

Dear Sirs,

Mogilev "Strommashina" plant is the leading producer of equipment for manufacturing building materials and concrete sleepers in the CIS countries.

The plant was founded 99 years ago. Since then, building its own traditions and gaining experience, the plant has become a modern machine building enterprise which occupies one of the leading positions among the industries of the Republic. It is a company with unique equipment and highly-qualified staff following the standards of quality, safety and trust.

Its products include equipment and technological lines for manufacturing ceramic and refractory bricks, asbestos-cement articles (sheets, pipes), soft roofing tiles (prepared roofing paper, glass fibre cloth), vibro-pressing equipment for manufacturing sidewalk plates, boarder and wall stones.

We launched into serial production a technological line for manufacturing concrete sleepers and switch bars for main rail ways.

Due to the competent marketing policy and the high quality of our products the plant is the main supplier of these products to CIS countries.

In 2003 "Strommashina" produced 450 moulds and some machinery for an Italian line "OLMI" and mastered the equipment for concrete sleepers production with larger elements for reinforcement. We use bars instead of wire as an element of reinforcement.

In 2003 we produce the first sample of the drive of sucker-rod well pumps ПШГНТ. It was launched into serial production. We also develop more powerful samples of this type.

A new stage in the development of our plant was the production of the most complicated equipment such as OIII 1600/110 spreader (mass of the machine is 590 t, height is 36 m, length is 150 m) for "Belaruskalii" production enterprise. It is a kind of a belt conveyor.

In 2006 accomplishing the State Complex Programme for the development of the material-and-technical base for building organizations during 2006-2010 the plant mastered the production of tower cranes КБМ-401П with load-carrying capacity of 10 t and maximum height of lifting of 74 m. In 2009 we started a serial production of tower cranes КБМ-401П with a beam boom.

In 2008 tower crane КБМ-401П won the competition "For the achievements in the building branch of the Republic of Belarus" in nomination "The product of the year".

In 2009 tower crane КБМ-401П won the competition "The best products of the Republic of Belarus" in nomination "The products of industrial-and-technical use".

In cooperation with "VNIISTrom", Moscow our plant started the production of the automatic complex of the machinery for manufacturing ceramic bricks by semi-dry moulding using Press CM1085B. Together with scientific-and-technical centre "Strommash", Minsk we developed a new generation of the machinery for manufacturing bricks by soft mud moulding with output from 30 to 100 mln. pcs/year.

Recently Mogilev "Strommashina" Plant mastered the production of new machinery for manufacturing aerocrete articles, gypsum grooved pectinated plates, hypso-and-paper board sheets, iron tubbings for fastening of mine channels with diameter of 5.5 m, 9.5 m, 9.8 m as well as specialized machinery.

The plant also produces a wide range of locks and ironmongery articles (locks, latches, rotoline door-handles, hinges, cramps, door-lappings), small-sized machinery (drilling apparatus, grinders, lathes), and consumer goods (iron castings, foot pumps, drills, bench vices, water columns).

In confirmation of high quality and reliability of the equipment the plant has the Conformity Certificate that the Quality management System for design, development, production and maintenance of technological lines and equipment of technological purpose, consumer goods conforms to the requirements of STB ISO 9001-2009.

The plant was recognized as the best production enterprise in the prestigious national competitions "The best products of the Republic of Belarus". We invite you to cooperation!

D. I. Boreiko
Managing director

History

In 1913 a copper-foundry and machine building enterprise was established in Dneprovskii avenue in Mogilev. The company arranged the construction of mills, oileries and distilleries, selling of ploughs, axes and so on.

In 1920 the plant was nationalized. It was engaged in repairing automobiles, mobile kitchens and in production of military vehicles.

In 1941 the plant dismantled its equipment and was evacuated deep into Russia.

In 1946 the reconstruction of the plant began. It came under the authority of the Ministry of Machine Building. At that time it was given its present name "Strommachina". The plant was to produce machinery for the construction materials industry. The first press for slag bricks manufacturing was assembled on 30th October, 1946. It was the very beginning of the production of automatic high-efficiency flow lines.

In 1950 new orders were received. In order to fulfill them it was necessary to enlarge the plant. New buildings were equipped with modern machinery and production lines were quickly increased. These were production lines for manufacturing roofing corrugated asbestos boards, presses and machinery for manufacturing bricks, machinery for fine ceramics, units for manufacturing soft roofing tiles (roofing felt, prepared roofing paper etc.). Our automatic line for manufacturing asbestos-cement pipes was a new development in civil engineering. For the first time in the world of machine building, an automatic line for manufacturing asbestos-cement sheets without any gasket was produced - CM898 (output - 6-8 thousand pcs of conv. tiles/h). The machinery with the "Strommashina" trade mark proved its excellence in Hungary, Bulgaria, Poland, India, and Indonesia.

