



OJSC «BSW – MANAGEMENT COMPANY OF «BMC» HOLDING





Founded: 15 October 1984

For 2016r.

Revenue: around USD \$ 897 mln

- Production of steel:** 2,2 mln.tonnes
- Production of long products:** : 2,1 th.tonnes
- Production of seamless pipes:** : 83 th.tonnes
- Production of steel cord:** : 90 th.tonnes
- Production of wire:** 281 th.tonnes



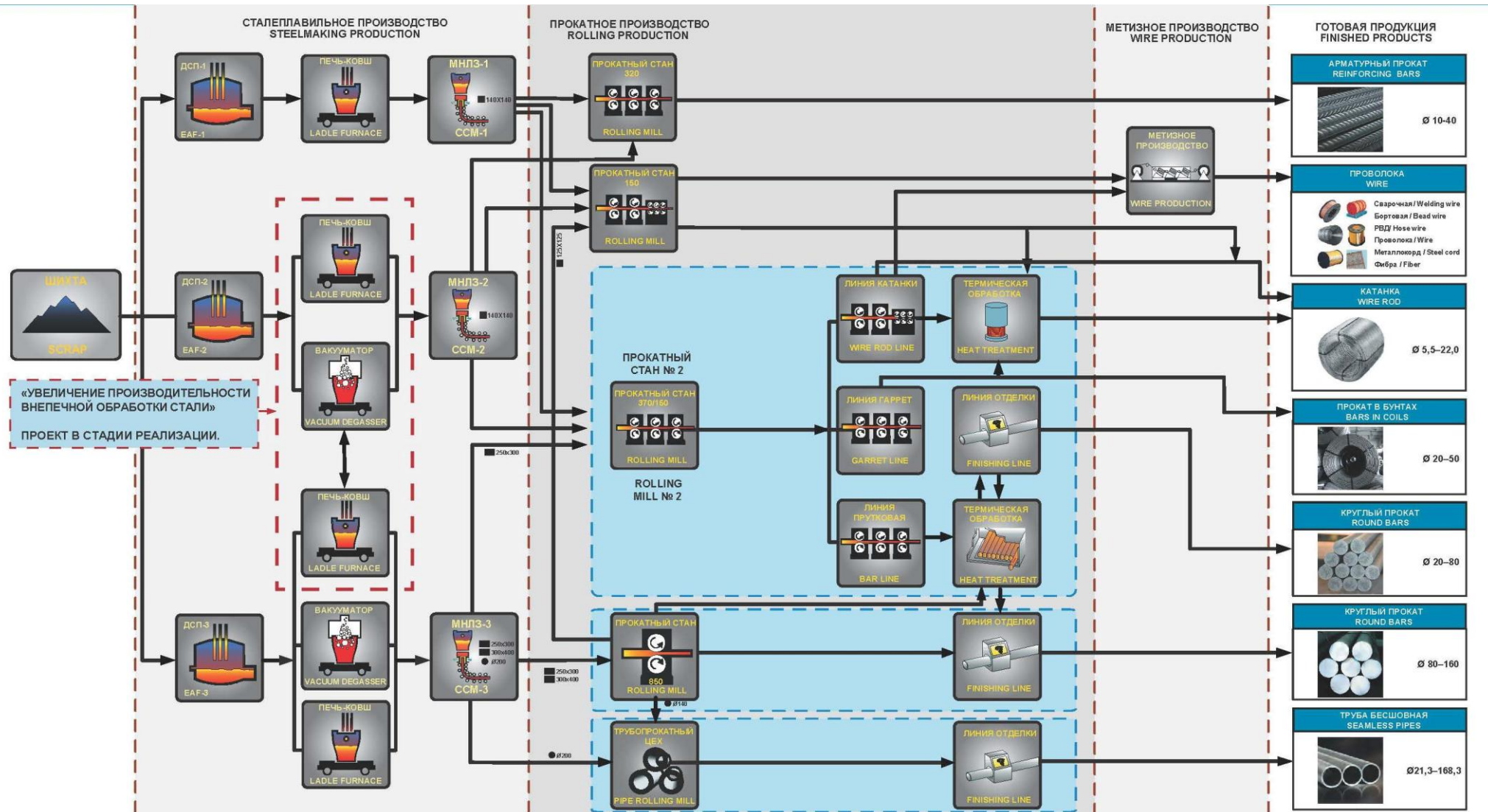
Employees: ~ 11 500

For 8 m 2017r.

Revenue: around USD \$ 733 mln

- Production of steel:** 1 475 th.tonnes
- Production of long products:** : 1 398 th.tonnes
- Production of seamless pipes:** : 89 th.tonnes
- Production of steel cord:** : 63 th.tonnes
- Production of wire:** 212 th.tonnes

