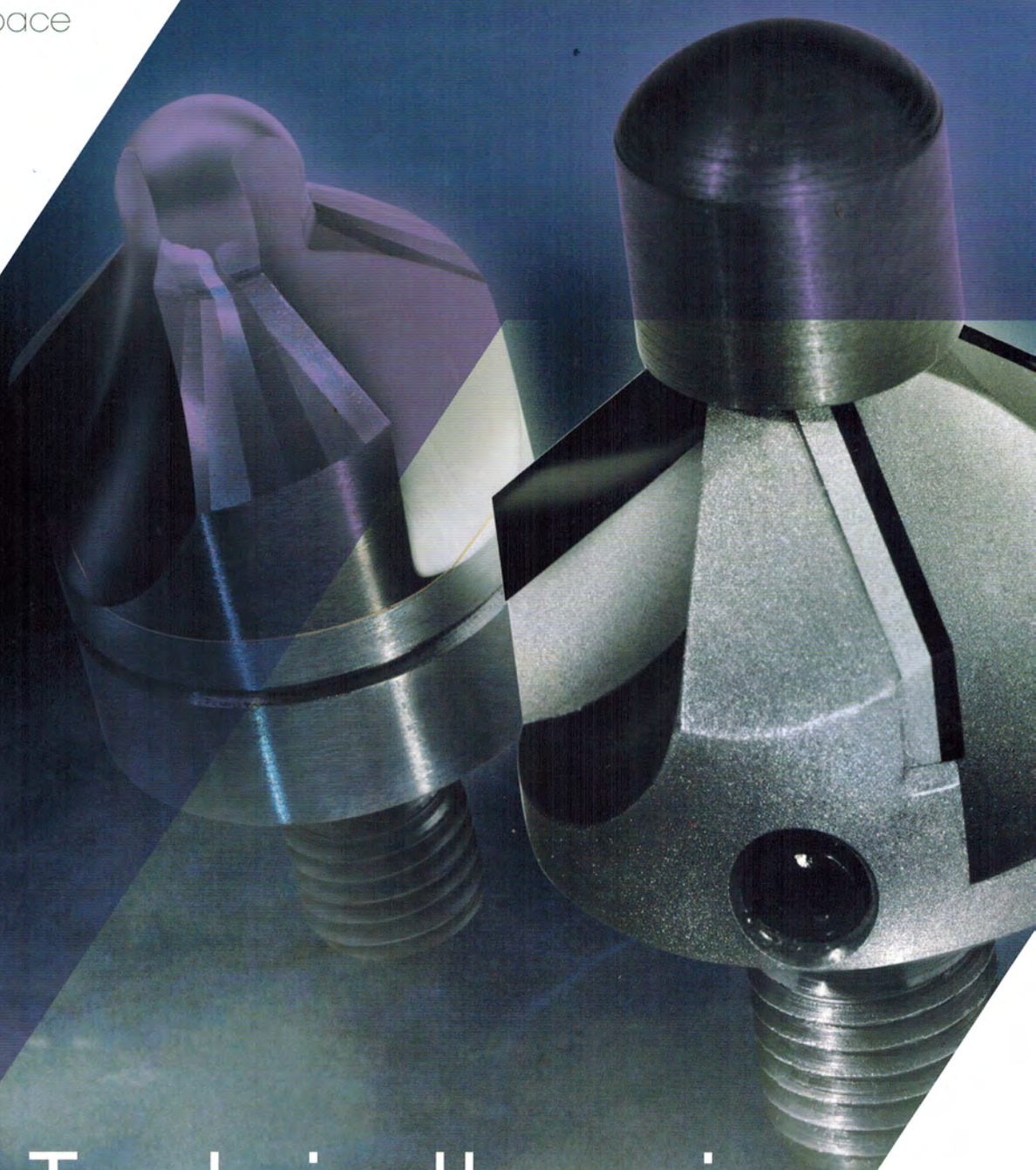




Diamond Tools  
For the aerospace  
industry



High Tech in the air

*Company profile - Aerospace products*

# Rotary cutting tools for the aerospace industry

Since 1959, Fiudi is a leader in manufacturing diamond tools. In recent years the company has developed tooling for composites and aerospace materials.