In 1962 the territory and shops of "Electrodvigatel" plant were turned over to the "Strommashina" plant. According to the plan of reconstruction a new metalwork shop, an engineers' building, and a big assembling-and-painting shop went into operation.

The plant exports its products to the following countries: Bulgaria, Cuba, Hungary, Latvia, Vietnam, Lithuania, Germany, Poland, India, CIS, Indonesia, Turkey, Italy, France, Iran, Estonia.

From 1962 to 1965 the plant developed a series of freight elevators and a completely new model of passenger lifts with rated load capacity of 350-500 kg.

From 1965 to 1974 - prior to the formation of the Mogilev Lift plant, lift production had made up half the total "Strommashina" output, i.e. 3,400 lifts per year were produced.

When the lifts went out of production the plant increased the output of machinery for manufacturing asbestos-cement board, asbestos-cement tubes, ceramic articles, roll roofing and water proofing materials, reinforced glass fibre cloth, and other machinery. Up to 150 items of machinery and automatic production lines were produced annually. The plant brought to a commercial level the production of about 600 machines ordered by industries of our country and foreign states. The products of the plant were often exhibited in Moscow, Poznan, Lagos, Zagreb. They were granted certificates and medals more than once.

In 1980 the plant launched production of automatic lines for manufacturing bricks - CMK350 (output - 75 mln. pcs./yr), lines for manufacturing corrugated asbestos-cement sheets of the type CB 40/150-7-1750 - CMA170 (output - 7,937pcs/h), CMA 365 (output - 6,217pcs/h) and machinery for

manufacturing 4m - asbestos-cement pipes CMA256.

In 1992 the plant launched the production of machinery for manufacturing concrete railway sleepers and switch bars for main tracks with gauge width of 1,520 mm.

In 1998 the plant started the production of a vibrating press for manufacturing sidewalk plates, wall stones and border stones.

In 1999 the plant brought agricultural equipment into production level: ploughs, auger bucket loaders, clamp coverers.

In 2000 we produced a test sample of the technological line for production of manufacturing fuel bricks from the sediment of sewage and organic wastes. We launched complex of equipment БГП-5000 for lime-and-sand brick production.

In 2002 the plant started the production of equipment for soft roofing tiles as well as spare parts for oil production equipment.

In 2003 we started the production of iron tubbings for fastening of mine channels.

In 2005 the first OШ 1600/110 spreader was produced.

In 2006 we launch the production of mobile tower cranes КБМ-401П with maximum capacity of 10 t, maximum hook height of 74 m. We are developing new models of tower cranes at present.

In 2008 tower crane КБМ-401П won the competition “For the achievements in the building branch of the Republic of Belarus” in nomination “The product of the year”.

In 2009 tower crane КБМ-401П won the competition “The best products of the Republic of Belarus” in nomination “The products of industrial-and-technical use”.

New stage of progress of a factory has been manufacturing in 2016 tubing lining for new mine trunks «JSC Belaruskali» plant for «Petrikovsk» mine, as well as extension of cooperation with «Belarusneft» oil company domain of deliveries the deep pumpes and spare parts.

Technological Operations

Blanking production

The Metalwork shop is one of the largest shops at the plant. It consists of the following sections: a blanking bay, an assembling-and-welding bay, a gas-cutting bay and a forge bay. Up to 20,000 tons of metal per year can be processed here. It can produce welded metalworks and blocks with a mass of up to 30 tons and overall dimensions of 4,000 x 3,000 x 1,000 mm.

The plant has its own **iron-foundry** with an output capacity of 10,000 tons of iron foundry castings per year (out of cast iron CЧ20), a bay of non-ferrous casting with capacity of 250 tons per year, and a die casting bay with a capacity of 380 tons per year.

The plant's **tool shop** is equipped with the most advanced equipment. It specializes in manufacturing moulds, dies, and attachments for cutting and measuring tools.

The consumer goods shop specializes in **locks and ironmongery**. Its output is up to 700,000 locks and latches per year.

In 1998 **the polymer powder coating line** was launched, with a capacity of 100 thousand m² per year.

The plant guarantees the year-round support and **repair of grain combine harvesters**.