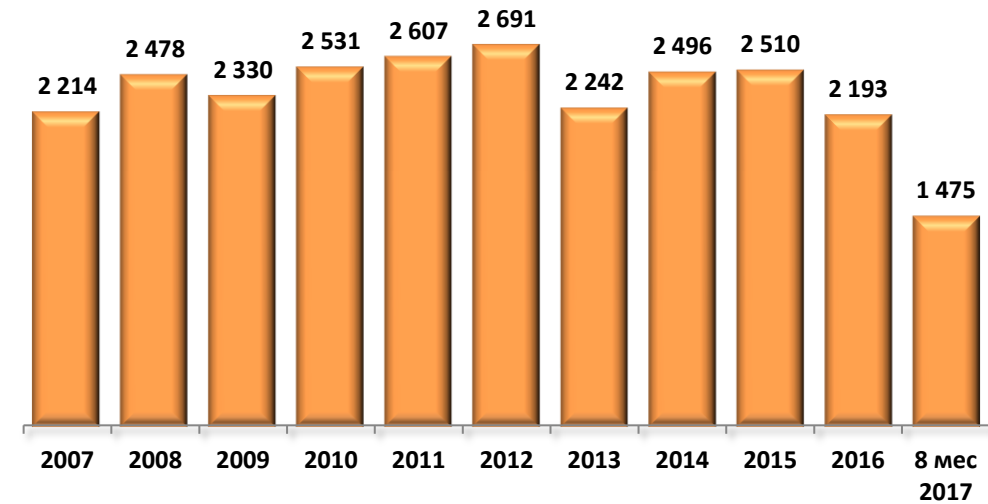
TECHNOLOGICAL FLOWCHART



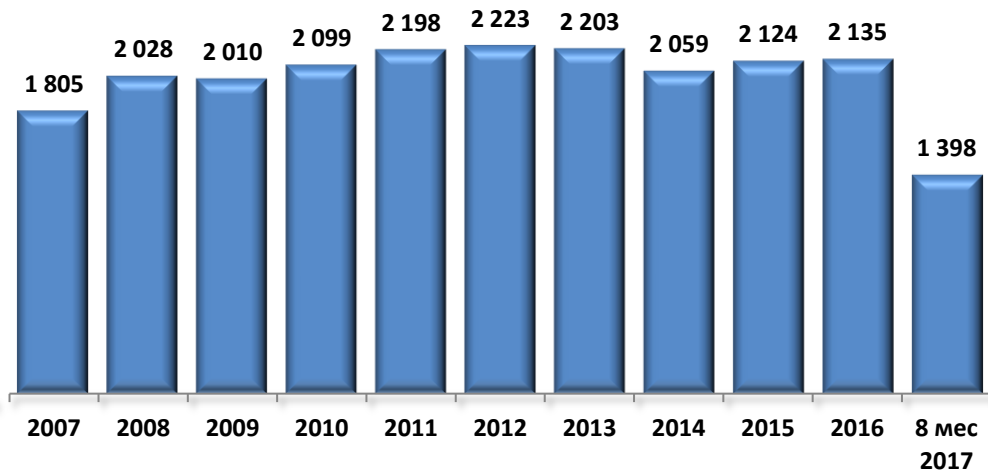
PRODUCTION PERFORMANCE



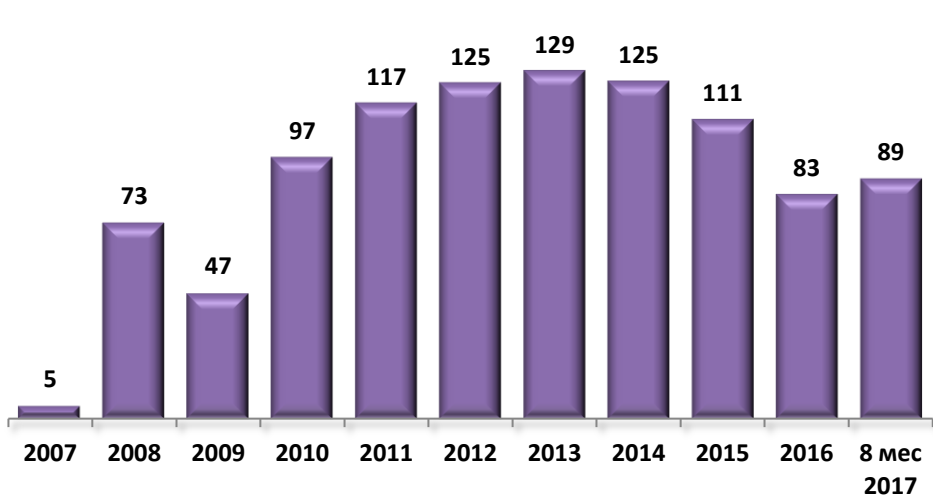
Steel melting, thou. t.



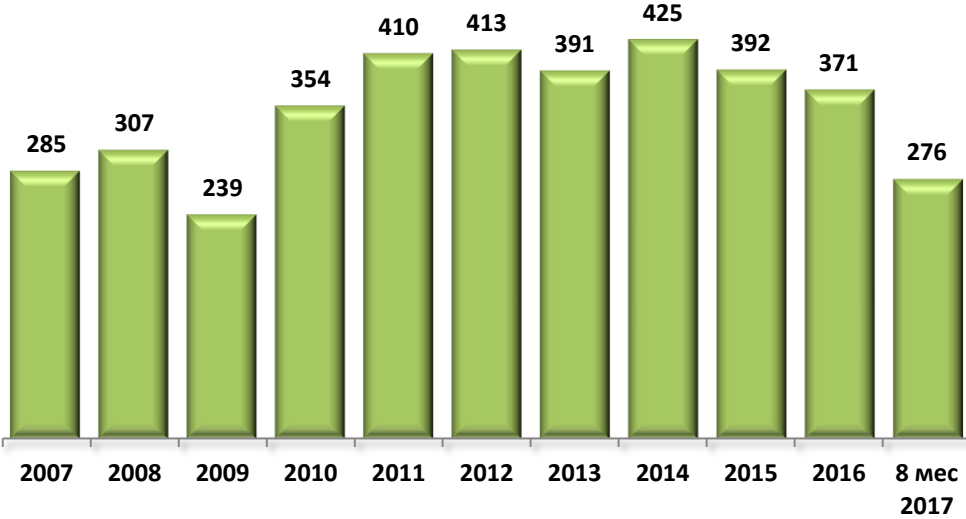
Production of rolled products, thou. t.

