

ALUMINIUM cutting

Milling and drilling tools with KOMET RHOBEST NanoDiamond coating – improvement of the economy of machining aluminium and aluminium-alloys

The diamond film provides the coated tools with the excellent properties of diamond. Within the last years the NCD-coating DIA-Aluminium was developed and optimised. Today DIA-Aluminium is established on the market and demonstrates customer advantages enhancing the efficiency and productivity of the processes clearly:

Your PLUS:

- extreme hardness and highest wear resistance leading to increased lifetimes
- very smooth surfaces and controlled thickness - thus required dimensional accuracy and tolerances are met
- KOMET RHOBEST process guarantees preservation of the true running
- coated materials: tungsten carbide, ceramics
- higher cutting parameters (feed, speed, ...)
- tailoring of the surface: improvement of chip forming, reducing of sticking – thus prevention of built-up edges

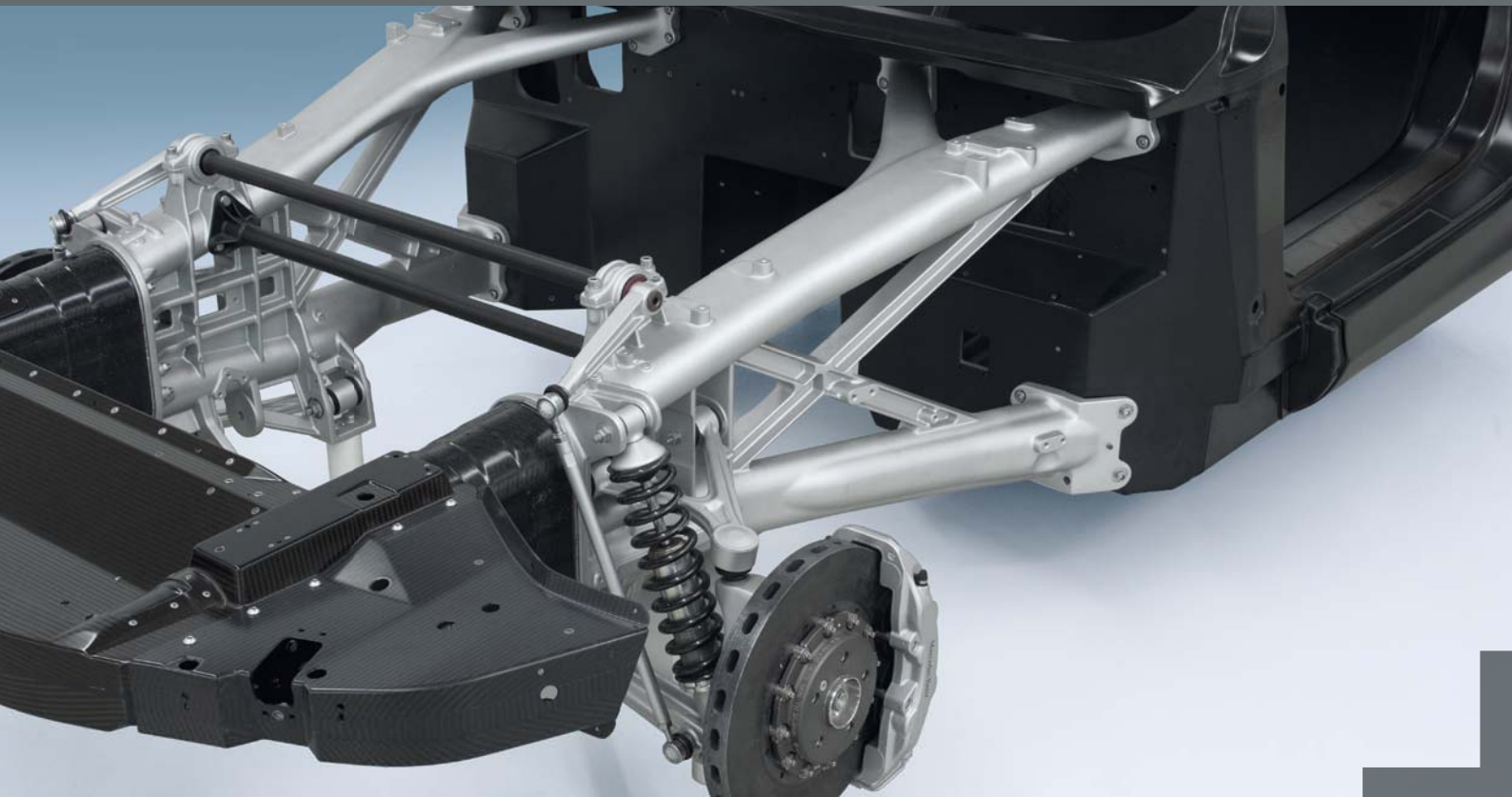
For application in industrial production this means:

- reduced tool costs
- reduced machining time
- extended maintenance interval
- reduced set-up and maintenance costs
- reduced reconditioning of the surface of the finished component

Customer Examples:

1. **fabrication of chassis parts in motor sports:** aluminium with 25% silicon-content leading to improved economy and profitability
2. **deep-hole drilling of engine blocks:** increase of feed and life time

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COMPOSITE cutting

Milling and drilling tools with KOMET RHOBEST NanoDiamond coating – improvement of the economy of machining carbon- and glass fibre reinforced materials

The diamond film provides the coated tools with the excellent properties of diamond.
 Today DIA-Composite is launched on the market and demonstrates customer advantages enhancing the efficiency and productivity of the processes clearly:

Your PLUS:

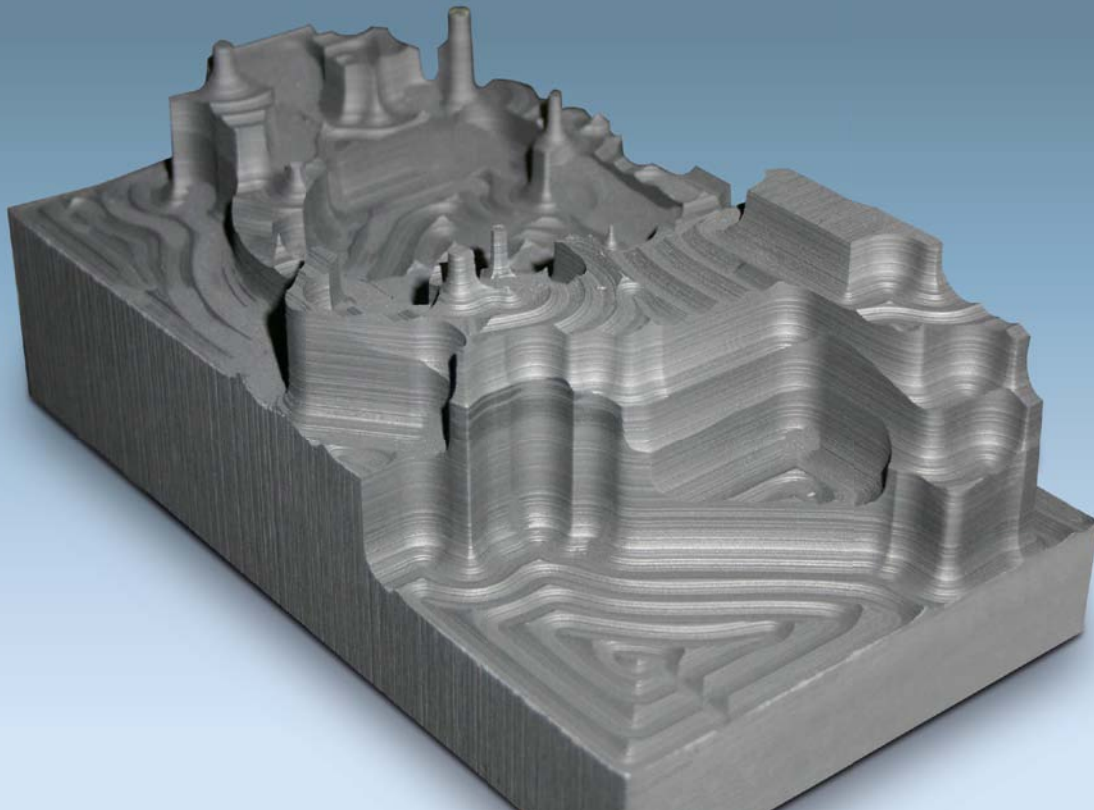
- extreme hardness and highest wear resistance leading to increased lifetimes
- very smooth surfaces and controlled thickness - thus required dimensional accuracy and tolerances are met
- coated materials: tungsten carbide, ceramics
- higher cutting parameters
- higher quality of the finished surface of the component

For application in industrial production this means:

- reduced tool costs
- reduced machining time
- extended maintenance interval
- reduced set-up and maintenance costs
- high reliability

Customer Examples:

1. **Web-cut of carbon-fibre composites:** doubling of feed – bisection of cutting time
2. **peek-pitch (45% glass fibre):** increase of life time of milling tools by factor 10
3. **PCB:** increase of life time by factor 4
4. **drilling of composite (carbon-fibre/aluminium/titanium – composite):** increase of life time by factor 8



GRAPHITE drilling

**Milling and drilling tools with KOMET RHOBEST
NanoDiamond coating – improvement of the economy of
machining graphite (moulds, electrodes)**

The diamond film provides the coated tools with the excellent properties of diamond.

The NCD-coating DIA-Graphite was developed and optimised to meet the special needs of our customers. Today DIA-Graphite is established on the market and demonstrates customer advantages enhancing the efficiency and productivity of the processes clearly:

Your PLUS:

- extreme hardness and highest wear resistance leading to increased lifetimes
- KOMET RHOBEST process guarantees preservation of the true running
- higher cutting parameters
- higher quality of the finished surface of the component
- very smooth surfaces and controlled thickness - thus highest dimensional accuracy and tolerances are met

For application in industrial production you will get:

- reduced tool costs
- reduced machining time
- extended maintenance interval
- reduced set-up and maintenance costs
- high reliability

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