
11851	4	1/2	1 1/4	10	45 RH	350.40
11852	4	3/4	1 1/4	10	45 RH	380.30
11853	3	1/2	1	8	45 LH	285.80
11854	4	1/2	1 1/4	10	45 LH	350.40
11855	4	3/4	1 1/4	10	45 LH	380.30
11856	3	1/2	1	8	60 RH	285.80
11857	4	1/2	1 1/4	10	60 RH	350.40
11858	4	3/4	1 1/4	10	60 RH	380.30
11859	3	1/2	1	8	60 LH	285.80
11860	4	1/2	1 1/4	10	60 LH	350.40
11861	4	3/4	1 1/4	10	60 LH	380.30



*Single Angle Shown
Also Available In
Double Angle.*

CARBIDE TIPPED DOUBLE ANGLE CUTTERS

Catalog EDI-Number	Dia.	Width	Arbor Hole	# of Teeth	Included Angle °	List Price
11875	3	1/2	1	8	45	\$331.45
11876	4	1/2	1 1/4	10	45	410.25
11877	4	3/4	1 1/4	10	45	449.20
11878	4	1	1 1/4	10	45	525.55
11879	3	1/2	1	8	60	331.45
11880	4	1/2	1 1/4	10	60	410.25
11881	4	3/4	1 1/4	10	60	449.20
11882	4	1	1 1/4	10	60	525.55
11883	3	1/2	1	8	90	331.45
11884	4	1/2	1 1/4	10	90	410.25
11885	4	3/4	1 1/4	10	90	449.20
11886	4	1	1 1/4	10	90	525.55



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and Special Cutting Tools
Since 1939**

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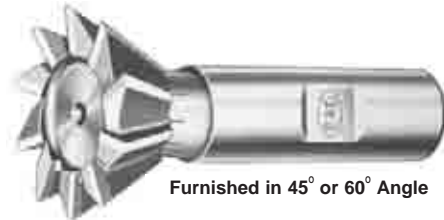
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**SEE ANGLE CUTTERS
ON PAGE 24-26**

Catalog EDI-Number	Dia.	Cutter Width	Shank Dia.	Overall Length	Included Angle	List Price
12201-A1406-45	3/8	1/8	3/8	2 1/8	45°	\$38.70
12202-A1408-45	1/2	1/8	3/8	2 1/8	45°	42.15
12203-A1410-45	3/4	3/16	3/8	2 1/8	45°	49.25
12204-A1420-45	1 3/8	3/8	5/8	2 7/8	45°	76.85
12205-A1424-45	1 3/8	3/8	1/2	2 7/8	45°	76.85
12206-A1430-45	1 7/8	1/2	7/8	3 1/4	45°	167.55
12207-A1440-45	2 1/4	11/16	1	3 3/4	45°	199.65
12208-A1460-45	2 1/2	3/4	1	3 3/4	45°	236.20
12209-A1406-60	3/8	3/16	3/8	2 1/8	60°	38.90
12210-A1408-60	1/2	7/32	3/8	2 1/8	60°	42.15
12211-A1410-60	3/4	5/16	3/8	2 1/8	60°	49.25
12212-A1420-60	1 3/8	9/16	5/8	2 7/8	60°	76.85
12213-A1424-60	1 3/8	9/16	1/2	2 7/8	60°	76.85
12214-A1430-60	1 7/8	13/16	7/8	3 1/4	60°	167.55
12215-A1440-60	2 1/4	1 1/16	1	3 3/4	60°	199.65
12216-A1460-60	2 1/2	7/8	1	3 3/4	60°	236.20

DOVETAIL MILLING CUTTERS SHANK TYPE HIGH SPEED STEEL

New range of sizes will aid in reducing set up time and increasing production of dovetail milling. Recommended for use in place of arbor and threaded hole type cutters.



Furnished in 45° or 60° Angle

SINGLE ANGLE CHAMFERING CUTTERS



Furnished in 45° and 60°

Catalog EDI-Number	Chamfer Angle	Cutter Dia.	Face Width	Shank Dia.	Overall Length	No. of Teeth	List Price
26301	45°	1/2	1/8	3/8	2 1/8	8	\$35.90
26302	45°	3/4	3/16	3/8	2 1/8	8	42.15
26303	45°	1	5/16	1/2	2 1/2	10	52.35
26304	45°	1 1/2	1/2	3/4	2 3/4	12	67.55
26305	60°	1/2	7/32	3/8	2 1/8	8	35.90
26306	60°	3/4	5/16	3/8	2 1/8	8	42.15
26307	60°	1	7/16	1/2	2 1/2	10	52.35
26308	60°	1 1/2	5/8	3/4	2 3/4	12	67.55

Catalog EDI-Number	Dia.	Cutter Width	Shank Dia.	Overall Length	Included Angle	List Price
11981-A952-60	3/4	3/16	3/8	2 3/8	60°	\$27.25
11982-A952-90	3/4	1/4	3/8	2 7/16	90°	27.25
11983-A954-60	1	5/16	1/2	2 17/32	60°	43.50
11984-A954-90	1	3/8	1/2	2 29/32	90°	43.50
11987-A956-60	1 3/8	7/16	5/8	3 7/32	60°	57.95
11988-A956-90	1 3/8	1/2	5/8	3 9/32	90°	57.95
11989-A958-60	1 1/2	1/2	5/8	3 3/8	60°	76.05
11990-A958-90	1 1/2	9/16	5/8	3 7/16	90°	76.05
11993-A960-60	1 7/8	5/8	3/4	3 25/32	60°	88.15
11994-A960-90	1 7/8	5/8	3/4	3 25/32	90°	88.15
11995-A962-60	2 1/4	3/4	7/8	4 5/32	60°	129.10
11996-A962-90	2 1/4	3/4	7/8	4 5/32	90°	129.10

DOUBLE ANGLE SHANK TYPE CUTTERS



Furnished in 60° and 90°

COATINGS AVAILABLE ON EVERY TOOL ** See Page 161 for details

CONCAVE CUTTERS ~ HIGH SPEED STEEL ARBOR TYPE ~ FORM RELIEVED



Concave milling cutters are used to produce a true convex radius. These cutters are made for milling half circles and may be sharpened without changing their form by grinding the face.

Catalog EDI-Number	Dia. of Circle	Dia. of Cutter	Hole Size	List Price
12678-C2001	1/16	2 1/4	1	\$72.80
12679-C2003	3/32	2 1/4	1	72.80
12601-C2004	3/32	3	1	67.45
12600-C2002	1/16	3	1	67.45
12602-C203	1/8	2	7/8	67.45
12603-C204	1/8	2 1/4	1	67.45
12604-C2041	1/8	3	1	172.30
12605-C2042	1/8	4	1	207.70
12606-C2043	1/8	4	1 1/4	207.70
12680-C2045	5/32	2 1/4	1	163.50
12607-C2044	5/32	3	1	177.55
12608-C205	3/16	2	7/8	74.70
12609-C206	3/16	2 1/4	1	74.70
12610-C2061	3/16	3	1	182.45
12611-C2062	3/16	4	1	221.50
12612-C2063	3/16	4	1 1/4	221.50
12681-C2065	7/32	2 1/4	1	165.50
12613-C2064	7/32	3	1	179.85
12614-C207	1/4	2	7/8	84.20
12615-C208	1/4	2 1/2	1	84.20
12616-C2081	1/4	3	1	185.30
12617-C2082	1/4	4	1	226.40
12618-C2083	1/4	4	1 1/4	226.40
12619-C2086	9/32	4	1	234.25
12620-C209	5/16	2 1/4	7/8	103.70
12621-C210	5/16	2 3/4	1	103.70
12622-C2101	5/16	3	1	192.15
12623-C2102	5/16	4	1	237.45
12624-C2103	5/16	4	1 1/4	237.45
12625-C2107	11/32	4	1	243.05
12626-C211	3/8	2 1/4	7/8	103.70
12627-C212	3/8	2 3/4	1	103.70
12628-C2122	3/8	4	1	248.35
12629-C2123	3/8	4	1 1/4	248.35

