Bulkquip Pty Ltd

CRS Concrete Recycling System

The CRS Concrete Recycling System is meticulously engineered to help the washing and separation of concrete components for recycling purposes. This comprehensive system is composed of a vibrating feeder at the feeding station, a concrete reclaimer unit, a control board, and a Programmable Logic Controller (PLC). Its design ensures an even distribution of recycling operations throughout working hours.

The CRS features a spacious holding hopper with a 2m³ capacity, allowing easy discharge of returned concrete by pumps and truck mixers. An integrated self-embedded water hose facilitates on-field truck cleaning. Importantly, CRS contributes to land gain at the batch plant site.

A key functionality is the efficient separation of aggregates based on their mesh size. The CRS series outputs two distinct mesh-sized aggregates while separating sand and aggregates. Grey water is directed to a pool via drain channels.

CRS is available in three configurations, varying in capacity and feeding type:

CRS20: Nominal 15-20 m³/h, suitable for Transmixer and dozer feeding.
CRS30: Nominal 25-30 m³/h, suitable for Transmixer and dozer feeding.
CRS.MIX: Nominal 25-30 m³/h, suitable for Transmixer, dozer, and pump feeding.

PO Box 111, Charlestown NSW 2290
Unit 7/8 Kilcoy Drive, Tomago NSW 2322
P: 1300 026 011 | **E:** graham@bulkquip.com.au
www.bulkquip.com.au

The PLC and control panel automation system govern the CRS recycling system. Authorised personnel can configure specific settings via the encrypted panel, including:

a. Grey water collection and washing
b. Clean water supply/washing
c. Adjustable washing time
d. Manual testing capability
e. Optional machine speed adjustment

TECHNICAL DETAILS

Capacity	CRS20: nominal 20m³/h
	CRS30: nominal 30m³/h
Aggregate Size	3-25 mm
Powder or Sand Size	0-5 mm
Control Voltage	24 V
Total Motor Power	15 kW

Feeding Station

The feeding station makes up a main hopper and vibrating feeder. Its adjustable cover ensures a consistent and optimal feed into the concrete reclaimer unit. Designed for loading by a loader or similar equipment, the feeding inlet can be manually adjusted to prevent clogging or blockage. The system, with its main hopper and vibration feeder, is engineered to prevent overloading, congestion, and inefficient washing.

SCRU Main Unit

Constructed from galvanized steel, the recycling unit features a compact structure and a helical washing and carrying unit with a 5m³/h capacity. The design eliminates sealing or bearing issues, incorporating a butterfly valve with manual actuator at the discharge exit. Two outlets guide overflowed grey water, while 20mm thick carbon steel flights and shafts withstand heavy-duty operations. The system includes a clean water distributor and a washing hose system. A 1.5m³ capacity hopper with a hatch is also provided, along with a direct coupled gearbox and a 4kW electric motor for extra heavy-duty operations.

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Control Panel

The control panel and PLC offer manual and three automatic modes of operation:

Mode 1: Separation/washing mode

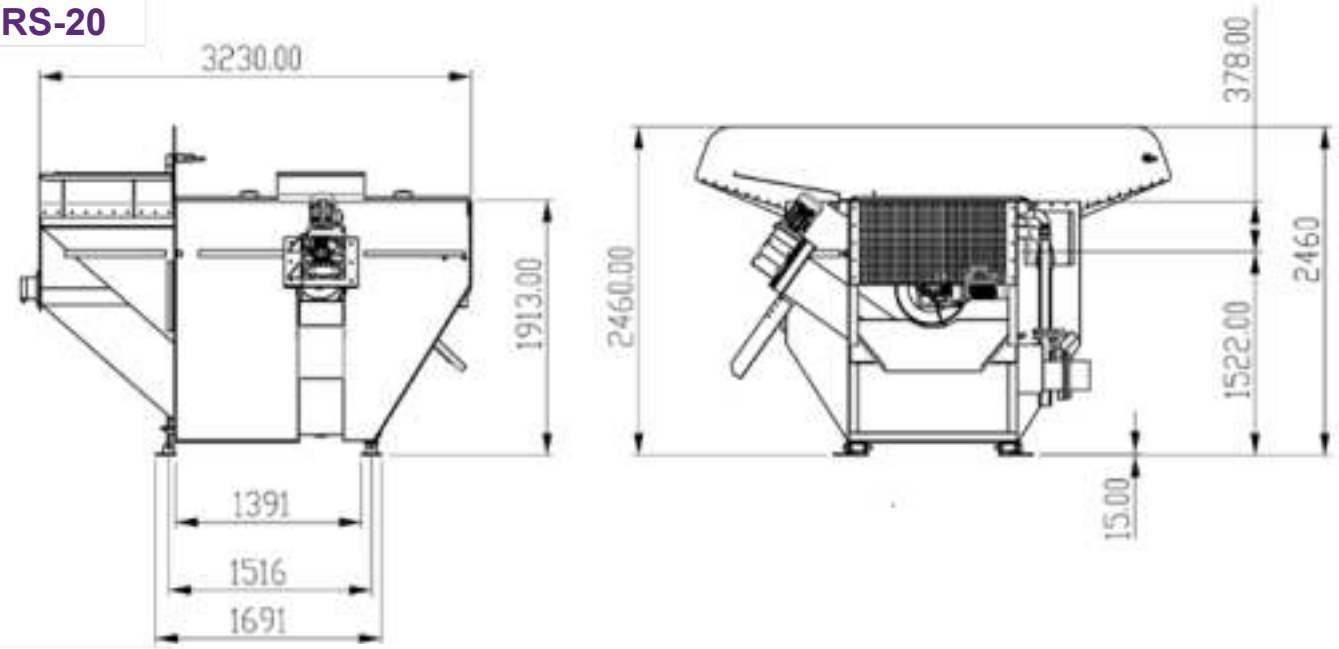
Mode 2: Stand by

Mode 3: Off/park mode

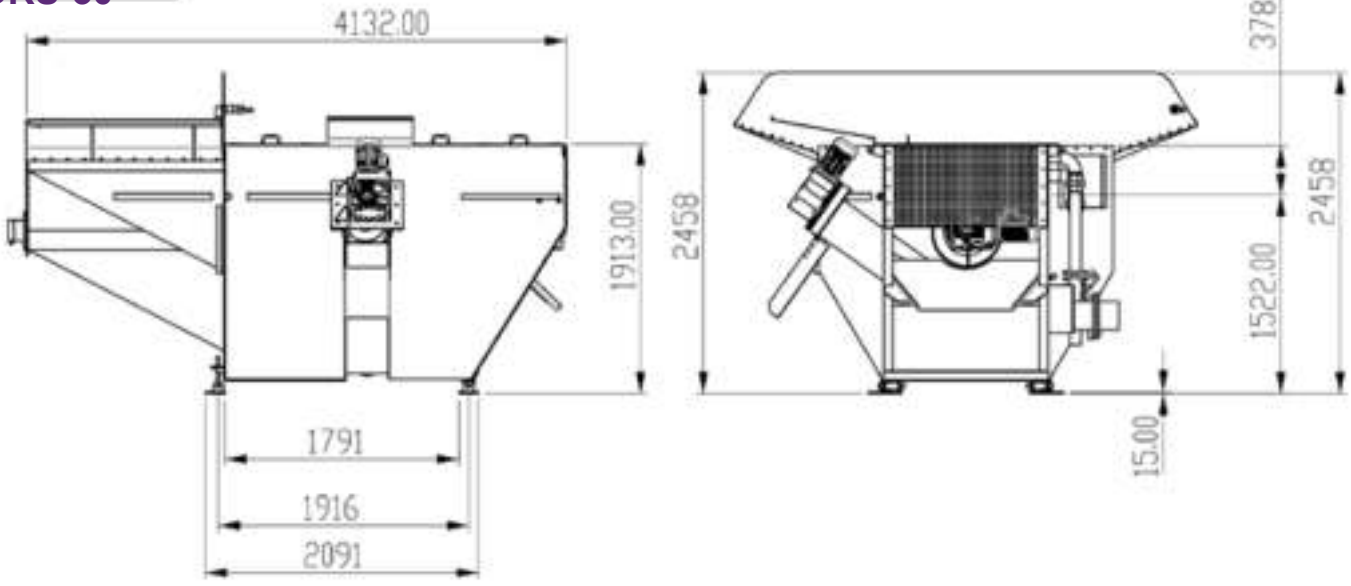
Interval adjustments can be made based on plant needs and required washing efficiency.\

OVERALL DIMENSIONS

CRS-20



CRS-30



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