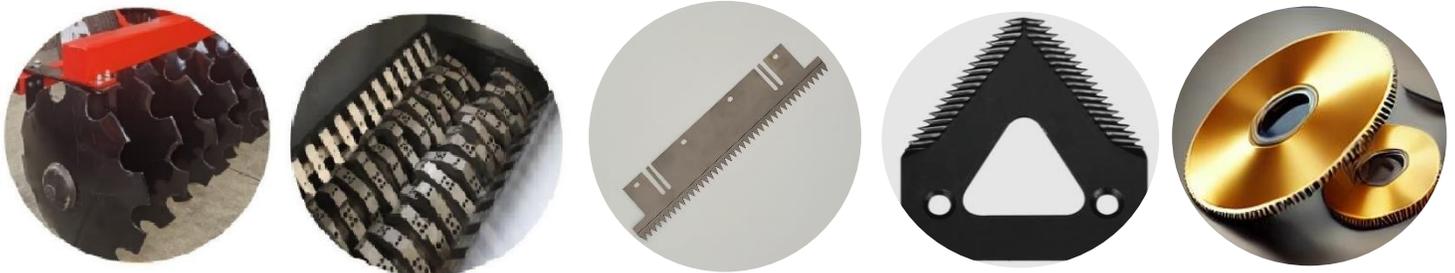


Blades and Knives Applications

Coating Portfolio



PVD Coatings

Coating Material	TiN	CrN	TiAlN	DLC	ZrN	Cralon	Cralon-S
Coating Microhardness (HV 50), ± 200	2,200	2,000	3,000	4,000	3,000	3,500	3,500
Coating Thickness range (µm)	2-5	2-5	2-5	1-2	2-5	2-5	2-5
Coefficient of Friction (dry over steel)	0.3	0.3	0.5	0.1	0.5	0.5	0.2
Deposition Temperature °C	400	400	400	200	400	400	400
Service Temperature °C (Max.)	600	800	800	500	600	1,000	1,100
Color	Gold	Silver	Gray	Gunmetal	Champagne	Grey	Bronze

“Coating Thickness capability from 0.5 to 25 µm available upon request”

Thermal Spray – Pulsed HVOF Detonation

Particles velocity-speed, Ultrasound: over 1200 m/s
Coating porosity: 0.50%, Thickness: 50-500 µm

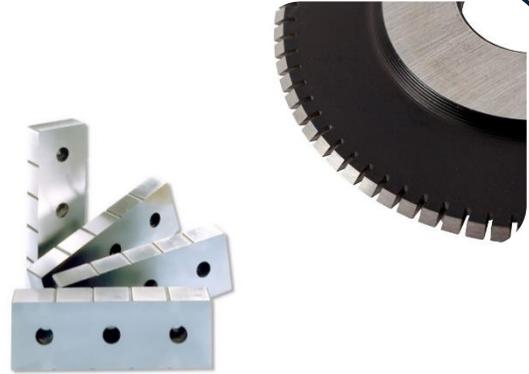


Deposited Materials

Metals and alloys
Ceramics – Al₂O₃
Composites – WC/Co
CrC – Based Powder
Ti, Ni, Cr, Mo, Cu, Zr, Si, B ... based materials
Combinations of above materials are also available.

Applications:

Blades and knives in industries like paper, packaging, and shredding face high wear from abrasive materials and continuous use. Applying PVD or thermal spray coatings, such as HVOF, improves wear resistance, hardness, and durability. These coatings reduce friction and enhance tool life, sharpness retention, and performance across various applications.



Industries:

Paper & packaging, Agriculture, Shredding, Lumber, Printing, Steel, Plastic, Food, Textile, Forestry & Woodworking, Recycling & Waste, Manufacturing, Medical & Healthcare, Automotive, Aerospace, Cosmetic & Grooming.



Components for Precision Cutting:

Blades:

Slitters, Sheeters, Guillotine, Trimmers, Scoring Blades, Harvesting Blades, Plow Blades, Choppers, Tillage Blades, Seeders and Planters, Sickle Bars, Mulching Blades, Discs Cutters, Single and Double-Shaft Shredders, Agglomerate Blades, Saws, Planers, Joiners, Scrapers, Edgers, Circular Blades, Shear Blades, Granulators, etc.

Knives:

Perforating Knives, Anvils, Cutters, Counters, Molders, Granulator Knives, Pelletizers, Slabbers, etc.

