



# AERO

ADVANCECUTTING  
TaeguTec

TaeguTec **AEROSPACE** Industry Solutions

# AEROSPACE



## ENGINE CASING

Cases, mounted on the exterior of the aircraft engines, protect and support the parts required for combustion. Accordingly, they need to be made from materials that can stand rapid temperature change and that can reduce weight of an engine. Titanium alloys and stainless alloys are often used for parts that go into compressors installed on the cold section of the engine, while Inconel and nickel-base superalloy are often used for combustion chamber and turbine parts in the hot section of the engine.

## BLISK

A blisk is a single engine component comprising a rotor disc and blades. It is both integrally cast and machined from a solid piece of material or it is made by welding individual blades to the rotor disc. This eliminates the need to attach the blades to the disk (via screws, bolts, etc.), thus decreasing the number of components within the compressor, while at the same time decreasing drag and increasing efficiency of air compression within the engine.



## LANDING GEAR

The landing gear is used during landing, take-off and taxiing. It supports the aircraft weight and performs as a shock absorber. The nose landing gear includes a steering system and the main landing gear that is installed on the lower left and right of center area of an aircraft, supporting 90% of the aircraft weight.



## FRAME

Frames for the aerospace sector are components that literally frame the basic structure of an aircraft. As they require high rigidity and light weight; aluminum alloys are often used to produce the frames. The use of titanium alloys has also increased due to its exceptional high strength-to-weight ratio.



## TURBINE BLADE

Turbine blades resemble fan blades and are susceptible to considerable heat inside the aircraft engine. The blades are made of super heat-resistant alloys that contain chrome, aluminum, cobalt and many more materials that can withstand high stress levels and temperatures beyond 700°C.



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## Engine Parts



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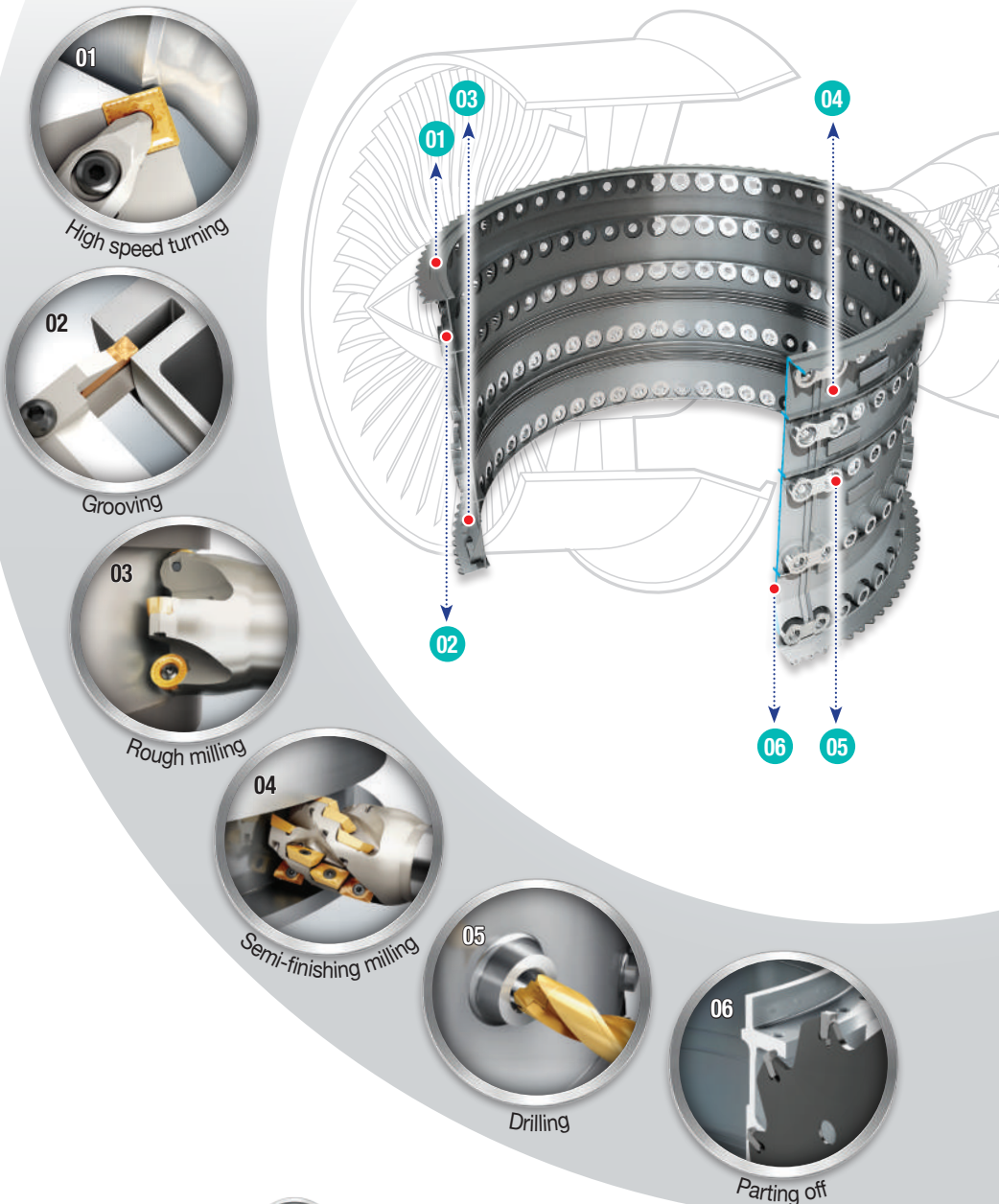


