EFFGEN
Schleiftechnik

G-Run

Tool grinding at the highest standard

PRECISION | INNOVATION | FLEXIBILITY

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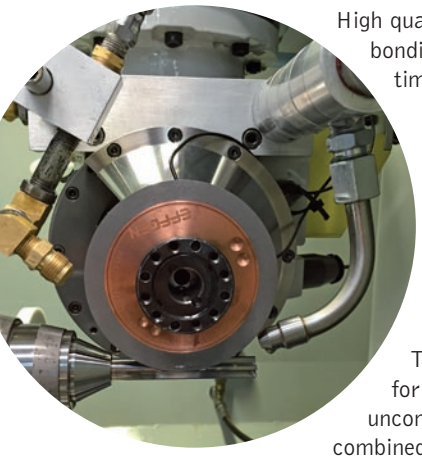
Fascinating Generation of Innovative Metalhybrid-Bonded Grinding Tools

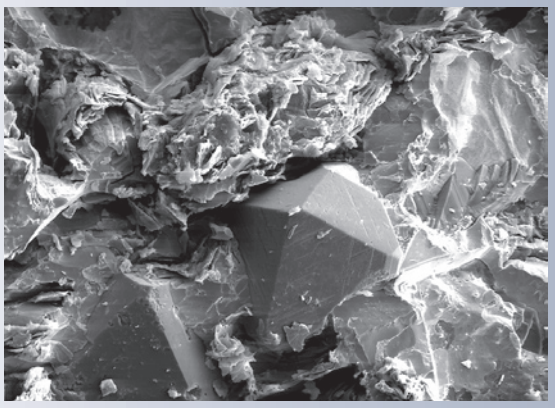


High quality demands on tool grinding nowadays require perfectly coordinated bonding systems, characterised by low power consumption, short process times and long service lives.

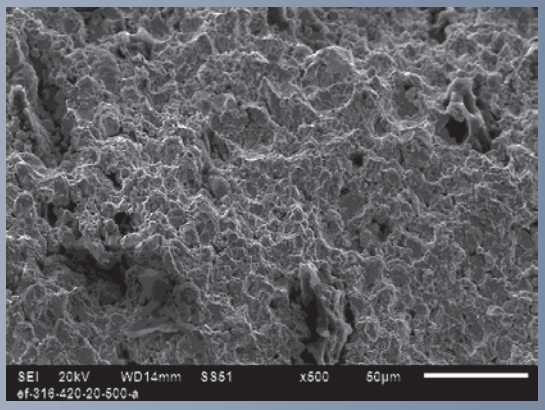
G-RUN, the newly developed product line of metal-hybrid-bonded grinding tools from EFFGEN-LAPPORT-Schleiftechnik meets these requirements in every way. Its clearly defined hard and porous microstructure comes with a diamond grain that has been specially developed for the G-Run system and delivers the best possible balance between performance and cost-effectiveness.

The diamond quality that has been specially designed for EFFGEN-LAPPORT-Schleiftechnik ensures an uncommonly high cutting capacity of the tool and, combined with its delicately coordinated abrasion performance, warrants an ongoing self-sharpening effect. Despite its low power consumption, the G-Run bonding system will keep running for very long periods of time and displays an unrivalled stability of its profile shape. The cost-effectiveness of the tool is enhanced even further by minimised dressing cycles and high feed rates. The hardness of the bond can be customised from case to case, allowing the efficient grinding of a wide range of hard metal and cermet grades at a consistently high level.

A mature manufacturing process and a motivated and experienced team of specialists ensure that the quality of all G-Run products is almost perfectly reproducible. It's what you can expect from all products made by EFFGEN-LAPPORT-Schleiftechnik.

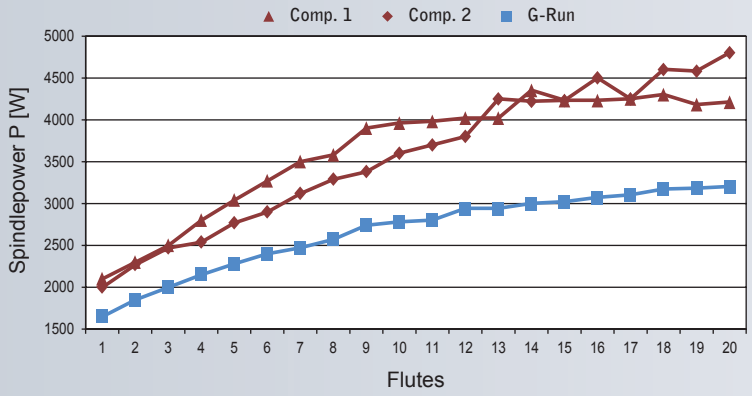


Optimal embedding of the abrasive grain ensures minimum grain failure and thus a long service life of the grinding tool. All diamond grains have received special treatment to ensure maximum performance.



