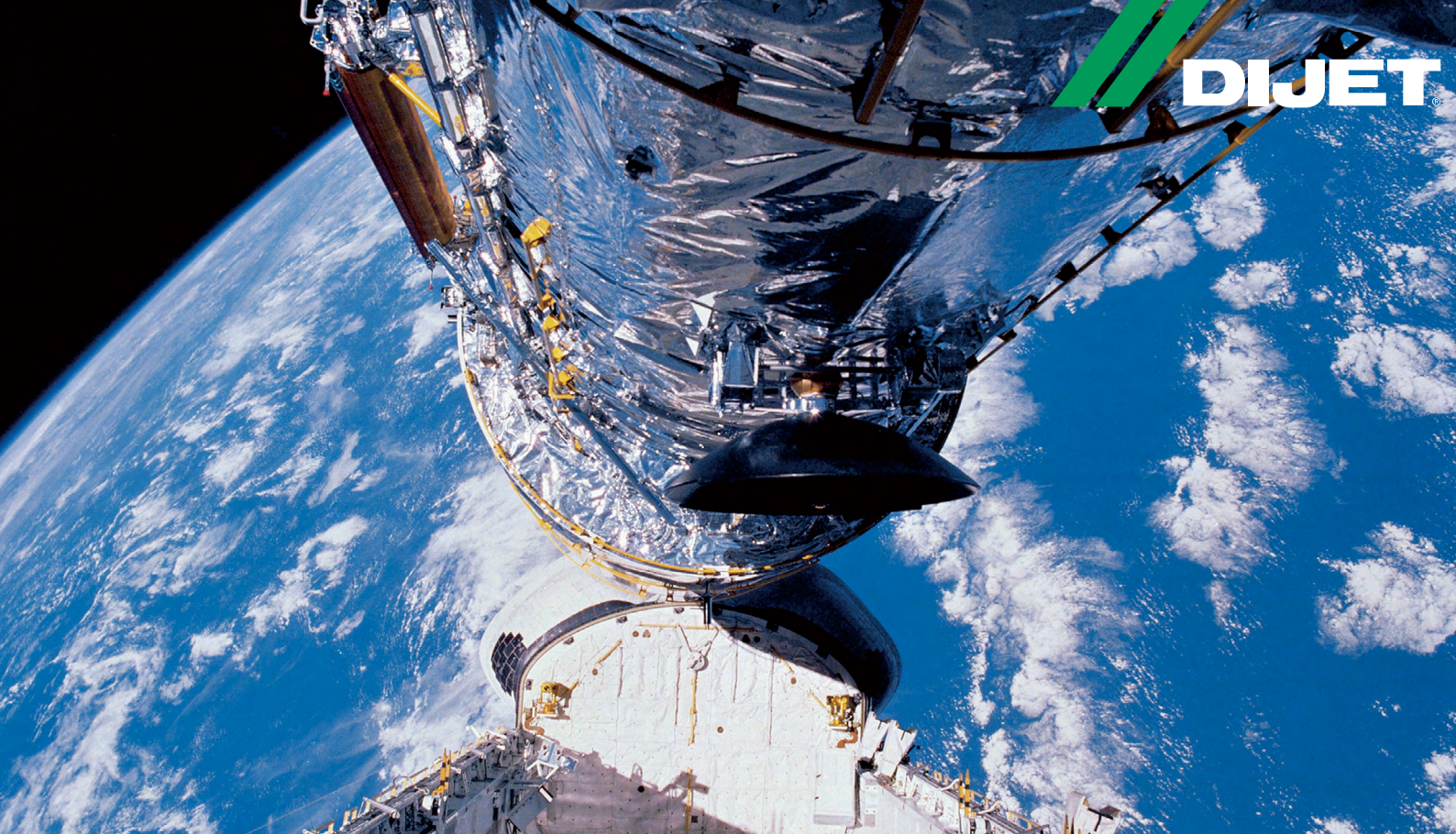




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AEROSPACE TOOLING



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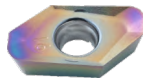


TOOLS FOR SATELLITES & AIRFRAMES



Aero-Chipper Series

For true 90° precision shoulder milling.
Capable of roughing and finishing.



Aluminum Solid Carbide End Mill Series

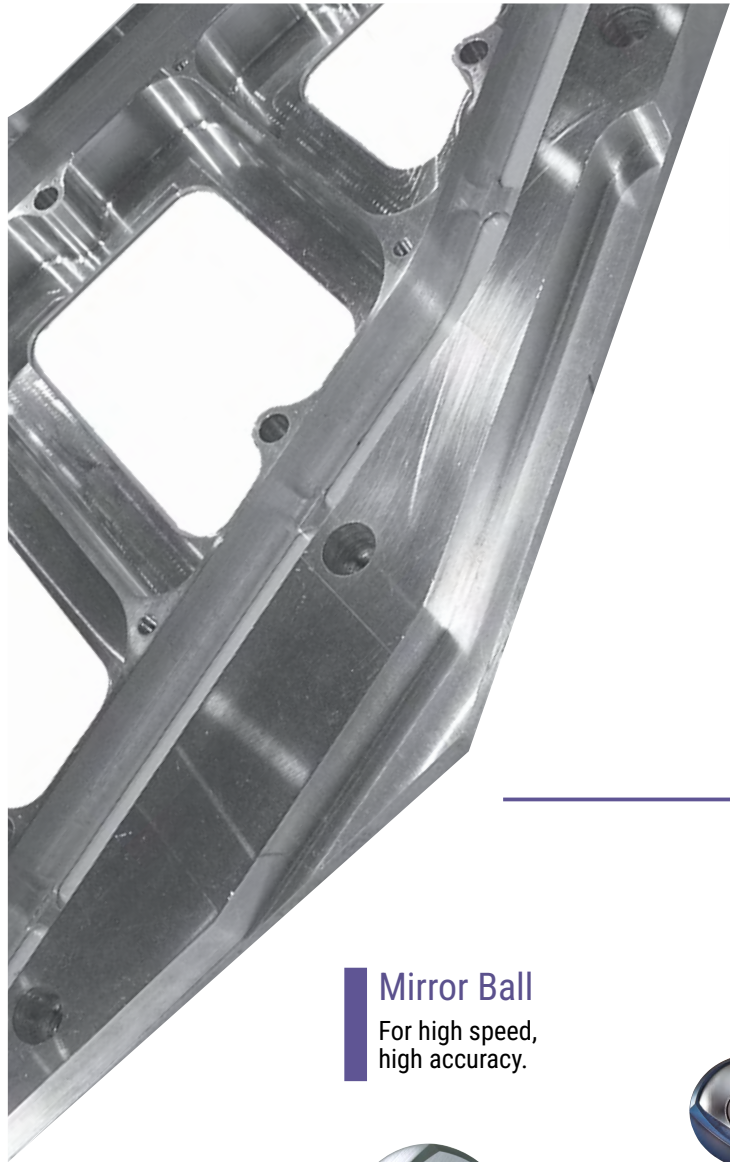
For high speed,
high efficiency and accuracy.



Super Diemaster

For high speed machining
and large metal removal.





SIC-EVO

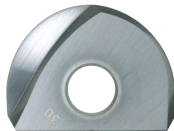
Multi-purpose indexable tool for various applications.