20-21  
Landing Gear



# Casing

Heat Resistant Super Alloy / Titanium Alloy /  
Precipitation Hardened Stainless Steel



## Engine Parts

Casing

**Turning 01** *T-TURN*

*COOLBURST*

-MGS -MGS -FGS -ML

RNGN RCGX SNGN

**Ceramic** - High speed

**Grooving 02** *COOLBURST*

*T-CLAMP FACERUSH*

TDXU TDFX

*CADAPTER*  
Modular system

**Rough Milling 03** *CHASEMOLD*

-General machining  
-Various chip breakers  
(MM, ML, MLL)

RYMX

*CERAMICSPEED* **Ceramic**

BNGX 09

**Semi-finish Milling 04** *CHASEMILL STARMILL*

APKT

**Drilling 05**

TCD

SOMT

*DRILLRUSH* *TOPDRILL*

**Parting off 06**

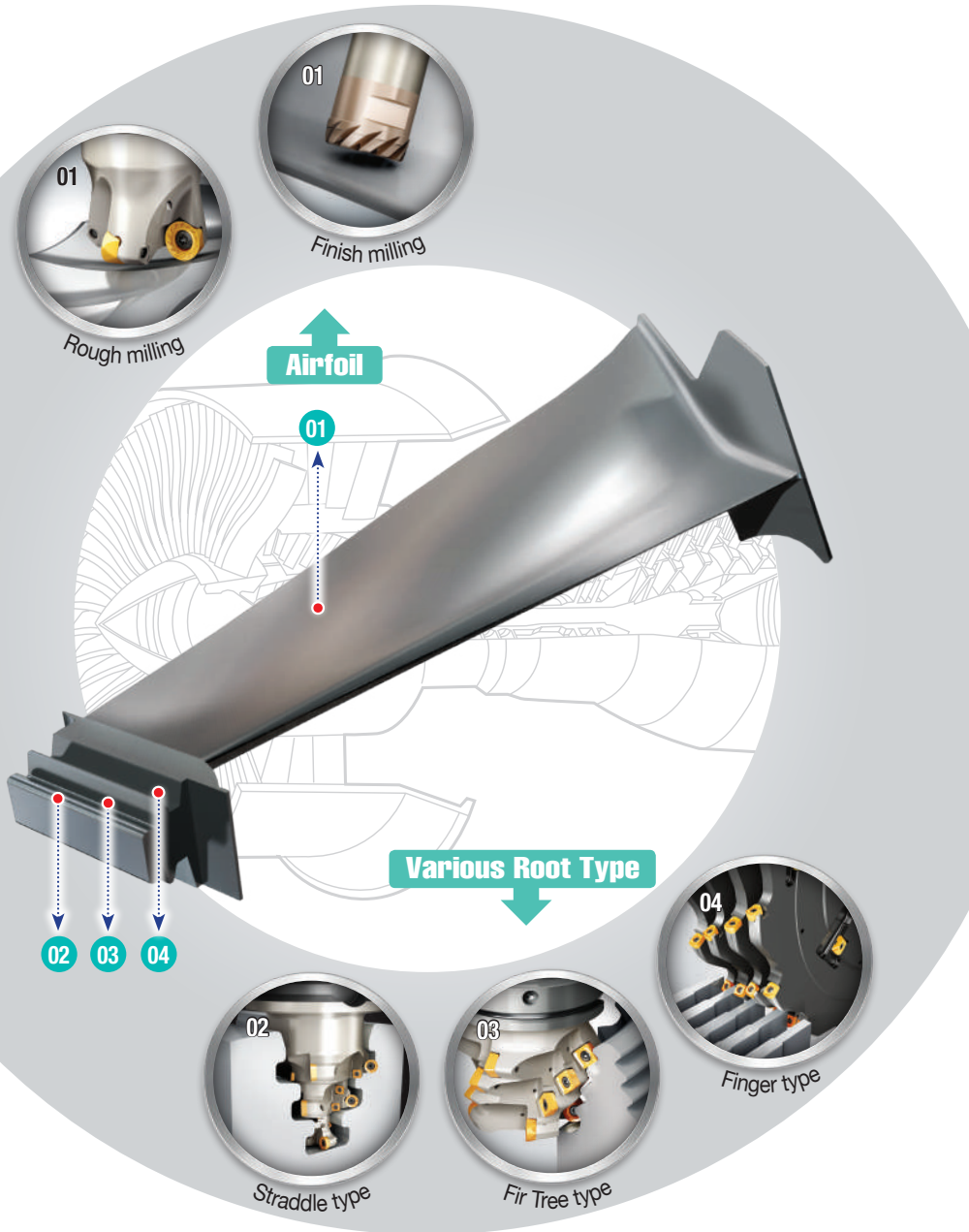
(Tailor-made)

TIMJ



# Turbine Blade

Heat Resistant Super Alloy / Titanium Alloy



Airfoil

Airfoil Milling

**01**

**CHASEMOLD**



Rough spiral path



RTM(HX)