Catalog EDI-Number	Dia. of Circle	Dia. of Cutter	Hole Size	List Price
12630-C2127	13/32	4	1	\$254.70
12631-C213	7/16	2 1/4	7/8	116.80
12632-C214	7/16	3	1	125.15
12633-C2141	7/16	4	1	258.75
12634-C2145	15/32	4	1	261.25
12635-C217	1/2	2 1/4	7/8	125.35
12636-C218	1/2	3	1	129.15
12637-C2181	1/2	4	1	264.15
12638-C2182	1/2	4	1 1/4	264.15
12639-C2184	1/2	5	1 1/4	334.75
12640-C2186	1/2	6	1 1/4	404.05
12641-C2189	17/32	4	1	267.70
12642-C2191	9/16	3	1	138.40
12643-C2193	9/16	4	1 1/4	267.00
12644-C227	5/8	2 3/4	1	160.25
12645-C228	5/8	3 1/2	1 1/4	170.25
12646-C2284	5/8	5	1 1/4	356.45
12647-C2286	5/8	6	1 1/4	452.35
12648-C2291	11/16	3	1	145.80
12649-C2293	11/16	4	1 1/4	268.55
12650-C231	3/4	3	1	197.75
12651-C232	3/4	3 3/4	1 1/4	214.15
12652-C2324	3/4	5	1 1/4	438.70
12653-C2326	3/4	6	1 1/4	546.70
12654-C2341	13/16	3 1/4	1	191.70
12655-C2343	13/16	4	1 1/4	270.75
12656-C241	7/8	3 1/4	1	244.35
12657-C242	7/8	4	1 1/4	261.40
12658-C2424	7/8	5	1 1/4	455.65
12659-C2426	7/8	6	1 1/4	569.80
12660-C2428	15/16	3 1/4	1	280.55
12661-C2430	15/16	4	1 1/4	303.65
12662-C251	1	3 1/4	1	291.10
12663-C252	1	4 1/4	1 1/4	312.35
12664-C2524	1	5	1 1/4	485.25
12665-C2526	1	6	1 1/4	614.30
12666-C256	1 1/8	4 1/4	1 1/4	425.95
12667-C2564	1 1/8	5 1/2	1 1/4	484.30
12668-C260	1 1/4	4 1/2	1 1/4	456.65
12669-C2604	1 1/4	5 1/2	1 1/4	596.00
12670-C264	1 3/8	4 3/4	1 1/4	516.30
12671-C2646	1 3/8	6	1 1/4	716.85
12672-C268	1 1/2	5	1 1/4	555.85
12673-C2684	1 1/2	6	1 1/4	767.65
12674-C272	1 5/8	5 1/4	1 1/4	659.30
12675-C276	1 3/4	5 1/2	1 1/4	716.80
12676-C280	1 7/8	5 3/4	1 1/2	864.25
12677-C284	2	6	1 1/2	947.00

COATINGS AVAILABLE ON EVERY TOOL ** See Page 161 for details

CONVEX CUTTERS ~ HIGH SPEED STEEL ARBOR TYPE ~ FORM RELIEVED



Convex milling cutters are used to produce a true concave radius. These cutters are made for milling half circles and may be sharpened without changing their form by grinding the face.

Catalog EDI-Number	Dia. of Circle	Dia. of Cutter	Hole Size	List Price
12493-C01	1/16	2 1/4	1	\$112.20
12500-C02	1/16	3	1	137.35
12494-C03	3/32	2 1/4	1	116.90
12501-C04	3/32	3	1	125.05
12502-C06	3/32	4	1	150.50
12503-C07	3/32	4	1 1/4	150.50
12504-C103	1/8	2	7/8	62.70
12505-C104	1/8	2 1/4	1	62.70
12506-C1041	1/8	3	1	130.60
12507-C1042	1/8	4	1	146.15
12508-C1043	1/8	4	1 1/4	146.15
12495-C1045	5/32	2 1/4	1	120.95
12509-C1044	5/32	3	1	131.45
12510-C1046	5/32	4	1	159.30
12511-C1047	5/32	4	1 1/4	159.30
12512-C105	3/16	2	7/8	60.35
12513-C106	3/16	2 1/4	1	67.45
12514-C1061	3/16	3	1	132.50
12515-C1062	3/16	4	1	158.15
12516-C1063	3/16	4	1 1/4	158.15
12496-C1065	7/32	2 1/4	1	129.60
12517-C1064	7/32	3	1	133.65
12518-C1066	7/32	4	1	163.70
12519-C1067	7/32	4	1 1/4	163.70
12520-C107	1/4	2	7/8	73.73
12521-C108	1/4	2 1/2	1	73.73
12522-C1081	1/4	3	1	134.45
12523-C1082	1/4	4	1	163.70
12524-C1083	1/4	4	1 1/4	163.70
12497-C1085	9/32	2 1/2	1	126.40
12525-C1084	9/32	3	1	137.35
12526-C1086	9/32	4	1	172.75
12527-C1087	9/32	4	1 1/4	172.75
12528-C109	5/16	2 1/4	7/8	79.10
12529-C110	5/16	2 3/4	1	81.05
12530-C1101	5/16	3	1	140.65
12531-C1102	5/16	4	1	176.75
12532-C1103	5/16	4	1 1/4	176.75
12533-C1104	5/16	5	1 1/4	192.35
12534-C1105	11/32	3	1	143.85
12535-C1107	11/32	4	1	184.85
12536-C1108	11/32	4	1 1/4	184.85
12537-C111	3/8	2 1/4	7/8	84.80
12538-C112	3/8	2 3/4	1	89.00
12539-C1122	3/8	4	1	192.90
12540-C1123	3/8	4	1 1/4	192.90

