

# carbide BURS



Made in USA



# carbide BURS

**GROBET BEAR BURS** These double cut burs were designed to substantially cut manufacturers production costs. The design and cut removes more material per hour, engineered for heavy duty applications, more durable due to the depth of the teeth, more resistant to chipping, wider teeth makes longer chips so it breaks up easier, and the profile of the teeth are less prone to filling up with chips.

## CYLINDER PLAIN



Head Dia.	Head Length	Overall Length	Shank	SCTI	Bear Cut	Description
1/4"	5/8"	2"	1/4"	SA1	<b>32.546SY</b>	Cyl/Plain
3/8"	3/4"	2 1/2"	1/4"	SA3	<b>32.552SY</b>	Cyl/Plain
7/16"	1"	2 3/4"	1/4"	SA4	<b>32.55320SY</b>	Cyl/Plain
* 1/2"	1"	2 3/4"	1/4"	SA5	<b>32.555SY</b>	Cyl/Plain
5/8"	1"	2 3/4"	1/4"	SA6	<b>32.558SY</b>	Cyl/Plain



\* = Tools in kit

## CYLINDER RADIUS



Head Dia.	Head Length	Overall Length	Shank	SCTI	Bear Cut	Description
3/8"	3/4"	2 1/2"	1/4"	SC3	<b>32.618SY</b>	Cyl/Radius
7/16"	1"	2 3/4"	1/4"	SC4	<b>32.61912SY</b>	Cyl/Radius
* 1/2"	1"	2 3/4"	1/4"	SC5	<b>32.621SY</b>	Cyl/Radius
5/8"	1"	2 3/4"	1/4"	SC6	<b>32.624SY</b>	Cyl/Radius

## 1/4" SHANK GROBET BEAR BURS

Consists of eight 1/4" shank rotary files in a wood box: 32.693SY, 32.726SY, 32.621SY, 32.555SY, 32.708SY, 32.705SY, 32.729SY, 32.666SY. Wood case measures 3 3/16" x 3 3/16" x 3 3/8". **No. 32.931SY**

## CONE POINTED



Head Dia.	Head Length	Overall Length	Shank	SCTI	Bear Cut	Description
3/8"	3/4"	2 1/2"	1/4"	SM4	<b>32.747SY</b>	28° Angle
1/2"	1"	2 3/4"	1/4"	SM5	<b>32.750SY</b>	28° Angle
5/8"	1 1/8"	2 7/8"	1/4"	SM6	<b>32.753SY</b>	31° Angle

## TREE RADIUS



Head Dia. (1/4" Shank)	Head Length	Overall Length	Shank	SCTI	Bear Cut	Description
* 3/8"	3/4"	2 1/2"	1/4"	SF3	<b>32.705SY</b>	Tree/Radius
7/16"	1"	2 3/4"	1/4"	SF4	<b>32.70602SY</b>	Tree/Radius
1/2"	3/4"	2 1/2"	1/4"	SF13	<b>32.70610SY</b>	Tree/Radius
* 1/2"	1"	2 3/4"	1/4"	SF5	<b>32.708SY</b>	Tree/Radius
5/8"	1"	2 3/4"	1/4"	SF6	<b>32.711SY</b>	Tree/Radius

## OVAL



Head Dia.	Head Length	Overall Length	Shank	SCTI	Bear Cut	Description
3/8"	19/32"	2 11/32"	1/4"	SE3	<b>32.663SY</b>	Oval
* 1/2"	7/8"	2 5/8"	1/4"	SE5	<b>32.666SY</b>	Oval
5/8"	1"	2 3/4"	1/4"	SE6	<b>32.669SY</b>	Oval

## TREE POINTED



Head Dia.	Head Length	Overall Length	Shank	SCTI	Bear Cut	Description
3/8"	3/4"	2 1/2"	1/4"	SG3	<b>32.687SY</b>	Tree/Pointed
1/2"	3/4"	2 1/2"	1/4"	SG13	<b>32.690SY</b>	Tree/Pointed
* 1/2"	1"	2 3/4"	1/4"	SG5	<b>32.693SY</b>	Tree/Pointed
5/8"	1"	2 3/4"	1/4"	SG6	<b>32.696SY</b>	Tree/Pointed

## CONE RADIUS



Head Dia.	Head Length	Overall Length	Shank	SCTI	Bear Cut	Description
* 3/8"	1 1/16"	2 13/16"	1/4"	SL3	<b>32.726SY</b>	Cone/Radius
* 1/2"	1 1/8"	2 7/8"	1/4"	SL4	<b>32.729SY</b>	Cone/Radius
5/8"	1 3/16"	2 15/16"	1/4"	SL5	<b>32.73002SY</b>	Cone/Radius
5/8"	1 5/16"	3 1/16"	1/4"	SL6	<b>32.732SY</b>	Cone/Radius