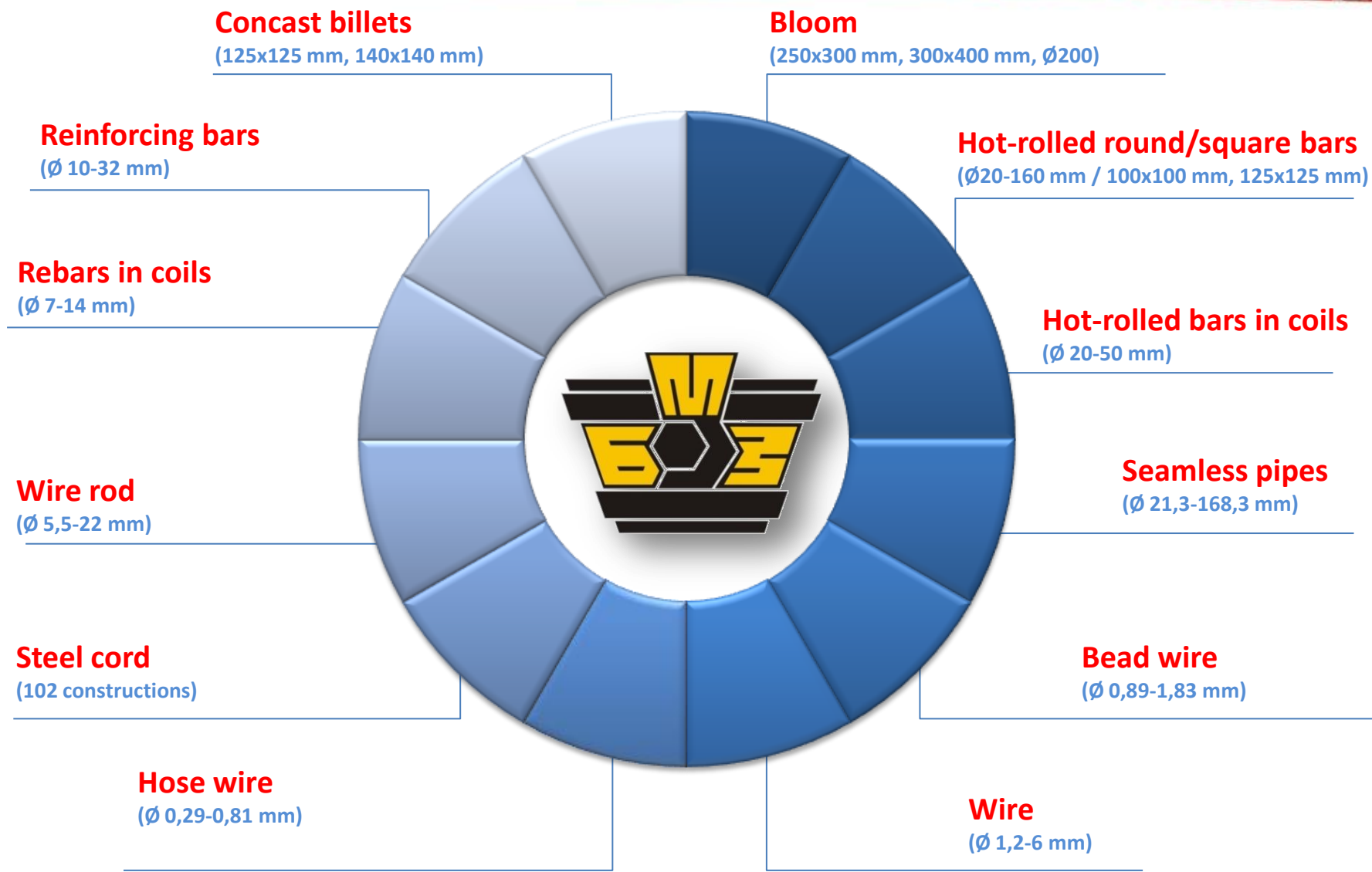


Production of pipes, thou. t.

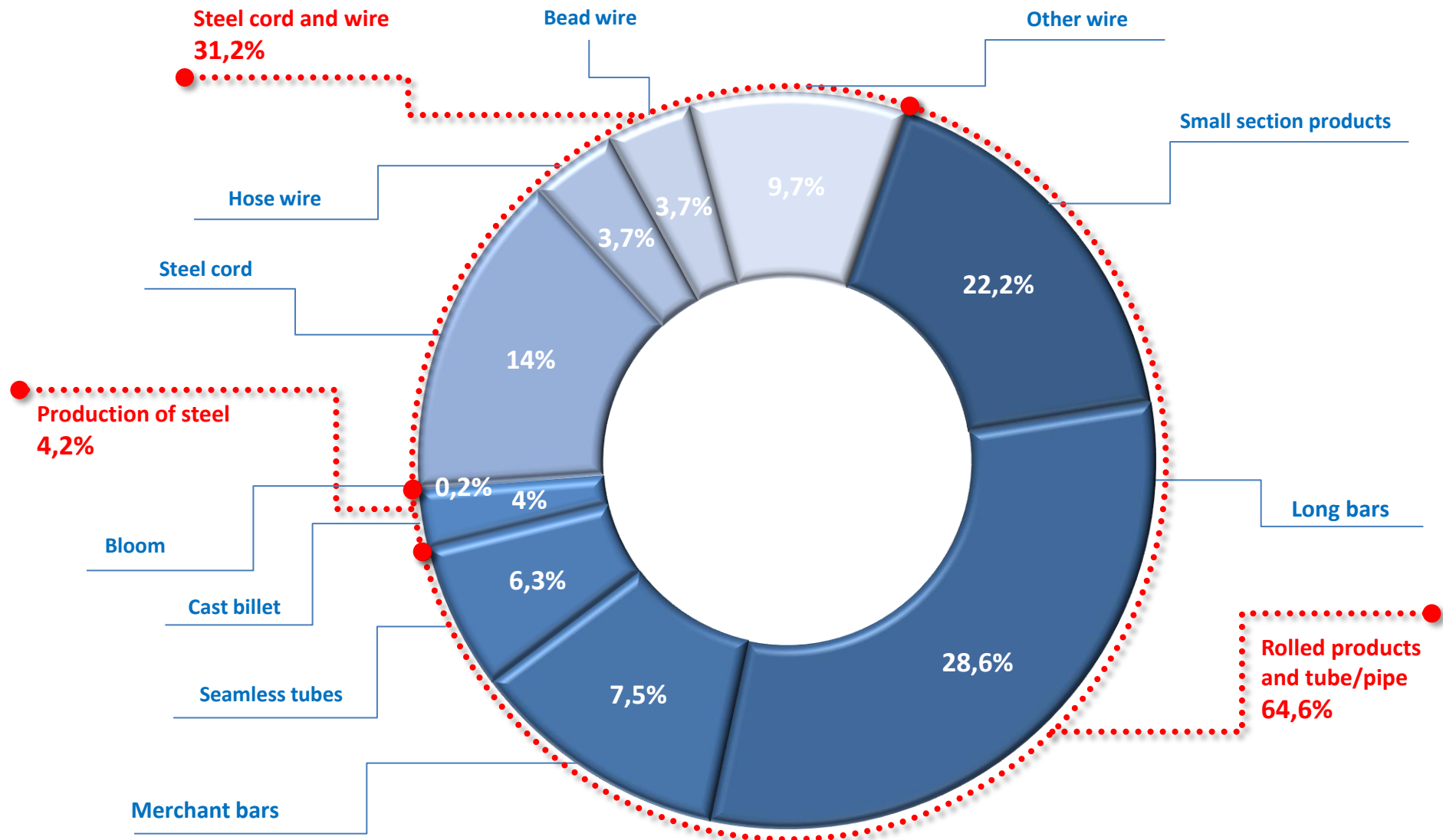


Production of steel cord & wire products, thou. t.

