NaDia

DIAMOND COATING SOLUTIONS

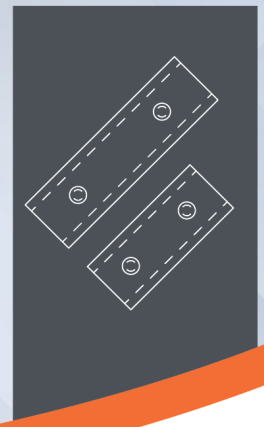
A diamond layer that extends life

FRICTION REDUCTION

INCREASE OF LASTING

BETTER FINISH

TRY IT ON
STANDARD
AND PROFILED
KNIVES

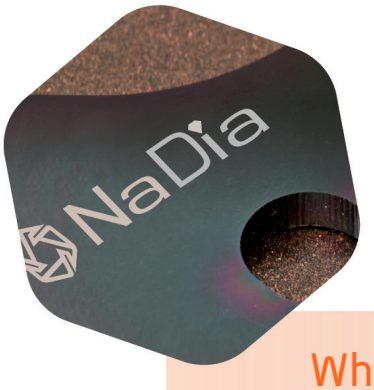


TWT

HIGH TECH TOOLS

NaDia

DIAMOND COATING SOLUTIONS



How it's done

The DLC is an innovative carbon-based coating with a wide range of applications that allows to face the problems related to abrasion, sliding and chemical aggression.
The high hardness comes from the simultaneous presence of sp2 hybridized carbon (graphite) and sp3 (diamond).

Why TWT has invested in the project

The costs of carbide inserts in recent years have more than doubled.
TWT's commitment is to be at the side of its customers by helping them maximize their profits. The study undertaken has allowed us to strongly increase the performances of the inserts in HW bringing the ratio of used inserts / pieces produced to levels never achieved before.

Why choose NaDia

During the working process, a prolonged contact of the insert with the machined wood surface, a wear phenomena arise due to mechanical action (fig. 1). The rounding of the cutting edge causes the decay of the cutting finish and therefore a lower quality of the product. Related consequences: greater engine effort during processing and greater energy absorption.

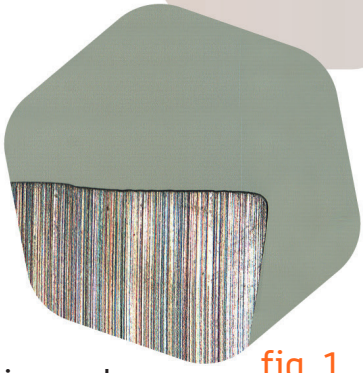
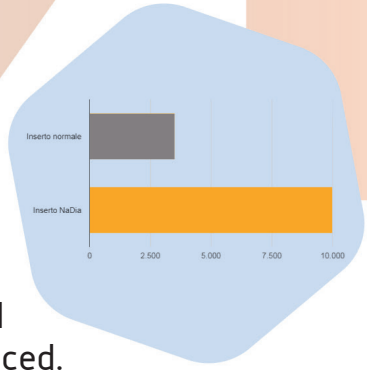


fig. 1

Looking at the coated insert (fig. 2), with the same number of meters worked, there is a lower consumption of the cutting edge. The advantage that the NaDia coating conferred to the insert is a considerably slow down of all the normal wear and tear process.

fig. 2

The coating also acts as a protective shield against chemical wear damage. By working wood with the presence of tannic acid, such as oak, the chamfering takes place both by mechanical action and by chemical action.
The benefits offered by NaDia treatment are several. It passes from a longer duration and better finish guaranteed by a very low friction coefficient, up to a drastic reduction of maintenance operations and inserts changes. In this way the machine stops are considerably reduced.
The cutting yield exceeds 250% in percentage, even reaching values of 300%.



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