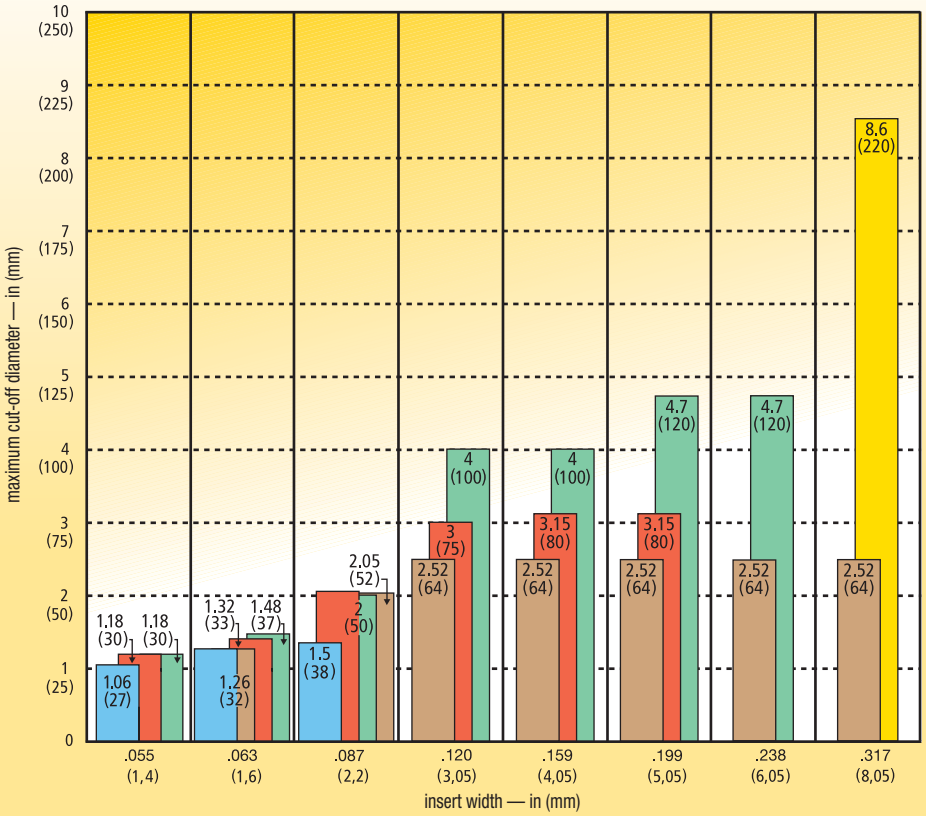
Step 1 • Select insert width and holder type



blade height
19mm
26mm
32mm
52mm

Integral Shank Toolholders

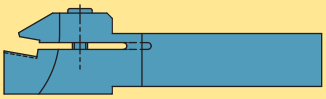
What you need to know:

- Cut-off diameter.
- Part/machine requirements.

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

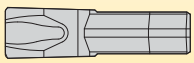
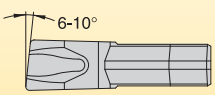
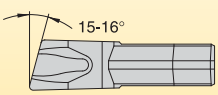
- To maximise rigidity, select the largest possible blade height or an integral shank toolholder.
- Diameters shown are for cut-off to centre. Maximum cut-off depth to a through-hole depth is one half of the diameter.
- To determine depth capability for cut-off to a through-hole on integral shank or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

Toolholder Type

blade: (self-clamping)	**blade: (self-clamping, reinforced version)**	**toolholder: (with clamping screw)**
	 Available in 26mm and 32mm 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.

Step 2 • Select the insert lead angle

- Part type.
- Burr and centre stub considerations.
- Cut-off to centre or through hole.

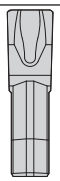
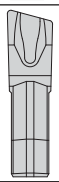
	neutral (0°)	**right/left 6–10°**	**right/left 15–16°**
insert type			
recommended application	• For cutting off solid workpieces. • Centre stub will form on cut-off part. • Eliminates lateral deflection. • Best for deep cut-off depths.	• For cutting off solid workpieces with reduced formation of centre 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 centre stub.
tool life	Best tool life	Better tool life	Good tool life

Step 3 • Select chipbreaker style and feed rate

- Lead angle or neutral insert.
- Workpiece material.

-CL Cut-Off Low Feed	-CF Cut-Off Fine	-CM Cut-Off Medium	-CR Cut-Off Rough
			
• Excellent chip evacuation in low feed applications. • Offers improved stability and rigidity in difficult-to-control applications.	• Cut-off insert with precision ground cutting edge for low feeds. • Curved cutting edge.	• Cut-off insert with precision moulded cutting edge for medium feeds. • Stabilised straight cutting edge.	• Cut-off insert with precision moulded cutting edge for higher feed rates. • Curved cutting edge.

Chipbreaker Style and Feed Rates • mm/rev

insert type	P	M	K	N	S	H
	N-CR 0,08–0,3	N-CF 0,05–0,12	N-CM 0,05–0,2	N-CF 0,05–0,18	N-CF 0,04–0,10	CBN available upon request
	N-CF 0,05–0,15	—	—	—	—	—
	N-CL 0,05–0,15	N-CL 0,05–0,12	—	N-CL 0,05–0,18	N-CL 0,04–0,10	—
	R/L-CR 0,05–0,12	R/L-CF 0,04–0,08	R/L-CM 0,05–0,12	R/L-CF 0,04–0,10	R/L-CF 0,04–0,08	CBN available upon request
	R/L-CF 0,04–0,08	—	—	—	—	—
	R/L-CL 0,04–0,08	R/L-CL 0,04–0,08	—	R/L-CL 0,04–0,10	R/L-CL 0,04–0,08	—

Step 4 • Select grade and speed

Recommendations for Grade and Speed Selection • m/min

machining condition		workpiece material					
		P	M	K	N	S	H
Beyond™	high-performance, optimum conditions, higher speeds	KT315 395–625	KT315 230–560	KCU25/KC5025 265–560	KT315 600–1300	KCU25/KC5025 100–325	—
	first choice for general machining conditions	KCU25/KC5025 265–560	KCU25/KC5025 265–500	KCU25/KC5025 230–500	KCU25/KC5025 500–980	KCU25/KC5025 80–250	CBN available upon request
	unfavourable conditions, interrupted cuts, low speeds	KCU25/KC5025 200–325	KMF 135–265	KMF 80–265	KMF 200–600	KMF 30–80	—

Step 5 • Select insert and holder from catalogue 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 diameter 27mm
Depth of cut 4mm

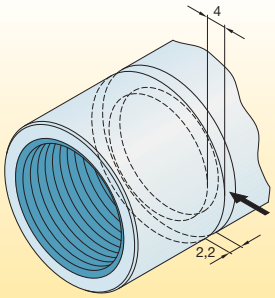
Recommendation

Insert A2022R10CF00
Grade KC5025
Cutting width 2,2mm
Insert seat size 2

Toolholder A2BNSN3202
Seat size 2

Congratulations!

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



Speed: 140 m/min
Feed: 0,05 mm/rev