

**High Performance Deburring Tools** 

www.totem-forbes.com





**Forbes Precision Tools** manufactures High Speed Steel, Carbon Steel Threading Taps and Dies, Tungsten Carbide Rotary Burrs, Solid Carbide Tools and Spring Washer. **Forbes Precision Tools** is a part of **FORBES GOKAK LTD**, which was started in 1767.

This division began its manufacturing during 1963 in collaboration with Nuckey Scott & Company Ltd. UK, the manufacturers of world famous "WARRIOR" brand of tools. The manufacturing of Tungsten Carbide Burrs began in 1968 with the technical know-how from B.O.Morris, U.K. Solid Carbide tools manufacturing began in 1997 under Joint operation with M.A.Ford, USA. The tools are manufactured under 'TOTEM' brand.

'TOTEM' is committed to being the leading manufacturer with quality and reliability for its customers worldwide, with its tools manufactured on latest CNC machines with strict quality procedures and skilled technical team. Also continuos investments are made to keep in pace with the latest technology developments. We had doubled our capacity in the last three years. 'TOTEM' Engineers are there to offer technical support & services to the customers. At FORBES, the endeavors continue......









# **QUALITY POLICY**

WE COMMIT OURSELVES TO THE ENHANCEMENT
OF CUSTOMER SATISFACTION AND MAINTAINING
GLOBAL MARKET PRESENCE BY DEVELOPMENT,
MANUFACTURING AND MARKETING OF EXCELLENT
PRODUCTS. THIS INVOLVES CONTINUAL IMPROVEMENT
OF PROCESSES, PARTICIPATION OF EMPLOYEES AND
SUPPLIERS.

G. Mukharji

[ Director - Engineering ]

## **Tungsten Carbide Rotary Burrs**

Technical Data on Burrs	•	1
Series	Shape	Pg No.
SA	Cylindrical	2
SB	Cylindrical With Endcut	3
SC	Cylindrical with Radius End	4
SD	Ball	5
SE	Oval	6
SF	Tree With Radius End	7
SG	Tree With Pointed End	8
SH	Flame	9
SL	Cone With Radius End	10
SM/SJ/SK	Cone	11
SN	Inverted Cone	12
RIM	Rim	12
BS	Burr Sets	13

## **High Speed Steel Rotary Cutters**

HSS Rotary Cutters 14

## **Tungsten Carbide Rotary Burrs**



#### Standard Cut (Single Cut):

This flute structure is designed for superior material removal and general purpose application. These can be used on Steel, Steel alloys, Cast Iron, Stainless steel, Hard Bronze and Copper. Produces longer chips.



#### Supreme Cut (Double Cut / Cross Cut):

This Burr allows for efficient stock removal in the harder materials. Its design reduces tool chatter and breaks the chips into granular shapes. These smaller chip also helps to eliminate loading on the flutes. This design helps to have better control on the burr and grinder.



#### **Deluxe Cut (Diamond Cut):**

This design of tool is like triangular style of point, which produces extremely small chips (powder like chips). This cut eliminates the pulling action of the main cut, and offers the operator good control over the tool and produces excellent finish. Effective in heat treated Steels and Tough alloy steels.



#### **Chip Breaker:**

In this style there is addition of chip breaker on single spiral flute patterns. There will be a better control on the tool and chips will be broken down. Surface finish may be slightly reduced due to the chip breaker design. Used on all Steel, Cast-Iron, Brass, Bronze and Copper.



#### **Aluma Cut:**

Designed for rapid stock removal on Non-ferrous materials. Recommended to work on Aluminium, Zinc alloy, Magnesium, Plastic, Hand rubber and Wood.

