

# Carbide Burrs

## 1/4" Shank

### Single Cut

General Purpose—Recommended for steel, cast iron, ferrous materials. Offers good stock removal and smooth workpiece finish.

### Double Cut

For rapid stock removal in tough applications. Design reduces the pulling action, reduces size of chips, ensures rapid stock removal.

### Cylinder Shape No End Cut



DIA.	TOOL NO.	LENGTH OF CUT	EDP NO.	
			SINGL. CUT	DBL. CUT
1/8	SA-11	1/2	59715	59500
1/8	SA-12	5/8	59816	59501
5/32	SA-13	5/8	59817	59502
3/16	SA-14	5/8	59818	59503
1/4	SA-1	5/8	59716	59504
1/4	SA-1L	1	59717	59505
5/16	SA-2	3/4	59718	59506
3/8	SA-3	3/4	59719	59507
3/8	SA-3L	1	59720	59508
3/8	SA-3X	1 1/2	59819	59509
7/16	SA-4	1	59820	59510
1/2	SA-5	1	59721	59511
5/8	SA-6	1	59722	59512
3/4	SA-15	1/2	59821	59513
3/4	SA-16	3/4	59723	59516
3/4	SA-7	1	59822	59517
7/8	SA-8	1	59823	59518
1	SA-9	1	59824	59519

### Cylinder Shape End Cut



DIA.	TOOL NO.	LENGTH OF CUT	EDP NO.	
			SINGL. CUT	DBL. CUT
1/8	SB-11	1/2	59825	59875
1/8	SB-12	5/8	59826	59876
5/32	SB-13	5/8	59827	59877
3/16	SB-14	5/8	59828	59878
1/4	SB-1	5/8	59829	59879
1/4	SB-1L	1	59830	59880
5/16	SB-2	3/4	59831	59881
3/8	SB-3	3/4	59832	59882
3/8	SB-3L	1	59833	59883
3/8	SB-3X	1 1/2	59834	59884
7/16	SB-4	1	59835	59885
1/2	SB-5	1	59836	59886
5/8	SB-6	1	59837	59887
3/4	SB-15	1/2	59838	59888
3/4	SB-16	3/4	59839	59889
3/4	SB-7	1	59840	59890
7/8	SB-8	1	59841	59891
1	SB-9	1	59842	59892

### Fraise rotative au carbure

### Rebabeador de carburo

### List No. 5970 Single Cut



### List No. 5970 Double Cut



STANDARD PACKAGE All sizes — 1 each

### Cylinder Shape Radius End



DIA.	TOOL NO.	LENGTH OF CUT	EDP NO.	
			SINGL. CUT	DBL. CUT
1/8	SC-11	1/2	59724	59536
1/8	SC-12	5/8	59843	59537
5/32	SC-13	5/8	59844	59538
3/16	SC-14	5/8	59845	59539
1/4	SC-1	5/8	59846	59540
1/4	SC-1L	1	59725	59541
5/16	SC-2	3/4	59726	59542
3/8	SC-3	3/4	59847	59543
3/8	SC-3L	1	59727	59544
3/8	SC-3X	1 1/2	59848	59545
7/16	SC-4	1	59849	59546
1/2	SC-5	1	59728	59547
5/8	SC-6	1	59729	59548
3/4	SC-15	1/2	59850	59550
3/4	SC-16	3/4	59730	59549
3/4	SC-7	1	59851	59551
1	SC-9	1	59852	59552

### Ball Shape



DIA.	TOOL NO.	LENGTH OF CUT	EDP NO.	
			SINGL. CUT	DBL. CUT
1/8	SD-11	3/32	59731	59554
3/16	SD-14	1/8	59732	59555
1/4	SD-1	1/4	59733	59556
5/16	SD-2	1/4	59734	59557
3/8	SD-3	5/16	59735	59558
7/16	SD-4	3/8	59853	59559
1/2	SD-5	7/16	59736	59560
5/8	SD-6	9/16	59737	59561
3/4	SD-7	1 1/16	59738	59562
1	SD-9	1 5/16	59854	59563

(continued)

