



// 2024

Energy industry tooling solutions



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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.



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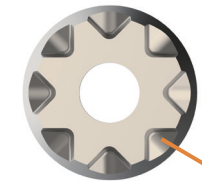
Turbine blade	1-2
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- Turbine blade
Materials: Stainless steel/ Heat resistant alloy/
Titanium alloy



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

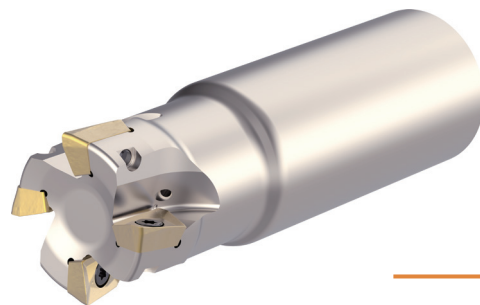
- The bottom of the insert has an anti-rotation slot to avoid under or over cutting
- Universal geometry with spiral cutting edge design for low cutting forces
- Peripheral and center cutting edges available for each insert



Anti-rotation slot

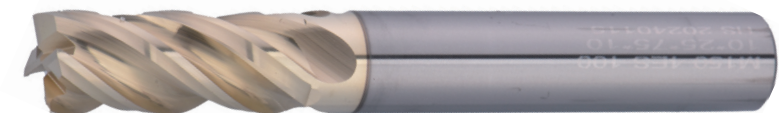
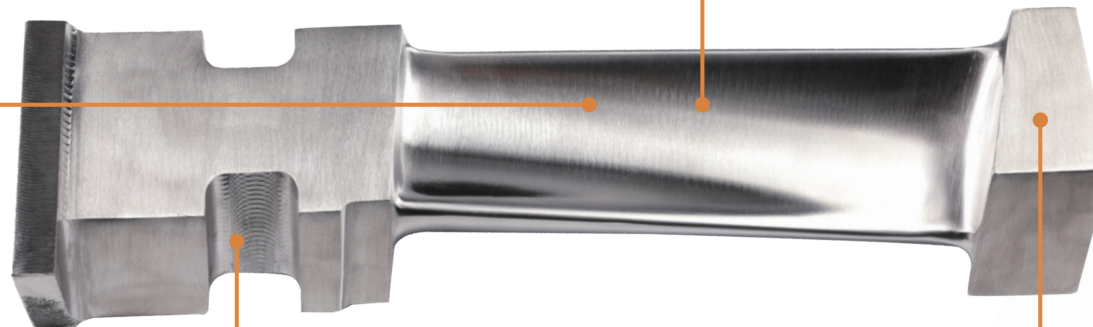
Application: 5 axis profile milling
Solution: Achteck high feed milling cutter APM00-RO10/12/16

- Round insert with multiple anti-rotation slots to securely clamp the insert
- Grade AP403M and AP403S for difficult-to-machine materials



Application: Rough milling blade root area, semi-finishing face milling
Solution: ASM90-AO12 series

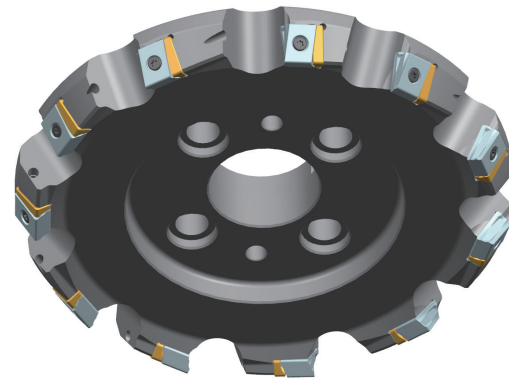
- Incremental spiral edge design, light cutting
- Wide range of corner radii (R0.4-4.0)
- Different coupling types, with conventional cutter bodies and porcupine milling cutters



Application: Semi-finishing blade transitional area, finishing blade root area
Solution: Achteck solid carbide end mill M150 series

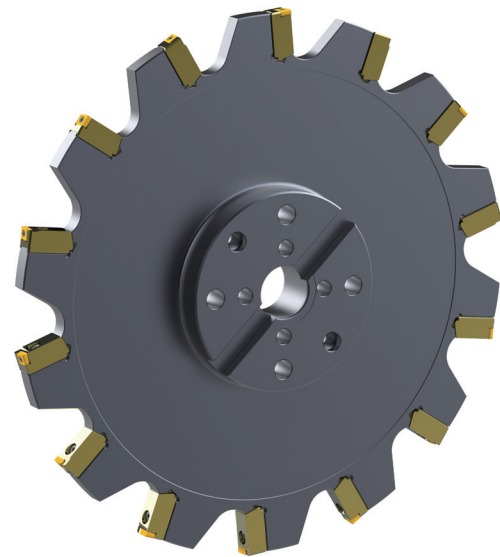
- New substrate grade AK12E with excellent impact resistance and heat resistance
- Differential pitch and profile design, effectively eliminate the vibration, with excellent chip removal

