

ESTD  1989

# AECT

ADVANCED EARTHEN CONSTRUCTION TECHNOLOGIES  
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AECTEARTHBLOCK.COM

## 2020 Catalog

## A message from AECT's President



Thank you for your interest in AECT compressed earth block products and services. Advanced Earthen Construction Technologies was established in 1989 and has been building quality equipment and providing unparalleled support for the earthen construction industry ever since. AECT's various CEB machines produce anywhere from 240 to 480 compressed earth blocks per hour and are extremely energy efficient, consuming a minimal amount of electrical power or diesel fuel. We have been involved in projects in more than 50 countries around the world and are continually working to make advancements that reduce construction time and labor costs. Through the work of AECT, compressed earth blocks have become a viable building material that can be mass-produced to high technical standards. AECT's portable, self-contained CEB machines allow builders to produce compressed earth blocks on site, reducing cost and carbon footprint for both residential and commercial construction.

Earthen construction has stood the test of time (at least 5,000 years by most accounts). It's hard to argue with a building material that's natural, fireproof, bullet proof, tornado proof, hurricane proof, insect proof, eco-friendly, durable, and overwhelmingly beautiful! CEB construction, made possible through the use of AECT compressed earth block machines, offers a natural, environmentally friendly and inexpensive method of building...and because of the high energy efficiency of the earth blocks themselves, the real savings is in the reduced energy cost experienced over the life of the home.

The AECT compressed earth block system is helping to re-establish earth as a primary building material. We're glad you found us and hope you'll join us in showing that the world's search for a durable, eco-friendly, inexpensive, and beautiful means of construction is over!

Semper Terrae

A handwritten signature in black ink, appearing to read 'R. Runge'.

R. Ryan Runge  
President

# AECT Product and Service Offerings

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At AECT, we aim to progress earthen construction in any way we can. That means supporting all aspects of earthen construction - from selecting earthen material...to putting the finishing touches on a new CEB home. Here is a summary of our full range of services:

## **Machinery and Equipment Manufacturing and Sales**

- CEB machines
- Material mixers
- Testing equipment
- Auxiliary equipment for CEB production
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## **Block Sales**

- Our cement stabilized CEBs can be shipped anywhere in the U.S.
- A range of block sizes (including interlocking blocks) are available

## **Equipment Leasing and Support**

- CEB batch-plant rental on per-block basis
- Training/Support during entire lease period

## **Consulting**

- Material testing and selection
- Block production process flow
- Building techniques

## **Construction**

- Custom CEB home builds

# Our handmade CEB machines and Mixers

At AECT, we have been developing and perfecting our CEB machinery for over 30 years. Our best-in-the-world CEB machines are all hand-manufactured right at our CEB workshop in San Antonio, Texas.



Our heavy-duty machines are made to last for decades and produce hundreds of thousands of blocks. We have sold them into over 50 countries around the globe, and they are world-renowned as the fastest, most advanced, most reliable CEB machines ever built. Specifications and prices for each of our machines are shown below.

# Impact 2001A



The Impact 2001A is the smallest, least expensive CEB machine that we make. This machine is automated and produces 300 CEBs per hour. It's fed by a smaller hopper that can be loaded using shovels, buckets, or a power conveyor. This machine is perfect for someone who only needs to build one to five houses. The Impact is lightweight and can be hauled behind any vehicle.

**Weight:** 1,640 lbs. (744 kg)

**Dimensions:** 6' 9" (206 cm) long x 5' 8" (173 cm) wide x 4' 3" (130 cm) tall.  
Road clearance approximately 6" (15 cm)

**Engine:** 7.0 HP Yanmar diesel engine

**Hopper Capacity:** 8 - 9 blocks, depending on block thickness

**Block Production:** 300 blocks per hour

**Block Dimensions:** 6" x 12" (block thickness can be set between 2" and 4.5")

**Options:** Holey block plate set, 4" x 12" veneer block plate set

**Prices:**

<b>Impact 2001A (with standard 6" x 12" press plate)</b>	\$33,000
<b>optional holey block plate set</b>	\$35,000
<b>optional 4" x 12" veneer block plate set</b>	\$35,000
<b>Spare parts package</b>	\$4,640

5' removable gravity roller conveyor and stand are included

# 2500HD



The 2500HD produces the same sized block as the Impact 2001A, but it produces 480 blocks per hour and has a one-yard hopper to facilitate loading with a tractor. If you like working with the 6" x 12" blocks, and you need to manufacture tens of thousands of blocks fast and without much effort, then the 2500HD is for you!