FOR
ALUMINUM

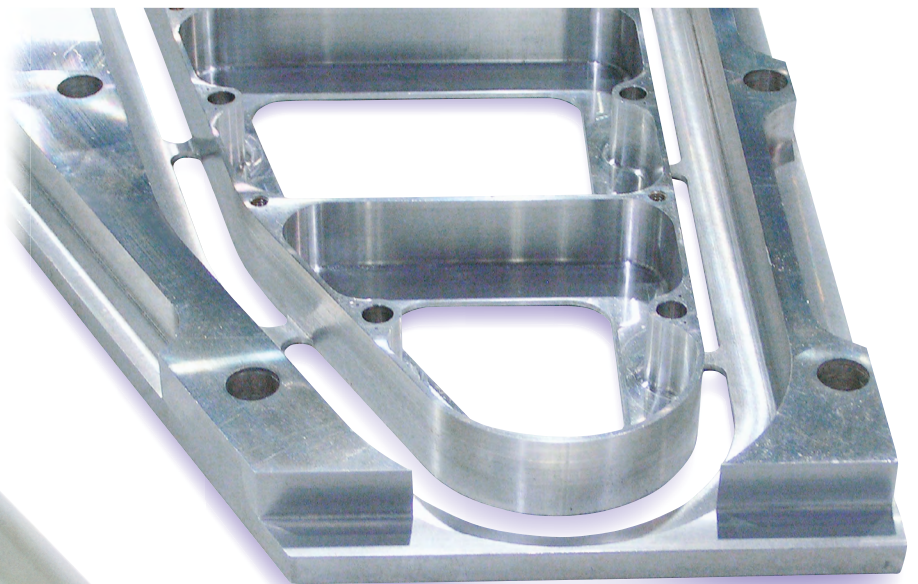
Mirror Ball

For high speed, high accuracy.



"SMAL" Solid S-Head

For high speed, and high precision.



TOOLS FOR ENGINES



©IHI Corporation

"EVS" EZ Drill

For heat-resistant and titanium alloys.



DV-OCSAR Radius End Mill

For heat-resistant alloys.



Super Diemaster

For high speed machining
and large metal removal.



©IHI Corporation



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EXSKS Series

For high feed and high efficiency.

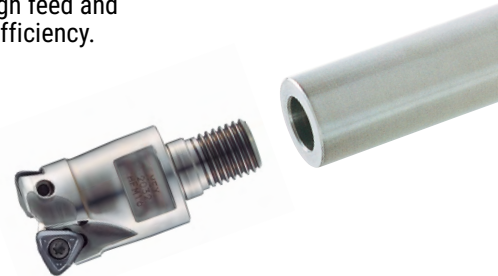
"SMSA" Solid S-HEAD

For high speed and high efficiency with multi flutes.



"SMSR" Solid S-HEAD

For high speed and high efficiency with anti-vibration feature.

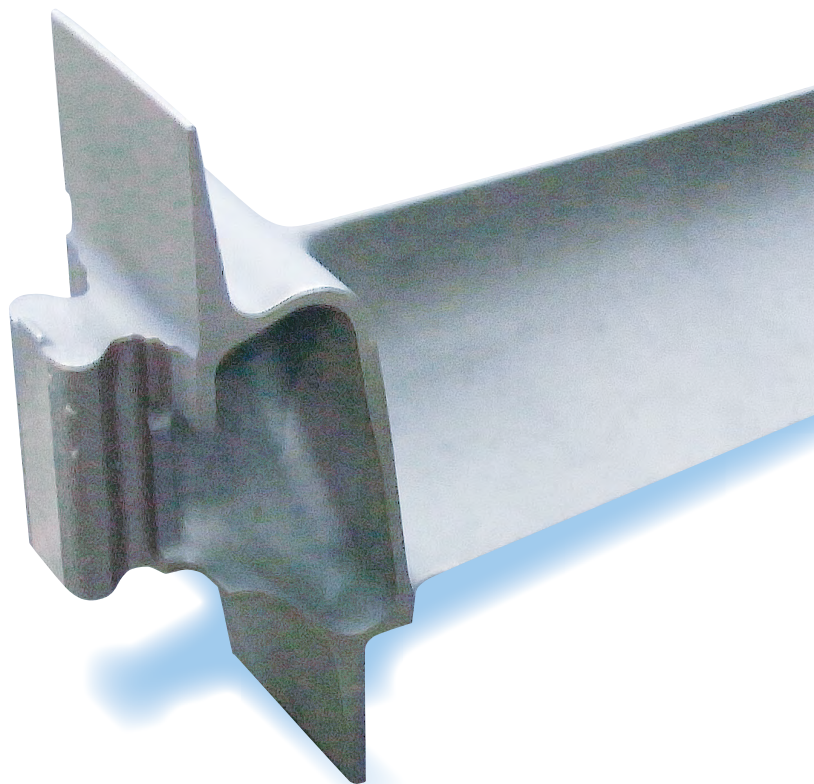


SIC-EVO

Multi-purpose indexable tool for various applications.

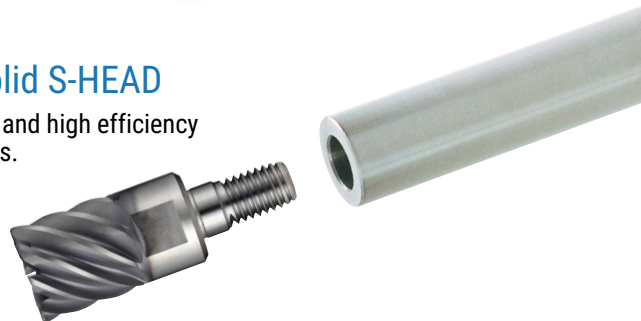


TOOLS FOR BLADES AND LANDING GEAR



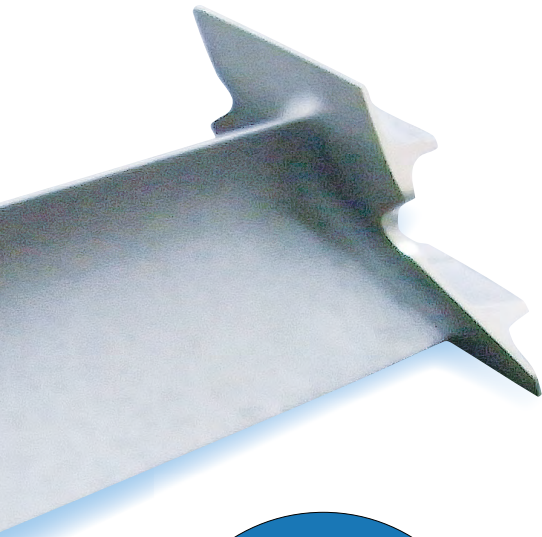
"SMSA" Solid S-HEAD

For high speed and high efficiency
with multi flutes.



FOR
LANDING
GEAR





**FOR
BLADES**

Mirror Lens Barrel

For high efficiency on gently curved surfaces.



Swing Ball

For roughing heat resistant alloys.



Mirror Ball

For high speed, high accuracy.



EXSKS Series

For high feed and high efficiency.



Super Diemaster

For high speed machining and large metal removal.



DV-OCSAR Radius End Mill

For heat-resistant alloys.



