

医疗及小零件加工解决方案

Manufacturing Solutions for Medical & Small Parts



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厦门金鹭特种合金有限公司, 成立于 1989 年, 是一家中外合资的国家高新技术企业, 隶属于中国六大稀土集团之一的厦门钨业股份有限公司。公司致力于高品质钨粉末材料、硬质合金、精密切削工具等钨系列产品的研发、生产, 以及行业专业解决方案的提供, 是世界知名的钨粉末、硬质合金及切削工具供应商。

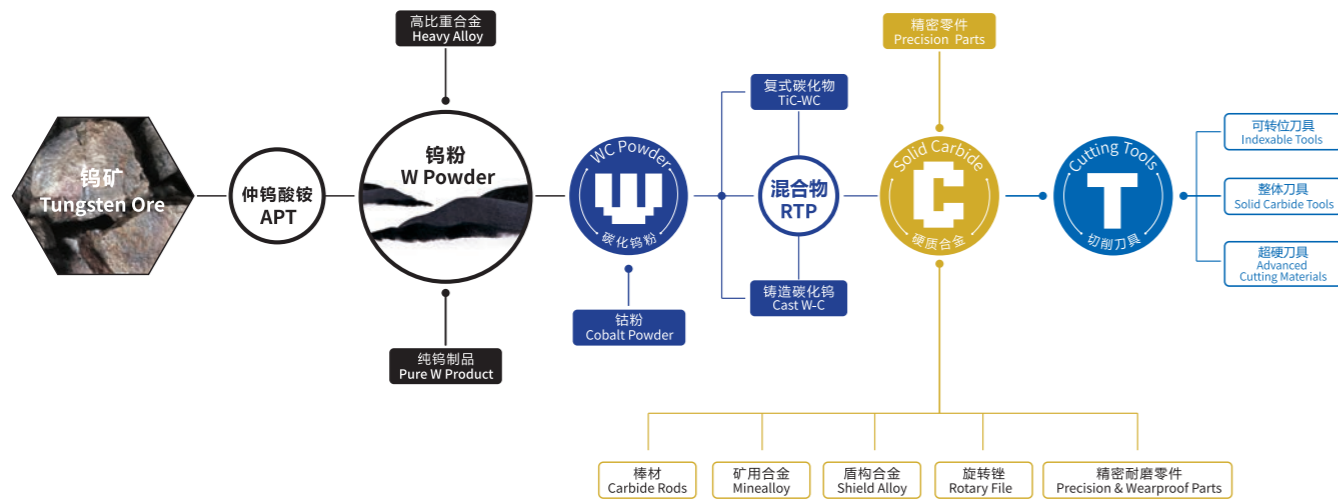
凭借完整钨产业链的产品集成技术研发, 以及务实、创新的管理理念, 厦门金鹭始终保持着强劲的发展势头, 为全球用户提供最高性价比的产品和服务, 为现代工业领域解决高硬度、耐高温、耐磨损问题, 提供了优良的产品和完善的解决方案, 客户遍布全球四十多个工业发达国家和地区, 享誉海内外。

公司拥有国内 4 个生产基地和 1 个国家级企业研发中心, 海外 3 个销售公司和 1 个海外生产基地, 独立承担并完成多项“国家科技支撑计划项目”, “国家科技重大专项”, “国家火炬计划项目”, “国家重点新产品”开发项目及省市重点研究课题, 被评为“战略性新兴产业骨干企业”、“创新型企业”、“先进科技企业”。

Xiamen Golden Egret Special Alloy Co., Ltd. (GESAC), founded in 1989, is a Sino-foreign joint venture with national high-tech, affiliated with XTC, which is one of six major rare earth groups in China. GESAC is committed to research & development, production and professional solutions providing of high-quality tungsten powder materials, cemented carbide, precision cutting tools and other tungsten products. Up to now, GESAC has become world-famous manufacturer and supplier of tungsten powder, cemented carbide and precision cutting tools products.

With the Integrated Product Development of complete tungsten industry chain, as well as a pragmatic and innovative management concept, GESAC has always maintained a strong momentum of development, providing the cost effective tungsten powder products and services for global users, offering the excellent products and perfect solutions for solving high hardness, high temperature resistance and wear resistance topics. Our brand "Golden Egret" has become one of the leading brand in the market, enjoying famous reputation in more than 40 countries and regions.

GESAC owns four production headquarters and one national level research center domestically, and three sales branches and one production base overseas. We undertook and completed several development programs independently, including the "National Science and Technology Support Programs", the "National Torch Program Projects", and the "National Key Projects" and so on. GESAC was awarded as "Key Enterprise for Strategic Emerging Industry", "Innovative Enterprise" and "Enterprise with Advanced Technology".