### SPEED RECOMMENDATION CHART - Approx. R.P.M. in 1000's

Material	3mm	6mm	8mm	10mm	12mm	16mm	20mm	25mm
Steel	60-90	30-45	25-35	20-30	15-25	10-18	10-14	8-10
Hardened / Tool Steel	30-40	15-20	10-15	10-15	8-10	5-8	4-7	3-5
Stainless Steel	30-50	15-25	12-20	10-15	9-12	7-10	5-7	4-5
Nickel / Titanium	30-40	15-20	10-15	10-15	8-10	5-8	4-7	3-5
Cast Iron	60-90	30-45	25-35	20-30	15-2	10-18	10-14	8-10
Aluminium / Plastics	30-90	15-60	12-50	10-50	8-35	6-30	5-20	4-15
Brass	40-50	20-30	15-20	13-17	10-15	8-12	6-8	5-6
Copper	30-90	15-60	12-50	10-50	8-35	6-30	5-20	4-15
Zinc	60-90	30-45	25-35	20-30	15-25	10-18	10-14	8-10



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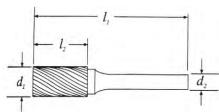
### **CYLINDRICAL BURRS**

#### **SA-SERIES**

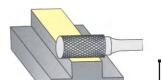








TW	TW .	NA .					1
Standard Cut Tool No.	Supreme Cut Tool No.	Deluxe Cut Tool No.	Head dia d₁mm	Shank Dia d₂mm	Head length I₂mm	OAL I₁mm	CTI Nr.
MC4	MC4S		1.5	3	6	38	SA-41M
MC4L	MC4LS		1.5	3	6	50	SA-41ML2
MC4L1	MC4L1S		1.5	3	6	75	SA-41ML3
MC5	MC5S		2.5	3	11	38	SA-42M
MC5L	MC5LS		2.5	3	11	50	SA-42ML2
MC5L1	MC5L1S		2.5	3	11	75	SA-42ML3
MC1	MC1S	MC1D	3	3	16	38	SA-43M
MC1L	MC1LS	MC1LD	3	3	16	50	SA-43ML2
MC1L1	MC1L1S		3	3	16	75	SA-43ML3
C0	COS		3	6	12.7	50	SA-11M
C1	C1S	C1D	3.8	6	14	50	SA-13M
C11	C11S		5	6	16	50	SA-14M
C2*	C2S	C2D	6	6	20	50	
C2H	C2HS	C2HD	6	6	25	50	
C2L2	C2L2S		6	6	20	162	SA-1ML6
MC2	MC2S		6.3	3	6.3	38	
MC2L	MC2LS		6.3	3	6.3	50	
MC2L1	MC2L1S		6.3	3	6.3	75	
MC3	MC3S		6.3	3	12.7	38	SA-51M
C12	C12S		6.3	6	16	60	SA-1
C3	C3S	C3D	8	6	19	69	SA-2M
C4*	C4S	C4D	9.5	6	19	69	SA-3M
C4L2	C4L2S		9.5	6	19	169	SA-3ML6
C13	C13S	C13D	10	6	25	69	SA-3MZ
C14	C14S		11	6	25	69	SA-4M
C7	C7S	C7D	12.7	6	14	64	
C5*	C5S	C5D	12.7	6	19	69	
C8	C8S	C8D	12.7	6	25	75	SA-5M
C8L2	C8L2S		12.7	6	25	175	SA-5ML6
C6*	C6S	C6D	16	6	25	75	SA-6M
C6Z	C6ZS	C6ZD	16	8	25	75	SA-6M8
C9	C9S	C9D	19	6	25	70	SA-7M
C9Z	C9ZS	C9ZD	19	8	25	70	SA-7M8
C10	C10S	C10 D	25	6	25	70	SA-9M





\* Chip Breaker Cut available

( To order chip breaker please specify standard Tool.No. with CB & mention quantity. Eg. C5CB)

