

Your day made EASY

Choosing the right tooling can be complicated and time consuming. Built on simplicity, we have engineered a new tool that makes every machine operator's life EASY.

Unwilling to sacrifice performance or applications, Kennametal introduces Beyond™ Evolution™.

Beyond Evolution is the new single-side grooving and cut-off tool that also performs multi-directional turning.



Productivity made EASY

Active Coolant Control

If your coolant delivery is typical to the market, you may be applying more heat to the cutting edge than you think. This reduces tool life and increases cycle time.

or low pressure coolant supply, Beyond Evolution, featuring Active Coolant Control, delivers more tool life or higher metal removal rates.

With Beyond Evolution, you won't have to change your existing equipment. Whether you are using a high pressure



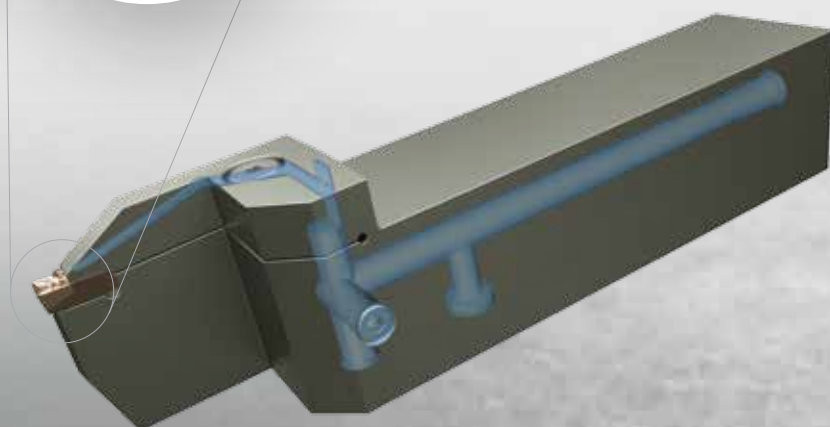
1. Fan Effect

Directs coolant across the top of the insert precisely to the cutting zone underneath the chip and controls temperature.



2. Chip Breaking Effect

Improve chip control in all grooving, cut-off, and multi-directional turning applications.



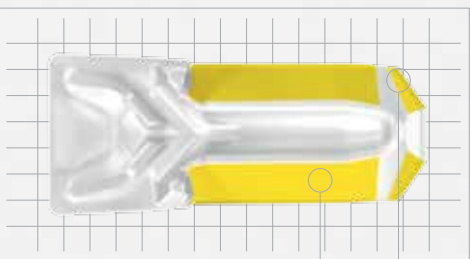
Smooth surface finish made EASY

Triple-V Seating

Problem: Traditional single-sided grooving and cut-off systems cannot deliver smooth surface finish due to lack of stability.

Solution: Beyond Evolution's proprietary new Triple-V Seating feature provides functional stability and minimizes vibration.

Three contact surfaces provide unmatched stability: When combined with GUP and CF chipbreakers, Triple-V Seating provides excellent surface finish.



Top and Bottom-V

Precise and secure insert positioning for increased rigidity and dimensional accuracy.

V-Back Design

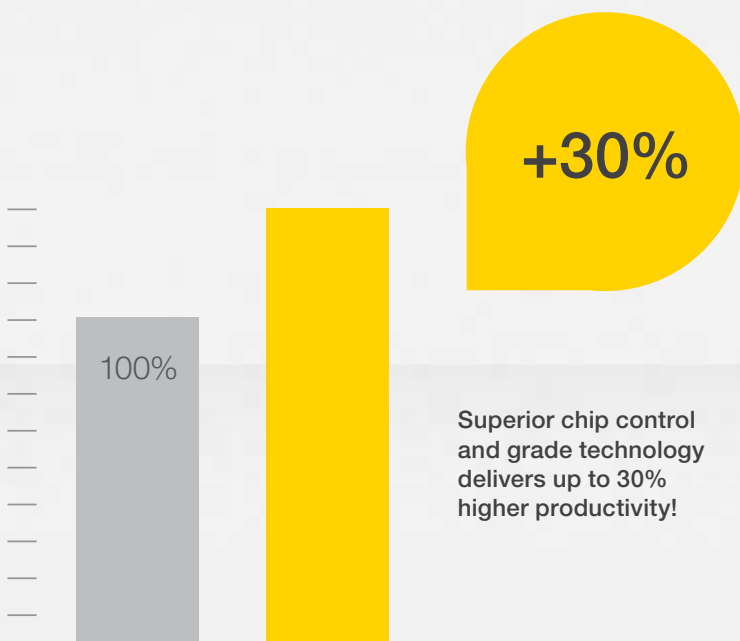
Unsurpassed grooving, cut-off, and multi-directional turning load stability.