Catalog EDI-Number	Dia. of Circle	Dia. of Cutter	Hole Size	List Price
12541-C1124	3/8	5	1 1/4	\$204.70
12542-C1125	13/32	3	1	149.70
12543-C1127	13/32	4	1	197.70
12544-C1128	13/32	4	1 1/4	197.70
12545-C1113	7/16	2 1/4	7/8	93.35
12546-C1114	7/16	3	1	99.35
12547-C1141	7/16	4	1	200.05
12548-C1142	7/16	5	1 1/4	216.60
12549-C1143	15/32	3	1	154.05
12550-C1145	15/32	4	1	201.85
12551-C1146	15/32	4	1 1/4	201.85
12552-C1117	1/2	2 1/4	7/8	107.90
12553-C1118	1/2	3	1	114.35
12554-C1181	1/2	4	1	204.35
12555-C1182	1/2	4	1 1/4	204.35
12556-C1184	1/2	5	1 1/4	220.95
12557-C1186	1/2	6	1 1/4	226.80
12558-C1187	17/32	3	1	158.35
12559-C1189	17/32	4	1	208.20
12560-C1190	17/32	4	1 1/4	208.20
12498-C1192	9/16	2 1/4	1	150.15
12561-C1191	9/16	3	1	153.20
12562-C1194	9/16	4	1 1/4	235.80
12563-C127	5/8	2 3/4	1	140.65
12564-C128	5/8	3 1/2	1 1/4	149.40
12565-C1284	5/8	5	1 1/4	236.15
12566-C1286	5/8	6	1 1/4	328.95
12567-C1291	11/16	3	1	167.60
12568-C1294	11/16	4	1 1/4	253.70
12569-C131	3/4	3	1	158.35
12570-C132	3/4	3 3/4	1 1/4	171.60
12571-C1324	3/4	5	1 1/4	273.70
12572-C1326	3/4	6	1 1/4	326.60
12573-C1341	13/16	3 1/4	1	194.90
12574-C1344	13/16	4	1 1/4	257.00
12575-C141	7/8	3 1/4	1	185.00
12576-C142	7/8	4	1 1/4	195.60
12577-C1424	7/8	5	1 1/4	316.55
12578-C1426	7/8	6	1 1/4	355.80
12579-C1428	15/16	3 1/4	1	200.20
12580-C1430	15/16	4	1 1/4	294.50
12581-C151	1	3 1/4	1	216.70
12582-C152	1	4 1/4	1 1/4	232.60
12583-C1524	1	5	1 1/4	332.05
12584-C1526	1	6	1 1/4	383.50
12585-C156	1 1/8	4 1/4	1 1/4	349.40
12586-C1564	1 1/8	5 1/2	1 1/4	432.20
12587-C160	1 1/4	4 1/2	1 1/4	402.60
12588-C1604	1 1/4	5 1/2	1 1/4	450.10
12589-C162	1 1/4	6	1 1/4	398.70
12590-C164	1 3/8	4 3/4	1 1/4	423.65
12591-C1646	1 3/8	6	1 1/4	569.80
12592-C168	1 1/2	5	1 1/4	464.95
12598-C1682	1 1/2	5	1 1/2	464.95
12593-C1684	1 1/2	6	1 1/4	589.80
12594-C172	1 5/8	5 1/4	1 1/4	515.05
12595-C176	1 3/4	5 1/2	1 1/4	576.80
12596-C180	1 7/8	5 3/4	1 1/2	627.40
12597-C184	2	6	1 1/2	757.75

COATINGS AVAILABLE ON EVERY TOOL ** See Page 161 for details

CORNER ROUNDING CUTTERS



RIGHT HAND

LEFT HAND

Corner rounding milling cutters are designed for radius milling on arbor type milling machines. They may be used individually or in pairs. These cutters have side and radial clearance and can be sharpened by grinding the face without changing their forms. When ordering, specify whether right hand or left hand cutters are wanted.

See Our Corner Rounding Endmills - Page 33

CONVEX AND CONCAVE SHANK TYPE CUTTERS FORM RELIEVED ~ HIGH SPEED STEEL

See Our Convex Cutters Arbor Type - Page 32



CONVEX

Catalog EDI-Number	Radius	Dia.	Width	Hole Size	List Price
12401-C303R	1/8	2	1/4	7/8	\$74.65
12402-C303L	1/8	2	1/4	7/8	74.65
12403-C304R	1/8	2 1/2	1/4	1	76.15
12404-C304L	1/8	2 1/2	1/4	1	76.15
12405-C306R	3/16	2 1/2	5/16	1	143.20
12406-C306L	3/16	2 1/2	5/16	1	143.20
12407-C307R	1/4	2 1/4	13/32	7/8	108.50
12408-C307L	1/4	2 1/4	13/32	7/8	108.50
12409-C308R	1/4	3	13/32	1	100.70
12410-C308L	1/4	3	13/32	1	100.70
12411-C310R	5/16	3	7/16	1	164.25
12412-C310L	5/16	3	7/16	1	164.25
12413-C311R	3/8	3	9/16	1	150.20
12414-C311L	3/8	3	9/16	1	150.20
12415-C312R	3/8	3 3/4	9/16	1 1/4	147.15
12416-C312L	3/8	3 3/4	9/16	1 1/4	147.15
12417-C313R	7/16	3 1/4	5/8	1	195.85
12418-C313L	7/16	3 1/4	5/8	1	195.85
12419-C317R	1/2	3 1/4	3/4	1	204.55
12420-C317L	1/2	3 1/4	3/4	1	204.55
12421-C318R	1/2	4 1/4	3/4	1 1/4	200.70
12422-C318L	1/2	4 1/4	3/4	1 1/4	200.70
12423-C320R	9/16	4 1/4	13/16	1 1/4	252.75
12424-C320L	9/16	4 1/4	13/16	1 1/4	252.75
12425-C327R	5/8	3 1/2	15/16	1	231.30
12426-C327L	5/8	3 1/2	15/16	1	231.30
12427-C328R	5/8	4 1/4	15/16	1 1/4	226.05
12428-C328L	5/8	4 1/4	15/16	1 1/4	226.05
12429-C332R	3/4	4 1/4	1 1/8	1 1/4	272.80
12430-C332L	3/4	4 1/4	1 1/8	1 1/4	272.80
12431-C336R	7/8	4 1/2	1 5/16	1 1/4	356.95
12432-C336L	7/8	4 1/2	1 5/16	1 1/4	356.95
12433-C340R	1	4 1/2	1 9/16	1 1/4	370.00
12434-C340L	1	4 1/2	1 9/16	1 1/4	370.00

Catalog EDI-Number	Radius (in.)	Shank (in.)	Overall Length (in.)	Cutter Dia. (in.)	# of Teeth	List Price
12451-C601	1/32	1/2	3	3/4	6	\$82.20
12452-C602	1/16	1/2	3	3/4	6	82.20
12453-C603	3/32	1/2	3	7/8	6	83.40
12454-C604	1/8	3/4	3 1/2	1 1/4	6	86.55
12455-C605	5/32	3/4	3 1/2	1 5/16	6	94.00
12456-C606	3/16	3/4	3 1/2	1 3/8	6	97.25
12457-C607	1/4	3/4	4	1 1/2	4	108.05
12458-C608	5/16	3/4	4	1 5/8	4	140.40
12459-C609	3/8	3/4	4	1 3/4	4	140.75

See Our Concave Cutters Arbor Type - Page 31



CONCAVE

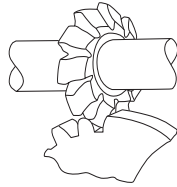
Catalog EDI-Number	Radius (in.)	Shank (in.)	Overall Length (in.)	Cutter Dia. (in.)	# of Teeth	List Price
12476-C701	1/32	1/2	3	3/4	6	\$73.60
12477-C702	1/16	1/2	3	3/4	6	73.60
12478-C703	3/32	1/2	3	3/4	6	73.60
12479-C704	1/8	3/4	3 1/2	1	6	86.55
12480-C705	5/32	3/4	3 1/2	1	6	91.85
12481-C706	3/16	3/4	3 1/2	1	6	110.20
12482-C707	1/4	3/4	4	1 1/4	4	113.45
12483-C708	5/16	3/4	4	1 1/4	4	124.20
12484-C709	3/8	3/4	4 3/16	1 1/2	4	145.75

COATINGS AVAILABLE ON EVERY TOOL ** See Page 161 for details

INVOLUTE GEAR MILLING CUTTERS

High Speed Steel

14 1/2° Pressure Angle - Form Relieved



These cutters are designed to mill spur gears having a 14 1/2 degree pressure angle. They may be sharpened repeatedly without changing the original form.

