



GazNefteMash

PRODUCT CATALOG



Drill pipes:

- non-magnetic drill collars
- drill collars
- heavy-wall non-magnetic drill pipes (FLEX)
- heavy-wall drill pipes (FLEX)
- kellys

Casing pipes and pup joints

Stabilizers, calibrators and centralizers

Subs and basic parts of various complexity for telemetric systems

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Company presentation

Since 2008, LLC “PKF-GazNefteMash” has been a reliable supplier and manufacturer of oil and gas equipment. Over the years, the company has gained a lot of experience in production improvement, has mastered new directions and constantly increases the volume and quality of output products.

Having modern mechanical production, our own design bureau and quality control unit, we closely follow technological novelties and introduce them into production. We are actively developing fundamentally new products and introducing prototypes into mass production, thanks to our customers.

Our company specializes in tubular goods and various drill pipes:

- Non-magnetic drill collars;
- Drill collars;
- Heavy-wall non-magnetic drill pipes (FLEX);
- Heavy-wall drill pipes (FLEX);
- Kellys;
- Subs and basic parts of various complexity for telemetric systems;
- Stabilizers, calibrators and centralizers;
- Casing pipes and pup joints.

Close control equipment and professional staff allows to produce products according to the catalog and fulfill individual customers' orders.

The company is constantly improving, has a reliable database of solutions and technologies to fulfill orders and always open to new projects and long-term cooperation.



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Production and equipment

The enterprise is equipped with a high-performance equipment that allows us to carry out the following operations:

Leveling of sheet, forgings, shafts, heavy-wall pipes on a press with a force of 500 tons.

Maximum dimensions of the works:

- diameter – 245 mm;
- length – 10 000 mm;
- bowling (wobbling) of the works before leveling – no more than 15 mm, after leveling - up to 2 mm over the length (0.5 mm per 1 m).

Drilling and boring of internal openings:

- installed workpieces outer diameter limit – from 90 to 450 mm;
- lengths of workpieces – from 500 to 16 500 mm;
- openings diameters – from 28 to 130 mm;
- drill run-off related to the outer diameter does not exceed 2 mm over the entire length;
- runout accuracy after drilling (in grades) – 10, after boring – 9.

Works lathe turning:

- the biggest diameter of workpieces – 290 mm;
- the biggest length 16 500 mm.

Thread cutting:

- metric, lock conical, trapezoidal threads with a rectangular profile;
- the diameter range of the pipes – from 70 to 290 mm.

Milling operations of long components:

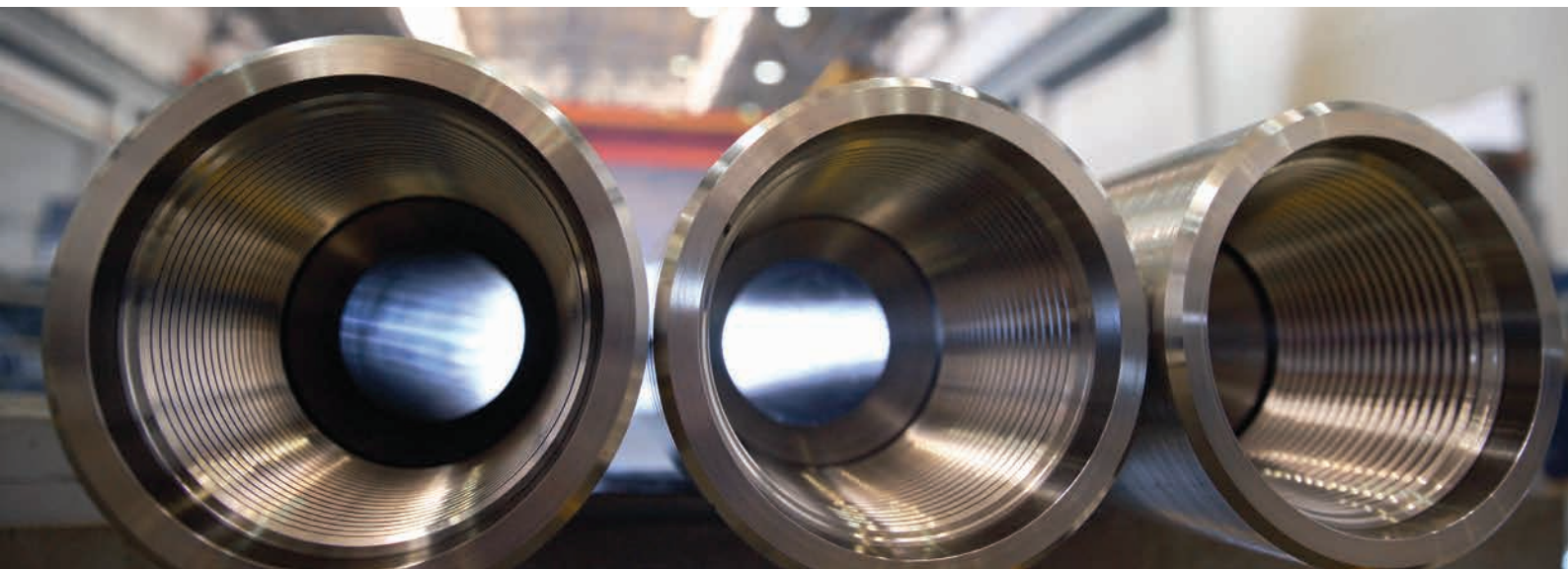
- the diameters range of the pipes – from 89 to 254 mm;
- lengths of workpieces – 16 000 mm.

Hydrotesting of pipes:

- maximum proof pressure – 75 MPa;
- diameters range – from 102 to 250 mm.

Assembly/disassembly of pipes' screw joints:

- diameters range – from 57 to 295 mm.



Guarantees, quality control

In order to ensure quality control of the products, the quality control department of the enterprise is fully equipped with the necessary measuring means, both standardized and special. Nondestructive guarantees are widely used.

For all products, the ultrasonic quality evaluation is carried out over the entire length and cross-section. The threads are cut with a special tool on NC machines and treated with special grease. Each thread is controlled by the quality control department service.

The enterprise has set the main quality objectives:

- to achieve high quality of the products;
- to underprop a strong reputation and image in here and abroad.

We are certified against:

- ISO 9001;
- voluntary declaration of output products for compliance with the requirements of the Technical Regulations «On the Machines and Equipment Safety».

We have permission to use non-magnetic drill collars from the Federal Service for Environmental, Technological and Nuclear Supervision.

The relevant documents were received based on the results.





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Products

Non-magnetic drill collars

Are intended to create a thrust load on bore bit, increase rigidity and stability of the drill string bottom while drilling the directional and horizontal wells and exclude ferromagnetism impact during the use of telemetry tools.

While working in oil and gas fields, special attention is paid to non-magnetic steels. The stable austenite micro-structure of these steels is provided by a high content of chrome, manganese and nitrogen, as well as a small amount of nickel.

These steels are produced only as heat-treated, and they are resistant to both pitting corrosion and to stress corrosion cracking.

Relative permeability does not exceed 1.01 μ T. Magnetic field gradient is max. 0.05 μ T.

Design types:

- bare without grooves;
- with elevator grooves;
- with elevator grooves and power slips;
- bare with riffling (flats);
- with elevator grooves and riffling (flats);
- with elevator and power slips grooves; with riffling (flats).