Saving money made EASY

Beyond Evolution, featuring Active Coolant Control, Triple-V Seating, and Beyond Drive grades with Wear Detection Technology,

provides longer tool life, maximum stability, and higher metal removal rates, resulting in up to 30% higher productivity.



Accessing Machining Knowledge made EASY

With NOVO™, tool selection is done in a few minutes, instead of hours. Now that's easy, and it's free of charge!



download
it NOW!
www.kennametal.com/NOVO



One tool for all grooving, cut-off and multi-directional turning applications.

- ✓ Makes tool management EASY.
- ✓ Makes switching machining jobs EASY.
- ✓ Makes switching workpiece materials EASY.

Beyond Evolution EASY Kit

50%* OFF!

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Getting started made EASY

Order an EASY kit now and save more than 50%!*

Saving money made EASY

Machining made EASY

Active Ordering Links

Click on each part to order directly.

Beyond Evolution EASY kit with square shank holder



All kits with square shank holders feature Active Coolant Control. Kit contains 1 holder, 10 GUP positive geometry groove and turn inserts, and 10 GUN negative geometry groove and turn inserts.

10x



GUP

+

10x



GUN

Beyond Evolution EASY kit with cut-off blade

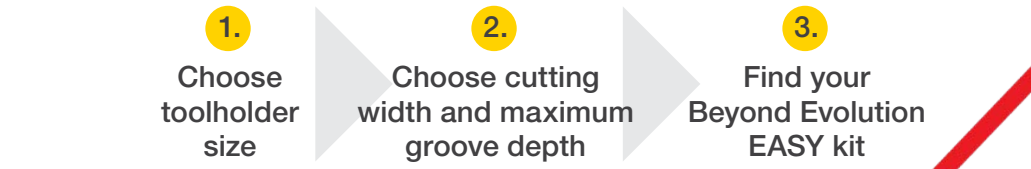


Kit contains 1 blade and 10 cut-off inserts.

10x



CF



TOOLHOLDER SIZE – INCH GROOVE WIDTH – INCH MAX. GROOVE DEPTH – INCH		1.	2.	3. ORDER THIS	KIT ORDER NUMBER	SPECIAL KIT PRICE
		0.75 x 0.75	0.130		BE-EASY-KIT1009	\$149
		0.130	0.63		6091602	
		0.75 x 0.75	0.130		BE-EASY-KIT1010	\$149
		0.130	0.87		6091603	
		1.0 x 1.0	0.130		BE-EASY-KIT1011	\$159
		0.130	0.63		6091604	
		1.0 x 1.0	0.130		BE-EASY-KIT1012	\$159
		0.130	1.02		6091605	
		1.0 x 1.0	0.192		BE-EASY-KIT1013	\$159
		0.63	0.63		6091606	
		1.0 x 1.0	0.192		BE-EASY-KIT1014	\$159
		0.63	1.02		6091607	
		1.25 x 1.25	0.192		BE-EASY-KIT1015	\$169
		0.192	1.02		6091608	
		1.25 x 1.25	0.192		BE-EASY-KIT1016	\$169
		1.26	1.26		6091609	

GET THAT		
QTY	COMPONENT DESCRIPTION	ORDER NUMBER
1	Right hand square shank holder - 0.75 inch	5939462
10	Grooving insert - width 0.130 inch - GUN geometry - KCU25	5941096
10	Grooving insert - width 0.130 inch - GUP geometry - KCU25	5941094
1	Right hand square shank holder - 0.75 inch	5939461
10	Grooving insert - width 0.130 inch - GUN geometry - KCU25	5941096
10	Grooving insert - width 0.130 inch - GUP geometry - KCU25	5941094
1	Right hand square shank holder - 1 inch	5939458
10	Grooving insert - width 0.130 inch - GUN geometry - KCU25	5941096
10	Grooving insert - width 0.130 inch - GUP geometry - KCU25	5941094
1	Right hand square shank holder - 1 inch	5939457
10	Grooving insert - width 0.130 inch - GUN geometry - KCU25	5941096
10	Grooving insert - width 0.130 inch - GUP geometry - KCU25	5941094
1	Right hand square shank holder - 1 inch	5939456
10	Grooving insert - width 0.192 inch - GUN geometry - KCU25	5941100
10	Grooving inserts - width 0.192 inch - GUP geometry - KCU25	5941099
1	Right hand square shank holder - 1 inch	5939455
10	Grooving insert - width 0.192 inch - GUN geometry - KCU25	5941100
10	Grooving inserts - width 0.192 inch - GUP geometry - KCU25	5941099
1	Right hand square shank holder - 1.25 inch	5939454
10	Grooving insert - width 0.192 inch - GUN geometry - KCU25	5941100
10	Grooving inserts - width 0.192 inch - GUP geometry - KCU25	5941099
1	Right hand square shank holder - 1.25 inch	5939463
10	Grooving insert - width 0.192 inch - GUN geometry - KCU25	5941100
10	Grooving inserts - width 0.192 inch - GUP geometry - KCU25	5941099

