



山东瑞尔达科技集团股份有限公司

Shandong Reida Technology Group Co., Ltd



Reida Precision Blades: Your Global Partner in Tire Manufacturing Solutions

For over two decades, Reida has stood at the forefront of the global industry as a premier manufacturer of high-performance tyre steel cord and fiber cord cutting tools. Headquartered in China, we are dedicated to engineering precision cutting tools that set the standard for quality, durability, and reliability.

We pride ourselves on delivering not only superior products but also comprehensive technical support and services, tailored to meet the exacting demands of the world's most advanced tire production lines.

Our commitment to excellence has earned us the trust of a distinguished global clientele. This is evidenced by our long-term partnerships with more than 70% of the world's top 75 tyre manufacturers. Our trusted clients include industry leaders such as Bridgestone, Michelin, Goodyear, Pirelli, Continental, Kumho, Hankook, Giti Tyre, as well as major Chinese manufacturers including Zhongce Rubber, Linglong Tyre, Triangle Tyre, and many others.

Reida remains committed to being the reliable, innovative, and long-term cutting blade supplier of choice for the global tire industry. We look forward to collaborating with you to enhance your manufacturing efficiency and product quality.



Core Advantages of Reida Corporation

1.High Cost-Effectiveness Combines Priori Quality with Compleitive Pricing:

- 1.1. Longer cutting durability: comparing with that of original die steel four edges cutters, PM 4 edges cutter durability is 2~2.5 times, and TCT 1 edge cutter durability is 10-15 times.
- 1.2. Significantly reducing procurement costs.

2.Comprehensive Service Guarantee

- 2.1. An industry-leading warranty of up to 3 years, free on-site installation, commissioning and operation training;
- 2.2. 24-hour global response to post-sales requirements , and high service efficiency through "pre-positioned spare parts + remote guidance".

3.Ultra-Short Delivery Leadtime

The production lead-time of conventional products is up to 1 month, and urgent orders can be delivered within 15 days

4.Customized Adaptability

Customized designs for mainstream cutting machine models (such as Fischer/VMI/Mesnac) and various tyre types (such as PCR/TBR/aviation tires).

5.Monopoly Strength in China: 23 years of in-depth development, customers' first choice for replacement, with ISO certificates and compliance of leading tyre enterprises' quality standards.



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01. 企业介绍

Enterprise Introduction

国产品牌、生产型企业

23年专业经验、独立自主的研发能力、多项专业资质支持

A Chinese Brand & Manufacturing Enterprise

Two Decades of Expertise In-House R&D Capability

Backed by Multiple Professional Certifications

● 生产型企业：

专注于轮胎行业帘布裁断机裁刀的研发、生产、销售及全链条服务，“研产销服”一体化业务体系；
集团总部坐落于山东省济南市，核心生产工厂布局于山东省烟台市

Integrated "R&D-Production-Sales-Service" business model of tyre cord cutting tools

Specialize in the R&D, production, sales, and comprehensive lifecycle services

Headquater located in Jinan, and manufacturing located in Zhaoyuan, Yantai, Shandong

● 专业资质和荣誉认证：

技术专利：多项行业相关核心专利，为产品创新与技术突破提供坚实支撑；

Technological Patents:

Multiple core patents provide a solid foundation for product innovation and technological breakthroughs.

认证体系：ISO 9001、ISO 45001、ISO 14001，实现生产、管理全流程的规范化与标准化；

Certification System: ISO 9001, ISO 45001, and ISO 14001 certifications ensure fully standardized and compliant production and management processes.

企业荣誉：国家级科技型中小企业” “高新技术企业” “专精特新企业” “瞪羚企业” 等多项权威称号

Corporate Honors: Recognized with multiple authoritative titles including

National Technology-based SME, High-Tech Enterprise,

Specialized, Refined, Distinctive, and Innovative Enterprise

目标及使命 Mission and Vision



企业目标 Mission



企业使命 Vision

依托雄厚技术实力、精深专业积淀、资深团队经验与前沿工作方法论，为全球客户提供兼具卓越品质与价格竞争力的标杆级产品，以持续创新的解决方案赋能全球轮胎产业升级。

Provide high-quality, cost-competitive products

Leverage our core strengths:

- Proven Technical Capabilities
- Deep Industry Expertise
- Experienced & Skilled Workforce
- Advanced Operating Methodologies

Drive the upgrade and transformation of the worldwide tire industry through continuously innovative solutions.