• Turbine case
Materials: Steel/Cast iron



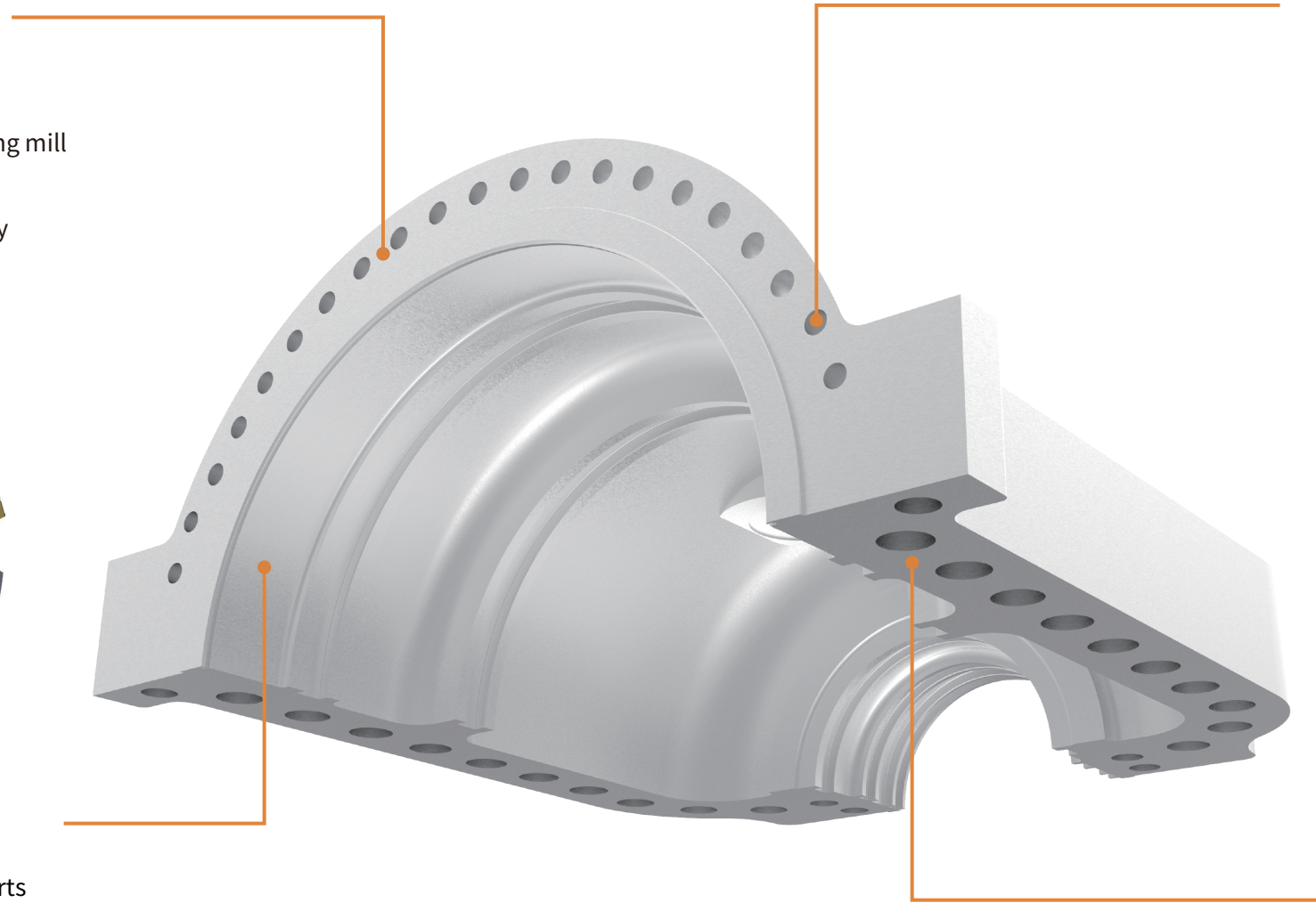
Application: Face rough milling
Solution: Achteck LNMU 221012R heavy roughing mill

- Diameter range: D80-D315 mm
- First choice for heavy cutting, strong geometry



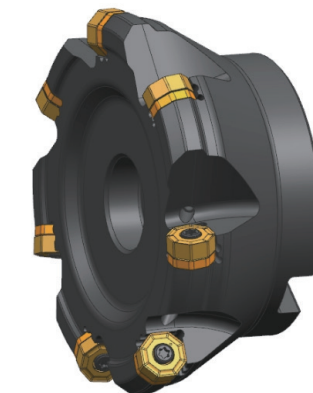
Application: Slot milling
Solution: Achteck LN12, LN16 milling inserts

- Diameter range: D250-D630 mm, special design can be provided
- First choice for heavy cutting, strong geometry