Burrs are also available in 1/8" and 1/4" shank



# CYLINDRICAL BURRS WITH END CUT

#### **SB-SERIES**



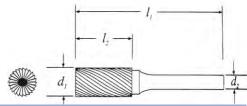












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Standard Cut Tool No.	Supreme Cut Tool No.	Deluxe Cut Tool No.	Head dia d₁mm	Shank Dia d₂mm	Head length I₂mm	OAL I₁mm	CTI Nr.
MCE5	MCE5S		2.5	3	11	38	SB-42M
MCE5L	MCE5LS		2.5	3	11	50	SB-42ML2
MCE5L1	MCE5L1S		2.5	3	11	75	SB-42ML3
MCE1	MCE1S	MCE1D	3	3	16	38	SB-43M
MCE1L	MCE1LS	MCE1LD	3	3	16	50	SB-43ML2
MCE1L1	MCE1L1S		3	3	16	75	SB-43ML3
CE <b>0</b>	CE0S		3	6	12.7	50	SB-11M
CE1	CE1S	CE1D	3.8	6	14	50	SB-13M
CE11	CE11S		5	6	16	50	SB-14M
CE2*	CE2S	CE2D	5.8	6	20	50	
CE2H	CE2HS	CE2HD	5.8	6	25	50	
CE2L2	CE2L2S		5.8	6	20	162	SB-1ML6
MCE2	MCE2S		6.3	3	6.3	38	
MCE2L	MCE2LS		6.3	3	6.3	50	
MCE2L1	MCE2L1S		6.3	3	6.3	75	
MCE3	MCE3S		6.3	3	12.7	38	SB-51M
CE12	CE12S		6.3	6	16	60	SB-1
CE3	CE3S	CE3D	8	6	19	69	SB-2M
CE4*	CE4S	CE4D	9.5	6	19	69	SB-3M
CE4L2	CE4L2S		9.5	6	19	169	SB-3ML6
CE13	CE13S	CE13D	10	6	25	69	SB-3MZ
CE14	CE14S		11	6	25	69	SB-4M
CE7	CE7S	CE7D	12.7	6	14	64	
CE5*	CE5S	CE5D	12.7	6	19	69	
CE8	CE5S	CE5D	12.7	6	25	75	SB-5M
CE8L2	CE8L2S		12.7	6	25	175	SB-5ML6
CE6*	CE6S	CE6D	16	6	25	75	SB-6M
CE6Z	CE6ZS	CE6ZD	16	8	25	75	SB-6M8
CE9	CE9S	CE9D	19	6	25	75	SB-7M
CE9Z	CE9ZS	CE9ZD	19	8	25	75	SB-7M8
CE10	CE10S	CE10D	25	6	25	70	SB-9M











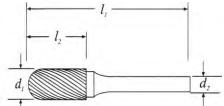
# CYLINDRICAL BURRS WITH RADIUS END

#### **SC-SERIES**









TW	TW .	TW			1		
Standard Cut Tool No.	Supreme Cut Tool No.	Deluxe Cut Tool No.	Head dia d₁mm	Shank Dia d₂mm	Head length I₂mm	OAL I₁mm	CTI Nr.
MB0	MB0S		2.5	3	11	38	SC-41M
MB1*	MB1S	MB1D	3	3	16	38	SC-42M
MB1L	MB1LS	MB1LD	3	3	16	50	SC-42ML2
MB1L1	MB1L1S		3	3	16	75	SC-42ML3
В0	B0S		3	6	16	60	SC-12M
B7	B7S	B7D	4	6	19	55	SC-13M
B8	B8S	B8D	5	6	19	70	SC-14M
B1	B1S	B1D	6	6	20	50	
B1H	B1HS		6	6	25	50	SC-1ML
B1L2*	B1L2S		6	6	20	162	SC-1ML6
MB2	MB2S	MB2D	6.3	3	12.7	38	SC-51
MB2L	MB2LS	MB2LD	6.3	3	12.7	50	SC-51L2
B11	B11S		6.3	6	16	60	SC-1
B2	B2S	B2D	8	6	19	69	SC-2M
B3*	B3S	B3D	9.5	6	19	69	SC-3M
B3L2	B3L2S		9.5	6	19	169	SC-3ML6
B12	B12S	B12D	10	6	25	69	SC-3MZ
B13	B13S	B13D	11	6	25	69	SC-4M
B4	B4S	B4D	12.7	6	19	69	
B6*	B6S	B6D	12.7	6	25	75	SC-5M
B6L2	B6L2S		12.7	6	25	175	SC-5ML6
B5*	B5S	B5D	16	6	25	75	SC-6M
B5Z	B5ZS	B5ZD	16	8	25	75	SC-6M8
B9	B9S	B9D	19	6	25	75	SC-7M
B9Z	B9ZS	B9ZD	19	8	25	75	SC-7M8
B10	B10S	B10D	25	6	25	70	SC-9M
B10Z	B10ZS	B10ZD	25	8	25	70	SC-9M8