成为全球轮胎产业信赖的裁刀解决方案伙伴

以极致产品品质护航客户稳定生产，以技术创新赋能全球轮胎企业效率与价值升级，铸就工业裁刀领域的百年标杆。

Trusted Partner in Cutting Solutions for the Global Tire Industry.

Safeguard our clients' production stability and empower their efficiency upgrades, striving to become a century benchmark in the field through technological innovation and exceptional product quality

02. 产品及服务

Products and services

聚焦多品类裁断机刀具的定制化研发、精益化生产、全球化销售，同步提供从选型适配、安装调试到售后维保的全生命周期服务，为全球客户打造“一站式刀具解决方案”

One-Stop Cutting Solutions, Engineered for Your Needs

Custom R&D & Lean Manufacturing of multi-category cutter blades.

Global Sales Network & Logistics.

Full Lifecycle Support: from selection and commissioning to maintenance.

Dedicated to serving tire manufacturers worldwide.

产品线 Products



Steel cord fabric bias blade



Steel cord fabric stright blade



Circular cutting blades

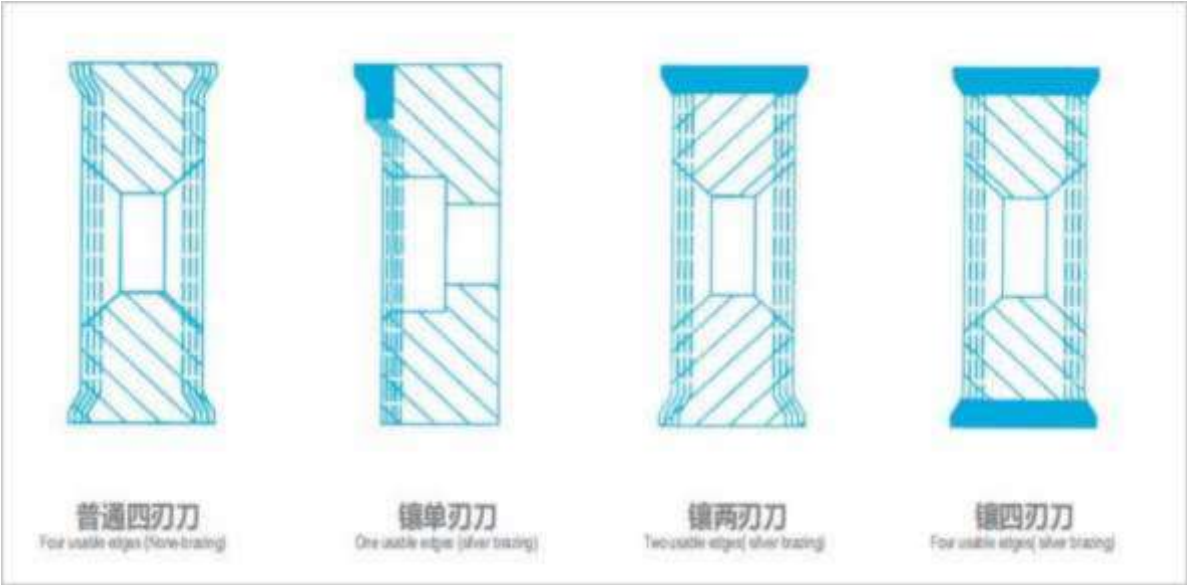
产品类型-材质及产品更替过程

Product Type - Material and Product Upgrading Process

- 产品材质: Product material:
 - 新材料H4 New formula material H4
 - 粉末合金PM Powder alloy PM
 - 硬质合金TCT Tungshen Carbide TCT

- 产品更替过程: Product upgrading process:
 - 普通四刃刀 → 镶两刃刀 → 镶四刃刀
 - four usable edges (None-brazing) → two usable edges (Silver-brazing) → four usable edges (Silver-brazing)

