# CONCRETE BATCH PLANT

## Basic specifications and construction
## (Standard Equipment)

This ***MOBILE CONCRETE BATCH PLANT*** is lightweight and can be towed into very remote job sites where the roads are very tight or hilly, or if space (area) requirements are minimal. His batcher dispenses sand, rock, cement, and water by weight (lb. or kg) for accuracy and ticket-able receipts.

**NOTE: Picture are visual reference only; not meant to request specific brand**

**<u>MINIMUM REQUIREMENTS</u>**

- **Must be capable of producing a minimum of 180-250 cu yds per hour of good quality concrete**
- Overall collective weight: 80,000lbs
- Length from King pin to rear: 60 feet
- Travel Width: 12-feet
- Travel Height: 14 feet, 6 inches
- Must be a Self-Erecting Mobile Concrete Batch Plant

**<u>MAIN COMPONENTS</u>**

- Horizontal concrete mixer
- Aggregate bins (3 each)
- Cement Silo

- Cement feeders
- Air / Water additive system
- Batcher / Discharge
- Scales
- Conveyors
- Control house / station

**DRUM MIXER/HORRIZONTAL CONCRETE MIXER**

- **10 to 12 cu yd mixer**

**AGGREGATE BINS**

- Overhead bins w/ 3 compartments foldable for travel
- Minimum capacity: 47 cu yds/65 ton MAX
- 12 cu yd aggregate weight batcher
- 40-foot x 30-inch Aggregate Conveyor (heavy duty belt)
- 12 horsepower minimum drive motor
- Batcher gates required to have 2 double clam type
- Dual aggregate vibrator

**CEMENT SILO**

- Minimum capacity 2000 cu ft/57 tons
- 12 cu yd cement batcher – designed for easy flow of material
- Minimum discharge height – 12 feet – sufficient for material discharge into 8-10 cu yd concrete truck
- Repair/maintenance manhole access point

**CEMENT FEEDERS**

- Multi flight (reversible & independently controlled)
- Twin 12-inch / 25hp / 240 CFM

**AIR, WATER, HYDRAULIC**

- Water metering (piping to discharge 3” turbo)
- Minimum 20 horsepower/120-gallon air compressor (on-board – electric) providing sufficient pneumatic power to all components of batch plant – all piping included
- Minimum 3-inch water meters (turbine) with all plumbing to provide sufficient water to batch plant
- High-pressure washer system for cleaning machine – with pressure gun and 25-foot hose – 50 ft if applicable, please ensure multiple connection points are present
- At least one (1) ¾ inch hose connection with 25 ft hose included or 50 ft hose
- All air and water lines shall be covered and protected from possible damage during operation and/or movement of the batch plant
- 450-gallon (minimum) surge tank
- 120-gallon (minimum) hydraulic oil tank

**BATCHER / DISCHARGE**

- Discharge height (steel clearance) 14-feet 10-inches
- 12-yards – 10,000 Lbs
- 10-inch butterfly
- Raisable (or directional) rubber boot must be included and controlled within the control house

**WEIGHT SCALE FOR DISPENSED MATERIAL**

- Truck Scale and/or Silo/chute discharge scale

**CONVEYOURS**

- Transfer belt conveyor 30-inches / 30 HP (380 FPM)

**CONTROL STATION**

- Operator's control station equipped to operate and monitor all functions of Mobile Concrete Plant
- Station equipped with Heating, Ventilation, Air Conditioning (HVAC)
- Equipped with 125 VAC power [Identifying standard wall plugs are included (rated at 120V)]
- Control panels for all functions of mobile concrete plant
- All controls clearly labeled, illuminated
- P/A System for contacting personnel

**ELECTRICAL/ GAUGES**

- Prewired in EMT conduit
- 460V / 3PH / 60HZ
- 4-point load cell (3k each)
- Electrical lines sufficient to provide power to operate all batch plant components
- Controls conveniently located (ground level) and protected from weather and/or damage
    - Minimum One (1) -120 VAC outlet
- All electrical lines shall be covered and protected from possible damage during operation and/or movement of the batch plant
- Maximum gauge/metering package allowing operate to effectively mix material
- Material indication lights/meter/gauges
- Bin level indicator(s) system – prevent overfilling of material
- Single lubrication point – capable of lubricating entire batch plant from one location (conveniently located for operator – ground level)

**PRIME CARRIER**

- Carrier shall be engineered/designed to safely and efficiently transport the entire mixing plant across public roadways meeting all DOT requirements
- Dimensions of prime carrier shall be at the manufacturer engineer's discretion but shall meet all the minimum capacity requirements
    - Heavy duty frame capable of carrying the batch plant

- 5th wheel/king pin connected to prime mover
- Front landing gear capable of supporting unit when not connected to prime mover
- DOT lighting system with connections

**CHASSIS**

- Complete mobile plant double axles as required by engineer design
  - Department of Transportation (DOT) lighting as required for movement on roadways
  - ABS air braking system
  - Triple axle
  - 10-hole wheel
- All piping required to be operation after set-up
  - **No additional parts required by end user for operation other than aggregate material, cement, and water**
- Batch controls conveniently located and protected from damage and weather