# Carbide Burrs 1/4" Shank (continued)

List No. 5970

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## Oval Shape



DIA.	TOOL NO.	LENGTH OF CUT	EDP NO.	
			SNGL. CUT	DBL. CUT
3/16	SE-11	5/16	59739	59564
1/4	SE-1	3/8	59740	59565
3/8	SE-3	3/4	59741	59566
1/2	SE-5	7/8	59742	59567
5/8	SE-6	1	59743	59568
3/4	SE-7	1	59744	59569

## 60° Cone Shape



DIA.	TOOL NO.	LENGTH OF CUT	EDP NO.	
			SNGL. CUT	DBL. CUT
1/4	SJ-1	3/16	59861	59793
3/8	SJ-3	5/16	59862	59794
1/2	SJ-5	7/16	59863	59795
5/8	SJ-6	9/16	59864	59796
3/4	SJ-7	1 1/16	59865	59797
1	SJ-9	1 5/16	59866	59798

## Tree Shape Radius End



DIA.	TOOL NO.	LENGTH OF CUT	EDP NO.	
			SNGL. CUT	DBL. CUT
1/8	SF-11	1/2	59855	59570
1/4	SF-1	5/8	59745	59571
3/8	SF-3	3/4	59746	59572
7/16	SF-4	1	59856	59573
1/2	SF-13	3/4	59857	59575
1/2	SF-5	1	59747	59574
5/8	SF-6	1	59748	59576
3/4	SF-14	1 1/4	59749	59578
3/4	SF-15	1 1/2	59859	59579

## 90° Cone Shape



DIA.	TOOL NO.	LENGTH OF CUT	EDP NO.	
			SNGL. CUT	DBL. CUT
1/4	SK-1	1/8	59867	59800
3/8	SK-3	3/16	59868	59801
1/2	SK-5	1/4	59869	59802
5/8	SK-6	5/16	59870	59803
3/4	SK-7	3/8	59871	59804
1	SK-9	1/2	59872	59805

## Tree Shape Pointed End



DIA.	TOOL NO.	LENGTH OF CUT	EDP NO.	
			SNGL. CUT	DBL. CUT
1/4	SG-1	5/8	59750	59580
5/16	SG-2	3/4	59751	59581
3/8	SG-3	3/4	59752	59582
1/2	SG-13	3/4	59753	59583
1/2	SG-5	1	59754	59584
5/8	SG-6	1	59755	59585
3/4	SG-7	1	59756	59586
3/4	SG-15	1 1/2	59860	59587

## Taper Shape Radius End 14° Included Angle



DIA.	TOOL NO.	LENGTH OF CUT	EDP NO.	
			SNGL. CUT	DBL. CUT
1/4	SL-1	5/8	59757	59605
5/16	SL-2	7/8	59758	59606
3/8	SL-3	1 1/16	59759	59607
1/2	SL-4	1 1/8	59760	59608
5/8	SL-5	1 3/16	59873	59609
5/8	SL-6	1 5/16	59761	59610
3/4	SL-7	1 1/2	59762	59611

## Flame Shape



DIA.	TOOL NO.	LENGTH OF CUT	EDP NO.	
			SNGL. CUT	DBL. CUT
1/4	SH-1	5/8	59774	59780
5/16	SH-2	3/4	59775	59781
1/2	SH-5	1 1/4	59776	59782
5/8	SH-6	1 7/16	59777	59783
3/4	SH-7	1 5/8	59778	59784

## Cone Shape



DIA.	TOOL NO.	INCL. ANGLE	LENGTH OF CUT	EDP NO.	
				SNGL. CUT	DBL. CUT
1/4	SM-1	22°	1/2	59763	59612
1/4	SM-2	14°	3/4	59764	59613
1/4	SM-3	10°	1	59765	59614
3/8	SM-4	28°	5/8	59766	59615
1/2	SM-5	31°	7/8	59767	59616
5/8	SM-6	16°	1	59768	59617

(continued)

