

SZ-450D

MOBILE HEAVY-DUTY SCREENING PLANT

Heavy-duty mobile scalping for coarse feed and three fractions



200-500 t/h

Processing capacity

<500 mm

Maximum feed size

2 decks

Up to three fractions

Scalp coarse material at high throughput

A robust mobile scalping platform combining chain-plate feeding, two-deck separation and tracked mobility.

The SZ-450D is a crawler-mounted heavy-duty scalping screen engineered for mining, quarrying, aggregate production, construction-waste recycling and demanding industrial applications. A chain plate feeder accepts coarse feed up to 500 mm, while the 5150 x 1550 mm two-deck screen separates material into as many as three fractions. Integrated conveyors, tracked mobility and dual-power capability support rapid deployment and independent stockpiling.

200-500 t/h

Processing capacity

500 mm

Maximum feed size

32.8 t

Complete machine weight

5150 x 1550 mm

Screen box size

Designed for heavy-duty pre-screening and scalping

- Mining and ore pre-screening
- Quarry and aggregate classification
- Construction-waste recycling
- Coal and industrial by-products

Actual capacity depends on feed grading, moisture, material shape, screen aperture, deck loading and operating practice.

Heavy-duty mobile scalping platform

Coarse material is received by the chain plate feeder, classified across two decks and discharged through three conveyors.



1 Controlled coarse-material feeding

2 Two-deck size classification

3 First side-product discharge

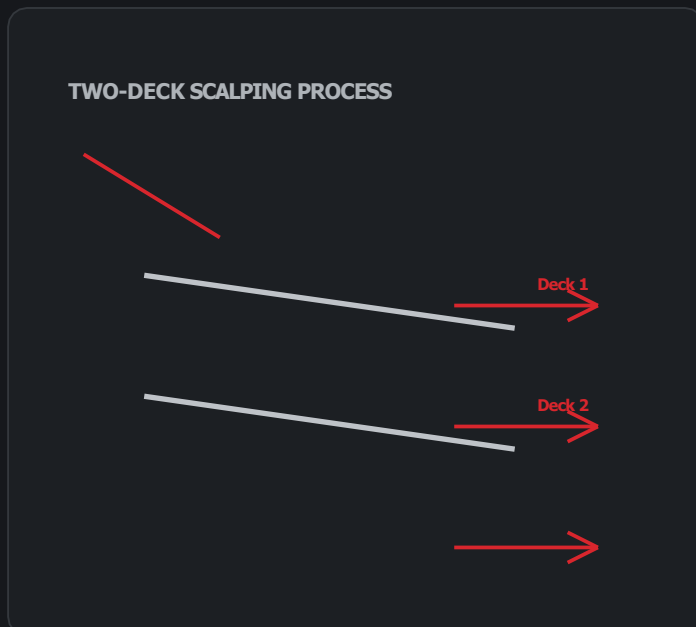
4 Adjustable finished-material discharge

5 Second side-product discharge

6 Tracked mobility

Feed, scalp and separate

A chain plate feeder and high-amplitude two-deck screen separate coarse material into three controlled fractions.



Heavy-duty three-fraction separation

The chain plate feeder controls the delivery of coarse feed to the screen. Adjustable vibration loosens and stratifies the material bed across two decks. Smaller particles pass through the selected apertures, while retained material advances to separate discharge points, producing as many as three fractions.

- The chain plate feeder handles coarse and irregular material.
- Two decks provide three-fraction separation in one pass.
- Independent conveyors maintain separation between stockpiles.

Designed for demanding scalping duty

Coarse-feed capability, high-amplitude screening and dedicated conveyors support demanding pre-screening operations.



Coarse-feed capability

The chain plate feeder accepts large, rugged material up to 500 mm for heavy-duty pre-screening and scalping.



High throughput

The plant is designed for a 200-500 t/h processing range, subject to feed grading and screen configuration.



Three-fraction output

A two-deck screen separates material into as many as three product fractions in a single pass.



Tracked mobility

The crawler chassis supports relocation across rough quarry, mining and demolition terrain.



Integrated discharge

One finished-material conveyor and two side conveyors maintain clear separation between screened products.



Dual-power flexibility

External electric supply or onboard diesel-generator operation can be selected for different project conditions.

Feeder and screen specifications

Core parameters for chain-plate feeding and heavy-duty two-deck classification.