Diameter, mm				Thread size	Helice spacing S_s , mm (helice hand - right)	Fillet radius r_f , mm	Helice cutting depth S_c , mm
Outer, D	Internal opening, d	Elevator groove, De	Power slips grooves, Dk				
105	51	92	95	3-86 (NC31)	890	3,2	4
108	51	95	98	3-86 (NC31)	915	3,2	5
121	57	108	114	3-102 (NC38)	965	3,2	6
121	63	108	114	3-102 (NC38)	965	3,2	6
127	63	114	117	3-102 (NC38)	965	3,2	6
133	63	120	123	3-108 (NC40)	1065	3,2	6
146	71	130	133	3-121 (4 1/2 FH)	1065	3,2	6
152	71	136	140	3-118 (NC44)	1065	3,2	7
159	71	144	146	3-122 (NC46)	1065	3,2	7
165	57	146	152	3-122 (NC46)	1165	3,2	8
165	71	146	152	3-122 (NC46)	1165	3,2	8
172	57	152	159	3-122 (NC46)	1165	4,8	8
172	57	152	159	3-133 (NC50)	1165	4,8	8
172	71	152	159	3-133 (NC50)	1165	4,8	8
178	71	159	168	3-133 (NC50)	1600	4,8	9
203	71	176	194	3-147 (5 1/2 FH)	1700	4,8	10
203	102	176	194	3-163 (NC61)	1700	4,8	10
203	71	176	194	3-149 (NC56)	1700	4,8	10
203	76	176	194	3-152 (6 5/8 REG)	1700	4,8	10
216	76	194	203	3-163 (NC61)	1700	4,8	10
229	102	203	219	3-171 (6 5/8 FH)	1800	6,4	10
241	76	219	229	3-177 (7 5/8 REG)	1800	6,4	10
241	76	219	229	3-185 (NC70)	1800	6,4	10

The supply of products with other sizes can be agreed with the customer.



Products

Drill collars

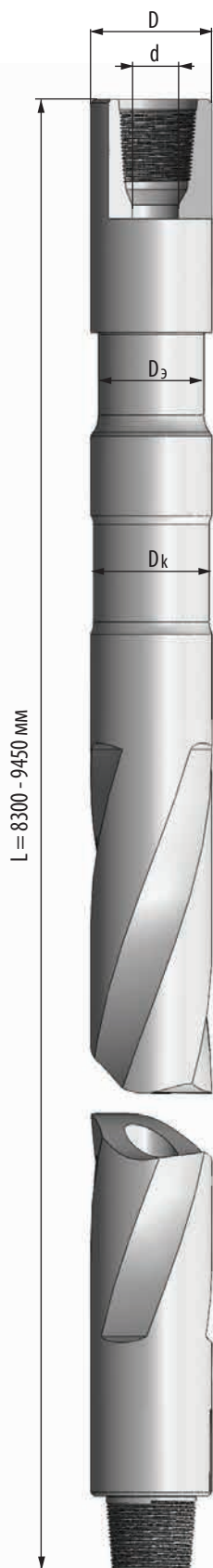
Are intended to create a thrust load on the rock destruction tool, increase rigidity and stability of the bottom of the drill string while well-drilling.

All pipes are made of alloyed structural steel, which passes a full bake cycle and control on mechanical properties and ultrasonic check.

To avoid pipe sticking in the well, riffling (type C) can be made on the surface of the drill collar. In this case, the contact area of the surface of the drill collar with the walls of the well decreases.

Design types:

- bare without grooves;
- with elevator grooves;
- with elevator grooves and power slips;
- bare with riffling (flats);
- with elevator grooves and riffling (flats);
- with elevator and power slips grooves; with riffling (flats);
- with elevator and power slips grooves; with one central swell.



Diameter, mm				Thread size	Helice spacing S, mm (helice hand - right)	Fillet radius r, mm	Helice cutting depth S, mm
Outer, D	Openings, d	Elevator grooves, De	Power slips grooves, Dk				
105	51	89	102	3-86 (NC31)	890	3,2	4
108	57	89	102	3-86 (NC31)	915	3,2	5
121	51	102	114	3-102 (NC38)	965	3,2	6
127	57	102	114	3-102 (NC38)	965	3,2	6
133	57	114	114	3-102 (NC38)	1065	3,2	6
146	57	130	140	3-122 (NC46)	1065	3,2	6
146	75	130	140	3-122 (NC46)	1065	3,2	6
152	57	130	140	3-122 (NC46)	1065	3,2	7
152	71	130	140	3-122 (NC46)	1065	3,2	7
165	57	146	152	3-122 (NC46)	1165	3,2	8
171	57	152	159	3-122 (NC46)	1165	4,8	8
171	71	152	159	3-133 (NC50)	1165	4,8	8
178	57	159	168	3-133 (NC50)	1600	4,8	9
178	71	159	168	3-133 (NC50)	1600	4,8	9
203	71	178	194	3-147 (5 1/2 FH)	1700	4,8	10
203	80	178	194	3-163 (NC61)	1700	4,8	10
203	100	178	194	3-171 (6 5/8 FH)	1700	4,8	10

The supply of products with other sizes can be agreed with the customer.