## BALL



Head Dia.	Head Length	Overall Length	Shank	SCTI	Bear Cut	Description
3/8"	5/16"	2 1/16"	1/4"	SD3	<b>32.645SY</b>	Ball
7/16"	3/8"	2 1/8"	1/4"	SD4	<b>32.64602SY</b>	Ball
1/2"	7/16"	2 3/16"	1/4"	SD5	<b>32.648SY</b>	Ball
5/8"	9/16"	2 5/16"	1/4"	SD6	<b>32.651SY</b>	Ball

\* = Tools in kit

## CYLINDRICAL - Plain end



Head Dia.	Head Length	Overall Length	Shank	SCTI	Standard	Double Cut
1/8"	1/2"	2"	1/4"	SA11	<b>32.540</b>	<b>32.541</b>
1/8"	5/8"	2"	1/4"	SA12	<b>32.54102</b>	<b>32.54103</b>
5/32"	5/8"	2"	1/4"	SA13	<b>32.54110</b>	<b>32.54111</b>
3/16"	5/8"	2"	1/4"	SA14	<b>32.543</b>	<b>32.544</b>
1/4"	5/8"	2"	1/4"	SA1	<b>32.546</b>	<b>32.547</b>
1/4"	1"	2"	1/4"	SA1L	<b>32.54702</b>	<b>32.54703</b>
5/16"	3/4"	2 1/2"	1/4"	SA2	<b>32.549</b>	<b>32.550</b>
3/8"	3/4"	2 1/2"	1/4"	SA3	<b>32.552</b>	<b>32.553</b>
3/8"	1"	2 3/4"	1/4"	SA3L	<b>32.55302</b>	<b>32.55303</b>
3/8"	1 1/2"	3 1/4"	1/4"	SA3X	<b>32.55310</b>	<b>32.55311</b>
7/16"	1"	2 3/4"	1/4"	SA4	<b>32.55320</b>	<b>32.55321</b>
1/2"	1"	2 3/4"	1/4"	SA5	<b>32.555</b>	<b>32.556</b>
5/8"	1"	2 3/4"	1/4"	SA6	<b>32.558</b>	<b>32.559</b>
3/4"	1 1/2"	2 1/4"	1/4"	SA15	<b>32.55902</b>	<b>32.55903</b>
3/4"	3/4"	2 1/2"	1/4"	SA16	<b>32.561</b>	<b>32.562</b>
3/4"	1"	2 3/4"	1/4"	SA7	<b>32.564</b>	<b>32.565</b>
7/8"	1"	2 3/4"	1/4"	SA8	<b>32.56502</b>	<b>32.56503</b>
1"	1"	2 3/4"	1/4"	SA9	<b>32.567</b>	<b>32.568</b>

## CYLINDRICAL - End cut



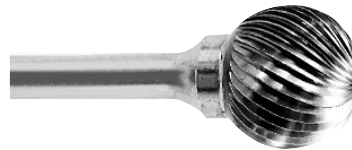
Head Dia.	Head Length	Overall Length	Shank	SCTI	Standard	Double Cut
1/8"	1/2"	2"	1/4"	SB11	<b>32.573</b>	<b>32.574</b>
1/8"	5/8"	2"	1/4"	SB12	<b>32.57402</b>	<b>32.57403</b>
5/32"	5/8"	2"	1/4"	SB13	<b>32.57410</b>	<b>32.57411</b>
3/16"	5/8"	2"	1/4"	SB14	<b>32.576</b>	<b>32.577</b>
1/4"	5/8"	2"	1/4"	SB1	<b>32.579</b>	<b>32.580</b>
1/4"	1"	2"	1/4"	SB1L	<b>32.58002</b>	<b>32.58003</b>
5/16"	3/4"	2 1/2"	1/4"	SB2	<b>32.582</b>	<b>32.583</b>
3/8"	3/4"	2 1/2"	1/4"	SB3	<b>32.585</b>	<b>32.586</b>
3/8"	1"	2 3/4"	1/4"	SB3L	<b>32.58602</b>	<b>32.58603</b>
3/8"	1 1/2"	3 1/4"	1/4"	SB3X	<b>32.58611</b>	<b>32.58612</b>
7/16"	1"	2 3/4"	1/4"	SB4	<b>32.58621</b>	<b>32.58622</b>
1/2"	1"	2 3/4"	1/4"	SB5	<b>32.588</b>	<b>32.589</b>
5/8"	1"	2 3/4"	1/4"	SB6	<b>32.591</b>	<b>32.592</b>
3/4"	1 1/2"	2 1/4"	1/4"	SB15	<b>32.59202</b>	<b>32.59203</b>
3/4"	3/4"	2 1/2"	1/4"	SB16	<b>32.594</b>	<b>32.595</b>
3/4"	1"	2 3/4"	1/4"	SB7	<b>32.597</b>	<b>32.598</b>
7/8"	1"	2 3/4"	1/4"	SB8	<b>32.59802</b>	<b>32.59803</b>
1"	1"	2 3/4"	1/4"	SB9	<b>32.600</b>	<b>32.601</b>