CHAIN PLATE FEEDER		HEAVY-DUTY SCREEN	
Feeder model	1038	Screen model	1548
Feeder size	1000 x 3800 mm	Screen box size	5150 x 1550 mm
Processing capacity	200-500 t/h	Number of decks	2
Maximum feed size	<500 mm	Screen mesh	Selected for application
Operating speed	0.2 m/s	Adjustable amplitude	8-10 mm
Drive / power	C / 11 kW	Drive / power	Dual-power / 7.5 x 2 kW

Scalping configuration note

Screen apertures and mesh type should be selected according to feed grading, moisture, required cut sizes and material abrasiveness. Final capacity is application-dependent.

Conveyor specifications

Three discharge conveyors organize screened fractions and support independent stockpile formation.

FINISHED-MATERIAL CONVEYOR

Drive / power	Dual-power / 9.2 x 2 kW
Discharge height	1550-3200 mm, adjustable
Belt size	4900 x 1600 mm
Drive type	Dual-power

SIDE CONVEYORS

Side conveyor 1	6700 x 1000 mm
Conveyor 1 power	Dual-power / 7.5 kW
Conveyor 1 discharge	2560 mm
Side conveyor 2	6700 x 1000 mm
Conveyor 2 power	Dual-power / 7.5 kW
Conveyor 2 discharge	2730 mm



Three-way product handling

The adjustable finished-material conveyor and two side conveyors route screened fractions to separate discharge points, maintaining product separation and reducing secondary handling.

Power, fuel use and operating envelope

Machine-level data and configuration options for site planning, transport and heavy-duty deployment.

OPERATING DATA		MACHINE ENVELOPE	
Overall weight	32.8t	Working dimensions	14500 x 8000 x 3450 mm
Total working power	59.4 kW	Transport dimensions	14500 x 3750 x 3450 mm
Fuel consumption	13-15 L/h	Power configuration	Single / dual power
Processing capacity	200-500 t/h	Emission packages	China III, China IV, EPA Tier 4, Euro V

Power options

 Single Power EXTERNAL SUPPLY For sites with a stable external electrical supply.	 Dual Power DIESEL GENERATOR For projects requiring greater power independence.
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AVAILABLE EMISSION PACKAGES

-  China III
-  China IV
-  EPA Tier 4
-  Euro V

Built for coarse material and difficult sites

The SZ-450D supports coarse pre-screening and three-fraction classification across mining, quarrying and recycling sites.

Mining & Ore Pre-Screening



Removes oversized material before crushing to improve downstream crusher life and throughput.

Quarries & Aggregates



Classifies rock, gravel and crushed stone into usable fractions directly at the production site.

C&D Waste Recycling



Separates concrete, brick and asphalt debris into reusable size fractions for circular material use.

Coal & Industrial Waste



Handles coal and abrasive industrial by-products for clean size separation and further processing.

Complex Terrain



Tracked mobility supports mountainous, narrow and urban-demolition worksites with limited infrastructure.

Heavy-Duty Scalping



Accepts coarse, irregular feed where conventional fine-screening plants are not appropriate.

Typical feed materials



Blasted ore



Coarse rock



Concrete



Brick



Asphalt



Coal



Industrial by-products

Plan the feed. Protect the uptime.

A disciplined setup and maintenance routine supports stable coarse-feed handling, accurate separation and safe operation.

1

SITE PREPARATION

Confirm ground bearing capacity, access, deployment width and safe product-stockpile zones.

2

PRE-START CHECK

Inspect chain plates, screen media, structural supports, belts, guards, lubrication and emergency stops.

3

START-UP

Start discharge conveyors and screen before the feeder; increase the coarse-material flow progressively.

4

PRODUCTION CONTROL

Monitor feeder load, deck loading, amplitude, product grading, belt tracking and stockpile clearance.

5

SHUTDOWN

Stop feed first, allow the screen and conveyors to clear, isolate energy and clean retained material safely.

Service & lifecycle support

- 12-month warranty support
- Installation and operator training
- Remote diagnostics and technical guidance
- Spare and wear parts supply
- Chain plate and screen-media replacement guidance
- Conveyor and vibration-system inspection support

PROJECT DATA FOR SELECTION

- ☐ Raw material
- ☐ Required capacity (t/h)
- ☐ Maximum feed size
- ☐ Required product sizes
- ☐ Moisture and fines content
- ☐ Power and emission requirements

SCALP COARSE. MOVE ANYWHERE.

SZ-450D Mobile Heavy-Duty Screening Plant

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ISO 9001:2015 / CE CERTIFIED

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Specifications and appearance may change as part of continuous product development.