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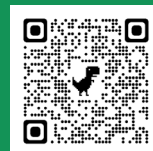
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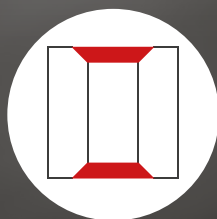




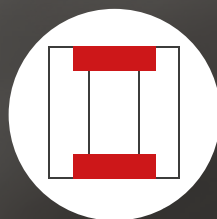
Aeroespacial



Rebabado



Chaflanado



Avellanado



Taladrado
combinado

TU SOCIO EN LA FABRICACIÓN DE COMPONENTES AERONAUTICOS

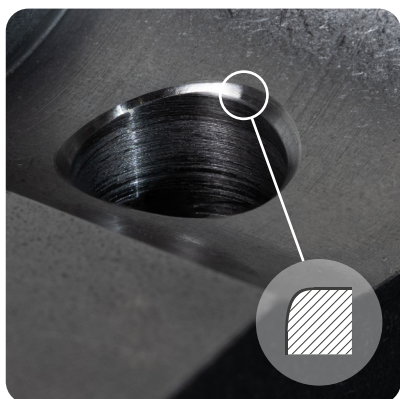
Los procesos de fabricación en el sector aeroespacial demandan los estándares más altos de precisión y seguridad. Tolerancias estrechas, acabados superficiales perfectos y cantos libres de rebaba son requisitos esenciales. El principal reto es el mecanizado de la parte posterior de la pieza. Las herramientas de HEULE permiten el rebabado, chaflanado y avellanado de ambos lados de la pieza, así como la combinación de estas operaciones con el taladrado. Y todo directamente en

tu centro de mecanizado, sin girar la pieza y en un solo paso. Esto ahorra tiempo, reduce costes y proporciona la calidad requerida en fuselajes, alas, motores y cabina. Bien sea titanio, Inconel u otras súper aleaciones, nuestras herramientas se imponen allí donde otros no llegan. Si el rango de herramienta estándar no ofrece una solución adecuada a tu aplicación, nuestros expertos de rebabado a nivel mundial estarán encantados de discutir una solución especial para satisfacer tus necesidades.

TECNOLOGIA

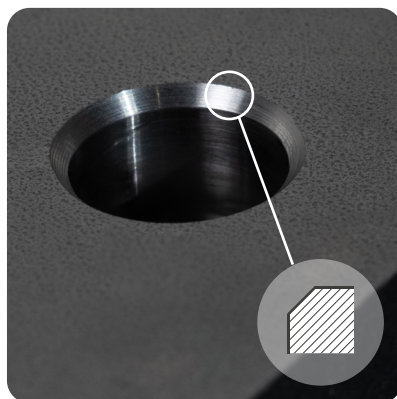
El objetivo es la parte posterior del agujero. HEULE desarrolla soluciones de rebabado seguras que mecanizan cantos de agujeros en un solo paso, especialmente los de difícil acceso. También hay disponibles soluciones con taladrado.

Rebabado



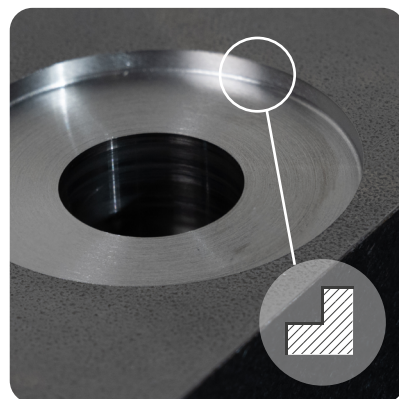
Las herramientas de rebabado de HEULE rebaban cantos de agujero **planos e inclinados en ambos lados y en una sola operación**, sin necesidad de girar la pieza ni parar el cabezal. El proceso automático, es totalmente seguro y rentable.

Chaflanado



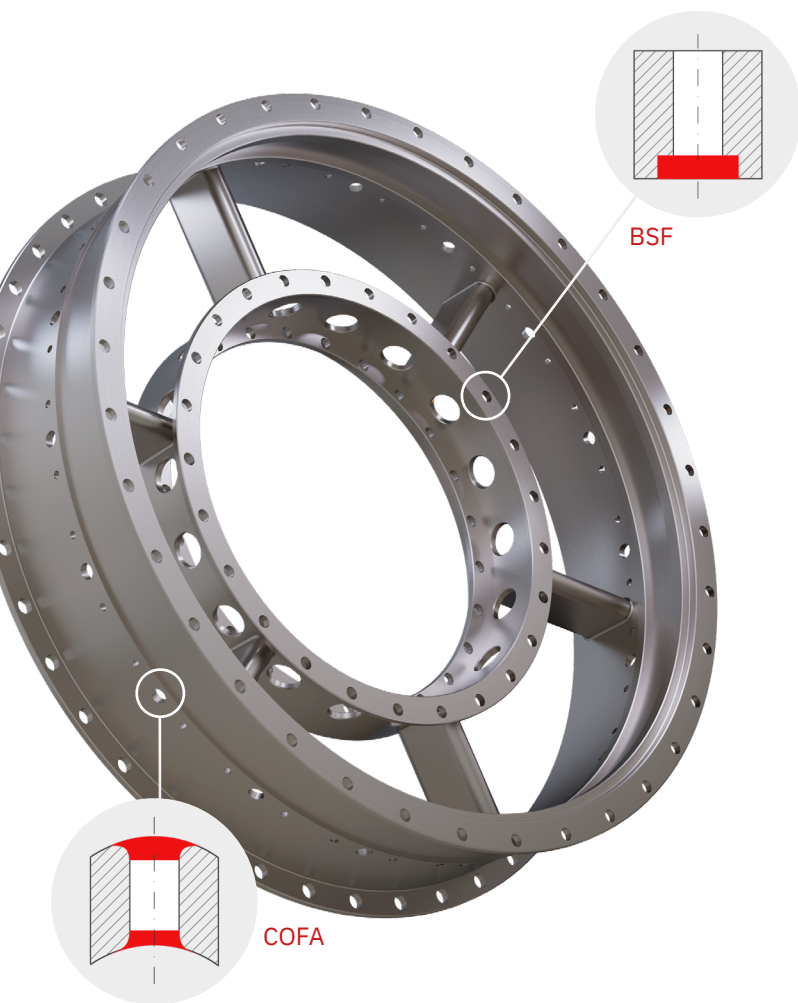
Las herramientas de chaflanado de HEULE eliminan las rebabas **en ambos lados** del agujero mientras **realizan un chaflán definido**. Son especialmente adecuadas para series largas y operaciones totalmente automáticas en CNC, garantizando un chaflanado constante.

Avellanado



Las herramientas de avellanado posterior de HEULE mecanizan la parte trasera del agujero **sin girar la pieza**. Son posibles avellanados de **hasta 2,3 veces el diámetro del agujero**. También podrás avellanar ambos lados del agujero y realizar avellanados de forma.

CASOS PRÁCTICOS

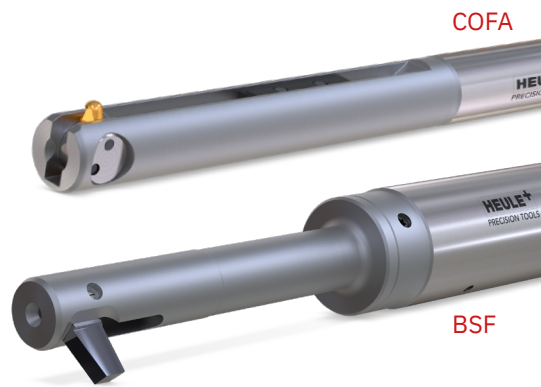


Carcasa de Turbina

Un fabricante de turbinas buscaba una solución rentable y segura para el avellanado posterior y rebabado de los agujeros, todo en un solo paso y sin necesidad de tener que dar la vuelta a la pieza.

Con la **herramienta BSF de contralamado** y la **herramienta de rebabado COFA**, aportamos al cliente la solución ideal. La herramienta BSF permite el contralamado y la herramienta COFA asegura un rebabado 100% libre de rababa en ambos lados, como exigía el cliente. Resultando en una reducción significativa de tiempo, reduciendo de este modo los costes de producción.

