

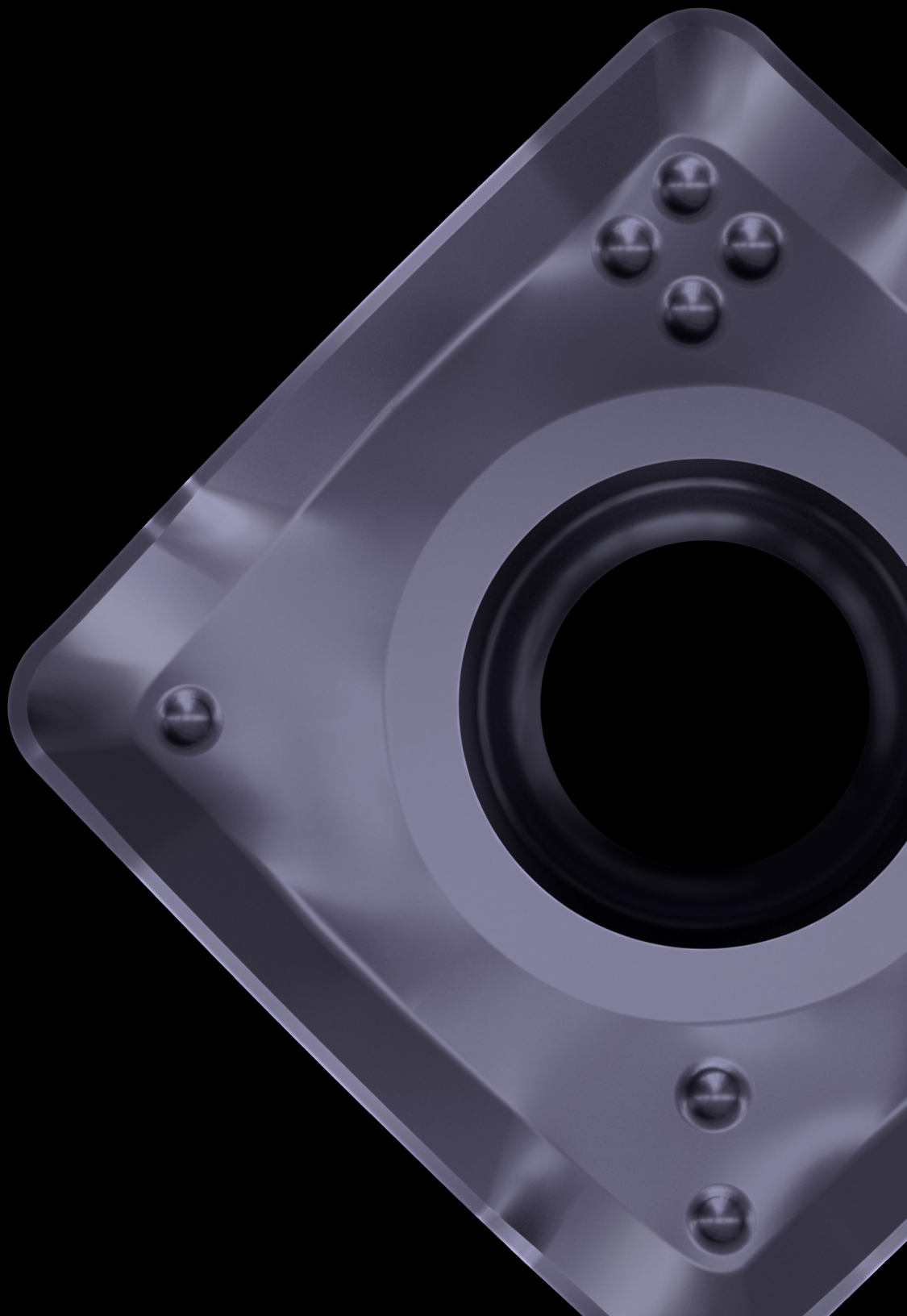
Indexable steel milling grade GC1230

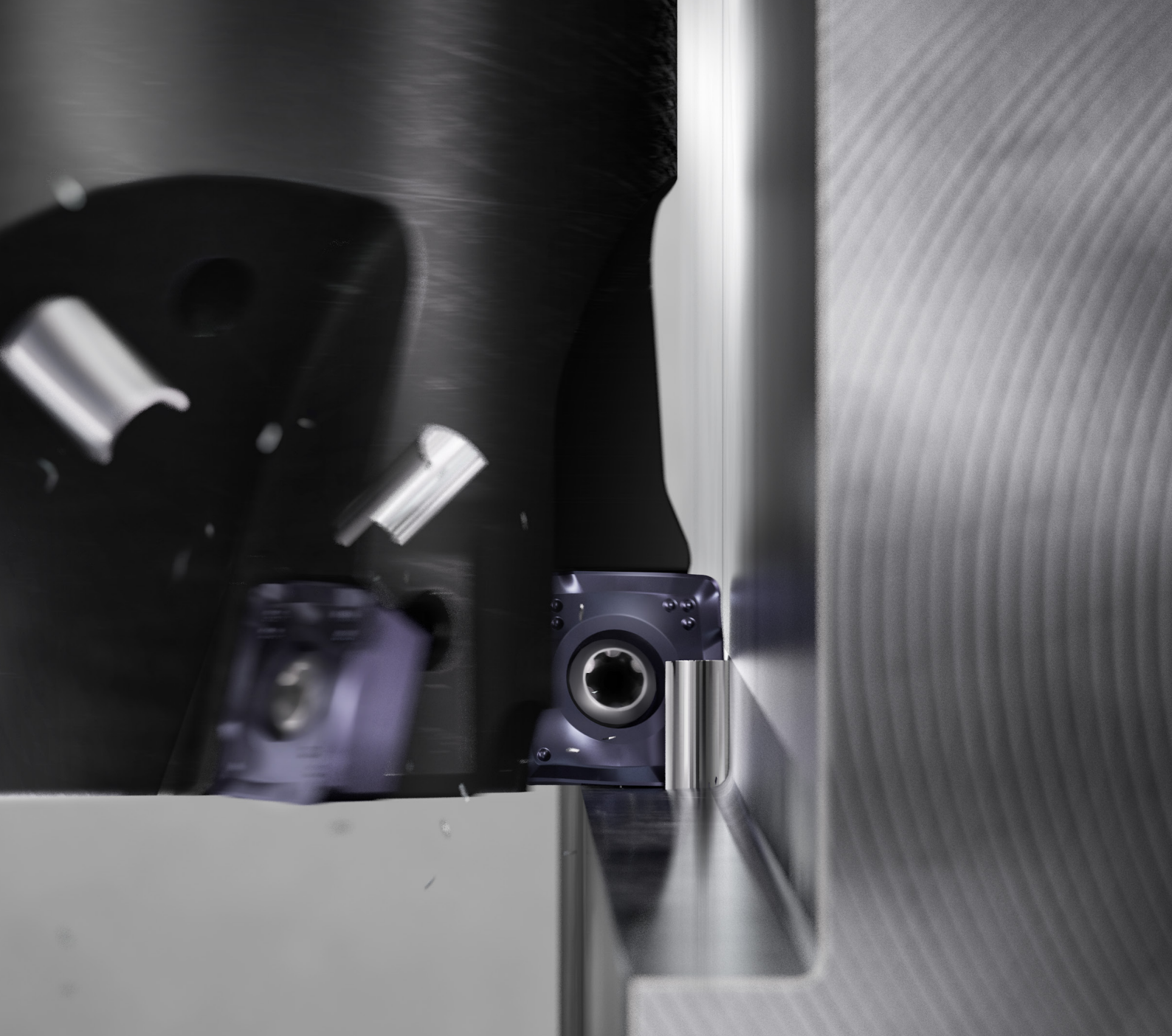
Milling power unleashed

Developing a grade to excel in both edge line toughness and wear resistance is a rare feat. However, with our new steel milling grade, GC1230, we have achieved precisely that.

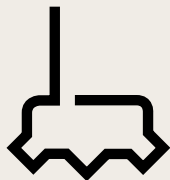
Whether you aim to extend tool life, boost productivity, or adopt a more sustainable approach in your milling operations, GC1230 stands out in all directions. It performs exceptionally well in both wet and dry conditions and is your reliable first-choice partner for milling with high metal removal rates in stable conditions.

SANDVIK
coromant



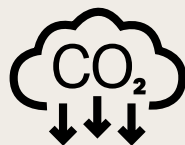


What's your approach?
We cover them all.



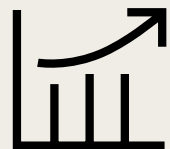
Longer tool life

The new coating of GC1230 provides unbeatable edge line toughness, resulting in a significantly extended tool life. As a result, you get more pieces per edge.



