

NanoCement foam concrete blocks (NC-foam concrete blocks)

**Unique non-autoclave technology
of production of building foam blocks on a cement basis**

**FORMULA
of NC-foam
concrete blocks**

2+2+1

2 times cheaper

2 times lighter

1- standard
dimensions and
strength

**“The Secret”
of NC-foam
concrete blocks**

- **super-cavitational processing of water-cement suspension;**
- **highly-persistent, finely-divided foam;**
- **fabrication aids**

NC-foam concrete blocks are widely used in:

**the construction of multi-storey
frame structures for internal and
external wall enclosures (e.g., in
the construction of buildings of the
Moscow-City)**



cottage building



industrial building



Technological process of production of NC-foam concrete blocks

Station of preparation and pump feeding of water-cement suspension



Super-cavitation activation of water-cement suspension



Cavitation foam generation



Pouring into molds, maturing and hardening of foamed concrete



Cutting the foamed concrete slabs into foam concrete blocks



Packaging and storage of foam concrete blocks



Our proposals

1. *Supply of mobile equipment for the production of NC-foam concrete blocks in the 20-foot container, with capacity from 3 to 20 m³/h.*

Prices: from 80 000 to 240 000 \$ USA

The price depends on the capacity and purpose of use



2. *Supply of individual items of equipment integrated into existing production lines of non-autoclave production of foam concrete blocks with fillers (sand, slag, etc.) for the production of foam concrete blocks of the same strength but without fillers.*

Prices: from 18 000 to 36 000 \$ USA

3. *For the wider deployment of technologies of production of NC-foam concrete blocks is possible invest in the creation of production of foam concrete blocks of various capacities.*

The minimum investment amount \$ 3 million if own funds of the partners 10% or the presence of a bank guarantees for the implementation of the business project.

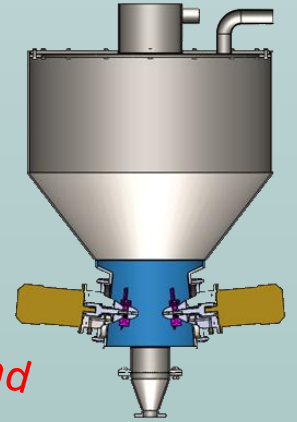
*Investment money from \$3 to \$ 30 million **USA** depending on the business project.*



Our results



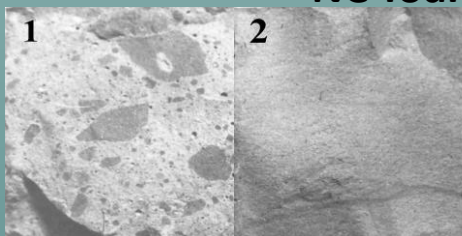
Only cement, water and additives !!!



Comparative characteristics of physical and technical parameters of building wall blocks of autoclave and non-autoclave traditional blocks and NC-foam concrete blocks

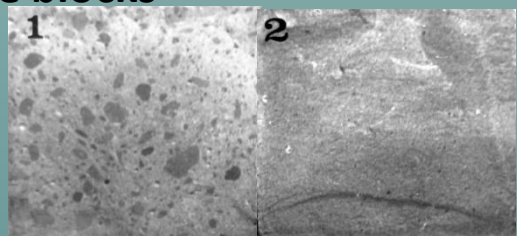
Characteristics	Unit of measurement	Building blocks		Non-autoclave porous foam concrete	
		Haydite concrete	Autoclaved aerated concrete	Traditional	NC-foam concrete blocks
Density	kg / m ³	900...1200	600...800	300...800	160...400
Thermal conductivity	W/m.K	0,5...0,7	0,18...0,26	0,05...0,38	0,01...0,1
Cycle	Cycle	25	35	35	60
Water absorption	Mass.%	18	20	12...14	2...5
Compressive resistance	MPa	3,5...7,5	2,5...5,0	2,2...5,5	2,2...5,5
The unit cost of production	%	90...100	100	60...70	30...50

NC-foam concrete blocks



The cut of a foam concrete block on the basis of cement M400

1-usual **2-NC-foam block**
400 kg / m³; **200 kg / m³**
2,4 MPa **2,4 MPa**



The cut of a foam concrete block on the basis of cement M500

1-usual **2-NC-foam block**
400 kg / m³; **200 kg / m³**
3,2 MPa **3,2 MPa**