

Development of OJSC “BelTAPAZ” for 2011- 2015 within the bounds of "Comprehensive Development Program Machine Building industry in the Republic of Belarus”

A. Project opportunity description

A1. Project name:

Development of OJSC “BelTAPAZ” for 2011- 2015 within the bounds of "Comprehensive Development Program Machine Building industry in the Republic of Belarus”

A1a. Short name:

Development of OJSC "BelTAPAZ” for 2011- 2015 within the bounds of "Comprehensive Development Program Machine Building industry in the Republic of Belarus”

A1b. Full name:

Development of OJSC "BelTAPAZ” for 2011- 2015 within the bounds of "Comprehensive Development Program Machine Building industry in the Republic of Belarus”

A1c. Summary description:

During the investment project OJSC “BelTAPAZ” plans:

- to master production of the intensive cultivator with width of 5-6 meters corresponding to world standards
- to upgrade and master lot production of the lathes chucks Ø 500, Ø 630 mm

Thereby Thus, the project will allow OJSC “BelTAPAZ” to update the fixed assets, to expand the range of products through the development of lot production of lathe chucks Ø500 Ø630 mm and, in the bounds of import substitution, master production intensive cultivator with a width of 5-6 meters.

Enter the basic tools will be the extent of their acquisition and installation.

A2. Project status:

A business plan is prepared, the stage of the project - Pre-investment

A3. Organization involved and their roles:

A4. Project description:

During the investment project OJSC “BelTAPAZ” plans to update the current production for:

- expanding the range of manufactured lathe chucks and technical capabilities of the enterprise for the development of lot production of lathe chucks and Ø500 Ø630 mm;
- increase production and expand the range of manufactured parts for RUE "MTW";
- development of new types of consumer goods;
- development of release of an intensive cultivator with a working width of 5-6 meters, corresponding to world standards.

Equipment specification is to be purchased by OJSC "BeITAPAZ" during the implementation of the investment project.

№ o/i	Year	Equipment Name	Main Technical Characteristics	Usage	Approximate supplier	number, unit.
	2011					
1		Plasma Cutting Machine with CNC	pp table 4100x2500 thickness of 100 mm to m-gaz cutting р-р стола 4100x2500 толщина 100 мм к- т газ.резки	agricultural machines	KNUTH Germany	1
2		Hydraulic Press Bending Machine with CNC	bending length 3000 mm distance between bearings 2550 mm	agricultural machines	KNUTH Germany	1
3		4-Roll Bending Machine with CNC	Sheet thickness 10 mm Bending length 3100 mm	agricultural machines	POLSYER Poland	1
4		Automatic Band Saw	Cutter 350	agricultural machines	KNYTH Germany	1
5		Electrostatic Filler		agricultural machines	TRISTAN Russia	2
6		Pipe-Bending Machine with CNC	F pipe 76 wall thickness of 3 mm bending angle 190 R260 Φ трубы 76 толщина стенок 3 мм угол гибки 190 R260	agricultural machines	KNYTH Germany	1
7		Semi-Automatic Welder	Current 400 A	agricultural machines	Russia	2
8		2-Spindle Lathe with CNC		agricultural machines	MPAL Belarus	1
9		Colouring Chamber		agricultural machines	TRISTAN Russia	1
10		Polymerization Chamber		agricultural machines	TRISTAN Russia	1
11		Vertical Lathe with CNC	630 mm processing a spindle	Cams Boring Lathe chucks, lathe chucks Ø500, Ø630	MPAL Belarus	1
	2012					

1		Hydraulic Guillotine Shears with CNC	Cutting length 3,200 sheet thickness 12	agricultural machines	processing 630 mm 1	1
2		Vertical CNC machining center	1300x700	“MTZ”, Lathe Chucks Ø500, Ø630	KNYTH Germany	1
3		Vertical Lathe with CNC	Ø 630 mm processing a spindle	Cams Boring Lathe Chucks, Lathe Chucks Ø500, Ø630	MPAL Belarus	1
4		Furnace for Cementation	retort of Ø 810mm, height of 1600mm, electric shaft	Lathe Chucks, Lathe Chucks Ø500, Ø630	REMIX Poland	2
5		Furnace for Release	retort of Ø 810mm, height of 1600mm, electric shaft	Lathe Chucks, Lathe Chucks Ø500, Ø630	REMIX Poland	2
6		Furnace for Quenching	retort of Ø 810mm, height of 1600mm, electric shaft	Lathe Chucks, Lathe Chucks Ø500, Ø630	REMIX Poland	2
7		HFC Plant		Lathe Chucks, Lathe Chucks Ø500, Ø630	Russai	1
8		Planogrinding Machine	Table size 600x1200	Lathe Chucks, Lathe Chucks Ø500, Ø630 agricultural machines MTW	Belarus	1
9		Plant for Labeling		Lathe Chucks, Lathe Chucks Ø500, Ø630 agricultural machines MTW	Russia	1
10		Compressor		Lathe Chucks, Lathe Chucks Ø500, Ø630 agricultural machines MTW	Krasny Borets Orsha Belarus	1
11		Controlling and Measuring Machine	3-axis 1200x700x600		RAPID PLUS Germany	1
12		Photocopier				1
	2013					
1		CNC Lathe mod. 16GS	Ø 400mm processing	Rack, Lathe Chucks	GMTUP Belarus	2
2		Special Grinding Machine with CNC OSH640F3		Spiral of a disk, Lathe Chucks, Lathe Chucks	Krasny Borets Orsha	2