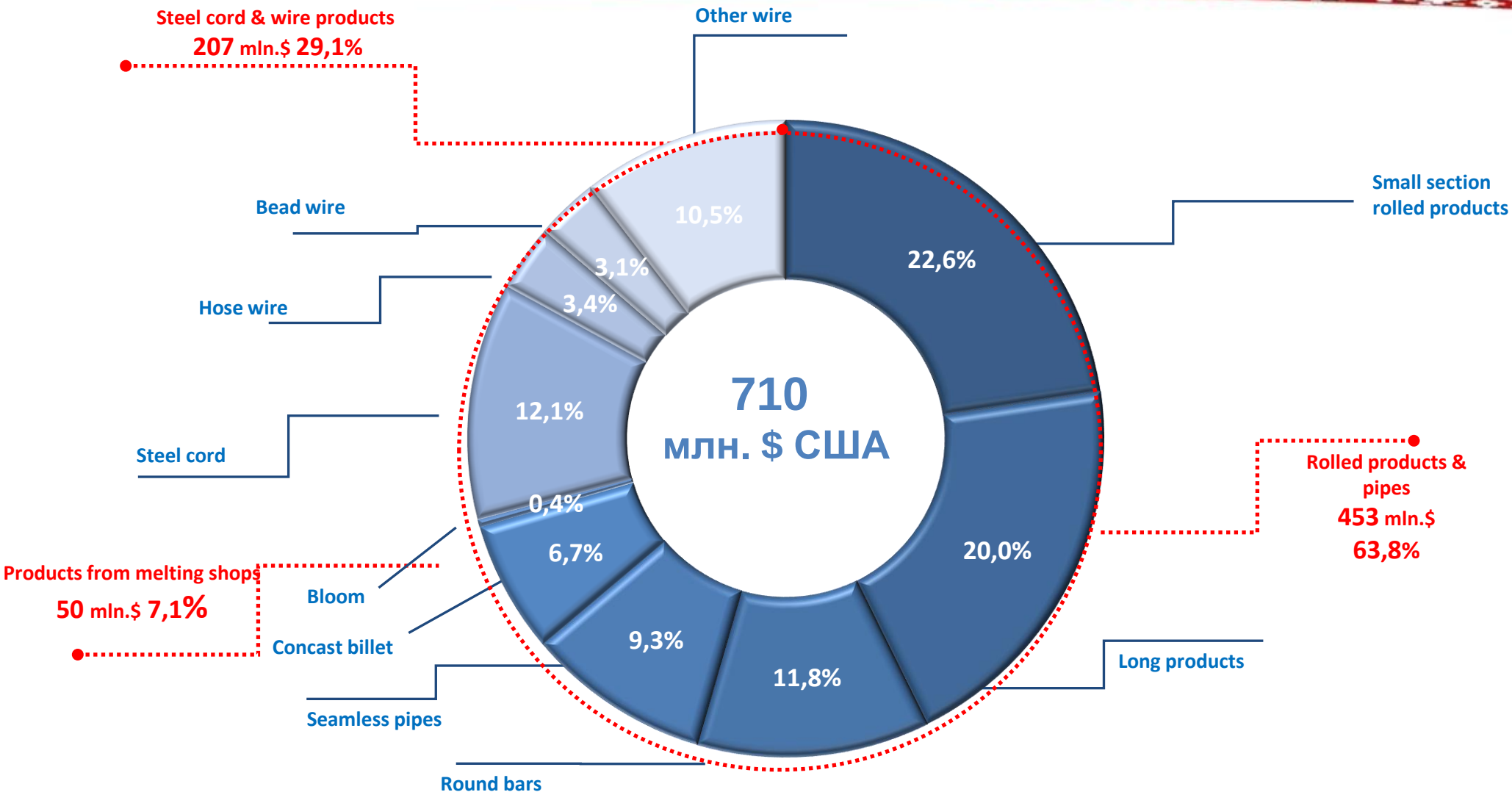




SALES 2016 BY PRODUCTS

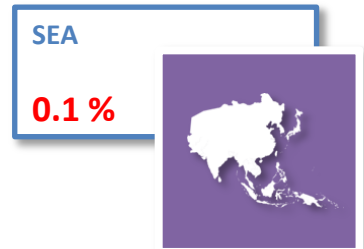
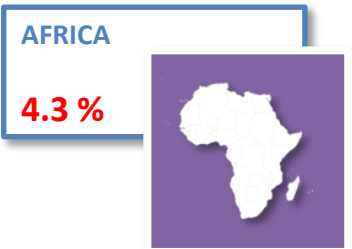
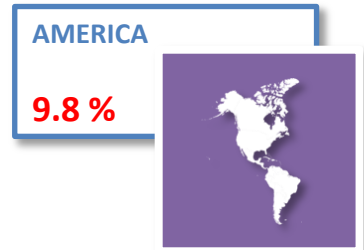
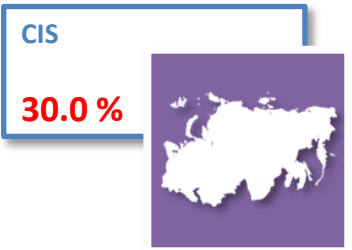
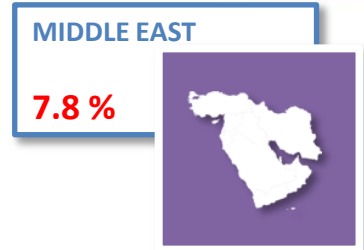
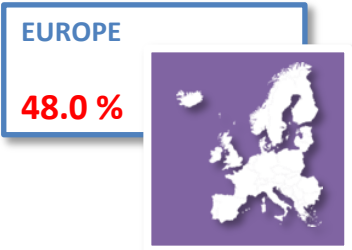