加工解决方案
Manufacturing Solutions

接骨板 Bone plate	04
接骨板螺钉 Screws	06
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加工案例
Application Case

14



孔、槽铣削 Hole and Groove Milling

- 钛合金精加工立铣刀
Titanium alloy finishing endmills



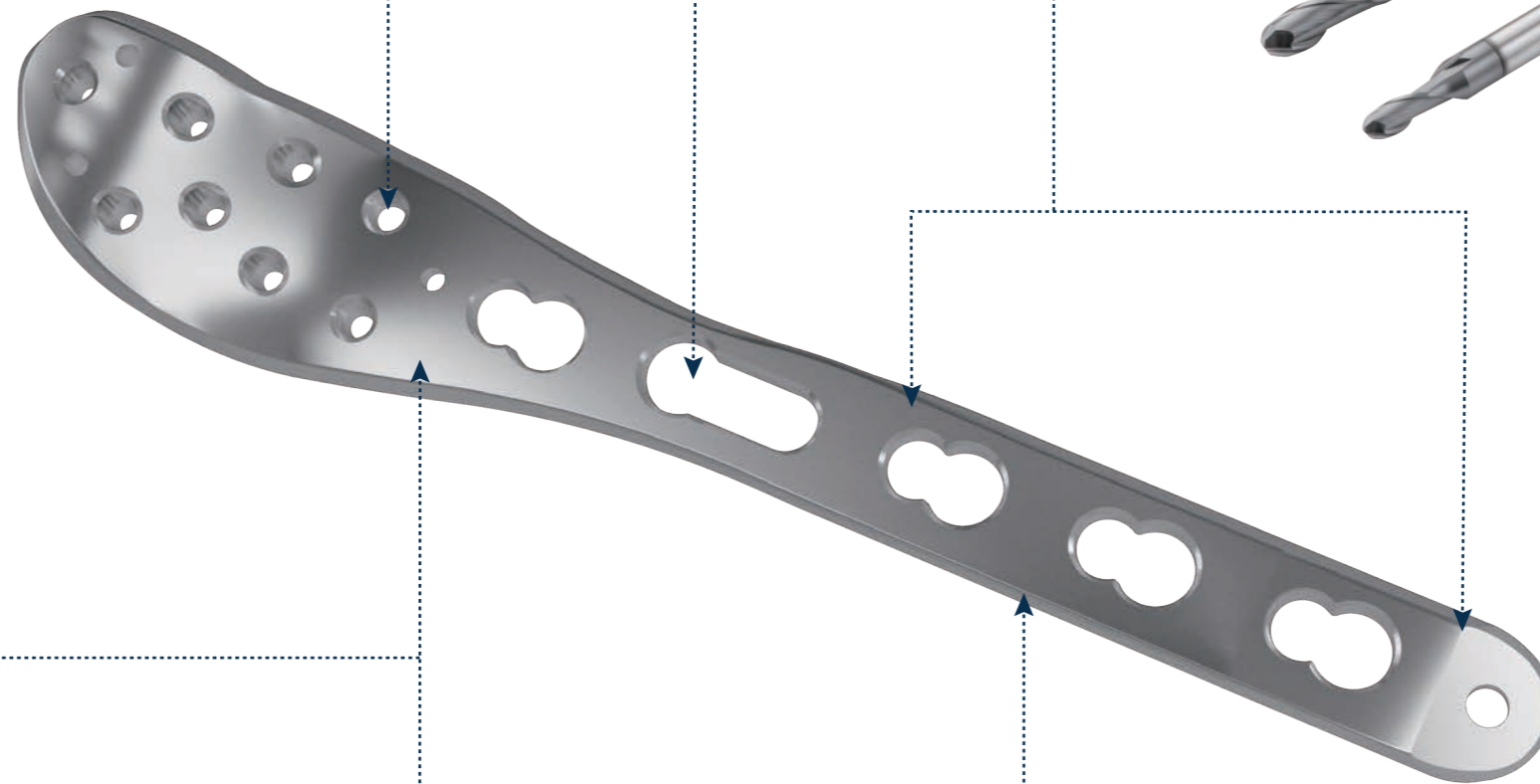
外型精加工 External Finishing

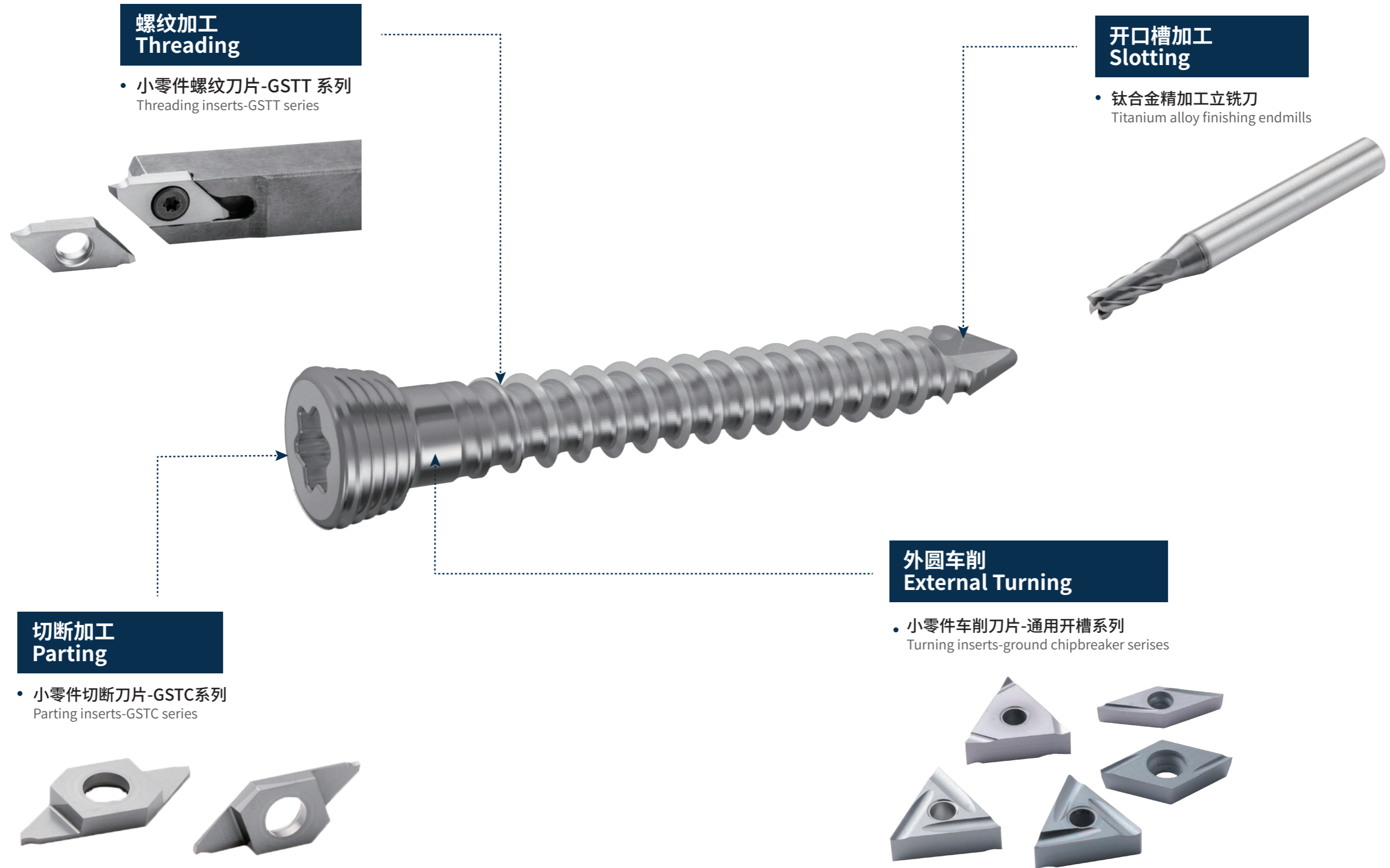
- 钛合金精加工立铣刀
Titanium alloy finishing endmills



外型粗加工 External Roughing

- SS600-R5
高性能圆角头立铣刀
High performance endmills