Products

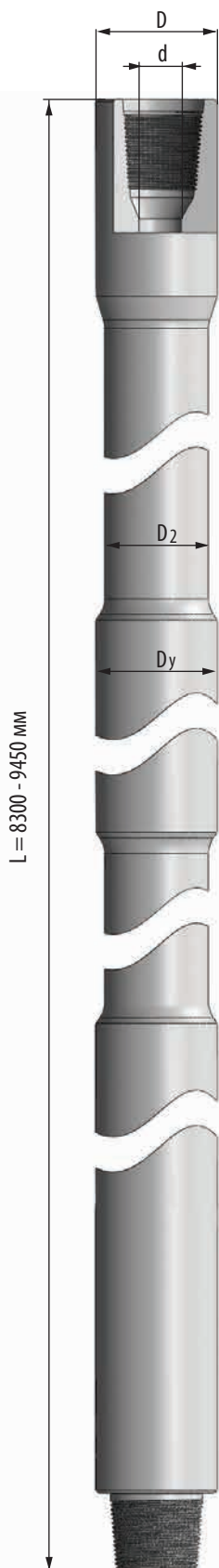
Heavy-wall non-magnetic drill pipes (FLEX)

Design types:

- without central swells;
- with one central swell;
- with two central swells.

Heavy-wall non-magnetic drill pipes with a rectangular elevator ledge can be also supplied:

- without central swells;
- with one central swell;
- with two central swells.



Diameter, mm					Thread size
Outer, D	Pipe bodies, D2	Internal opening, d	Swells, Du	Elevator	
105	89	51	102	92	3-86 (NC31)
105,5	89	51	102	92	3-83
121	89	51	102	97	3-94 (NC35)
121	89	63	102	97	3-102 (NC38)
127	102	57	114	106	3-102 (NC38)
133	102	63	114	106	3-108 (NC40)
146	114	71	121	119	3-118 (NC44)
159	114	57	127	119	3-122 (NC46)
159	114	71	127	119	3-122 (NC46)
165	127	83	140	130	3-133 (NC50)
165	127	90	140	130	3-133 (NC50)
168	127	76	140	130	3-133 (NC50)
168	127	83	140	130	3-133 (NC50)
168	127	90	140	130	3-133 (NC50)
172	127	82,6	140	130	3-133 (NC50)
178	140	102	152	144	3-147 (5 1/2 FH)
184	140	90	152	144	3-147 (5 1/2 FH)
184	140	102	152	144	3-147 (5 1/2 FH)
203	168	102	181	176	3-163 (NC61)
203	168	127	181	176	3-171 (6 5/8 FH)

The supply of products with other sizes can be agreed with the customer.



Products

Heavy-wall drill pipes (FLEX)

Design types:

- with a conical elevator ledge, without central swells;
- with a flat elevator ledge, without central swells;
- with a conical elevator ledge, with one central swell;
- with a flat elevator ledge, with one central swell;
- with a conical elevator ledge, with two central swells;
- with a flat elevator ledge, with two central swells;
- with a conical elevator ledge, without central swells with riffled flats;
- with a flat elevator ledge, without central swells with riffled flats.