- + Ahorro de tiempo por pieza de **45 minutos**
- + Ahorro aproximado anual de **335 horas**
- + Reducción anual de costes **47.700 EUR**

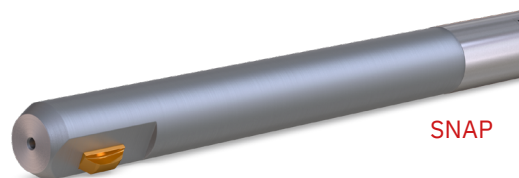
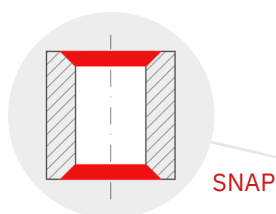


Rotor de Turbina

Un fabricante de turbinas buscaba una solución automática de rebabado a ambos lados de los agujeros en una sola operación. El objetivo era minimizar los cambios de herramienta y tiempos de ciclo y la vez eliminar el rebabado manual.

HEULE recomienda la **herramienta SNAP de chaflanado**, que realiza chaflanes definidos en la entrada como en la salida del agujero en una sola operación. Esto elimina las pérdidas de tiempo que implica tener que girar la pieza. El fabricante agradece la excelente calidad y seguridad.

- + Tamaño de chaflanado constante
- + Calidad de rebabado uniforme
- + Se elimina el rebabado manual
- + Reducción de tiempo **90 minutos** por pieza
- + Reducción anual de costes aprox. **8.900 EUR**



Por todo el mundo



+ Sede

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+ Sucursales

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ONE OPERATION



// 2024

Aerospace industry tooling solutions



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2024V01

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Company Profile

Ganzhou Achteck Tool Technology Co., Ltd. is a wholly-owned subsidiary of Chongyi Zhangyuan Tungsten Co., Ltd. (Listed Company with stock code 002378). The registered capital of Achteck is 1.66 billion USD with 800 employees. The main products include: Coated Carbide Inserts, Carbide Rod and supporting tool holders. Achteck is known for its outstanding R&D competence, production & testing equipment and its coated carbide insert production technology. Achteck produces inserts for Turning, Grooving, Milling and Drilling that are widely applied in automotive, energy, die & mold, general machinery, aerospace and other industries. Achteck Tool is technology oriented, owns a strong research team that keeps on innovating. Having "Benefits from Resources, Reliance on Technologies, Devotion to Humanity and Top with Trust" as the operating philosophy and "Safety, Harmony, Efficiency and Innovation" as the target, Achteck aims to become a well-known brand in the world and a first-class cemented carbide manufacturer in China.



Contents:

Turbine disc 1-2

Disc and ring parts 3-4

Landing gear master cylinder 5-6

Structural part of wings 7-8

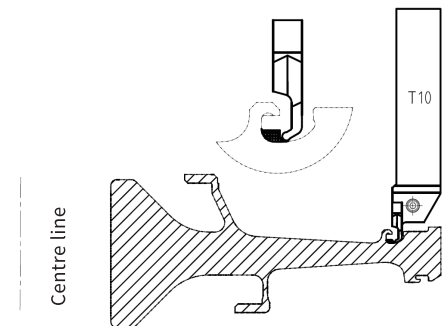
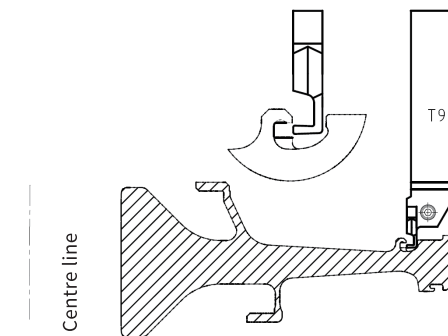
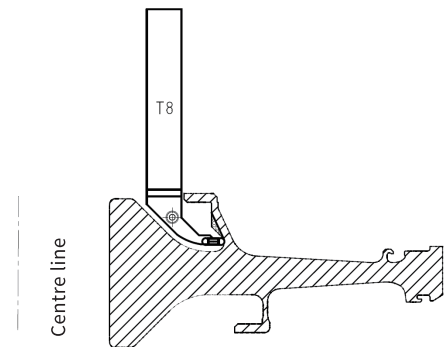
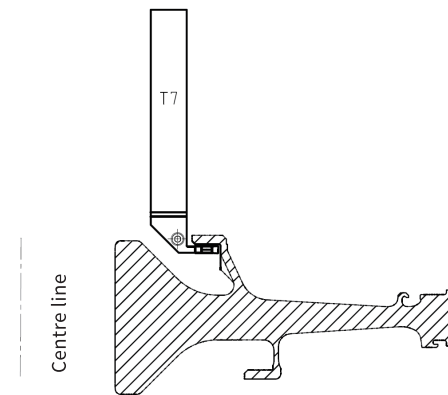
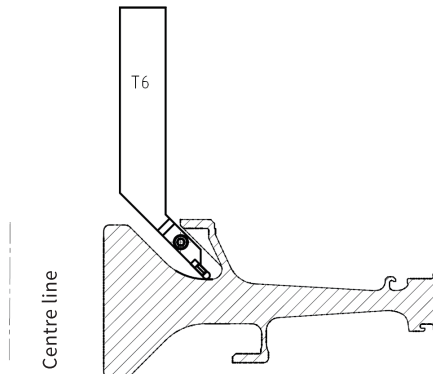
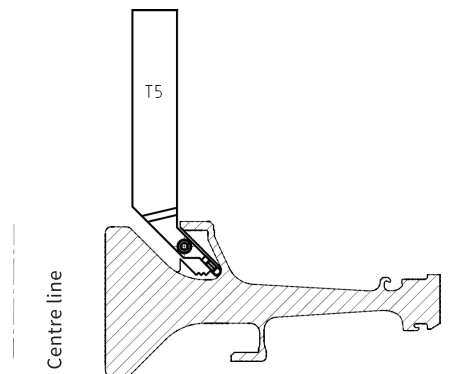
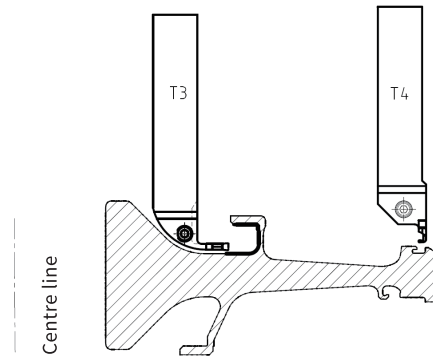
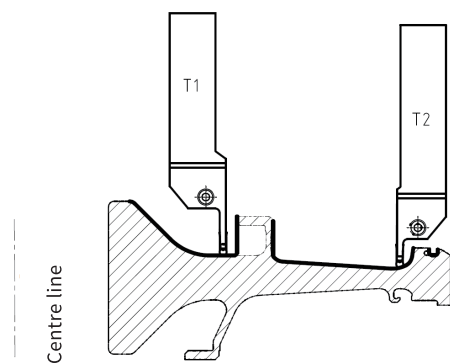
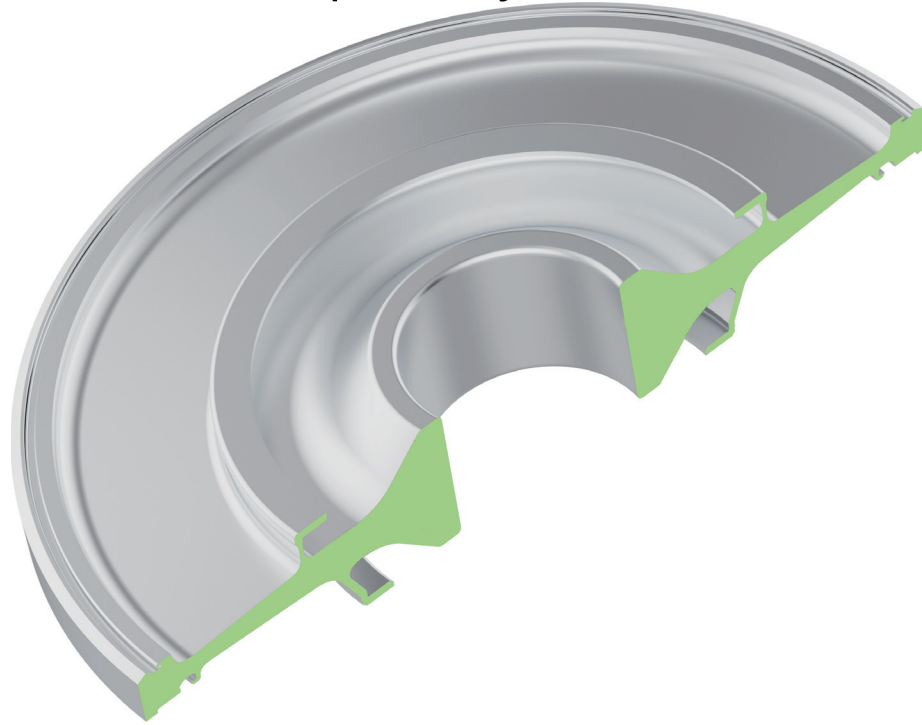
Flap guide rail 9-10