**平面槽加工
Plane Slotting**

- 高效加工立铣刀
High efficiency endmills



**内槽加工
Inner Grooving**

- 整体切槽刀具
Solid tool for grooving



**开口槽加工
Slotting**

- 高效加工立铣刀
High efficiency endmills



**内螺纹加工
Internal Threading**

- 整体螺纹刀具
Solid tool for threading



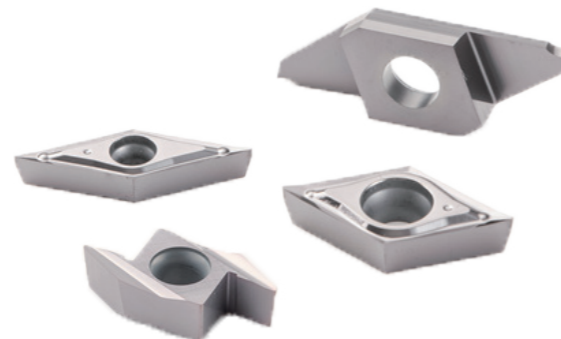
**中心孔加工
Central Hole Making**

- 阶梯硬质合金麻花钻
Step solid drills
- 整体内镗刀具
Solid tool for boring



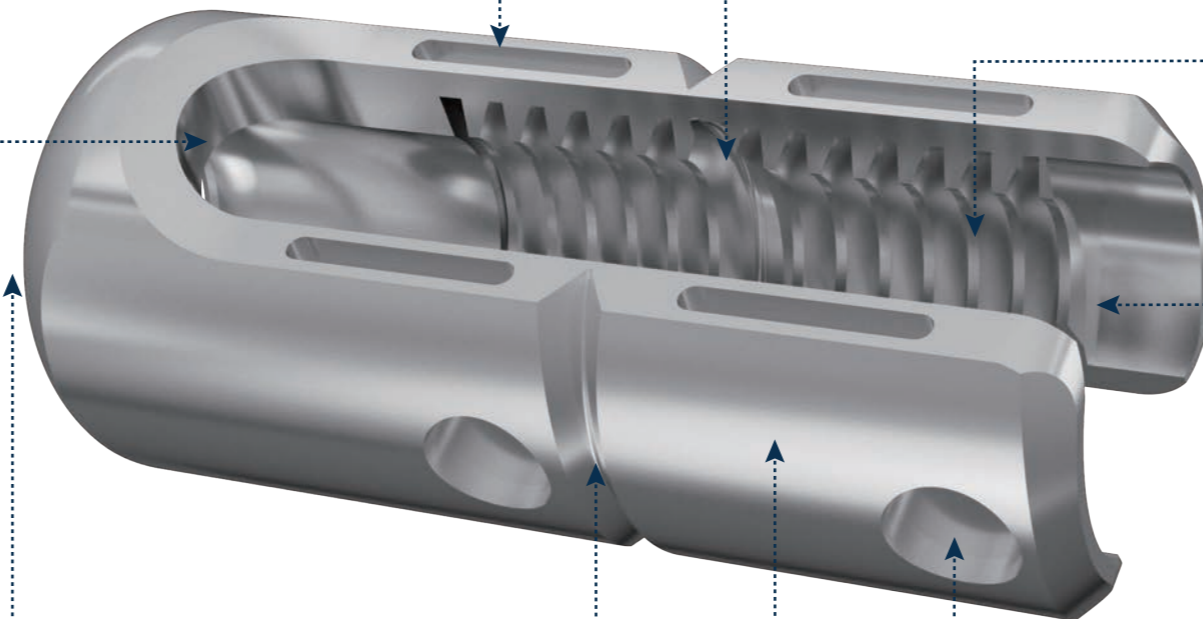
**外圆、V槽、端面加工
External, V Grooving and Facing**