Diameter, mm					Thread as per GOST R 50864 (spec. 7)
Outer, D	Swells, Du	Openings, d	Elevator grooves, De	Pipe bodies, D2	
105	102	51	92	89	3-86 (NC31)
121	102	51	97	89	3-102 (NC38)
121	102	57	97	89	3-102 (NC38)
133	114	57	102	102	3-108 (NC40)
133	114	62	102	102	3-108 (NC40)
133	114	63,5	102	102	3-108 (NC40)
159	127	71	114	114	3-122 (NC46)
165	140	75	127	127	3-133 (NC50)
168	140	75	127	127	3-133 (NC50)
168	140	90	127	127	3-133 (NC50)
178	152	85	140	140	3-147 (5 1/2 FH)
178	152	95	140	140	3-147 (5 1/2 FH)
178	152	100	140	140	3-147 (5 1/2 FH)
184	152	90	140	140	3-147 (5 1/2 FH)
184	152	100	140	140	3-147 (5 1/2 FH)
203	181	100	168	168	3-171 (6 5/8 FH)
203	181	115	168	168	3-171 (6 5/8 FH)
203	181	120	168	168	3-171 (6 5/8 FH)

The supply of products with other sizes can be agreed with the customer.

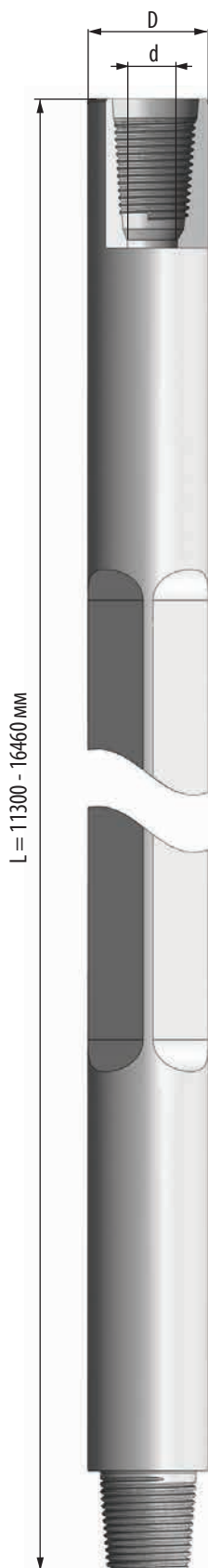
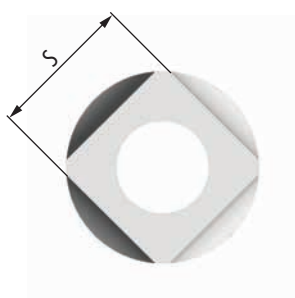


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Products

Square kellys

Intended for rotation transmission from a rotary table to a drill string.



Square side S, mm	Diameter, mm				Thread as per GOST R 50864	
	Collar end, D	Pin end, Dn	Circumcircle, D3	Openings, D	Collar end	Pin end
76	105	105	98	45	3-86Л (NC31 LH)	3-86 (NC31)
76	121	105	98	45	3-102Л (NC38 LH)	3-86 (NC31)
76	146	105	98	45	3-117Л (4 1/2 REG LH)	3-86 (NC31)
80	105	105	105	51	3-86Л (NC31 LH)	3-86 (NC31)
80	121	105	105	51	3-102Л (NC38 LH)	3-86 (NC31)
89	121	121	113	57	3-102Л (NC38 LH)	3-102 (NC38)
89	140	121	113	57	3-118Л (NC44 LH)	3-102 (NC38)
89	146	121	113	57	3-117Л (4 1/2 REG LH)	3-102 (NC38)
133	197	178	172	82,6	3-152Л (6 5/8 REG LH)	3-147 (5 1/2 FH)
140	197	178	178	82,6	3-152Л (6 5/8 REG LH)	3-147 (5 1/2 FH)
152	197	197	197	90	3-152Л (6 5/8 REG LH)	3-152 (6 5/8 REG)

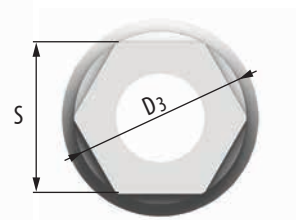
The supply of products with other sizes can be agreed with the customer.



