

# 金属陶瓷刀具

## Cermet Bearing Profile Inserts

轴承刀具的发展起源于 1991 年部基金课题“大截面硬质合金成型刀具的开发与研究”，经过 20 多年的发展，CTRI 可以为轴承客户提供轴承车加工和磨加工的系统解决方案。

Originated from the *Research and Development of Large Section Carbide Profile Insert Project* set up by China's Machinery Ministry, 1991, bearing cutting tools of Chengdu Tool Research Institute have been developed greatly for the last twenty years. CTRI offers a systematic solution in bearing turning and grinding application

金属陶瓷材料是一种性能和使用范围介于陶瓷和硬质合金之间的刀具材料。它克服了陶瓷强度、韧性和抗塑性变形能力低的特点，具有陶瓷的高硬度、低密度、对钢的摩擦系数小、抗氧化性能、抗酸碱腐蚀性能优良等特点，同时还兼有硬质合金强度高、抗冲击性能强的特点。其材料硬度可达到 HRA93，抗弯强度 2200Mpa。已广泛应用与轴承车加工、金属切削刀具、耐磨件及密封件等领域。目前可提供进口金属陶瓷和我所专用针对轴承套圈车加工自主开发的金属陶瓷材料，可满足用户不同场合的需求。

Cermet, a kind of insert material whose performance and application is between ceramics and carbide. It overcomes ceramics' disadvantage of low strength, low toughness and low resistance to plastic deformation while demonstrates ceramics' advantage of high hardness, low density, low friction coefficient to steel, good anti-oxidization, anti-corrosion,

anti-wear and anti-chemical material diffusion; this material also has high strength and anti-impact property of carbide; this material's hardness can reach to HRA93, bending strength can arrive to 2200MPa. Nowadays, cermet material has been widely used in bearing turning, metal cutting, wear parts and sealing parts field.

我公司生产的金属陶瓷成型刀具，主要用于轴承套圈车加工上的成型加工。主要加工套圈的滚道，密封槽，倒角，大小油沟等。目前主要为轴承套圈车加工自动线配套，可为各种型号的深沟球轴承，圆锥滚子轴承，滚针轴承、轮毂轴承及其他类型的非标成型车加工及数控车加工提供全套解决方案。

Cermet bearing profile inserts manufactured by CTRI are mainly used for profile turning process of bearing rings. Inserts are mainly used for track, seal groove, radius, groove etc. Our bearing inserts are currently applied in automatic production line of bearing industry. Systematic solutions are available for various types of Deep Groove Ball Bearing (DGBB), Tapered Roller Bearing (TRB), Multi-roller Bearing (MRB), Wheel Hub Bearing (WHB), other non-standard turning and CNC turning.

#### 1. Loading 下料

Parting tools 切断刀

Trepanning Tools 横拔刀

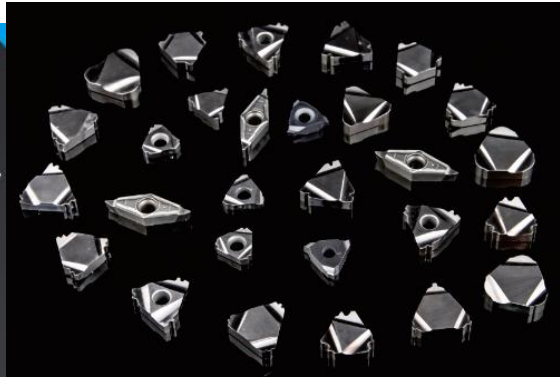


## 2. Bearing Turning 轴承车削

镗孔刀具，端面刀，沟道刀，密封槽，倒角刀，大/小端油槽刀，止动槽刀等成型刀具

Boring and face inserts, track, seal groove, OD radius/ bore radius, front and rear groove, N groove etc profile inserts are all available.



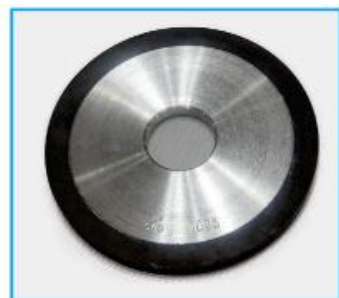


### 3. Insert Resharpening 刀片修磨

Clamping Block 夹具

Grinding/ Buffing wheels 抛光轮/砂轮

Grinding/buffing machine 磨刀机/钝化机





我们可以根据客户的需求定制刀具修磨所需的配套附件 ,并可以提供刀具修磨的技术指导。

All inserts resharpening related coupling accessories and technical supports for inserts resharpening are available.