- 小零件车削刀片-三维断屑槽系列
Turning inserts-3D chipbreaker series
- 小零件背车刀片-GSAB系列
Back turning inserts-GSAB series
- 小零件切断刀片-GSTC系列
Parting inserts-GSTC series



**侧边孔铣削
Side Hole Milling**

- 高效加工立铣刀
High efficiency endmills





**股骨假体外表面粗加工
External Rough Machining**

- 钴铬钼球头高性能立铣刀
CoCrMo High performance endmills



**股骨假体凹槽加工
Groove Processing**

- 钴铬钼锥度球头立铣刀
CoCrMo Taper ball endmills



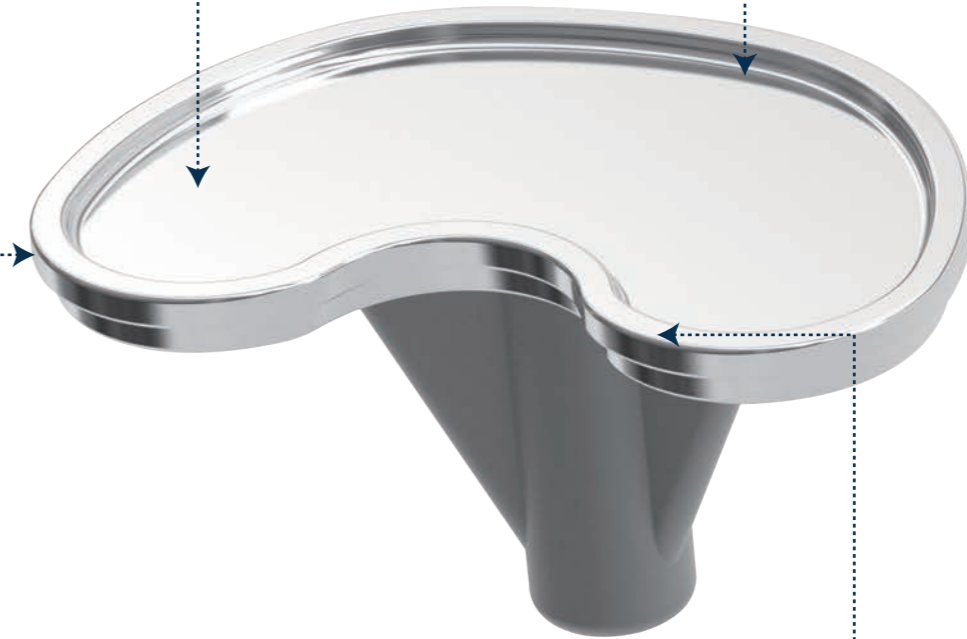
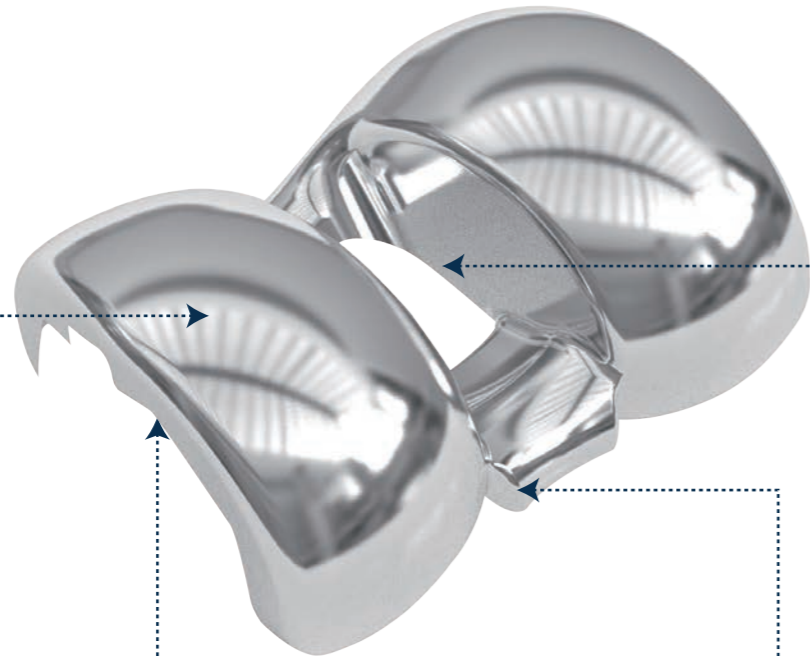
**胫骨平台底面精加工
Plane Machining**