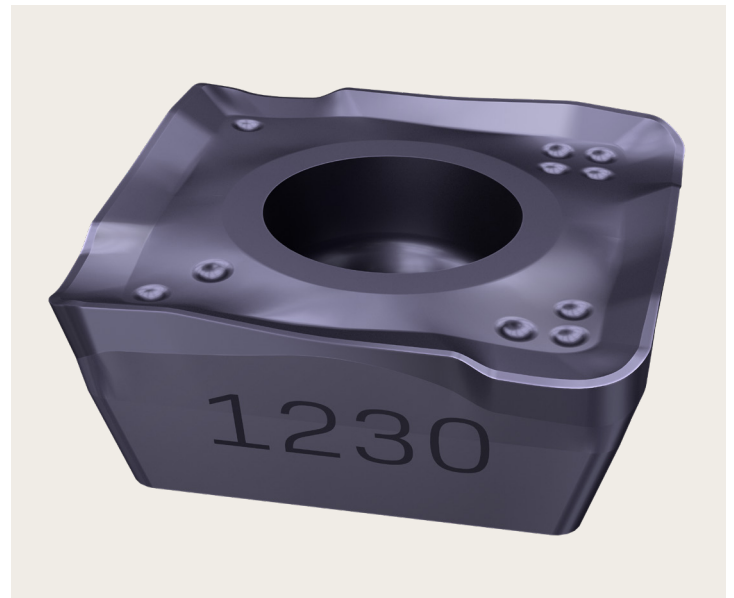
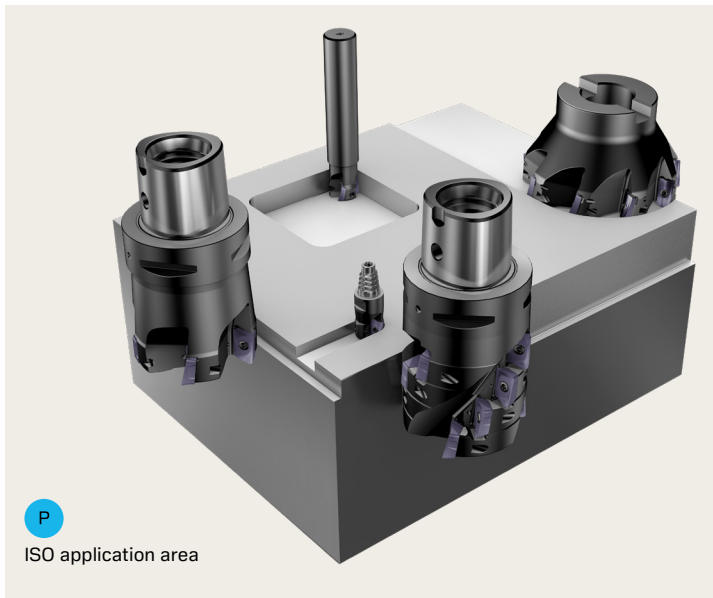
Higher productivity

With GC1230, you can maximize cutting speed to achieve high metal removal rates, significantly reducing machining and cycle times. In less time, you will produce more parts.



Minimize energy consumption

Embrace eco-friendly machining with GC1230. Its outstanding performance in dry machining conditions makes it a sustainable alternative to coolant-based methods.



Application

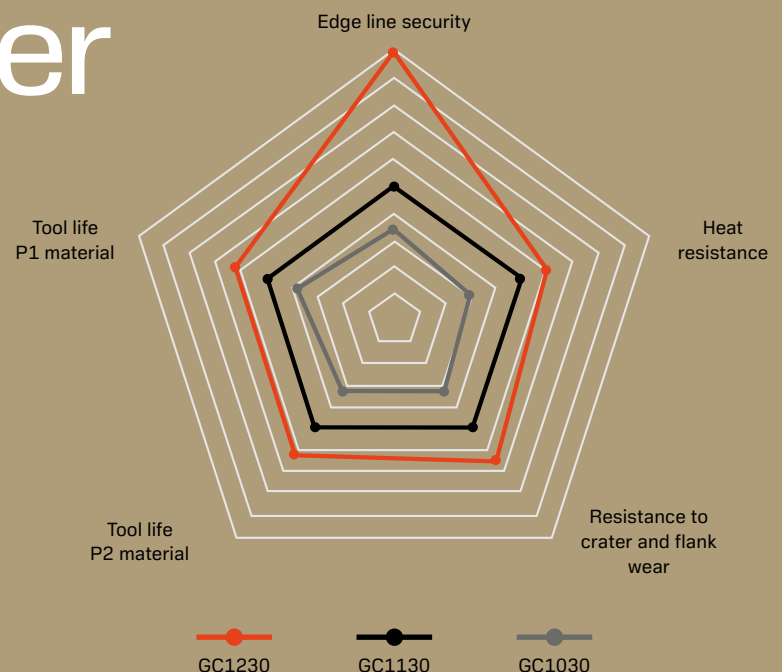
- Optimized for steel milling
- Light roughing to finishing operations
- Covers general applications to challenging applications such as square shoulder, complex tool paths and deep cavities
- Wet and dry machining conditions
- Suitable for all industry segments and various component features