**Weight:** 4,000 lbs. (1,814 kg)

**Dimensions:** 11' 1" (338 cm) long x 6' 9" (206 cm) wide x 7' 1" (216 cm) tall when hopper is closed (9' 1" (277 cm) tall when hopper is open). Road clearance approximately 12" (30.5 cm)

**Engine:** 22 HP, 3-Cylinder, water-cooled Yanmar diesel engine

**Hopper Capacity:** One cubic yard of material; 85 - 105 blocks, depending on block thickness

**Block Production:** 480 blocks per hour

**Block Dimensions:** 6" x 12" (block thickness can be set between 2" and 4.5")

**Prices:**

<b>2500HD</b>	\$59,000
<b>Spare parts package</b>	\$7,554

5' removable gravity roller conveyor and stand are included

# 3500



The AECT 3500 is the Cadillac of CEB machines. It's big, it's fast, it's versatile, and it's built to last. There are 3500s out in the field today that have made a million, two million...even three million blocks! If you need to make lots of big CEBs fast and with ease, this is your machine.

**Weight:** 5,200 lbs. (2,359 kg)

**Dimensions:** 13' 8" (417 cm) long x 7' 5" (225 cm) wide x 6' 10" (208 cm) tall when hopper is closed (8' 11" (272 cm) tall when hopper is open). Road clearance approximately 12" (30.5 cm)

**Engine:** 47.5 HP water-cooled Yanmar diesel engine

**Hopper Capacity:** One cubic yard of material

**Block Production:** 480 blocks per hour

**Block Dimensions:** 10" x 14" (block thickness can be set between 2" and 4.5")

**Options:** 7" x 14" plate set, 8" x 14" plate set

## Prices:

<b>3500 (with standard 10" x 14" press plate)</b>	<b>\$99,000</b>
<b>optional 7" x 14" or 8" x 14" plate set</b>	<b>\$2,920</b>
<b>Spare parts package</b>	<b>\$10,251</b>

10' removable gravity roller conveyor and stand are included

# BP714



Depending on your project application, and in certain jurisdictions (California for example), interlocking, holey blocks may be your required CEB type. Our BP714 produces this type of block. In contrast to our other CEB machines, the BP714 is not yet automated; instead, hand-operated levers are used to complete the block production cycle. We plan to automate and develop a trailer-mounted version of the BP714 in the coming year. Monitor our website [www.AECTearthblock.com](http://www.AECTearthblock.com) for more details on this exciting development!

**Weight:** 2,400 lbs. (1,089 kg)

**Dimensions:** 8'4" (255cm) long x 3' 5" (104 cm) wide x 6' 8" (204 cm) tall

**Power Source:** Diesel, Gas, Electric, or PTO

**Hopper Capacity:** 30 Gal (4 cu ft) [113.6 L (0.1 cu M)] approx. 14 blocks

**Block Dimensions:** 7" x 14" (block thickness can be set between 3.5" and 4.5")  
Interlocking hollow block shape for reinforceable construction

## Prices:

<b>BP714</b>	\$56,000
<b>basic spare parts package</b>	\$1,175
<b>standard spare parts package</b>	\$3,435
<b>premium spare parts package</b>	\$4,140

# Mega Mixer



No matter which model of our world-class CEB machines you decide to buy, in order to get the full capability out of your machine(s), you will need a good, efficient material mixing capability. Our Mega Mixer is the solution to the earthen construction industry's challenge of mixing a lot of earthen material fast, effectively, and for the long haul. This mixer has a large hopper for earth, a smaller hopper for

stabilizer (cement or lime), a large basin with a heavy-duty auger for mixing, and a water rail for infusing the correct amount of moisture into the mix. A power conveyor can be used to transfer the mixed material from the mixer into the hopper on your CEB machine. The Mega Mixer mixes 10 cubic yards of material per hour; this is enough to feed a 3500, 2 x 2500s, 3 x Impact 2001s, or 4 x BP714s