- 钴铬钼精加工立铣刀
CoCrMo Finishing endmills



**胫骨平台T型槽加工
T Groove Processing**

- 钴铬钼T型立铣刀
CoCrMo T-slot endmills



**股骨假体侧壁精加工
Sidewall Finishing**

- 钴铬钼精加工立铣刀
CoCrMo Finishing endmills



**股骨假体凹槽部分精加工
Groove Finishing**

- 钴铬钼精加工球头立铣刀
CoCrMo Finishing endmills



**胫骨平台平面/外圆粗加工
External Rough Machining**

- 钴铬钼高性能加工立铣刀
CoCrMo High performance endmills



**胫骨平台外圆精加工
External Finishing**

- 钴铬钼精加工立铣刀
CoCrMo Finishing endmills



孔加工 Hole Making

- 非标定制麻花钻
Taylor-made twist drills

外圆前段精车 External Finishing

- 小零件车削刀片-通用开槽系列
Turning inserts-ground chipbreaker series



内孔前段半精车 Internal Finishing

- 精密非标车刀片
High Precision Taylor-made Turning



外圆、端面粗车 External Rough Turning

- 精密浅槽加工
High Precision Shallow Grooving



内孔端面槽精车 Internal Face Groove Finishing

- 精密非标槽刀片
High Precision Taylor-made Grooving



内孔、内槽粗车 Internal Rough Turning

- 精密内孔槽加工
High Precision Internal Grooving



切断 Parting

- 精密切断刀具
High Precision Parting



外槽精车 External Groove Finishing

- 精密浅槽加工