SALES OF PRODUCTS BY TYPES OVER 8 MONTHS 2017



MARKETS AND CUSTOMER SEGMENTS 2016

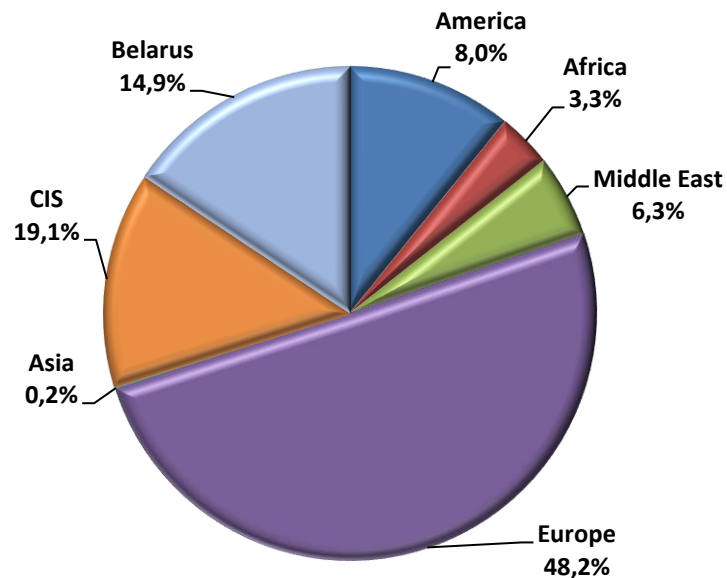
in quantitative terms, t



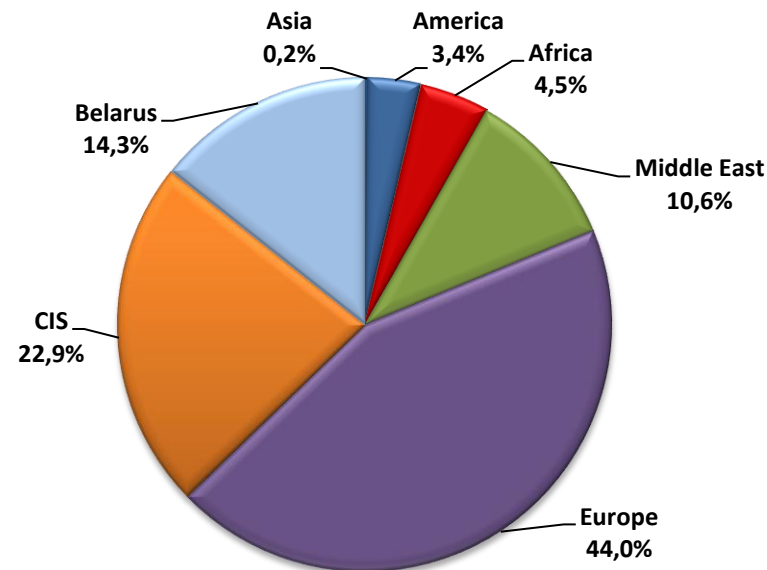
GEOGRAPHIC SCOPE IN 2016 – 8 MONTHS 2017, IN TERMS OF VALUE, %



2016



8 months 2017



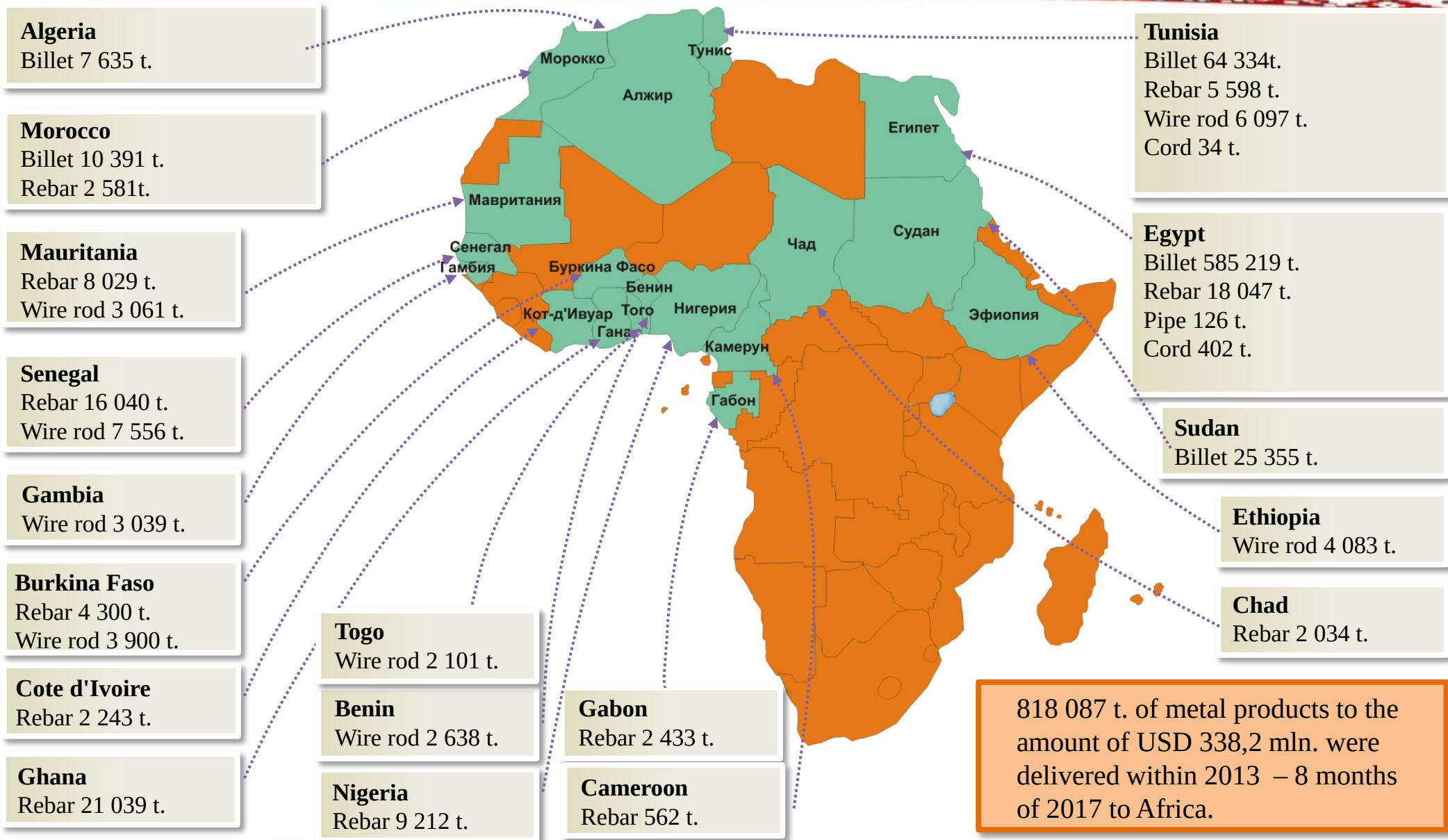
In 2015 BMZ supplied its products to more than **56** countries.

Within 2016 BSW supplied its products to more than **52** countries.

Since its establishment BSW have sold its products to **115** countries all over the world.



Delivery history of 5 recent years 2013 to 8 months of 2017



818 087 t. of metal products to the amount of USD 338,2 mln. were delivered within 2013 – 8 months of 2017 to Africa.

Deliveries over 8 months of 2017



Mauritania

Rebar 2 431 t. to the amount of USD 943,1 thou.
Wire rod 3 061t. to the amount of USD 1 255,1 thou.

Egypt

Concast billet
USD 44 546 t. 14 547,7 thou.
Cord 234 t. to the amount of 283,1 thou.

Senegal

Wire rod 3 379 t. to the amount of USD 1 503,8 thou.

Burkina Faso

Wire rod 3 800 t.

Benin

Wire rod 2 550 t.