Shaft turning 11-12

Aeroengine case 13-14

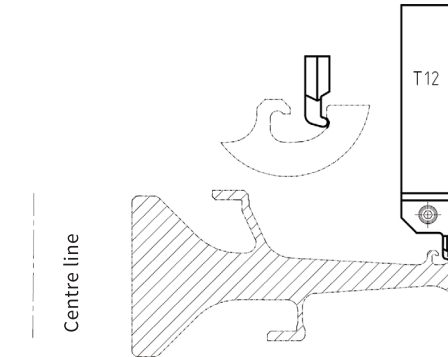
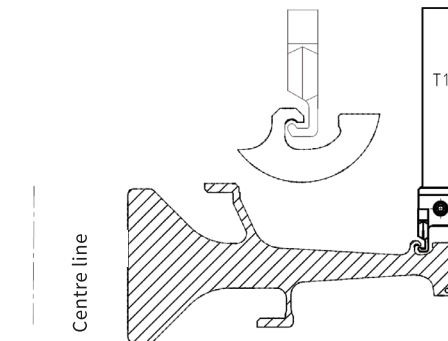
Blade 15-16

- Turbine disc
Material : Powdered super alloy

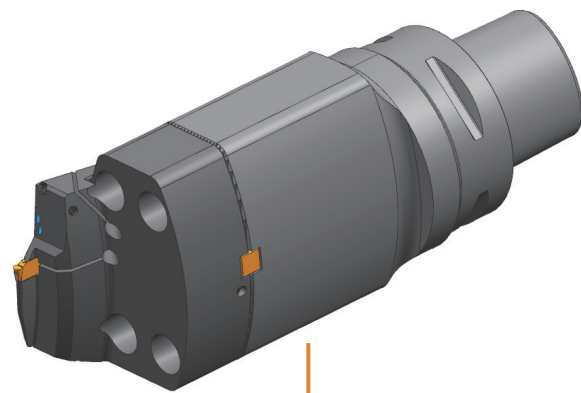


Solutions for high pressure turbine disc and other disc parts

- Achteck has advanced design concepts and professional sepecial too production capacity
- Advanced insert substrate and coating for aerospace engine parts and difficult-to-machine materials
- Excellent performance

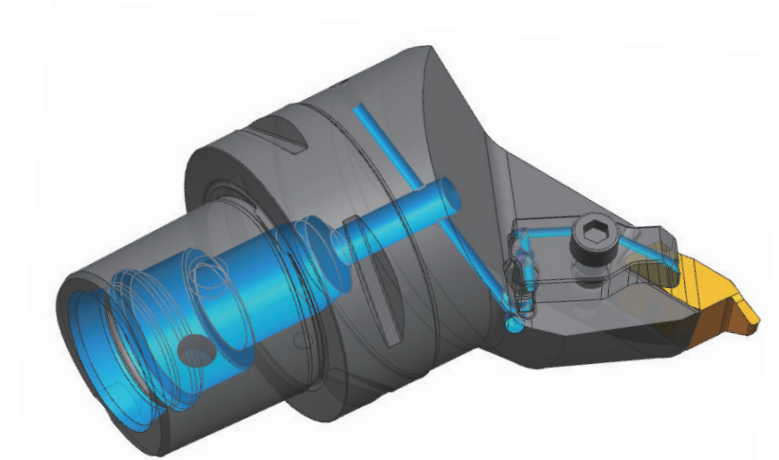


- Disc and ring parts
Material: Heat resistant alloy



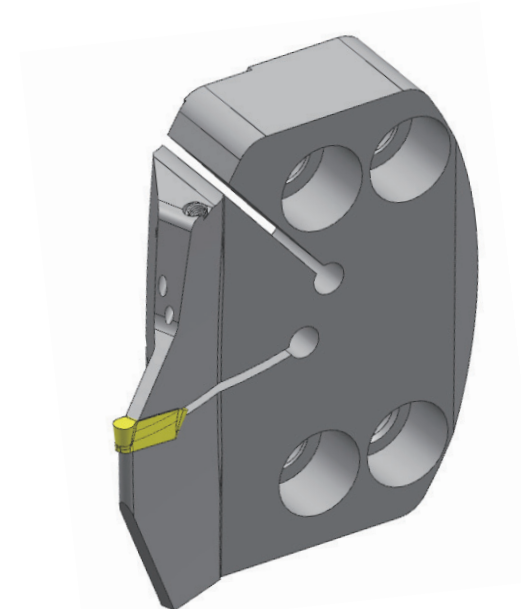
Application: Face turning and grooving disc and ring parts
Solution: Modular face grooving shank with high pressure internal cooling

- The enhanced groove insert for better clamping
- Precision ground insert with good profile
- 1st grade choice AP130S for semi-finishing, finishing



Application: Internal turning and grooving disc and ring parts
Solution: Internal grooving shank with high pressure internal cooling

- Special high rigidity insert for narrow grooving
- Precision ground insert, equipped with high pressure internal cooling plate
- 1st grade choice AP130S for semi-finishing, finishing



Application: External turning disc and ring parts
Solution : Modular face grooving shank with high pressure internal cooling

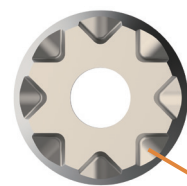
- The enhanced grooving insert for better clamping
- High hardness tool to enhance the rigidity of the tool body
- Precision ground insert with good profile
- 1st grade choice AP130S for semi-finishing, finishing

- Landing gear master cylinder
Material: Heat resistant alloy or Titanium alloy



Application: Master cylinder deep hole drilling
Solution: Achteck deep hole drilling series