High Precision Shallow Grooving



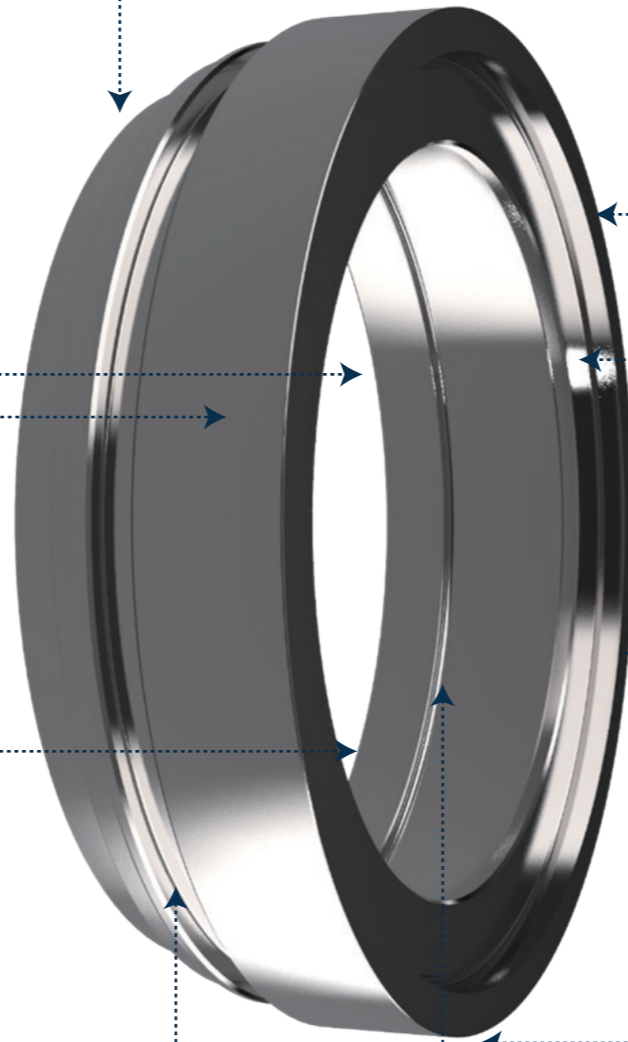
外圆、端面精加工 External Finishing

- 精密非标车刀片
High Precision Taylor-made Turning



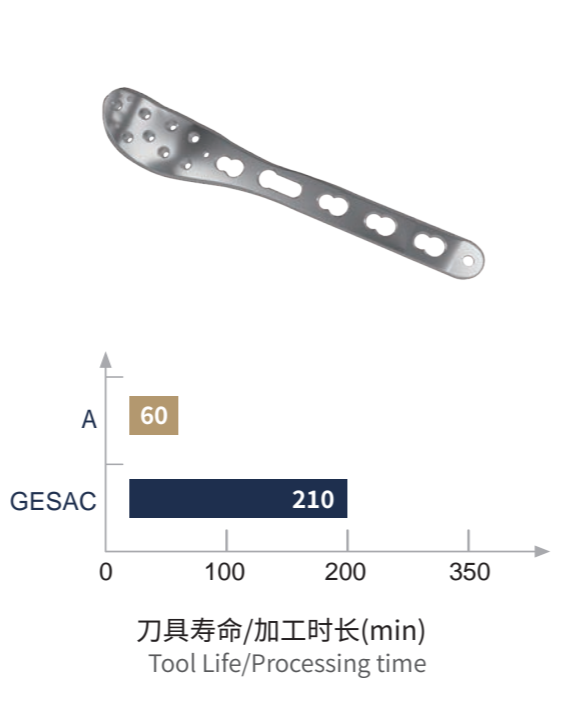
内槽精车 Internal Groove Finishing

- 精密内孔槽加工
High Precision Internal Grooving



接骨板粗加工
Locking Plate Roughing

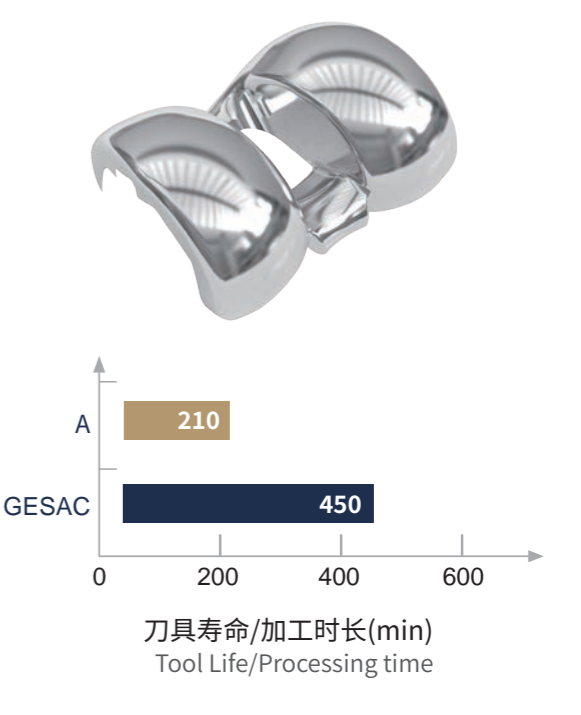
锁定板 Locking Plate	
系列 Series	SS600
刀具规格 Specification	D8*R1*20*60*d6*d8
加工材料 Material	TC4
切削速度 Cutting speed	N=7500r/min
进给量 Feed	F=2000mm/min
切深量 Depth	ap=11.2mm ae=0.96mm
切削方式 Cutting Type	摆线铣 Trochoidal Milling
冷却方式 Coolant	水基外冷 External Cooling



刀具寿命/加工时长(min)
Tool Life/Processing time

膝关节粗加工
Knee-joint Roughing

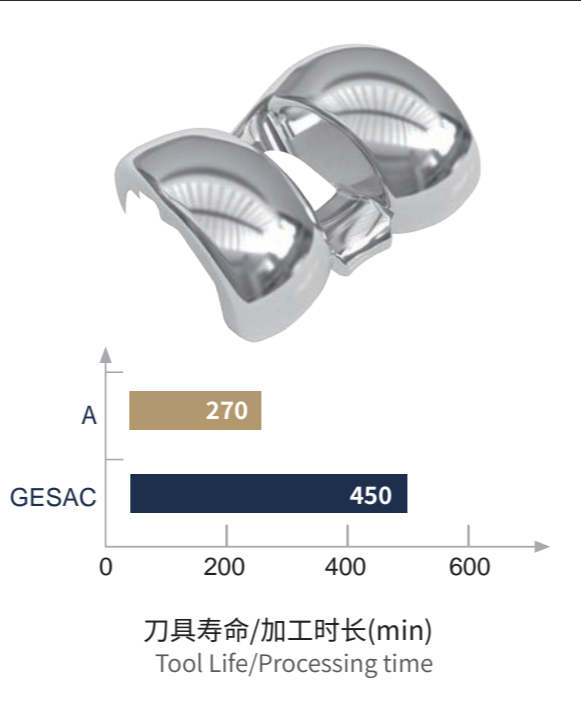
膝关节置换件 Knee Replacement System	
系列 Series	CoCrMo球头立铣刀 CoCrMo Ball End Milling
刀具规格 Specification	R5*18*75*d10
加工材料 Material	精铸钴铬钼 CoCrMo
切削速度 Cutting speed	N=3000r/min
进给量 Feed	F=1500mm/min
切深量 Depth	ap=0.2-0.8mm
切削方式 Cutting Type	球面仿形加工 Spherical Contour Milling
冷却方式 Coolant	水基外冷 External Cooling



