KURGAN TERRITORIAL-SECTORAL COMPLEX

“NEW TECHNOLOGIES OF ARMATURE ENGINEERING”
**Industrial cluster** – community of coordinators of an activity in a sphere of industry connected by relations in defined sphere due to territorial closeness and functional dependency and also located on the territory of a entity or entities of the Russian Federation (p. 13 a. of 3 Federal act “About industrial politics in the Russian Federation”)

**Armature industrial pipeline** – equipments, installed on pipelines and capacities that use for management (disconnection, allocation, regulation, inlet or escape, mixing, phase separation or dump) steams of flow directions.

(Shpakov O.N. Pipeline armature. Guide of specialist, Moscow.: Professional, 2014)

**History**

Decision of foundation of “Kurgan armature plant” (then OJSC “IKAR KPPA”- Kurgan plant pipeline armature) by Statement of the Council of Ministers of USSR № 3810 “About increase of capacities of industrial armature production”. In December of 1954 Kurgan plant was brought into operation.
From the beginning of its existence the plant was intended output of armature for thermal power, communal services and irrigation. In 1967 the plant began to produce armature for chemical industry and nuclear power plants. In the end of seventies the plant issued 55% of all volume of armature, produced in USSR.

In 1993 the plant began to reorient for release of armature for oil and gas industry. In 1968 one more plant was founded in Kurgan - Plant of shipping armature (then OJSC “JSC “KORVET”).

**Nowadays.**

Kurgan is an engineering city. B Several armament plants were evacuated to Kurgan during World War II, high qualified specialists came here.

Kurgan is situated in unique location from viewpoint of closeness of raw materials and stockpiling base: Ural metallurgy industry and the most of the properties of hydrocarbon.

Kurgan region fill one of the key place in the Russian Federation due to the production of pipe valves and hand-held devices. At the present day on the territory of region more than 20 armature enterprises work extensively, some of them release successfully pipe valves more than 50 years, during last years it is the most perspective and highly developing industrial sector.

Together with major plants was formed number of enterprises that release associated goods (flanges, hardware, shims, reduction valve) in that way formed stable industrial cluster.

Cluster “New technologies of armature engineering” has a goal to open up new kinds of innovative pipe valves, because the most of cluster enterprises is new, modern enterprises that were built during the last 5-7 years and have good potential for the further development.

**Cluster mission:**

Increase of volume of knowledge – consumptive, import-substituting competitive products – pipeline armature at the enterprises of Kurgan region.

**Central purposes of development of KTSC:**
- Increase of economical efficiency and competitiveness of KTSC enterprises.
- Increase of proportion of knowledge-consumptive, import-substituting competitive products in total volume of product, that release of industrial enterprises of Kurgan region.
- Increase of export delivery volume.
- Active involvement of KTSC enterprises in formation of staff training and retraining system in unprofitable engineering professions on base of Kurgan higher, secondary and secondary specialized colleges.

**Perspectives of cluster development:**

Increase of production of knowledge-consumptive, import-substituting competitive products for supply on enterprises of strategic real sectors of native economics - nuclear and thermal power, oil and gas extraction and chemical industry.

Methodic accompaniment of development and realization of service functions for participants realizes cluster management company:

**NPP (non-profit partnership) “Centre of cluster development of Kurgan region”**

[www.innovation45.ru](http://www.innovation45.ru)

**+7 (3522) 600-120**

**Kurgan armature cluster**

Memorandum of participation in the cluster are members of the cluster.

Highest management body of the cluster – **Coordinative Council** that consist of heads of enterprises-participants.

Among them are:

Kkokorin Alexey Gennadievich

Governor of Kurgan region, chairman of Coordinative Council of the cluster
OJSC “JSC “KORVET”

«Korvet» - large-scale manufacturing enterprise with number of staff about 3 thousand of people. They have a license of American Petroleum Institute (API) for the right of release of wellhead equipment due to specification API Spec 6A, pipeline armature due to specification API Spec 6D, sucker-rod pump equipment due to specification API Spec 11B. OJSC “JSC “KORVET” has code certificate of national standards and technical guidelines of Russia, permission of Federal service for Ecological, Technological and Atomic Supervision for all released equipment.

Primary groups of output product:

- Wellhead equipment for oil well and gas pumps
- Pipeline armature
- Pipeline industrial armature on mediums (steam, liquid, gas)
- Manifolds of flowing wellhead armature, armature blocks infrastructure development of oil fields
- Capacitive equipment
- Hydraulic power unit
- Conjunctions of pipeline
- Fire protection equipment

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http://korvet-jsc.ru
CJSC “Kurganspecarmatura”

It is an enterprise that is oriented to release of wide variety pipeline armature from carbonic, low-alloyed and stainless steel with nominal inside diameter 6...600 mm and nominal pressure ... 400 KgF/cm (Kilogram-force-meter). Product is supplied to large-scale enterprises of oil and gas extraction and processing sector, nuclear and thermal power, chemical and ore mining industry.

The enterprise has plant central laboratory fitted with equipment for study management of mechanical features and spectral analyses of steels, X-ray diffraction, ultrasound, capillary and magnetic particle inspection, and control with ferrit meter, and so on, and also a laboratory of resource and complex probations of pipeline armature.

It is one of the youngest armature enterprise in Russia got a license of Federal service for Ecological, Technological and Atomic Supervision of Russia for production of equipment for nuclear and storage facilities.

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http://emk.ru
CJSC “Enterprise Sensor”

The company was established in 1992 year. Total number of staff is 350 people, among them doctors and candidates of sciences. There are more than 170 product consumers in Russia and abroad. The enterprise has its own high technologies in field of armature engineering and oil manufacturing.

The company works according to ISO 9001-2008 and has a certificate of quality management system. Basic product groups:

- Pipeline armature;
- Petroleum field equipment and components;
- Flanges and flange bolting

The enterprise uses unique technologies that provide high operational characteristics of pipeline armature and oil and gas equipment:

- production of basic parts for single pass at machining centers;
- patent finish technology of nanostructural smoothing for strengthening of details sealing surfaces;
- highly-productive technology of formation of screwed and special sections of surface with the method of plastic deformation.

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http://sensor.kurgan.ru
LLC RPF "MKT-ASDM"

Research and production firm “MKT-ASDM” is specialized on development of modern constructions of oil and gas equipment. One of the directions of firm activity is development and production pipeline valves especially shutoff-regulating and shutoff facilities.

The firm executes the complex of works, included:

- design and production of oil and gas equipment, issue of engineering recommendations;
- author supervision during installation work, start-up and set-up operations and support service of objects.
- actuation medium: water, water, gas and oil mixtures, casing-head and natural gas, oil, liquid and gaseous oil-products.

Today more than 60 patent inventions about construction of shutoff-regulating and shutoff armature are intellectual property of the firm.

LLC RPF ”MKT-ASDM”, produces as serial product so special pipeline valves due to individual order oriented to consumer need.

+7 (3522) 65-50-30
http://mkt-asdm.ru
LLC “RTMT” was founded in 2003 as commercial officer of OJSC “IKAR” Kurgan plant of pipeline valves armature.

In 2012 year serial production of pipeline armature was organized.

The volume of output makes more than 6000 units of output in a month. Audits of production were held by the representatives of OJSC “Gazprom”, OJSC “Oil Company Rosneft”.

The enterprise developed and introduced a system of “control of product iniqueness” – the system of bar-coding. The system provides the whole traceability of production in production process from subproducts to a final good and allows reconstructing the whole history of the concrete products release on any phase of armature life cycle.

LLC “RTMT” has an opportunity of development and production of goods due to extra requirements of customers. Assimilation of new goods is performed constantly. Nowadays preparation to production of preventive and cryogenic armature is performed.

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http://rtmt.ru
LLC “ARMTECHSTROY”

LLC “Armtechstroy” – modern dynamic developing enterprise that more than 10 years specializes on output pipeline armature for need of oil and gas industry (processing and recovering).

Product nomenclature includes wide variety of pipeline armature, among them shutoff armature of high pressure of different climatic category and armature for aggressive medium.

The organization is not only a producer but also developer of construction of released armature and considers that its priority area is introduction of innovative inventions in creation and serial output of pipeline armature.

Design, development and production of goods are performed by high qualified specialists that have work experience in field of manufacturing technologies and special knowledge’s in metallurgy, methods of production and control quality procedures. Number of utility models and inventions were patented by engineers of LLC “Armtechstroy” that is important contribution in a constant development.

+ 7 (3522) 60 10 53
http://armtechstroy.ru
LLC «Kurgan armature plant»

LLC “Kurgan armature plant” is dynamic developing client-centered manufacturing enterprise with constant perfective system of business-processes.

Quality management system with regard to development, production and sale of pipeline armature, design of goods due to requirements of consumer is certificated according to requirements of State standard ISO 9001-2011 (ISO 9001:2008) (registry № Ross RU.FK30.K00094 от 07.07.2014)

LLC “Kurgan armature plant” specializes in serial production of listed below shutoff armature:

- shutoff straight-way valves;
- shutoff straight-way needle valves;
- backpressure valves;
- taper-seat valves (TSV)

It is possible to produce due to design and a special requirement of consumer that is differs from the serial one additionally.

+7 (3522) 44-69-77
http://kurgan-armatura.ru
Ball valves TEMPER are used for installation on pipe lines of central heat supply and gas-transport system.

Advantages of valves TEMPER:

- Conjunctive sizes suit to Russian standards
  Powder painting creates extra anticorrosion protection
- Long service life is examined by numerous tests and operation experience
- Longish neck allows easily isolate from heat the ball and doesn’t require attendance, lift, grease
- Maximum class of hermeticity in all diapason operative temperature
- Valves DN125 and higher automatically completed with flange for installation of reduction valve

The plant “Temper” is situated in the city Kurgan on the territory more than 2.7 ha. Manufacturing area is 3500 m². Equipment stock estimates more than 50 equipment items. Number of staff is more than 100 people. Manufacturing opportunities of the enterprise allow producing 25000 of valves per month.

+7 (3522) 22-88-88
http://temper.ru/
One of the direction of enterprise activity is development and production of **pipeline armature especially shutoff-regulating and shutoff equipments** and also oil-pumping station.

Today the enterprise developed, organized and produces:

- taper-seat valves (MNG20);
- shutoff straight-way valves;
- backpressure valves (MNG11), used for automatic prevention of back current of processing medium on pipelines for water, steam, hydrocarbon and their mixtures;
- oil-pumping stations (MS-2-MNG), used for complement of greasing system of high-lift pump equipment for providing quality and long work of bearing hydraulic and electric parts of basic forcing pumps used at water booster pore pressure system;
- ball valves (MNG30, MNG31), used for installation as shutoff equipments on linear pipeline portion and equipment of oil and gas industry.

+ 7 (3522)65-61-61
LLC “Plant of mechanical processing”

LLC “Plant of mechanical processing” was founded in 2010 and now it is a younger, dynamic developing enterprise.

The plant specializes on output:
- handle gears for pipeline armature management,
- power takeoff attachment,
- details of transmission of road-building and special techniques.

The enterprise collaborates with the plants: OJSC “JSC “KORVET”, OJSC “Armagus”, CJSC “Specarmatura”, LLC RPF "MKT-ASDM”, CJSC “Tulaelectroprivod”, and also JSC “Blagoveshchensk armature plant”.

Due to the program of import substitution in 2014 were developed and organized reduction valves for ball valves forcefully 8000, 16000 и 32000 n/m.

Flexible system of pricing allows increasing the production in hard crisis times. The enterprise is developing; high-technology equipment is buying. The quality of output production becomes better.

+7 (3522) 44 90 96
LLC “Delta-technologia”

LLC “Delta technologia” was founded in 1996 and has its own manufacturing areas and equipment stock more than 80 units. Machine tools with NC and CAD/CAM-systems are widely used in production системы.

**Instrument production:**
- pressing tool:
- pattern equipment:
- stamping tool:
- production tooling:

**Mechanical assembly production:**
- goods of electric prescription
- goods for gas producing industry

**Filter-dryer in different climatic conditions**

**Components, metal wares**

Production of **goods from polyamides, polypropylenes, polystyrols, ABS-plastics.**

All the goods has quality control that confirmed by quality certificates, measurement protocols, datasheets.

+7 (35253) 5 08 77

http://delta-grup.ru
OJSC “Kurganselmash”

Since 2011 year the enterprise began to diversify production and to produce cast sections that used in different manufacturing sectors. Production of cast sections for pipeline armature, energetic mechanic engineering, road and municipal equipment, mill equipment and others is organized.

OJSC “Kurganselmash” is differed wide assortment of output goods and services rendered:

- goods and services of foundry
- goods and services of extrusions
- goods and services of blank production
- goods and services of welding engineering
- goods and services of machining production
- goods and services of metal and paint and varnish covers
- details from plastic and rubber
- pumps and pump sets
- agricultural machines for milk husbandry

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LLC PCE “Tehnomash”

LLC PCE “Tehnomash” was founded 24.04.2006 year, main subject of enterprise activity is production of spare parts for oil and gas complex, goods of common machinery engineering appropriation and consumer products.

The enterprise has or rented the technological productions: mechanical processing; welding; painting, assembling. The enterprise has qualified engineering and worker staff of machine manufacturing.

Sphere of activity:
- machines for complex recovery of isolation of oil and gas pipelines.
- spare parts and supplies for machines of oil and gas bearing complex.
- spare parts for multipurpose municipal engineering machine.
- production of substandard equipment.
- fences from stainless steel, covered by titanium nitride.
- decorative fences.
- satellite monitoring of equipment and transport, installation of tachografs.

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http://tehnomash45.ru
LLC “Plant of non-ferrous castings”

The enterprise specializes in production of goods from base metals and steels.

Technological process at the enterprise includes the whole cycle of goods production. There is own tool maintenance that is implemented modern manufacturing equipment that allows supplying needs in gear totally.

At the basic area of casting there is a production of moulding for basic goods and also components to them under pressure. There is modern equipment: casting machines under pressure with hot and cold pressure chambers. Machines are automatic totally, are configured by removers of mouldings, transporters of delivery of mouldings and cooling.

Technological opportunities of the plant don’t limit the production of door furniture. It produces mouldings from base metal particularly of all difficulty, to produce mechanical processing and apply goods by protective and decorative cover.

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http://zcl.su
LLC "PRODUCTION ENTERPRISE INSTRUMENT"

The company attends complex supplies of tools, electronic and electric equipment, and equipment of telecommunication in Ural district successfully.

Individual attention to every consumer allows us to find the most effective schemes of collaboration.

The company oriented to individual attention to every client, paying on a phased basis, permanent price after the formation of contract.

- individual attention
- consultation for questions of tools
- reasonable amount of tie for supply
- compliance with all guarantee obligations

LLC “KVARK”

The enterprise “KVARK” since 2005 conducts business in sector of armature engineering of the Russian Federation, in part of production of components to pipeline armature (hand gears for pipeline armature management, metal shims for flange conjunctions of armature, adapters that provide conjunction and delivery rolling torque between pipeline armature and operating gear and other goods).

In the asset of “KVARK” there is a large equipment stock (more than 70 units of machine engineering equipment), three manufacturing areas (total square not less than 7000 square meters). Staff of the enterprise is 97 accounts 97 people; middle employment period in machine manufacturing per one worker is 15 years.

There is a quality management system fitted requirements National Standard ISO 9001-2011 (ISO 9001:2008) in LLC “KVARK”.

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Kurgan State University

Kurgan State University is one of the leading educational centers of Zauralie that prepares engineering staff. In the frame of competition “Staff for the region” the university presented the project “Engineering staff of Zauralie” and joined the rank of 14 institutes-winners.

In 2013 year on base of the university was founded Regional youth center of innovative creation, it’s the first and yet the single in Ural district. It is a laboratory for technical creation of XXI century, where tools of “classical work shop” changed to the most progressive and technologically perfect equipment.

Since 2015 year there is a Master program “Computing engineering automation in armature engineering”. Purposeful staff form the enterprises of cluster studies here.

+7 (3522) 43 26 52  
http://www.kgsu.ru
Kurgan industrial college

It is an educational institute in which there are conditions for modernization by means of orientation to market requirement, implementation of innovative educational technologies, intensification of cooperation with employees, realization of monitoring on educational and labor markets, development of material and technical resources.

The college has a branch and two departments of Metal working, Informatization and service in different buildings. Cabinets and laboratories organized by modern techniques are widely used in academic activity.

In September 2013 on base of Kurgan industrial college the new structural department was founded: Multifunctional centre of applicative qualifications. It works in a sphere of training, retraining and personnel development that are requested on labor market of Kurgan region.

During the years of its existence the college prepared more than 10 thousands of specialists of middle position and qualified workers.

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http://kpt-kurgan.ru
Science-industrial association of armature engineers

Science-industrial association of armature engineers (SIAAE) was founded in 1990 year and now it is a member of European committee of armature engineering (CEIR), Chamber of commerce and industry of the Russian federation and Labor Code 259 «Pipeline armature and bellows». Association combines more than 60 leading constructors, producers and suppliers of pipeline armature and gears from Russia, Ukraine, Kazakhstan and Italy.

Spheres of activity:

- coordination of enterprises’ activity of the sector and protection of their interests in public authorities;
- organization of technical regulation works in armature engineering;
- marketing research and economical analyses of armature engineering;
- interdiction of expansion of falsified armature and gears;
- organization of seminars and conferences;
- forums and exhibition activity.

Media-group ARMTORG

Portal of pipeline armature ARMTORG.RU – is the biggest sectoral resource in industrial armature in Europe, Asia and CIS. Permanent readers and visitors are leading specialist of the sector and also producers of pipeline armature, designers, institutes, engineering companies and a number of investments companies.

One of priority direction of the portal is a work with final consumers and enterprises-producers. Technical representatives of such companies can consult consumers on-line practically for all questions connected with operation and use of output product.

In 2012 there was new and widely known project – journal about pipeline armature “Messenger of benders” that has the most actual and valued information.

http://armtorg.ru
http://armavest.ru