				Ø500, Ø630	Belarus	
3		Special Grinding Machine		Grinding of cam groove, Lathe chucks	Krasny Borets Orsha Belarus	2
4		Planogrinding Machine	Table size 600x1200	Lathe Chucks, Lathe Chucks Ø500, Ø630 agricultural machines MTW	Krasny Borets Orsha Belarus	1
5		Two-Spindle Lather		Disk processing, Lathe Chucks, Lathe Chucks Ø500, Ø630	MPAL Belarus	2
6		Vertical Lathe with CNC	Ø 600 mm turning	frame Ø630, Lather Chuck Ø500, Ø630	KNYTH Germany	1
2014						
1		CNC lathe mod. 16GS	Ø 400mm processing	Rack, Lathe Chucks	GMTUP Belarus	2
2		Vertical Lathe with CNC	Ø 630 mm rocessing 1spindel	Cam boring, Lather Chuck Ø500, Ø630	MPAL Belarus	1
3		Special Grinding Machine		Rack grinding Lather Chuck	Krasny Borets Orsha Belarus	2
5		Balancing machine with CNC	Ø 630	Lathe Chucks, Lathe Chucks Ø500Ø500, Ø630	MZOR Belarus	1
6		Rod Semi-Automatic Lather	Ø 40	Lather Chuck, MTW	EMCO Austria	1
7		Planogrinding Machine	Table size 600x1200	Lather Chuck	Krasny Borets Orsha Belarus	2
8		Vertical Broaching Machine		Lather Chuck	StankoGom el named after Kirov Belarus	1
2015						
1		Special Grinding Machine		Rack grinding Lather Chuck	Krasny Borets Orsha Belarus	1
2		Vertical Machining Center with	1300x700	Expanding the range of lathe chucks	KNYTH Germany	1

		CNC				
3		Special Grinding Machine with CNC OSH640		Lathe Chucks, Lathe Chucks Ø500Ø500, Ø630	Krasny Borets Orsha Belarus	2
4		Planogrinding Machine	Table size 600x1200	Lathe Chucks, Lathe Chucks Ø500, Ø630 MTW	Krasny Borets Orsha Belarus	2
5		Intragrinding Vertical Lathe with CNC	with a circular rotating table, vertical spindle Ø(800)	Cone grinding, Lathe Chucks, Lathe Chucks Ø500Ø500, Ø630	Krasny Borets Orsha Belarus	1
6		Lather with CNC	Ø700	Lathe Chucks Ø500Ø500, Ø630	Ryazan Russia	1

A4a. Project cost:

The total amount of investment cost on the project (including VAT and increase net working capital) 10.51

A5. Background /history/overall programe/related or similar projects:

The plant for production of lather chuck for needs of the former USSR was set into operation in 1976. This kind of product was manufactured by 7 enterprises in the volume more than 300 thousands units, including 30% by OJSC “BelTAPAZ” and delivery was carried out on 150 warehouses of the country.

The specialists of the plant has undergone extensive work to expand the range and improve quality between 2000 and 2009. Thus, the production of more than 100 titles and design of lathe chucks with external diameter from 80 mm to 400 mm in accuracy classes P, B, and A, obtained quality certificates of the Russian Federation, certified quality management system in accordance with the standards ISO 9000 version 2001, received a certificate of quality with the application right of CE mark on products.

Under the state program of innovation development of Belarus for 2006-2010, the company complied with four significant projects on innovative subjects.

Agreement	Name of project topic	Product type
MC77-06	Preparation and development of tractor parts manufacture: cams of cylinder steering	Cam of cylinder 102-3405103, cam 102-3405112, cam 102-3405112-01
MC21-07	Design and manufacture of prototypes of the universal self-centering lathe chucks, training and development of production	Lathe chuck model 3-250.35.01, 3-250.36.01
MC97-08	Preparation and development of subassemblies manufacture of new generation tractors "Belarus"	Nave 1075-3104010, nave 1822-3104010, nave 2522-3104010
MC36-09	Design and manufacture of prototypes of spiral-rack lathe chuck, training and development of production	Lathe chuck model 3-315.41.02

A6. Environmental impact summary:

Maintain control of available volumes of atmospheric emission was settled by State Standards 17.2.3.02 and it is fulfilled under fixed norms “Release sources and atmospheric emission”, and also it is specified by the report on the inventory of atmospheric emission.