Togo

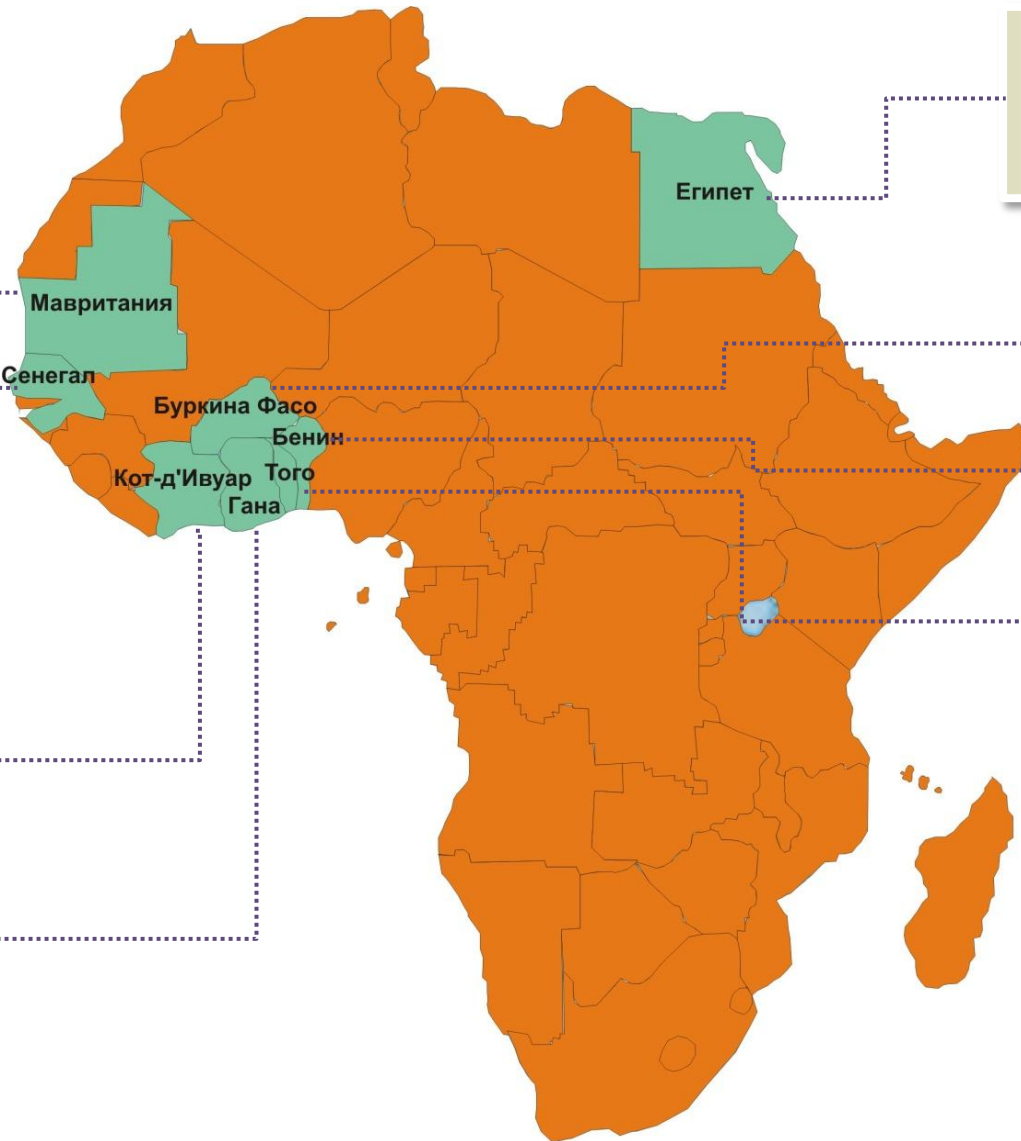
Wire rod 2 000 t.

Cote d'Ivoire

Rebar 781 t. to the amount of USD 324,3 thou.

Ghana

Rebar 2 527 t. to the amount of USD 1 048,5 thou.



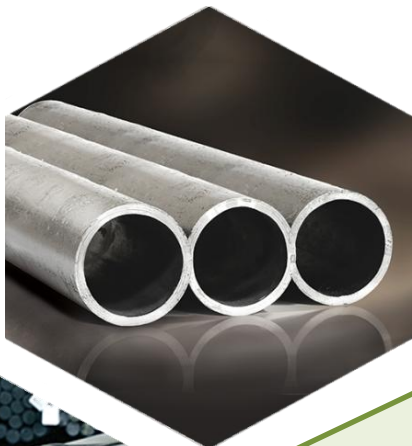
8 months of 2017

89 916 t. delivered to the amount of USD 32 272,6 thou.:
-concast billet 68 486 t. (51,0% of total dispatch of this type);
-rebar 6 078 t. (1,7%);
- wire rod 15 079 t. (1,6%);
- cord 273 t. (0,4%).

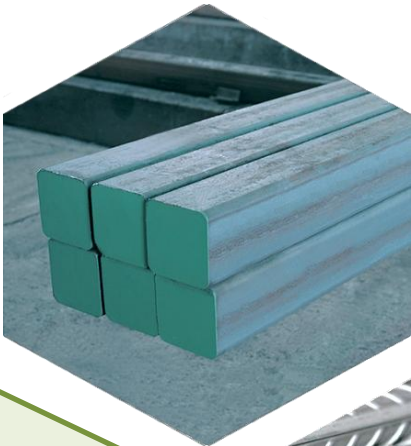
OUR TARGET IS TO SELL TOP QUALITY STEEL PRODUCTS IN THE MARKET OF AFRICAN COUNTRIES



Seamless pipes



Concast billet



Round bars Ø 80-160



**Our target is
to sell
top quality
steel products**

Rebar



Round bars Ø 20-80



Wire rod Ø 5,5-22





Sizes: 125×125, L=8 000-12 000 mm
140×140, L=8 000-12 000 mm

A bundle of max. weight to 5 t. securely tied with wire rod dia. 6,5 mm in at least four points. A bundle consists of 6 billets. Each bundle has two straps for multiple lifting.

Marking

- Option 1:** mechanical stamping with indication of steel grade on the end and/ or application of indelible paint (pencil).
- Option 2:** sticking a label with indication of the company's symbol, 'Made in Belarus', heat №, steel grade.
- Option 3:** painting the ends.



Ø 10-40 mm

Rebars are packed in bundles of max 5 tonnes strapped twice by wire rod at min 4 places.

Bundles are equipped with two load-carrying straps for the length 6-13m and three straps for the length 14-18m.



Ø 5-16 mm

Coil weight is max. 2,8 tonnes with strapping with steel strap in at least four points, evenly spaced around the periphery.

Upon request: double strapping with steel strap in at least four points and one orbital tying with wire rod around a coil in order to keep steel straps in place.

OBJECTS CONSTRUCTED WITH THE USE OF BSW STEEL



Olympic stadium, London



Heathrow airport, London



Railway station, Stuttgart



National stadium, Warsaw



Lakhta Centre, St. Petersburg



Olympic park, Sochi



Atomic station, Belarus



National library, Minsk



Moscow City business centre



Designed capacity
700 000 t/ year

As a part of investment programmer, construction of new up-to-date rolling shop has been completed, which enables:

- increase of production volumes;
- economic safety of the enterprise through production of new types of products;
- development of in-house steel cord & wire production;
- production of new high-tech import-substituting products;
- enlarge product range in terms of size & steel grades;
- avoid deficit of wire rod;
- entry to new markets and increase of export sales;
- avoid sales of semi-finished product and get to production of higher added value products by means of downstream transformation.

WIRE ROD Ø 5,5 – 22 mm



Wire rod Ø 5,5 – 22 mm

Variant 1 – coil weight 1 400-1 800 kg;

Variant 2 – coil weight 1 800-2 500 kg.

Wire rod coils are supplied with one tie of a 0,8-1,0x32 mm steel strap or tied with 8,0 mm rod diameter in at least four points evenly distributed along the circumference.

External diameter: 1 300 mm max.,

Internal diameter: at least 820 mm.



