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Do-It-Yourself Block Ice Plants for Concrete Batching

Block Ice Plants work in 24 hour cycles. At the end of each cycle the brine tanks hold one days' production, which can be harvested at a very fast rate, partly or completely. Ice production resumes instantly in the sections of the plant, from where ice is harvested. Hence; in addition to being a production facility, the brine tank serves as a 24h storage. Automatic ice plants producing Scale/Flake Ice, Plate Ice or Tube Ice for concrete batching require refrigerated ice storages and elaborate transport equipment. The Pros and Cons of Block Ice Plants are:

The Pros:

- 1 - Reduced investment - a do-it-yourself block ice setup costs less than half (50%) to build than purchasing and erecting a conventional automatic ice plant of comparable capacity.**
- 2 - The plants can be built in any well equipped mechanical workshop.**
- 3 - Block Ice Plants can be disposed of to food and fishing industries in the Developing World at reasonable resale values when the concrete batching site is decommissioned.**

The Cons:

- 1 - Block Ice Plants have a bigger footprint than automatic ice plants.**
- 2 - Harvesting of Block Ice is manual; depending on the size, the plants require between five (small) and ten (big) semi- and non-skilled workmen per shift.**

Two attached printout documents (URLs below) show do-it-yourself setups of Block Ice Plants for Concrete Batching:

[Plant Producing 2x20 = 40 mTon/24h](#) (Acrobat, vertical A4; 2,2 MB)

[Plant Producing 4x10 = 40 mTon/24h](#) (Acrobat, vertical A4; 2,2 MB)

Following the harvesting, the ice blocks are crushed to an adjustable cube size. Crushed ice is sent to the Batching Plant in a Pneumatic Transport System. At the batching plant the ice is separated from the ice carrier (air) in a Cyclone with an Air Lock at the bottom outlet (see printout documents). The pipe work is insulated and, to limit melting and save energy, the ice carrier is returned to the Ice Blower. For more details:

[Block Ice Plants](#) (Acrobat 1,7 MB) - [Block Ice Plants](#) (Slides 3,6 MB)

[Block Ice Plants](#) (Web Movie 6,2 MB) - [Block Ice Plants](#) (Movie 28,3 MB)

[Four Standard Ice Cans](#) (Acrobat 2,4 MB) - [50 kg Square & 50 kg Rectangular](#) (36 K)

[All-in-One Refrigerating Package](#) (Web Page html)

[All-in-One Refrigerating Package](#) (Web Movie 870 KB)

[All-in-One Refrigerating Package](#) (Movie 4,9 MB)

[Acrobat A4 portrait printout of this page](#)

We provide full sets of drawings and specifications at moderate charges, including concepts for the automatic controls, for local do-it-yourself fabrication and assembly of Block Ice Plants and matching Pneumatic Transport Systems for Concrete Batching.

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