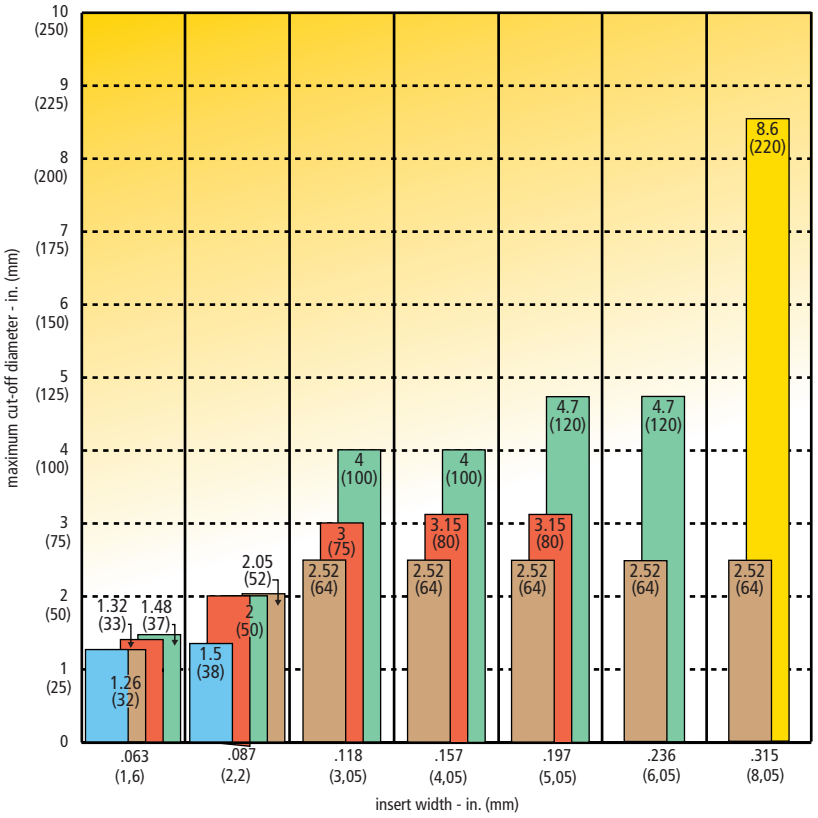
KENNA PERFECT – A2 Cut-Off

5 Easy Steps to Maximize Cut-Off Productivity

1st Step – Select Insert Width and Holder Type



What you need to know:

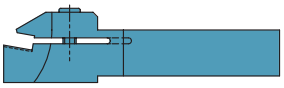
- Cut-off diameter
- part/machine requirements

For required cut-off diameter, select insert width and holder type based on the part and machine requirement:

- To maximize rigidity, select the largest possible blade height or an integral shank toolholder.
- Diameters shown are for cut-off to center. Maximum cut-off depth to a through-hole is one half of the diameter.
- To determine capability for cut-off to a through-hole on integral shank or reinforced blades, please refer to listing for that tool in this catalog.

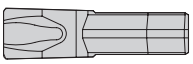
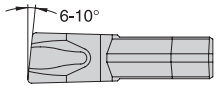
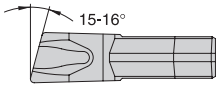
blade height
19 mm
26 mm
32 mm
52 mm
Integral Shank Toolholders

Toolholder Type

Blade: (self-clamping)	**Blade: (self-clamping, reinforced version)**	**Toolholder: (with clamping screw)**
	 (Available in 26 mm and 32 mm heights)	
• frequently used tool • two insert seats • deepest depth of cut capability	• efficient tooling solution with improved stability • limited depth of cut capability	• shank tool with the highest stability • limited depth of cut • single insert seat

2nd Step – Select Insert Lead Angle

- part type
- burr and center stub considerations
- Cut-off to center or through-hole

	Neutral (0°)	**Right/Left 6° - 10°**	**Right/Left 15° - 16°**
Insert type			
Recommended Application	• for cutting off solid workpieces • center stub will form on cut-off part • eliminates lateral deflection • best for deep cut-off depths	• for cutting off solid workpieces with reduced formation of center stub • for cut-off to a through-hole with reduced burr	• for thin-walled workpieces • for cutting off small diameter workpieces with minimal burr or center stub
Tool life	best tool life	better tool life	good tool life