## CYLINDRICAL - Radius end



Head Dia.	Head Length	Overall Length	Shank	SCTI	Standard	Double Cut
1/8"	1/2"	2"	1/4"	SC11	<b>32.606</b>	<b>32.607</b>
1/8"	5/8"	2"	1/4"	SC12	<b>32.60702</b>	<b>32.60703</b>
5/32"	5/8"	2"	1/4"	SC13	<b>32.60710</b>	<b>32.60711</b>
3/16"	5/8"	2"	1/4"	SC14	<b>32.609</b>	<b>32.610</b>
1/4"	5/8"	2"	1/4"	SC1	<b>32.612</b>	<b>32.613</b>
1/4"	1"	2"	1/4"	SC1L	<b>32.61302</b>	<b>32.61303</b>
5/16"	3/4"	2 1/2"	1/4"	SC2	<b>32.615</b>	<b>32.616</b>
3/8"	3/4"	2 1/2"	1/4"	SC3	<b>32.618</b>	<b>32.619</b>
3/8"	1"	2 3/4"	1/4"	SC3L	<b>32.61902</b>	<b>32.61903</b>
3/8"	1 1/2"	3 1/4"	1/4"	SC3X	<b>32.61910</b>	<b>32.61911</b>
7/16"	1"	2 3/4"	1/4"	SC4	<b>32.61912</b>	<b>32.61913</b>
1/2"	1"	2 3/4"	1/4"	SC5	<b>32.621</b>	<b>32.622</b>
5/8"	1"	2 3/4"	1/4"	SC6	<b>32.624</b>	<b>32.625</b>
3/4"	1 1/2"	2 1/4"	1/4"	SC15	<b>32.62502</b>	<b>32.62503</b>
3/4"	3/4"	2 1/2"	1/4"	SC16	<b>32.62510</b>	<b>32.62511</b>
3/4"	1"	2 3/4"	1/4"	SC7	<b>32.627</b>	<b>32.628</b>
1"	1"	2 3/4"	1/4"	SC9	<b>32.62802</b>	<b>32.62803</b>

## BALL



Head Dia.	Head Length	Overall Length	Shank	SCTI	Standard	Double Cut
1/8"	1/8"	2"	1/4"	SD11	<b>32.633</b>	<b>32.634</b>
3/16"	1/4"	2"	1/4"	SD14	<b>32.636</b>	<b>32.637</b>
1/4"	7/32"	2"	1/4"	SD1	<b>32.639</b>	<b>32.640</b>
5/16"	5/16"	2 1/16"	1/4"	SD2	<b>32.642</b>	<b>32.644</b>
3/8"	5/16"	2 1/16"	1/4"	SD3	<b>32.645</b>	<b>32.646</b>
7/16"	3/8"	2 1/8"	1/4"	SD4	<b>32.64602</b>	<b>32.64603</b>
1/2"	7/16"	2 3/16"	1/4"	SD5	<b>32.648</b>	<b>32.649</b>
5/8"	9/16"	2 5/16"	1/4"	SD6	<b>32.651</b>	<b>32.652</b>
3/4"	1 1/16"	2 7/16"	1/4"	SD7	<b>32.654</b>	<b>32.655</b>
1"	1 5/16"	2 1 1/16"	1/4"	SD9	<b>32.65502</b>	<b>32.65503</b>

# carbide BURS

## CONE - Radius nose 14° taper



Head Dia.	Head Length	Overall Length	Shank	SCTI	Standard	Double Cut
1/4"	5/8"	2"	1/4"	SL1	<b>32.720</b>	<b>32.721</b>
5/16"	7/8"	2 5/8"	1/4"	SL2	<b>32.723</b>	<b>32.724</b>
3/8"	1 1/16"	2 3/4"	1/4"	SL3	<b>32.726</b>	<b>32.727</b>
1/2"	1 1/8"	2 7/8"	1/4"	SL4	<b>32.729</b>	<b>32.730</b>
5/8"	1 3/16"	2 5/4"	1/4"	SL5	<b>32.73002</b>	<b>32.73003</b>
5/8"	1 5/16"	3 1/16"	1/4"	SL6	<b>32.732</b>	<b>32.733</b>
3/4"	1 1/2"	3 1/4"	1/4"	SL7	<b>32.73302</b>	<b>32.73303</b>