Features and benefits

- Innovative nano-multilayer coating produced with recognized Zertivo® PVD coating process technology
- Superior edge line strength means increased tool life, predictability and security
- Optimized cutting-edge integrity improves wear resistance and reduces flaking and chipping
- High heat resistance enables higher metal removal rates, even in challenging applications
- Excellent performance in both dry and wet machining conditions — run dry for a more sustainable process

Strong all-over

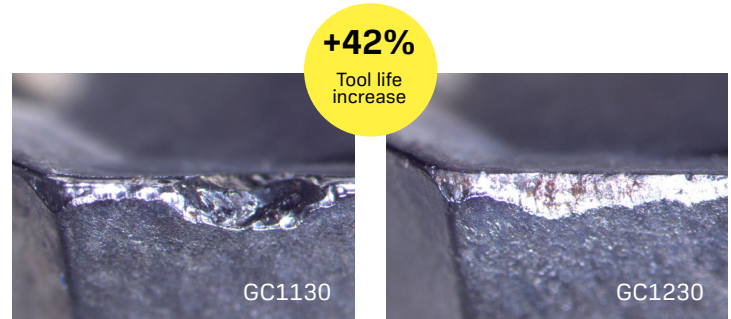
- Improvements in all directions compared to GC1130
- Improved edge line security enables GC1230 to be stronger for longer
- Elevated thermal resistance enables increased productivity through higher cutting speeds



Tool life, CoroMill® 345

Component: Mounting plate
Material: P1.1.Z.AN (S355 JOWP), 170 HB
Operation: Face milling
Machine: WBK (ISO 50)

	GC1130	GC1230
Tool	345-125Q40-13M	345-125Q40-13M
Insert	345-1305M-PM GC1130	345-1305M-PM GC1230
DCX, mm (inch) / z_n	125 (5.0) / 8	125 (5.0) / 8
v_c , m/min (ft/min)	228 (748)	228 (748)
f_z , mm/z (in/z)	0.095 (0.004)	0.095 (0.004)
a_p , mm (inch) / a_e	2.0 (0.078) / 80%	2.0 (0.078) / 80%
Coolant	Dry	Dry
Insert tool life, min	93	132
No of components	7	10



Result: By changing to grade GC1230, we achieved a 42% increase in tool life. Additionally, cutting data can be increased to reduce energy consumption while maintaining the same tool life as GC1130.

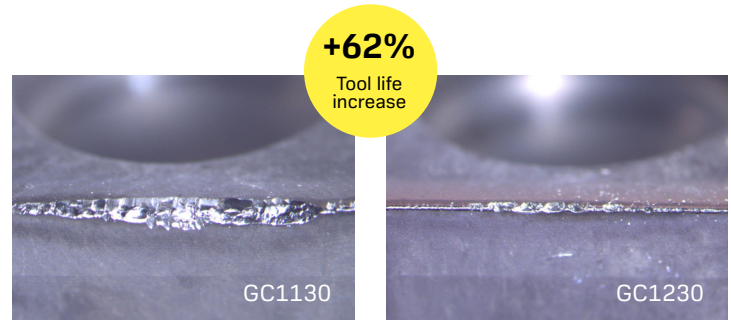
Sustainability proposition:

Decrease energy consumption and CO₂ emissions by increasing v_c with +37% (v_c 313 m/min (1027 ft/min)) for the same tool life as GC1130.

Tool life, CoroMill® 210

Component: Billet, 130×108×70 mm (5.12×4.25×2.76 inch)
Material: P1.2.Z.AN (C45), 207 HB
Operation: Face milling
Machine: DMG Mori – NHX 4000 (ISO 50)

	GC1130	GC1230
Tool	R210-032A25-09H	R210-032A25-09H
Insert	R210-090414E-PM GC1130	R210-090414E-PM GC1230
DCX, mm (inch) / z_n	32 (1.25) / 3	32 (1.25) / 3
v_c , m/min (ft/min)	242 (793)	242 (793)
f_z , mm/z (in/z)	0.25 (0.010)	0.25 (0.010)
a_p , mm (inch) / a_e	1.0 (0.043) / 100%	1.0 (0.043) / 100%
Coolant	Wet (emulsion)	Wet (emulsion)
Insert tool life, min	22	35
No of components	8	13



Result: By changing to grade GC1230, we achieved a remarkable 62% increase in tool life. Additionally, cutting data can be increased to reduce energy consumption while maintaining the same tool life as GC1130, without compromising security.

Sustainability proposition:

Decrease energy consumption and CO₂ emissions by increasing v_c with +29% (v_c 313 m/min (1027 ft/min)) for same tool life as GC1130 and advocate DRY milling.

Learn more about steel milling:
sandvik.coromant.com/steelmilling



Authorized distributor