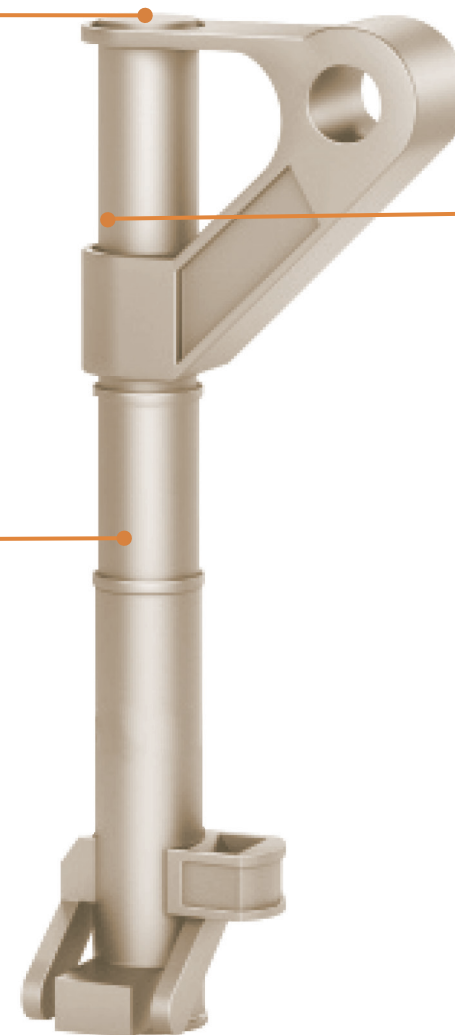
- Diameter range: D25-D65 mm
- With grade AP403S for difficult-to-machine materials
- The insert grade covers ISO P, M, S materials



Anti-rotation slot

Application: 5-axis profile milling
Solution: Achteck profile milling cutter APM00-RO10/12/16

- Round inserts with anti-rotation slots
- With grade AP403M and AP403S for difficult-to-machine materials



Application: Transition round corner rough and semi-finish machining
Solution: Achteck ballnose milling cutter APM00-RPM08/10

- The bottom of the insert has an anti-rotation slot to avoid under or over cutting
- Universal geometry with spiral cutting edge design provides low cutting forces
- Peripheral and center cutting edges

• Structural part of wings Material: Titanium alloy/ Aluminium alloy

Application: Milling
Solution: Achteck efficient machining

- High precision dimensions
- Special insert positioning method
- In the face milling and pocket milling of aluminum alloy structural parts, it provides efficient machining solutions



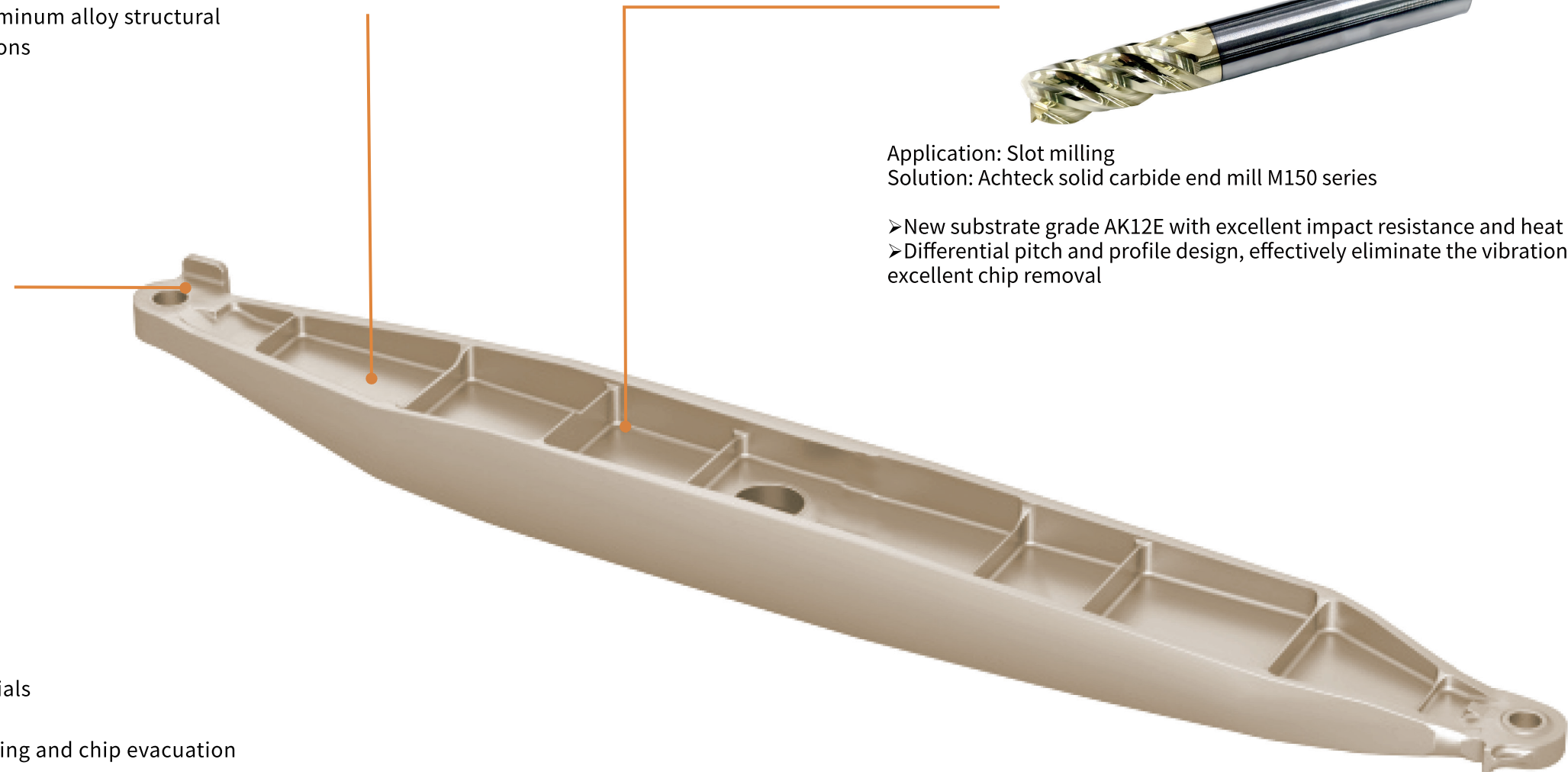
Application: Hole drilling
Solution: Achteck short hole drills

- Universal insert is suitable for P, M, S materials
- Hole drilling from 1xD to 3xD
- Double internal coolant holes for good cooling and chip evacuation



Application: Slot milling
Solution: Achteck solid carbide end mill M150 series

- New substrate grade AK12E with excellent impact resistance and heat resistance
- Differential pitch and profile design, effectively eliminate the vibration, with excellent chip removal