\* Chip Breaker Cut available

( To order chip breaker please specify standard Tool.No. with CB & mention quantity. Eg. B5CB)

Burrs are also available in 1/8" and 1/4" shank



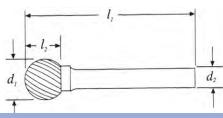
### **BALL SHAPE BURRS**

### **SD-SERIES**

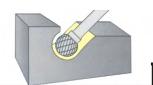








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Standard Cut Tool No.	Supreme Cut Tool No.	Deluxe Cut Tool No.	Head dia d₁mm	Shank Dia d₂mm	Head length I₂mm	OAL I₁mm	CTI Nr.
MS2	MS2S		2.5	3	2.3	38	SD-41M
MS0*	MS0S		3	3	2.5	38	SD-42M
MS0L	MS0LS		3	3	2.5	50	SD-42ML2
MS0L1	MS0L1S		3	3	2.5	75	SD-42ML3
MS1	MS1S	MS1D	4	3	3.4	38	SD-52M
S1	S1S	S1D	6.3	6	6.3	50	SD-1
S1L2*	S1L2S		6.3	6	5	150	SD-1L6
S2	S2S	S2D	8	6	6.4	50	SD-2M
S3*	S3S	S3D	9.5	6	8	60	SD-3M
S3L2	S3L2S		9.5	6	8	158	SD-3ML6
S9	S9S		11	6	9.5	60	SD-4M
S4*	S4S	S4D	12.7	6	11	62	SD-5M
S4L2	S4L2S		12.7	6	11	161	SD-5ML6
S5*	S5S	S5D	16	6	14	65	SD-6M
S6	S6S	S6D	19	6	16	70	SD-7M
S6Z	S6ZS		19	8	16	62	SD-7M8
<b>S</b> 7	S7S	S7D	25	6	21	69	SD-9M
S7Z	S7ZS		25	8	21	69	SD-9M8







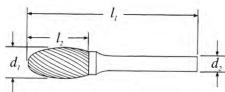
#### **OVAL SHAPE BURRS**

#### **SE-SERIES**

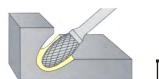




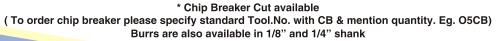




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Standard Cut Tool No.	Supreme Cut Tool No.	Deluxe Cut Tool No.	Head dia d₁mm	Shank Dia d₂mm	Head length I <sub>2</sub> mm	OAL I₁mm	CTI Nr.
MO1	MO1S		3	3	8	38	SE-41M
MO1L	MO1LS		3	3	8	50	SE-41ML2
MO1L1	MO1L1S		3	3	8	75	SE-41ML3
MO2	MO2S	MO2D	6.3	3	9.5	38	SE-51M
MO2L	MO2LS		6.3	3	9.5	50	SE-51ML2
MO2L1	MO2L1S		6.3	3	9.5	75	SE-51ML3
O4	O4S	O4D	6.3	6	10	60	SE-1
O4L2	O4L2S		6.3	6	10	160	SE-1L6
O1	O1S	O1D	8	6	12	62	SE-2M
O5*	O5S	O5D	9.5	6	16	65	SE-3M
O5L2	O5L2S		9.5	6	16	166	SE-3ML6
O2	O2S	O2D	12.7	6	19	69	
O6*	O6S	O6D	12.7	6	22	71	SE-5M
O6L2	O6L2S		12.7	6	22	172	SE-5ML6
O3*	O3S	O3D	16	6	25	75	SE-6M
O3Z	O3ZS	O3ZD	16	8	25	75	SE-6M8
07	O7S	O7D	19	6	25	69	SE-7M
O7Z	O7ZS		19	8	25	69	SE-7M8