NO.	参数 Parameter	新材料 H4	粉末合金 PM	硬质合金 TCT
1	刃口硬度 Hardness HRC	≥HRC63	≥HRC65	≥HRA90
2	最高工作温度℃ Max working temperature℃	≤550℃	≤650℃	≤900℃
3	表面粗糙度 Surface roughness Ra	Ra0.2	Ra0.2	Ra0.1
4	孔距误差 Pitch error mm	±0.1mm	±0.1mm	±0.1mm
5	等厚允差 Thickness tolerance mm	≤0.03mm	≤0.03mm	≤0.02mm
6	垂直度 Verticality mm	≤0.03mm	≤0.03mm	≤0.03mm
7	镀层硬度 Hardness of coating HV	HV1800	HV1800	HV1800



产品类型-核心产品 Product Type - Core Products

一、PM镶粉末冶金高速钢裁刀

PM inlaid powder alloy steel cutting blade

基本信息(Basic information)

刃口硬度: $HRC \geq 65$ Blade hardness: $HRC \geq 65$

单刃可修磨次数: 4-6次 4-6 times per edge regrinding

生产工艺 (Process)

核心工艺: 真空热处理、超声波硬化处理、深冷处理

Core processes: vacuum heat treatment, ultrasonic hardening treatment, deep cooling treatment

产品材质: 瑞尔达TC粉末冶金材质

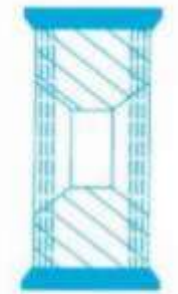
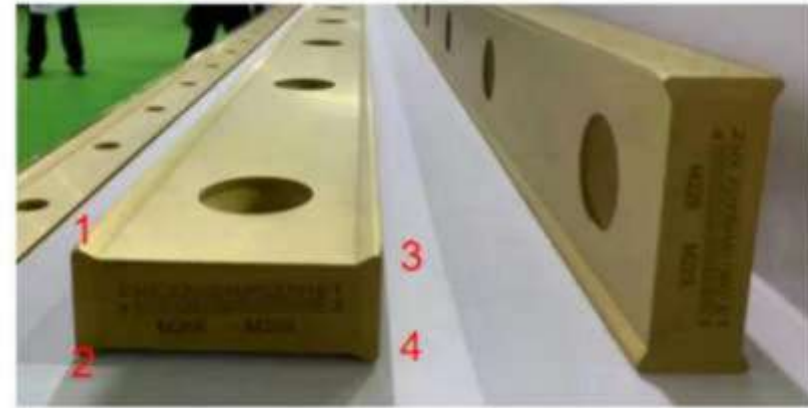
Product material: Reida TC inlaid powder alloy steel

双镀层: 不粘胶低温碳化钨镀层+真空PVD镀层

Multiple layers coating: Vacuum PVD coating Non-adhesive nano low temperature WC coating

裁切寿命: 约为原普通裁刀的2-2.5倍 (四刃可用)

Durability: approximately 2-2.5times that of the original ordinary cutting blade (four edges usable)



镶四刃刀
Four side edges(four facing)



粉末冶金 (PM) x500 倍金相组织图

产品类型-核心产品 Product Type - Core Products

二、硬质合金TCT裁刀

Hard alloy TCT Cutting blade

基本信息(Basic information)

刃口硬度: $HRA \geq 90$ Blade hardness: $HRA \geq 90$

单刃可修磨次数: 4-6次 4-6 times per edge regrinding

生产工艺 Process

核心工艺: 真空热处理、超声波硬化处理、深冷处理

Core processes: vacuum heat treatment, ultrasonic hardening treatment, deep cooling treatment

