Multiple Shape • General Purpose Carbide Burs

Series: SA - Double Cut
Cylindrical No Endcut

DIA	SHK	LOC	OAL	TOOL	BRIGHT EDP
3/32	1/8	7/16	1-1/2	SA-42DC	13489
1/8	1/8	9/16	1-1/2	SA-43DC	13490
1/4	1/8	1/2	2	SA-51DC	13491
1/4	1/4	5/8	2	SA-1DC	13492
3/8	1/4	3/4	2-1/2	SA-3DC	13493
1/2	1/4	1	2-3/4	SA-5DC	13494
5/8	1/4	1	2-3/4	SA-6DC	13495
3/4	1/4	1	2-3/4	SA-7DC	13496
1	1/4	1	2-3/4	SA-9DC	13497

Series: SB - Double Cut
Cylindrical With Endcut

DIA	SHK	LOC	OAL	TOOL	BRIGHT EDP
1/8	1/8	9/16	1-1/2	SB-43DC	13498
1/4	1/8	3/16	2-15/16	SB-51DC	13499
1/4	1/4	5/8	2	SB-1DC	13500
3/8	1/4	3/4	2-1/2	SB-3DC	13501
1/2	1/4	1	2-3/4	SB-5DC	13502
5/8	1/4	1	2-3/4	SB-6DC	13503
3/4	1/4	1	2-3/4	SB-7DC	13504
1	1/4	1	2-3/4	SB-9DC	13505

Series: SC - Double Cut
Radius Cylindrical

DIA	SHK	LOC	OAL	TOOL	BRIGHT EDP
3/32	1/8	7/16	1-1/2	SC-41DC	13506
1/8	1/8	9/16	1-1/2	SC-42DC	13507
1/4	1/8	1/2	2	SC-51DC	13508
1/4	1/4	5/8	2	SC-1DC	13509
3/8	1/4	3/4	2-1/2	SC-3DC	13510
1/2	1/4	1	2-3/4	SC-5DC	13511
5/8	1/4	1	2-3/4	SC-6DC	13512
3/4	1/4	1	2-3/4	SC-7DC	13513

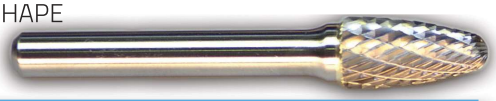
Series: SD - Double Cut
Ball Shape

DIA	SHK	LOC	OAL	TOOL	BRIGHT EDP
1/8	1/8	1/8	1-1/2	SD-42DC	13514
1/4	1/8	7/32	2	SD-51DC	13515
1/4	1/4	7/32	2	SD-1DC	13516
3/8	1/4	5/16	2-1/8	SD-3DC	13517
1/2	1/4	7/16	2-1/4	SD-5DC	13518
5/8	1/4	9/16	2-3/8	SD-6DC	13519
3/4	1/4	11/16	2-1/2	SD-7DC	13520
1	1/4	15/16	2-3/4	SD-9DC	13521

Series: SE - Double Cut
Oval Shape

DIA	SHK	LOC	OAL	TOOL	BRIGHT EDP
1/8	1/8	7/32	1-1/2	SE-41DC	13522
1/4	1/8	3/8	1-3/4	SE-51DC	13523
1/4	1/4	3/8	2	SE-1DC	13524
3/8	1/4	5/8	2-3/8	SE-3DC	13525
1/2	1/4	7/8	2-5/8	SE-5DC	13526
5/8	1/4	1	2-3/4	SE-6DC	13527
3/4	1/4	1	2-3/4	SE-7DC	13528

Series: SF - Double Cut
Tree Shape



DIA	SHK	LOC	OAL	TOOL	BRIGHT EDP
1/8	1/8	1/4	1-1/2	SF-41DC	13529
1/8	1/8	1/2	1-1/2	SF-42DC	13530
1/4	1/4	5/8	2	SF-1DC	13531
3/8	1/4	3/4	2-1/2	SF-3DC	13532
1/2	1/4	1	2-3/4	SF-5DC	13533
5/8	1/4	1	2-3/4	SF-6DC	13534
3/4	1/4	1	2-3/4	SF-7DC	13535

Series: SG - Double Cut
Pointed Tree Shape

DIA	SHK	LOC	OAL	TOOL	BRIGHT EDP
1/8	1/8	1/4	1-1/2	SG-41DC	13536
1/8	1/8	3/8	1-1/2	SG-43DC	13537
1/4	1/8	1/2	2	SG-51DC	13538
1/4	1/4	5/8	2	SG-1DC	13539
3/8	1/4	3/4	2-1/2	SG-3DC	13540
1/2	1/4	1	2-3/4	SG-5DC	13541
5/8	1/4	1	2-3/4	SG-6DC	13542
3/4	1/4	1	2-3/4	SG-7DC	13543