3rd Step – Select Chipbreaker Style and Feed Rate

- lead angle or neutral insert
- workpiece material

-CF
Cut-off Fine

- cut-off insert with precision ground cutting edge for low feeds
- curved cutting edge

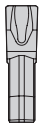
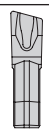
-CM
Cut-off Medium

- cut-off insert with precision molded cutting edge for medium feeds
- stabilized straight cutting edge

-CR
Cut-off Rough

- cut-off insert with precision molded cutting edge for higher feed rates
- curved cutting edge

Chipbreaker Style and Feed Rates - in/rev (mm/rev)

Insert Type	Steel	Stainless Steel	Cast Iron	Non-Ferrous Metals	High-Temp Alloys	Hardened Materials
	**N-CR** .003 – .012 (0,08 – 0,3)	**N-CF** .002 – .005 (0,05 – 0,12)	**N-CM** .002 – .008 (0,05 – 0,2)	**N-CF** .002 – .007 (0,05 – 0,18)	**N-CF** .002 – .004 (0,04 – 0,10)	**CBN available upon request**
	N-CF .002 – .006 (0,05 – 0,15)					
	**R/L-CR** .002 – .005 (0,05 – 0,12)	**R/L-CF** .002 – .003 (0,04 – 0,08)	**R/L-CM** .002 – .005 (0,05 – 0,12)	**R/L-CF** .002 – .004 (0,04 – 0,10)	**R/L-CF** .002 – .003 (0,04 – 0,08)	**CBN available upon request**
	R/L-CF .002 – .003 (0,04 – 0,08)					

4th Step – Select Grade and Speed

Recommendations for Grade and Speed Selection – sfm (m/min)

	Machining Condition	Workpiece Material: Steel	Stainless Steel	Cast Iron	Non-Ferrous Metals	High-Temp Alloys	Hardened Materials
KENNA PERFECT	high performance optimum conditions, higher speeds	**KT315** 395 - 625 (120 -190)	**KT315** 230 - 560 (70 - 170)	**KC5025** 265 - 560 (80 - 170)	**KT315** 600 - 1300 (180 - 400)	**KC5025** 100 - 325 (30 - 100)	–
KENNA PERFECT	first choice for general machining conditions	**KC5025** 265 - 560 (80 - 170)	**KC5025** 265 - 500 (80 - 150)	**KC5025** 230 - 500 (70 - 150)	**KC5025** 500 - 980 (150 - 300)	**KC5025** 80 - 250 (25 - 75)	**KB5625*** 265 - 400 (80 - 120)
KENNA PERFECT	unfavorable conditions interrupted cuts, low speeds	**KC5025** 200 - 325 (60 - 100)	**KMF** 135 - 265 (40 - 80)	**KMF** 80 - 265 (25 - 80)	**KMF** 200 - 600 (60 - 180)	**KMF** 30 - 80 (30 - 25)	–
KENNA UNIVERSAL		**KU25T** 210 - 450 (65 - 135)	**KU25T** 210 - 400 (65 - 120)	**KU25T** 180 - 400 (55 - 120)	**KU25T** 400 - 785 (120 - 240)	**KU25T** 65 - 200 (20 - 60)	–

*PCBN tipped inserts in KB5625 are available on request

5th Step – Select Insert and Holder from Catalog Page

Note: The insert seat size must match the seat size of your holder selection.

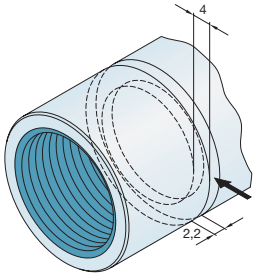
Example for A2 – Cut-off

material: low carbon steel
workpiece dia.: 1.02 in. (27 mm)
depth of cut: .157 in. (4 mm)

Recommendation:

insert: A2022R10CF00
grade: KC5025
cutting width: .087 in. (2,2 mm)
insert seat size: 2

toolholder: A2BNSN3202
seat size: 2



Congratulations!
You have successfully maximized cut-off productivity by selecting the best insert, toolholder, grade and cutting specifications for your application!

speed: 460 sfm (140 m/min)
feed: .002 ipr (0,05 mm)