产品材质: 瑞尔达TCT硬质合金材质

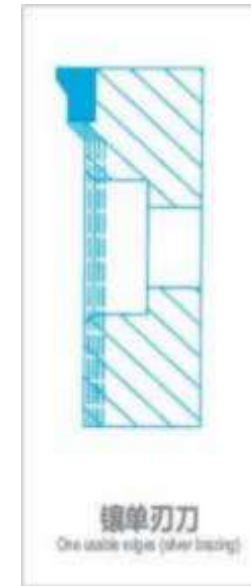
Product material: Reida Hard alloy TCT

双镀层: 不粘胶低温碳化钨镀层+真空PVD镀层

Multiple layers coating: Vacuum PVD coating Non-adhesive nano low temperature WC coating

裁切寿命: 约为原普通裁刀的10-12倍 (1刃/2刃可用)

Durability: approximately 10-12 times that of the original ordinary cutting blade(1/2 blade usable)



03.核心竞争力

Core competitiveness

自有的生产工厂、专业的生产技术和设备、完善的库存保障、专业的质检出库流程

Independent Production Facility,
Specialized Technology & Equipment,
Comprehensive Inventory System,
Professional QC & Shipping Process

自身优势 Self advantages

- 生产型企业

production-oriented enterprises

- 拥有独立办公中心和专业的生产加工中心,自有资产, 无信贷, 无外债

Independent office centers and professional production and processing centers, 100% ownership without credits or debts.



自身优势 Self advantages

- ISO 9001、ISO 45001、ISO 14001三体系认证

ISO 9001, ISO 45001, and ISO 14001 certifications

- “高新技术企业”，“科技型中小企业”、“专精特新”企业称号

High-Tech Enterprise, National Technology-based SME, Specialized, Refined, Distinctive, and Innovative Enterprise



生产设备优势 Advantages of production equipment

1.真空热处理设备

VACUUM HEAT TREATMENT

中国航天工业集团设计研发

Design and R&D of China Aerospace Industry Group,

Aerospace-grade technical standards to ensure high precision and stability of heat treatment processes

6000mm* 600mm* 600mm真空热处理炉

6000mm*600mm*600mm large scale vacuum heat treatment furnace , satisfy heat treatment requirements for different size cutting blades

真空热处理工艺：

真空淬火、真空退火、真空回火、真空钎焊等。

Vacuum heat treatment processes, including vacuum quenching, vacuum annealing, vacuum tempering, vacuum brazing, etc. Accurate processing, providing core technical support for improving the material performance of cutting blades



生产设备优势 Advantages of production equipment

1.1. 设备温控精度与刀具性能 Temperature Control Precision & Tool Performance

炉内温控：每米温差 $< 5^{\circ}\text{C}$ ，确保刀具整体硬度均匀；

In-Furnace Temperature Control: Temperature variation $< 5^{\circ}\text{C}$ per meter, ensuring uniform hardness throughout the tool.

核心优势：赋予刀体极佳的抗变形能力，且反复修磨后，刃口硬度始终保持稳定，延长刀具使用寿命。

Core Advantage: Provides the tool body with excellent resistance to deformation. Even after repeated regrinding, the cutting edge's hardness remains consistently stable, significantly extending the tool's service life.

1.2. 工艺特性 Process Characteristics

高效环保：高效、节能、无污染,符合绿色生产标准；

High Efficiency & Eco-Friendliness: highly efficient, energy-saving, and pollution-free, complying with green production standards.

操作灵活：工艺本身操作灵活性强，适配不同规格刀具处理需求；

Operational Flexibility: strong operational flexibility and adapted to handle tools of different specifications.

品质保障：全程自动化运行，彻底消除人为因素导致的质量缺陷，确保每批产品品质统一。

Quality Assurance: Fully automated operation completely eliminates quality defects caused by human factors, ensuring consistent quality across every production batch.



生产设备优势 Advantages of production equipment

2.PVD镀层设备 PVD COATING EQUIPMENT

核心设备规格: 瑞尔达定制的PVD镀层设备
6000mmx600mmx600mm 业内唯一 (见右图).

可满足大尺寸裁刀的批量镀层需求;

Customized PVD coating equipment by Reida
6000mmx600mmx600mm Unique in the industry

Proceed batch coating of large-size cutters.

