

# ROBBINS DISC CUTTERS



## CUTTER DETAILS

Robbins designs and manufactures the most technically advanced disc cutters worldwide with a commitment to high quality and continual improvement. No matter the geology, no matter the machine type or manufacturer, no matter the size- Robbins has the cutting solution to meet your needs.

### DISC RINGS

Robbins disc rings are composed of proprietary tool steel produced in Germany to Robbins specifications. The steel manufacturing processes are designed to keep impurities to a minimum. Melting in an Electric Arc Furnace is followed by vacuum degassing. Ingot molds are filled from the bottom with the liquid steel shrouded in argon gas. Exceptionally clean steel ensures high resistance to fatigue, resulting in longer cutter disc life.

Forgings are made by the closed die method in Germany. Subsequent processing consisting of two machining steps and four heat treatment steps are completed in the USA.

### BEARINGS

Carburized and case-hardened, Robbins uses Timken tapered roller bearings that outperform other bearings in dynamically loaded conditions and harsh environments. During assembly, the bearings are pre-loaded to effectively excavate hard rock in the most severe operating conditions.

### SEALS

Durable metal-to-metal face seals eliminate ingress of foreign materials while silicone torics maintain elasticity even at high temperatures.

### PRESSURE COMPENSATION RETAINER

The patented Robbins pressure compensation retainer has a superior piston design with a much larger surface area than other cutter manufacturers. The outer surfaces are carburized and case-hardened for extended life in harsh conditions.

### HUB

Made of durable alloy steel, Robbins hubs are furnace heat-treated, quenched, and tempered for toughness. The disc-mounting surface is further induction-hardened and finished by grinding.

### SHAFT

Robbins shafts are made of the same alloy steel as the hubs, and go through an identical process of heat-treatment, quenching, and tempering. They are additionally gas nitrided for surface hardness.





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SIZE	LOADING	MOUNT	CAPACITY
6.5 in / 165 mm	Front	V-Block	12,000 lbs / 53 kN
9.5 in / 241 mm	Front	V-Block	18,000 lbs / 80 kN
11.5 in / 292 mm	Front	V-Block	25,000 lbs / 111 kN
12 in / 305 mm	Back	Wedge-Lock	27,000 lbs / 120 kN
	Front	V-Block / O-Block	
13 in / 330 mm	Back	Wedge-Lock	27,000 lbs / 120 kN
	Front	V-Block / O-Block	
14 in / 356 mm	Front & Back	Wedge-Lock	40,000 lbs / 178 kN
	Front	V-Block	
15.5 in / 394 mm	Front & Back	Wedge-Lock	60,000 lbs / 267 kN
	Front	V-Block	
17 in / 432 mm	Front & Back	Wedge-Lock	60,000 lbs / 267 kN
	Front	V-Block	
19 in / 483 mm	Front & Back	Wedge-Lock	70,000 lbs / 311 kN
20 in / 508 mm	Front & Back	Wedge-Lock	70,000 lbs / 311 kN



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