**WINMILL**



Rough level by level



AVKT

**CHASE10MILL**

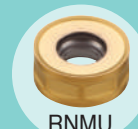


PTKU

**CHASE2MOLD**

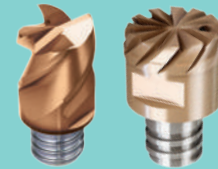


Semi-finish



RNMU

**MAXIRUSH**



Finish

**FINEBARREL**



NFLB

Finish

Various Root Type

Straddle Type

**02**



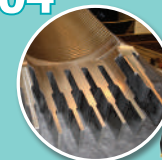
Fir Tree Type

**03**



Finger Type

**04**



ZNHU



ZNHT



## Heat Resistant Super Alloy (Inconel 718)



01

Turning & grooving



02

Rough milling (High feed)



03

Rough milling



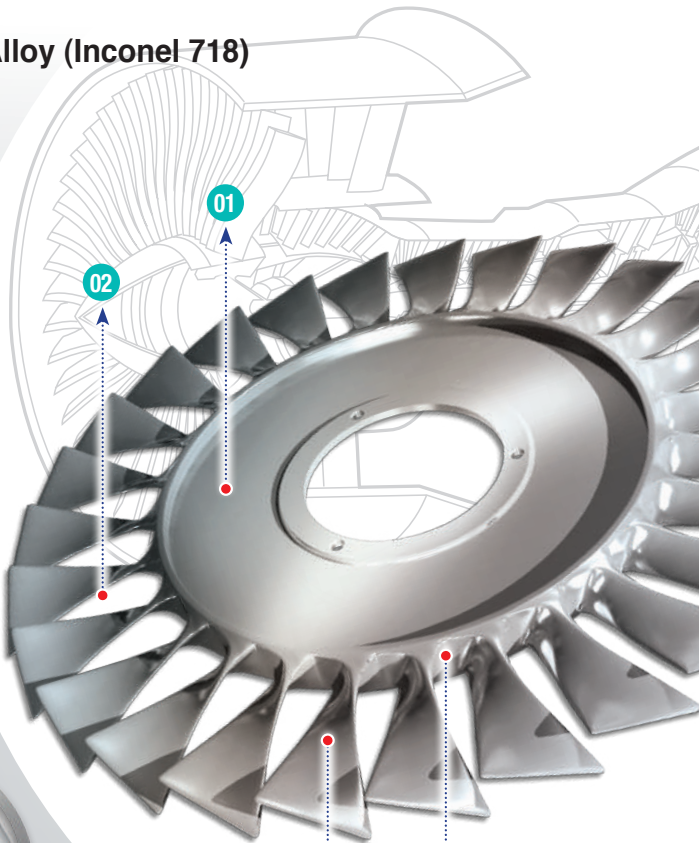
04

Finish milling



04

Finish milling



Blisk

### Turning & Grooving

01

**COOLBURST**

High pressure coolant for tool life and productivity



**T-TURN**



-MGS