Cutter No. 1 will cut gears from 135 teeth to a rack
 Cutter No. 2 will cut gears from 55 teeth to 134 teeth
 Cutter No. 3 will cut gears from 35 teeth to 54 teeth
 Cutter No. 4 will cut gears from 26 teeth to 34 teeth
 Cutter No. 5 will cut gears from 21 teeth to 25 teeth
 Cutter No. 6 will cut gears from 17 teeth to 20 teeth
 Cutter No. 7 will cut gears from 14 teeth to 16 teeth
 Cutter No. 8 will cut gears from 12 teeth to 13 teeth

LIST NO. GC14

When ordering state diametral pitch and the number of cutter desired from the above chart according to the number of teeth to be cut.

Diametral Pitch	Hole Size	Dia.	List Price	Cutter Numbers							
				1	2	3	4	5	6	7	8
1	2	8 1/2	\$2,408.65	12701	12702	12703	12704	12705	12706	12707	12708
1 1/4	2	7 3/4	1,646.35	12709	12710	12711	12712	12713	12714	12715	12716
1 1/2	1 3/4	7	1,207.75	12717	12718	12719	12720	12721	12722	12723	12724
1 3/4	1 3/4	6 1/2	1,005.70	12725	12726	12727	12728	12729	12730	12731	12732
2	1 1/2	5 3/4	793.00	12733	12734	12735	12736	12737	12738	12739	12740
2	1 3/4	6 1/2	970.10	12741	12742	12743	12744	12745	12746	12747	12748
2 1/2	1 1/2	5 3/4	609.15	12749	12750	12751	12752	12753	12754	12755	12756
2 1/2	1 3/4	6 1/8	749.90	12757	12758	12759	12760	12761	12762	12763	12764
3	1 1/4	4 3/4	504.10	12765	12766	12767	12768	12769	12770	12771	12772
3	1 1/2	5 1/4	581.95	12773	12774	12775	12776	12777	12778	12779	12780
3	1 3/4	5 5/8	647.25	12781	12782	12783	12784	12785	12786	12787	12788
4	1	3 5/8	366.70	12789	12790	12791	12792	12793	12794	12795	12796
4	1 1/4	4 1/4	389.40	12797	12798	12799	12800	12801	12802	12803	12804
4	1 1/2	4 1/2	432.10	12805	12806	12807	12808	12809	12810	12811	12812
4	1 3/4	4 3/4	456.90	12813	12814	12815	12816	12817	12818	12819	12820
5	1	3 3/8	322.00	12821	12822	12823	12824	12825	12826	12827	12828
5	1 1/4	3 3/4	369.20	12829	12830	12831	12832	12833	12834	12835	12836
5	1 1/2	4 1/4	402.25	12837	12838	12839	12840	12841	12842	12843	12844
5	1 3/4	4 3/8	412.25	12845	12846	12847	12848	12849	12850	12851	12852
6	1	3 1/8	180.45	12853	12854	12855	12856	12857	12858	12859	12860
6	1 1/4	3 1/2	304.65	12861	12862	12863	12864	12865	12866	12867	12868
6	1 1/2	3 7/8	365.90	12869	12870	12871	12872	12873	12874	12875	12876
6	1 3/4	4 1/4	389.10	12877	12878	12879	12880	12881	12882	12883	12884
7	1	2 7/8	289.70	12885	12886	12887	12888	12889	12890	12891	12892
7	1 1/4	3 3/8	304.65	12893	12894	12895	12896	12897	12898	12899	12900
7	1 1/2	3 5/8	331.10	12901	12902	12903	12904	12905	12906	12907	12908
8	1	2 7/8	147.40	12909	12910	12911	12912	12913	12914	12915	12916
8	1 1/4	3 1/4	294.65	12917	12918	12919	12920	12921	12922	12923	12924
8	1 1/2	3 1/2	312.95	12925	12926	12927	12928	12929	12930	12931	12932
9	1	2 3/4	134.10	12933	12934	12935	12936	12937	12938	12939	12940
9	1 1/4	3 1/8	302.95	12941	12942	12943	12944	12945	12946	12947	12948
10	7/8	2 3/8	119.20	12949	12950	12951	12952	12953	12954	12955	12956
10	1	2 3/4	134.10	12957	12958	12959	12960	12961	12962	12963	12964
10	1 1/4	3	272.30	12965	12966	12967	12968	12969	12970	12971	12972
11	7/8	2 3/8	215.95	12973	12974	12975	12976	12977	12978	12979	12980
11	1	2 5/8	256.60	12981	12982	12983	12984	12985	12986	12987	12988
12	7/8	2 1/4	133.25	12989	12990	12991	12992	12993	12994	12995	12996
12	1	2 5/8	143.20	12997	12998	12999	13000	13001	13002	13003	13004
12	1 1/4	2 7/8	229.20	13005	13006	13007	13008	13009	13010	13011	13012
14	7/8	2 1/8	80.35	13013	13014	13015	13016	13017	13018	13019	13020
14	1	2 1/2	141.55	13021	13022	13023	13024	13025	13026	13027	13028
16	7/8	2 1/8	127.55	13029	13030	13031	13032	13033	13034	13035	13036
16	1	2 1/2	141.55	13037	13038	13039	13040	13041	13042	13043	13044

COATINGS AVAILABLE ON EVERY TOOL ** See Page 161 for details



INVOLUTE GEAR MILLING CUTTERS

High Speed Steel
14 1/2° Pressure Angle - Form Relieved

**We Also Quote
Spline & Bevel Cutters!**

Diametral Pitch	Hole Size	Dia.	List Price	Cutter Numbers							
				1	2	3	4	5	6	7	8
18	7/8	2	\$104.30	13045	13046	13047	13048	13049	13050	13051	13052
18	1	2 3/8	209.50	13053	13054	13055	13056	13057	13058	13059	13060
20	7/8	2	104.30	13061	13062	13063	13064	13065	13066	13067	13068
20	1	2 3/8	209.50	13069	13070	13071	13072	13073	13074	13075	13076
22	7/8	2	196.15	13077	13078	13079	13080	13081	13082	13083	13084
22	1	2 1/4	221.85	13085	13086	13087	13088	13089	13090	13091	13092
24	7/8	1 3/4	183.65	13093	13094	13095	13096	13097	13098	13099	13100
24	1	2 1/4	221.85	13101	13102	13103	13104	13105	13106	13107	13108
26	7/8	1 3/4	213.10	13109	13110	13111	13112	13113	13114	13115	13116
26	1	2 1/4	213.10	13117	13118	13119	13120	13121	13122	13123	13124
28	7/8	1 3/4	233.30	13125	13126	13127	13128	13129	13130	13131	13132
28	1	2 1/4	233.30	13133	13134	13135	13136	13137	13138	13139	13140
30	7/8	1 3/4	233.30	13141	13142	13143	13144	13145	13146	13147	13148
30	1	2 1/4	233.30	13149	13150	13151	13152	13153	13154	13155	13156
32	7/8	1 3/4	176.35	13157	13158	13159	13160	13161	13162	13163	13164
32	1	2 1/4	176.35	13165	13166	13167	13168	13169	13170	13171	13172
36	7/8	1 3/4	233.30	13173	13174	13175	13176	13177	13178	13179	13180
36	1	2 1/4	233.30	13181	13182	13183	13184	13185	13186	13187	13188
40	7/8	1 3/4	233.30	13189	13190	13191	13192	13193	13194	13195	13196
40	1	2 1/4	233.30	13197	13198	13199	13200	13201	13202	13203	13204
48	7/8	1 3/4	176.35	13205	13206	13207	13208	13209	13210	13211	13212
48	1	2 1/4	176.35	13213	13214	13215	13216	13217	13218	13219	13220