Series: SH- Double Cut
Flame Shape

DIA	SHK	LOC	OAL	TOOL	BRIGHT EDP
1/8	1/8	1/4	1-1/2	SH-41DC	13544
1/4	1/4	1/2	2	SH-1DC	13545
1/2	1/4	1-1/4	3	SH-5DC	13546
5/8	1/4	1-7/16	3-3/16	SH-6DC	13547
3/4	1/4	1-5/8	3-3/8	SH-7DC	13548

Multiple Shape • General Purpose Carbide Burs

Series: SJ – Single Cut
60° Included Cone

DIA	SHK	LOC	OAL	TOOL	BRIGHT EDP
1/8	1/8	3/32	1-1/2	**SJ-42SC**	13586
1/4	1/4	3/16	2	**SJ-1SC**	13549
3/8	1/4	5/16	2-1/16	**SJ-3SC**	13550
1/2	1/4	7/16	2-3/16	**SJ-5SC**	13551
5/8	1/4	9/16	2-5/16	**SJ-6SC**	13552
3/4	1/4	11/16	2-7/16	**SJ-7SC**	13553
1	1/4	15/16	2-9/16	**SJ-9SC**	13554

Series: SK – Single Cut
90° Included Cone

DIA	SHK	LOC	OAL	TOOL	BRIGHT EDP
1/8	1/8	1/16	1-1/2	**SK-42SC**	13555
1/4	1/4	1/8	2	**SK-1SC**	13556
3/8	1/4	3/16	1-15/16	**SK-3SC**	13557
1/2	1/4	1/4	2	**SK-5SC**	13558
5/8	1/4	5/16	2-1/16	**SK-6SC**	13559
3/4	1/4	3/8	2-1/8	**SK-7SC**	13560
1	1/4	1/2	2-1/4	**SK-9SC**	13561

Series: SL – Double Cut
8° or 14° Included Cone

DIA	SHK	LOC	OAL	TOOL	BRIGHT EDP
1/8	1/8	3/8	1-1/2	**SL-41DC**	13562
1/8	1/8	1/2	1-1/2	**SL-42DC**	13563
1/4	1/4	5/8	2	**SL-1DC**	13564
3/8	1/4	1-1/16	2-13/16	**SL-3DC**	13565
1/2	1/4	1-1/8	2-7/8	**SL-4DC**	13566
5/8	1/4	1-5/16	3-1/16	**SL-6DC**	13567
3/4	1/4	1-1/2	3-1/4	**SL-7DC**	13568

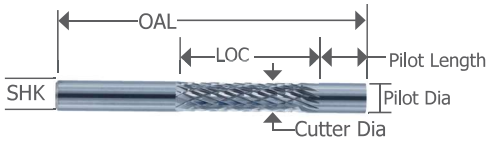
Series: SM – Double Cut
Pointed Cone Shape

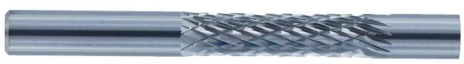
DIA	SHK	LOC	OAL	TOOL	BRIGHT EDP
1/8	1/8	11/32	1-1/2	**SM-41DC**	13569
1/8	1/8	7/16	1-1/2	**SM-42DC**	13570
1/8	1/8	5/8	1-1/2	**SM-43DC**	13571
1/4	1/8	1/2	2-1/8	**SM-51DC**	13572
1/4	1/4	1/2	2	**SM-1DC**	13573
1/4	1/4	3/4	2	**SM-2DC**	13574
1/4	1/4	1	2	**SM-3DC**	13575
3/8	1/4	5/8	2-3/8	**SM-4DC**	13576
1/2	1/4	7/8	2-5/8	**SM-5DC**	13577
5/8	1/4	1	2-3/4	**SM-6DC**	13578

Series: SN – Double Cut
Inverted Cone Shape

DIA	SHK	LOC	OAL	ANGLE	TOOL	BRIGHT EDP
1/8	1/8	3/16	1-1/2	10°	**SN-42DC**	13579
1/4	1/8	1/4	1-3/4	10°	**SN-51DC**	13580
1/4	1/4	5/16	2	10°	**SN-1DC**	13581
1/2	1/4	1/2	2-1/4	16°	**SN-3DC**	13582
1/2	1/4	1/2	2-1/4	28°	**SN-4DC**	13583
5/8	1/4	3/4	2-1/2	18°	**SN-6DC**	13584
3/4	1/4	5/8	2-3/8	30°	**SN-7DC**	13585

