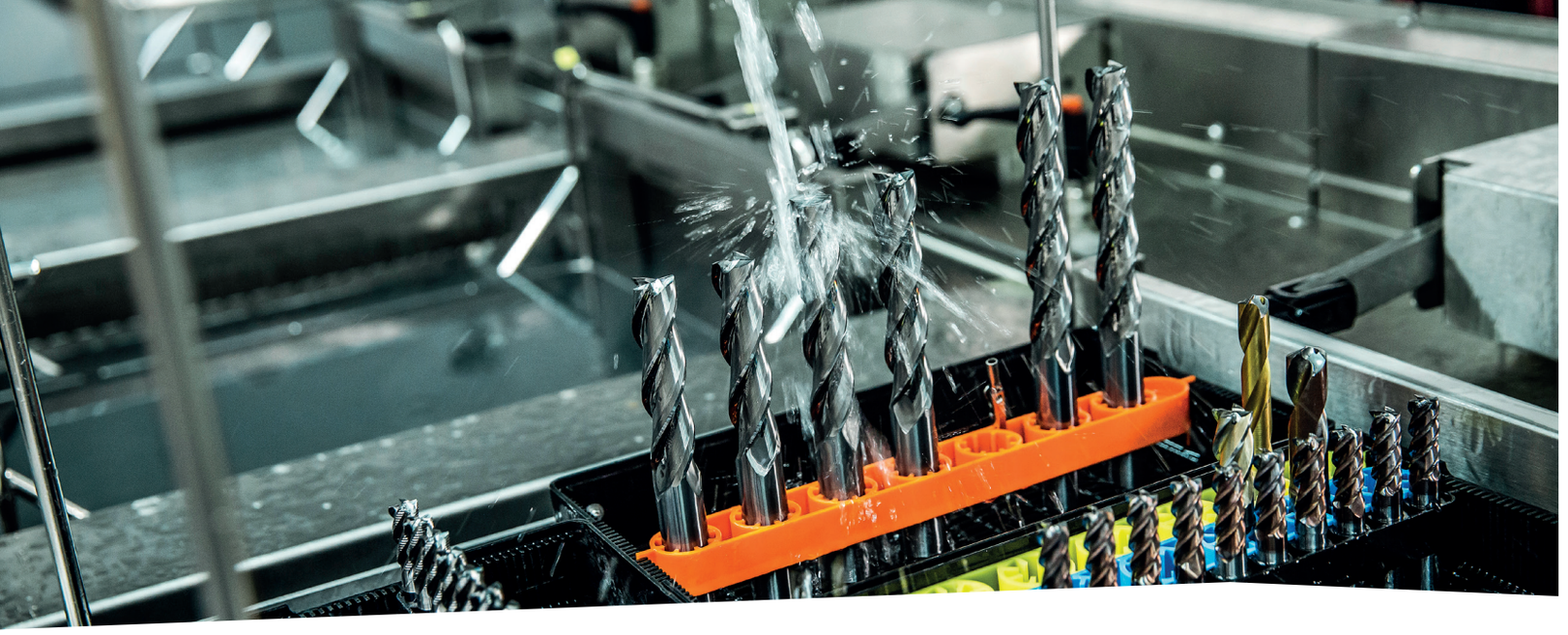

TiCN-22

Titanium Carbonitride

Processing of stainless steel
TiCN-22 is a hard coating, which historically has been developed as a supplement to TiN, and is intended for jobs with a higher mechnical load. Today, this coating is used for processing of steel and especially its ability to inhibit sticking/adhesion makes it well-suited for processing of stainless steel.

TiCN-22 is used for cutting processes such as milling and drilling, where adhesion and built-up edging cause problems like inferior surface quality and reduced tool life.

However, the coatings are mainly used for piercing, punching, bending and other forming operations, where the problem is adhesion of stainless steel.

The tool life can be significantly improved or the cutting speed can be increased without having impact on the service life compared to an uncoated tool.

TiCN-22
Our TiCN-22 is an upgrading of the tradtional TiCN coating. It is built up in more layers with diferrent properties, a so-called multilayer coating.

The multilayer structure increases the strength and ductility and thus the ability to follow the tools' deformation under load without creating cracks in the coating.

TiCN-22 has unique properties for forming operations of stainless steel and other high-alloyed metals with a pronounced tendency to stick to the tool surface.

When coating the tool surface with TiCN-22, the risk of pick up on the tool and of scratches on the part is minimised.

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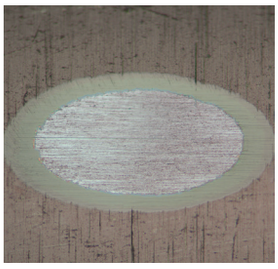
QUALITY SYSTEM CERTIFICATION
DNV
ISO 9001

DANISH
TECHNOLOGICAL
INSTITUTE

TiCN-22

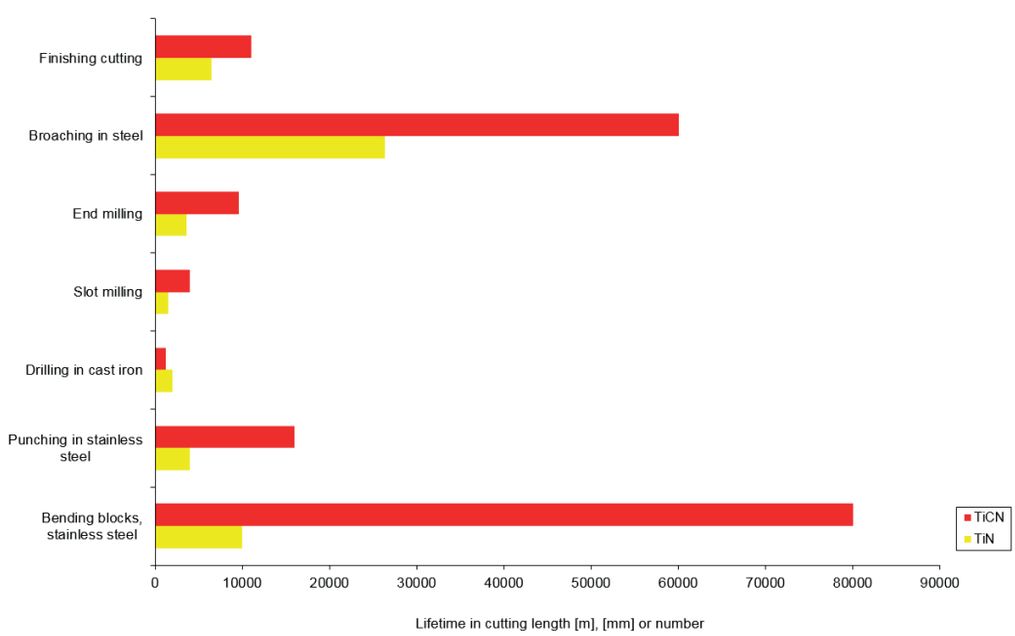
Titanium Carbonitride

Colour: Reddish brown



PRODUCT VARIATIONS	TiCN-22
Micro hardness [HV]	Approx. 3000
Process temperature [°C]	450
Application temperature, max. [°C]	600
Friction coefficient against steel	0.3
Processing method	PVD
Coating type	Multilayer
Standard layer thickness [µm]	3

Examples of increased tool life with TiCN



For clarity reasons, specific operation details are not included. The figure is based on actual operation data received from our customers. The chart is to be considered only as an illustration of the increased functionality achieved when using the TiAlN coatings.

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