

EMPIRE SERIES

HIGH PRODUCTION

Stephens



CONCRETE PLANTS • Tompkinsville, KY

800-626-0200

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EMPIRE ROUND STORAGE SILO & BATCH SILO

Standard Equipment

Stephens Mfg is a member of the CPMB (Concrete Plant Manufacturers Bureau). Each silo we manufacture will have a CPMB rating plate to guarantee that it meets the specifications for that size silo.



Cement Batcher

- (1) 14YD cement batcher 140-Cu. Ft. with 10,000 LB lever system, one "s" type load cell (150' cable) with 0-10 VDC digital readout, with inching gate on batcher, inspection hatch on top of batcher.
- (2) 10" butterfly valve.
- (3) Actuator with electric solenoid and flo-restrictors mounted in solenoid.
- (4) Two aeration pads in cone of batcher with solenoid controls and filter regulator.
- (5) Turbine type air vibrator with electric solenoid.
- (6) Hanger lugs for hanging test weights and safety chains to secure batcher.



- (1) 374 thru 606 BBL silo constructed of 3/16" steel plate with 1/4" domed top. 837 thru 1,069 BBL with similar 1/4" metal in 1st band. (All two compartment silos have 1/4" in each band).
- (2) Safety pressure relief valves.
- (3) 4" diameter fill lines, inside silo per compartment.
- (4) 8 aeration pads in each cone and filter regulator per compartment.
- (5) Outside ladder and safety cage.
- (6) Expanded metal service platform around batcher.
- (7) Inspection hatches on top of silo.
- (8) 10" butterfly valves on silo, with actuators and electric solenoid per compartment.
- (9) SOS-1020 silo cartridge vent per compartment.
- (10) Top mounted hi & low-level indicators per compartment.
- (11) Manual emergency slide gate per compartment.
- (12) Silo support structure constructed of steel "structural" beams 374-606 BBL = W8 x 31#, 837 BBL = W8 x 48# 1069BBL=w10x49 Based on 100 mph. wind/load. Consult factory for other models.

AGGREGATE SECTION & OVERHEAD BINS



Overhead Aggregate Bin Section:

- (1) Two clam gates on each compartment (when possible). Each gear type gate has six (6) 3/4" teeth per gear. Each gate has permanently lubricated bronze bushings on each gear.
- (2) Each gate has a 5" diameter air cylinder with electric solenoid.
- (3) Sloping sides of gate section fabricated of 1/4" plate with remainder 3/16" vertical sides.
- (4) Heap plates.
- (5) Support structure constructed of steel "structural" beams.
- (6) 1/4" abrasive resistant steel (400 Brinnell) welded immediately above each gate (approximately 12" tall).
Aggregate bins are rated at heaped capacity based on 100 lbs cu. ft.

Optional: A/R Liner on sloping sides available.

Aggregate Batcher

- (1) 12 Yard capacity with 40,000 lb scale lever system. One "s" type load cell (150' of cable) with 0-10 VDC digital readout.
- (2) 580 Cu. Ft. capacity at water level.
- (3) Sloping sides fabricated of 1/4" plate, 3/16" remainder.
- (4) Two discharge openings in batcher with one (1) extra long double acting clamshell gate, under both openings. Gear type gate with six (6) 3/4" teeth per gear. Gate has permanently lubricated bronze bushing. Gate will be actuated by two 5" air cylinders, with flo-restrictors mounted in solenoid, (NOTE: If conveyor comes out the "wide side" the batcher will have only one discharge opening, one cylinder and solenoid for gate.)
- (5) Two turbine air vibrators.
- (6) Filter, regulator, lubricator unit for solenoids and air cylinders.
- (7) Hanger lugs for hanging test weights.

Optional: A/R Liner on sloping sides available.