关键技术: 纳米合金粉末镀层技术, 从材质表面强化维度显著提升裁刀使用寿命

Key Technology: Adopting nano-alloy powder coating technology, significantly improves the service life of cutters by material surface strengthening;

性能验证: 经过PVD镀层的钻头铣刀在18万次/小时高速切削条件下可提高30%-300%的寿命。

Performance Verification: The drill milling cutter coated with PVD can increase its lifespan by 30% -300% under high-speed cutting conditions of 180000 cycles per hour.



生产设备优势 Advantages of production equipment

3.定制的大尺寸液氮深冷处理设备

Customized Large-Size Liquid Nitrogen Cryogenic Treatment Equipment

Technical Principle & Core Functions:

经受低温液氮（ -196°C ）冷却，内部显微组织彻底转化，杜绝裂缝从内部产生的根源

Low-Temperature Transformation: Through cooling with -196°C liquid nitrogen, the internal microstructure of the cutter body is completely transformed, eliminating the root cause of internal cracks;

将刀体内部的奥氏体组织最大可能地转变成马氏体,从而提升刀具整体的稳定性

Structure Optimization: Maximizing the transformation of austenite inside the cutter body into martensite, significantly improving the overall structural stability of the cutter;

显著提高刀刃的耐磨性能。

Performance Enhancement: After treatment with this process, the wear resistance of the cutter blade is greatly improved, further extending the service life of the cutter.



生产设备优势 Advantages of production equipment

4.多台高精度数控机床、磨床

Multiple high-precision CNC machine tools and grinding machines

参数把控：保障刀体表面粗糙度、等厚允差、垂直度等技术参数可控；

Parameter Control: Ensures controllable technical parameters of the cutter body, including surface roughness, thickness tolerance and perpendicularity;

性能优化：高精度抛光设备打造超高镜面效果，既提升刀体防腐蚀性，又为后续 PVD 镀层真空处理奠定最佳基础。

Performance Optimization: High-precision polishing equipment creates an ultra-high mirror effect, which not only improves the cutter body's corrosion resistance but also lays the best foundation for subsequent PVD coating vacuum treatment.