-FGS



**CADAPTER**

Modular system

**T-CLAMP**



TDT-RS



TDXU

02

**CHASE4FEED**



BLMP-MM/ML

### Rough Milling

03



**CHASEMOLD**



RYMX-ML



RYMX-MLL

### Finish Milling

04

**FINEBARREL**

**STAR MILL**

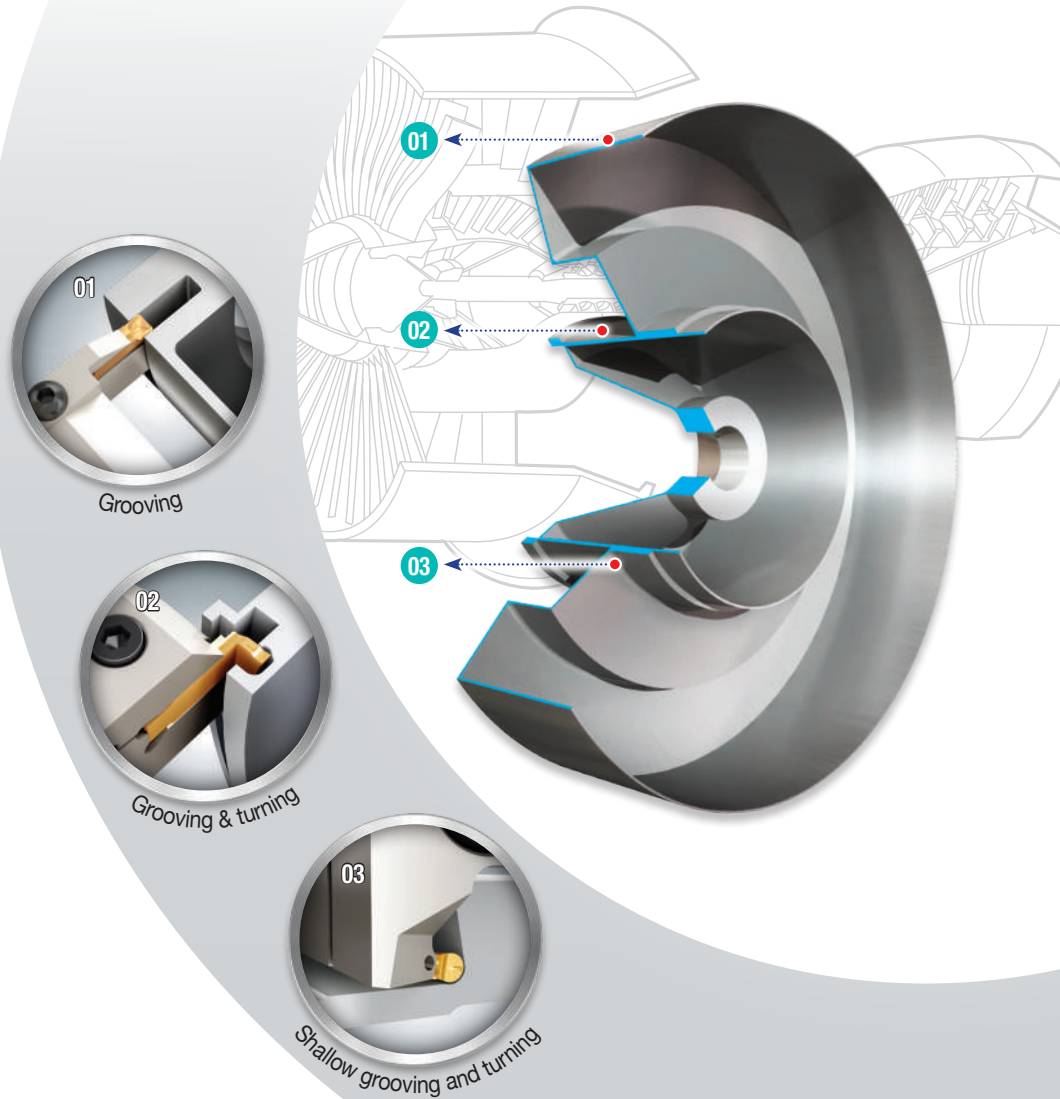


NFLB



# Diffuser

Heat Resistant Super Alloy (Inconel 718)



Diffuser

## Grooving and Turning

01

**COOLBURST**

► High pressure coolant

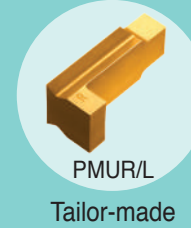


## Face Grooving and Turning

02

**COOLBURST**

► High pressure coolant



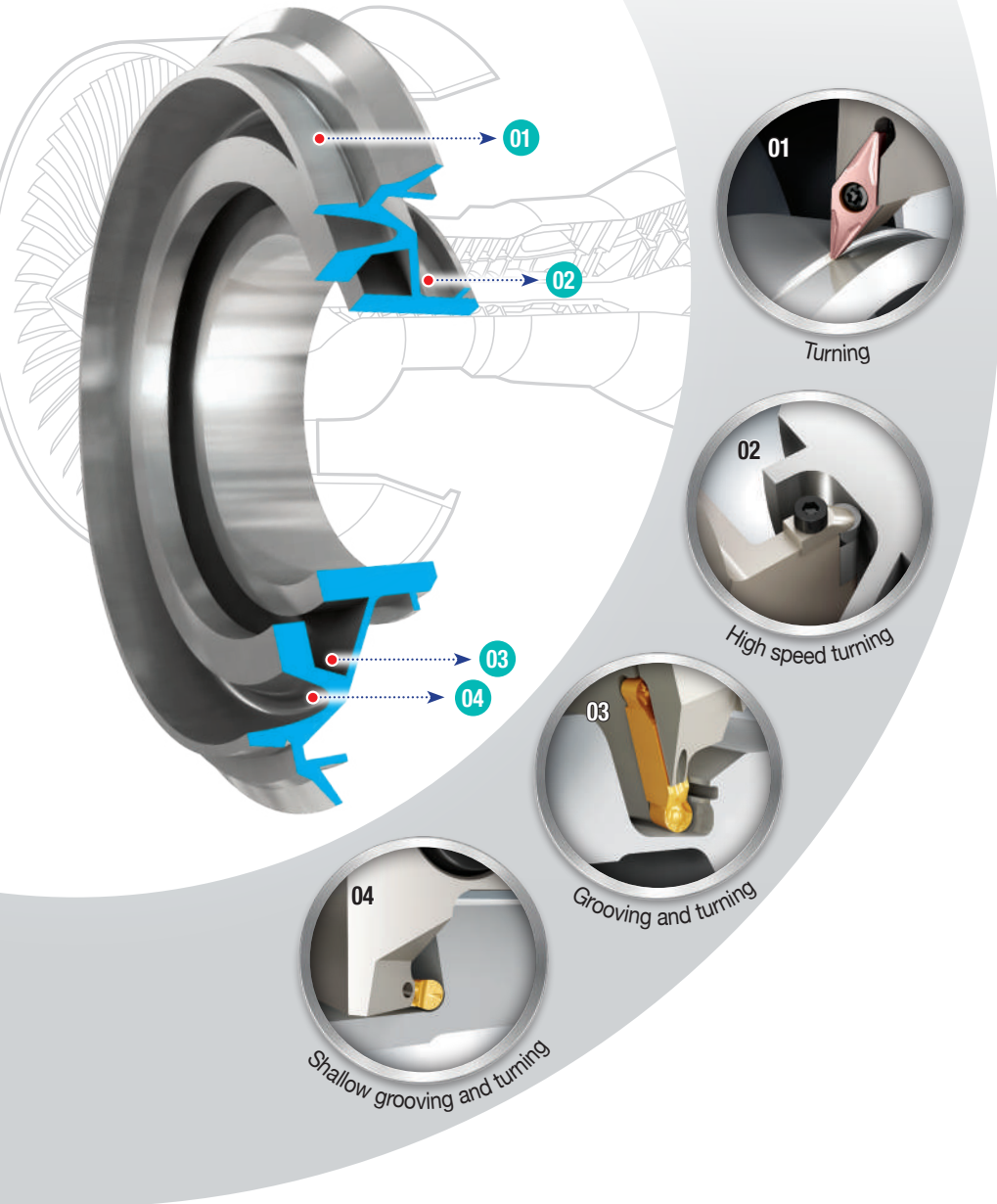
## Shallow Grooving and Turning

03



# Housing Bearing

Heat Resistant Super Alloy / Titanium Alloy /  
Precipitation Hardened Stainless Steel