MULTIPLE COMPARTMENT SILO

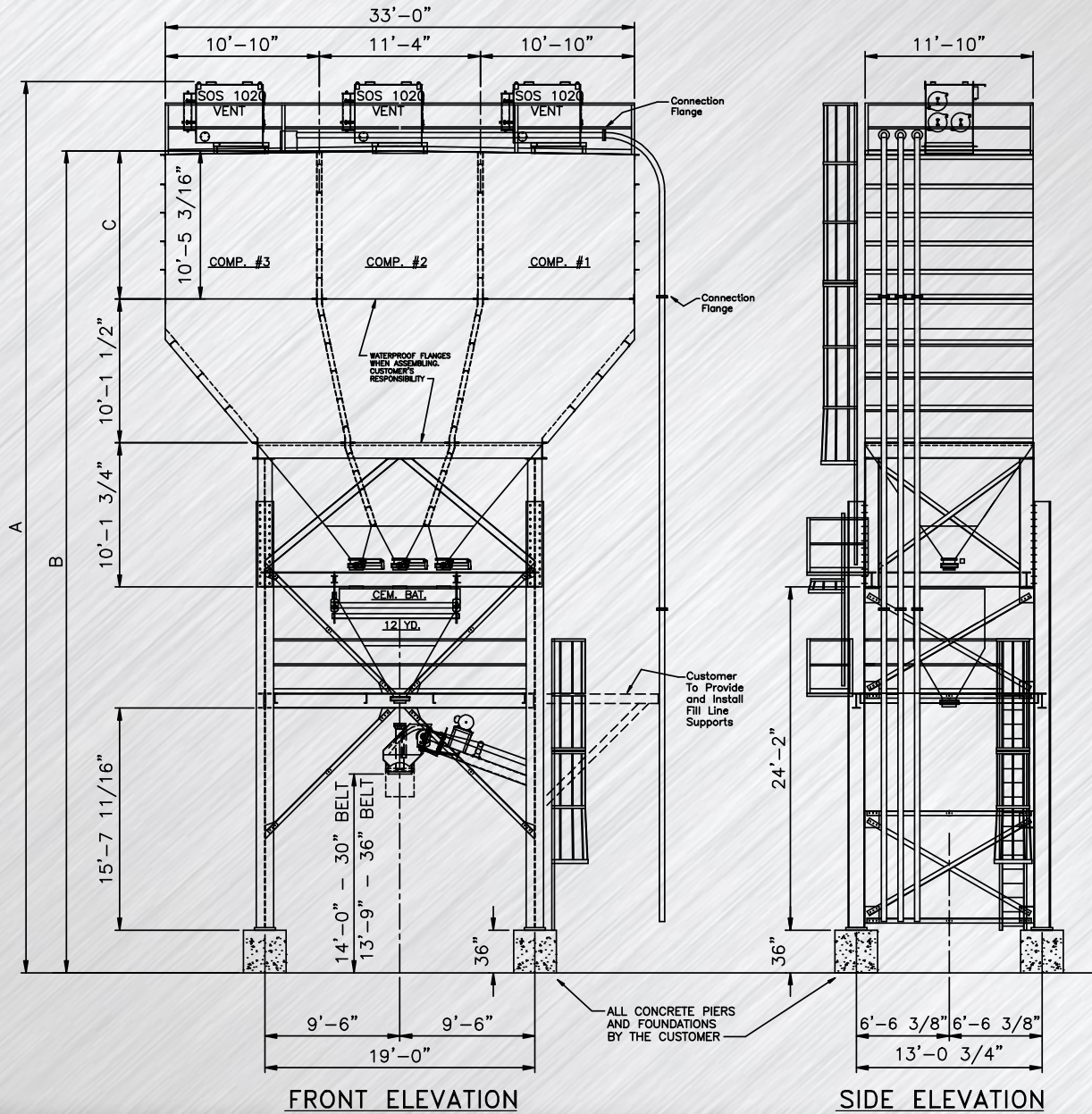
Standard Equipment

- (1) Multiple compartment silo: with 4" thick double wall partition with penetration check plug in wall. (4" wall will reduce total capacity of silo approx. 4%)
- (2) One safety pressure-relief valve with cover mounted on top of each compartment.
- (3) One 4" diameter fill line with camlock coupling on each compartment.
- (4) Aeration diffusers (rectangle) in each cone with electric solenoid and filter regulator.
- (5) Aeration blower strongly recommended.
- (6) Outside ladder and safety cage, with toeboard and pipe handrails around top of silo.
- (7) Expanded metal service platform around batcher.
- (8) Inspection hatch on top of each compartment.
- (9) 10" butterfly valve on each cone, with actuator and electric solenoids.
- (10) Manual emergency slide gate on each cone of silo.
- (11) Top mounted hi & low material level indicators in each compartment with lighted signals in control box.
- (12) SOS-1020: Silo cartridge vent, one (1) on each compartment.