**SUSPENSION**

- Suspension
  - Heavy duty construction frame, shocks, springs, tires capable of handling entire unloaded weight of machine without putting undo strain on vehicle
  - Tires sized to meet vehicle performance requirements – as determined by manufacturer engineers
  - Duramax Radial E3/L3 (equal or greater)
  - Road rated, heavy-duty tires and wheels
- Heavy fenders meeting DOT requirements

**SAFETY**

- Optimum night lighting
  - **A minimum of six (12) – 2000 lumen each quartz halogen flood lights with switch to red light night operations with integrated wiring harnesses mounted to mixer**
  - Withstand up to 15.3 Grms vibration at 24-2000Hz / 4.65Grms at 12-2000Hz
  - Stop, Turn, Tail, Warning lights (rear)
  - Clearance and side marker lights
- Minimum of 8 integrated tie down locations on each side as determined by ATTLA certification
- Equipped with sufficient lifting points by use of crane; clearly labeled ***Lift Point***
- All steps and ladders made of slip resistant material
  - Handrails for accessing work platforms made of slip resistant material
  - **All major components must be accessible for inspection and maintenance**
  - **Catwalk running entire length of main feeder belt**

**PAINT/CORROSION PROTECTION**

- Manufacturer standard commercial color
- Maximum manufacturer's factory rustproof/corrosion protection package throughout
  - Minimum **5-year** life expectancy on rustproof/corrosion protection
  - Automotive grade primer/paint
  - Military grade rustproofing throughout machine
    - Shall comply with Military Specifications: MIL-PRF-16173, Grade 4 and MIL-C-83933
    - Electrical/hydraulic lines covered/protected from damage during machine operation

- Machines, including all parts and accessories, shall be constructed and finished thoroughly without blemish, flaws, defects and/or sharp edges/corners.
- Welding and post heat treatment procedures shall be performed in accordance with American Welding Society (AWS) Welding Code. The surface parts to be welded shall be free from rust, scale, paint, grease, and other foreign matter. Welds shall be of sufficient size and shape to develop the full strength of the welded parts. Welds shall transmit stress without cracking or permanent distortion when the parts connected by the welds are subjected to test, proof, and service loadings
- Machine shall be thoroughly cleaned. Loose, spattered, or excess welding slag; stray bolts, nuts, and washers; rust; metal particles; pipe compound; and other foreign matter shall be removed during and after final assembly

**WARRANTY**

- 5 Year Warranty Plan

**TRAINING**

- Conduct initial set-up, tear-down, and operating training

**PARTS and SERVICE MANUALS**

- Complete set of manuals available at time of delivery to the Air Force, **No Exceptions**
- Includes parts breakdown, service manual and schedule, repair processes for any and all parts/components of machine***, No Exceptions***
- Minimum of two complete sets of Operators, Parts and Service manuals to include drive engine, auxiliary engine (if equipped), transmission, and any/all mounted and/or attachments shipped with machine
- Provide diagnostic troubleshooting software/devices to end users
  - Air Force vehicle maintenance personnel shall have capability to diagnose, troubleshoot, and service machine locally
  - Diagnostics capable of all components of machine, ***No Exceptions***
    - All software and firmware shall function as intended, and shall be free of vulnerabilities (i.e. defects, bugs, malware, etc.), either intentionally or unintentionally inserted as part of the software/firmware throughout the lifecycle.
    - All software must be compatible with Windows 10/11 (64-bit) operating system.

**CALIBRATION AND MAINTENANCE**

- Within calendar year / Contractor can coordinate with user upon award
- Contractor must confirm the maintenance schedule and dates with the Government prior to equipment delivery
- Vendor provides ***24-month*** warranty service for any/all components of machine regardless of manufacturer of prime mover, accessory, and/or attachments as delivered to the Air Force
  - ***24-month*** warranty includes ***ALL*** software updates
- Standard Wear-Part replacement plan
- 24/7 technical support option under warranty
- Spare parts list with part numbers

**MANUFACTURER/DEALERSHIP shall include**

- Initial operator's familiarization (Conduct initial set-up, tear-down, and operating training**)** set-up (minimum ***40 hours*** – on site)

- Initial maintenance familiarization set-up (minimum ***40 hours*** – on site)
- Military Marking / Data Plate(s)
- Data plates will include the following information, at a minimum
  NOMENCLATURE: _____
  MAKE AND MODEL: _____
  MFR'S SERIAL #: (VIN_____)
  REGISTRATION #:_____
  NSN: _____
  VEHICLE CURB WEIGHT: _____LBS
  PAYLOAD, MAXIMUM: _____LBS
  GROSS WEIGHT, MAX: _____LBS
  GROSS WEIGHT COMB MAX: _____LBS
  DATE OF DELIVERY: _____
  WARRANTY: _____MO_____MILES
  CONTRACT #: _____
  SHIP TO: _____
  MARK FOR: _____

  **US PROPERTY**