库存支撑交付 + 设备部件备份保障供货 Dual Guarantees for Inventory & Delivery

● 裁刀交付能力保障

Blade delivery capability guarantee

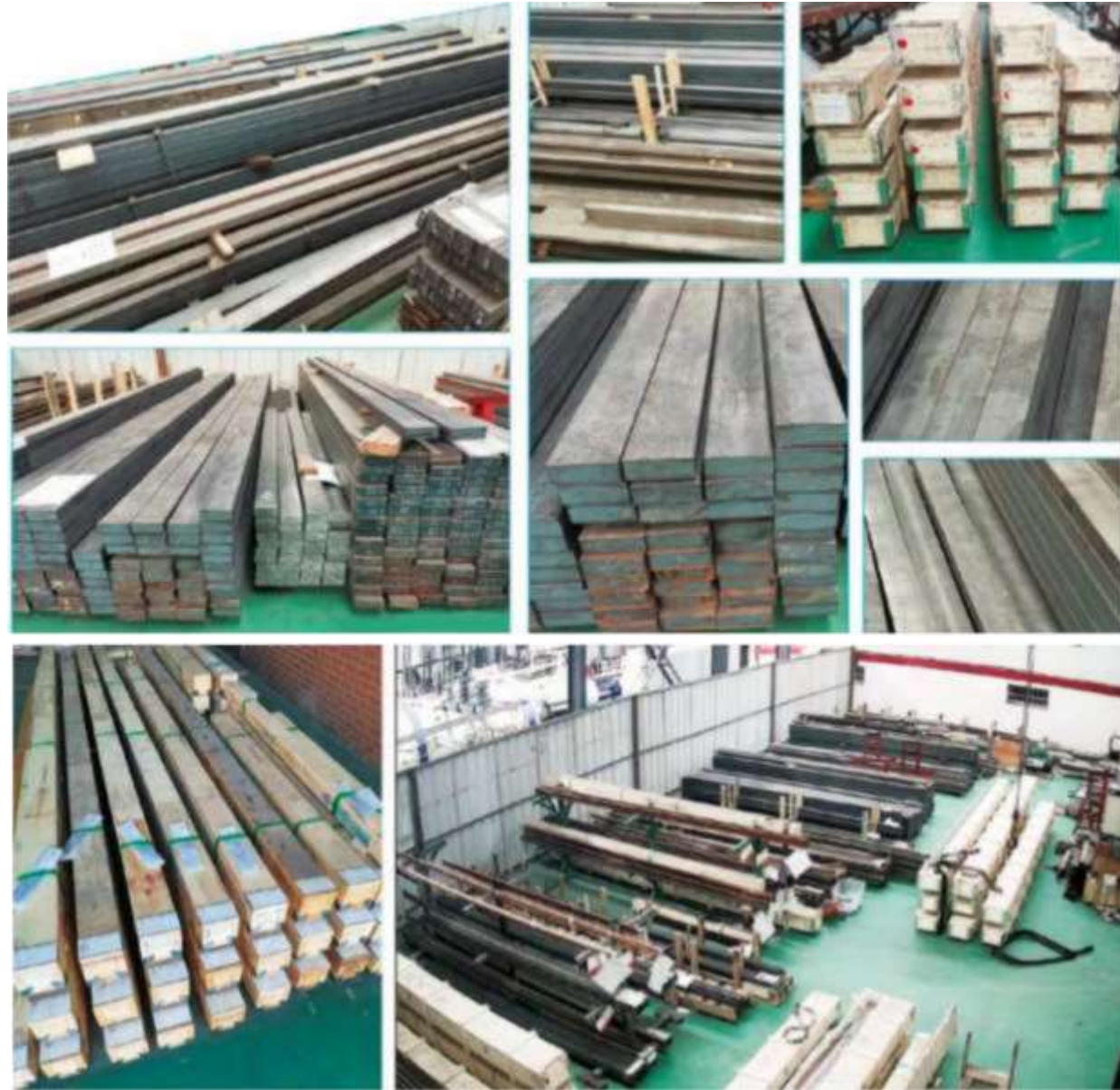
库存规模：储备数百吨模具钢、高速钢、粉末钢、硬质合金、超硬合金条的原材料、半成品及成品，可满足全球轮胎市场约 1 年需求；

Inventory Management: hundreds of tons of raw materials, semifinished and finished products (including mold steel, highspeed steel, powder steel, cemented carbide, superhard alloy strips), meeting one-year global tire market demand

● 多维度库存保障 Multi-Tiered Inventory Security

设备的双备份、多备份、核心部件、耗材的安全备份及安全库存，为战略合作伙伴提供了强大的供货保障

Equipment & Component Backup: Dual/multi-backup for equipment, with safety backup and inventory for core components and consumables, providing strong supply guarantee for strategic partners.



专业的质检出库流程 Professional quality inspection and outbound process

全流程品控与可追溯管理

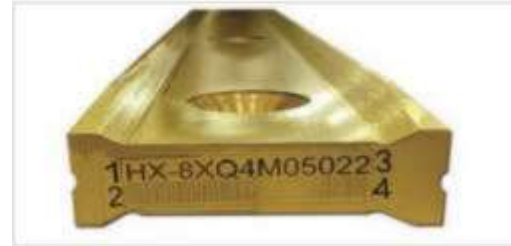
Full-Process Quality Control & Traceability Management

1.质量把关：从原材料采购到刀具成品出库，全环节执行严格质量管控，杜绝不合格品流转；

1.Quality Assurance: Implement strict quality control throughout the process from raw material procurement to finished cutter delivery, preventing the circulation of substandard products;

2.可追溯性：每把出厂刀具均标注集团标识及唯一编码，实现从生产到使用的全生命周期可追溯，保障产品质量溯源与责任可查。

2.Traceability: Each outgoing cutter is marked with the group logo and a unique code, enabling full-lifecycle traceability from production to use, ensuring product quality traceability and accountability achieving tool traceability.