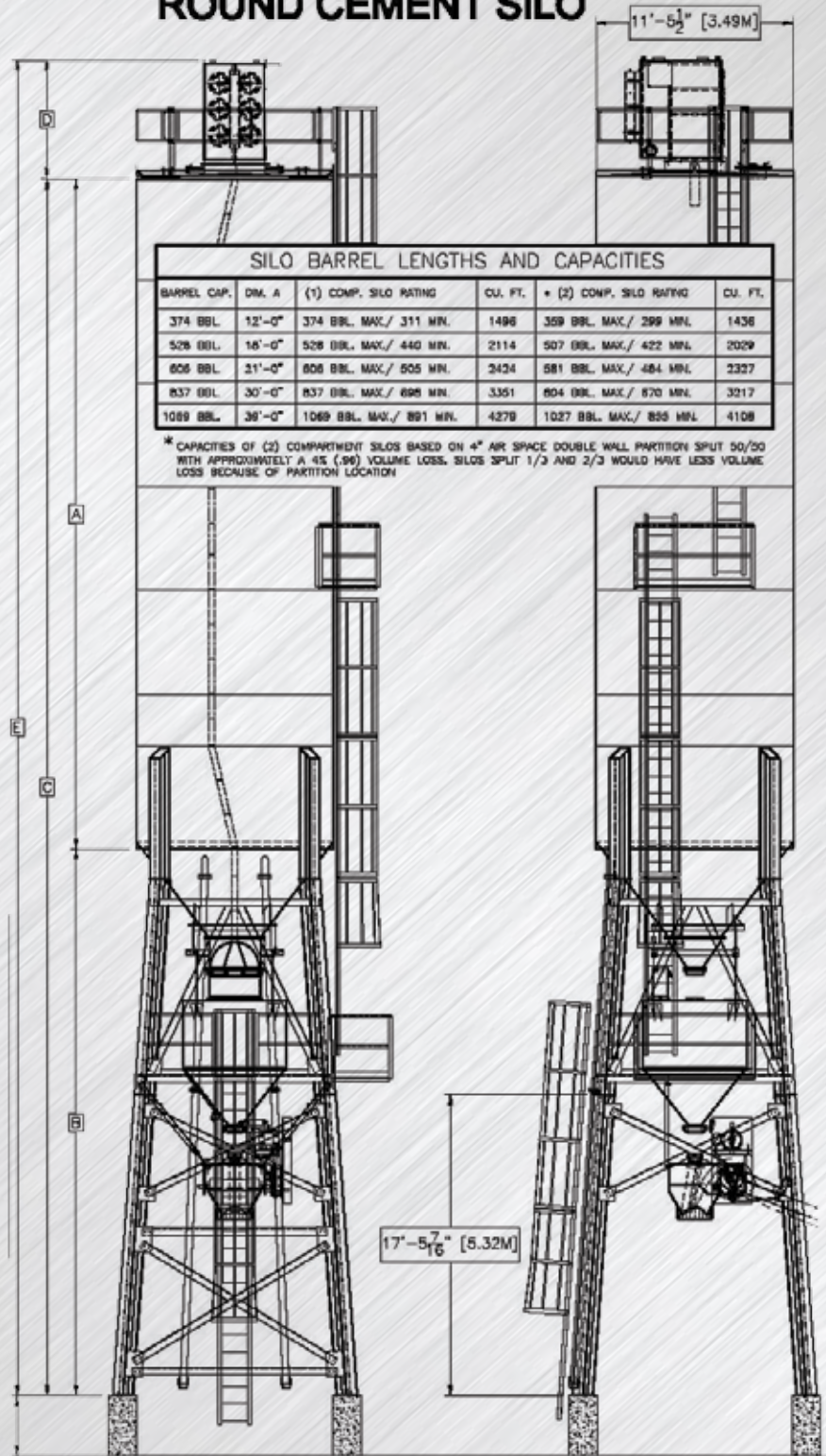
EMPIRE SERIES
RECTANGLE CEMENT SILO (8,000 CU. FT. SHOWN)