**Weight:** 5,000 lbs. (2,268 kg)

**Dimensions:** 14' 6" (442 cm) long x 7'2" (219 cm) wide x 6' 3" (191 cm) tall when hopper is closed (8' 0" (244 cm) tall when hopper is open). Road clearance approximately 12" (30.5 cm)

**Engine:** 47.5 HP water-cooled Yanmar diesel engine

## Hopper Capacities:

Earth Hopper: One cubic yard  
Stabilizer Hopper: 10 cubic feet

**Production:** Mixes up to 10 cubic yards of earthen material per hour

**Mixing Trough:** Rubber trough with bolt-on replaceable paddles

## Prices:

<b>Mega Mixer</b>	\$69,900
<b>Spare parts package</b>	\$3,785

# Auxiliary Equipment

## Small Block Press

\$1,900



We manufacturer the AECT Small Block Press at our factory in San Antonio, Texas. The Small Block Press tests earth samples over the same pressures and moisture ranges used by our full-size AECT CEB machines. This press operates over a pressure range of 1,000 to 6,000 PSI and produces a 2.5" x 3.5" x 1" earth block - a 1/4 scale size version of the typical 10" x 14" x 4" CEB produced by the AECT 3500 machine.

The AECT Small Block Press is simple to use and provides the user with important information related to the block strength characteristics and block-making viability of earth samples, both in the laboratory and in the field.

## Block Cutter

\$695



Our AECT block cutter makes straight cuts on un-stabilized CEBs (or stabilized CEBs that have not yet cured) in seconds. This device is simple to use and provides the user with a fast, repeatable, and effective way to cut blocks without the use of electricity or expensive blades.

## AECT PRICE LIST

### 2001AL

SAL 2001AL	Automatic – 300 blocks (6” x 12”) per hour	\$33,000.00
SAL 2001ALH	Automatic – 300 holey blocks (6” x 12”) per hour	\$35,000.00
SAL 2001AL4	Automatic w/extra 4” x 12” plates for veneer blocks	\$35,000.00
SAL 2001A	Spare parts package	\$ 4,640.00

### 2500HD

2500 HD	Automatic – 480 blocks (6” x 12”) per hour with 1-yd hopper	\$59,000.00
2500 HD SPP	Spare parts package	\$ 7,554.00

### MC3500

MC3500	Automatic – 480 blocks (10” x 14”) per hour	\$99,000.00
MC3500	7” x 14” or 8” x 14” plates added	\$ 3,920.00
MC3500 SPP	Spare parts package	\$10,251.00

### BP714

BP714	Manual, on skids – 240 interlocking holey blocks (7” x 14”)/hr	\$56,000.00
BP714A	Automatic, on skids – 300 blocks (7” x 14”) per hour	\$64,000.00
BP714MA	Automatic, on trailer – 300 blocks (7” x 14”) per hour	\$69,000.00
BP714 SPP-B	Spare Parts Package – Basic	\$ 1,175.00
BP714 SPP-S	Spare Parts Package – Standard	\$ 3,435.00
BP714 SPP-P	Spare Parts Package – Premium	\$ 4,140.00

### Mixer

MX10	10 yards of material per hour	\$69,900.00
MX10 SPP	Spare parts package	\$ 3,785.00

### Accessories

Small Block Press for testing		\$ 1,900.00
Block Cutter		\$ 695.00
5’ Roller Conveyor with one stand		\$ 495.00
10’ Roller Conveyor with two stands		\$ 695.00
Conveyor Stand		\$ 99.00

**ALL PRICES ARE FOB SAN ANTONIO, TX. USD**

**Shipping and loading are not included in these prices.**

*Due to volatile steel, oil and transportation prices, these prices subject to change with 30 days notice.*

# AECT Block Sales



In addition to selling CEB-making equipment, AECT also makes and sells cement-stabilized CEBs for shipping all over the U.S.A. Our blocks are made using our tried and true recipe of local San Antonio soil and 8% Portland cement.

They are beautiful, strong, and perfect for garden beds, pavers, firepits, barns, and houses. Let your imagination be your guide!