INVOLUTE GEAR MILLING CUTTERS

High Speed Steel
20° Pressure Angle - Form Relieved

Diametral Pitch	Hole Size	Dia.	List Price	Cutter Numbers							
				1	2	3	4	5	6	7	8
1	2	8 1/2	*	13251	13252	13253	13254	13255	13256	13257	13258
1 1/4	2	7 3/4	*	13259	13260	13261	13262	13263	13264	13265	13266
1 1/2	1 3/4	7	*	13267	13268	13269	13270	13271	13272	13273	13274
1 3/4	1 3/4	6 1/2	*	13275	13276	13277	13278	13279	13280	13281	13282
2	1 1/2	5 3/4	*	13283	13284	13285	13286	13287	13288	13289	13290
2	1 3/4	6 1/2	*	13291	13292	13293	13294	13295	13296	13297	13298
2 1/2	1 1/2	5 3/4	*	13299	13300	13301	13302	13303	13304	13305	13306
2 1/2	1 3/4	6 1/8	*	13307	13308	13309	13310	13311	13312	13313	13314
3	1 1/4	4 3/4	*	13315	13316	13317	13318	13319	13320	13321	13322
3	1 1/2	5 1/4	*	13323	13324	13325	13326	13327	13328	13329	13330
3	1 3/4	5 5/8	*	13331	13332	13333	13334	13335	13336	13337	13338
4	1	3 5/8	*	13339	13340	13341	13342	13343	13344	13345	13346
4	1 1/4	4 1/4	*	13347	13348	13349	13350	13351	13352	13353	13354
4	1 1/2	4 1/2	*	13355	13356	13357	13358	13359	13360	13361	13362
4	1 3/4	4 3/4	*	13363	13364	13365	13366	13367	13368	13369	13370
5	1	3 3/8	*	13371	13372	13373	13374	13375	13376	13377	13378
5	1 1/4	3 3/4	*	13379	13380	13381	13382	13383	13384	13385	13386
5	1 1/2	4 1/4	*	13387	13388	13389	13390	13391	13392	13393	13394
5	1 3/4	4 3/8	*	13395	13396	13397	13398	13399	13400	13401	13402
6	1	3 1/8	*	13403	13404	13405	13406	13407	13408	13409	13410
6	1 1/4	3 1/2	*	13411	13412	13413	13414	13415	13416	13417	13418
6	1 1/2	3 7/8	*	13419	13420	13421	13422	13423	13424	13425	13426
6	1 3/4	4 1/4	*	13427	13428	13429	13430	13431	13432	13433	13434
7	1	2 7/8	*	13435	13436	13437	13438	13439	13440	13441	13442
7	1 1/4	3 3/8	*	13443	13444	13445	13446	13447	13448	13449	13450
7	1 1/2	3 5/8	*	13451	13452	13453	13454	13455	13456	13457	13458

* Prices on Application

COATINGS AVAILABLE ON EVERY TOOL ** See Page 161 for details

INVOLUTE GEAR MILLING CUTTERS

High Speed Steel ~ 20° Pressure Angle - Form Relieved



Diametral Pitch	Hole Size	Dia.	List Price	Cutter Numbers							
				1	2	3	4	5	6	7	8
8	1	2 7/8	*	13459	13460	13461	13462	13463	13464	13465	13466
8	1 1/4	3 1/4	*	13467	13468	13469	13470	13471	13472	13473	13474
8	1 1/2	3 1/2	*	13475	13476	13477	13478	13479	13480	13481	13482
9	1	2 3/4	*	13483	13484	13485	13486	13487	13488	13489	13490
9	1 1/4	3 1/8	*	13491	13492	13493	13494	13495	13496	13497	13498
10	7/8	2 3/8	*	13499	13500	13501	13502	13503	13504	13505	13506
10	1	2 3/4	*	13507	13508	13509	13510	13511	13512	13513	13514
10	1 1/4	3	*	13515	13516	13517	13518	13519	13520	13521	13522
11	7/8	2 3/8	*	13523	13524	13525	13526	13527	13528	13529	13530
11	1	2 5/8	*	13531	13532	13533	13534	13535	13536	13537	13538
12	7/8	2 1/4	*	13539	13540	13541	13542	13543	13544	13545	13546
12	1	2 5/8	*	13547	13548	13549	13550	13551	13552	13553	13554
12	1 1/4	2 7/8	*	13555	13556	13557	13558	13559	13560	13561	13562
14	7/8	2 1/8	*	13563	13564	13565	13566	13567	13568	13569	13570
14	1	2 1/2	*	13571	13572	13573	13574	13575	13576	13577	13578
16	7/8	2 1/8	*	13579	13580	13581	13582	13583	13584	13585	13586
16	1	2 1/2	*	13587	13588	13589	13590	13591	13592	13593	13594
18	7/8	2	*	13595	13596	13597	13598	13599	13600	13601	13602
18	1	2 3/8	*	13603	13604	13605	13606	13607	13608	13609	13610
20	7/8	2	*	13611	13612	13613	13614	13615	13616	13617	13618
20	1	2 3/8	*	13619	13620	13621	13622	13623	13624	13625	13626
22	7/8	2	*	13627	13628	13629	13630	13631	13632	13633	13634
22	1	2 1/4	*	13635	13636	13637	13638	13639	13640	13641	13642
24	7/8	1 3/4	*	13643	13644	13645	13646	13647	13648	13649	13650
24	1	2 1/4	*	13651	13652	13653	13654	13655	13656	13657	13658
26	7/8	1 3/4	*	13659	13660	13661	13662	13663	13664	13665	13666
26	1	2 1/4	*	13667	13668	13669	13670	13671	13672	13673	13674
28	7/8	1 3/4	*	13675	13676	13677	13678	13679	13680	13681	13682
28	1	2 1/4	*	13683	13684	13685	13686	13687	13688	13689	13690
30	7/8	1 3/4	*	13691	13692	13693	13694	13695	13696	13697	13698
30	1	2 1/4	*	13699	13700	13701	13702	13703	13704	13705	13706
32	7/8	1 3/4	*	13707	13708	13709	13710	13711	13712	13713	13714
32	1	2 1/4	*	13715	13716	13717	13718	13719	13720	13721	13722
36	7/8	1 3/4	*	13723	13724	13725	13726	13727	13728	13729	13730
36	1	2 1/4	*	13731	13732	13733	13734	13735	13736	13737	13738
40	7/8	1 3/4	*	13739	13740	13741	13742	13743	13744	13745	13746
40	1	2 1/4	*	13747	13748	13749	13750	13751	13752	13753	13754
48	7/8	1 3/4	*	13755	13756	13757	13758	13759	13760	13761	13762
48	1	2 1/4	*	13763	13764	13765	13766	13767	13768	13769	13770