Application: Hole drilling
Solution: Achteck short hole drills

- Versatile grade for P, M, S materials
- Suitable for drilling from 1xDc to 3xDc
- The drill has double internal coolant holes to optimize the cooling and chip removal



Application: Vapor-tight face finish milling
Solution: Achteck AFM45-ON05

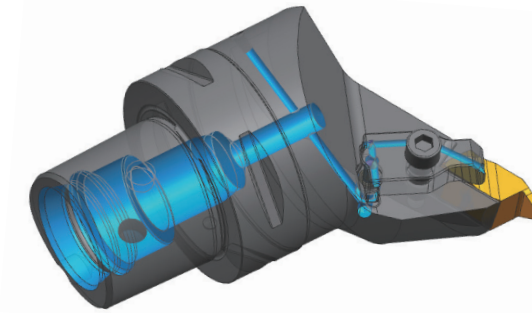
- Economic negative inserts with 16 cutting edges
- Inserts with hard nano-structured PVD coating

• Turbine rotor Materials: Alloy steel



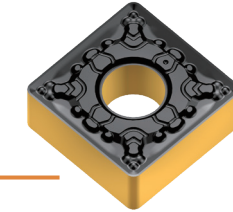
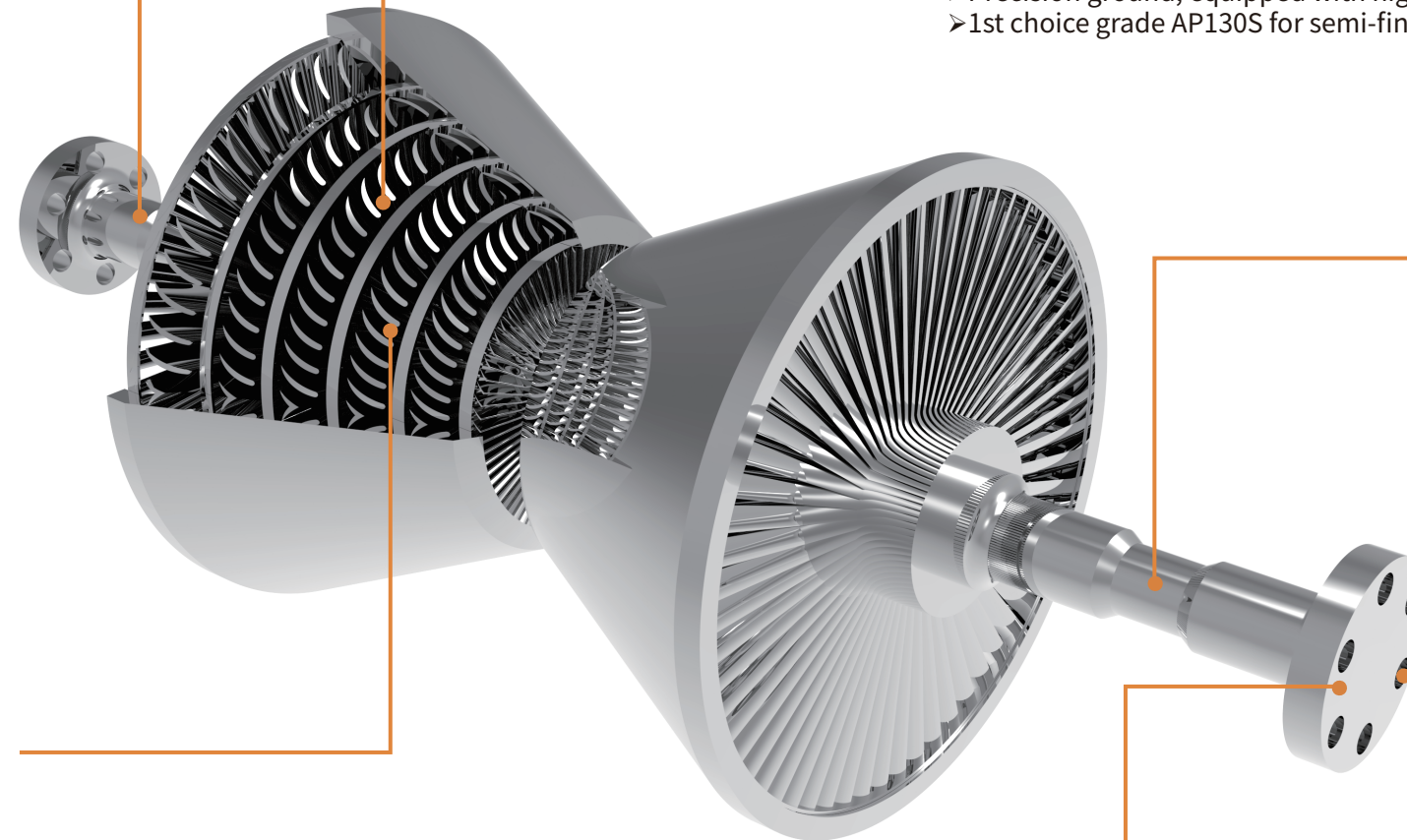
Application: Grooving
Solution: Achteck grooving insert ACD202/ 302 series

