Specification

MACHINERY MANUFACTURERS TO THE CONCRETE, CONSTRUCTION & ENVIRONMENTAL INDUSTRIES

trakmix 250

FULLY MOBILE, - TRACK MOUNTED, SELF CONTAINED, FULLY WEIGHED HIGH VOLUME MIXING PLANT

The **Trakmix 250** has been designed to be totally mobile and completely self-contained with its own power source. Hydraulically operated track system enables the plant to self position and self erect in minutes. The **Trakmix 250** is a continuous weighing and mixing system, mixing up to 250 Tonnes per Hour, depending on application. Feed rates are fully adjustable for the aggregate, cement and water systems.

MACHINE DIMENSIONS

- Transport Dimensions

Length -	13820mm
Width -	2530mm
Height -	3917mm
Weight -	26250 kg

- Working Dimensions

Length -	17205mm
Width -	2530mm
Height -	4471mm

Rapid International Ltd
96 Mullavilly Road, Tandragee
Co Armagh, Northern Ireland
BT62 2LX

T: +44 (0)28 3884 0671
F: +44 (0)28 3884 0880
E: marketing@rapidinternational.com
www.rapidinternational.com

CHASSIS

- **Construction**: Fully welded profiled plate sides with brackets fitted for attaching bin, conveyors, mixer, and all ancillary items which make up the plant.
- **Running Gear:** Tracks oprated by hydraulic motors. A pendant control is fitted to operate the track system.
- **Access**: Walkways are provided on top of the chassis of the machine for maintenance access. Fold out ladders for access.
- **Hydraulic System**: Electro-hydraulic powerpack to operate the track system and the hydraulic rams for conveyor folding.

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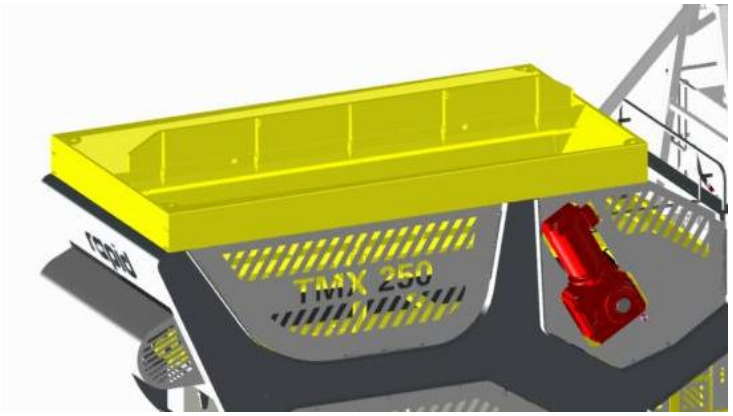
AGGREGATE HOPPER WITH VARIABLE SPEED BELT FEEDER



- **Capacity**: 7.5 m^3
- **Loading Width**: 4100 mm. The hopper can be loaded from either side of the machine.
- **Construction**: S275 plate with stiffening ribs. Steep sides for difficult materials.
- **Removable Division Plate**: The hopper has a removable division plate, allowing two materials to be used.
- **Lining**: To aid the discharge of the materials the hopper surfaces are fitted the low friction high molecular polyethylene lining material 12mm thickness.
- **Adjustable Gates**: The outlet end of the hopper is fitted with adjustable level gates to enable the material height on the conveyor belt to be varied. These are adjsusted manually.
- **Belt Feeder**: A Conveyor belt feeder is fitted on the bottom of the hopper to provide feed from the hopper to the mixer. The conveyor is fitted with a heavy duty geared motor drive with automatic variable speed control and is fitted with adjustable rubber skirts and additional heavy duty support rollers. The belt width is 1200mm and a heavy duty 3 ply belt is fitted.

AGGREGATE WEIGH BELT FEEDER

- **Feeder**: 1400mm belt conveyor between Aggregate hopper and continuous mixer.
- **Weighing**: Supported on loadcells – pivot arrangement; this measures the material weight allowing the feed rate of the aggregate to be determined.

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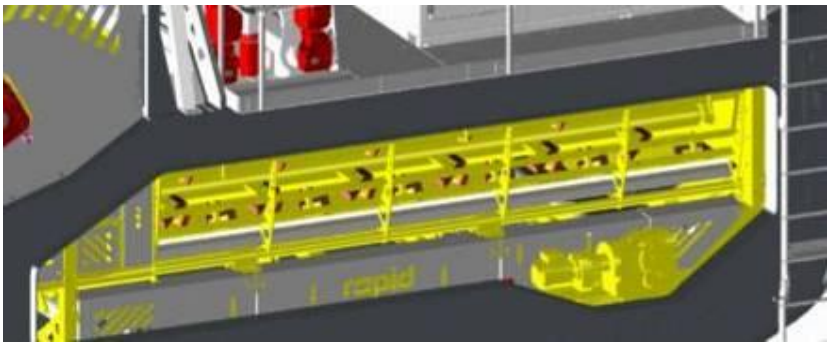
TWIN SHAFT CONTINUOUS MIXER



- **Mixing Action**: The twin shafts mix the material, whilst moving the material toward the end of the mixer.