INVOLUTE GEAR MILLING CUTTERS FOR BEVEL GEARS

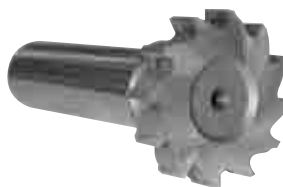
High Speed Steel ~ 14 1/2° Pressure Angle

Diametral Pitch	Hole Size	Dia.	List Price	Cutter Numbers							
				1	2	3	4	5	6	7	8
3	1 1/4	4	*	13800	13801	13802	13803	13804	13805	13806	13807
4	1 1/4	3 5/8	*	13808	13809	13810	13811	13812	13813	13814	13815
5	1 1/4	3 3/8	*	13816	13817	13818	13819	13820	13821	13822	13823
6	1	3 1/8	*	13824	13825	13826	13827	13828	13829	13830	13831
7	1	2 7/8	*	13832	13833	13834	13835	13836	13837	13838	13839
8	1	2 7/8	*	13840	13841	13842	13843	13844	13845	13846	13847
10	7/8	2 3/8	*	13848	13849	13850	13851	13852	13853	13854	13855
12	7/8	2 1/4	*	13856	13857	13858	13859	13860	13861	13862	13863
14	7/8	2 1/8	*	13864	13865	13866	13867	13868	13869	13870	13871
16	7/8	2 1/8	*	13872	13873	13874	13875	13876	13877	13878	13879
20	7/8	2	*	13880	13881	13882	13883	13884	13885	13886	13887
24	7/8	1 3/4	*	13888	13889	13890	13891	13892	13893	13894	13895

* Prices on Application

COATINGS AVAILABLE ON EVERY TOOL ** See Page 161 for details

**NOW AVAILABLE
IN COBALT!**



WOODRUFF KEYSEAT CUTTERS SHANK TYPE - HIGH SPEED STEEL

All sizes have a uniform 1/2" diameter shank. Right hand cutters are standard. Left hand cutters are made to order with prices on application.

**HSS-K-600
COBALT - KX-600**

**HSS-K-700
COBALT - KX-700**

American Standard	Dia.	Width of Face	Overall Length	Straight Tooth				Staggered Tooth			
				HSS		COBALT		HSS		COBALT	
				Catalog EDI-Number	List Price	Catalog EDI-Number	List Price	Catalog EDI-Number	List Price	Catalog EDI-Number	List Price
202	1/4	1/16	2 1/16	12301	\$19.50	35270	\$24.75	12342	\$21.50	35311	\$32.95
202 1/2	5/16	1/16	2 1/16	12302	19.50	35271	24.75	12343	21.50	35312	32.95
302 1/2	5/16	3/32	2 3/32	12303	19.50	35272	24.75	12344	21.50	35313	32.95
203	3/8	1/16	2 1/16	12304	19.50	35273	24.75	12345	21.50	35314	32.95
303	3/8	3/32	2 3/32	12305	19.50	35274	24.75	12346	21.50	35315	32.95
403	3/8	1/8	2 1/8	12306	19.50	35275	24.75	12347	21.50	35316	32.95
204	1/2	1/16	2 1/16	12307	19.50	35276	24.75	12348	21.50	35317	29.35
304	1/2	3/32	2 3/32	12308	19.50	35277	24.75	12349	21.50	35318	29.35
305	5/8	3/32	2 3/32	12309	19.50	35278	24.75	12350	21.50	35319	29.35
404	1/2	1/8	2 1/8	12310	19.50	35279	24.75	12351	21.50	35320	29.35
405	5/8	1/8	2 1/8	12311	19.50	35280	24.75	12352	21.50	35321	29.35
406	3/4	1/8	2 1/8	12312	21.20	35281	26.00	12353	23.75	35322	34.35
505	5/8	5/32	2 5/32	12313	19.50	35282	26.00	12354	21.50	35323	29.35
605	5/8	3/16	2 3/16	12314	19.50	35283	26.00	12355	21.50	35324	29.35
506	3/4	5/32	2 5/32	12315	21.20	35284	26.00	12356	23.75	35325	34.35
806	3/4	1/4	2 1/4	12316	21.20	35285	28.45	12357	23.75	35326	34.35
507	7/8	5/32	2 5/32	12317	23.65	35286	28.45	12358	26.45	35327	37.55
606	3/4	3/16	2 3/16	12318	21.20	35287	28.45	12359	26.45	35328	34.35
607	7/8	3/16	2 3/16	12319	23.65	35288	28.45	12360	26.45	35329	37.55
707	7/8	7/32	2 7/32	12320	23.65	35289	28.45	12361	26.45	35330	37.55
608	1	3/16	2 3/16	12321	26.45	35290	31.15	12362	29.40	35331	42.10
708	1	7/32	2 7/32	12322	26.45	35291	31.15	12363	29.40	35332	42.10
1208	1	3/8	2 3/8	12323	27.50	35292	32.30	12364	31.60	35333	42.85
609	1 1/8	3/16	2 3/16	12324	29.40	35293	35.05	12365	32.35	35334	48.70
807	7/8	1/4	2 1/4	12325	23.75	35294	28.45	12366	26.45	35335	37.55
808	1	1/4	2 1/4	12326	26.45	35295	31.15	12367	29.40	35336	42.10
709	1 1/8	7/32	2 7/32	12327	29.40	35296	35.05	12368	32.35	35337	48.70
809	1 1/8	1/4	2 1/4	12328	29.40	35297	35.05	12369	32.35	35338	48.70
610	1 1/4	3/16	2 3/16	12329	32.20	35298	39.05	12370	35.85	35339	50.60
710	1 1/4	7/32	2 7/32	12330	32.20	35299	39.05	12371	35.85	35340	50.60
810	1 1/4	1/4	2 1/4	12331	32.20	35300	39.05	12372	35.85	35341	53.40
811	1 3/8	1/4	2 1/4	12332	34.65	35301	45.25	12373	39.10	35342	59.45
812	1 1/2	1/4	2 1/4	12333	38.00	35302	46.80	12374	42.45	35343	63.65
1008	1	5/16	2 5/16	12334	27.15	35303	32.30	12375	30.10	35344	42.85
1009	1 1/8	5/16	2 5/16	12335	31.30	35304	37.30	12376	34.15	35345	49.55
1010	1 1/4	5/16	2 5/16	12336	33.95	35305	41.85	12377	37.05	35346	54.80
1011	1 3/8	5/16	2 5/16	12337	37.80	35306	45.25	12378	41.90	35347	59.45
1012	1 1/2	5/16	2 5/16	12338	39.00	35307	48.25	12379	41.15	35348	63.70
1210	1 1/4	3/8	2 3/8	12339	33.95	35308	41.85	12380	36.95	35349	54.80
1211	1 3/8	3/8	2 3/8	12340	37.80	35309	45.25	12381	41.90	35350	60.25
1212	1 1/2	3/8	2 3/8	12341	39.80	35310	48.25	12382	45.45	35351	67.05

COATINGS AVAILABLE ON EVERY TOOL ** See Page 161 for details



CARBIDE WOODRUFF KEYSEAT CUTTERS

WOODRUFF KEYSEAT CUTTERS SHANK TYPE ~ CARBIDE TIPPED

All sizes have uniform 1/2" diameter shank. Right hand cutters are standard. Chip breakers are on all tools 5/32" wide and greater.



