



BFCMTD is a research-and-production company, which specializes in development of technologies, manufacturing of equipment, organization of industrial production.

The Company offers the following equipment:

Industrial equipment for manufacturing of continuous basalt fiber (CBF);

Industrial equipment for manufacturing of CBF materials and composite materials; industrial equipment for manufacturing of super thin basalt fiber (STBF), staple thin basalt fiber (TBF), basalt scale & materials, made on their basis; energy saving technologies, high temperature composites.



SERVICES PROVIDED BY BFCMTD

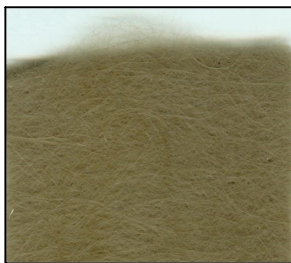
- Selection of basalt raw material from local rock deposits;
- Delivery, installation & launching of equipment;
- Control during beginning of production;
- Training in operating equipment for technical workers;
- Full organization of basalt fibers and materials industrial production;
- Technological support of industrial production under terms of BFCMTD's patents;
- Legal protection of production, including patented technologies & equipment.

BASALTS

Basalt is an environment-friendly natural material; it is used for basalt fibers production. 1/3 of the Earth's crust consists of basalts and eruptive rock, so this material is easily found worldwide. Primary fusion, enrichment and homogenization of basalt breeds are made by nature. Basalts have being laying on the surface of the Earth for many millions years. Basalt breeds are one of the strongest natural silicate breeds. Safe and abundant, basalt rock has long been known for its thermal properties, strength & durability. Cost of extraction of basalt raw material is very low. The technology of production process is not hazardous for environment; it does not produce any emission or waste. Experts of BFCMTD can selection of basalt raw material from local rock deposits.



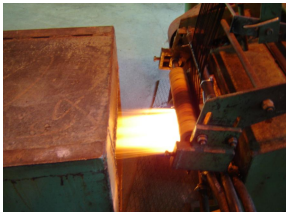
SUPER THIN BASALT FIBERS



SUPER THIN BASALT FIBERS (STBF) are layer staple fibers with diameter of 1~3 microns, mixed and fastened between themselves, the regular shape of this product is felt (felt of basalt wool).

Advantages of SUPER THIN BASALT FIBERS: It's made only from basalts, not any other materials, and has good heat-insulation qualities; the material is absolutely nonflammable, it has high thermo durability. Temperature of long application is up to 700 °C, temperature of short-term application is up to 1000 °C; high chemical durability to water, salt solutions, alkali and acids; high sound-proof characteristics and vibration durability; the material is made without application of glue, it is not based on inorganic glue; the material does not evolve any toxic substances under heating or open flame; the material has low hygroscopic quality - eight times below of that of fiber glasses; it has strong operation durability even in damp conditions.

SUPER THIN BASALT FIBERS PRODUCTION TECHNOLOGIES



STBF production technology with drawing of primary fibers and blowing them with high-temperature gas stream is well established in industrial production.

TECHNOLOGICAL EQUIPMENT FOR STBF PRODUCTION

BCTB-20M installation is used for production of STBF felts. BSTF 20 & BSTF 40 installations consist of equipment of the new generation.

Basic characteristics BCTB 20M, BSTF 20 & BSTF 40

No	Characteristic	Units	BCTB 20M	BSTF 20	BSTF 40
1.	Production capacity	kg/hour ton/year	16 -18 140 - 160	18 -19 150 - 170	36 -38 290 - 300
2.	Consumption of natural gas, depending on its caloric , no more	m ³ /hour	55 – 60	35 – 40	70 – 80
3.	Consumption of electric power: installed capacity, power consumption, no more	κVA κWt hour	90 45	76 40	130 75
4.	Pressure of compressed air for blowing fiber	MPa	0,1–0,15	0,1–0,15	0,1–0,15
5.	Characteristic of formed felts: width / density	mm kg/m ³	1000 18 - 23	1000 18 - 23	1000 18 - 23
6.	Overall dimension of installation : - length / width / height	mm	8000 / 6000 /4500	8000 / 4000 /4500	8000 /5500/4500

BASALT SCALES



Basalt scales (BSc) is a thin lamellar material with thickness 2~6 micron and area of a surface around 0.5~5 mm. Basalt scales owes it's name to the scale of fish, because they have similar protective qualities. BSc is a unique material for production of protective, wear proof, anticorrosive & chemically proof coverings, reinforced composite materials, reinforced plastics, frictional materials (such as brake blocks & clutch plates). Wear resistance & chemical stability lacquer coatings reinforced by Basalt scales increases several times. Durability of reinforced Basalt scales plastics increases 2~3 times. Application of Basalt scales together with inorganic couples (glues) allows creating nonflammable heat-resistant coverings with temperature of application of up to 700 °C.

EQUIPMENT FOR BASALT SCALES PRODUCTION

BSk-20 is a gas-electric installation; it is used for production of BSc.

BSk-20 performance data:

No	Technical data	Units	Figures
1	Capacity: per hour / per day	kg/hour / kg/day	20 / 460
2	Annual output	ton/year	160
3	Gas consumption	m ³ /hour	16 - 18
4	Electric power consumption (220 / 380, 50 Hz)	κVA	32
5	Technical water (circulation)	m ³ /hour	0.1
6	Compressed air, pressure	MPa	0.5
7	Overall dimension of installation with recuperator: length / width / height	mm / mm / mm	9 000 / 4 500 / 4 500

BASALT FIBER MATERIALS & PRODUCTS

