

M35(H.S.S. + 5%COBALT) ANNULAR CUTTER WITH 1-1/4" WELDON SHANK, CBN GROUND

ISO9001

Cutters with 2-1/2" diameter is with 1-1/4" Weldon shanks, dia. of hole of pilot pin: 5/16"



Features:
HSS-Co annular cutters are made of Molybdenum-Chromium-Vanadium-Tungsten alloy high-speed steel with an additional 5% cobalt (M35) for inch sizes. The HSS-Co annular cutter is specifically designed to remain cool when cutting holes. All flutes are fully ground, resulting in super fast feed speed and finishing holes on hard materials, improving the chip break and cutting performance. The M35 HSS-Co annular cutter is widely used in the metalworking industry for its superior red hardness comparing with conventional high-speed steel. It leads to a shorter cycle time in productions due to its higher cutting speed.

Item	Dia. of Cut	Cutting Depth	Price
3580-2045	2-1/2"	1"	\$240.00/PC
3581-2045	2-1/2"	2"	\$295.00/PC

H.S.S. ANNULAR CUTTER WITH NITTO/WELDON/ONE TOUCH SHANK, CBN GROUND, CUTTING DEPTH 1"

ISO9001

Cutters with 9/16" to 13/16" diameter are with 3/4" Nitto/Weldon/One touch shanks, dia. of hole of pilot pin: 1/4"



Item	Dia. of Cut	Cutting Depth	Price
1190-2014	9/16"	1"	\$22.00/PC
1190-2017	11/16"	1"	\$25.00/PC
1190-2021	13/16"	1"	\$29.00/PC

TUNGSTEN CARBIDE TIPPED ANNULAR CUTTER WITH ONE-TOUCH SHANK CBN GROUND, ANSI STANDARD, CUTTING DEPTH: 1" OR 2"

ISO9002

Cutters with 11/16" diameters are with 3/4" one-touch shanks, dia. of hole of pilot pin: 1/4"
Cutters with 13/16" to 1-1/16" diameter are with 3/4" one-touch shanks, dia. of hole of pilot pin: 5/16"



Item	Dia. of Cut	Cutting Depth	Price
3080-2016	11/16"	1"	\$52.00/PC
3080-2018	13/16"	1"	\$52.00/PC
3080-2019	7/8"	1"	\$56.00/PC
3080-2020	15/16"	1"	\$60.00/PC
3080-2021	1"	1"	\$65.00/PC
3080-2022	1-1/16"	1"	\$70.00/PC
3081-2016	11/16"	2"	\$75.00/PC
3081-2018	13/16"	2"	\$79.00/PC
3081-2019	7/8"	2"	\$86.00/PC
3081-2020	15/16"	2"	\$89.00/PC
3081-2021	1"	2"	\$95.00/PC
3081-2022	1-1/16"	2"	\$99.00/PC

H.S.S. FULLY GROUND DRILLS & SETS WITH 3/4" WELDON SHANKS

Features:

- Same connection as the annular cutters.
- This system makes dismantling of the cutter spindle unnecessary.
- Suitable for the most common processes of metal and steel.
- Machined from one solid blank. (no weak spots caused by inferior material or welds)

6pcs/set - 1" cut with 3/4" Weldon shank

Item # 0519-2501 \$99.00/SET

Contains:

- 1pc H.S.S. Twist Drill 1/4" x 1" Depth (0519-1014)
- 1pc H.S.S. Twist Drill 5/16" x 1" Depth (0519-1516)
- 1pc H.S.S. Twist Drill 3/8" x 1" Depth (0519-1038)
- 1pc H.S.S. Twist Drill 7/16" x 1" Depth (0519-1716)
- 1pc H.S.S. Twist Drill 1/2" x 1" Depth (0519-1012)
- 1pc H.S.S. Twist Drill 9/16" x 1" Depth (0519-1916)

Packed in a blue plastic blow mold case

6pcs/set - 2" cut with 3/4" Weldon shank

Item # 0519-5002 \$135.00/SET

Contains:

- 1pc H.S.S. Twist Drill 1/4" x 2" Depth (0519-2014)
- 1pc H.S.S. Twist Drill 5/16" x 2" Depth (0519-2516)
- 1pc H.S.S. Twist Drill 3/8" x 2" Depth (0519-2038)
- 1pc H.S.S. Twist Drill 7/16" x 2" Depth (0519-2716)
- 1pc H.S.S. Twist Drill 1/2" x 2" Depth (0519-2012)
- 1pc H.S.S. Twist Drill 9/16" x 2" Depth (0519-2916)

Packed in a blue plastic blow mold case



ISO9001



Item	Size		Price
	Dia. of Drill	Cutting Depth	
0519-1014	1/4"	1"	\$16.00/PC
0519-1516	5/16"	1"	\$16.00/PC
0519-1038	3/8"	1"	\$16.00/PC
0519-1716	7/16"	1"	\$18.00/PC
0519-1012	1/2"	1"	\$18.00/PC
0519-1916	9/16"	1"	\$18.00/PC
0519-2014	1/4"	2"	\$21.00/PC
0519-2516	5/16"	2"	\$22.00/PC
0519-2038	3/8"	2"	\$23.00/PC
0519-2716	7/16"	2"	\$23.00/PC
0519-2012	1/2"	2"	\$23.00/PC
0519-2916	9/16"	2"	\$28.00/PC

H.S.S. ALIGNING REAMER

WITH 3/4" WELDON SHANK, SPIRAL FLUTE

0521-1116

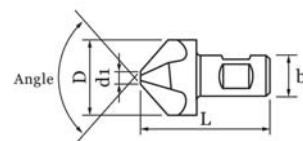


Features:

- Designed to be used in a magnetic drill that accepts 3/4" Weldon shanks.
- The unique multi-flute design for a fast smoother cut and better finishing.

Item	Size	Flute Length	Overall Length	Price
0521-0916	9/16"	4"	5-1/2"	\$29.00/PC
0521-1116	11/16"	4-1/2"	6-1/2"	\$46.00/PC
0521-0034	3/4"	5"	7"	\$49.00/PC
0521-0316	13/16"	5"	7"	\$52.00/PC
0521-1516	15/16"	5"	7"	\$60.00/PC
0521-0001	1"	5"	7"	\$69.00/PC
0521-1716	1-1/16"	5"	7"	\$86.00/PC
0521-1316	1-3/16"	5"	7"	\$95.00/PC
0521-0114	1-1/4"	5"	7"	\$112.00/PC

H.S.S. COUNTERSINK 3/4" WELDON SHANK, 3 FLUTE



CE00-0112

Item	Size (D)	d1	Shank (b)	OAL (L)	Angle	Price
CE82-0001	1"	3/16"	3/4"	1-3/4"	82°	\$55.00/PC
CE00-0001	1"	3/16"	3/4"	1-3/4"	90°	\$55.00/PC
CE00-0114	1-1/4"	1/4"	3/4"	1-7/8"	90°	\$69.00/PC
CE00-0112	1-1/2"	5/16"	3/4"	2-1/16"	90°	\$86.00/PC
CE00-0002	2"	1/2"	3/4"	2-1/2"	90°	\$128.00/PC