Machine Assembling production is completed by 5 shops (page 5 in Russian book)

Metal working equipment installed in the shops of the plant makes it possible

- to perform all kinds of mechanical processing: milling, grinding, drilling, gear-working, turning.
- to work with all types of shafts with a diameter up to 1,000 mm and length up to 8,000 mm.
- to process units with dimensions up to 2,000 x 4,000 x 4,000 mm and mass up to 40 tons.
- to cut gears from module 2 to module 20 with a diameter of up to 2,000 mm.
- to assemble and to test-operate the lines with height of up to 6,000 mm, width of 2,000 mm and length of 70,000 mm.
- to assemble and install production lines with a height of up to 6,000 mm, width of 12,000 mm and length of 70,000 mm.

More than 500 major technical units are installed in the shops of the plant. More than 50 units are unique.

The Plant's Products

Equipment for Production of Prestressed Concrete Sleepers

Technological lines for the production of prestressed concrete sleepers and switch bars for main tracks with gauge width of 1,520 mm.

Application: Designed for the production of prestressed concrete sleepers for different sleeper bindings as well as the production of switch bars, this complex equipment completes all operations from the fitting of blanks to testing and piling of sleepers.

Specifications:

Output of the line - thousand pcs/year	- 250
Number of moulds completed on the line, pcs	- 100
Line speed including time needed for transferring moulds between stations, min	- 9.5
Number of table vibrators, pcs	- 2
Installed capacity of the production equipment, kW	- 360
Mass, tons: of the main equipment	- 180
of the moulds	- 415
Service staff, prs	- 25
Workshop recommended size	- 140x24

Machinery for manufacturing clay bricks

We offer a wide range of semi-dry and soft mud moulding machines with outputs from 1,000 to 25,800 pieces per year.

Index Number	Main Specifications	Press			
		CMK-376	CMK-506	CMK-217	CMK-435
1	Output, clay brick, pcs/h	25,800	10,000	10,000	6,000
2	Moulding pressure, Mpa	3.0	2.5	1.6	1.6
3	Installed power, kW	467	187	165	55
4	Diameter of the screw at the exit,mm	620	450	450	450
5	Overall dimensions, mm				
	- length	5415	6680	7095	3390
	- width	4070	3400	1405	1530
	- total	3150	2600	2570	1300
6	Mass, kg	43000	19500	21300	6950

Semi-dry moulding press CM 1085B

Application: Semi-dry pressing of refractories produced from fireclay and super-fireclay materials with moisture content of 4-8%

Specifications:

Nominal pressing force, kN (ton-force)	6,300 (630)
Output of bricks max., pcs/h	2,280
Maximum depth of covering pressform,mm	200
Power of electric motors,kW	40
Power of electric economizer,kW	3,5
Overall dimensions, mm:	
- length	4,890
- width	3,780
- height	
above floor level	3,175
total	4,920
Mass, kg	32,600

Machinery for manufacturing asbestos-and-cement articles

Automatic line CMA-170

Application: Moulding of corrugated asbestos-cement sheets (roofing slate), type CB40/150-7-1750 with an output of 478 sheets/h and type CB40/150-7-1250 (modification).

Automatic complex CMA-365

Application: Manufacturing of corrugated asbestos-cement sheets, type CB40/150-8-1750, with an output of 306 sheets/h.

Automatic complex CM1155A

Application: Manufacturing of corrugated asbestos-cement sheets, type SV40/150-8-1750, with an output of 251 sheets/h, and type CB40/150-7-1250 type (modification).

Model CMA-256

Application: Manufacturing of 4m asbestos-cement pipes with a nominal bore of 100 and 150 mm.

Models CMA-244, CMA-354

Application: Manufacturing of 5m asbestos-cement pipes with a nominal bore of 200 and 500 mm.

Model CMA 360

Application: Manufacturing of corrugated asbestos-cement sheets 54/200-6-1750 type and of 54/200-7.5-1750 type with the output of 260 sheets/h.

Blanking Bay equipment: feeders and weighers, hollendors, homogenizers, bucked mixers, hydrofluffers.

Machinery for manufacturing soft roofing tiles

Prepared roofing paper unit - CMA184

Application: Manufacturing of prepared roofing paper with coarse-grained or sealy grit, and of asphalt roofing paper.

1	Output, m/h	3,020
2	Kinematic speed, m/min	108
3	Width of board, mm	1,050
4	Installed power, kW	310
5	Overall dimensions, mm	
	length	73,200
	width	5,200
	height	8,800
6	Mass, kg	98,500

Automatic line for manufacturing glass fibre cloth BB-K, with an output of up to 9 mln. m² per year - CMT158

Machine for manufacturing roofing and skin facing sheets of "Schiengls" - type - CMA239A.

Machinery for manufacturing sand and cement articles

Vibrating press M32-002 with tray pusher.

Application: Manufacturing of articles from a sand-and-cement mixture by vibropressing, in particular sidewalk plates, border stones, wall stones (full and hollow stones).