Protection of sewage pollution is based on the requirements of STB 1004, which include the following conditions:

- preventing the discharge of sewage causing pollution of water bodies;
- preventing the discharge of contaminants, technological and domestic waste into the sewage;
- analysis of sewage discharged into the sewer network.

Requirements to control and soil protection from contamination are identified by State Standards 17.4.3.04.

Soil protection is provided by:

- recycling of industrial waste;
- prevention of soil pollution with oil products;
- the inadmissibility of spontaneous dumps, storage of bulk materials and harmful substances, which can be washed off by atmospheric precipitations and contaminate the soil;
- maximum gardening and landscaping.

The organization plans to continue implementation of the measures that will significantly reduce emissions of pollutants into the environment, and thus reduce the negative impact on the air.

A7. Possible obstacles/problems/risk degree:

Principle organizational risks are: a) terms delay of agreement of project documentation; b) risk of the appearance of additional demands on work implementation and limitation of project functioning of investing (additional finance costs). The risks, connected with project guidance and its coordination, are to be controlled by the efforts of organization-initiator management of the project.

The risks, connected with synchronization of the work preparatory schedule, the balancing and commissioning schedule and the financing one, are to be reduced by additional negotiations with the all project participants and the usage of initiator own funds for efficient compensation of possible failures in the work schedules and financing.

One of the most significant risks on project organization is interaction with the state authority. Because of absence of terminal agreed documents significant time delay or demand on project updating may already appear on the stage, when lots of works could be already done and make constructive changes very difficult. This risk is to be compensated by the means of definite administrative recourses and preliminary study of all normative requires, which may appear during project realization.

A8. Time period for project implementation and pay-back period (years):

Simple recoupment term is 8 years and 4 months, dynamic one – 10 years and a month. Dynamic term of recoupment of state support- 9 years and 2 months.

A9. Project branch:

B. Capital cost Items

B1. Project physical component:

B2. Capital cost USD million

Total sum of the project investment costs (including VAT and increase of net working capital):

10,51

equipment purchase and its delivery (the Republic of Belarus, Russia, Germany, Austria, Poland)

7,4

Total:

10,51

B3. Sub-project by location

B4. Capital cost USD million

-

-

C. Capital Resources Available (owner, associates, sponsors etc.)

C1. Resources, grants, investments, equipments, equity/ownership etc.

C2. Sum, USD million

The payment of VAT on all acquired equipment is

1,48

planned at the expense of own funds	
Financing costs on the increase of net working capital at the expense of own funds	1,63
Belarusian banks	2,96
State budget	3,61
State budget	0,83

D. Required Investment, Deficient Funds

D1 Necessary Financing, Required Type of Financial Participation:

Bank credit, government support

D2 Source of finance	D3. Type of Investment	D4. Amount USD million
-	-	-

E. Demand (Users) and Revenues

E1. Type of Users, Volumes, Pricing, Revenues, Estimated Profit/Savings

The main consumers of the lathe chucks are:

1. Large wholesale intermediary firms, which sell machine tools;
2. Enterprises, manufacturers of metal-cutting equipment (for a complete set of products);
3. Small buyers who purchase products for retail and own consumption.

Now all basic sales regions of production are included by the dealers and representatives of OJSC “BelTAPAZ”. Decrease of dealer purchases is caused by decrease of final custom solvency working on 75% of its capacity.

The negotiations on expansion of components range to “MTW” tractors are held.

The main sale channels of jacks are:

- car service centers ;
- gas stations;
- wholesale depots;
- small-batch business corporations.

The main sale channels of lawn-and-garden tools are:

- wholesale depots;
- shops.

E2. Financing Sources	E3. Revenues (Sales) mln \$
Own funds, government support, credits	12,43

F. Transaction and Operating Costs

F1. Costs Components, Capital Allowance Policy, Industrial Engineering etc.

The amount of fixed capital costs and the costs on the growth of net working capital is included in the overall investment costs of “BelTAPAZ”.

F2. Cost item:	F3. Amount, mln \$
Total capital cost of the project without VAT	7,40
VAT on capital cost	1,48

Additional increase in working capital	1,63
Interest on loans	0,98
Total:	11,49

G. Net Income Value

G1. Net Income Value:	G2. Amount, mln \$
Net discounted value (reach recoupment + year) at the end of 2020	0,94

H. Project Information Source:

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H5. Supreme organization: Ministry of Industry of the Republic of Belarus