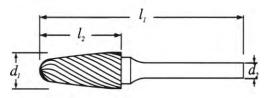
# TREE SHAPE BURRS WITH RADIUS END

#### **SF-SERIES**



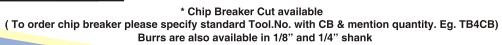






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	Standard Cut Tool No.	Supreme Cut Tool No.	Deluxe Cut Tool No.	Head dia d₁mm	Shank Dia d₂mm	Head length I₂mm	OAL I₁mm	CTI Nr.
Ī	MTB1	MTB1S		3	3	6	38	SF-41M
	MTB2	MTB2S		3	3	12.7	38	SF-42M
	MTB2L	MTB2LS		3	3	12.7	50	SF-42ML2
	MTB2L1	MTB2L1S		3	3	12.7	75	SF-42ML3
	TB1*	TB1S	TB1D	6	6	19	69	SF-1M
	TB1L2	TB1L2S		6	6	19	169	SF-1ML6
	TB6	TB6S		6.3	6	16	65	SF-1
	TB5	TB5S	TB5D	8	6	19	69	SF-2M
	TB2*	TB2S	TB2D	9.5	6	19	69	SF-3M
	TB2L2	TB2L2S		9.5	6	19	169	SF-3ML6
	TB7	TB7S		11	6	25	75	SF-4M
	TB3*	TB3S	TB3D	12.7	6	25	75	SF-5M
	TB3L2	TB3L2S		12.7	6	25	175	SF-5ML6
	TB8	TB8S		16	6	25	75	SF-6M
	TB8Z	TB8ZS		16	8	25	75	SF-6M8
	TB4*	TB4S	TB4D	16	6	32	82	
	TB4Z	TB4ZS	TB4ZD	16	8	32	82	
	TB9	TB9S	TB9D	19	6	25	69	SF-7M
	TB9Z	TB9ZS	TB9ZD	19	8	25	69	SF-7M8







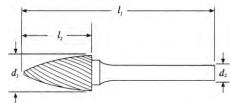
# TREE SHAPE BURRS WITH POINTED END

#### **SG-SERIES**

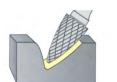


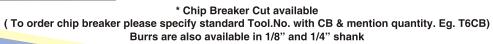






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Standard Cut Tool No.	Supreme Cut Tool No.	Deluxe Cut Tool No.	Head dia d₁mm	Shank Dia d₂mm	Head length I₂mm	OAL I₁mm	CTI Nr.
MT5	MT5S		3	3	6	38	SG-41M
MT1	MT1S		3	3	16	38	
MT2	MT2S		3	3	16	38	
MT4	MT4S		3	3	12.7	38	SG-44M
T1*	T1S	T1D	6	6	19	50	SG-1M
T1L2	T1L2S		6	6	19	169	SG-1ML6
MT3	MT3S		6.3	3	10	38	SG-51M
T7	T7S	T7D	6.3	6	16	50	SG-1
T5	T5S	T5D	8	6	19	69	SG-2M
T2*	T2S	T2D	9.5	6	19	69	SG-3M
T2L2	T2L2S	T2L2D	9.5	6	19	169	SG-3ML6
T3*	T3S	T3D	12.7	6	25	75	SG-5M
T3L2	T3L2S		12.7	6	25	175	SG-5ML6
T6*	T6S	T6D	16	6	25	82	SG-6M
T6Z	T6ZS		16	8	25	82	SG-6M8
T4	T4S	T4D	16	6	32	82	
T4Z	T4ZS	T4ZD	16	8	32	82	
T8	T8S	T8D	19	6	25	69	SG-7M
T8Z	T8ZS		19	8	25	69	SG-7M8