The highly porous microstructure of the bond has a perfectly free-cutting surface with a superb self-sharpening effect.

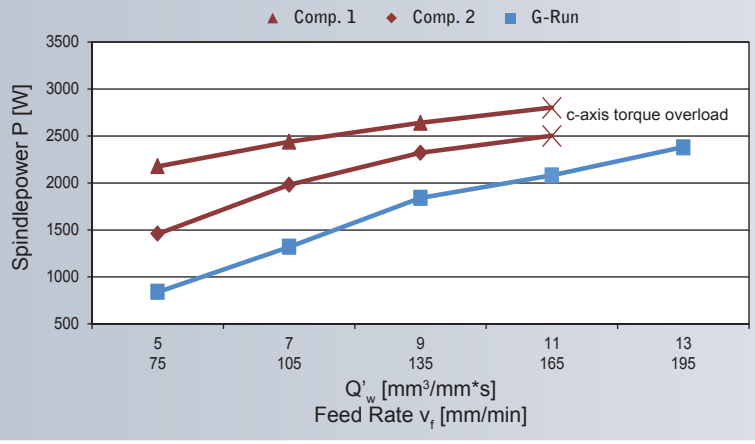
Spindlepower: Competitors Metalhybrid vs. G-Run



Walter Helitronic Vision, Coolant Oil
Carbide K30, Ø 20 mm
Helix 30°, Lenght 35 mm
FEPA: 1A1-100-10-10 D54 C100
a_e = 7 mm, v_f = 35 mm/min, Counterclockwise
v_c = 14 m/s G-Run, 16 m/s Competitors

The required spindle power remains at a low level through the entire usage spectrum, even without sharpening, so that G-Run performs significantly better than any competing products. Moreover, the low energy requirement ensures the coolest possible grinding performance.

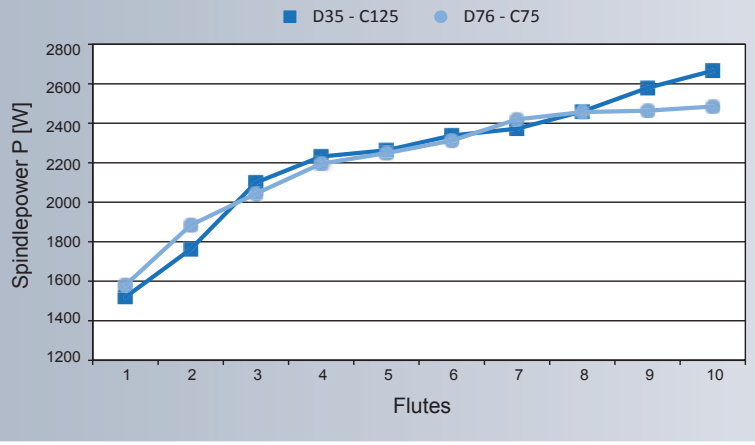
Q'$_w$ and Feed Rate: Competitors Metalhybrid vs. G-Run



Anca RX7, Coolant Oil
Carbide K30, Ø 12 mm
Straight Flute, Length 70 mm
FEPA: 1A1-100-10-10 D54 C100
a_e = 4 mm, a_p = 4 mm
v_f = 75 – 195 mm/min, Counterclockwise
v_c = 14 m/s G-Run, 16 m/s Competitors

