Product: Back Chamfer Cutters, 90° Incl Angle, 8x Reach, 5 Fl Series: 9104xx

Product notes:
Due to a varying diameter, an Effective Cutter Diameter is needed for Chip Load selection and RPM calculation:
- Effective Cutter Diameter = (Major Diameter + Minor Diameter)/2.
- Or consider the actual diameter along the angle that is engaged with the workpiece.
- For Full Chamfer engagement the Effective Cutter Diameter is 80% of the cutter diameter.

Depth of Cut is shown as number of Passes with each pass resulting in a descending stepover.
Chip Loads are given 3 ways:
- Deburring refers to removing the burr only
- Traditional Edge Break of .010"-.015"
- Full Chamfer engagement

Chip Loads within tables pertain to machining on one side an existing slot.
For machining on two sides, reduce Chip Loads to 60% to 80% depending on contact length and finish.

General notes:
- All posted speed and feed parameters are suggested starting values that may be increased given optimal setup conditions. Chip loads reflect uncoated cutters and may be increased 10%-20% if coated. For ferrous materials with hardness ≤ 28 Rc, chip loads can be increased 10%-20%.
- If you require additional information, Harvey Tool has a team of technical experts available to assist you through even the most challenging applications. Please contact us at 800-645-5569 or tech@harveytool.com.
- WARNING: Cutting tools may shatter under improper use. Government regulations require use of safety glasses and other protective eye wear.

COPPER ALLOYS
High Copper - 100% Cu (1x1x1)
Briquet (Copper-Zinc alloys, 55-60% Cu, 45-50% Zn, Chrome, Silicon, C6400-C6460)
Phosphor Bronze (brass alloys, 80-85% Cu, 10-15% Phosphorus, Silicon, Nickel, Molybdenum, Chrome, Aluminum Bronze (Copper Aluminum alloys, C6000-C6240)
Silicon Bronze (Copper-Silicon alloys, C6470-C6810)
Copper-Nickel (Copper-Nickel alloys, C6300-C6320, C6500-C6590, C7000-C7150)

MAGNESIUM ALLOYS
Copper Aluminum -6300-C6200, C6400-C67900, C6500-C6590, C7000-C7150, C7300-C7500, C7700-C7800

ZINC ALLOYS
8000

CARBON STEELS
Free-Machining/Low Carbon steels, 10 - 100 & at 15.6, 11.4 & all 15.6, 10 - 121.5 & all 15.6

STAINLESS STEELS
303 E3, 303 (all types), 416, 416, 416 X, 409, 409F4, 409, 409F4, 409F4, 409F4, 409F4

TOOL STEELS
A L, A O, P, W series

TITANIUM ALLOYS

HIGH TEMPEL ALLOYS
Inconel, Hastelloy, Wearaploy, Morel, Nararo, Haynes, Destecoy, Incosloy