- V-type locating design at the bottom of insert for reliable positioning
- High strength alloy steel holder; long tool life
- Special tool designs available



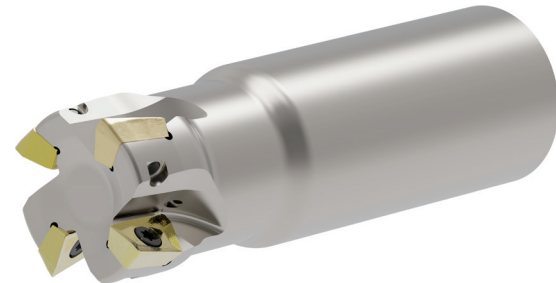
Application: Grooving for T-shaped turbine rotor
Solution : Internal grooving cutter with high pressure internal coolant

- Special high rigidity insert, to meet the narrow groove machining requests
- Precision ground, equipped with high pressure internal cooling plate
- 1st choice grade AP130S for semi-finishing, finishing turning



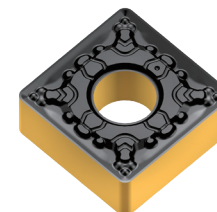
Application: External turning
Solution: C-type, S-type, D-type, R-type

- A wide range of insert selections
- Various geometries for rough turning to finish turning
- Various CVD inserts for different materials under different working conditions



Application: Blade root slot rough milling
Solution: AOMT12/APMT17

- Tool diameter range: D25-D63 mm
- Recommended insert grade: AP403M



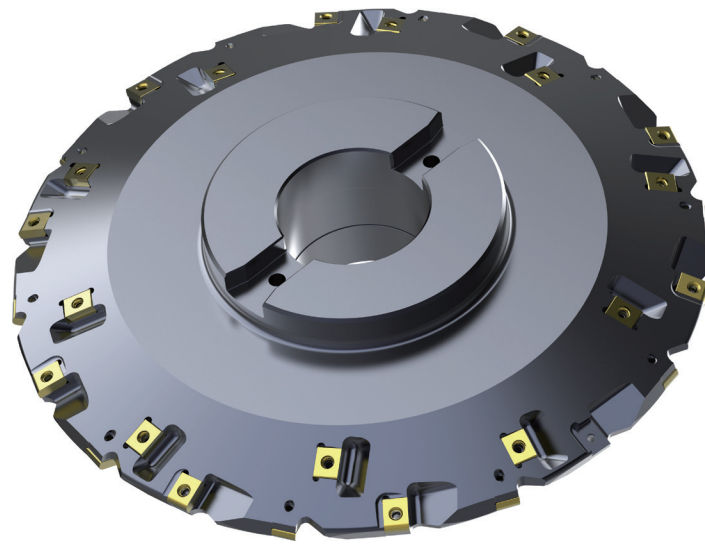
Application: External turning
Solution: C-type, S-type, D-type, R-type

- A wide range of insert selections
- Various geometries for rough turning to finish turning
- Various CVD inserts for different materials under different working conditions



