



Bison 280 Technical Presentation

Apr 2020 Rev 1



terex.com/EvoQuip

Bison 280



Bison 280



Features & Benefits

- Extremely efficient diesel direct drive for optimal fuel efficiency and performance
- Up to 200tph (220 UStph)
- Ease of maintenance (excellent access to drive belts & hydraulics, centralised hydraulic compartment, easy access to all service points)
- Feeder auto regulates depending on crusher load
- Excellent under-crusher clearance
- Tunnelled from crusher discharge to magnet to reduce snag points
- Quick set up times
- Simple intuitive operation
- Ease of setting adjustment
- 2 button start up
- Easy to transport
- Low feed in height
- Ideal for Urban Use
- Optional:
 - Ability to raise / lower product conveyor
 - Jaw level sensor
 - Hydraulic deflector plate

GENERAL

- Capacity: Up to 200tph (220 US tph)
- Feed size: 540mm (21.5") cube, Max slab size 500mm x 850mm (20" x 34")
- Machine Weight: 28,000kg (61,730lbs) with bypass conveyor and single pole magnet options.



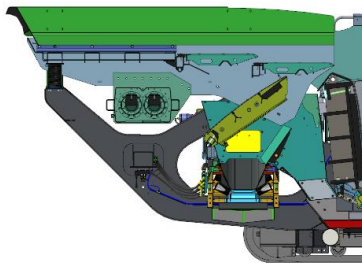
Hopper

- Fixed hopper bin
- Hopper Capacity: 3.6m³ (4.7 cubic yards)
- Hopper Width: 1.68m (5' 6")
- Loading Height: 3.2m (10' 5")
- Fabricated from 8mm (5/16") thick wear resistant steel



Vibrating Feeder / Hopper

- Integrated Pre-Screen for removal of fines
- Two Bolt – in Stepped Grizzly cassettes
- 50mm (2") nominal spacing grizzly as standard
- 40mm (1.5") aperture under-screen mesh as standard
- Screen area: 1200mm x 775mm (48" x 31")
- Proven twin shaft geared vibrator assembly
- Feeder speed automatically regulates depending on engine load
- Replaceable 10mm (3/8") wear liners on feeder floor
- Wear plates have large radii in corners to prevent material sticking
- Ability to rotate mesh deck to ease media change

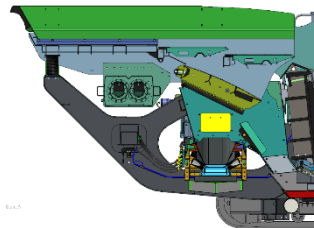


By-pass Conveyor Option

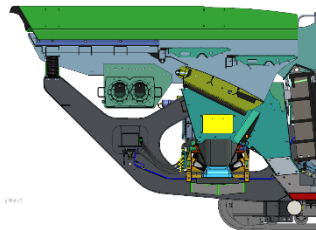
- Belt width: 600mm (24") wide
- Belt specification: EP400/3 4+2
- Discharge height: 2.07m (6'-10")
- Available LHS discharge (Std) or RHS (optional)
- Hydraulically folds for transport



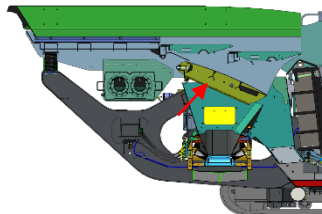
Bypass Chute



Option 1 – All material passed out onto the main conveyor



Option 2 – Screened material passed out the Bypass conveyor



Option 3 - Bottom rubber removed. Therefore in sticky applications the screened material can pass directly onto the Bypass conveyor

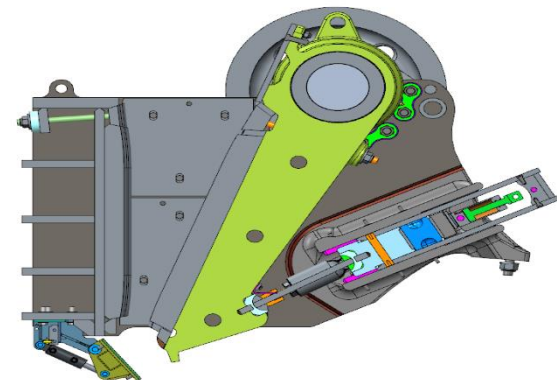
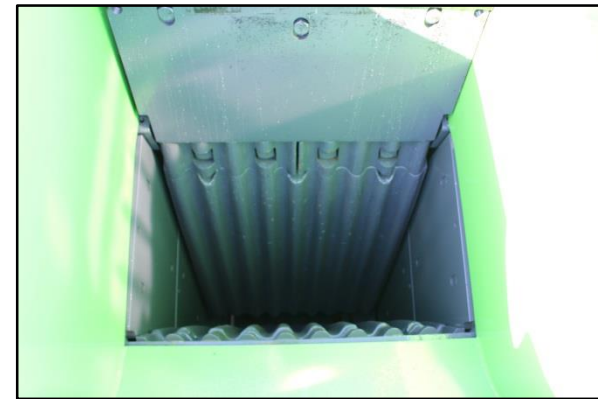
Inlet Chute

