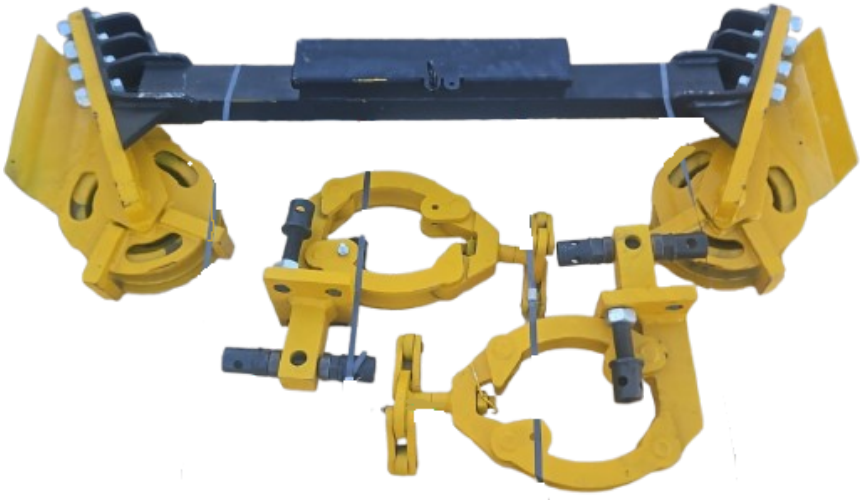
SMI SCRAPING SYSTEM | PART 1 OF 3

CORNER PULLEY



Gulleys from blast 1

One winch cleans multiple panels around 90° corners

Gulleys are established from the first blast in ledging, and production continues through the turn instead of stopping to clear the bottleneck.

UNDERGROUND APPLICATION

- 90° corners in ledging, board & pillar and pillar mining
- Gulley and ASG intersections
- Finger raises
- Slusher gulleys
- Any layout where a winch per panel is not possible

TRIALLED AND TESTED

Anglo American Platinum
Now Valterra Platinum. Approved for use. Proof of concept and production trial completed at Amandelbult, Tumela 16 West Shaft.
2016

Sibanye-Stillwater
Stock item
2018

PRODUCT VIDEOS ON OUR WEBSITE
www.snatchmining.com

CORNER PULLEY

THE PROBLEM — UNDERGROUND REALITY

- Material ("stof") accumulates at 90° corners, because guiding the scraper through the turn is difficult.
- The build-up restricts scraper movement and damages gulley services — air and water.
- Production eventually stops so the bottleneck can be cleared before normal operations resume.

THE SMI SOLUTION

The Corner Pulley provides controlled, stable guidance for scraper travel at 90° corners, so "stof" moves through the turn instead of collecting in it. The value of the avoided production downtime far exceeds the cost of the product, and the winch driver is relieved of repetitive, unproductive work.

BENEFITS

- **Ledging** — normal production maintained; panel and gulley cleaned without multiple winches; gulleys established from the first blast; pack support standards held above and below the gulley
- **Board & pillar** — effective where a winch per panel is not possible; multiple panels cleaned with one winch
- **Slusher gulleys** — fewer winches in corner-heavy layouts; better ore movement into the tip
- **Pillar mining** — better scraper access and cleaning reach into pillars
- **Finger raises** — clears back areas where corners restrict movement; less interference with ventilation, air and water at low stoping widths
- **Panel cleaning** — minimises production loss where face winches are unavailable or awaiting installation
- **Face cleaning** — removes dependence on gulley overrun; the scraper navigates the panel toe directly

SPECIFICATIONS

SCRAPER ATTACHMENTS	Required. Sold in sets of two, fitted to the mine's existing scraper — whether one part of the system is used or all three.
ASSEMBLY	Left- and right-hand snatch blocks on a 1 150 mm spreader beam, both swivelling in both directions. Integral toolbox.
SAFE WORKING LOAD	10 tonne, referenced to SANS 1819:2006 Edition 1.2
MASS	82.5 kg assembled — 33.9 kg per snatch block, 11.8 kg spreader beam
ASSEMBLED DIMENSIONS	1 150 mm overall; 1 030 mm between mounting pins
SHEAVE	Ø230 mm from solid EN8 bar, on two 7208 bearings per block
MATERIALS	S355JR plate; VRN400 abrasion-resistant arms; EN8 shafts and sheave stock
ROPE	Sized for Ø19 mm scraper rope
ENGINEERING	SB-GA-00 Rev 0, issued for fabrication 9 June 2025; signed off by a registered professional engineer 7 July 2025
TEST CERTIFICATION	CSIR destruction tests to SABS 1819:2006, certificates T14201–T14204. Specification minimum 400 kN; the four units carried 634.89, 672.85, 729.67 and 804.13 kN.

PATENT & DESIGN	DESIGN LIFE	SUGGESTED SPARES	IMPLEMENTATION
ZA 2016/01725 (D0309ZA) · ZA 2006/09906 (P0018ZA)	6 months · 3-month warranty	Defined spares set per system	1 month on site — see p.20