APPLICATION & STEEL GRADES



	TU BY 400074854.032-2014 DIN EN 10025 СТ1сп-СТ3сп 1008-1060; SAE 1008- SAE1060; C9D-C38D; C10C-C20C; S235J2; S23JR; S355J2; S355JRC18D; C10C	For auto components Specifications 54SiCr6, 40XΦA, 20Г2P
	For ropes Specifications C70D-C92D, C7D2-C92D2, 1060-1090	For chains Specifications 40XΦA
	For production of steel cord & bead wire Specifications C70-C92D, C7D2-C92D2, 1060-1090	For springs Steel 65-80 GOST 14959-79 54SiCr6
	Welding Specifications СВ-08ГС, СВ-08ГА; 08Г2С As soon as secondary metallurgy is in operation	For bearings ШХ15, ШХ15СГ, 100Cr6 GOST 801-78

- Special chemical analysis can be customized to meet the customer's requirements.
- Annealed wire rod is also on offer.

HOT ROLLED ROUND BARS IN STRAIGHT LENGTH AND IN COILS



Ø 80-160

Bars are bundled. One bundle max. weight can be 5 t., securely tied with wire rod dia. 6,5 mm in at least four places. Each bundle has two slings for multiple lifting.

Length: 4 000- 6 000 mm
8 000-12 000 mm



Ø 20-80

Bars are bundled. One bundle max. weight can be 5 t., securely strapped in at least six places. Each bundle has two slings for multiple lifting.

Length: 6 000-12 000 mm



Ø 20-50

Coils of 1,8-2,5 t., single strapping with steel strap of 0,8-1,0x32 mm in at least 4 places, evenly spaced around the periphery. In case of long distance transportation and a lot of load/ unload operations, there is one orbital tying with wire rod around a coil in order to keep steel straps in place.

Coil outer dia. not above 1300 mm,
Inner one at least 750 mm.
Length: 6 000-12 000 mm

HEAT TREATMENT FOR ROLLED PRODUCT



We can deliver rolled products with heat treatment as follows:

+A – soft annealing- hardness decrease; ductility, viscosity increase; better machinability.

+AC – spheroidizing annealing, better shearability; longer lifetime of tools;

+ FP – annealing to make ferrite-pearlite structure – hardness decrease and better machinability for steel.

Heat treatment:

1) 2 batch furnaces to heat treat rolled product in coils.

Material to heat treat:

Wire rod ϕ 5,5 – 22,0 mm and rounds in coils ϕ 20 – 50 mm from Garret line.

Total productivity up to 30 000 t/ year.

2) 3 batch furnaces to heat treat rolled products in straight length.

Material to heat treat: hot rolled round bars ϕ 20,0 – 80,0 mm mill 370/150 and ϕ 80 – 160 mm mill 850. Bar length to heat treat from 6,0 to 12,0 m. A wide range of carbon quality and low alloyed steel grades can be heat treated as per GOST 4543, GOST 1050, GOST 801, DIN EN 10083, DINE EN 10084, DIN EN 10025, ISO 683.

Total productivity up to 25 000 t/ year.

3) 1 continuous furnace to heat treat rolled product in straight length.

Material to heat treat: hot rolled round bar ϕ 20,0 – 80,0 mm mill 370/150.

Total productivity up to 120 000 t/ year (up to 400 t/ day).





There is equipment to do the peeling and polishing of bar surface when requirements for outer surface and accuracy of geometry are very high.

Additional possibilities:

1. Beveling on two sides at angle of $30^{\circ} - 45^{\circ} \pm 1^{\circ}$ depth 1-5mm.
2. Packed in polymer film.
3. Application of additional lubricant to increase corrosion resistance when in transit and during storing.
4. Cardboard insertions under strapping (to prevent damage of the surface).



TECHNICAL DATA OF HOT ROLLED PRODUCT AFTER STRAIGHTENING AND PEELING



Input rolled product (hot rolled) before straightening and peeling machine					
dia, mm	Dia. tolerance	Straightness (curvature) not above, mm/m	Ovality (out-of-roundness) of rolled product	Bundle weight, max., kg	Bundle dia., max., mm
20 - 80	$\leq \frac{1}{4}$ DIN EN 10060	Not above 4 mm/m	75% of total limit deviations	5000	500
Final product after straightening, peeling and straightening-polishing machine					
Dia., mm	Dia. tolerance, mm	Straightness (curvature) not above, mm/m	Bundle weight, max., kg	Bundle dia., max., mm	Roughness, mcm
19 - 79	As per EN 10278, quality class h9	1,0 mm/m	5000	500	min. 0,2 mcm max. 4,0 mcm
	For quality class h9 Ø19-30 +0/-0,052 Ø30-50 +0/-0,062 Ø50-80 +0/-0,074				

QUALITY CONTROL FOR 80-160 MM BARS



Standard	Application	Acceptance class	Note*
SEP 1920	UT for internal defects in rolled billet Ø50-200 mm	A, B (C**)	Scanning density (control group 1-4)
SEP 1921	UT for internal defects in forged billet Ø100 mm and more	A, B, C, D (E**)	Scanning density (control group 1-4)
DIN EN 10228	Non destructive testing for steel forgings UT	1, 2, 3 (4**)	
DIN EN 10308	Non destructive testing for steel forgings UT	1, 2, 3 (4**)	
GOST 21120	UT for bars and billets of round and rectangular shape so that to find internal defects Ø 30-300 mm	2, 3, 4 (1**)	
* it is possible to scan a bar simultaneously with 4 channels with a shift of converters by 90° against each other. ** nondestructive testing with limit acceptance classes as per each individual standard needs a separate approval, as it is associated with the mill productivity decrease and does not improve significantly quality of rolled product.			

AUTOMATED SYSTEM OF NONDESTRUCTIVE TESTING FOR ROLLED PRODUCT 20-80 MM



Automated system of nondestructive testing

MAGNATEST-FOERSTER

Magnetic-induction control to verify steel grade compliance.

CIRCOFLUX-FOERSTER

Control of continuity of bar surface by magnetic flux. It is possible to find defects of min. size from 0,15×0,2×15 mm. There is no residual magnetization on the bar after the control.

OLYMPUS

Ultrasonic inspection for bar body. It is possible to find the defects equivalent to flat-bottom hole Ø 1 mm or lateral drilling Ø 0,8 mm and length 12,5 mm. Full section of a bar is controlled, including subsurface layers.

- Adjustable speed of control to 2 m/sec.
- Dead parts on bar ends are less than 50 mm.
- Defective places are marked by paint automatically.
- Rejected bars are moved automatically to rejection benches.