- Inlet chute fabricated from wear resistant plate
- Hinged cover plate which can be folded for transport



Jaw Chamber

- High capacity single toggle jaw crusher
- 900mm x 600mm (36" x 24") Jaw Inlet
- Hydraulic Adjust as standard
- 25mm (1") thick cheek plates
- CSS Range: 40mm (1.5") to 130mm (5.25")
- Minimum CSS:
 - 40mm (1.5") – Recycle
 - 50mm (2") – Natural Rock
- Maximum feed material strength of 390kN 10% Fines; 240MPa Compressive Strength. For applications outside this range please contact EvoQuip
- Jaw Speed
 - 266rpm with Constant Speed John Deere
 - 266 to 295rpm with Tier 4 Final CAT
- Feed size: 540mm (21.5") cube, Max slab size 500mm x 850mm (20" x 34")



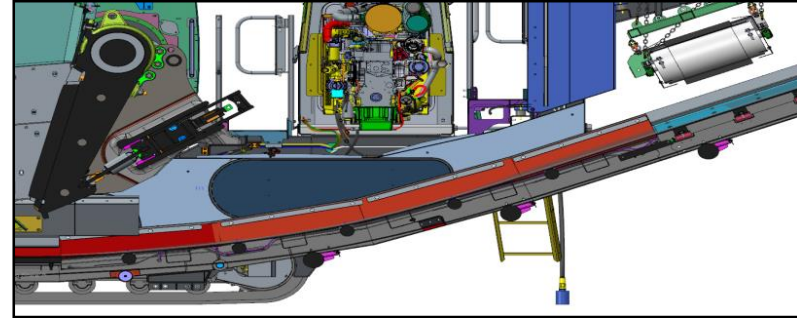
Product Conveyor

- Belt width: 800mm (32")
- Belt specification: EP500/3 5+1.5
- Discharge height: 2.9m (9' 6")
- Impact bed at jaw discharge point
- 440mm (17.5") clearance from jaw to conveyor
- High specification head drum scraper



Product Conveyor Tunnelling

- The machine is fully tunnelled from the rear of the jaw chamber to the end of the hydraulic tank to reduce the potential for steel / rebar to snag



Power Unit

- EU / ROW:
 - John Deere 4045 Constant Speed 126kW (169Hp) engine
 - Operating Speed: 1800 rpm
- Tier 4 Final:
 - CAT C4.4 Tier 4 Final 129kW (173Hp) engine
 - Operating Speed: 1800 rpm variable
- Operating conditions:
 - Ambient temperature: -10 °C to +50°C (14 – 122 °F)
 - Altitude: up to 1000m (3281ft) above sea level*

* For applications outside of this range please consult with EvoQuip as the plant performance / reliability may be affected
- Clutch Type: Highly efficient, self adjusting HPTO 12 dry plate clutch with electro hydraulic operation
- Crusher Drive: Direct drive via wedge belts
- Tensioning: Manually adjustable screw tensioners under powerunit



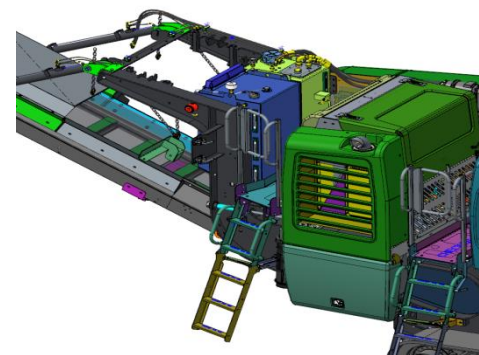
Power unit

- Centralised hydraulic compartment to ease service and troubleshooting
- Excellent service access to engine dipstick / filters etc.
- Excellent access to drive belts



Diesel & Hydraulic Tank

- Diesel Tank Capacity: 400 Litres (106 US Gallon)
- Hydraulic Tank Capacity: 280 Litres (75 US Gallon)
- Both tanks are anti-vibration mounted on the chassis



Magnet (Option)

- Single Pole and Twin Pole magnets available as an Option
- 750mm (30") Belt width
- RHS Discharge as standard.