American Standard	Dia.	Width of Face	Overall Length	Number of Teeth	FOR STEEL							
					KCT-600 Straight Tooth		KCT-700 Staggered Tooth		KCT-650 Straight Tooth		KCT-750 Staggered Tooth	
					Catalog EDI-#	List Price	Catalog EDI-#	List Price	Catalog EDI-#	List Price	Catalog EDI-#	List Price
204	1/2	1/16	2 1/16	6	35200	\$99.80	35235	\$121.65	35200S	\$114.80	35235S	\$139.90
304	1/2	3/32	2 3/32	6	35201	99.80	35236	121.65	35201S	114.80	35236S	139.90
404	1/2	1/8	2 1/8	6	35202	99.80	35237	121.65	35202S	114.80	35237S	139.90
305	5/8	3/32	2 3/32	6	35203	103.35	35238	127.25	35203S	118.85	35238S	146.35
405	5/8	1/8	2 1/8	6	35204	103.35	35239	127.25	35204S	118.85	35239S	146.35
505	5/8	5/32	2 5/32	6	35205	103.35	35240	127.25	35205S	118.85	35240S	146.35
605	5/8	3/16	2 3/16	6	35206	103.35	35241	127.25	35206S	118.85	35241S	146.35
406	3/4	1/8	2 1/8	6	35207	107.90	35242	132.90	35207S	124.10	35242S	152.85
506	3/4	5/32	2 5/32	6	35208	107.90	35243	132.90	35208S	124.10	35243S	152.85
606	3/4	3/16	2 3/16	6	35209	107.90	35244	132.90	35209S	124.10	35244S	152.85
806	3/4	1/4	2 1/4	6	35210	107.90	35245	132.90	35210S	124.10	35245S	152.85
507	7/8	5/32	2 5/32	6	35211	112.95	35246	139.00	35211S	129.90	35246S	159.85
607	7/8	3/16	2 3/16	6	35212	112.95	35247	139.00	35212S	129.90	35247S	159.85
707	7/8	7/32	2 7/32	8	35213	112.95	35248	139.00	35213S	129.90	35248S	159.85
807	7/8	1/4	2 1/4	8	35214	112.95	35249	139.00	35214S	129.90	35249S	159.85
608	1	3/16	2 3/16	8	35215	127.40	35250	156.90	35215S	146.55	35250S	180.45
708	1	7/32	2 7/32	8	35216	127.40	35251	156.90	35216S	146.55	35251S	180.45
808	1	1/4	2 1/4	8	35217	127.40	35252	156.90	35217S	146.55	35252S	180.45
1008	1	5/16	2 5/16	8	35218	127.40	35253	156.90	35218S	146.55	35253S	180.45
1208	1	3/8	2 3/8	8	35219	127.40	35254	156.90	35219S	146.55	35254S	180.45
609	1 1/8	3/16	2 3/16	8	35220	133.95	35255	165.95	35220S	154.05	35255S	190.85
709	1 1/8	7/32	2 7/32	8	35221	133.95	35256	165.95	35221S	154.05	35256S	190.85
809	1 1/8	1/4	2 1/4	8	35222	133.95	35257	165.95	35222S	154.05	35257S	190.85
1009	1 1/8	5/16	2 5/16	8	35223	133.95	35258	165.95	35223S	154.05	35258S	190.85
610	1 1/4	3/16	2 3/16	8	35224	140.60	35259	173.10	35224S	161.70	35259S	199.10
710	1 1/4	7/32	2 7/32	8	35225	140.60	35260	173.10	35225S	161.70	35260S	199.10
810	1 1/4	1/4	2 1/4	8	35226	140.60	35261	173.10	35226S	161.70	35261S	199.10
1010	1 1/4	5/16	2 5/16	8	35227	140.60	35262	173.10	35227S	161.70	35262S	199.10
1210	1 1/4	3/8	2 3/8	8	35228	140.60	35263	173.10	35228S	161.70	35263S	199.10
811	1 3/8	1/4	2 1/4	8	35229	147.55	35264	181.70	35229S	169.70	35264S	208.95
1011	1 3/8	5/16	2 5/16	8	35230	147.55	35265	181.70	35230S	169.70	35265S	208.95
1211	1 3/8	3/8	2 3/8	8	35231	147.55	35266	181.70	35231S	169.70	35266S	208.95
812	1 1/2	1/4	2 1/4	8	35232	155.00	35267	193.45	35232S	178.25	35267S	222.50
1012	1 1/2	5/16	2 5/16	8	35233	155.00	35268	193.45	35233S	178.25	35268S	222.50
1212	1 1/2	3/8	2 3/8	8	35234	155.00	35269	193.45	35234S	178.25	35269S	222.50

WOODRUFF KEYSEAT CUTTERS SHANK TYPE ~ SOLID CARBIDE

Solid Carbide construction, made with side cutting teeth.

+ .001-.002 tolerance on ODs, +.0005-.0005 tolerance on widths



KC-600

Catalog EDI-Number	Amer. Std.	Dia.	Face Width	OAL	No. of Flutes	List Price	Catalog EDI-Number	Amer. Std.	Dia.	Face Width	OAL	No. of Flutes	List Price
35353	203	3/8	1/16	2 1/4	6	\$112.50	35377	606	3/4	3/16	2 1/4	8	\$205.00
35355	303	3/8	3/32	2 1/4	6	116.25	35379	806	3/4	1/4	2 1/4	8	207.50
35357	403	3/8	1/8	2 1/4	6	117.50	35381	507	7/8	5/32	2 1/4	10	240.00
35359	204	1/2	1/16	2 1/4	8	137.50	35383	607	7/8	3/16	2 1/4	10	241.25
35361	304	1/2	3/32	2 1/4	8	138.75	35385	707	7/8	7/32	2 1/4	10	246.25
35363	404	1/2	1/8	2 1/4	8	140.00	35387	807	7/8	1/4	2 1/4	10	247.50
35365	305	5/8	3/32	2 1/4	8	162.50	35389	608	1	3/16	2 1/4	10	263.75
35367	405	5/8	1/8	2 1/4	8	163.75	35391	708	1	7/32	2 1/4	10	275.00
35369	505	5/8	5/32	2 1/4	8	165.00	35393	808	1	1/4	2 1/4	10	280.00
35371	605	5/8	3/16	2 1/4	8	167.50	35395	610	1 1/4	3/16	2 1/4	12	287.50
35373	406	3/4	1/8	2 1/4	8	200.00	35397	710	1 1/4	7/32	2 1/4	12	291.25
35375	506	3/4	5/32	2 1/4	8	202.50	35399	810	1 1/4	1/4	2 1/4	12	293.75

COATINGS AVAILABLE ON EVERY TOOL ** See Page 161 for details



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ANNULAR CUTTERS

ANNULAR CUTTERS

- ~ Eliminate multi-step drilling.
- ~ Lower cost per hole.
- ~ Better finishing.
- ~ More accurate, cleaner holes.
- ~ Longer tool life.
- ~ 3/4" shank diameter with two flats for both inch and metric cutters.
- ~ Cutters are interchangeable with other standard hole cutting systems.



