

Sandvik QI442HS

Tracked HSI crusher

The QI442HS is a large heavy duty tracked impact crusher, featuring the Sandvik market leading Prisec™ technology and modular HS323 double deck hanging screen. Capable of operating in primary and secondary applications, it has been designed with productivity, safety and user friendliness at its core.



Key benefits

Reliability

- Market leading Sandvik Cl621 Prisec™ impact chamber for unrivalled flexibility and performance
- Patented adjustment / braking system for relieving blockages whilst in operation, thereby maximizing uptime
- Rock box and under pan feeder featuring wear resistant liners for extended wear life
- Premium components selected throughout and FEA analysis on structural parts for durability
- Steel pipe work used extensively to give superior heat dissipation and maximum reliability
- Capable of operating in the most hostile environments

Productivity

- Adjustable apron curtains and tip speed enable a wide range of end product gradations to be achieved
- Load sensing system for feeder drive ensures continuous crushing
- Pre-screen with choice of screen media for effective removal of fines, thereby maximizing throughput and reducing wear
- Selection of hammers to suit a wide range of applications
- Full PLC control system with colour screen allowing visual data output and push button adjustment of all plant operating parameters
- Connected to Sandvik My Fleet with 7 year data subscription offering 24/7 fleet management, geo-fencing and remote operator support
- Modular HS323 double deck hanging screen with patent pending adjustment system to provide a 1, 2 or 3 way split
- Open or closed circuit set-up can be achieved in less than 30 minutes

Cost of ownership

- Latest generation fuel efficient engines provide maximum performance and cost efficiency
- Fluid clutch drive for smoother power transmission for optimum fuel efficiency and maximum power transfer
- Well-proportioned fuel tank to maximize intervals between refueling

Safety

- Patented rotor locking and positioning device for quick and safe maintenance
- Unique 4 key trapped system to ensure safe inspection after the rotor has stopped turning
- Includes integrated lifting jib, chain hoist and lifting cradle for safe removal, rotation and fitment of hammers
- Hanging screen is fully detachable without the need for additional lifting equipment
- Mandatory audible and visual warning for safe operation whilst tracking and start-up / shut down
- Emergency stop buttons and conveyor pull stop cords around the plant for easy access during operation
- Wireless radio handset and proportional speed control for safe tracking onsite
- Spacious platforms provide safe access for service and maintenance
- Dust suppression spray bars and onboard water pump to minimize dust improving operator and onsite safety

Sustainability

- Latest emissions compliant Stage V engine for reduced emissions
- Dust suppression system minimizes dust emissions reducing environmental impact
- Rock box and underpan feeder featuring wear resistant liners for extended wear life

Technical specification

Key specifications	QI442HS
Hopper	
Length	4.2 m / 13' 9"
Rear loading width	2.53 m / 8' 4"
Rear loading width with extensions	4.09 m / 13' 5"
Capacity	6.0 m ³ / 7.85 yds ³
Capacity with extensions	10.2 m ³ / 13.3 yds ³
Rear loading height std	3.97 m / 13' 1"
Primary feeder	
Wear resistant lined feeder	2390 mm x 1270 mm / 7' 10" x 4' 2"
Drive	Hydraulic variable speed
Pre screen	
Type	Double deck
Screen size	2160 mm x 1360 mm / 7' 1" x 4' 6"
Impactor	
Type	Sandvik CI621 HSI
Feed opening	1360 mm x 800 mm / 54" x 32"
Hydraulic inlet opening	1360 mm x 1000 mm / 54" x 39"
Variable speed 4 bar rotor	1150 mm / 45" diameter
2 aprons	Hydraulic assist
Main conveyor	
Belt width	1200 mm / 48"
Discharge height	4.07 m / 13' 4"
Hanging screen	
Model - HS323	4 m x 1.5 m / 13' x 5'
Number of decks	2
Number of bearings	2
Operating angle	20° - 24° - 27° (DD breaker deck)
Minimum mesh size	16 mm / 5/8"
Maximum mesh size	75 mm / 3"
Transfer conveyor	
Belt width	650 mm / 25.5"
Re-circ conveyor	
Belt width	500 mm / 20"
Discharge height	5.39 m / 17' 8"
Stockpile conveyor	
Belt width	500 mm / 20"
Discharge height	2.94 m / 9' 6"
Fines conveyor	
Belt width	1200 mm / 47"
Discharge height	3.67 m / 12'

Key specifications	QI442HS
Underpan feeder	
Type	Spring mounted stepped vibrating feeder
Width	1020 mm / 40"
Length	2.4 m / 95"
Magnet	
Model	Single pole overband magnet
Type	Self cleaning suspended
Natural fines conveyor	
Belt width	650 mm / 26"
Discharge height	3.08 m / 10' 1"
Tracks	
Length (centres)	4.17 m / 13' 8"
Width (shoe)	500 mm / 20"
Control	Radio / Umbilical
Power pack	
Engine	CAT C13 Stage 5 / T4F 340 kW / 456 hp CAT C13 T3 328 kW / 440 hp CAT NR4 (China) 340 kW / 456 hp
Drive type	Direct wet clutch drive
Diesel tank capacity	660 litres / 174 USG
Hyd tank capacity	660 litres / 174 USG
Transport dimensions	
Length	19.38 m / 63' 6"
Width	3.54 m / 11' 6"
Height	3.74 m / 12' 3"
Standard weight	67,189 kg / 148,126 lbs
Operating dimensions	
Length	19.92 m / 65' 4"
Closed circuit width	6.85 m / 22' 6"
Open circuit width	17.19 m / 56' 4"
Height	4.98 m / 16' 4"
Performance	
Max feed size	800 mm / 32"
Capacity (up to)	500 tph / 551 stph *
Travel speed	1.4 km/h / 0.87 mph
Max incline / Side to side	20° / 10°

Note. All weights and dimensions are for standard units only

Standard specification

- Primary pan feeder
- Vibrating pre-screen
- Underpan feeder
- Hopper extensions for rear loading
- Natural fines conveyor
- Folding main conveyor complete with dust covers
- Single pole overband magnet
- Tool kit

- Light mast and cabinet lights
- Pull stop cords on all conveyors
- Dust suppression spray bars
- Remote diesel pump
- Radio control tracking, proportional
- Hydraulic water pump
- Hydraulic jacking legs
- Diverter chute
- My Fleet telematics with 7 year data subscription