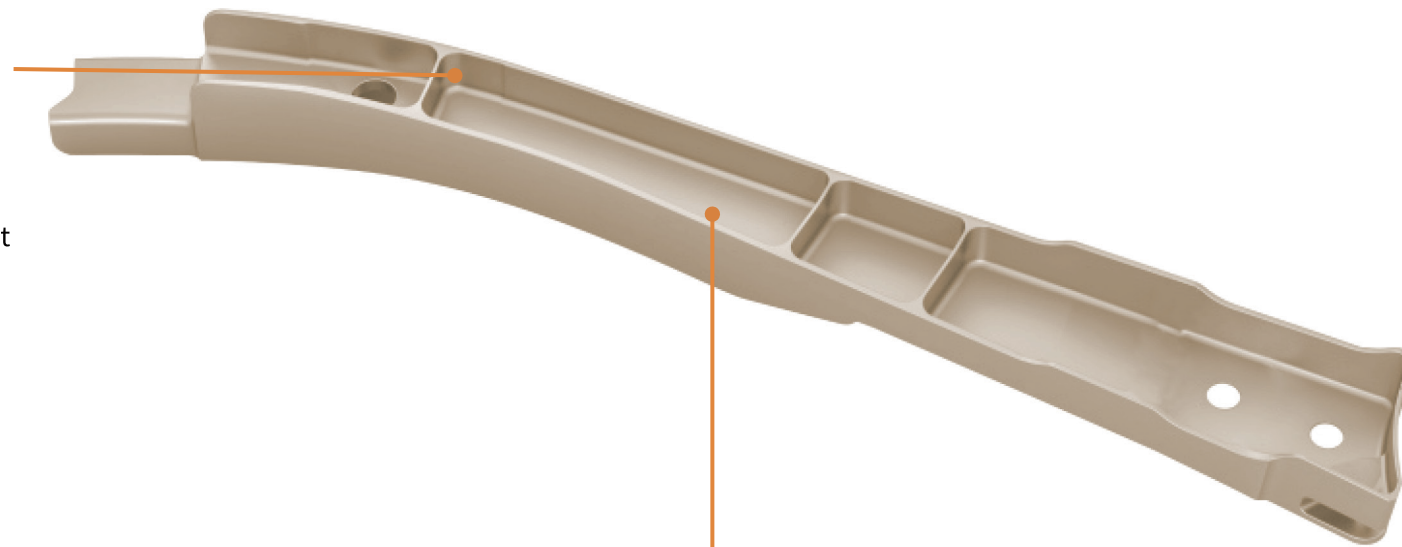


- Flap guide rail
Material: Titanium alloy, stainless steel



Application: Drilling
Solution: Solid carbide drill D151 series with internal coolant

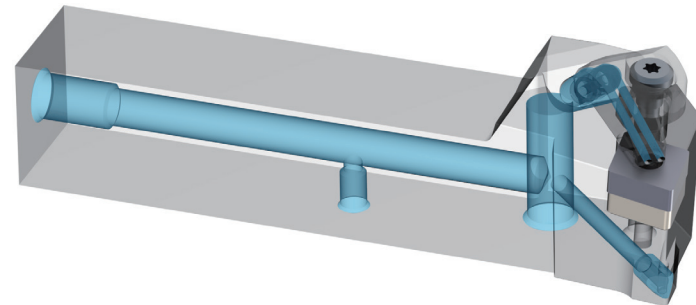
- Sharp edge to ensure efficient drilling
- The contour design and polishing technology for the chip flute, ensure smooth chip removal



Application: Pocket rough machining
Solution: Achteck porcupine milling tool APE90-LN09/LN13/AO12
Multi-tooth porcupine milling

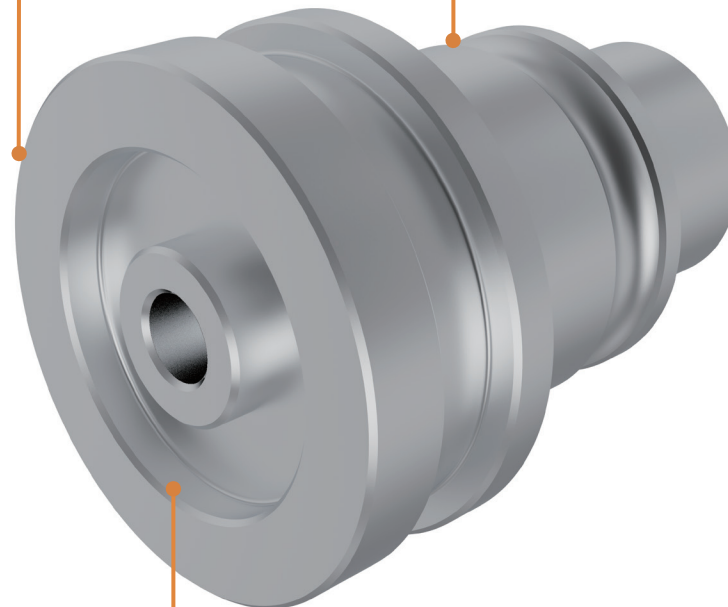
- Accurate internal coolant towards each insert
- Tangential insert design provides a stronger and more reliable cutting edge
- Grade AP403S for the difficult-to-machine materials

- Shaft turning
Material: Titanium alloy or stainless steel



Application: ISO external turning, face turning and internal turning
Solution: Achteck ISO turning holder series

- Including Positive and Negative inserts: C, D, W, V, T, R, S etc.
- Various chip breaker designs for ISO P, M, S materials
- A high-pressure internal coolant tool holder is available for the most difficult-to-machine materials



Application: External grooving
Solution: Achteck external grooving series

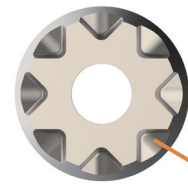
- V-shaped positioning design at the bottom of insert provides reliable clamping
- The tool holder used high strength alloy steel, with long tool life
- High pressure internal coolant tool holder is available for the most difficult-to-machine materials



Application: Face grooving
Solution: Achteck face grooving series

- V-shaped positioning design at the bottom of insert provides reliable clamping
- The high strength alloy steel tool holder, with long durability
- High pressure internal coolant tool holder is available for the most difficult to machine materials

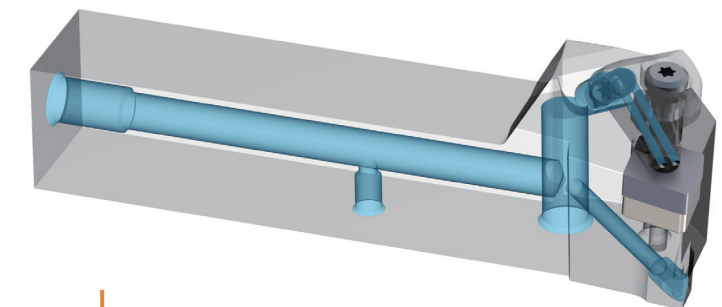
- Aeroengine case
Material: Titanium alloy or Heat resistant alloy



Anti-rotation slot

Application: 5 axis profile milling
Solution: Achteck profile milling APM00-RO10/12/16

- Round insert with anti rotation slot for better positioning
- Grade AP403M and AP403S are for the difficult-to-machine material machining