# Carbide Burrs 1/4" Shank (continued)

List No. 5970

## Inverted Cone Shape



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DIA.	TOOL NO.	INCL. ANGLE	LENGTH OF CUT	EDP NO.	
				SINGL. CUT	DBL. CUT
1/4	SN-1	10°	5/16	59769	59618
3/8	SN-2	13°	3/8	59770	59619
1/2	SN-4	28°	1/2	59771	59620
5/8	SN-6	18°	3/4	59772	59621
3/4	SN-7	30°	5/8	59773	59622

## Carbide Burrs For Non-Ferrous Materials

### 1/4" Shank

NF Burrs are designed for use on aluminum, non-ferrous metals, soft steel, reinforced plastics, and other soft materials. High flute design for easy chip flow and fast stock removal. Provides excellent work finish with minimum loading when cutting soft, sticky metals.

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### List 5970

STANDARD PACKAGE

All sizes — 1 each

## Cylinder Shape



DIA.	TOOL NO.	LENGTH OF CUT	EDP NO.
1/4	SA-1-NF	3/4	59625
3/8	SA-3-NF	3/4	59626
1/2	SA-5-NF	1	59627
5/8	SA-6-NF	1	59628
3/4	SA-7-NF	1	59629
3/4	SA-7-NF 3/8	1	59810*

## Oval Shape



DIA.	TOOL NO.	LENGTH OF CUT	EDP NO.
3/8	SE-3-NF	5/8	59640
1/2	SE-5-NF	7/8	59641
5/8	SE-6-NF	1	59642
3/4	SE-7-NF	1	59643
3/4	SE-7-NF 3/8	1	59813*

## Cylinder Shape Radius End



DIA.	TOOL NO.	LENGTH OF CUT	EDP NO.
1/4	SC-1-NF	3/4	59630
3/8	SC-3-NF	3/4	59631
1/2	SC-5-NF	1	59632
5/8	SC-6-NF	1	59633
3/4	SC-7-NF	1	59634
3/4	SC-7-NF 3/8	1	59811*

## Tree Shape Radius End



DIA.	TOOL NO.	LENGTH OF CUT	EDP NO.
1/4	SF-1-NF	3/4	59644
3/8	SF-3-NF	3/4	59645
1/2	SF-5-NF	1	59646
5/8	SF-6-NF	1	59647
3/4	SF-14-NF	1 1/4	59648
3/4	SF-14-NF 3/8	1 1/4	59814*

## Ball Shape



DIA.	TOOL NO.	LENGTH OF CUT	EDP NO.
1/4	SD-1-NF	3/16	59635
3/8	SD-3-NF	9/16	59636
1/2	SD-5-NF	7/16	59637
5/8	SD-6-NF	9/16	59638
3/4	SD-7-NF	1 1/16	59639
3/4	SD-7-NF 3/8	1 1/16	59812*

## Taper Shape Radius End 14° Included Angle



DIA.	TOOL NO.	LENGTH OF CUT	EDP NO.
3/8	SL-3-NF	1 1/16	59649
1/2	SL-4-NF	1 1/8	59650
5/8	SL-5-NF	1 3/16	59651
5/8	SL-6-NF	1 5/16	59652
3/4	SL-7-NF	1 1/2	59653
3/4	SF-7-NF 3/8	1 1/2	59815*

\*Note: Tool No. indicated with 3/8 are furnished with 3/8" shank.

# Long Shank Carbide Burrs 1/4" x 6" Long Steel Shank

Single Cut & Double Cut

## Cylinder Shape



DIA.	TOOL NO.	LENGTH OF CUT	EDP NO.	
			SINGLE CUT	DOUBLE CUT
1/4	SA-1L6	1/2	59655	59925
3/8	SA-3L6	3/4	59656	59926
1/2	SA-5L6	1	59657	59927

## Cylinder Shape Radius End



DIA.	TOOL NO.	LENGTH OF CUT	EDP NO.	
			SINGLE CUT	DOUBLE CUT
1/4	SC-1L6	1/2	59658	59928
3/8	SC-3L6	3/4	59659	59929
1/2	SC-5L6	1	59660	59930