Housing Bearing

Turning **T-TURN**  
**01**

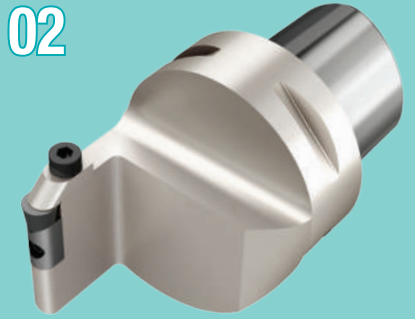


**COOLBURST**

- High pressure coolant



**02**



Whisker & SiAlON **Ceramic** grades  
- High speed turning

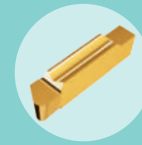
**Grades** **TC430**  
**TC3020**  
**TC3030**



Grooving and Turning  
**03**

**COOLBURST**

- High pressure coolant



Tailor-made

Shallow Grooving and Turning  
**04**



**T-CLAMP**



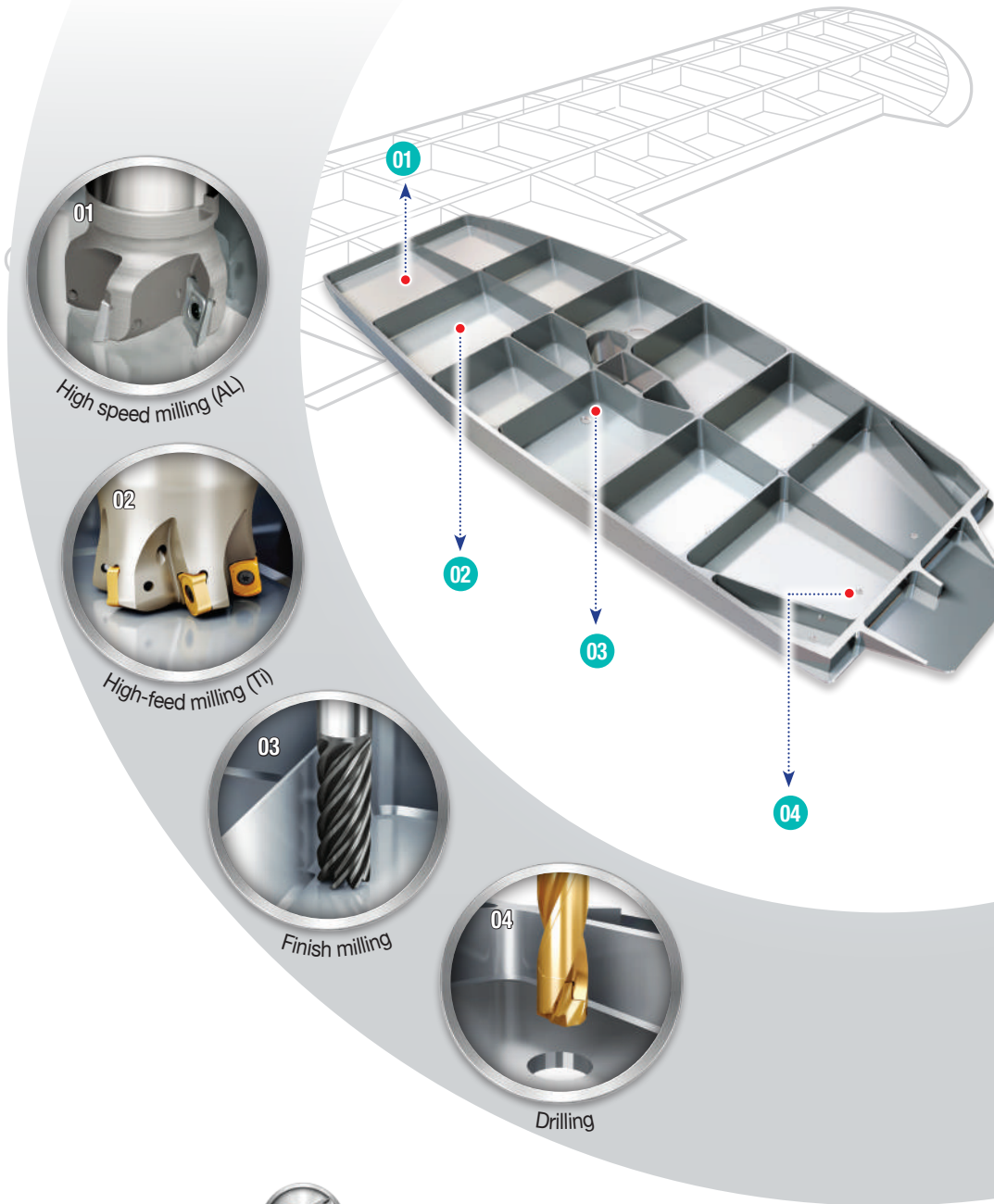
**T-CLAMP**





# Frame

Aluminum & Titanium Alloy



# Wing Parts

Frame

High Speed Milling (AL)

01 CHASEALU



Stable in high speed machining



High-feed Milling (Ti)

