

Sandvik QI440 impact crusher unit

in Action

Technical specification sheet



The QI440 is a heavy duty, tracked, self propelled impact crusher with an on board re-circulating system, double screen boxes and double deck to allow two screened products to be produced along with an oversize. The oversize can be re-circulated back into the impactor, without re-handling, or the conveyor can be hydraulically rotated to produce a clean oversize product.

Thus, the QI440HS is not only set to be the definitive heavy duty tracked impact crusher, but also allows customers even greater return on their investment through the facility to produce accurately sized products for immediate use. It also possesses the following exciting features:

- The machine is fitted with a pre-screen to ensure maximum scalping capability in order to prevent any undersize material passing through the impactor, thereby maximising throughput and reducing wear costs. This also allows a specified sized product to be produced from the natural fines conveyor.
- The pre-screen has a choice of grizzly, punch plate or heavy duty mesh top deck and mesh bottom deck, providing the flexibility to suit any application.
- The QI440 is fitted with an underpan feeder which drastically reduces any spillage issues generally associated with impact crushers. The underpan feeder eliminates the need for skirt rubbers that are normally situated in the severe impact zone of a feed boot.
- The underpan feeder also protects the conveyor belt from the material that is travelling at high velocity from the rotor. This material is contained on the wear resistant underpan feeder liners and gently delivered onto the conveyor belt.
- Two hydraulically adjustable apron curtains can be positioned to facilitate the machines operation.
- The above combined with the variable engine speed gives a tip speed range of 30 m/s to 37 m/s resulting in a wide range of product gradations being achievable.

	QI440
Feed Hopper	
Nominal capacity	6 m ³ (7.85yd ³)
Primary Feeder	
Hardox lined feeder	1278mm (4' 2") x 2365mm (7' 9")
Hydraulic drive variable speed	550 rpm to 1000 rpm
Twin eccentric shaft	Oil lubrication
Amplitude	Nominal 10mm (3/8")
Pre screen	
Hardox top deck grizzly / punch plate	1360mm (4' 6") x 2160mm (7' 1")
Bottom deck mesh	1360mm (4' 6") x 1730mm (5' 8")
Impactor	
Sandvik CI322 impact crusher	
Feed opening	1360mm (54") x 800mm (31.5")
Hydraulic inlet opening	1360mm (54") x 1000mm (39.5")
4 Bar rotor	1150mm (45 1/4") diameter
Rotor speed (variable)	502 rpm to 620 rpm
Tip speed (variable)	30 - 37 m/s
2 aprons	Hydraulic assist
Main Conveyor	
Belt width	1200mm (47 1/4")
Belt spec	EP500/3 ply 8+2 mm gradeX 1200mm (47 1/4")
Belt length (endless)	20700mm (67' 11")
Discharge height	4000mm (13' 1")
Hydraulic drive	Twin 500cc (30.5 cu inch x 2)
Underpan feeder	
Type	Spring mounted stepped vibrating feeder
Width	1022mm (40 1/4")
Length	2400mm (94 1/2")
Speed	960 rpm
Natural fines conveyor	
Belt spec	EP400/3 ply 3+1.5 mm (650 mm / 26")
Belt width	650mm (25 1/2")
Belt length (endless)	12063mm (39' 7")
Discharge height	3000mm (9' 10")
Hydraulic drive	400cc (24.4 cu inch)
Re-circulating Conveyor	
Belt spec	EP400 3ply 3 + 1.5mm Chevron 15mm 500mm (19 3/4")
Belt width	500mm (19 3/4")
Belt length (endless)	19300mm (63' 4")
Discharge height	4950mm (16' 3")
Hydraulic drive	630cc (38.4 cu inch)
Fines Conveyor	
Belt spec	EP400/3 ply 3+1.5 mm (1200 mm / 47 1/4")
Belt width	1200mm (47 1/4")
Belt length (endless)	12800mm (42')
Discharge height	2850 mm (9' 4")
Hydraulic drive	800cc (48.8 cu inch)
Magnet	
Model	Eriez CP20/100-SC2
Weight	1300 Kg / 2866 lbs

Options

Hopper extensions for rear loading
Hopper hardox liner plates back & sides
Hopper high impact Sandvik rubber liners back & sides
Central auto lube (crusher bearings only)
Central auto lube (excluding crusher bearings)
Remote diesel pump (electric)
Water pump (Hyd)
-20°C / -4F Arctic package
-30°C / -22F Arctic package
Tropical package
Double deck hanging screen (HS) system

	QI440
Belt width	800 mm / 32"
Height	428 mm / 17"
Length	2450 mm / 8'
Type	Self cleaning suspended
Gauss at 200 mm distance from belt	600 gauss / force density 15Kdynes/cc
Gauss at 250 mm distance from belt	490 gauss / force density 10Kdynes/cc
Stockpile Conveyor	
Belt spec	EP400 3ply 3 + 1.5mm Chevron 15mm 500mm (19 3/4")
Belt width	500mm (19 3/4")
Belt length (endless)	12020mm (39' 5")
Discharge height	3070mm (10' 1")
Hydraulic drive	630cc (38.4 cu inch)
Cross Conveyor x 2	
Belt spec	EP400 3ply 3 + 1.5mm 500mm (19 3/4")
Belt width	500mm (19 3/4")
Belt length (endless)	5000mm (16' 5")
Discharge height	N/A
Hydraulic drive	315cc (19.2 cu inch)
Double Screen	
Screen box 1 top deck	1426mm (5') x 1426mm (5')
Screen box 1 bottom deck	1426mm (5') x 1426mm (5')
Screen box 2 top deck	2440mm (8') x 1426mm (5')
Screen box 2 bottom deck	2440mm (8') x 1426mm (5')
Power Unit	
Engine	Cat C13 Tier 3 *
Engine power	328 Kw (440 Hp)
Speed	1700 rpm to 2100 rpm
Fuel tank	660 litres (174USG)
Hydraulic tank	660 litres (174USG)
Tracks	
Track shoe width	500mm (19 3/4")
Tracking speed	1.4 kph (0.87 mph)
General Technical Data (HS Details)	
Operation length HS	19486mm (63' 11")
Operation width HS	6830mm (22' 5") inc natural fines conv
Operation width HS	11144mm (36' 7") stockpile + natural fines conv
Operation height HS	5330mm (17' 6")
Transport length HS	18450mm (60' 6")
Transport width HS	3540mm (11' 7")
Transport width (without stockpile con)	3300mm (10' 10")
Transport height HS	3760mm (12' 4")
Weight HS	61,900kg (136,466 lbs)
Operation length Open	16500mm (54' 2")
Operation width Open	6830mm (22' 5") inc natural fines conv
Operation height Open	4600mm (15' 1")
Transport length Open	15730mm (51' 7")
Transport width Open	3030mm (9' 11")
Transport height Open	3600mm (11' 9 3/4")
Weight Open	52500kg (115,743 lbs)

Note. All weights and dimensions are for standard units only
* Volvo option available late 2011. Please inquire within for further details.

Additional Stockpile conveyor for HS system
Wheeled dolly (Not available with HS system)
Conveyor pull cords
Grizzly
Pre screen top deck punch plate
Pre screen top deck heavy duty mesh (asphalt / secondary applications)
Pre Screen open aperture bottom rubber to feed natural fines conveyor (high fines / sticky applications)
No overband magnet
No natural fines conveyor