## Prices (not including shipping):

### 6" x 12" x 3.5" cement-stabilized (~ 8%) CEBs



\$2.00 per block  
\$200.00 per pallet (100 blocks)

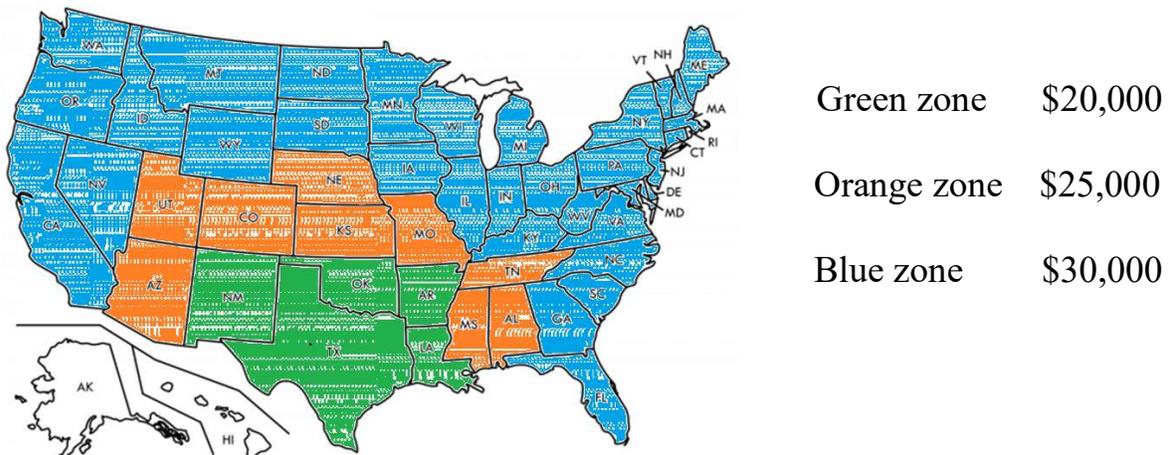
### 10" x 14" x 3.5" cement-stabilized (~ 8%) CEBs



\$3.00 per block  
\$150.00 per pallet (50 blocks)

# Machinery Rental

AECT machinery can be rented with an operator. Our CEB batch plant consists of a 3500 CEB machine along with a Mega Mixer, a 20-foot power conveyor to feed mixed earth from the mixer to the 3500, power and gravity conveyors, with stands, to convey finished blocks away from the CEB machine and onto pallets, block cutters, spare machine parts, and all tools needed to maintain and repair machinery during the course of your project. Mobilization, which includes batch plant transport/set up, soil testing/selection, equipment fine-tuning, and initial crew training, typically takes about a month. Mobilization of our batch plant to your location is priced according to the map below.



The 3500 CEB machine can make block sizes of 10" x 14", 8" x 14", and 7" x 14" (thickness can be set anywhere from 2" to 4.5"). In addition to the mobilization cost, the cost structure of renting the batch plant is as follows:

Customer provides labor	\$1.00 per block
AECT provides labor	\$2.00 per block

Customer is responsible for providing tractors (front loader), forklifts, earth, sand (if applicable), stabilizer (typically cement or lime), water, fuel, electric services, hydraulic oil, pallets, plastic wrap, secure tool storage, and lodging for AECT resources.

# Consulting Services

At AECT, we have been at the forefront of the CEB industry since 1989. During the past 30+ years we have conducted more research and accumulated more experience in the CEB field than any other entity in the world. Today, we use our expertise to further the CEB construction movement around the globe. From soil testing and selection to process flows, our experts can provide invaluable knowledge and recommendation to those just beginning their CEB journey as well as professionals in the field looking to optimize their operations. Our services include but are not limited to:

- Soil testing and selection
- CEB machinery usage and calibration
- CEB machinery maintenance
- Construction site setup
- Block stacking and curing methods
- Block-production process flow
- Story-pole and level-line setup
- CEB construction process flow
- Slurry techniques
- Block laying methods
- Block cutting methods
- Methods of running utilities
- Earthen floor process
- Earthen plaster process
- Lime plaster process
- Home design

## Consulting Rates (not including travel and lodging)



**Daily Rate:**  
\$1,200

**Weekly Rate:**  
\$5,000