02

CHASE4FEED CHASEFEED CHASEMOLD



BLMP-ML  
High-feed



SBMT-ML  
High-feed



RYHX-L

Finish Milling

03

Good performance in high speed machining

ALUMILL (AL)

STARMILL (Ti)

MAXIRUSH



(Splitter type)

(Finishing)



MXEE  
(AL)



MXEE  
(Ti)

Drilling

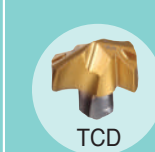
04

DRILLSPEED



3ED-P+

DRILLRUSH



TCD

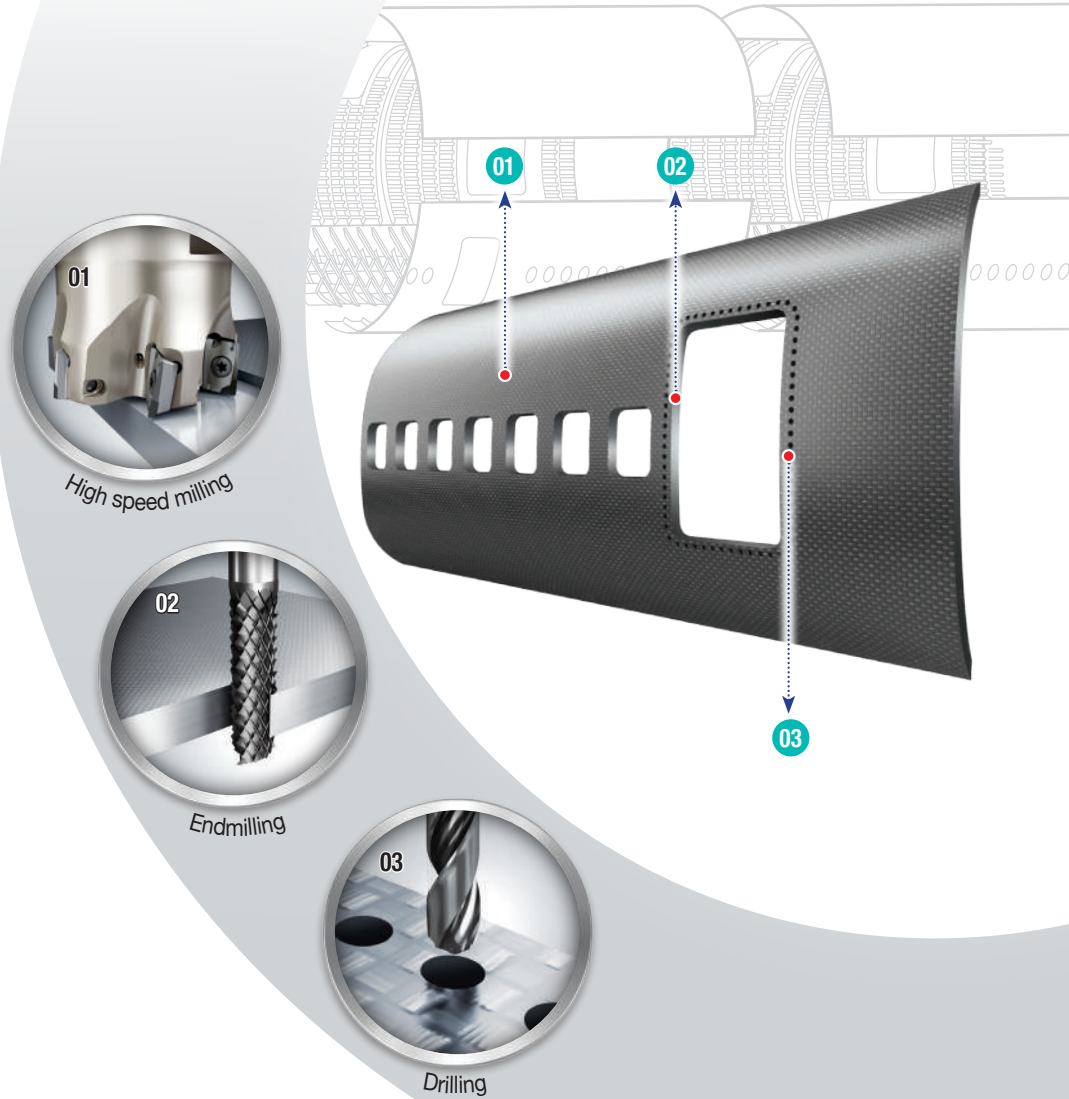


TCD-N



# Composite Material

Carbon Fibre Reinforced Plastic (CFRP)



Fuselage Parts

Composite Material

High Speed Milling for CFRP

01



CHASEMILL



PCD

APCT TD810



Stable in high speed machining

Endmilling

02

DIAMILL



(Roughing)

(Finishing)

