



www.hittech.com | www.norsktitanium.com

Dutch high-tech suppliership meets Norwegian innovation revolutionizing complex

RAPID PLASMA DEPOSITION (3DRPD)

Author: Koen Mentink & Nicholas Mayer

Principle

Hittech Group manufactures carrier structures for many years.

FROM 180 KG TITANIUM CHIPS TO 20 KG ADDITIVE MANUFACTURING.

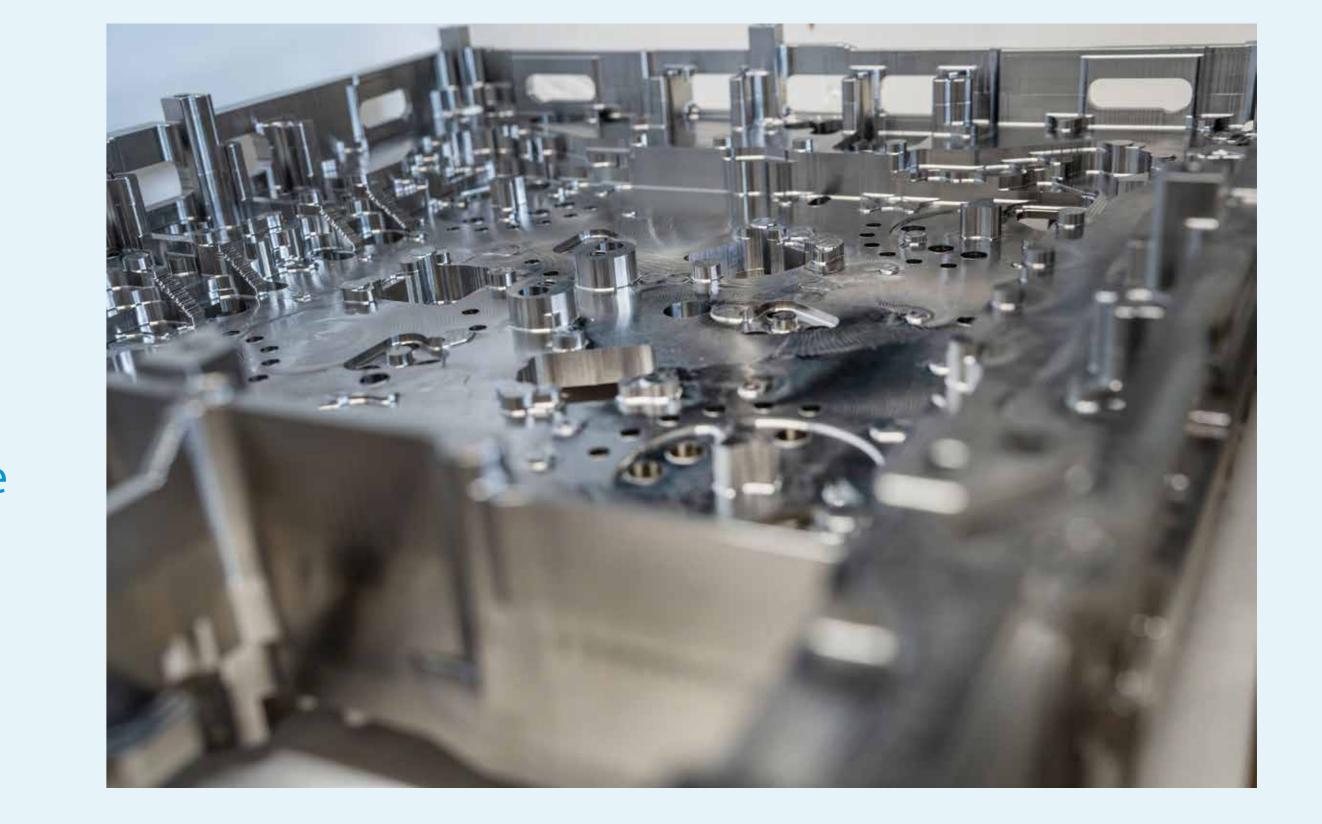
This lightweight, high-accuracy titanium structure is produced by removing 90% by extensive milling.
This product has successfully been transferred into a product realized by means of additive manufacturing.