Application: Hole drilling
Solution: SPMT/WCMT standard drilling insert

- Slewing bearing machining
Materials: Alloy steel

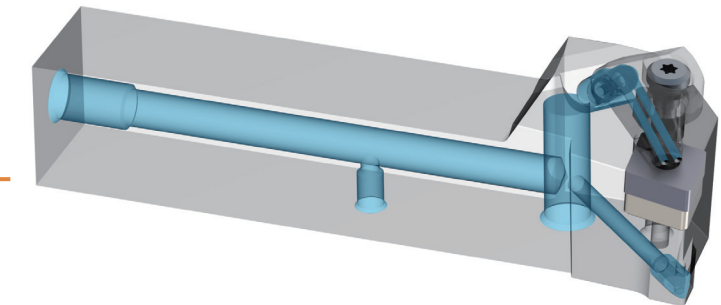
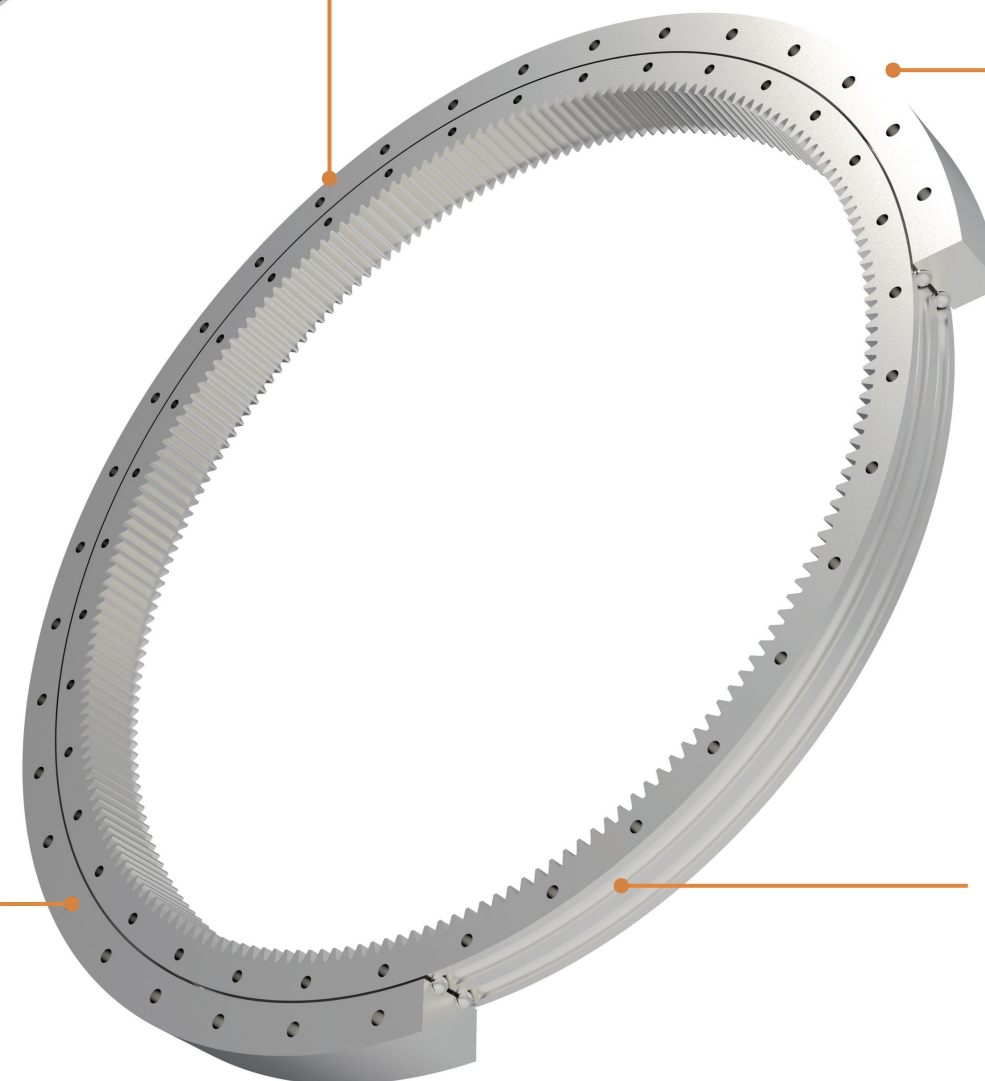


Application: Gear milling for slewing bearing
Solution: Gear milling

- Milling cutter is provided above modulus (M10)
- Rough and semi-finish milling cutter
- New PVD coated insert for ring gears



Application: drilling
Solution: Achtek standard indexable drill



Application: Internal, external and face turning
Solution: New CVD grade: AC052P

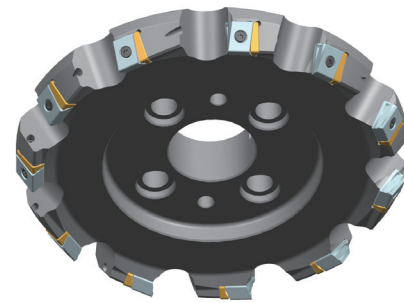
- Optimized M-Al2O3 coating, suitable for higher cutting speed applications



Application: Sealing slot
Solution: Grooving insert ACD202/302 series

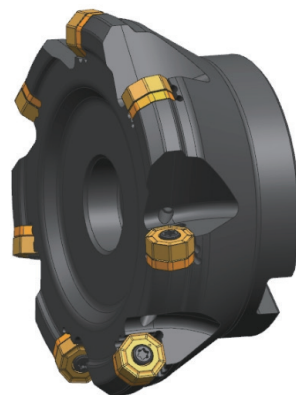
- V-type locating design at the bottom of insert offered reliable positioning
- High strength alloy steel holder for long tool life

• Wind turbine hub
Materials: Nodular cast iron



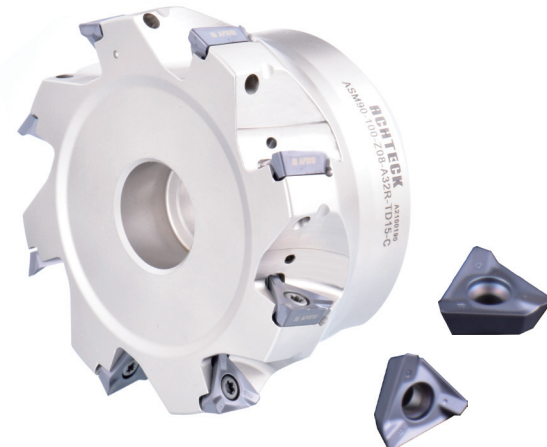
Application: Face rough milling
Solution: Achteck LNMU221012R