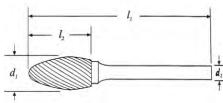
### **FLAME SHAPE BURRS**

### **SH-SERIES**

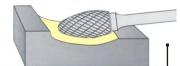








111							
Standard Cut Tool No.	Supreme Cut Tool No.	Deluxe Cut Tool No.	Head dia d₁mm	Shank Dia d₂mm	Head length I <sub>2</sub> mm	OAL I₁mm	CTI Nr.
MF1	MF1S		3	3	6.3	38	SH-41M
MF1L	MF1LS		3	3	6.3	50	SH-41ML2
F1	F1S	F1D	6.3	6	16	50	SH-1M
F2*	F2S	F2D	8	6	19	69	SH-2M
F3	F3S	F3D	9.5	6	25	65	SH-3M
F4*	F4S	F4D	12.7	6	32	76	SH-5M
F4L2	F4L2S		12.7	6	32	182	SH-5ML6
F5*	F5S		16	6	34	80	SH-6M
F5Z	F5ZS		16	8	34	80	SH-6M8
F6	F6S		19	6	41	85	SH-7M
F6Z	F6ZS		19	8	41	85	SH-7M8









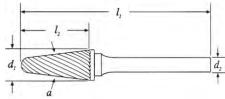
# CONE WITH RADIUS END BURRS

#### **SL-SERIES**









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Standard Cut Tool No.	Supreme Cut Tool No.	Deluxe Cut Tool No.	Head dia d₁mm	Shank Dia d₂mm	Head length I <sub>2</sub> mm	OAL I₁mm	Angle a	CTI Nr.
MK1	MK1S		3	3	8	38	10°	
MK1L	MK1LS		3	3	9.5	38	8°	SL-41M
MK3	MK3S		3	3	12.7	38	8°	SL-42M
MK3L1	MK3LS		3	3	12.7	50	8°	SL-42ML2
MK3L2	MK3SL2		3	3	12.7	75	8°	SL-42ML3
MK2	MK2S		6.3	3	12.7	38	10°	SL-51M
K0	K0S		6.3	6	16	50	14°	SL-1M
K0L2	K0L2S		6.3	6	16	166	14°	SL-1ML6
K1	K1S	K1D	9.5	6	19	64	16°	
K6*	K6S	K6D	9.5	6	26	72	14°	SL-3M
K6L2	K6L2S		9.5	6	26	177	14°	SL-3ML6
K4	K4S	K4D	12.5	6	30	75	17°	
K2	K2S	K2D	12.7	6	19	64	24°	
K7*	K7S	K7D	12.7	6	28	74	14º	SL-4M
K7L2	K7L2S		12.7	6	28	178	14º	SL-4ML6
K3	K3S	K3D	16	6	33	77	17°	
K3Z	K3ZS	K3ZD	16	8	33	77	17º	
K8*	K8S	K8D	16	6	33	77	14°	SL-5M
K8Z	K8ZS	K8ZD	16	8	33	77	14°	SL-5M8
K5	K5S	K5D	19	6	40	85	14°	SL-7M
K5Z	K5ZS		19	8	40	85	14°	SL-7M8





\* Chip Breaker Cut available

( To order chip breaker please specify standard Tool.No. with CB & mention quantity. Eg. K6CB)