Our Partner Norsk Titanium manufactures a pre-shape made by Rapid Plasma Deposition (3Drpd). A technology developed and qualified for aerospace. Final shape and accuracy are realized by milling.

Advantages

Cost Savings
Improved material quality with respect to homogeneity
Reduction of waste
Less energy consumption.
Through holes can be realized in one production step





Disadvantages

Examples

Convincing Customer to use a new less known technology
Learning curve at the organisation.

parts production

NORSK TITANIUM provides treatment of metals by plasma arc additive layer manufacturing. The result is greater strength and durability with an improved environmental footprint. We have developed a technology qualified for Aerospace and currently expanding to other markets offering a unique, faster and more sustainable way of complex parts production.

HITTECH GROUP is the system supplier for high-tech equipment where you can outsource your development, assembly, parts manufacture and material development.

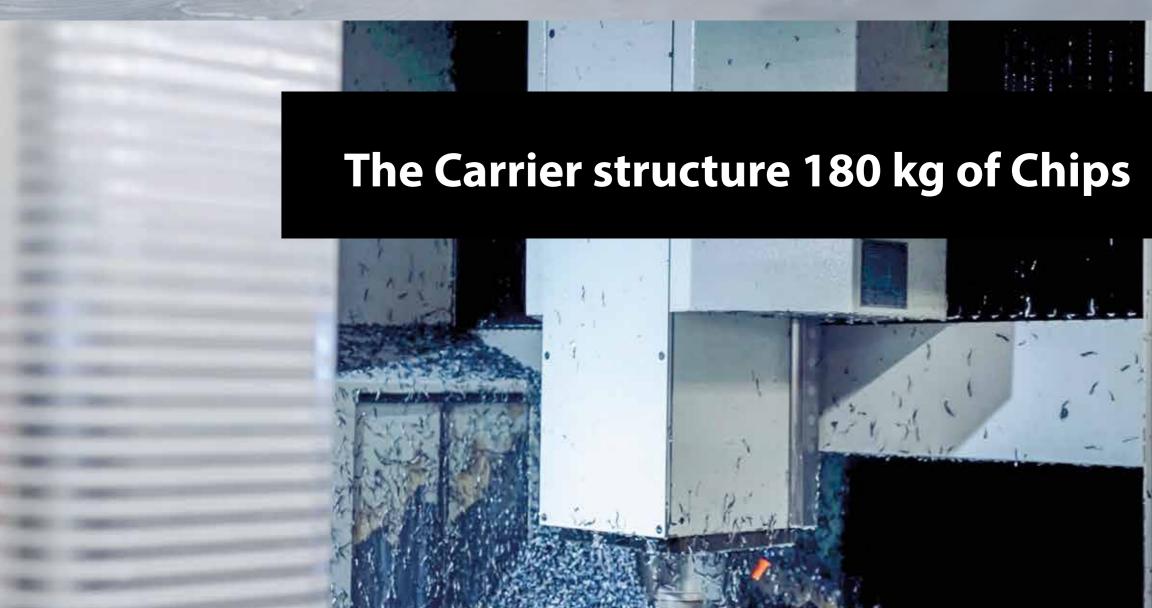
Production boundaries and limits

A product realized by 3D Rpd has exactly the necessary material and volume required for the product as such. While grinding should always start with a volume greater than the product. This always leads to additional material being needed and adds to air milling time.
The 3D RPD process requires an extra outer edge for clamping during printing.

Cost

Cost reduction is tens of percents, especially in pre-machining.

The 3D RPD titanium pre-shape made by Norsk Titanium





We continuously improve our processes and the products we make and involve our customers through Value Engineering and resulting Product Roadmaps. Key markets are Semicon, Medical and Analytical.



www.**KSC**Conference.nl

More information Norsk Titanium:







