



ARAKO, spol. s r.o.

ATOMEX EUROPE, 25.-26.10.2011, Prague





Agenda

- **Introduction of the Company**
- **Information about Changes at ARAKO**
- Investment Plan
- **Quality System, Nuclear Energy in General**
- **ARAKO as a No. 1 Supplier for NPP Mochovce**





Introduction of the Company

ARAKO company has a reputation that has been built up over five decades of its presence on five continents where first-class industrial valves have been delivered.

Its quality is proved with certificates issued by internationally respected organizations and, above all, it is supported with its ability to produce and supply valves for primary circuits of nuclear power plants all over the world.

Group ATOMENERGOMASH, a.s. based in Moscow is the parent company of ARAKO.





ATOMENERGOMASH



Parent Company of ARAKO s.r.o.

Group Atomenergomash (AEM), machinery division of State Atomic Energy Corporation «Rosatom» – leading nuclear and power generation solutions company in Russia.

AEM is a supplier of effective wide-ranging solutions, including design, production, supply, assembly, engineering and maintenance of equipment for nuclear and thermal power plants as well as for the gas and petrochemical industry.

AEM unites over 40 facilities in Russia, CIS and Eastern Europe with diversified product portfolio and service solutions for power plants.





History

1953 – start of production of industrial valves MINERVA

1976 – first deliveries of valves for nuclear power plants

1980 – 1990 – part of SIGMA Group

1992 – transformation of the company to companies ARAKO, MERKANTA and WITZENMANN (business company OPAVSKÉ ARMATURY, exclusive dealer of products of ARAKO and Merkanta)

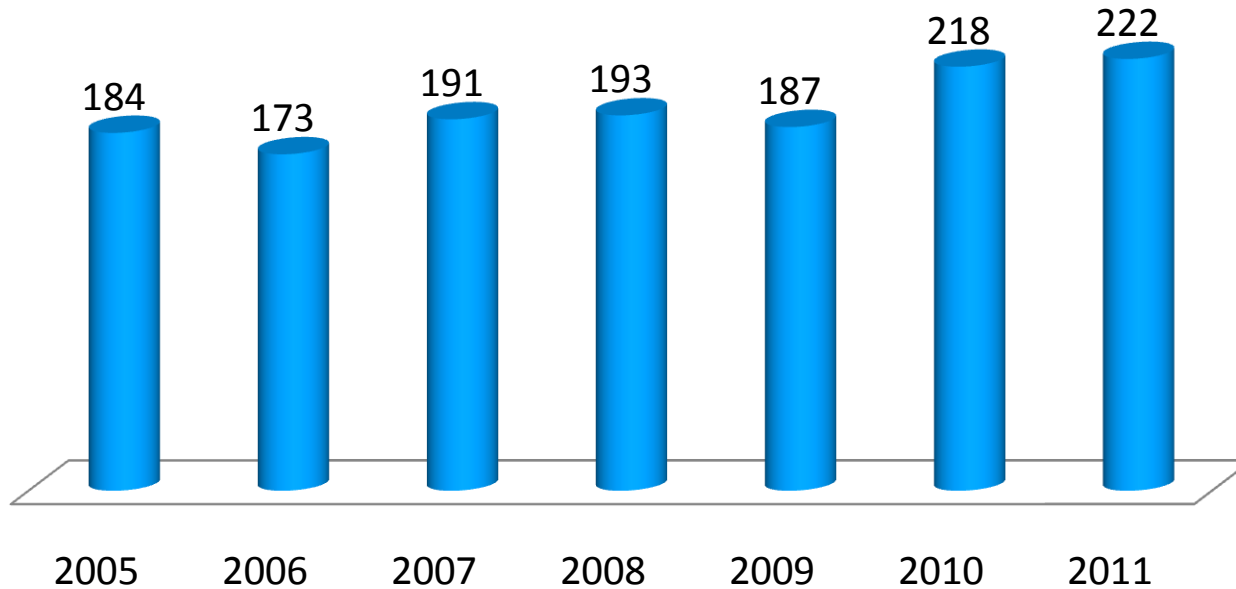
1998 – foundation of ARAKO s. r. o. by joining the companies ARAKO and Opavské armatury

2005 – continuing stable development of ARAKO s.r.o.

2007 – new holder –  atomenergomash, Moscow

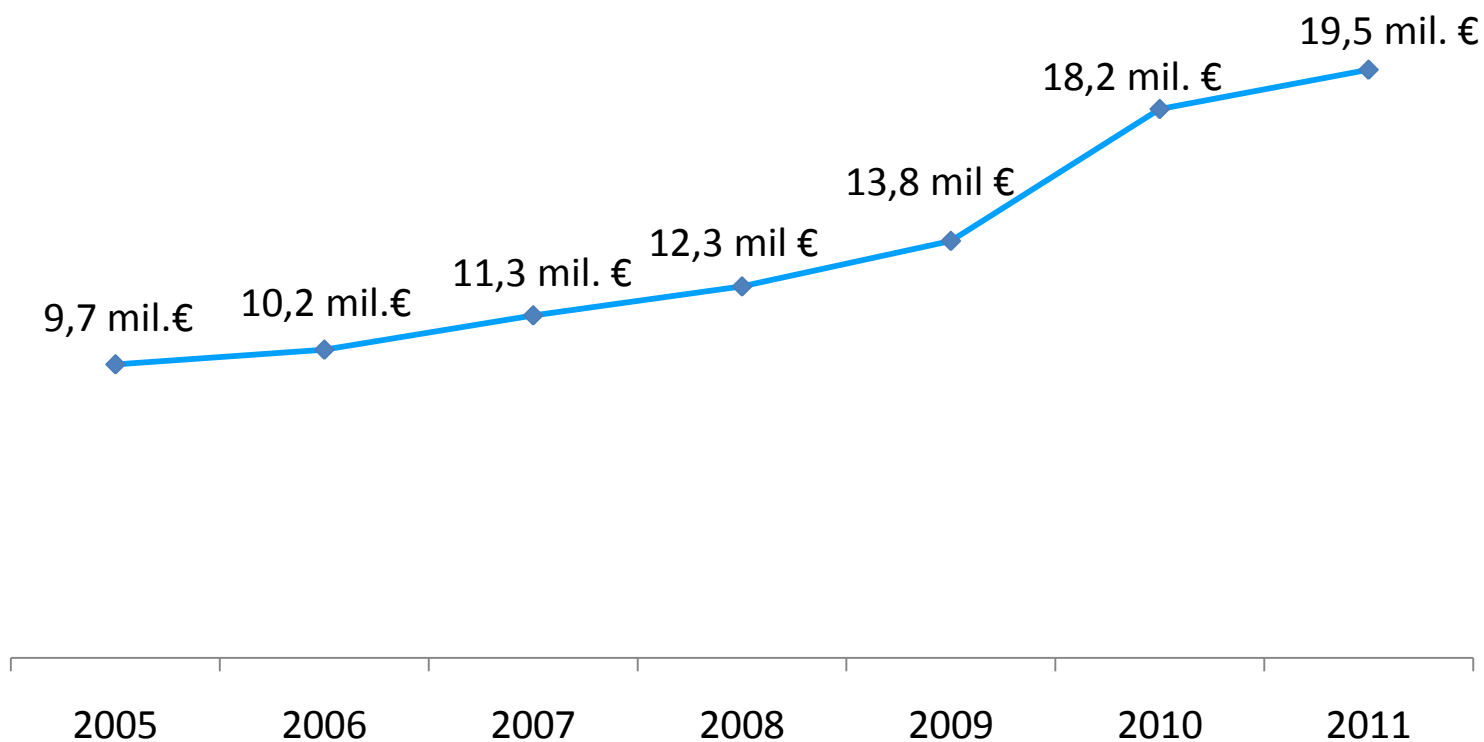


Number of employees





Annual financial turnover





Information about Changes at ARAKO

Investment Plan





AIM OF THE INVESTMENT PLAN

The primary objective is to increase customer satisfaction.

Then:

- to extend production facilities
- with investment in top-class machines to modernize machinery





INVESTMENT PLAN

**The new investment program
- the hugest in the history of the company –
will contribute to achieve the aim.**

- total investment: 157 million CZK (without VAT)
- implementation period: January 2011 - December 2012



INVESTMENT IN TOP-CLASS MACHINES

Machining centres



CNC machine tools



Paint shop



Weld-on machine



EXPECTED BENEFITS FOR CLIENTS

Result:

- almost doubling of production - higher productivity
- shortening of delivery dates
- production of larger diameters

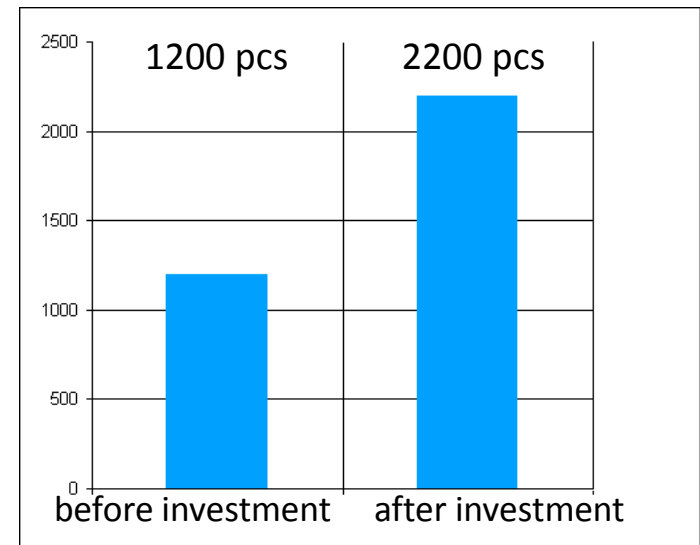
Further:

Using new technologies at quality control leading to minimizing problems during the production process together with reduction of time-demands.

Changing the concept of stock management leading to faster response to customer requirements.

Extension of warehouse spaces.

Production of Arako





ARAKO company still wants to remain faithful to its tradition of 58 years of industrial valves production and with the extended capacity in its new production areas and using new facilities it is ready to produce and deliver valves complying with the strictest criteria in even the most demanding projects.





Extension of our offerings

Services

- **service**
- **consultancy**
- **cooperation of production** – project of machining, welding, painting and heat treatment
- **offering of testing** – destructive and non-destructive

Products

- **ASME valves for nuclear industry**
- **high-pressure gate valves S43**





EXTENSION OF SERVICE OFFERING

Service

In accordance with the strategy of our company there is bigger focus on providing comprehensive services in the field of valves that also include all service operations at customers'. These services are provided for both service of Arako valves and service of other manufacturers' valves.

Maintenance services

- servicing within the Czech Republic or neighbouring European countries, including spare parts delivery
- deliveries of **spare parts** for the production range of ARAKO company or its predecessors
- **diagnostics** – professional assessment of technical condition of valves
- **warranty and post-warranty service** of valves
- **overhauls**





**There is a newly established service - HOTLINE -
that is available 24 hours a day.**

**Nowadays our customer is guaranteed to receive
immediate response from our company in
moments of difficulties.**





Consultancy

1. Consultancy of the sales department – a part of sales services, optimal choice of an appropriate type of valves according to customer criteria
2. Consultancy of the service department – for servicing the valves:
 - recommendation for replacement or modernization of the valves
 - professional training at the customer's or at Arako





Offering of providing destructive and non-destructive testings

Destructive tests:

tensile test: all metals, steel

pressure tests: springs etc.

bending tests: welds, all metal materials

hardness test

Charpy hammer: impact resistance, external effects, use from +20 to -20 ° C
for metals and plastics

chemical composition

calibration of pressure gauges

Non-destructive tests:

X-ray, ultrasonic test, dye-penetrant test, tightness helium test



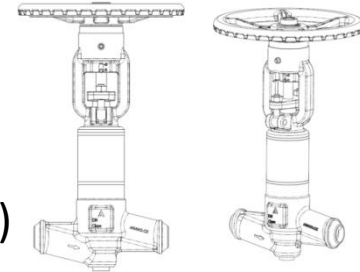
EXTENSION OF PRODUCTS OFFERING

ASME valves for nuclear industry

Totally new range of globe valves for extension of our products offering has been developed: bellow-sealed globe valve with weld-on yoke

The valves will meet ASME standards.

(requirements of QME-1 and ASME Section III, Division 1, Subsection NB)



We are getting ready for the certification of quality management system according to ASME.

We suppose to obtain the certificate in April 2012.

Quality department

QUALITY MANAGEMENT SYSTEM



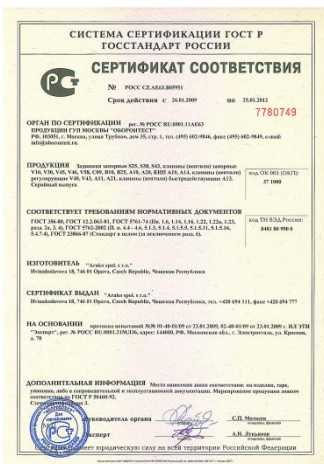
- ISO 9001: 2008
- certification done by TÜV SÜD Management Service
- special emphasis on quality



CERTIFICATES

- ISO 9001:2008
- GOST R
- OIT
- ARAKO is supposed to get certification ASME till the end of April 2012

- Paks Standard KM 57/2003, Hungary
- Approved supplier for:
 - AREVA
 - ČEZ a. s.
 - Slovenské elektrárne, a. s.
 - SES Tlmače
 - Sigma Energoinženýring
 - Škoda Praha Invest
 - Chemcomex Praha a. s.
 - Austrian Energy&Environment





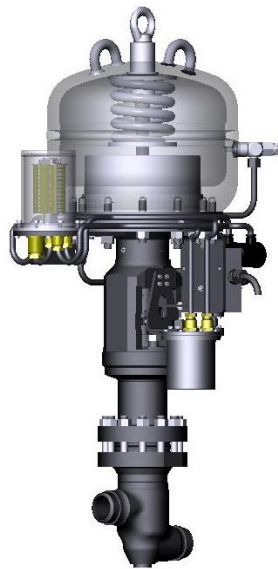
Nuclear energy

More than **250 000** pieces of nuclear valves, above all bellow-sealed globe valves, were developed, produced and delivered in excellent quality for more than 25 nuclear blocks all over the world.



SPECIAL VALVES FOR NUCLEAR ENERGY

Bellow-sealed valves, shut-off and regulating globe valves, quick acting valves with pneumatic actuator or electric actuator, solenoid pilot valves, check valves, regulating ball valves, globe valves KIP, sets of bellows and spare parts also for other producers' valves ...





REFERENCES IN NUCLEAR ENERGY

BULGARIA

Kozloduy (4 x 440 MW), 2 x 1000 MW VVER

1985 – 2010

Belene (2 x 1000 MW VVER)

1987 - 1992...

CZECH REPUBLIC

Dukovany (4 x 440 MW VVER)

1981 – 2010

Temelín (2 x 1000 MW VVER)

1989 – 2010

HUNGARY

Paks (4 x 440 MW VVER)

1984 – 2007...

INDIA

Kudankulam 1, 2 (2 x 1000 MW VVER)

2004 – 2010

Kaiga 3, 4 (4 x 220 MW PHWR)

2004 – 2009

Rajasthan 5, 6 (1 x 100, 1 x 200, 4 x 220 MW PHWR)

2004 – 2009





LITHUANIA

Ignalina (2 x 1500 MW RBMK)

1981 – 2009

RUSSIA

Smolenská (3 x 1000 MW RBMK)

1996 – 2010

Kursk (4 + 1 x 1000 MW RBMK)

1994 – 2008

Novovoronežská (2 x 440, 1 x 1000 MW VVER)

2001 – 2010

Leningradská (4 x 1000 MW RBMK)

2002 – 2010

Kalininská (3 + 1 x 1000 MW VVER)

2003 – 2010

Balakovo (4 x 1000 MW VVER)

2003 – 2009

Kolská (4 x 440 MW VVER)

2005 - 2009

Rostovská (1 + 1 x 1000 MW VVER)

2005 - 2010

(former USSR) delivery via SIGMA-SOJUZGLAVZAGRANATOM...

(1981 – 1992)





SLOVAKIA

Jaslovské Bohunice (4 x 440 MW VVER)

1981 – 2010

Mochovce (2 x 440 MW VVER)

1987 – 2010

UKRAINE

Chmelnická (2 x 1000 MW VVER)

1997 – 2010

Jižní-Ukrajinská (3 x 1000 MW VVER)

1997 – 2009

Rovenská (2 x 440, 2 x 1000 MW VVER)

2001 – 2009

Zaporožská (6 x 1000 MW VVER)

1985 – 2009

In total there were 250 000 pcs of safety classified valves produced and delivered by Arako for NPPs all over the world up to year 2010.





ARAKO: No. 1 supplier of valves



ARAKO: No. 1 supplier of valves for NPP Mochovce

ARAKO company is the key supplier of valves for completion of the third and fourth blocks of the Nuclear power plant Mochovce, a project of Slovenské Elektrárne, a.s.

Financial volume of supplies will exceed 20 million EUR, is 480 million CZK.

It is our largest and at the same time geographically closest Contract.

Arako got the project primarily thanks to its references and also because of its position of a supplier for local NPPs Dukovany and Temelín. In addition, Arako could guarantee that there would be special regulating bellow-sealed valves custom-designed and delivered to meet the specific parameters of Mochovce NPP.



For increased qualification and safety requirements for higher parameters there were design and check calculations delivered by Arako and relevant tests were performed by Nuclear Research Institute in Řež. The extent of documentation and its approval procedures were also exceptional.

New coating systems of the valves with improved strength and decontamination properties and better thermal resistance create an icing on the cake.

At the same time there is a need for colour differentiation of various pipe systems including valves in new blocks of nuclear power plants.





Thank you for your attention