BLADE SIZE – INCH CUTTING WIDTH – INCH MAX. GROOVE DEPTH – INCH		1.	2.	3. ORDER THIS	KIT ORDER NUMBER	SPECIAL KIT PRICE
		1.02	0.118		BE-EASY-KIT1017	\$89
		0.118	1.57		6091670	
		1.26	0.118		BE-EASY-KIT1018	\$99
		0.118	1.96		6091741	
		1.02	0.158		BE-EASY-KIT1019	\$89
		0.158	1.57		6091742	
		1.26	0.158		BE-EASY-KIT1020	\$99
		1.96	1.96		6091743	

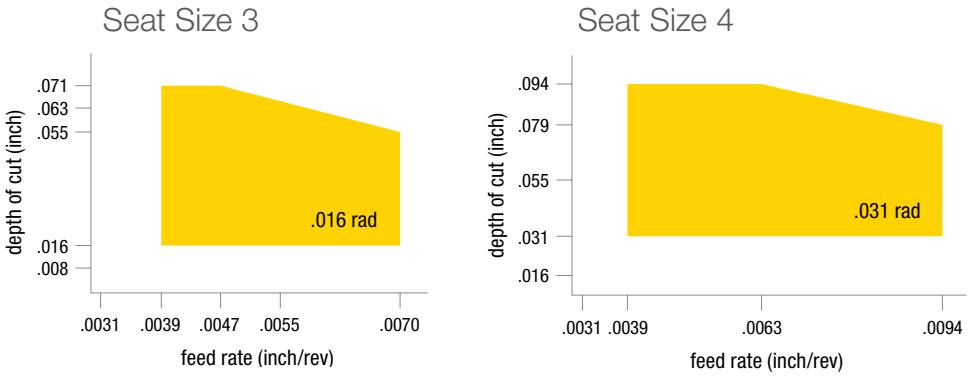
GET THAT		
QTY	COMPONENT DESCRIPTION	ORDER NUMBER
1	Cut-off blade - 1.02 inch	5941722
10	Cut-off insert - width 0.118 inch - neutral - CF geometry - KCU25	5941073
1	Cut-off blade - 1.26 inch	5941725
10	Cut-off insert - width 0.118 inch - neutral - CF geometry - KCU25	5941073
1	Cut-off blade - 1.02 inch	5941723
10	Cut-off insert - width 0.158 inch - neutral - CF geometry - KCU25	5941076
1	Cut-off blade - 1.26 inch	5941726
10	Cut-off insert - width 0.158 inch - neutral - CF geometry - KCU25	5941076

Maximum feed rate values

MATERIAL GROUP	FEED FACTOR
M	.8
N	1.2
S	.8




Feed rate data on left is for P and K material groups. Maximum feed rates should be adjusted by multiplying max feed rate values by following factors for shown material groups.

Multi-directional turning feed rates






*Savings compared to sum of kit component list prices. Offer cannot be combined with other discounts/offers. Offer ends June 30, 2016. Only available through participating distributors.




GUP is the positive grooving chip breaker that lowers cutting forces.

GUP CHIP BREAKER	SEAT SIZE	CORNER RADIUS INCH	FEED RATE STARTING CONDITIONS INCH	PLUNGE FEED RATES INCH/REV
	3	.016	.0043	
	4	.031	.0059	

GUN is the negative grooving chip breaker that allows for more aggressive applications.

GUN CHIP BREAKER	SEAT SIZE	CORNER RADIUS INCH	FEED RATE STARTING CONDITIONS INCH	PLUNGE FEED RATES INCH/REV
	3	.016	.0043	
	4	.031	.0059	

CF is the cut-off chip breaker that provides excellent surface finishes.

CF CHIP BREAKER	SEAT SIZE	FEED RATE STARTING CONDITIONS INCH	CUT-OFF FEED RATES INCH/REV
	3	.0035	
	4	.0043	

Recommended starting speeds (SFM) by material group for grade KCU25

NOTE: FIRST choice starting speeds are in bold type. As average chip thickness increases, speed should be decreased.

		KCU25		
		MIN	MAX	
P Steel	0-1	360	740	880
	2	360	520	640
	3	360	410	640
	4	200	290	440
	5	320	530	680
M Stainless Steel	6	280	400	600
	1	300	550	800
	2	300	500	800
K Cast Iron	3	300	450	700
	1	320	480	640
	2	240	400	560
N Non-Ferrous	3	160	280	400
	1-2	400	1440	2560
	3	—	—	—
	4	320	960	1600
	5	240	440	640
S High Temp Alloys	6	320	560	800
	1	25	125	200
	2	25	100	250
	3	50	125	250
	4	25	175	350



GROOVING, CUT-OFF, AND MULTI-DIRECTIONAL TURNING MADE...



That's Beyond™ Evolution™
That's Different Thinking