刀具寿命/加工时长(min)
Tool Life/Processing time

手术器械粗加工
Surgical Instruments Roughing

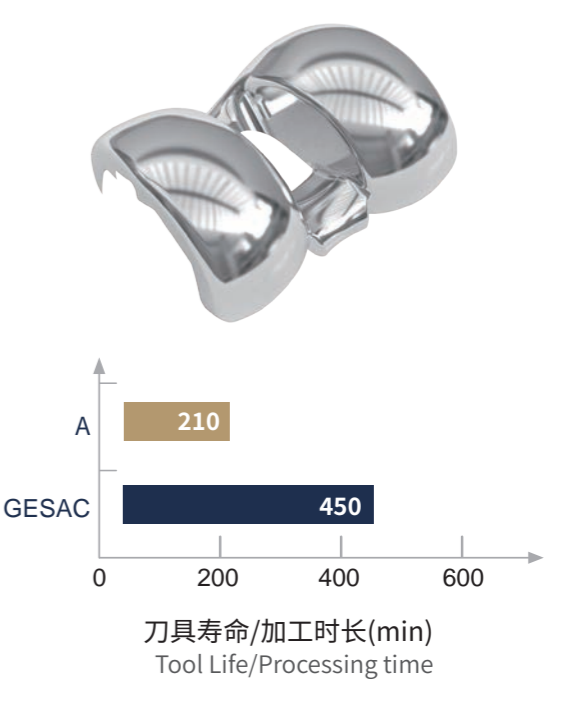
股骨假体-试模 Knee Replacement System-Test Mode	
系列 Series	SS600
刀具规格 Specification	D8*R1*20*60*d6*d8
加工材料 Material	630 (17-4PH)
切削速度 Cutting speed	N=7500r/min
进给量 Feed	F=2500mm/min
切深量 Depth	ap=1-15mm ae=0.96mm
切削方式 Cutting Type	摆线铣 Trochoidal Milling
冷却方式 Coolant	水基外冷 External Cooling



刀具寿命/加工时长(min)
Tool Life/Processing time

膝关节精加工
Knee-joint Finishing

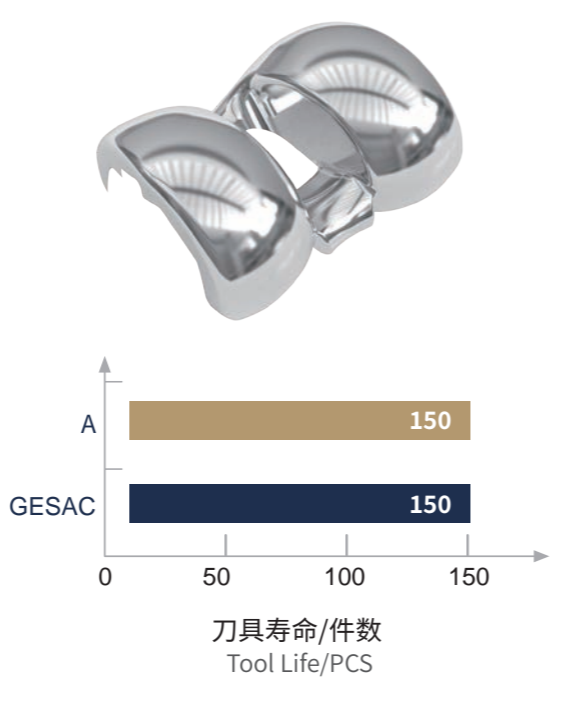
膝关节置换件 Knee Replacement System	
系列 Series	钴铬钼锥度球头立铣刀 CoCrMo Taper Ball End Milling
刀具规格 Specification	R2*30*6*90*d10
加工材料 Material	精铸钴铬钼 CoCrMo
切削速度 Cutting speed	N=5000-6500r/min
进给量 Feed	F=300-1000mm
切深量 Depth	ap=0.1mm
切削方式 Cutting Type	侧壁精加工 Sidewall Finishing
冷却方式 Coolant	水基外冷 External Cooling



刀具寿命/加工时长(min)
Tool Life/Processing time

膝关节精加工
Knee-joint Finishing

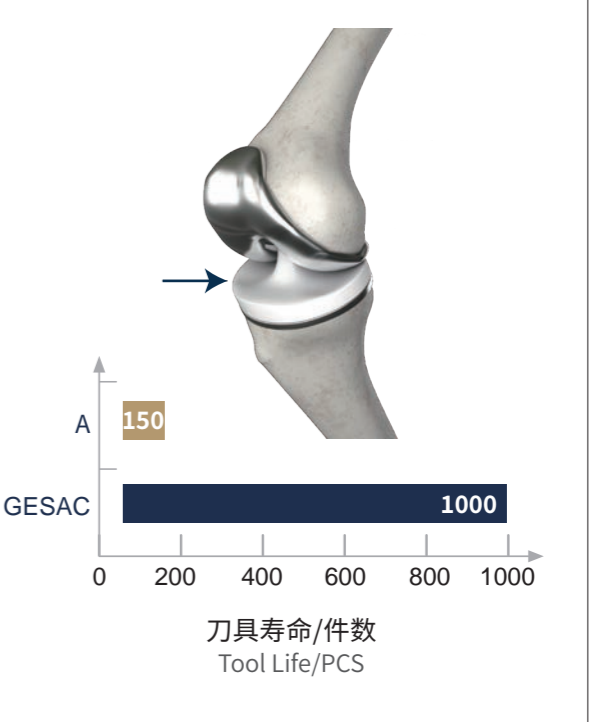
膝关节置换件 Knee Replacement System	
系列 Series	CoCrMo立铣刀 CoCrMo End Milling
刀具规格 Specification	D10*25*75*d10
加工材料 Material	精铸钴铬钼 CoCrMo
切削速度 Cutting speed	N=5000r/min
进给量 Feed	F=250mm/min
切深量 Depth	ap=0.05mm
切削方式 Cutting Type	外侧壁精加工 Side Milling
冷却方式 Coolant	水基外冷 External Cooling



Bar chart showing Tool Life/PCS for Knee-joint Finishing. The x-axis ranges from 0 to 150. The y-axis has two categories: A (blue bar) and GESAC (orange bar). Both categories show a tool life of 150 PCS.

