

CHAM-BIT

SERIES 189:
VARIABLE POSITIONING CHAMFER TOOL
Drills, deburrs and chamfers *in one operation!*



Made in U.S.A.



Drills not included.

Many other sizes available.
See our website or inquire.

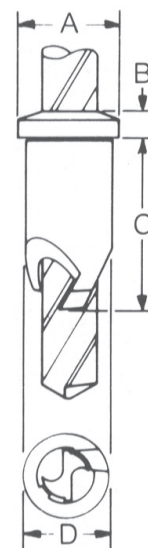
- Converts any twist drill to a step drill and chamfering tool for counter-sinking and burr removal.
- Stocked for all standard drill sizes. Economical alternative to custom multi-diameter drills.
- Unlike a multi-diameter drill, the Cham-Bit can be disassembled from the drill and resharpened over and over on a radial-relief grinding fixture.
- Rugged collar and cutter lock to the drill shank with three set-screws and interlock for even greater strength.
- Optional Stop-Bit back-up spacers provide positive metal-to-metal contact for precise positioning and strength.
- Added stiffness of the combination tool reduces chatter and assures concentricity.
- **Stocked with standard 90° included angle. 82°, 100° and 120° also available on special order.**
- **All standard fractional, wire gauge, letter series, and standard metric sizes available; please inquire.**

CHAM-BIT - INCH 90°

Size	Order No.	Price	Size	Order No.	Price
1/8	1891250		21/64	1893280	
9/64	1891406		11/32	1893430	
5/32	1891560		23/64	1893590	
11/64	1891710		3/8	1893750	
3/16	1891870		25/64	1893900	
13/64	1892030		13/32	1894060	
7/32	1892180		27/64	1894210	
15/64	1892350		7/16	1894370	
1/4	1892490		29/64	1894530	
17/64	1892650		15/32	1894680	
9/32	1892812		31/64	1894840	
19/64	1892960		1/2	1895020	
5/16	1893120				

CHAM-BIT - INCH 90°

Size	Dim A (In)	Dim B (In)	Dim C (In)	Dim D (In)
.1250-.1800	7/16	1/4	5/8	5/16
.1820-.2280	1/2	1/4	3/4	3/8
.2350-.3020	5/8	1/4	1	1/2
.3120-.4370	3/4	5/16	1-1/4	5/8
.4531-.6090	15/16	5/16	1-1/2	13/16
.6250-.7340	1-1/8	3/8	1-5/8	1
.7500-.8590	1-5/16	7/16	1-3/4	1-3/16
.7850-1.000	1-7/16	1/2	2	1-5/16

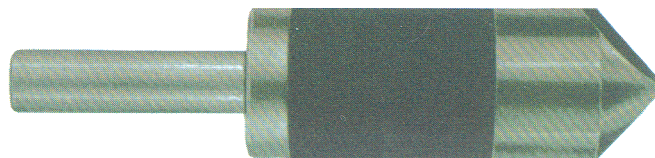


CHAM-BIT - METRIC 90°

Size	Dim A (In)	Dim B (In)	Dim C (In)	Dim D (In)
M3-M4.5	7/16	1/4	5/8	5/16
M4.6-M5.9	1/2	1/4	3/4	3/8
M6-M7.6	5/8	1/4	1	1/2
M7.7-M11	3/4	5/16	1-1/4	5/8
M11.2-M15.0	15/16	5/16	1-1/2	13/16
M15.25-M18.75	1-1/8	3/8	1-5/8	1
M19.0-M22.0	1-5/16	7/16	1-3/4	1-3/16
M22.5-M25.5	1-7/16	1/2	2	1-5/16

CHAM-BIT - METRIC 90°

Size	Order No.	Price	Size	Order No.	Price
3.0	1890300		8.0	1890800	
3.5	1890350		8.5	1890850	
4.0	1890400		9.0	1890900	
4.5	1890450		9.5	1890950	
5.0	1890500		10.0	1891000	
5.5	1890550		10.5	1891050	
6.0	1890600		11.0	1891100	
6.5	1890650		11.5	1891150	
7.0	1890700		12.0	1891200	
7.5	1890750		12.5	1891255	
			13.0	1891300	



COUNTER-BIT

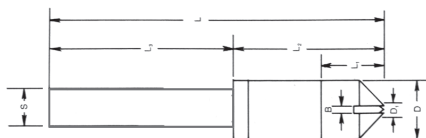
SERIES 189:
UNIQUE CONICAL-PILOT COUNTERSINK



Made in U.S.A.



- 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 under pressure for chatter-free chamfering and absolutely concentric cuts.
- Particularly recommended for use on drill presses and turret lathes, where one tool will handle most chamfering jobs.
- Replaceable high speed steel blades.
- Also available:
Models for holes up to 4-1/2"
Taper shank models
120° included angle
Model blades
Tungsten carbide



COUNTER-BIT DIMENSIONS (IN)

Model	L	L-1	L-2	L-3	D	D-1	S	B
100S	4-15/16	1-3/8	3-1/8	1-23/32	1-1/8	1/4	1/2	1/8
150S	4-7/8	1-7/16	3-1/4	1-5/8	1-1/2	5/16	1/2	3/16
200S	6-7/8	2	4-3/8	2-1/2	2-1/2	3/4	3/4	1/4

COUNTER-BIT

Model	Shank Size	Capacity	Degree	Order No.	Price
100S	1/2	1/4-1-1/8	60	1891060	
	1/2	1/4-1-1/8	82	1891082	
	1/2	1/4-1-1/8	90	1891090	
150S	1/2	5/16-1-1/2	60	1891561	
	1/2	5/16-1-1/2	82	1891582	
	1/2	5/16-1-1/2	90	1891590	
200S	3/4	3/4-2-1/2	60	1892060	
	3/4	3/4-2-1/2	82	1892082	
	3/4	3/4-2-1/2	90	1892090	

Wire gauge, letter and many other metric sizes available; please inquire.