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ul. Warszawska 347, 42-209 Częstochowa; Poland

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**Building second furnace Stolze Częstochowa Sp. z o. o. –
Implementation Innovation accordance subsidize agreement
UDA-POIG.04.04.00-24-003/08-00**

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**Tender Documents Furnace 200 T/d
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1. General Project data

Regarding planning expansion our plant for new furnace building, batch house, cold end and auxiliary buildings.

Herewith we would like ask you to send us your offer for the new furnace 200 T/24h,

1. Start of project: April 2010
2. Plan start of production: July 2011
3. Deadline put offer: 22nd of February 2010; to 16 pm.
4. Offer send by post and e-mail to address as above.
5. Orderer reserve the right to cancellation procedure in any time for no reason.
6. Operational details including in specification and description.
7. All cost connected with participation supplier with this procedure bear supplier.

2. Technical Specifications

2.1 Glass Melting Furnace

Type of furnace:	End port furnace, with back rear chambers
Melting area:	about 94 m ²
Melting capacity:	200 T/24 without barrier boosting
Barrier Boosting:	maximum capacity 250 T/24 Option* (predict the future)
Type of glass:	soda-lime white glass
Production:	special bottles & cosmetics
Cullet ratio in the batch (internal):	10 %
Humidity in the batch:	about 3 - 4 %
Emission of NO _x :	< 800 mg/Nm ³
Emission of CO:	< 300 mg/Nm ³
Blisters:	15 seed/100g glass
Number of forehearths connected:	4 (room for 5 - line 2.4 in future)
Gas type:	natural gas GZ50
Metal line height:	5250 mm (from machine floor up the glass level)
Batch charger system:	1 batch charger plus 1 spare (price and type)



2.2 Working end & forehearths

	Line 2.1	Line 2.2	Line 2.3	Line 2.4	Line 2.5
	8 SG/DG	10 SG/DG	8 TG	In future	10 DG/TG Feeder coloration
Type:					
Tonnage min. [t/d]	20	15	10		25
Tonnage max. [t/d]	73	45	32		60
Temp gob min. [C]	1090	1100	1100		1090
Temp gob max. [C]	1200	1250	1250		1200

3. SUPPLIER - Scope of delivery

- all drawings have to be in DWG version.
- all wages and additional payments
- all necessary design work
- plan & conditions of payments
- all material with specifications
- calendar daily allowance
- traveling cost of personnel
- timetable (delivery refractory materials, assembly, heating and start up)
- transport of equipment as well as their assembly
- hotel accommodation for personnel
- necessary fork-lifts, cranes and scaffolds
- unloading of equipment parts supplied
- commissioning of the complete equipment
- complete required pipe work for gas, air and water as well as measuring power and control cables including installation material leading from the supply stations to the customer points.
- spare parts
- transportation of refractory material at site
- gas and oxygen for flame cutting work
- heating of the production building during installation (if necessary)



3.1 Include in your offer all additional information regarding:

- building conditions e.g. roof, walls, foundation, load point,
- energy supply (electricity, gas, water, oxygen, air)
- additional cost for technical assistance / supervision by skilled personnel
- additional cost for manpower for each hour of work or travel
- additional cost for night work
- additional cost for work during holidays
- additional cost for hot work

3.2 Additional requirements

- prepare separately budget quotation for working end, plus 3 forehearths and 1 forehearth for colouring (line 2.5)
- for each forehearths please put cost for Cord Dispersal and stirrers system. – as option* (separately cost)
- please include also further specification from transformer (e.g. power consumption, regulation etc)
- specification of burner controlling system. To our project we got EU subsidize for STG Cottbus natural gas burners system reg. guarantee stable DeNOx values etc. in other words the installation must include this system.
- specification of the refractory material regarding flatness, size and number of cracks etc. The similar situation to burner system is refractory new material. Said material is ER 2001 SLX RN which was recently developed is suitable to replace the normally AZS (ER 1681 RN) in the furnace tank superstructure (not in glass contact) and in particular in those area subject to a higher thermal stress (refining zone). The cost for this new material of course higher than traditional material, the replacement of superstructure parts in the refining area only- as shows in the sketch enclosed. According EU subsidize the installation must include.

4. Guaranty

4.1 Furnace

- Guaranty consumption of energy for different tonnage with diagram form with amount culets: 10%; 15%; 20%
- Guaranty for furnace life

4.2 Forehearths

- Specification for heating, cooling and controlling system – guaranty.
- Conti-drain system and stirrers system – guaranty Cord Dispersal System



5. Requirements to offer

- Offer in English or Polish language
- Summary offer
- Expiry date offer [day/month/year]

6. Main select criteria will be:

6.1 Price

6.2 Additionally :

- reference (amount of done similar project last 5 years)
- energy consumption
- delivery time
- guaranty
- service cooperation

Please send to us the best solution and price regarding mentioned item.

If you need any additional information for the offer preparation, please fill free to contact us any time.

Thank you very much in advance for your help and for your offer

Sincerely yours,

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