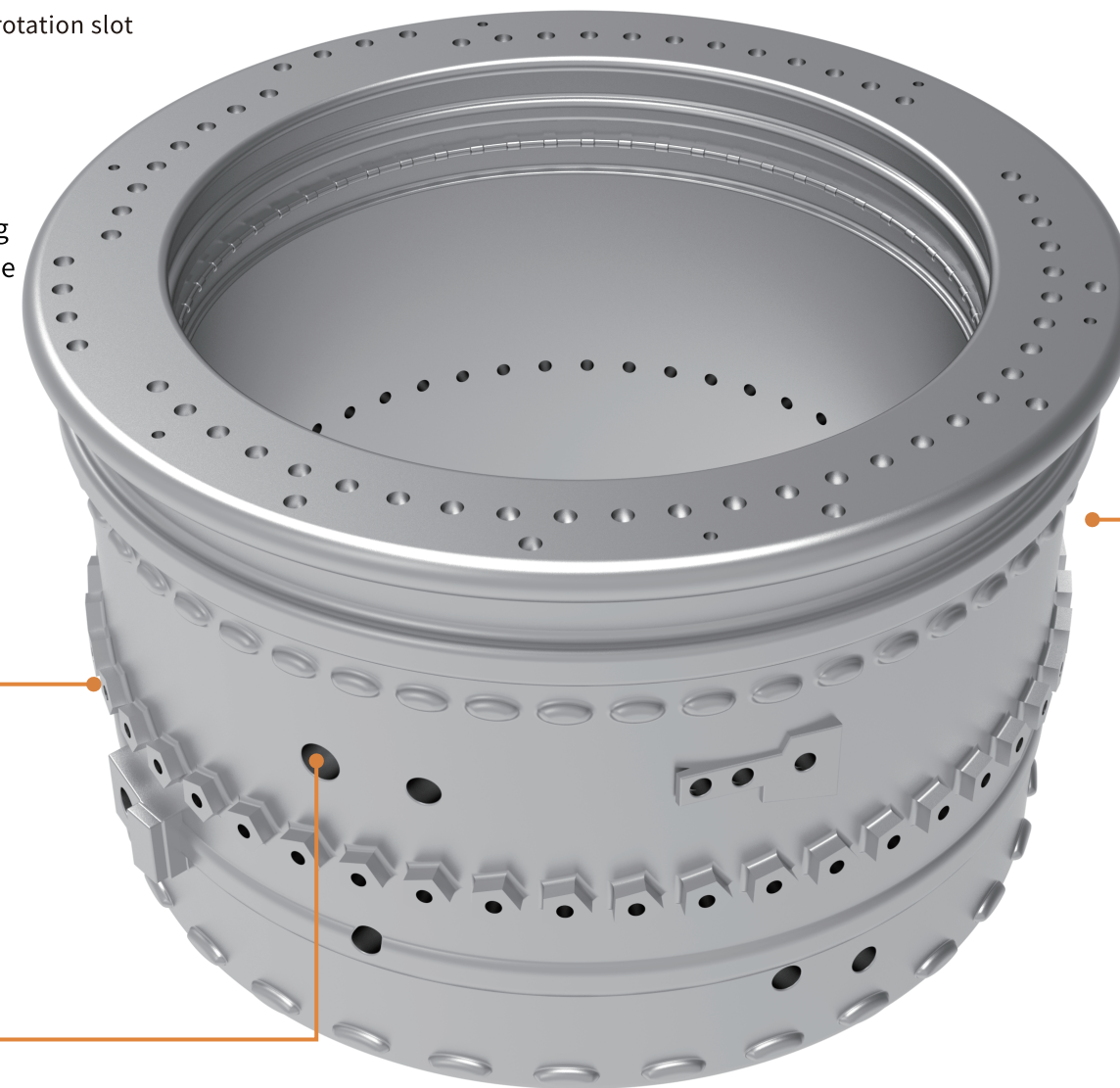
Application: ISO turning products
Solution: PVD coating turning grade-AP100S

- Nano PVD coating with high hardness provides superior performance for heat resistant alloys and stainless steel
- Smooth coating surface reduces cutting forces, and improves wear resistance

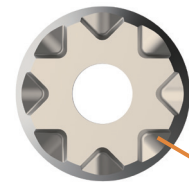


Application: Drilling
Solution: Achteck solid carbide drill D151 series with internal coolant

- Sharp cutting edge ensures efficient drilling
- The profile design and polishing technology of the chip flute ensures smooth chip removal



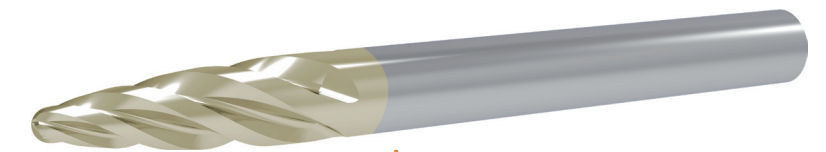
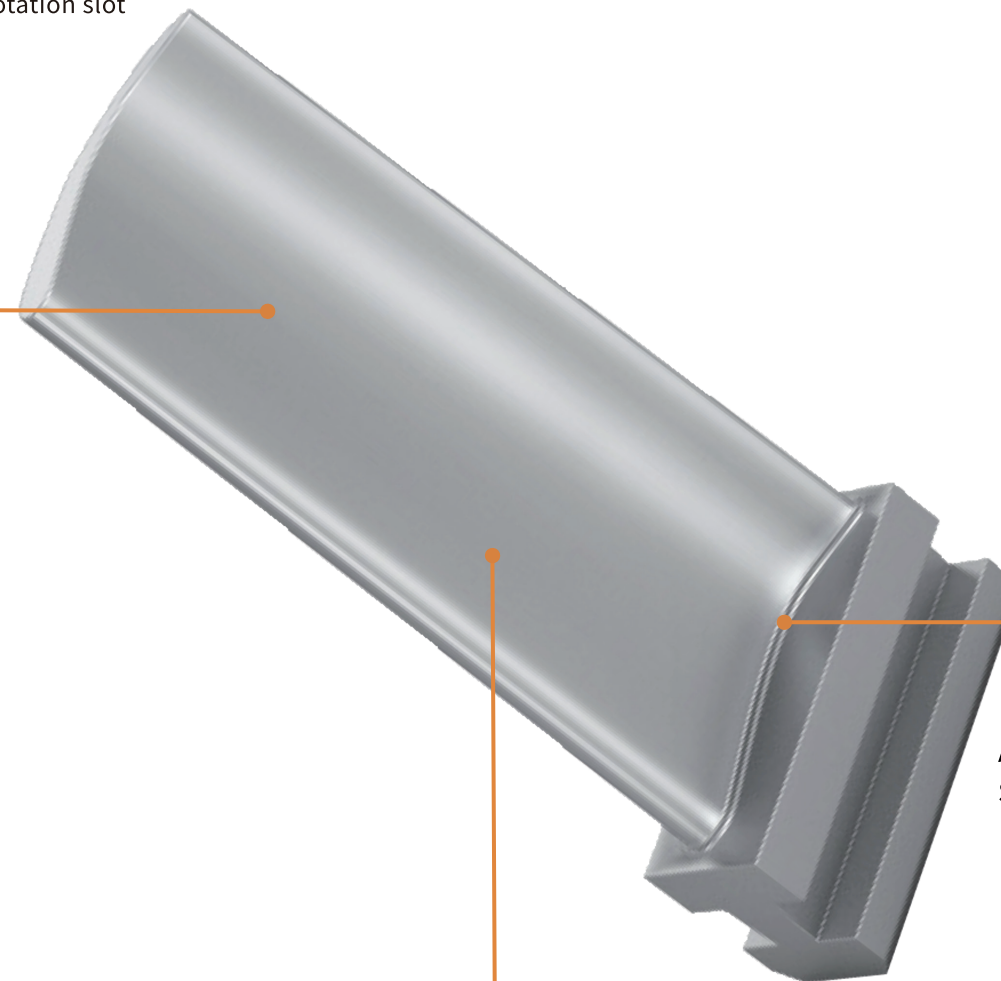
- Blade
Material: Heat resistant alloy /Stainless steel/Titanium alloy



Anti-rotation slot

Application: 5 axis profile milling
Solution: Achteck profile milling APM00-RO10/12/16

- Round insert with anti-rotation slot for better positioning
- Grade AP403S and AP403M are for difficult-to-machine material



Application: Semi-finishing/finishing on blade transitional area
Solution: Achteck special solid carbide end mill



Application: Airfoil semi-finishing milling
Solution: Achteck solid carbide end mills

- PVD coating with high hardness and good oxidation resistance
- Achteck self-developed high strength carbide rods