## CONE



Head Dia.	Head Length	Overall Length	Angle	Shank	SCTI	Standard	Double Cut
1/4"	1/2"	2"	22°	1/4"	SM1	<b>32.738</b>	<b>32.739</b>
1/4"	3/4"	2"	14°	1/4"	SM2	<b>32.741</b>	<b>32.742</b>
1/4"	1"	2"	12°	1/4"	SM3	<b>32.744</b>	<b>32.745</b>
3/8"	3/4"	2 1/2"	28°	1/4"	SM4	<b>32.747</b>	<b>32.748</b>
1/2"	1"	2 3/4"	28°	1/4"	SM5	<b>32.750</b>	<b>32.751</b>
5/8"	1 1/8"	2 7/8"	31°	1/4"	SM6	<b>32.753</b>	<b>32.754</b>

## TREE RADIUS



Head Dia.	Head Length	Overall Length	Shank	SCTI	Standard	Double Cut
1/4"	1/2"	2"	1/4"	SF11	<b>32.70102</b>	<b>32.70103</b>
1/4"	5/8"	2"	1/4"	SF1	<b>32.702</b>	<b>32.703</b>
3/8"	3/4"	2 1/2"	1/4"	SF3	<b>32.705</b>	<b>32.706</b>
7/16"	1"	2 3/4"	1/4"	SF4	<b>32.70602</b>	<b>32.70603</b>
1/2"	3/4"	2 1/2"	1/4"	SF13	<b>32.70610</b>	<b>32.70611</b>
1/2"	1"	2 3/4"	1/4"	SF5	<b>32.708</b>	<b>32.709</b>
5/8"	1"	2 3/4"	1/4"	SF6	<b>32.711</b>	<b>32.712</b>
3/4"	1"	2 3/4"	1/4"	SF7	<b>32.71202</b>	<b>32.71203</b>
3/4"	1 1/4"	3"	1/4"	SF14	<b>32.714</b>	<b>32.715</b>
3/4"	1 1/2"	3 1/4"	1/4"	SF15	<b>32.71502</b>	<b>32.71503</b>

## TREE POINTED



Head Dia.	Head Length	Overall Length	Shank	SCTI	Standard	Double Cut
1/4"	5/8"	2"	1/4"	SG1	<b>32.684</b>	<b>32.685</b>
5/16"	3/4"	2 1/2"	1/4"	SG2	<b>32.68502</b>	<b>32.68503</b>
3/8"	3/4"	2 1/2"	1/4"	SG3	<b>32.687</b>	<b>32.688</b>
1/2"	3/4"	2 1/2"	1/4"	SG13	<b>32.690</b>	<b>32.691</b>
1/2"	1"	2 3/4"	1/4"	SG5	<b>32.693</b>	<b>32.694</b>
5/8"	1"	2 3/4"	1/4"	SG6	<b>32.696</b>	<b>32.697</b>
3/4"	1"	2 3/4"	1/4"	SG7	<b>32.69702</b>	<b>32.69703</b>
3/4"	1 1/2"	3 1/4"	1/4"	SG15	<b>32.69710</b>	<b>32.69711</b>

## OVAL



Head Dia.	Head Length	Overall Length	Shank	SCTI	Standard	Double Cut
3/16"	5/16"	2"	1/4"	SE11	<b>32.65902</b>	<b>32.65903</b>
1/4"	3/8"	2"	1/4"	SE1	<b>32.660</b>	<b>32.661</b>
3/8"	19/32"	2 11/32"	1/4"	SE3	<b>32.663</b>	<b>32.664</b>
1/2"	7/8"	2 5/8"	1/4"	SE5	<b>32.666</b>	<b>32.667</b>
5/8"	1"	2 3/4"	1/4"	SE6	<b>32.669</b>	<b>32.670</b>
3/4"	1"	2 3/4"	1/4"	SE7	<b>32.67002</b>	<b>32.67003</b>

## INVERTED CONE - Plain end



Head Dia.	Head Length	Overall Length	Angle	Shank	SCTI	Standard	Double Cut
1/4"	1/4"	2"	10°	1/4"	SN1	<b>32.759</b>	<b>32.760</b>
3/8"	3/8"	2 1/8"	13°	1/4"	SN2	<b>32.761</b>	<b>32.76102</b>
1/2"	1/2"	2 1/2"	14°	1/4"	SN4	<b>32.762</b>	<b>32.763</b>
5/8"	3/4"	2 1/2"	18°	1/4"	SN6	<b>32.76302</b>	<b>32.76303</b>
3/4"	5/8"	2 5/8"	30°	1/4"	SN7	<b>32.76310</b>	<b>32.76311</b>

## INVERTED CONE - End cut



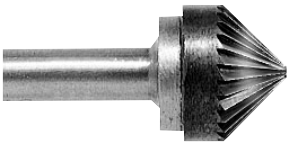
Head Dia.	Head Length	Overall Length	Angle	Shank	SCTI	Standard	Double Cut
1/4"	1/4"	2"	10°	1/4"	SN1	<b>32.768</b>	<b>32.769</b>
1/2"	1/2"	2 1/2"	14°	1/4"	SN4	<b>32.771</b>	<b>32.772</b>