We have the capacity to manufacture tools based on the customer's specifications as well as to design tooling with the avail of our highly experienced engineering staff. We can produce steel, titanium and carbon fiber tools.

**Work with Fiudi, you will not regret it.** In the catalog you will find a selection of Fiudi technologies used by our customers in order to reduce cycle time and hence the manufacturing costs. We offer the most comprehensive range of metal cutting PCD tools, our solutions are among the most innovative and adaptable in the aerospace industry. Even though the new composite materials and alloys become more difficult to work with, our solutions for milling, turning and threading continue to set the standard.

Fiudi optimizes the technical solutions by creating standard and specific tools for the machining of:

- Steel
- Titanium
- Composite Materials

## DRILLS



Fiudi has developed new tools in order to prevent delamination and fiber projections during hole machining of new materials such as CFRP and GRFP - Composite metallic multilayers (titanium and aluminium).

At its Italian production sites the company manufactures all types of HSS and PCD special tools:

- Carbide Countersink Cutters
- HSS Countersink Cutters
- PCD Countersink Cutters
- PCD Countersink with integrated pin
- PCD Counterbores
- PCD Reamers
- PCD Drills Countersink

Fiudi is the reliable partner you can count on.

We offer speedy and professional worldwide support to each and everyone of our customers, for all needs.

### Try it yourself.

We work in collaboration with our customers in order to implement their every request, manufacturing both standard and special tools with the best results in terms of quality, promptness and resource optimization.

“ Try to leverage our know-how, we guarantee you will never look back.

## CUTTERS FOR CFRP

The tungsten carbide cutters are used for cutting hard materials such as carbon fibers.



## COUNTERSINK CUTTERS / CUTTERS FOR CFRP

For the aerospace industry Fiudi offers a range of cutting-edge products such as milling cutters on the countersink and finish operations.

These tools stand out for their optimal cutting yield. In addition, by using them, you prevent product edge delamination and achieve shorter machining time and longer tool life, without costly rework.

Fiudi manufactures PCD Countersink for composite materials and Carbon Fibre Reinforced Plastics (CFRP). High quality PCD provides a superior surface finishing of composite materials requiring minimal effort from the operator. The superior PCD characteristics ensure the extended tool life of these cutters.

### COUNTERSINK CUTTERS



HSS Countersink  
Cutter



Solid Countersink  
Cutter



PCD Countersink  
Cutter z = 2



PCD Countersink  
Cutter z = 3

PCD Integral-Piloted  
Countersink

Countersinks/  
Radius Tools

### FINISHING MILLING



Contouring/Chamfer  
Cutter



Roughing Milling  
Cutter z = 2



Contouring/Radius  
Tools



Roughing Milling  
Cutter z = 3

## ELECTROPLATED TOOLS

Electroplated (E.P.) tools are produced by a special process that secures grains of abrasive – in our case DIAMOND / CBN (cubic boron nitride) into a metal surface.

With this procedure, the abrasive grains remain partially exposed, a fact which permits high metal removal rates, constant tool profile, long tool life and low operating costs.



Diamond Disc

Electroplated diamond  
saw blade for cutting  
composite materials  
diameter 125



Electrodeposited  
diamond bur

With propellers exhaust  
diameter for face milling of  
composite materials 25.4



Electrodeposited  
diamond bur

With propellers exhaust  
contouring of composite  
materials diameter 6.35



Electrodeposited  
diamond bur

With propellers exhaust  
contouring of composite  
materials diameter 12.7

## OUR EXPERIENCE:

- Cabin doors, portholes (hand mill z2-z3)
- Bevel and fitting countersink
- Seats
- Seats anchoring systems
- Wings (flattening and contouring, no internal excavation)
- Helicopter parts aluminium
- Compound dividers

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