LHS Optional



Access Platforms

- 2 sided engine access and access up to crusher inlet



Tracks

- Heavy duty bolt on track frames
- 2 speed motor as standard
- Sprocket Centres: 2950mm (9' 8")
- Shoe Width: 400mm (16")
- Gradeability: 30 deg
- Rear rake angle: 23 deg
- Front rake angle: 23 deg



Electrical Control System

- Intuitive 'push button' Control System
- Machine start-up can be completed by 2 button presses



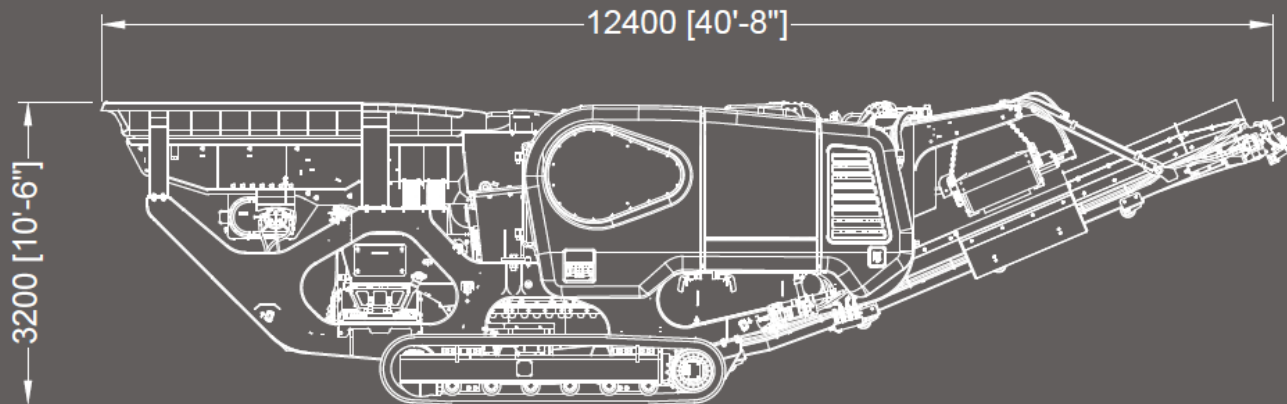
Electrical Control System

- Telemetry as standard



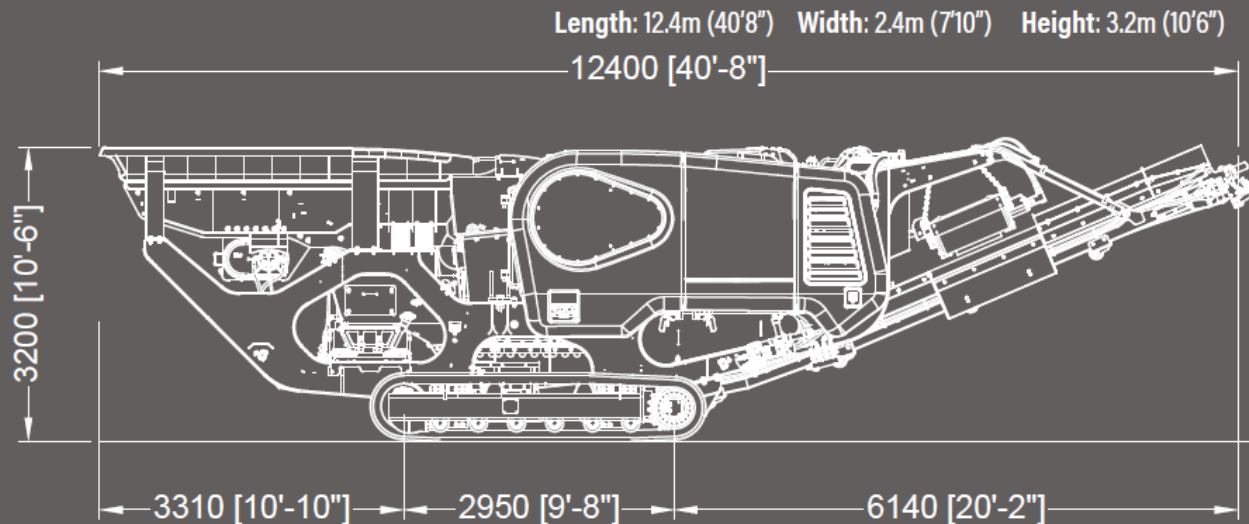
Working Dimensions

Length: 12.4m (40'8") **Width:** 3.8m (12' 6") **Height:** 3.2m (10'6") **Weight:** 27,700kg (61,068lbs) (T3 with bypass conveyor and single pole magnet options)



Transport Dimensions

Length: 12.4m (40'8") Width: 2.4m (7'10") Height: 3.2m (10'6") Weight: 28,000kg (61,730lbs) (T3 with bypass conveyor and single pole magnet options)



Options

- **VGf**
 - Different Grizzly Cassette Apertures
 - Wire Mesh for Grizzly underscreen
- **By-Pass Conveyor**
- **Jaw Crusher**
 - Supertooth Jaw plates
 - Multitooth Jaw plates
 - Jaw level sensor
 - Under Crusher Hydraulic Deflector Plate