- Heavy rough milling insert
- Versatile grade for P, M, S materials



Application: Face finish milling
Solution: Achteck AFM40-ON05

- Negative insert with 16 cutting edges, very economical
- Hard nano-structured PVD coating
- Smooth coating surface reduces cutting force and improves wear resistance



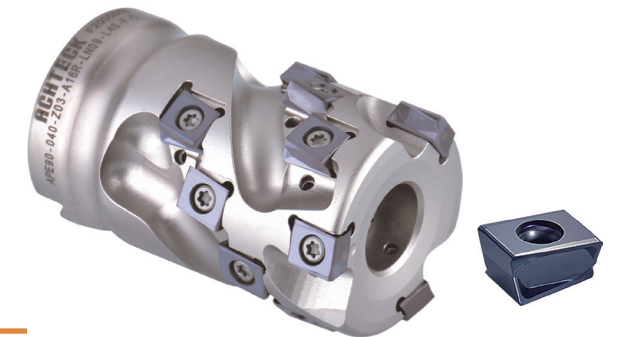
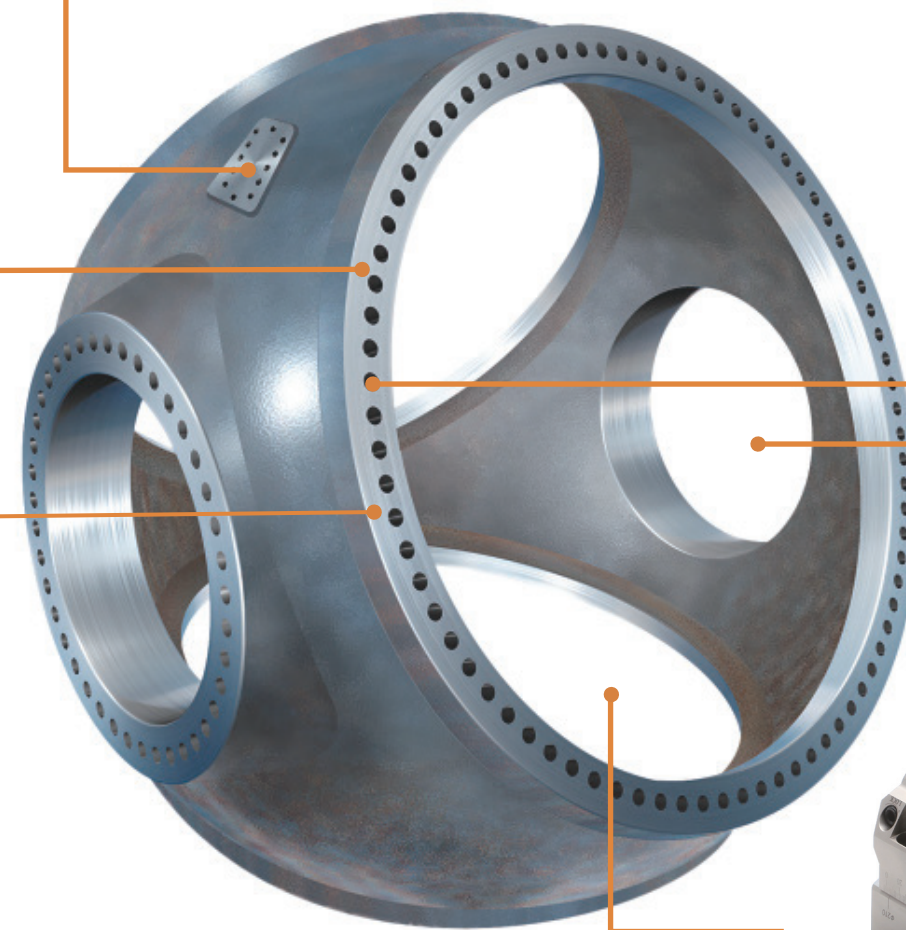
Application: Pocket milling
Solution: ASM90-TD15

- Positive three-edge square shoulder milling cutter
- Incremental spiral edge design