胫骨垫片精加工
Tibial Component Finishing

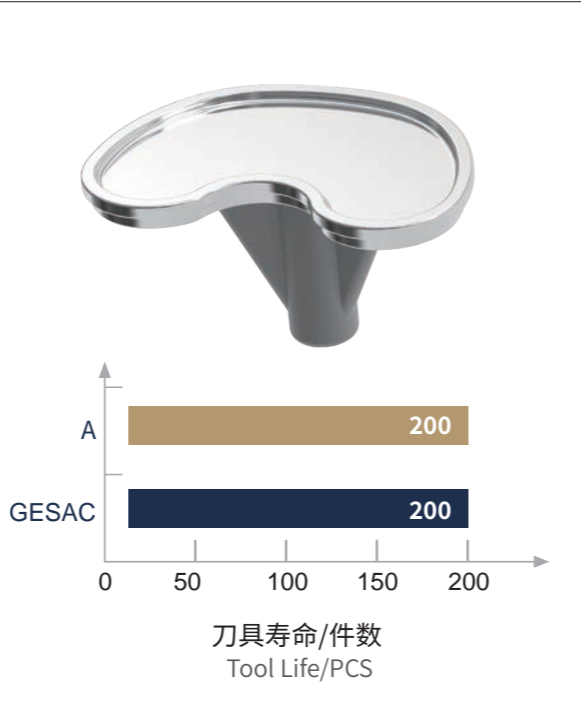
胫骨垫片试模 Tibial Component-Test Mode	
系列 Series	超硬刀具 PCD
刀具规格 Specification	APGT1604PDFR-1-DNN125P
加工材料 Material	PPSU
切削速度 Cutting speed	Vc=200-400m/min
进给量 Feed	Fz=0.03-0.05mm
切深量 Depth	ap=0.1mm
切削方式 Cutting Type	表面精加工 Face Milling
冷却方式 Coolant	水基外冷 External Cooling



Bar chart showing Tool Life/PCS for Tibial Component Finishing. The x-axis ranges from 0 to 1000. The y-axis has two categories: A (blue bar) and GESAC (orange bar). The A category shows a tool life of 150 PCS, and the GESAC category shows a tool life of 1000 PCS.

膝关节精加工
Knee-joint Finishing

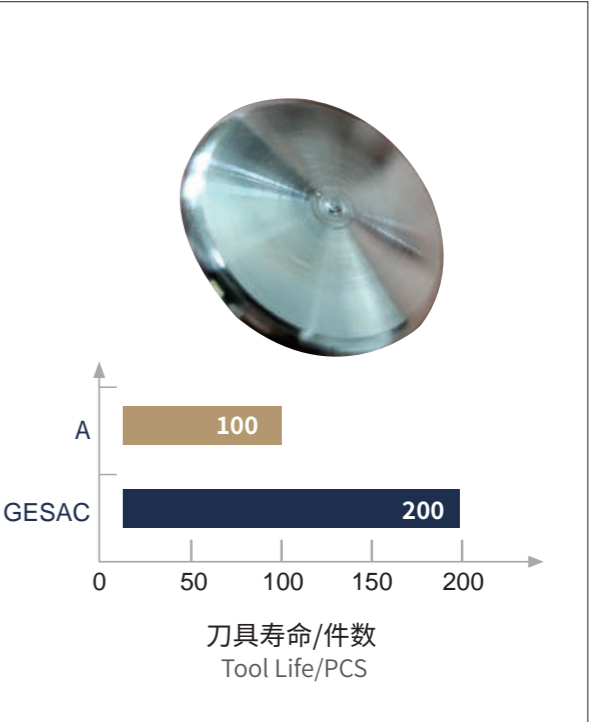
膝关节置换件 Knee Replacement System	
系列 Series	CoCrMo立铣刀 CoCrMo End Milling
刀具规格 Specification	D8*R0.2*10*60*d8
加工材料 Material	精铸钴铬钼 CoCrMo
切削速度 Cutting speed	N=2500r/min
进给量 Feed	F=300mm/min
切深量 Depth	ap=0.005mm
切削方式 Cutting Type	底面精加工 Face Milling
冷却方式 Coolant	油冷 Oil Cooling



Bar chart showing Tool Life/PCS for Knee-joint Finishing. The x-axis ranges from 0 to 200. The y-axis has two categories: A (blue bar) and GESAC (orange bar). Both categories show a tool life of 200 PCS.

手术器械切断加工
Surgical Instrument Parting

手术器械（加工直径D28）Surgical Instrument (D28)	
系列 Series	切断刀片-GTD Parting-GTD
刀具规格 Specification	GTD300E020R06-MC-GST7130
加工材料 Material	630
切削速度 Cutting speed	N=800r/min
进给量 Feed	Fz=0.03mm
切深量 Depth	ap=0.2mm
切削方式 Cutting Type	切断 Parting
冷却方式 Coolant	油冷 Oil Cooling



Bar chart showing Tool Life/PCS for Surgical Instrument Parting. The x-axis ranges from 0 to 200. The y-axis has two categories: A (blue bar) and GESAC (orange bar). The A category shows a tool life of 100 PCS, and the GESAC category shows a tool life of 200 PCS.

