

## Building Technologies

In Africa the demand for decent housing at prices ordinary people can afford is a problem that many hundreds of entrepreneurs are helping to solve using technologies developed by KickStart engineers:



### The Action Pack Block Press

Four workers using this heavy duty manual press can produce 500 rock hard building blocks a day, compacting a soil/cement mixture under high mechanical pressure.

The press is adjustable for use with almost any soil type and just 1 bag of cement makes over 100 bricks. Blocks can be sold profitably to build walls at half the cost of the concrete block or stone walls.

### The Micro-Concrete Roofing Tile Plant

Five workers are able to produce 300 strong attractive fiber concrete roof (FCR) tiles daily using this special vibrating table (manually or battery powered) and a set of molds. Tiles can be made in a range of colors, profiles, and thicknesses.

Tiles can be sold profitably to clad roofs for half the cost of conventional concrete or clay tiles.

The Micro-Concrete Roofing Tile Plant is a technology that we no longer manufacture or sell.

### Latrine Cover Slabs

In Africa the challenge of making sanitation affordable for residents of peri-urban and rural settlements can be met by small businesses making and installing the low cost KickStart â€˜Domeslabâ€™™ pit latrine cover.

The â€˜Domeslabâ€™™ is produced using equipment designed by KickStart for the UNHCR (United Nations High Commission for Refugees) during the Somali refugee crisis in 1992. Circular domed concrete slabs with tight fitting lids are quickly and simply cast on site using minimal quantities of cement, and no steel reinforcement. These are easily installed by placing them over the latrine pit.

Two workers can cast 3 slabs per day. A domeslab latrine costs a fraction of a conventional reinforced concrete slab latrine or â€˜Ventilated Improved Pit (VIP)â€™ latrine. This technology is presently in use in refugee camps all over East & Central Africa where relief agencies have installed over 90,000 KickStart domeslabs.



### Low Cost High Quality Carpentry Tools

Carpentry hand tools



Carpentry hand tools generally available in Africa are imports, either cheap and of poor quality, or expensive and of high quality. Market studies led KickStart to develop three

tools for local manufacture which combine high performance with low cost: the sash clamp, spoke shave, and plough plane. The sash clamp, spoke shave, and plough plane have been discontinued as we focus on irrigation products.

All of the KickStart carpentry tools are very robust and can be produced using sets of jigs and fixtures especially designed for local manufacturers.