 - Crusher Un-block system
- **Main Conveyor**
 - Hydraulic Raise and Lower of Product Conveyor
 - Hydraulic Folding Product Conveyor c/w hydraulic raise and lower
 - Quick to Remove Aluminium Dust Covers for Main Conveyor
 - Belt Weigher
 - Stockpile level sensor
- **Overband Magnet (both Single Pole and Twin Pole options available)**
- **Hydraulic Raise and Lower of Magnet**
- **Radio Remote Control**
- **Dust Suppression (inc Waterpump)**
- **Hot / Cold Climate Oils**
- **Electric Refuelling pump**
- **Control Panel Pressurisation**
- **Feeder Control Station**
- **Plant Lighting Mast**

Vibrating Feeder Options

- Alternative Grizzly Apertures



- Wire Mesh for Grizzly underscreen



Jaw Chamber Options

➤ Super-tooth jaw plates

S-Tooth

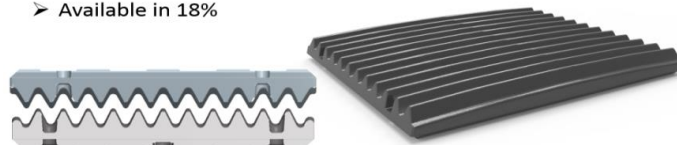
- Medium to Hard rock applications
- Grips material to allow improved crushing & product
- Available 18% & 22%
- Fitted as Standard from factory except for :
 - METROTRAK / BISON 280 / J960



➤ Multi-tooth jaw plates

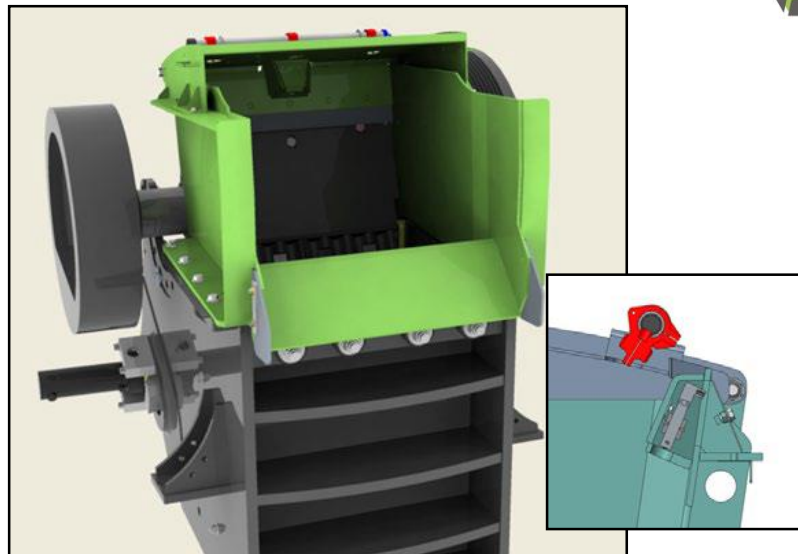
Multi-Tooth

- Recycling applications
- Good grip on smooth flat surfaces e.g. concrete slabs
- Available in 18%