## DEBURRING 60°



Head Dia.	Head Length	Overall Length	Shank	SCTI	Standard	Double Cut
1/4"	3/16"	2"	1/4"	SJ1	<b>32.777</b>	<b>32.778</b>
3/8"	5/16"	2 1/16"	1/4"	SJ3	<b>32.780</b>	<b>32.781</b>
1/2"	7/16"	2 3/16"	1/4"	SJ5	<b>32.783</b>	<b>32.784</b>
5/8"	9/16"	2 5/16"	1/4"	SJ6	<b>32.78402</b>	<b>32.78403</b>
3/4"	1 1/16"	2 7/16"	1/4"	SJ7	<b>32.78410</b>	<b>32.78411</b>
1"	1 5/16"	2 1 1/16"	1/4"	SJ9	<b>32.78420</b>	<b>32.78421</b>

## DEBURRING 90°



Head Dia.	Head Length	Overall Length	Shank	SCTI	Standard	Double Cut
1/4"	1/8"	2"	1/4"	SK1	<b>32.789</b>	<b>32.790</b>
3/8"	3/16"	1 15/16"	1/4"	SK3	<b>32.792</b>	<b>32.793</b>
1/2"	1/4"	2"	1/4"	SK5	<b>32.795</b>	<b>32.796</b>
5/8"	5/16"	2 1/16"	1/4"	SK6	<b>32.798</b>	<b>32.799</b>
3/4"	3/8"	2 1/8"	1/4"	SK7	<b>32.801</b>	<b>32.802</b>
1"	1/2"	2 1/4"	1/4"	SK9	<b>32.804</b>	<b>32.805</b>

## FLAME



Head Dia.	Head Length	Overall Length	Shank	SCTI	Standard	Double Cut
1/4"	5/8"	2"	1/4"	SH1	<b>32.673</b>	<b>32.674</b>
5/16"	3/4"	2 1/2"	1/4"	SH2	<b>32.675</b>	<b>32.676</b>
1/2"	1 1/4"	3"	1/4"	SH5	<b>32.678</b>	<b>32.679</b>
5/8"	1 1/16"	3 3/16"	1/4"	SH6	<b>32.67902</b>	<b>32.67903</b>
3/4"	1 5/8"	3 3/8"	1/4"	SH7	<b>32.67910</b>	<b>32.67911</b>

## CARBIDE SETS



### 1/4" SHANK - No. 32.924

Consists of eight standard cut 1/4" shank rotary files in a wood box: 32.555, 32.612, 32.618, 32.645, 32.666, 32.684, 32.708, 32.795. Wood case measures 3 3/16" x 3 3/16" x 3 3/8".

### 1/4" SHANK - No. 32.925

Consists of eight double cut 1/4" shank rotary files in a wood box: 32.556, 32.613, 32.619, 32.646, 32.667, 32.685, 32.709, 32.796. Wood case measures 3 3/16" x 3 3/16" x 3 3/8".



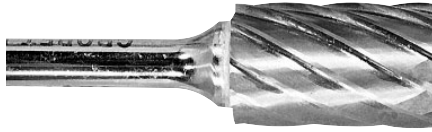
**1/8" SHANK - No. 32.926** - Consists of twelve standard cut 1/8" shank rotary files in a wood box: 32.835, 32.838, 32.847, 32.850, 32.856, 32.859, 32.883, 32.895, 32.898, 32.904, 32.907, 32.910. Wood case measures 3 5/8" x 2 5/8" x 2 1/8".

**1/8" SHANK - No. 32.929** - Consists of twelve double cut 1/8" shank rotary files in a wood box: 32.836, 32.839, 32.848, 32.851, 32.857, 32.860, 32.884, 32.896, 32.899, 32.905, 32.908, 32.911. Wood case measures 3 5/8" x 2 5/8" x 2 1/8".

## ALUMNA CUT

For use on aluminum, magnesium, soft steel and non-ferrous materials such as hard plastic, rubber and wood. Provides easy chip flow and faster stock removal with little or no clogging.