Application: Hole drilling
Solution: Achteck short hole drills

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



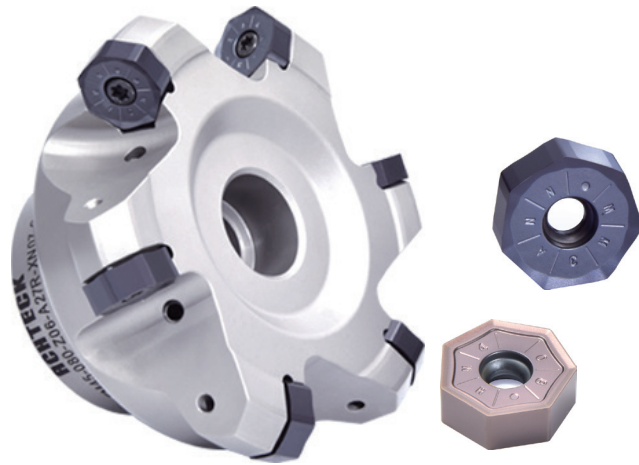
Application: Profile/main hole rough milling
Solution: Achteck porcupine milling cutter APE90-LN09/13

- Full tooth porcupine milling cutter
- Precise internal coolant for each insert
- Tangential insert design, high security



Application: Boring
Solution: Achteck MLF/MLR big diameter boring tool

- Machine base
Materials: Nodular cast iron

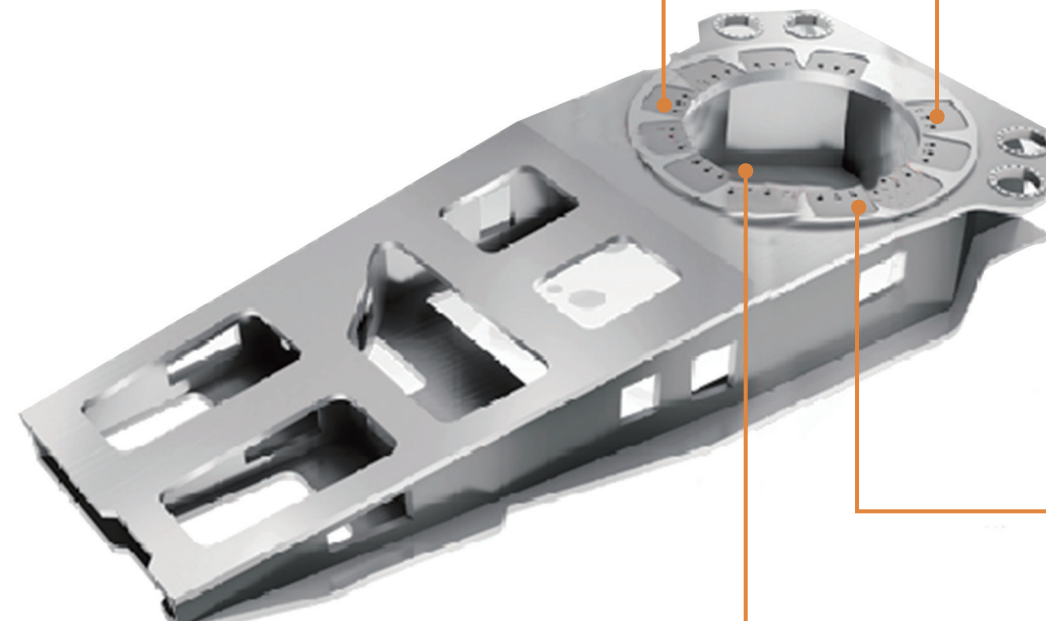


Application: Rough face milling
Solution: Achtek XNMU 07 /09 series

- Negative heptagonal milling insert, very economical
- Precise internal cooling for each insert edge



Application: Boring
Solution: Achtek MLF/MLR boring diameter boring tool



Application: Hole drilling
Solution: Achtek short hole drills

- Universal insert for P, M, S materials
- Hole drilling from 1xD to 3xD
- Two coolant holes for good cooling and chip removal



Application: Pocket rough milling
Solution: Achtek TDMT 1505 series

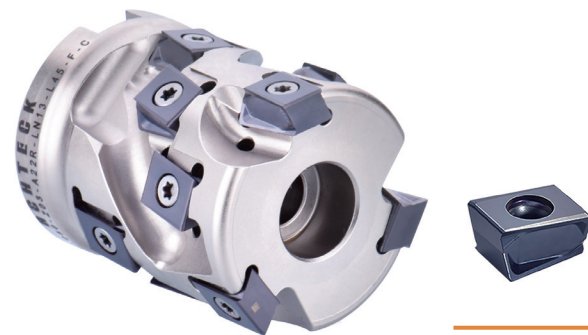
- Positive 90° shoulder milling insert with three cutting edges
- Positive rake angle and spiral angle design for light cutting
- Pressed and ground inserts are available, suitable for rough, semi-finish and finish milling

- Bearing seat
Materials: Alloy steel or Cast iron



Application: Main hole rough and finish boring
Solution: Achteck MLR/MLF boring tool large diameter

- With steel and aluminum boring bridges, for different tool weight limitations
- Modular design, lower cost for changing
- Boring diameter range: D150-850 mm