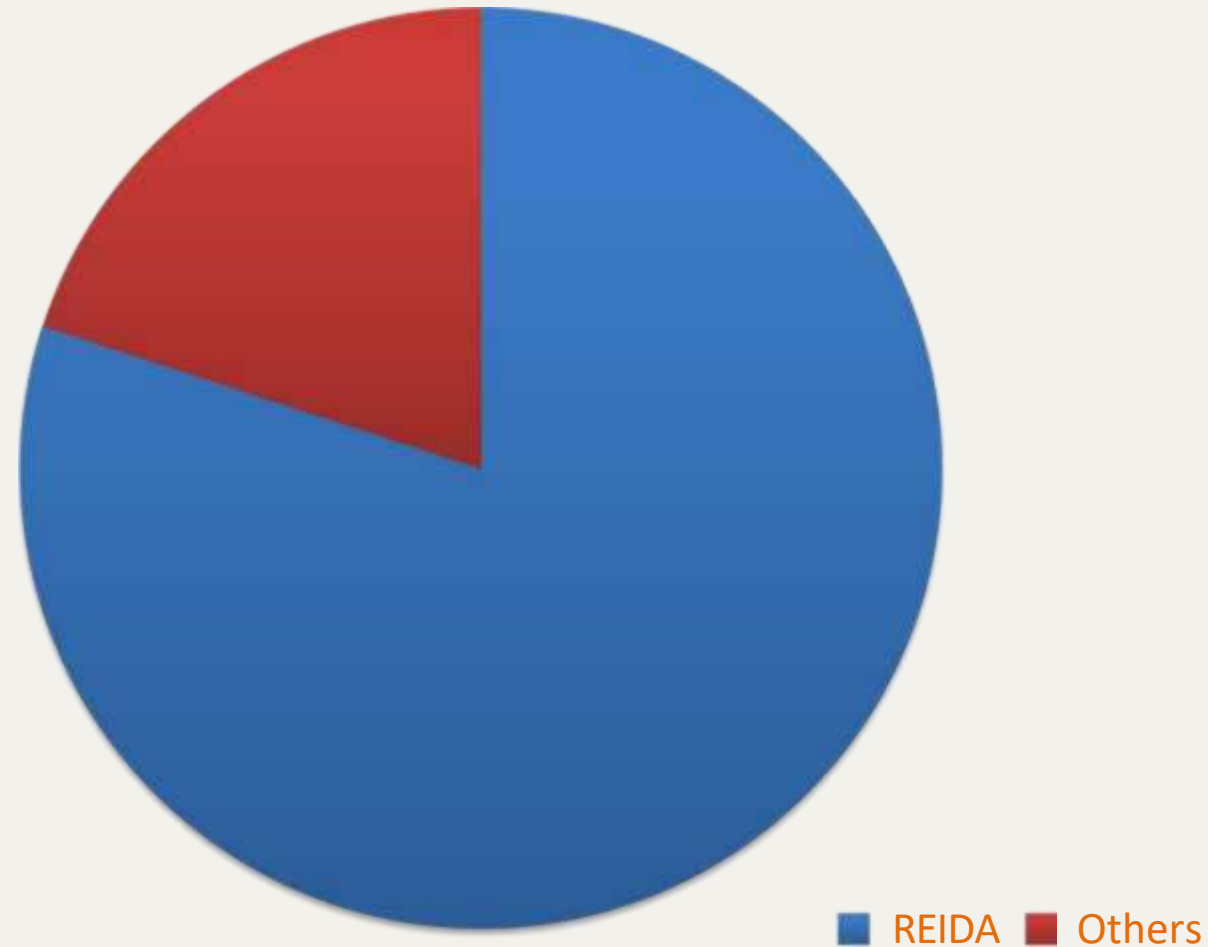
04.市场占有率

Market share

瑞尔达公司连续10年在轮胎裁刀领域产销量居全国第一

Ranked first in the production and sales of tyre cord cutting blades domestically for 10 consecutive years

China Domestic Market Share 80%, In-depth Cooperating with 70% of top 75 tyre enterprises



山东瑞尔达科技集团股份有限公司 Shandong Reida Technology Group Co., Ltd.

For any further information please feel free to contact anytime

Name: Henry Wang Position: Head of International Trade Department

Mobile: +86 18678823002 WhatsApp: +86 18678823002

WeChat: HX18678823002 Email: 3002@chinareida.com