### CYLINDRICAL - Plain end



Head Dia.	Head Length	Overall Length	Shank	SCTI	Standard
1/4"	5/8"	2"	1/4"	SA-1NF	<b>32.95002</b>
3/8"	3/4"	2 1/2"	1/4"	SA-3NF	<b>32.95011</b>
1/2"	1"	2 3/4"	1/4"	SA-5NF	<b>32.95017</b>
5/8"	1"	2 3/4"	1/4"	SA-6NF	<b>32.95020</b>
3/4"	1"	2 3/4"	1/4"	SA-7NF	<b>32.95023</b>

### OVAL



Head Dia.	Head Length	Overall Length	Shank	SCTI	Standard
3/8"	5/8"	2 11/32"	1/4"	SE-3NF	<b>32.95411</b>
1/2"	7/8"	2 5/8"	1/4"	SE-5NF	<b>32.95417</b>
5/8"	1"	2 3/4"	1/4"	SE-6NF	<b>32.95420</b>
3/4"	1"	2 3/4"	1/4"	SE-7NF	<b>32.95423</b>

### CYLINDRICAL - Radius end



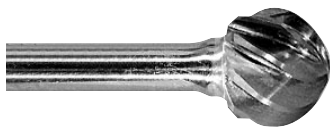
Head Dia.	Head Length	Overall Length	Shank	SCTI	Standard
1/4"	5/8"	2"	1/4"	SC-1NF	<b>32.95102</b>
3/8"	3/4"	2 1/2"	1/4"	SC-3NF	<b>32.95111</b>
1/2"	1"	2 3/4"	1/4"	SC-5NF	<b>32.95117</b>
5/8"	1"	2 3/4"	1/4"	SC-6NF	<b>32.95120</b>
3/4"	1"	2 3/4"	1/4"	SC-7NF	<b>32.95123</b>

### TREE RADIUS



Head Dia.	Head Length	Overall Length	Shank	SCTI	Standard
1/4"	3/4"	2"	1/4"	SF-1NF	<b>32.95705</b>
3/8"	3/4"	2 1/2"	1/4"	SF-3NF	<b>32.95711</b>
1/2"	1"	2 3/4"	1/4"	SF-5NF	<b>32.95717</b>
5/8"	1"	2 3/4"	1/4"	SF-6NF	<b>32.95720</b>
3/4"	1 1/4"	3"	1/4"	SF-14NF	<b>32.95744</b>

### BALL



Head Dia.	Head Length	Overall Length	Shank	SCTI	Standard
1/4"	7/32"	2"	1/4"	SD-1NF	<b>32.95305</b>
3/8"	5/16"	2 1/16"	1/4"	SD-3NF	<b>32.95311</b>
1/2"	7/16"	2 3/16"	1/4"	SD-5NF	<b>32.95317</b>
5/8"	9/16"	2 5/16"	1/4"	SD-6NF	<b>32.95320</b>
3/4"	1 1/16"	2 7/16"	1/4"	SD-7NF	<b>32.95323</b>

### CONE - Radius nose 14° taper



Head Dia.	Head Length	Overall Length	Shank	SCTI	Standard
3/8"	1 1/16"	2 13/16"	1/4"	SL-3NF	<b>32.95811</b>
1/2"	1 1/8"	2 7/8"	1/4"	SL-4NF	<b>32.95814</b>
5/8"	1 3/16"	2 15/16"	1/4"	SL-5NF	<b>32.95817</b>
5/8"	1 5/16"	3 1/16"	1/4"	SL-6NF	<b>32.95820</b>
3/4"	1 1/2"	3 1/4"	1/4"	SL-7NF	<b>32.95823</b>



**CYLINDRICAL**  
Plain end



**CYLINDRICAL**  
End cut



**CYLINDRICAL**  
Double end



**CYLINDRICAL**  
Radius end



**BALL**



**OVAL**



**FLAME**

### CYLINDRICAL - Plain end

Head Dia.	Head Length	Overall Length	Shank	SCTI	Standard	Double Cut
1/16"	1/4"	1 1/2"	3/32"	SA61	<b>32.80902</b>	<b>32.80903</b>
5/64"	5/16"	1 1/2"	3/32"	SA62	<b>32.810</b>	<b>32.811</b>
3/32"	3/8"	1 1/2"	3/32"	SA63	<b>32.814</b>	<b>32.815</b>

Head Dia.	Head Length	Overall Length	Shank	SCTI	Standard	Double Cut
1/16"	1/4"	1 1/2"	1/8"	SA41	<b>32.81502</b>	<b>32.81503</b>
3/32"	1/2"	1 1/2"	1/8"	SA42	<b>32.832</b>	<b>32.833</b>
1/8"	1/2"	1 1/2"	1/8"	SA43	<b>32.835</b>	<b>32.836</b>
1/4"	1/2"	2"	1/8"	SA51	<b>32.838</b>	<b>32.839</b>

### CYLINDRICAL - End cut

Head Dia.	Head Length	Overall Length	Shank	SCTI	Standard	Double Cut
1/8"	9/16"	1 1/2"	1/8"	SB43	<b>32.83902</b>	<b>32.83903</b>
1/4"	3/16"	2"	1/8"	SB51	<b>32.83910</b>	<b>32.83911</b>