TTD 610 diamond coated grade

Drilling

03

HDRILL

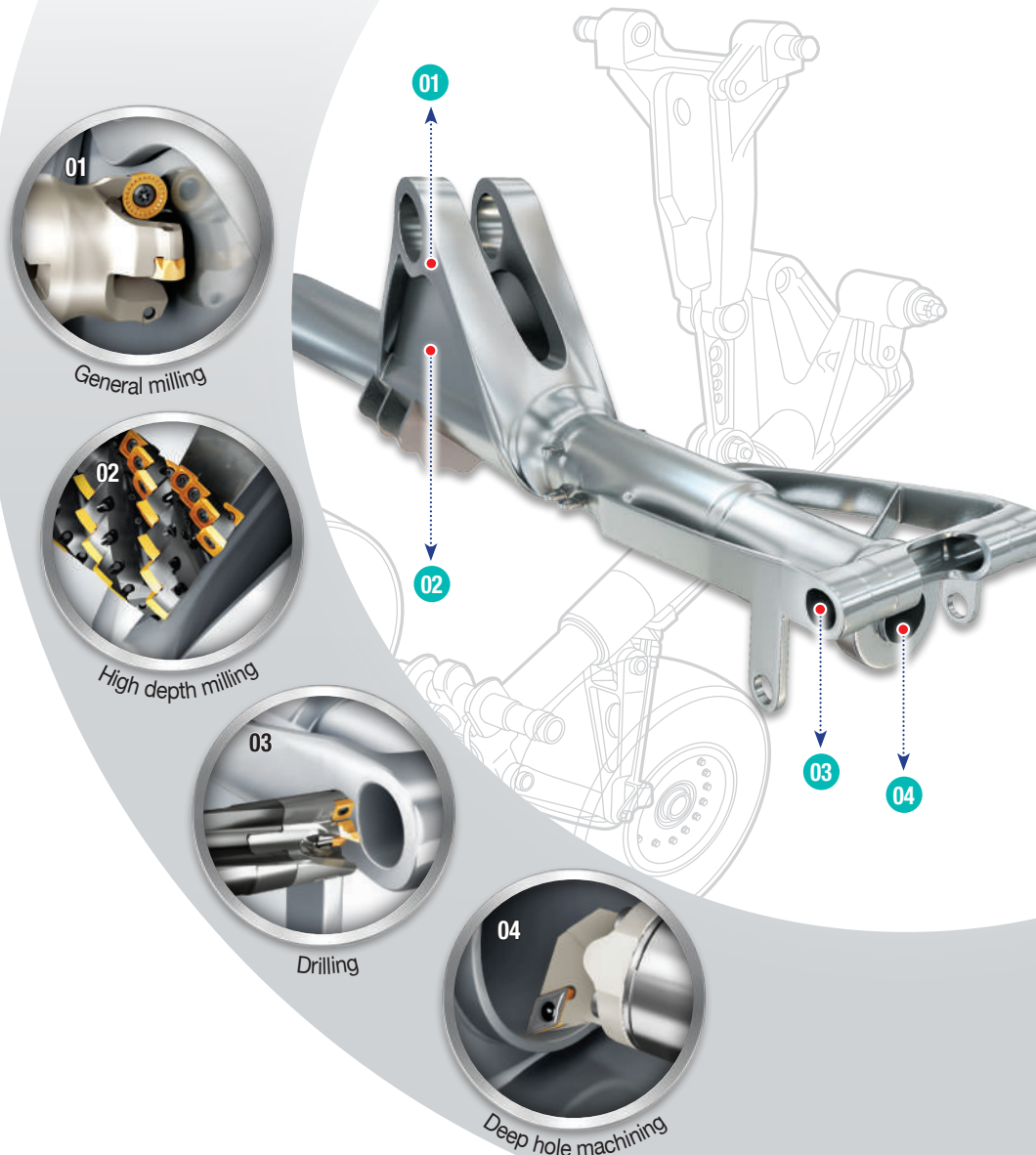


Prevents & delamination



# Landing Gear

Titanium Alloy / Stainless Steel / Aluminum Alloy



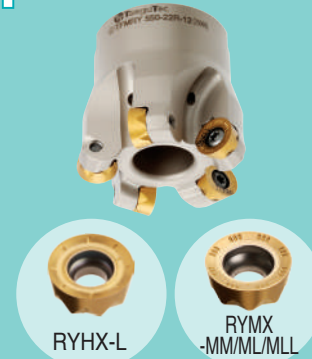
## Landing Gear Parts

Landing Gear

### General Milling

01

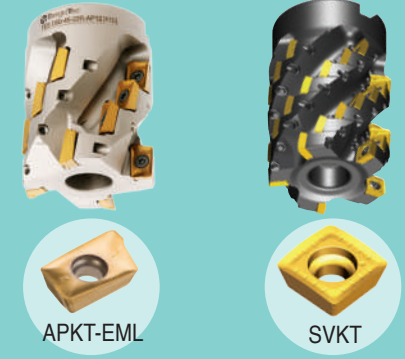
**CHASEMOLD**



### High Depth Milling

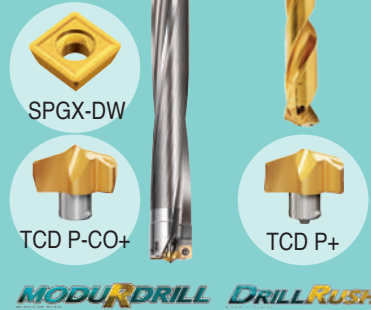
02

**CHASEMILL CHASEVQUAD**

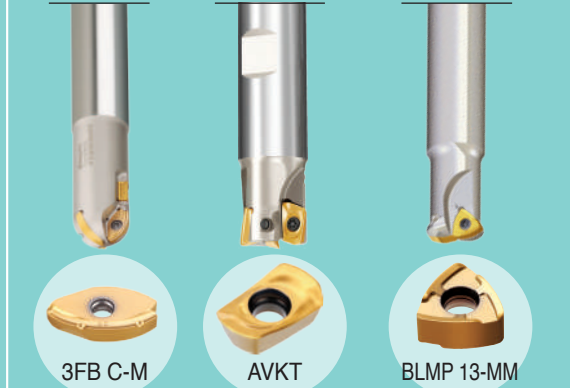


### Drilling

03



**TRIOBALL WINMILL CHASE2FEED**



High feed rate & 6 corners for economy with stable seating