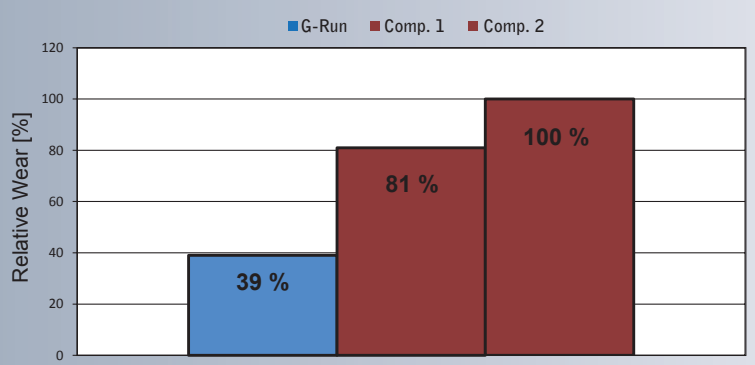
Due to the high self-sharpening effect of the G-Run, the specific power consumption of the grinding spindle remains low, even when the Q'$_w$ values are high. This ensures reliable grinding performance under optimised everyday production conditions.

Performance Comparison G-Run: D35-C125 vs. D76-C75



A direct comparison of the D76-C75 and the D35-C125 shows the outstanding qualities of the innovative G-Run system which excels with its highly porous and thus very open bond structure. When combined with a diamond grain that has been specially developed for the G-Run, applications are possible within a wide range of grain sizes and concentrations. This has a direct impact on the target levels of surface roughness and chipping on the cutting edges.

Relative Wear Metalhybrid Bonds G-Run vs. Competitors



Despite the lowest possible spindle power, the G-Run provides a harder bond than competing products. This hardness is reflected in the level of wear and tear on the bond and in edge stability. Thanks to long profiling intervals and service lives, the cost-effectiveness and price-performance ratio are excellent.

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Effgen stock program G-RUN-SERIES

Diamond peripheral wheels	Bore hole	Id.-No.
1A1-100-10-10-G-RUN-FLUTE-DX 54-C100	20H6	161 290
1A1-125-10-10-G-RUN-FLUTE-DX 54-C100	20H6	160 459

Diamond profile wheels	Bore hole	Id.-No.
1V1-100-10-10-W15-G-RUN-FLUTE-DX 54-C100	20H6	164 630
1V1-100-10-10-W30-G-RUN-FLUTE-DX 54-C100	20H6	164 633
1V1-100-10-10-W45-G-RUN-FLUTE-DX 54-C100	20H6	164 631
1V1-100-12-10-W15-G-RUN-FLUTE-DX 54-C100	20H6	164 627
1V1-100-12-10-W30-G-RUN-FLUTE-DX 54-C100	20H6	164 628
1V1-100-12-10-W45-G-RUN-FLUTE-DX 54-C100	20H6	164 629
1V1-100-15-10-W15-G-RUN-FLUTE-DX 54-C100	20H6	164 623
1V1-100-16-10-W30-G-RUN-FLUTE-DX 54-C100	20H6	164 625
1V1-100-16-10-W45-G-RUN-FLUTE-DX 54-C100	20H6	164 626
1V1-125-16-10-W15-G-RUN-FLUTE-DX 54-C100	20H6	164 634
1V1-125-16-10-W30-G-RUN-FLUTE-DX 54-C100	20H6	164 635
1V1-125-16-10-W45-G-RUN-FLUTE-DX 54-C100	20H6	164 636

Diamond cup wheels	Bore hole	Id.-No.
11V9-100-2-10-G-RUN-EDGE-DX 54-C100	20H6	164 637
11V9-100-3-10-G-RUN-EDGE-DX 54-C100	20H6	161 292
12V9-100-2-10-G-RUN-EDGE-DX 54-C100	20H6	164 639
12V9-100-3-10-G-RUN-EDGE-DX 54-C100	20H6	164 638
12V9-125-2-10-G-RUN-EDGE-DX 54-C100	20H6	161 293
12V9-125-3-10-G-RUN-EDGE-DX 54-C100	20H6	160 454

Dressing sticks/dressing wheels			Id.-No.
100 x 25 x 13	180/1 D10 V5000Z (EK/W)	dressing stick	161 317
200 x 10 x 51	Shape 1 SCG 120/1 J8 V3000Z	dressing wheel	169 111
200 x 15 x 51	Shape 1 SCG 120/1 J8 V3000Z	dressing wheel	164 820
200 x 10 x 32	Shape 1 SCG 120/1 J8 V3000Z	dressing wheel	165 147
200 x 20 x 32	Shape 1 SCG 120/1 J8 V3000Z	dressing wheel	165 148

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