TYPES OF SEAMLESS PIPES PRODUCED



Pipes for machinery sector from carbon and low-alloyed steel (including for downstream cold drawing) outer dia. 21,3 – 168,3 mm, wall-thickness 2,3 – 24,0 mm.	As per GOST 8731/8732, GOST 23270, DIN 2440, DIN EN 10255, DIN EN 10210-1/2, DIN EN 10216-1, DIN 1629, DIN 17175, DIN EN 10208-1/2, DIN EN 10297, ASTM A53, ASTM A106.	Steel grades: S355J2H, S355J0H, S355JRH, E355, S235JRH, E235, St52.0, St37.0, St44.0, S195T, S275J0H, S275J2H, E275, P235TR1, P235TR2, P265TR1, P265TR2, E590K2, 20, 10, 35, 40, 45, 40X, 45X, S460NH, E470, 1026, B, C.
OCTG pipes, no thread and coupling, of outer dia. 48,3 – 168,3 mm, wall-thickness 3,91 – 21,95 mm	As per API 5 L (45 th revision), PSL1 and PSL2 quality.	Steel grades: B (L245), X42(L290), BR(L245R), X42R (L290R), BN(L245N), X42N(L290N), X52N (L360N), X52 (L360), X65Q (L450Q).
Plain end pipes with no thread to produce casing, tubing and drill pipes of outer dia. 60,3 – 168,3 mm, of wall-thickness 4,83 – 10,54 mm. Bare pipe to produce coupling, of outer dia 66,7 – 168,3 mm and wall-thickness 8,0 – 22,0 mm.	As per API 5CT (9 th edition) PSL 1-N80 (1), J55, H40, N80Q with the right to apply the monogram. L80, P110, C95 with no monogram application GOST 633, GOST 632, GOST 631-groups Д, К, Е, Л, М, Р.	Steel grades: 25Mn2, 28ХГМ, 32Г2, 35Г2Ф, 36Г2С.
Pipes for steam boilers and pipelines of dia. 32,0 – 168,3 mm of wall-thickness 3,2 – 19,0 mm.	As per DIN EN 10216-2/3, DIN EN 10210-2.	Steel grades: P195GH-TC1, P235GH-TC1, P265GH-TC1, 16Mo3, P460NH, P355NH.



Type of packing:

Hex-shape bundle with steel strapping :

1. At least in 8 points for pipe length up to 8 m;
2. At least in 10 points for pipe length more than 8 m.

Each bundle has 2 steel or textile straps for multiple lifting.



Oil & gas sector



Machinery sector



Construction

Bundle size:

300 mm x 260 mm - 700 mm x 610 mm.

Bundle length: 6 m to 12,5m.

Bundle mass: up to 5,0 t.

Marking:

- Mechanical stamping;
- Coloured stripes by paint in axial direction.

Transportation:

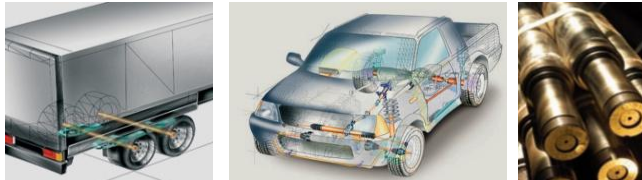
- trucks;
- railway.



UPGRADE OF TECHNOLOGIES AND PRODUCTION OF NEW TYPES OF PRODUCTS



Pipes for ship-building sector
(available certificates of Lloyd's Register, Det Norske Veritas,
Russian Maritime Register of Shipping)



Pipes for automotive industry (to produce axels) – PAM
Pipes and more



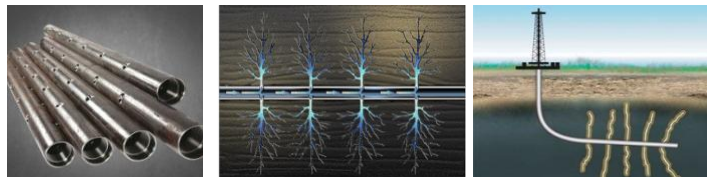
Pipes to be used in aggressive environment and low
temperature (to -60°C)



Pipes to produce anchors – Pushkinski Machinery
Plant



Pipes to produce drill pipes (vertical and horizontal
drilling) – Tejas Tubular, Seba pipe inc



Pipes to produce tubing for hydrofracturing –
Tubing Technology

COMPLIANCE WITH INTERNATIONAL STANDARDS



QUALITY MANAGEMENT SYSTEM

Certificate API №0767 for QMS conformance with ISO 9001:2008 for design and manufacture of line pipe, casing and tubing

Certificate API № Q1-0511 for QMS conformance with **API Spec Q1** for design and manufacture of line pipes, casing and tubing

Certificate № 01 111 005043 for QMS conformance with international standard ISO/TS 16949:2009 for manufacture of steel cord, wire and rolled product for automotive industry (design of new types of

Certificate № BY/112 05.01.002 00100 for QMS conformance with **STB ISO 9001-2009** for design, development and production of concast billet, rolled material, wire rod, seamless pipes, steel cord, wire and steel fiber

Certificate № 1064 for QMS conformity with national standard **BS EN ISO 9001:2008** for manufacture of concast billet, hot-rolled steel bars for reinforcement of

Certificate № 07-202-1326-WZ-1011/14 for QMS conformity with **AD 2000 Merkblatt W0** and **EN 764-5** (section 4.2) and **Directive 97/23/EG** for manufacture of hot-rolled metal and seamless pipes from ferrite steels

Certificate № TIC 15 100 159230 (TUV Thuringen e.V.) for conformity with international standard **ISO 9001:2008** for design, development and production of concast billet, rolled metal, wire rod, seamless pipes, steel cord, wire and steel fiber



LABOUR PROTECTION, INDUSTRIAL SECURITY AND ENVIRONMENTAL PROTECTION MANAGEMENT

Certificate № BY/112 05.04.080 00061 of system compliance of labor protection to requirements of **STB 18001-2009** as for concast billets, rolled sections and structural shapes, seamless pipes, wire rod, steel cord, wire and steel fiber

Certificate BUREAU VERITAS Certification №UA227188 for compliance with standard requirements **OHSAS 18001:2007** as for concast billets, rolled metal, wire rod, seamless pipes, steel cord, wire and steel fibres

Certificate №BY/112 06.01.002 00005 for system of environment control compliance with requirements of **STB ISO 14001-2005** sa for concast billets, rolled material, wire rod, seamless pipes, steel cord, wire and steel fibres

Certificate TIC 15 104 151 299 for the management system according to **ISO 14001:2004** for design, development and production of cocast billet, rolled metal, wire rod, seamless pipes, steel cord, wire and steel fibres

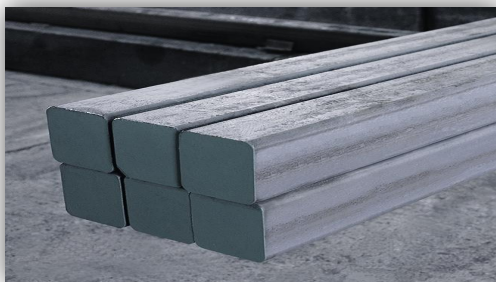


OUR REPRESENTATIVES



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<http://www.belmet.com>

Concast billet



Rebar



DISMAS TRADING S.R.L.

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Tel: +39 030 2190283
Fax: +39 030 2193190
E-Mail: info@dismastrading.it
<http://www.dismastrading.com>

Wire rod



Seamless pipes



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Fax: + 7 495 6496538
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<http://www.bmzm.ru>

Steel cord





Thank you
for your attention!



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