### CYLINDRICAL - Double end

Head Dia.	Overall Length	Shank	SCTI	Standard
1/8"	2"	1/8"	SBECO	<b>32.841</b>

### CYLINDRICAL - Radius end

Head Dia.	Head Length	Overall Length	Shank	SCTI	Standard	Double Cut
3/32"	3/8"	1 1/2"	3/32"	SC61	<b>32.817</b>	<b>32.818</b>
3/32"	1/2"	1 1/2"	1/8"	SC41	<b>32.844</b>	<b>32.845</b>
1/8"	1/2"	1 1/2"	1/8"	SC42	<b>32.847</b>	<b>32.848</b>
1/4"	1/2"	2"	1/8"	SC51	<b>32.850</b>	<b>32.851</b>

### FLAME

Head Dia.	Head Length	Overall Length	Shank	SCTI	Standard	Double Cut
1/8"	1/4"	1 1/2"	1/8"	SH41	<b>32.868</b>	<b>32.869</b>

### BALL

Head Dia.	Head Length	Overall Length	Shank	SCTI	Standard	Double Cut
3/32"	1/8"	1 1/2"	3/32"	SD61	<b>32.820</b>	<b>32.821</b>

Head Dia.	Head Length	Overall Length	Shank	SCTI	Standard	Double Cut
3/32"	1/8"	1 1/2"	1/8"	SD41	<b>32.853</b>	<b>32.854</b>
1/8"	1/8"	1 1/2"	1/8"	SD42	<b>32.856</b>	<b>32.857</b>
3/16"	3/16"	1 1/4"	1/8"	SD53	<b>32.858</b>	<b>32.861</b>
1/4"	1/4"	1 3/4"	1/8"	SD51	<b>32.859</b>	<b>32.860</b>

### OVAL

Head Dia.	Head Length	Overall Length	Shank	SCTI	Standard	Double Cut
3/32"	1/8"	1 1/2"	3/32"	SE61	<b>32.86102</b>	<b>32.86103</b>

Head Dia.	Head Length	Overall Length	Shank	SCTI	Standard	Double Cut
1/8"	7/32"	1 1/2"	1/8"	SE41	<b>32.862</b>	<b>32.863</b>
1/4"	3/8"	1 7/8"	1/8"	SE51	<b>32.865</b>	<b>32.866</b>



**DEBURRING**  
Double end



**TREE POINTED**



**TREE RADIUS**



**INVERTED CONE**  
Plain end



**CONE**  
Radius end



**CONE**

## DEBURRING - Double end

Head Dia.	Head Length	Overall Length	Angle	Shank	SCTI	Standard	Double Cut
1/8"	3/32"	1 1/2"	60°	1/8"	SJ42	<b>32.871</b>	<b>32.872</b>
1/8"	1/16"	1 1/2"	90°	1/8"	SK42	<b>32.874</b>	<b>32.875</b>

## TREE POINTED

Head Dia.	Head Length	Overall Length	Shank	SCTI	Standard	Double Cut
3/32"	1/4"	1 1/2"	3/32"	SG61	<b>32.87902</b>	<b>31.87903</b>

Head Dia.	Head Length	Overall Length	Shank	SCTI	Standard	Double Cut
1/8"	1/4"	1 1/2"	1/8"	SG41	<b>32.880</b>	<b>32.881</b>
1/8"	5/16"	1 1/2"	1/8"	SG42	<b>32.88102</b>	<b>32.88103</b>
1/8"	3/8"	1 1/2"	1/8"	SG43	<b>32.883</b>	<b>32.884</b>
1/8"	1/2"	1 1/2"	1/8"	SG44	<b>32.88402</b>	<b>32.88403</b>
1/4"	1/2"	2"	1/8"	SG51	<b>32.886</b>	<b>32.887</b>

## TREE RADIUS

Head Dia.	Head Length	Overall Length	Shank	SCTI	Standard	Double Cut
3/32"	1/4"	1 1/2"	3/32"	SF61	<b>32.88802</b>	<b>32.88803</b>

Head Dia.	Head Length	Overall Length	Shank	SCTI	Standard	Double Cut
1/8"	1/4"	1 1/2"	1/8"	SF41	<b>32.889</b>	<b>32.890</b>
1/8"	1/2"	1 1/2"	1/8"	SF42	<b>32.892</b>	<b>32.893</b>
1/4"	1/2"	2"	1/8"	SF51	<b>32.895</b>	<b>32.896</b>

## INVERTED CONE - Plain end

Head Dia.	Head Length	Overall Length	Angle	Shank	SCTI	Standard	Double Cut
3/32"	1/8"	1 1/2"	10°	3/32"	SN61	<b>32.823</b>	<b>32.824</b>

Head Dia.	Head Length	Overall Length	Angle	Shank	SCTI	Standard	Double Cut
3/32"	1/8"	1 1/2"	10°	1/8"	SN41	<b>32.901</b>	<b>32.902</b>
1/8"	1/8"	1 1/2"	14°	1/8"	SN42	<b>32.904</b>	<b>32.905</b>
1/4"	1/4"	1 3/4"	10°	1/8"	SN51	<b>32.907</b>	<b>32.908</b>