HIGH SPEED STEEL							COBALT					
Inch Sizes	1" Depth EDI-Number	List Price	2" Depth EDI-Number	List Price	3" Depth EDI-Number	List Price	1" Depth EDI-Number	List Price	2" Depth EDI-Number	List Price	3" Depth EDI-Number	List Price
7/16	50002-HC2002	\$39.00	50030-HC2030	\$51.30	--	--	50086-HCX2002	\$41.00	50114-HCX2030	\$53.80	--	--
1/2	50003-HC2003	39.80	50031-HC2031	52.30	--	--	50087-HCX2003	41.75	50115-HCX2031	54.90	--	--
9/16	50004-HC2004	44.10	50032-HC2032	59.35	--	--	50088-HCX2004	46.30	50116-HCX2032	62.30	--	--
5/8	50005-HC2005	47.40	50033-HC2033	64.00	--	--	50089-HCX2005	49.80	50117-HCX2033	67.25	--	--
11/16	50006-HC2006	50.70	50034-HC2034	71.05	--	--	50090-HCX2006	53.20	50118-HCX2034	74.60	--	--
3/4	50007-HC2007	54.00	50035-HC2035	78.10	50063-HC2063	112.20	50091-HCX2007	56.70	50119-HCX2035	81.95	50147-HCX2063	117.85
13/16	50008-HC2008	57.30	50036-HC2036	82.70	50064-HC2064	117.70	50092-HCX2008	60.20	50120-HCX2036	86.80	50148-HCX2064	123.65
7/8	50009-HC2009	60.70	50037-HC2037	87.70	50065-HC2065	124.15	50093-HCX2009	63.70	50121-HCX2037	92.10	50149-HCX2065	130.40
15/16	50010-HC2010	63.90	50038-HC2038	94.30	50066-HC2066	134.00	50094-HCX2010	67.10	50122-HCX2038	99.05	50150-HCX2066	140.70
1	50011-HC2011	67.15	50039-HC2039	102.45	50067-HC2067	147.25	50095-HCX2011	70.55	50123-HCX2039	107.55	50151-HCX2067	154.60
1 1/16	50012-HC2012	70.20	50040-HC2040	104.90	50068-HC2068	150.30	50096-HCX2012	73.75	50124-HCX2040	110.10	50152-HCX2068	157.85
1 1/8	50013-HC2013	80.70	50041-HC2041	121.15	50069-HC2069	174.35	50097-HCX2013	84.70	50125-HCX2041	127.20	50153-HCX2069	183.10
1 3/16	50014-HC2014	85.10	50042-HC2042	128.30	50070-HC2070	180.85	50098-HCX2014	89.35	50126-HCX2042	134.70	50154-HCX2070	189.90
1 1/4	50015-HC2015	87.35	50043-HC2043	131.10	50071-HC2071	187.85	50099-HCX2015	91.75	50127-HCX2043	137.40	50155-HCX2071	197.30
1 5/16	50016-HC2016	91.85	50044-HC2044	137.70	50072-HC2072	197.80	50100-HCX2016	96.50	50128-HCX2044	144.60	50156-HCX2072	207.70
1 3/8	50017-HC2017	118.15	50045-HC2045	144.60	50073-HC2073	199.15	50101-HCX2017	124.00	50129-HCX2045	151.85	50157-HCX2073	209.10
1 7/16	50018-HC2018	127.60	50046-HC2046	158.60	50074-HC2074	199.70	50102-HCX2018	134.00	50130-HCX2046	165.30	50158-HCX2074	209.70
1 1/2	50019-HC2019	138.20	50047-HC2047	173.80	50075-HC2075	209.65	50103-HCX2019	145.15	50131-HCX2047	182.55	50159-HCX2075	220.15
1 9/16	50020-HC2020	149.30	50048-HC2048	187.75	50076-HC2076	234.50	50104-HCX2020	156.80	50132-HCX2048	197.15	50160-HCX2076	246.25
1 5/8	50021-HC2021	162.80	50049-HC2049	206.30	50077-HC2077	250.70	50105-HCX2021	170.90	50133-HCX2049	216.60	50161-HCX2077	263.20
1 11/16	50022-HC2022	175.85	50050-HC2050	222.80	50078-HC2078	263.66	50106-HCX2022	184.55	50134-HCX2050	233.95	50162-HCX2078	276.85
1 3/4	50023-HC2023	181.30	50051-HC2051	228.70	50079-HC2079	276.65	50107-HCX2023	190.40	50135-HCX2051	240.20	50163-HCX2079	290.50
1 13/16	50024-HC2024	192.25	50052-HC2052	243.70	50080-HC2080	291.55	50108-HCX2024	201.85	50136-HCX2052	254.65	50164-HCX2080	306.25
1 7/8	50025-HC2025	203.75	50053-HC2053	258.35	50081-HC2081	308.65	50109-HCX2025	213.95	50137-HCX2053	269.90	50165-HCX2081	324.00
1 15/16	50026-HC2026	221.95	50054-HC2054	279.05	50082-HC2082	328.40	50110-HCX2026	232.25	50138-HCX2054	291.50	50166-HCX2082	344.85
2	50027-HC2027	230.50	50055-HC2055	292.50	50083-HC2083	345.25	50111-HCX2027	242.65	50139-HCX2055	306.55	50167-HCX2083	362.50
2 1/16	50028-HC2028	258.25	50056-HC2056	334.80	50084-HC2084	--	--	--	--	--	--	--
Set of 5 Include 9/16, 11/16, 13/16, 15/16, 1 1/16	50029-HC2029	269.04	50057-HC2057	366.66	50085-HC2085	410.70	50113-HCX2029	297.20	50141-HCX2057	401.90	50169-HCX2085	467.70

METRIC SIZES



HIGH SPEED STEEL						COBALT			
Inch Sizes	1" Depth EDI-Number	List Price	2" Depth EDI-Number	List Price	1" Depth EDI-Number	List Price	2" Depth EDI-Number	List Price	
14mm	50170-HCM2002	\$42.55	50181-HCM2013	\$66.30	50192-HCMX2002	\$45.95	50203-HCMX2013	\$71.65	
16mm	50171-HCM2003	46.60	50182-HCM2014	77.15	50193-HCMX2003	50.35	50204-HCMX2014	93.35	
18mm	50172-HCM2004	50.35	50183-HCM2015	84.50	50194-HCMX2004	54.40	50205-HCMX2015	91.25	
20mm	50173-HCM2005	53.05	50184-HCM2016	89.75	50195-HCMX2005	57.30	50206-HCMX2016	97.00	
22mm	50174-HCM2006	60.10	50185-HCM2017	99.55	50196-HCMX2006	65.00	50207-HCMX2017	107.50	
24mm	50175-HCM2007	65.05	50186-HCM2018	107.35	50197-HCMX2007	70.25	50208-HCMX2018	116.00	
25mm	50176-HCM2008	67.10	50187-HCM2019	109.45	50198-HCMX2008	72.50	50209-HCMX2019	118.20	
26mm	50177-HCM2009	68.30	50188-HCM2020	110.00	50199-HCMX2009	73.80	50210-HCMX2020	119.80	
28mm	50178-HCM2010	73.90	50189-HCM2021	122.40	50200-HCMX2010	79.85	50211-HCMX2021	132.30	
30mm	50179-HCM2011	78.20	50190-HCM2022	134.30	50201-HCMX2011	85.15	50212-HCMX2022	143.10	
32mm	50180-HCM2012	103.30	50191-HCM2023	152.35	50202-HCMX2012	112.55	50213-HCMX2023	164.60	

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