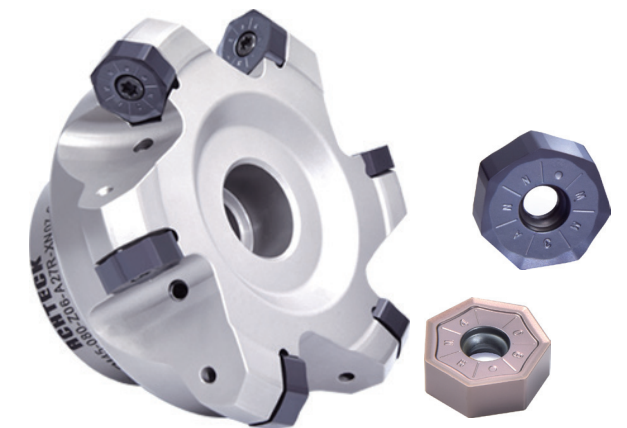
Application: Side wall rough milling
Solution: Porcupine cutter APE90-LN09

- Full-tooth porcupine milling cutter
- Accurate internal cooling for each insert edge
- Tangential insert design, high reliability



Application: Step milling
Solution: LNHU 09/13 series

- Good accuracy for high repeatability
- The cutter body is designed with tangential insert for good strength and stability



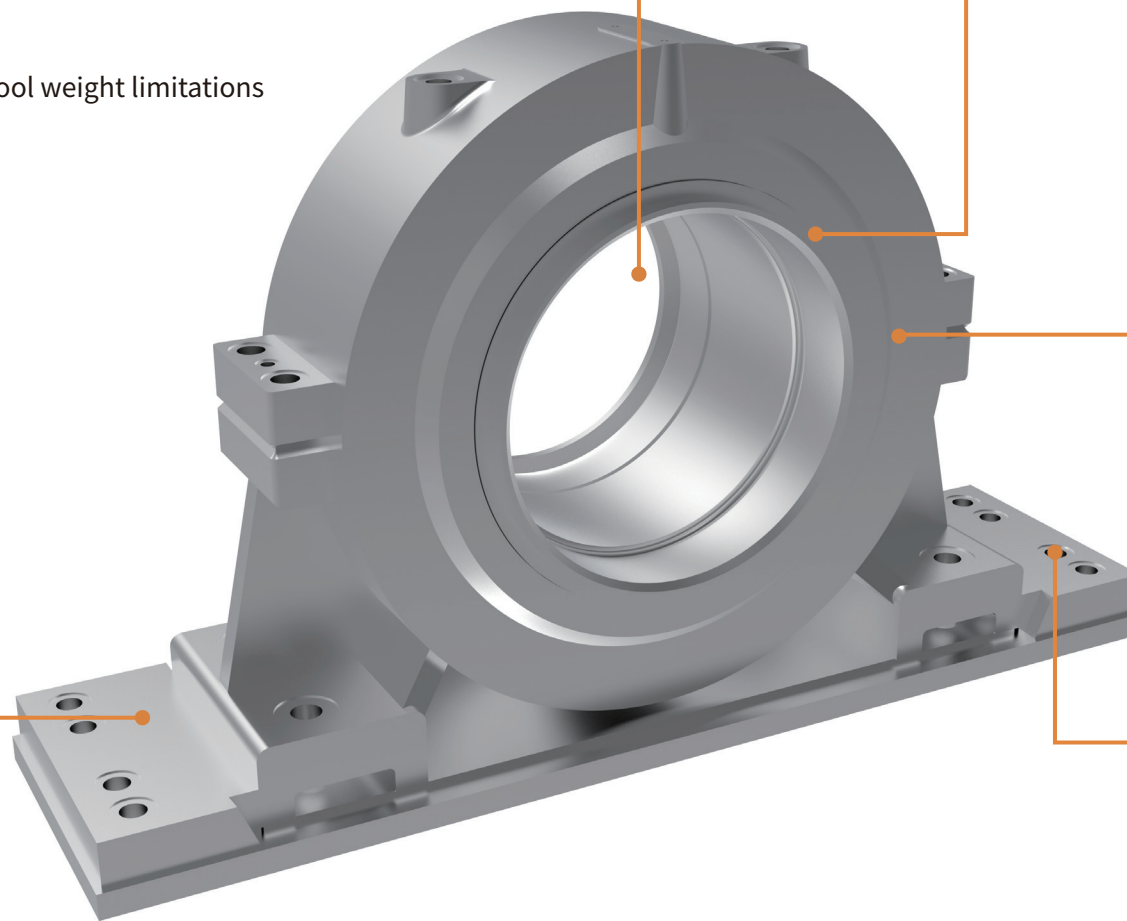
Application: face rough milling
Solution: Achteck XNMU 07 /09 series

- Negative heptagonal milling insert, very economical
- Precise internal coolant for each insert edge



Application: Hole drilling
Solution: Achteck short hole drills

- Universal insert for P, M, S materials
- Hole drilling from 1xD to 3xD
- Two coolant holes for good coolant and chip removal





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