## Ball Shape



DIA.	TOOL NO.	LENGTH OF CUT	EDP NO.	
			SINGLE CUT	DOUBLE CUT
1/4	SD-1L6	3/16	59661	59931
3/8	SD-3L6	5/16	59662	59932
1/2	SD-5L6	7/16	59663	59933

## Oval Shape



DIA.	TOOL NO.	LENGTH OF CUT	EDP NO.	
			SINGLE CUT	DOUBLE CUT
1/4	SE-1L6	3/8	59664	59934
3/8	SE-3L6	5/8	59665	59935
1/2	SE-5L6	7/8	59666	59936

# Carbide Burrs 1/4" Dia. - 1/8" Steel Shank

Single Cut



EDP NO.	59678	59679	59680	59681	59682	59683	59684	59685	59686
TOOL NO.	SA-51	SB-51	SC-51	SD-51	SE-51	SF-51	SG-51	SM-51	SN-51
LOC	1/2	1/4	1/2	1/4	3/8	1/2	1/2	1/2	1/4

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STANDARD PACKAGE

All sizes — 1 each

## Tree Shape Radius End



DIA.	TOOL NO.	LENGTH OF CUT	EDP NO.	
			SINGLE CUT	DOUBLE CUT
1/4	SF-1L6	1/2	59667	59937
3/8	SF-3L6	3/4	59668	59938
1/2	SF-5L6	1	59669	59939

## Tree Shape Pointed End



DIA.	TOOL NO.	LENGTH OF CUT	EDP NO.	
			SINGLE CUT	DOUBLE CUT
1/4	SG-1L6	1/2	59670	59940
3/8	SG-3L6	3/4	59671	59941
1/2	SG-5L6	1	59672	59942

## Flame Shape



DIA.	TOOL NO.	LENGTH OF CUT	EDP NO.	
			SINGLE CUT	DOUBLE CUT
5/16	SH-2L6	3/4	59673	59943
1/2	SH-5L6	7/8	59674	59944

## Taper Shape Radius End — 14°



DIA.	TOOL NO.	LENGTH OF CUT	EDP NO.	
			SINGLE CUT	DOUBLE CUT
1/4	SL-1L6	3/8	59675	59945
3/8	SL-3L6	5/8	59676	59946
1/2	SL-4L6	7/8	59677	59947

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List 5970

STANDARD PACKAGE

All sizes — 1 each

# Carbide Burrs - 1/8" Shank

Double Cut

Fraise rotative au carbure

Rebabeador de carburo

List 5970  
STANDARD  
PACKAGE

All sizes — 1 each



EDP NO.	59688	59689	59713	59690	59691	59692	59693	59694	59695	59696	59697	59698	59699	59700	59701	59702	59703	59714
TOOL NO.	SC-53	SD-53	SA-41	SA-43	SA-42	SC-42	SC-41	SD-42	SE-41	SF-41	SG-41	SJ-42	SL-41	SH-41	SN-42	SK-42	SB-41	SB-43
DIA.	3/16	3/16	1/16	1/8	3/32	1/8	3/32	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/8
L.O.C.	1/2	5/32	1/4	5/8	1/2	5/8	1/2	1/8	3/16	1/4	1/4	3/16	19/32	3/16	1/8	1/8	1/8	5/8



EDP NO.	59893	59894	59895	59896	59897	59898	59899	59900
TOOL NO.	SL-42	SD-41	SF-42	SF-53	SG-43	SG-44	SM-42	SM-43
DIA.	1/8	3/32	1/8	3/16	1/8	1/8	1/8	1/8
L.O.C.	1/2	3/32	1/2	1/2	3/8	1/2	7/16	5/8

## MORSE® Modifications & Specials

Complete Tool Design  
And Manufacturing Services  
From Blueprint Specials to  
Modified Regulars

# Carbide Burrs

## 1/4" Shank - 2" O.A.L.

Double Cut

Fraise rotative au carbure

Rebabeador de carburo

List 5970  
STANDARD  
PACKAGE

All sizes — 1 each



EDP NO.	59504	59704	59706	59565	59571	59580	59707	59605	59708	59618	59709	59710
TOOL NO.	SA-1	SA-14	SC-14	SE-1	SF-1	SG-1	SJ-1	SL-1	SH-1	SN-1	SK-1	SQ-1
DIA.	1/4	3/16	3/16	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4
L.O.C.	5/8	1/2	1/2	3/8	5/8	5/8	60°	1/2	3/8	1/4	82°	1/4

# Carbide Burr Sets — Double Cut

List 5970

Jeu de fraises rotatives au carbure

Conjunto de rebabadores de carburo



Supplied in a premium hardwood case.

