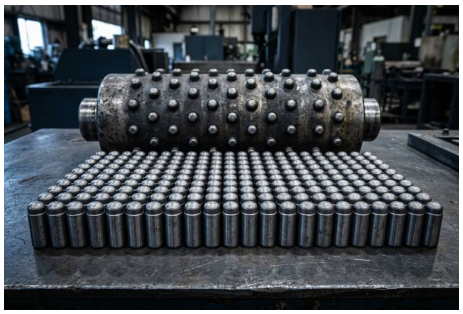
Tungsten Carbide Studs

HPGR and crusher wear protection



Wear-resistant tungsten carbide studs for HPGR and demanding mining and mineral processing applications. Supplied to your roller drawing or stud pattern, with grade selection matched to the ore abrasiveness and the duty - from fine-grain high-hardness grades for abrasive quartzite feeds to tougher binder grades where impact and edge loading dominate.

Stock status: Made to drawing - Typical lead time: 4 - 8 weeks depending on pattern and quantity

Key features

- Grade selected against ore abrasiveness, moisture and impact level
- Supplied to your roller drawing and stud pattern
- Consistent press-fit tolerance for reliable interference in the roller bore
- Batch certification with hardness and density records

Types & configurations

Type	Specification
HPGR roller studs	Cylindrical studs with domed or flat head, Ø 12 - 30 mm, length to roller drawing, press-fit
Edge and flange studs	Harder-binder grades for the high-wear roller edge zone and cheek plate protection
Crusher and roll press studs	Roller press and briquetting roll protection, pattern to the OEM layout
Chute and pipe protection buttons	Carbide buttons and tiles for transfer chutes, cyclone and slurry pipe elbows
Ground engaging inserts	Carbide inserts for drill bits, rippers and ground engaging tools

Specifications

Property	Value
Grades	WC-Co with 6% to 15% cobalt binder, fine to medium grain, selected by ore abrasiveness and impact level
Hardness	1150 - 1550 HV30 (approx. 86 - 91 HRA) depending on grade
Transverse rupture strength	2200 - 3400 N/mm² depending on binder content
Density	13.9 - 14.9 g/cm³
Dimensional control	Ground to the stud drawing, press-fit tolerance held for reliable interference in the roller bore

Standards

ISO 513 grade classification, ISO 3878 hardness (HV), ISO 3327 transverse rupture strength, EN 10204 3.1 documentation

Industries served

Mining, Mineral Processing, Cement, Aggregates, Drilling

Typical applications

- HPGR roller re-studding and new roller builds
- Cement clinker and slag grinding rolls
- Iron ore, copper and gold comminution circuits
- Transfer chute and slurry pipe wear protection
- Roller press and briquetting rolls
- Drill bits and ground engaging tools