- **Paddles**: The twin horizontal mixing shafts are fitted with chill cast steel paddles, which are intermeshed in a specially phased relationship to optimise mixing action, whilst maximising throughput.

- **Cleaning and Maintenance Access**: Special attention has been paid to give the user maximum access for maintenance and cleaning operations. Both sides of the mixing chamber hinge down, to give access, the sides are lowered by hydraulic cylinders.

- **Drive**: The shafts are driven by a 55 kW (75 HP) electric motor through a reduction gearbox with twin gears to synchronise the shafts.

- **Mixing Chamber**: The mixing chamber is formed by fabricated sloped sides with a troughed conveyor under the mixer forming the bottom of the mixer.

- **Water Addition**: Water spray bars fitted into the top of the mixer allow the water to be added to the material as it progresses along the mixer.

- **Clean-out conveyor**: Mounted on the bottom of the mixer, forming the bottom of the mixing chamber, this conveyor allows the bottom of the mixer to be easily cleaned out, when production is finished. This conveyor is used for clean out purposes only. The mixer should be lined with a bed of material every morning before production starts. The conveyor is fitted with a low speed geared motor drive.

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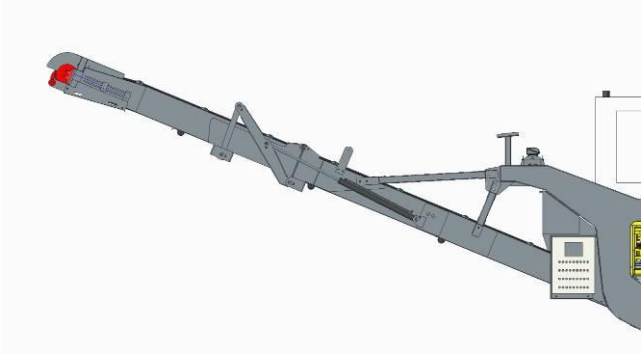
OUT-LOADING CONVEYOR



- **Function**: Transporting the mixed material from the twinshaft mixer to the truck. The conveyor is designed to handle the maximum feedrate from the mixer.
- **Contruction**: S275 folded plate construction with mounting brackets for rollers and pivoting mechanism. The head section of the conveyor folds for transportation.
- **Belt**: 800mm 3 ply belt with heavy duty top cover and vulcanised joint.
- **Drive**: Motorised drum with rubber lagging.
- **Belt Scraper**: Polyurethane blade pre-cleaner scraper mounted on the face of the head drum.

WATER SYSTEM

- **Water Tank:** A 600 litre tank is fitted complete with galvanised steel pipework. The water level is controlled via a level probe and piston shutoff valve.
- **Pumps:** One positive displacement pump is fitted to supply 2No water spray bars within the mixer.
- **Spray Bars**: Each Mixer spray bar has a ball valve to allow addition of water early in the mix, later in the mix or both together. A calibration point for accurate water weighing is also included.

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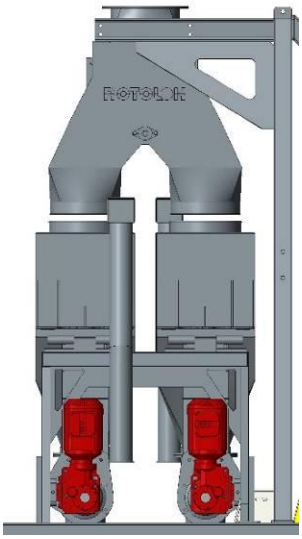
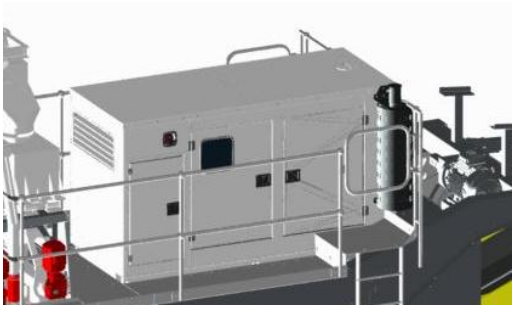
CEMENT / BINDER WEIGH VESSEL



- **Construction:** Holding vessel fabricated from mild steel plate, with brackets for loadcells.
- **Weigh System:** Screw conveyors are mounted under the weigher. The vessel and screws are weighed to monitor the feed rate of the cement. The screws are tubular mild steel design with end seals and geared motor drive. Each screw feeds into both sides of the mixer ensuring good distribution of materials.
- **Outlet:** Twin outlet screw conveyor to discharge the cement or binder into the mixer. Feedrate is measured by recording rate of change of weight observed on the loadcells.
- **Diverter Valve:** A diverter valve will be mounted above the hoppers to automatically divert material into which ever hopper is being filled, this is mounted independantly of the hoppers and will have no bearing on the overall weight being recorded by the loadcells.

GEN-SET



This unit provides electrical power for all machine functions. Diesel powered generating set rated at 160 kVA, 3 phase, 400 volts,. Powered by a 6 cylinder, turbocharged diesel engine with directly coupled brushless alternator.