### Deep Hole Machining

04

**TDEEP**

Drilling

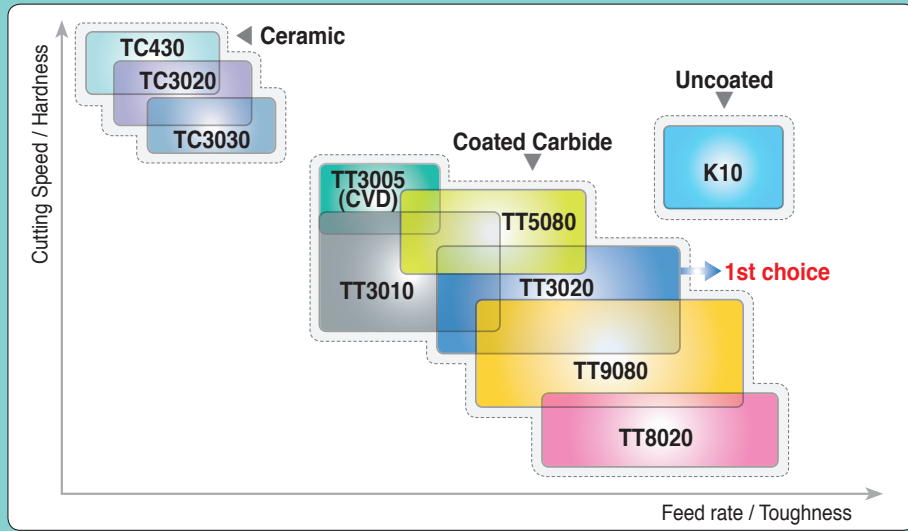


**HUSHBORE**

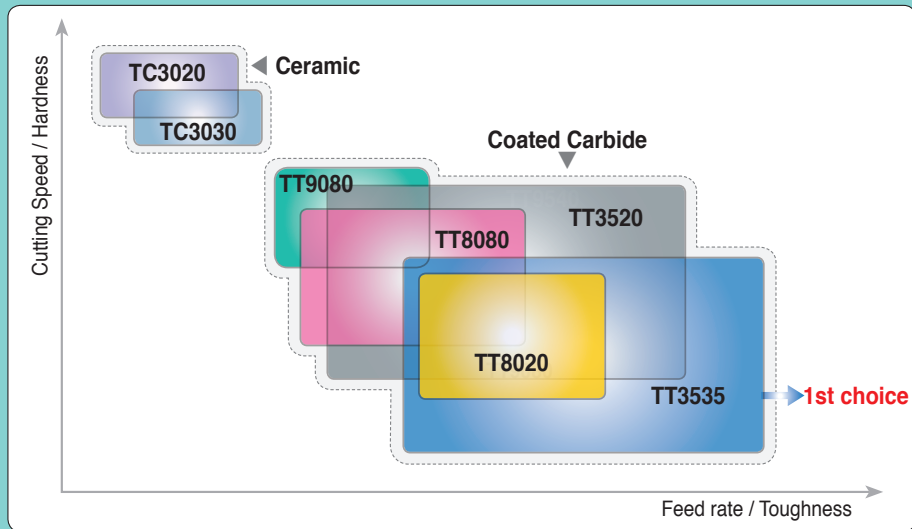
Internal turning



## Turning Grads for ISO



## Milling Grade for ISO



## Milling Insert

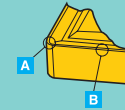
Round insert



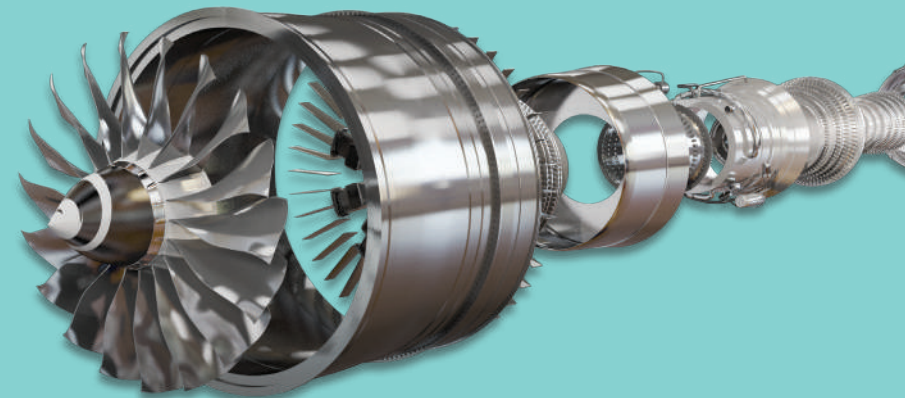
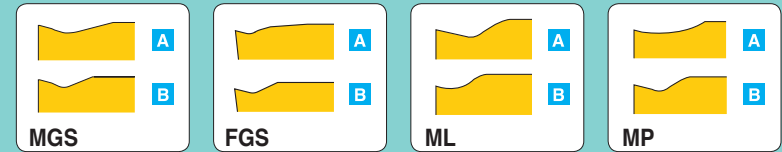
High feed insert



90° insert



## Turning Insert





# Tool CutZZ

*Your Knowledge Machining Link!*



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Google play

Scan me!



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