Burrs are also available in 1/8" and 1/4" shank



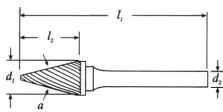
#### **CONE SHAPE BURRS**

#### **SM-SERIES**

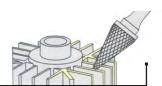








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Standard Cut Tool No.	Supreme Cut Tool No.	Deluxe Cut Tool No.	Head dia d₁mm	Shank Dia d₂mm	Head length I <sub>2</sub> mm	OAL I₁mm	Angle a	CTI Nr.
MA1	MA1S		3	3	8	38	20°	
MA5	MA5S		3	3	11	38	14°	SM-42M
MA5L1	MA5SL1		3	3	11	50	14°	SM-42ML2
MA5L2	MA5SL2		3	3	11	75	14°	SM-42ML3
MA2	MA2S		6.3	3	10.5	38	30°	SM-51M
A13	A13S	A13D	6.3	6	12.7	50	22°	SM-1M
A1*	A1S	A1D	6	6	19	50	17°	SM-2M
A10	A10S	A10D	6.2	6	25	75	10°	SM-3M
A8	A8S	A8D	8	6	18	68	24°	
A4	A4S	A4D	9.5	6	9.5	60	90°	SK-3M
A11	A11S	A11D	9.5	6	15	65	28°	SM-4M
A2	A2S	A2D	9.5	6	20	70	24°	
A7*	A7S	A7D	10	6	18	68	28°	
A12	A12S	A12D	12.7	6	22	71	28°	SM-5M
A3*	A3S	A3D	12.7	6	25	75	28°	
A3L2	A3L2S	A3L2D	12.7	6	25	175	28°	SM-5ML6
A5	A5S	A5D	16	6	13	63	90°	SK-6M
A6	A6S	A6D	16	6	16	66	60°	SJ-6M
<b>A</b> 9	A9S	A9D	16	6	25	75	31°	SM-6M
A9Z	A9ZS	A9ZD	16	8	25	75	31°	SM-6M8



\* Chip Breaker Cut available ( To order chip breaker please specify standard Tool.No. with CB & mention quantity. Eg. A3CB) Burrs are also available in 1/8" and 1/4" shank

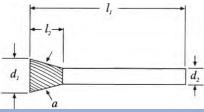


# INVERTED CONE SHAPE BURRS

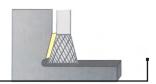
#### **SN-SERIES**







	0 m 3 m 1 m 1				1		
Standard Cut Tool No.	Supreme Cut Tool No.	Head dia d₁mm	Shank Dia d₂mm	Head length I <sub>2</sub> mm	OAL I₁mm	Angle a	CTI Nr.
MA3	MA3S	3	3	8.5	38	10°	SN-42M
MA4	MA4S	6.3	3	8	38	15°	
N1	N1S	6.3	6	8	50	10°	SN-1M
N4	N4S	12.7	6	12.7	69	16°	SN-4M



## **RIM SHAPE BURRS**

### **RIM-SERIES**





Standard Cut Tool No.	Supreme Cut Tool No.	Head dia d₁mm	Shank Dia d₂mm	Head length I₂mm	OAL I₁mm
R1	R1S	9.5	6	2	52
R2	R2S	19.1	6	6	56
R3	R3S	12.7	6	10	60
R4	R4S	15	6	4	54

Burrs are also available in 1/8" and 1/4" shank







#### Burr Set - 6mm Shank

**BS1\*** - C8 , B6 , S4 , TB3 , T3 , F4 , K2 , A3 (Dia 12.7 > Cylindrical, Cylindrical - Radius End, Ball, Tree Radius end, Tree, Flame, Cone - Radius End, Cone Shapes)

**BS2\*** - C4, B3, S3, TB2, T2, F3, K6, A11 (Dia 9.5 > Cylindrical, Cylindrical - Radius End, Ball, Tree Radius end, Tree, Flame, Cone - Radius End, Cone Shapes)

#### Burr Set - 3mm Shank

MINIBS1\* - MC1, MC5, MB0, MB1, MS0, MO1, MTB2, MT5, MF1, MK3, MA5, Ma3
(Dia 3.0 > Cylindrical, Cylindrical - Radius End, Ball, Oval, Tree Radius end, Tree, Flame, Cone - Radius End, Cone, Inverted Cone Shapes)

\* While ordering please specify the FLUTING STYLE - Standard Cut / Supreme Cut (Double Cut)

#### Please Note:

The following Rotary Burrs can be supplied against specific request.

- 1) Upto 200mm OAL (Overall Length)
- 2) TiN (Titanium Nitride) or TiAIN (Titanium Aluminium Nitride) Coated Burrs.
- 3) Aluma Cut Burrs
- 4) Burrs as per customer drawings.



#### **HSS Rotary Cutters**

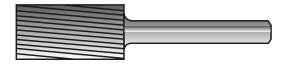
TOTEM HSS Rotary cutters are manufactured from 6:5:2 High Speed Steel (M2 Steel) hardened and tempered to RC 60/62 hardness and are extremely useful to Debur soft machined components, Dress and carve out wooden and non-ferrous patterns; Fettle aluminum alloys smoothen out ridges of aluminum and die castings remove any material from inaccessible places on soft metals.

Shapes: Cylindrical-for deburring of straight edges and plain surfaces; Ball nose Cylindrical- for non-ferrous gears and wooden/araldite patterns for foundries; Spherical & Countersinking - for generating curvatures and countersinking holes respectively; Tree and inverted tree - for spot removal and general purpose dressing on inside of holes.

Operating Speed: 1100-6000 RPM depending on head diameter of cutter. Shank Dia: 6 mm.

Prime mover: Flexible Grinder.

### Cylindrical Shape



Ref No	Head Dia.	Head length	OAL	No of Teeth
H 1	6	25	65	14
H 3	10	14	55	18
H 42	10	25	60	12
H 4	12	30	70	20
H 6	15	30	70	24

## Oval / Flame Shape



Ref No	Head Dia.	Head length	OAL	No of Teeth
H 41	10	20	60	20
H 34	10	20	60	22
H 35	12	25	60	24
H 36	15	30	65	30



# Spherical Shape



Ref No	Head Dia.	Head length	OAL	No of Teeth
H 17	4.5	4.5	55	14
H 23	6	6	56	18
H 39	6	5	60	20
H 18	8	8	58	20
H 20	10	10	60	20
H 19	12	12	57	20
H 12	15	15	60	28
H 29	15	13	65	22

# Countersinking Shape



Ref No	Head Dia.	Head length	OAL	No of Teeth
H 14	10	9	50	16
H 13	10	12	50	16
H 16	12	10	50	16
H 15	12	15	50	16

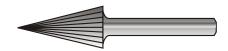


# **Ball Nose Cylindrical Shape**



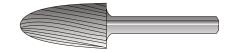
Ref No	Head Dia.	Head length	OAL	No of Teeth
H 2	6	25	65	14
H 40	8	20	60	20
H 31	10	20	65	22
H 32	12	25	70	24
H 9	12	30	70	20
H 5	12	30	70	20
H 28	15	30	70	28
H 30	6	20	60	10

## Conical With Pointed End Shape



Ref No	Head Dia.	Head length	OAL	No of Teeth
H 24	6	20	60	16
H 37	8	25	60	20
H 10	12	30	70	20
H 38	15	30	75	30

## Conical With Radius End Shape



Ref No	Head Dia.	Head length	OAL	No of Teeth
H 25	6	22	62	14
H 26	12	20	60	20
H 7	12	30	70	20
H 8	15	30	70	20



We also manufacture special shapes & threaded end rotary cutter heads for special applications:-

# Special Shapes

Shape	Ref No	Head Dia.	Head length	OAL	No of Teeth
	H 11	15	30	70	20
	H 21	8	29	66	24
	H 22	12	30	70	20
	H 33	12	35	70	24
	H 27	15	7	52	20
	H 43	14	12	70	12

Threaded Ends	Ref No	Head Dia.	Head length	OAL	No of Teeth
	H 51	25	30	M 12	24
	H 52	20	34	M 8	20
	H 53	30	30	M 12	20
	H 54	20	30	M 8	24
	H 55	30	30	M 12	24
	H 56	30	26	M 12	24
	H 57	25	30	M 12	38
	H 58	14	12.7	M 12	24