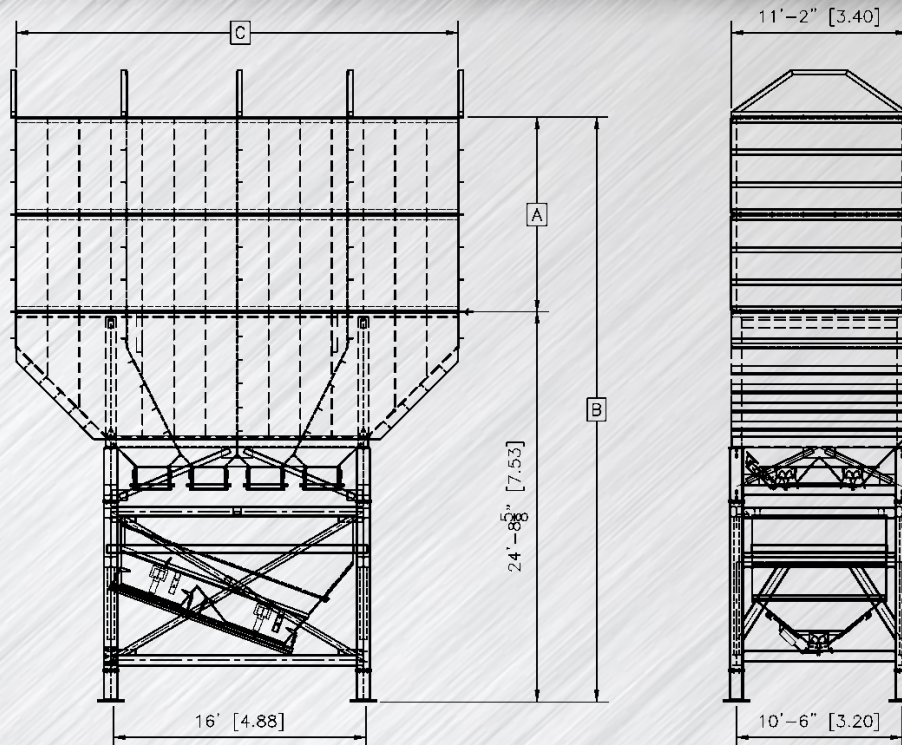
EMPIRE RECTANGLE SILO DESCRIPTION	DIM. "A"	DIM. "B"	DIM. "C"
1,341 BBL. 5,364 CU. FT. CEMENT BIN	56'-1"	51'-2 7/16"	3'-9 3/16"
1,605 BBL. 6,420 CU. FT. CEMENT BIN	58'-9"	53'-10 7/16"	6'-5 3/16"
2,000 BBL. 8,000 CU. FT. CEMENT BIN	62'-9"	57'-10 7/16"	10'-5 3/16"
2,500 BBL. 10,000 CU. FT. CEMENT BIN	67'-11"	63'-0 7/16"	15'-7 3/16"



EMPIRE SERIES

ROUND CEMENT SILO





240 Ton - 400 Ton

AGGREGATE BIN DIMENSIONS CHART

DESCRIPTION	UNITS	A	B	C	CAPACITIES CU YARDS CU METERS
240 TON AGG. BIN	STD.	6'-2"	21'-6 3/4"	30'-10 5/8"	177.8
	METRIC	1.88 M	6.57 M	9.41 M	135.8
270 TON AGG. BIN	STD.	8'-2"	23'-6 3/4"	32'-10 5/8"	200
	METRIC	2.49 M	7.18 M	10.02 M	152.8
300 TON AGG. BIN	STD.	10'-2"	24'-6 3/4"	34'-10 5/8"	222.2
	METRIC	3.1 M	7.49 M	10.63 M	169.7
335 TON AGG. BIN	STD.	12'-4"	26'-7 1/4"	37'-0 5/8"	248.1
	METRIC	3.78 M	8.11 M	11.29 M	189.5
365 TON AGG. BIN	STD.	14'-4"	29'-9 1/4"	39'-0 5/8"	270.4
	METRIC	4.37 M	9.07 M	11.9 M	206.5
400 TON AGG. BIN	STD.	16'-4"	32'-9 1/4"	41'-0 5/8"	296.3
	METRIC	4.98 M	9.99 M	12.51 M	226.3

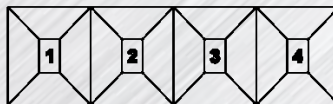
NOTE: TO CONTINUALLY UPDATE AND IMPROVE OUR PRODUCT WE RESERVE THE RIGHT TO AMMEND OUR STANDARD SPECIFICATIONS WITHOUT NOTICE.

Bin Configurations

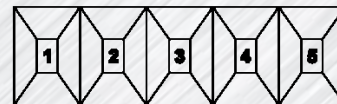
NOTE: CONSULT FACTORY FOR OPTIONAL CONFIGURATIONS.



3 IN-LINE



4 IN-LINE



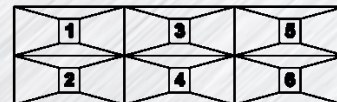
5 IN-LINE



4 WINDOW PANE



5 WINDOW PANE



6 WINDOW PANE



Easy to Enclose

Why a Stephens?

- Owned by Stephens family since 1957
- Reputation of honest, reliable and second to none sales and service
- In-house CNC/Machine shop
- Certified in-house scales to keep load cell size and quantity down
- Simple and easy to service and maintain, features standard off the shelf parts
- Each plant is designed for your seismic requirements

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NOTE: All technical data subject to change without notice due to technical improvements.

