The Auroville Earth Institute has designed the Auram equipment and we have been developing it since 1989. The Auram Press 3000 is being sold worldwide and it is manufactured in Auroville and marketed by AUREKA aureka@auroville.org.in, www.aureka.com

Auram Presses for creative and aesthetically pleasing buildings

Today Compressed Earth Blocks (CSEB) rival the finest standard bricks available in terms of strength and durability; are highly cost-effective and environmentally-friendly; can be safely used for construction of multi-storey buildings; and lend themselves to a variety of creative and aesthetically pleasing effects.

No small credit for this change in application and quality can be attributed to Auroville Earth Institute, and its widely acclaimed range of Auram Presses, the only India-made earth block press exported since several years to countries in south. Resulting from increased world awareness of cost and energy-effective materials, CSEB are now considered to be one of the first choices among appropriate building materials.

The Auroville Building Earth Institute came up with the original Auram Press 3000, which is ideal for meeting the high quality standards of today's builders.

Since then the press has been the subject of ongoing R&D, and has been considerably improved. Today it ranks as one of the best presses for CSEB manufacture in the world, giving outstanding accuracy and quality for a wide range of block shapes and sizes.
Advantages of Auram-made blocks

- The Auram press 3000, though manual, achieve a very high compression of up to 1.83 with 15 tons available force.
- The high compression ratio achieved by the press produces exceptionally strong blocks, allowing multi-storey buildings or large spans to be constructed.
- The micro adjustment of the lid ensures very accurate blocks, with less than 1 mm difference in height. These in turn save mortar. Plain and hollow blocks need only 1 cm of stabilized earth mortar; interlocking blocks 245 & 295 require 5 mm of stabilised earth mortar; and dry interlocking blocks 300 do not need any mortar at all, but only a grout to be cast in the holes.
- The desired height of the Auram blocks can be adjusted. Plain blocks are normally 9 cm high, but can be made any height from 5 to 10 cm in increments of 5 mm. The Auram Press 3000 can also be used to make tiles 2.5 cm thick.
- The block modules have been created to ease the design work for architects and engineers.
- The plain and interlocking block moulds of the Auram Press 3000 can produce full, 3/4 and 1/2 sizes. This helps contractors to do clean and cheap work.
- The standard blocks plain and hollow 240 can be combined together, as can the standard blocks plain and hollow 290, thanks to identical modules.
Advantages of Auram-made blocks

- Hollow blocks save up to 32.6% of material and provide better heat insulation.
- The hollow blocks 390 and plain 190 can be combined together. The hollow block 390 is normally used for load bearing walls and the plain block 190 for partition walls.
- Plain interlocking blocks can be laid by unskilled labour, which ultimately reduces the cost per square metre of wall.
- Hollow interlocking blocks are specially designed for disaster prone areas (cyclone and earthquake and tsunami). They give vertical and horizontal stiffening of the walls with RCC. These blocks have been approved by the two states of India (Gujarat, Tamil Nadu) and Iran.
- Plain and hollow interlocking blocks 245 can be combined together, as also can plain and hollow Interlocking blocks 295.
- The dry interlocking block 300 can be use for disaster resistance. They are dry stacked ad therefore do not need any mortar. A grout is cast in the holes so as to bind the blocks horizontally and vertically. Reinforcements are provided wherever needed. They can be used by semi-skilled labour, but their manufacturing needs to be precise.
- The Auram Press 3000 also produces round blocks, which can be strengthened with reinforced concrete, as well as a wide variety of special blocks like U channels for casting beams, provision for pipes, tiles, etc.

Main features are:
- Block height adjustable in 1 to 5 mm increments
- High and adjustable compression ratio
- Double compression (folding back lid)
- Easy interchange ability of moulds

Technical specifications:
- Available force: 150 KN (15 tons)
- Compression ratio: 1.60 to 1.83
- Block height (mm): 25 and 50, then up to 100 in 1 to 5 mm increments
- Practical output: 125 strokes per hour
- Daily output: 1,000 plain blocks
- Manpower needed: 3 men on machine, plus 4 more mixing and handling
- Net weight: 365 kg to 415 kg

Manufactured and distributed by: Aureka
Aspiration, Auroville 605 101, Tamil Nadu, India
Phone: +91 (0)413-262 2278 / 262 2134 / 262 2651 – Fax: +91 (0) 413 - 262 2274
Email: aureka@auroville.org.in - Web: http://www.aureka.com