- Heavy duty fabricated steel skid type baseframe with anti-vibration mounting pads.
- Electric starting system with heavy duty lead acid type starting batteries and battery charging system.
- Fuel feed and return lines from engine to 8 hour capacity baseframe fuel tank.
- Industrial exhaust silencer system.
- Automatic engine shutdown protection equipment with LED indicator for low oil pressure, high engine temperature, low coolant level, overspeed, and fail to start.
- Set mounted autostart control and instrument cubicle containing voltmeter with phase selection switch, ammeter with phase selection switch. dual scale frequency/ tachometer, water temperature gauge, oil pressure gauge, battery, voltmeter, hours run counter, 3 attempt starting timer, mode selector switch run/off/auto, emergency stop button, lamp test/reset button, terminals for remote start, remote emergency stop and common alarm signal. Set mounted circuit breaker cubicle containing suitably rated 3 pole moulded case circuit breaker.

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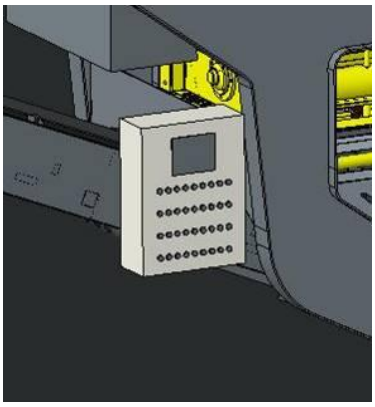
PLANT CONTROL SYSTEM

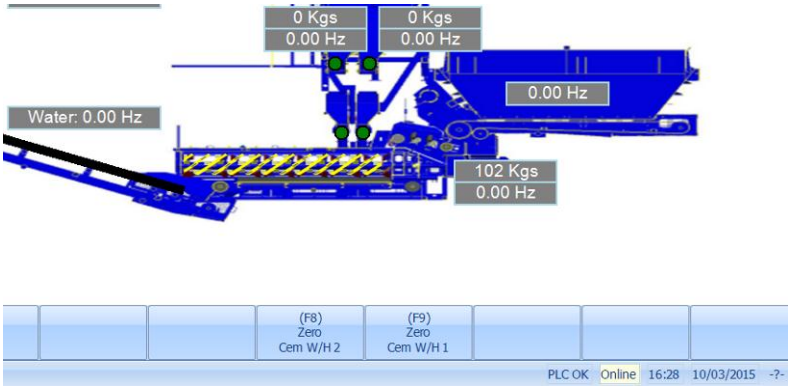


The system uses an Allen Bradley Micrologix Processor to control all of the plant functions for automatic control with manual push button backup.

Control Panel: The operator control panel has push buttons, selectors and indicators to manually operate the individual plant components. A selector enables automatic to be engaged

Automatic Control: A 15" touch screen HMI operator interface is used for operator inputs and display of all parameters. This interfaces with the processor to control the plant.

Software Features: Storage of up to 50 Recipes: each recipe contains the details of a specific mix, which is the ratio of cementitious product to aggregate. Stock Control: cement stock and useage are stored in memory and may be displayed or printed out. Printer: the printer will record batches produced and a print will be given after each batch with details of material produced. Plant Alarms: an alarm message will be displayed on the HMI and a print out given of the alarm fault together with date and time. (an audible and visual alarm is available where operator may be away from the panel and is still made aware of it.)



After the HMI powers up, the home screen (the running screen) is displayed. This screen is where the operator will gain the majority of the information when the plant is running.

Remote Access: a modem is fitted, that can be used to allow remote access for both management and our technical staff. We can assist with fault finding, download software updates. Client to supply 3G or WiFi connection to use this feature.

Starter Panels: The starter panels, house the starters for all of the drive motors on the plant and variable speed drives for the drives that adjust in operation.

Weighing: Compression loadcells monitor the weights of cement and aggregate.

Water Meter: Litre counter to measure the flow rate of water into the mixer.

MANUALS

Full operating and maintenance reference manuals are supplied with the machine.

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PAINT SPECIFICATION

After fabrication and hoppers items are manually (shot) blast cleaned in our Blast Room to Sa2 standard. Immediately after blasting all items are transferred into our enclosed state of the art Paint Booth/Oven. We then apply a 2 pack epoxy primer and a 2 pack polyurethane gloss finish coat. During the paint process the oven facility is used to bake as required at temperatures up to 80°C. Anything stated as galvanized will not be painted

OPTION ADDITIVE METER

Litre counter and additive pump to measure the flow rate of additive into the mixer.

Notes:

1. Customer to provide a clean supply of water at an adequate pressure and flowrate. Water systems are designed for clean water only unless stated otherwise in the quotation.

2. Cleaning: the mixer and all equipment handling concrete must be cleaned regularly (daily or more frequently depending on application) when in use. Any damage to equipment as a result of not being cleaned will invalidate warranty and all repair expenses will be charged to the client.

3. Any defect in equipment supplied must be reported to us in writing immediately. If the defect is not notified to us and is allowed to continue and cause damage to itself and/or surrounding plant, any repair expenses will be charged to the client.

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