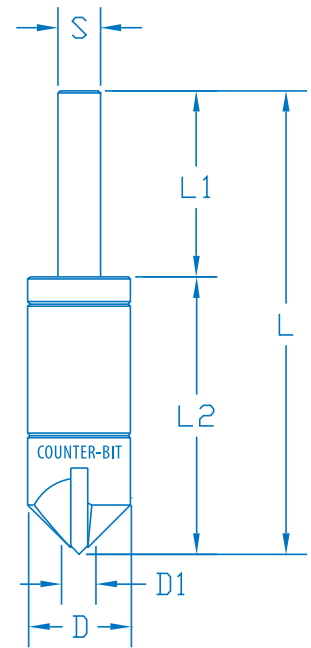


# Straight Shank COUNTER-BIT®

## Unique Conical-Pilot Countersink

- Conical pilot seeks and finds the center of the previously drilled hole.
- Live rubber spring prevents cutting until the pilot is seated and pressure is applied to the workpiece.
- Cutter extends only after conical pilot has seated.
- Conical pilot, under spring pressure, eliminates vibration enabling the Counter-Bit to produce chatter-free concentric cuts.
- A must for every shop! One tool can handle all of your chamfering and countersinking needs.
- Use on CNC machining centers, robotic arms, manual mills, turret lathes, lathes tailstocks or on drill presses.
- High speed steel or tungsten carbide blades are easily replaced.
- Blades are radially relieved with chip breakers.
- Three models cover the range of holes from 1/4" to 2-1/2" (7mm to 63mm). Straight or Morse tapered shanks. Available with 60°, 82°, 90° and 120° included angles.



## COUNTER-BIT PART NUMBERS, STRAIGHT SHANK, HIGH SPEED STEEL BLADE

(Dimensional Data inches)

Complete Tool#	Model	Cutter Angle	Blade Type	Max Dia D	Min Dia D-1	O.A.L L	Shank O.A.L L-1	Body O.A.L L-2	Shank	Replacement Blade#
CBS1020HS	100S	120°	HSS	1.125	.250	4.68	1.62	3.06	.500	CB31020HS
CBS1060HS	100S	60°	HSS	1.125	.250	5.18	1.62	3.56	.500	CB31060HS
CBS1082HS	100S	82°	HSS	1.125	.250	4.87	1.62	3.25	.500	CB31082HS
CBS1090HS	100S	90°	HSS	1.125	.250	4.75	1.62	3.12	.500	CB31090HS
CBS1520HS	150S	120°	HSS	1.500	.312	4.81	1.62	3.18	.500	CB31520HS
CBS1560HS	150S	60°	HSS	1.500	.312	5.50	1.62	3.87	.500	CB31560HS
CBS1582HS	150S	82°	HSS	1.500	.312	5.06	1.62	3.43	.500	CB31582HS
CBS1590HS	150S	90°	HSS	1.500	.312	5.00	1.62	3.37	.500	CB31590HS
CBS2020HS	200S	120°	HSS	2.500	.750	6.37	2.50	3.87	.750	CB32020HS
CBS2060HS	200S	60°	HSS	2.500	.750	7.31	2.50	4.81	.750	CB32060HS
CBS2082HS	200S	82°	HSS	2.500	.750	6.81	2.50	4.31	.750	CB32082HS
CBS2090HS	200S	90°	HSS	2.500	.750	6.62	2.50	4.12	.750	CB32090HS

## COUNTER-BIT PART NUMBERS, STRAIGHT SHANK, TUNGSTEN CARBIDE BLADE

(Dimensional Data inches)

Complete Tool #	Model	Cutter Angle	Cutter Material	Max Dia D	Min Dia D-1	O.A.L L	Shank O.A.L L-1	Body O.A.L L-2	Shank	Replacement Blade#
CBS1082TC	100S	82°	T/C	1.125	.250	4.87	1.62	3.25	.500	CB31082TC
CBS1090TC	100S	90°	T/C	1.125	.250	4.75	1.62	3.12	.500	CB31090TC
CBS1520TC	150S	120°	T/C	1.500	.312	4.81	1.62	3.18	.500	CB31520TC
CBS1560TC	150S	60°	T/C	1.500	.312	5.50	1.62	3.87	.500	CB31560TC
CBS1582TC	150S	82°	T/C	1.500	.312	5.06	1.62	3.43	.500	CB31582TC
CBS1590TC	150S	90°	T/C	1.500	.312	5.00	1.62	3.37	.500	CB31590TC
CBS2020TC	200S	120°	T/C	2.500	.750	6.37	2.50	3.87	.750	CB32020TC
CBS2060TC	200S	60°	T/C	2.500	.750	7.31	2.50	4.81	.750	CB32060TC
CBS2082TC	200S	82°	T/C	2.500	.750	6.81	2.50	4.31	.750	CB32082TC
CBS2090TC	200S	90°	T/C	2.500	.750	6.62	2.50	4.12	.750	CB32090TC