



Osowiec, 19.03.2012

**Announcement on order**  
**Subject of the order**  
**Post to numerical analysis of matrix forging processes**

It refers to the project under the title „**Implementation of technological innovation by launching a research-development department in Kuźnia**” within the Priority Axis 1 *Strengthening economic attractiveness of the region* Actions 1.3 *Innovations, research, technological development* For actions 1.3.2 *Investments in innovations in enterprises* within Regional Operational Programme for the opolskie province for the year 2007-2013. The agreement no: RPOP.01.03.02-16-112/09-00. The project co-financed by the European Union from the means of the European Fund of Regional Development within the Regional Operational Programme of the Opolskie Province for the year 2007-2013 „**We Invest in Your future**”.

In connection with the realization the project in our company under the title: „**Implementation of technological innovation through launching a research-development department in Kuźnia**”, we invite You to place offers for:

- **Position for numerical analysis of matrix forging processes:**

Computer set with minimum parameters:

- Processor min. Core2Duo, min. 2.66GHz;
- Memory RAM min 4GB;
- Graphic card min 512MB;
- Disc HDD min 500GB min. 7200rpm;
- Monitor LCD min. 22”, min 1920x1200;
- Laser printer A3, compatible with computer set
- Keyboard + optical, wireless mouse

Computer programme must enable:

- To conduct full simulation of matrix forging and half-free forging;
- Longitudinal rolling;
- Transverse-erdge-shaped rolling;
- Modeling of inductive heat;
- Isothermal and non-isothermal de-shaping of the charge;
- Simulation of tools (for analysis of tensioning and straining);
- Cooling charge in the air and tools;
- Automatic simulation of technological chain;
- Automatic positioning of tools in order to find a contact with the charge;
- Straining conducted on mechanical presses, frictional, hydraulic, hammers, counterblow hammers;



AQAP 2110:2009  
PN-EN ISO 9001:2009

Fabryka Wyrobów Metalowych Kuźnia „OSOWIEC” Sp. z o.o.,  
46 – 023 Osowiec, ul. Fabryczna 1, POLAND  
Tel. (+48 77) 421 24 20 –3, fax. (+48 77) 421 24 70  
Nr KRS 139300 wpisany do Sąd Rejonowy w Opolu VIII Wydział Krajowego Rejestru Sądowego  
Wysokość kapitału zakładowego 5 696 000, NIP 754 – 033 – 35 – 65,  
Grupa Pekao S.A. II O. Opole 10801242-475-27001-801000  
Producent: stalowych odkuwek matrycowych  
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**KUŹNIA OSOWIEC**  
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- Cutting the hole and cutting off the fash;
- Creation of AVI animation from simulation and recording in bitmap form;
- Regaining the whole shape of the tool with the use of its quarter or half (shortening duration of simulation);
- Forecast wear-off of the tools;
- Diagnosis of errors during simulations;
- Variability of volume of the charge dependent on thermal expansion;
- Recording and animation of the whole technological chain;
- Module intended for importing geometry of the net with adaptation remeshing without user's control on the surface and in the solid of all facilities. (Intervention of the user not required);
- Manual positioning of the charge before simulation;

The programme should contain:

- The data base of devices and materials, which are usually adjusted to the needs of each user, they also can be edited and supplemented by the user;
- The data base of devices containing hydraulic, mechanical, screw presses, hammers, counterblow hammers, rollers, electro-sweller;
- The data base of materials containing properties of the strained materials, tools, and data of the lubricants. They should be available for different steel and alloys.

Edge conditions describing the forging process:

- Characteristics of the machine;
- Material: type, temperature, etc., type of lubricating the matrix;
- Duration of transport, break between forging operations;
- Friction conditions;
- Temperature of the tools;
- Geometrical conditions of forging process.

Results of 2D/3D calculations:

#### **FORGING**

- Filling in matrices;
- Optimization of the shape of the charge and metal flowing;
- Optimization of a number of operations;
- Lap and break,
- Placement: temperatures, intensiveness of straining, intensiveness of tensioning, intensiveness of speed of straining, average tensioning.

#### **TOOLS**

- Tensioning;
- Cracking.