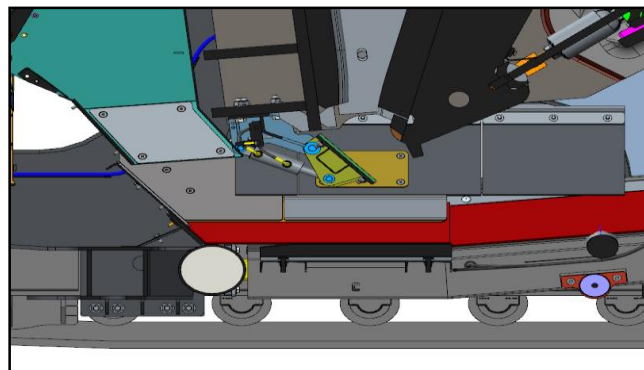


Jaw Chamber Options

- Jaw level sensor



- Under Crusher Deflector Plate



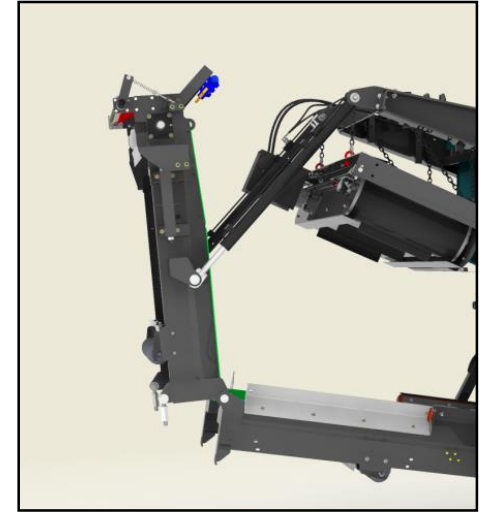
Jaw Chamber Options

- Crusher Un-block system



Product Conveyor Options

- Product Conveyor can be lowered hydraulically to facilitate maintenance and to help in clearing blockages should they occur.



- Hydraulic Folding Product conveyor c/w Raise / Lower

Product Conveyor Options

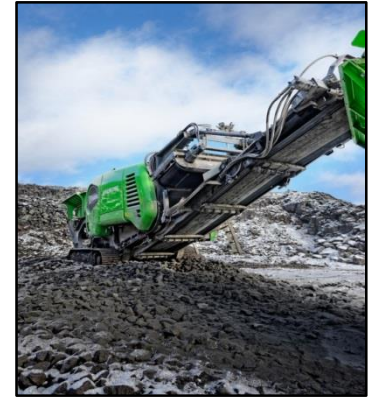
- Quick to remove Aluminium dustcovers
- Beltweigher
- Stockpile level sensor



Magnet Options

- Overband Magnet

- Single Pole
- Twin Pole



- Hydraulic Raise / Lower of Magnet



Electrical Control Options

- Radio Remote Control



- Dust Suppression



Other Options

- Hot / Cold Climate Oils

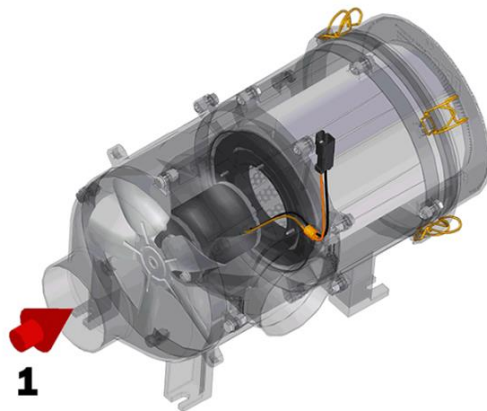


- Electric Refuelling Pump

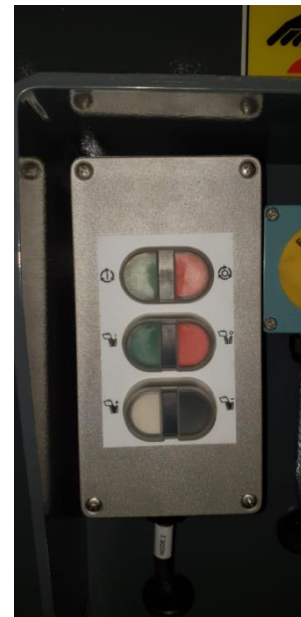


Other Options

➤ Control Panel Pressurisation



➤ Feeder Control Station



Other Options

➤ Plant Lighting Mast