EDP	SET NO.	SHANK DIA.	INCLUDES
59687	C-300	1/8	SA-51, SB-51, SC-51, SD-51, SE-51, SF-51, SG-51, SM-51, SN-51
59711	C-100	1/8	SA-43, SA-42, SC-42, SC-41, SD-42, SE-41, SF-41, SG-41, SJ-42, SL-41, SH-41, SN-42
59901	C-150	1/8	SA-42, SA-43, SC-42, SC-41, SF-42, SG-42, SM-43, SE-41, SD-42
59712	C-200	1/4	SA-1, SA-14, SC-1, SC-14, SD-1, SE-1, SF-1, SG-1, SK-1, SL-1, SH-1, SN-1
59903	C-350	1/8	SA-51, SC-51, SF-51, SG-51, SM-51, SD-51
59905	C-400	1/4	SA-1, SC-1, SF-1, SG-1, SM-2, SE-1, SL-1, SD-1
59907	C-450	1/4	SA-5, SC-5, SF-5, SG-5, SM-5, SE-5, SL-4, SD-5
59909	C-500	1/4	SA-5, SC-5, SD-5, SE-5, SG-5, SM-5, SL-4, SH-5
59911	C-550	1/4	SA-5, SC-1, SC-3, SD-3, SE-5, SH-5, SK-5, SG-1
59913	C-600	1/4	SA-1, SA-5, SC-1, SC-3, SC-5, SF-5, SL-3, SL-4
59915	C-650	1/4	SB-1, SC-3, SD-2, SE-5, SF-5, SL-4, SG-3, SM-5
59917	C-700	1/4	SA-1, SA-3, SA-5, SC-1, SC-3, SC-5, SF-1, SF-3, SF-5
59918	C-725	1/4	SA-5, SC-3, SC-5, SD-5, SF-3, SF-5, SG-3, SL-4
59919	C-750	1/4	SA-1, SA-3, SA-5, SC-1, SC-3, SC-5, SD-3, SD-5 SE-3, SF-1, SF-3, SF-5, SG-1, SG-3, SL-3, SL-4

## Carbide Burrs Application Data

STYLE OF CUT	MATERIAL			
	ALUMINUM	BRASS, COPPER	CAST IRON	PLASTICS
Single		☆	☆	
Double		☆	☆	
NF Style	☆			☆

STYLE OF CUT	MATERIAL		
	STEEL-UP TO 40-60 Rc	TITANIUM	ZINC
Single	☆	☆	
Double	☆	☆	
NF Style			☆

## RECOMMENDED CUTTING SPEEDS

BURR DIAMETER	R.P.M.
1/16	55000-85000
3/32	50000-60000
1/8	35000-65000
3/16	30000-55000
1/4	25000-50000
5/16	18000-38000
3/8	17000-38000
7/16	13000-37000
1/2	14000-36000
5/8	11000-23000
3/4	8000-19000
1	7000-18000

Increase speeds for softer non-ferrous materials.  
Decrease speeds for harder ferrous materials.



### Double Cut

Most popular style. For rapid stock removal in tough applications. Design reduces the pulling action, reduces size of chips, ensures rapid stock removal.



### Single Cut

General Purpose. Recommended for steel, cast iron, ferrous materials. Offers good stock removal and smooth workpiece finish.



### Non-Ferrous Cut

For use on aluminum, non-ferrous metals, soft steel, reinforced plastics, and other soft materials. High flute design for easy chip flow and fast stock removal. Provides excellent work finish with minimum loading when cutting soft, sticky metals.