The vibrating press is supplied with an hydraulic drive, a control desk, and a cabinet for electrical equipment.

Specifications:

Output,	of sidewalk plates, m ² /h	40
	of border stones, pcs/h	100
Capacity of a hopper, m ³		0.75
Maximum size of a moulded article, mm		
	- length	1,000
	- width	440
	- height	60 ... 200
Installed power, kW		17.0
Operational pressure in the hydraulic system, MPa		4.0
Compacting effort, kg(f)/cm ²		0 ... 100
Overall dimensions, mm		
	- length	2,700
	- width	1,800
	- height	3,200
Mass, kg		4,000

Sand-and-cement mixer CM500

The mixer is a part of the blanking bay of the complex, where wall stones (full and hollow stones), curbstones, sidewalk plates are produced from dry concrete mixes by the M32-002 vibrating press.

The CM500 - mixer can be used as an independent machine for preparation of sand-and-cement and dry-concrete mixes.

Oil production equipment

Drive of sucker-rod well pumps ПШГНТ8-3-5500, ПШГНТ-10, ПШГНТ-12.

Reduction Gear ПШГН10 of the drive of sucker-rod well pumps

Spare parts to the oil production equipment manufactured in the USA, Canada, Russia and Romania:

threading dies for tube gripping; bushings, valves, seals; pump plungers; valve seats; pulleys; pistons; and other parts – more than 40 points.

Overhaul of ПШГНТ10-reduction gears and drive of sucker-rod well pumps ПШГНТ8-3-5500.

Iron tubbings for mine shafts consolidation

Specifications:

Internal diameter of a tubing ring, m	7,0
Number of tubbings in a ring, pcs.	13
Height of a tubing, m	1,5
Tubbing wall thickness, mm	20...70
Mass of a tubing, kg	1100...2650
Material	iron CЧ-20...CЧ-25

Mining equipment

OIII 1600-110/150 spreader

It is used for reception and transport soft overburden rock to the external or internal dumps. It is also used for spreading from wastes after processing ore at the “Belaruskalii” enterprise.

Specifications:

Output, t/h	1600
Max. overhang of the spreader cantilever, m	110
Max. height of the cantilever, m	36
Overhang of the receiving cantilever, m	40
Total length of transportation, m	150
Width of conveyer belt, m	1.2
Speed of belt movement, m/s	5.45
Power consumption, kW	540
Dimensions, m:	
Length	153
Width	14.6
Height	36
Mass, t	590

Iron tubbings

A set of tubbings is used for shaft fastening while building mines or undergrounds.

Internal diameter	7 m
External diameter	9,5 m

Tower Cranes

Tower crane КЕМ-401П

It is used for load lifting up the residential, community and industrial buildings under construction. The system of crane control is complex. It meets the requirements of safety and the functions of a parameter register and a coordinating protector. It operates in I-wind region according to standards GOST 1451-77 in the climatic construction of the 1-st category corresponding to the temperate climate according to the standards GOST 15160-69 at the ambient temperature from -40° up to $+40^{\circ}$ C. Seismicity force up to 6. Regime group is A4 according to ISO 4301/1-86.

Specification:

Load moment, tm	102
Maximum carrying capacity, t	10
Maximum hook height, m	74
Maximum boom, m	35
Boom at the maximum carrying capacity, m	10,2
Carrying capacity at the maximum boom, t	2,3
The number of tower sections	9

Equipment for production groove-and-ridge plates

Complex for manufacturing gypsum groove-and-ridge plates ППТ24.00.00.00.000.

Composition:

Press ПГП24.01.00.00.000 is used for shape formation of groove-and-ridge plates according to a given geometrical configuration.

Mixer ПГП24.05.00.00.000 is used for preparing of a homogeneous fluidic gypsum mixture and pouring it into a mould cartridge of a press ПГП24.01.00.00.000.

Grasp ПГП24.10.00.00.000 is used for lifting the moulded gypsum groove-and-ridge plates from the press and their installation into drying cars.

Specification:

Number of moulds in a cartridge, pcs	24
Dimensions of a moulded product, mm	667*500*80
Ejection force, kg	
Nominal	16 000
Maximum	64 300
Pressure in the hydraulic system, MPa	
Nominal	4
Maximum	16
Installed capacity, kW	5.5
Linear speed of the product's ejection, m/min	0.95
Overall dimensions, mm. not more	
Length	3464
Width	2260
Height	3072
Mass, kg, not more	9670

Locks and Ironmongery

Mortise cylinder locks, lever locks, mortise latches, hasp locks, lever locks, door lappings.

Consumer Goods, Garden tools, Camp furniture

Air heaters, bench vice, iron casting, foot pump, iron planes, swings.