## CONE - Radius end

Head Dia.	Head Length	Overall Length	Angle	Shank	SCTI	Standard	Double Cut
1/8"	3/8"	1 1/2"	6°	1/8"	SL41	<b>32.89702</b>	<b>32.89703</b>
1/8"	1/2"	1 1/2"	7°	1/8"	SL42	<b>32.898</b>	<b>32.899</b>

## CONE

Head Dia.	Head Length	Overall Length	Angle	Shank	SCTI	Standard	Double Cut
3/32"	5/16"	1 1/2"	10°	3/32"	SM61	<b>32.826</b>	<b>32.827</b>

Head Dia.	Head Length	Overall Length	Angle	Shank	SCTI	Standard	Double Cut
1/8"	3/8"	1 1/2"	14°	1/8"	SM41	<b>32.913</b>	<b>32.914</b>
1/8"	1/2"	1 1/2"	12°	1/8"	SM42	<b>32.916</b>	<b>32.917</b>
1/8"	5/8"	1 1/2"	9°	1/8"	SM43	<b>32.919</b>	<b>32.920</b>
1/4"	1/2"	2"	22°	1/8"	SM51	<b>32.910</b>	<b>32.911</b>



## 6" EXTENDED SHANKS

### CYLINDRICAL - Plain end



Head Dia.	Head Length	Shank	SCTI	Standard	Double Cut
1/4"	5/8"	1/4"	SA1L6	<b>32.93522</b>	<b>32.93523</b>
3/8"	3/4"	1/4"	SA3L6	<b>32.93537</b>	<b>32.93538</b>
1/2"	1"	1/4"	SA5L6	<b>32.93557</b>	<b>32.93558</b>

### FLAME



Head Dia.	Head Length	Shank	SCTI	Standard	Double Cut
5/16"	3/4"	1/4"	SH2L6	<b>32.94007</b>	<b>32.94008</b>
1/2"	1 1/4"	1/4"	SH5L6	<b>32.94012</b>	<b>32.94013</b>

### CYLINDRICAL - Radius End



Head Dia.	Head Length	Shank	SCTI	Standard	Double Cut
1/4"	5/8"	1/4"	SC1L6	<b>32.93722</b>	<b>32.93723</b>
3/8"	3/4"	1/4"	SC3L6	<b>32.93737</b>	<b>32.93738</b>
1/2"	1"	1/4"	SC5L6	<b>32.93757</b>	<b>32.93758</b>

### TREE POINTED



Head Dia.	Head Length	Shank	SCTI	Standard	Double Cut
1/4"	5/8"	1/4"	SG1L6	<b>32.94102</b>	<b>32.94103</b>
3/8"	3/4"	1/4"	SG3L6	<b>32.94112</b>	<b>32.94113</b>
1/2"	1"	1/4"	SG5L6	<b>32.94122</b>	<b>32.94123</b>

### BALL



Head Dia.	Head Length	Shank	SCTI	Standard	Double Cut
1/4"	7/32"	1/4"	SD1L6	<b>32.93812</b>	<b>32.93813</b>
3/8"	5/16"	1/4"	SD3L6	<b>32.93822</b>	<b>32.93823</b>
1/2"	7/16"	1/4"	SD5L6	<b>32.93832</b>	<b>32.93833</b>

### TREE RADIUS



Head Dia.	Head Length	Shank	SCTI	Standard	Double Cut
1/4"	5/8"	1/4"	SF1L6	<b>32.94207</b>	<b>32.94208</b>
3/8"	3/4"	1/4"	SF3L6	<b>32.94212</b>	<b>32.94213</b>
1/2"	1"	1/4"	SF5L6	<b>32.94227</b>	<b>32.94228</b>

### OVAL



Head Dia.	Head Length	Shank	SCTI	Standard	Double Cut
1/4"	3/8"	1/4"	SE1L6	<b>32.93907</b>	<b>32.93908</b>
3/8"	19/32"	1/4"	SE3L6	<b>32.93912</b>	<b>32.93913</b>
1/2"	7/8"	1/4"	SE5L6	<b>32.93917</b>	<b>32.93918</b>

### CONE - Radius nose 14° taper



Head Dia.	Head Length	Shank	SCTI	Standard	Double Cut
1/4"	5/8"	1/4"	SL1L6	<b>32.94302</b>	<b>32.94303</b>
3/8"	1 1/16"	1/4"	SL3L6	<b>32.94312</b>	<b>32.94313</b>
1/2"	1 1/8"	1/4"	SL4L6	<b>32.94317</b>	<b>32.94318</b>

**Note:** All above burs with 1/4" diameter shanks and 1/4" diameter heads (solid carbide) are 6" overall.