Double Cut • Cylindrical Pilot Die Trimmers





PILOT DIA	CUTTER DIA	SHK	LOC	OAL	PILOT LENGTH	TOOL	BRIGHT EDP
1/8	1/8	1/8	1	2-1/2	1/2	**PDM-1/8**	H7315
1/8	1/8	1/8	1	3	1/2	**PDM-1/8-L**	H7429
3/16	3/16	3/16	1	2-1/2	1/2	**PDM-3/16**	H7430
1/4	1/4	1/4	1	2-1/2	1/2	**PDM-1/4**	H7316
1/4	1/4	1/4	1	3	1/2	**PDM-1/4-L**	H7431
3/8	3/8	3/8	1	2-1/2	1/2	**PDM-3/8**	H7432
1/2	1/2	1/2	1	2-1/2	1/2	**PDM-1/2**	H7433

Countersinks

Nose Diameter for Pre-Setting CNC Precision Countersinks

	NC POINT DIAMETER					
SIZE	60°	82°	90°	100°	110°	120°
0.188	0.058	0.032	0.032	0.032	0.032	0.032
0.250	0.078	0.046	0.046	0.046	0.046	0.046
0.313	0.080	0.047	0.047	0.047	0.047	0.047
0.375	0.125	0.078	0.078	0.078	0.062	0.062
0.438	0.140	0.096	0.096	0.096	0.070	0.070
0.500	0.156	0.109	0.109	0.109	0.078	0.078
0.625	0.203	0.125	0.125	0.125	0.109	0.109
0.750	0.250	0.156	0.156	0.156	0.125	0.125
0.875	0.281	0.172	0.172	0.172	0.140	0.140
1.000	0.328	0.203	0.203	0.203	0.171	0.171

Carbide Burs

SERIES: Carbide Burs

Bur Diameter	RPM
1/8 Solid Carbide	45,000-50,000
3/16 Solid Carbide	35,000-40,000
3/16 Carbide Head Brazed to 1/8 Steel Shank	30,000-35,000
1/4 Solid Carbide	30,000-35,000
Carbide Head Brazed to 1/8 Steel Shank	25,000-30,000
5/16 Carbide Head Brazed to 1/4 Steel Shank	25,000-30,000
3/8 Carbide Head Brazed to 1/4 Steel Shank	25,000-30,000
7/16 Carbide Head Brazed to 1/4 Steel Shank	20,000-25,000
1/2 Carbide Head Brazed to 1/4 Steel Shank	20,000-25,000
5/8 Carbide Head Brazed to 1/4 Steel Shank	15,000-20,000
3/4 Carbide Head Brazed to 1/4 Steel Shank	15,000-20,000
1 Carbide Head Brazed to 1/4 Steel Shank	12,000-18,000

All technical data provided are suggested starting points. They may be increased or decreased depending on machine condition, depth of cut, finish required, coolant, etc. Call our TECHNICAL SERVICE TEAM with questions.

Calculations

End mill speed & feed formulas are the various individual equations that determine the proper overall machining setup or more specifically the speed of the cutting tool and the rate which it is fed into the work piece. Each individual formula is distinct in what it determines but coordinates with the others to ensure successful cutting tool application. You can visit the TECHNICAL section on www.melintool.com for more information.

INCH

RPM = Revolutions Per Minute
3.82 x SFM / Tool Dia

SFM = Surface Foot Per Minute
.262 x RPM x Tool Dia

CPT or IPT = Chip-Load Per Tooth
IPM / RPM / No. Of Flutes

IPM = Inches Per Minute
CPT x RPM x No. Of Flutes

MRRCI = Metal Removal Rate Cubic Inches
IPM x Axial Doc x Radial Woc

IPR = Inches Per Revolution
IPM / RPM

METRIC

RPM = Revolutions Per Minute
1000 x M/MIN / (3.14 x D)

M/MIN = Meters Per Minute
(3.14 x D x RPM) / 1000

Fz OR CPT = Chip-Load Per Tooth
Feedrate (mm) per MIN / (Z x RPM)

VF OR FPM = Feedrate (mm) Per Minute
Feerate (mm) per Tooth x Z x RPM

D = Cutter Dia.
Z= No. Of Teeth.

EQUIVALENTS & CONVERSIONS:

ABBREVIATIONS	
RPM	Revolutions Per Minute
SFM	Surface Feet Per Minute
CPT	Chip Load Per Tooth
IPM	Inches Per Minute
V_f	Millimeters Per Minute
ae	Radial Width of Cut
ap	Axial Depth of Cut
Vc	Surface Meters Per Minute
Fz	Metric Chip Load Per Tooth

N, n or Min^{-1} = RPM
Vc or M/MIN = SFM
Fz or mm/TOOTH = CPT
V_f or mm/MIN = IPM

SFM / 3.281 = M/MIN
M/MIN x 3.281 = SFM
mm/MIN / 25.4 = IPM
mm/TOOTH /25.4 = CPT

IMPERIAL ⟷ METRIC

Inch x 25.4 = Millimeter
Millimeter x .03937 = Inch