### **Absolute conditions for the realization of the order:**



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- guarantee period of computer hardware minimum 24 months of launching at the Ordering Party's place;
- transport of computer hardware and software to the place of their operations indicated by the Ordering Party, assembly and launch on the side of the Supplier
- covering all operating costs connected with the services of a computer post, in the guarantee period by the seller;
- accompanying documentation in Polish;
- admitting the product onto the Polish market;
- CE certificate (ref. to computer hardware);
- Documentation and other manuals in Polish;
- Training employees to operate the programme (training in Polish);
- Messages displayed in Polish;
- Final technical hand-over of the computer hardware and software on details at the Ordering Party's place confirming the correctness declared by the supplier concerning the programme and computer hardware operation;
- Updating of the software during the guarantee included in the price;
- Immediate solution of problems occurring during numerical analysis
- Written guarantee that during the implementation of the system, the procedure of proper transfer of geometry from CAD systems owned by the Ordering Party will be developed

### **Selection criteria of the offer:**

1. Price - 60% (max.60 points)
2. Fast availability of the guarantee service from the moment of reporting the defect of the computer hardware - 5% (max. 5 points)  
Availability on time:
  - 0-48h – 5points
  - 49-60h – 3points
  - 61-72h – 2points
  - 73-84h – 1point
  - 85 and longer – 0 pointIn case of availability of the guarantee service within 48h, the Ordering Party shall grant 5 points to the Supplier. For each extension of the availability period by another 12h, the Ordering Party shall deduct points in accordance with the table;
3. In the period of a license care, the supplier guarantees the provision of an extensive material base, necessary for simulation system, for indicated materials by the Ordering Party – 5% (max. 5 points)  
  
The team of the Ordering Party grants 5 points for fulfilling the condition, and 0 points for failing to meet it
4. Declared time for solving the problems, which will occur during the numerical analysis – 10% (max. 10 points):
  - 1-3 working days – 10points
  - 4-5 working days – 5points





- 6-7 working days – 2points

- 8 and more – 0points

5. Terms of payment - 5% (max. 5 points)

The Ordering Party shall grant the highest number of points in case of an option of wire payment in the following tranches:

Stage I - 15% of the value of the purchase subject within 14 days of signing the agreement, (3 points)

Stage II - 85% of the value of the purchase subject after 60 days of signing the handover protocol by both parties (2 points)

In case of changing the terms of payment for sorter or the percentage values in particular Stages, for each change the Ordering Party shall deduct respectively points in accordance with the points' table above.

6. Realization date of the order - 5% (max. 5 points)

- 0-2 weeks – 5 points

- 2-4 weeks – 3 points

- 4-6 weeks – 1 points

- 7 and more – 0 points

The Ordering Party grants 5 points in case of the realization date to 2 weeks of signing the order within a shorter period of time. Each extension of the date from the expected one means lower score. The points are deducted in accordance with the above diagram.

7. The List of Matrix Forgeries in Poland, in which software was implemented - 10% (max. 10 points)

A number of implemented programmes:

- 5 pcs. or more – 10 points

- 2-5 pcs. – 5 points

- 1 pcs. – 1 points

- 0 pcs. – 0 points

Maximum, the Ordering Party may grant 100 points. The Ordering Party as the best offer, will choose the one, which will obtain the largest number of points in accordance with the abovementioned selection criteria.

**The offer should:**

1. contain all above elements of the enquiry;
2. be attached with a company stamp of the bidder;
3. possess the date of preparing and validity date of the offer (minimum 90 days);
4. possess complete assessment provided in Polish zlotys (PLN) in the net amount;
5. be prepared in Polish\*;



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6. signed by the persons authorized to place an order sent by electronic mail to the address [biuro@fwmosowiec.pl](mailto:biuro@fwmosowiec.pl), or by mail to the address: Fabryka Wyrobów Metalowych Kuźnia „OSOWIEC” Sp. z o.o. ul. Fabryczna 1, 46-023 Osowiec, with an inscription „The offer for the post to numerical analysis of processes”;

**The deadline for placing offers lapses on 30.03.2012 by 2:00 p.m., which means the date of entry of the offer into the seat of the Ordering Party.**

**Contact persons:**

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\* The Ordering Party reserves the right to place offers only in Polish due to the preservation of competitiveness and definite wording of the offers and in order to eliminate potential charges against translations of the offers sent



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