Products

Hexagonal kellys

Intended for rotation transmission from a rotary table to a drill string.



L = 11300 - 16460 mm

Hexagon edges distance S, mm	Diameter, mm				Thread as per GOST R 50864 (API 7-2)	
	Collar end D	Pin end Dn	Circumcircle D3	Openings d	Collar end	Pin end
76	146	86	86	33	3-117Л (4 1/2 REG LH)	3-73 (NC26)
89	146	105	100	45	3-117Л (4 1/2 REG LH)	3-86 (NC31)
108	146	121	122	57	3-117Л (4 1/2 REG LH)	3-102 (NC38)
133	197	178	150	82,6	3-152Л (6 5/8 REG LH)	3-147 (5 1/2 FH)
152	197	197	173	90	3-152Л (6 5/8 REG LH)	3-152 (6 5/8 REG)

The supply of products with other sizes can be agreed with the customer.



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Products

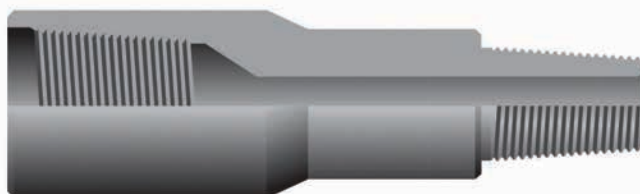
Subs and basic parts of various complexity for telemetric systems

For subs and basic parts of telemetric systems manufacture, both structural alloy steels and various types of non-magnetic steels with different strength and corrosion resistance are used.

Subs are intended for interconnection of drill string parts to each other and to attach it to the tool used in drilling, repair and exploration work at oil and gas fields. They are produced according to GOST 7360-82.

Types:

• bottleneck

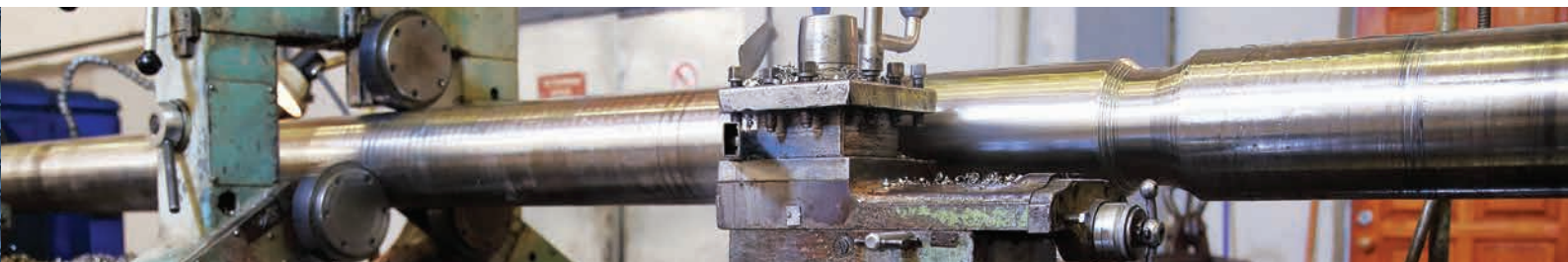


• box-type



• pin-type





Products

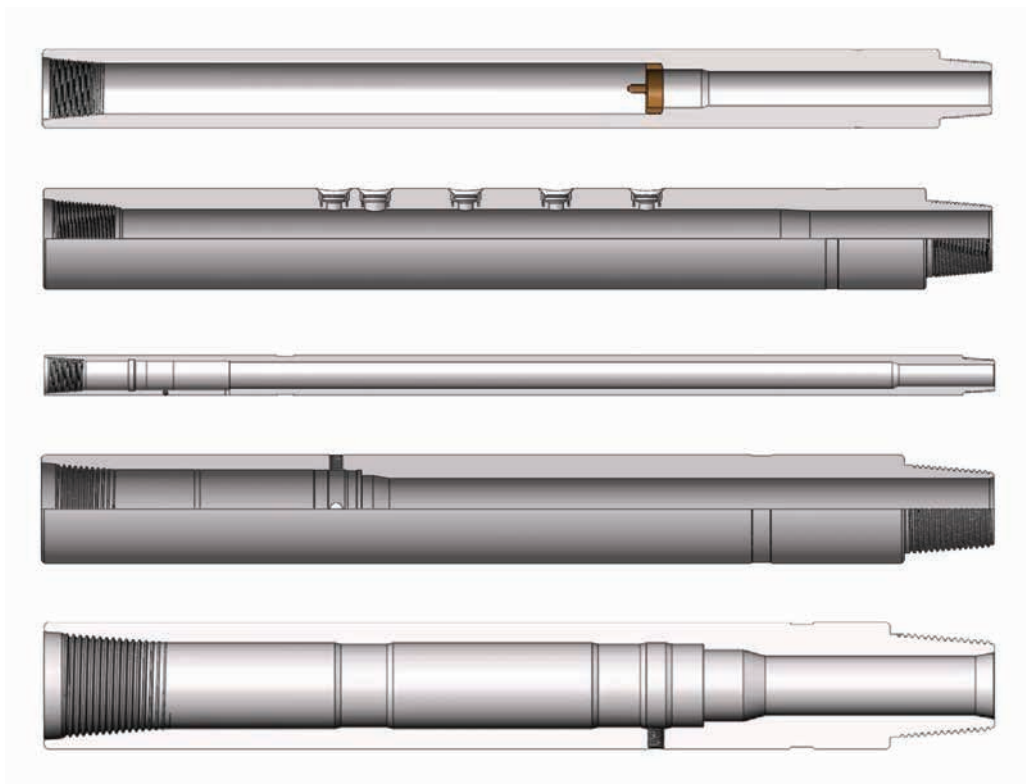
Subs and basic parts of various complexity for telemetric systems

Process capabilities of our company allow us to manufacture basic parts and subs of various designs for underground equipment used in wells drilling for oil and gas production, various complexity on custom orders and customers' drawings.

Manufacture of basic parts and subs for LWD and MWD systems in various designs with removable and non-removable modules used for directional wells drilling, including wells with horizontal tailing-in.

Produced diameters range: 90, 100, 105, 121, 172, 178, 203.

Circulating subs:





Products

Stabilizers, calibrators and centralizers

Stabilizers, calibrators and centralizers are made of high-quality alloyed steel, which is thermally treated, giving optimum mechanical properties of steel. Also, stabilizers, calibrators and centralizers can be manufactured from a non-magnetic steel mark. All screw joints are made strictly in accordance with GOST and API. Sizes and shapes of products are operated in accordance with the requirements of GOST and API Spec.

Hard bundling of stabilizers, calibrators and centralizers is made using laser cladding method. This method of hard-alloy bundling has a low temperature of detail heating and small heat affected zone, which allows to reach low pressure in the material of the detail. In addition, this method has many other advantages.

We offer a wide range of products, made in accordance with the requirements of GOST and API Spec. All products are made according to previously agreed customer's drawings, taking into account shapes and sizes, and also values and hard bundling shapes.

Stabilizers

Stabilizers are intended to stabilize (improve) the operation of the guide section of the drill string by limiting the pipeline deflection, especially in the presence of caverns, dampening transverse (partially longitudinal and torsional) vibrations of the drilling tool at its contacts with the borehole wall.

Stabilizers are structurally similar to centralizers and calibrators. Stabilizers have different shapes, sizes and design. Depending on a design and used materials type, stabilizers are used in different rocks types.



No.	Working OD (mm)	ID (mm)	Total length (mm)	Blade working length (mm)	Thread type		Design
					Top	Down	
1	292,1	90	1800	900	6 5/8 REG	6 5/8 REG	3 straight blades
2	292,1	90	1800	900	6 5/8 REG	6 5/8 REG	3 spiral blades
3	212,7	71	1600	800	5 1/2 FN	5 1/2 FN	3 straight blades
4	212,7	71	1600	800	5 1/2 FN	5 1/2 FN	3 spiral blades
5	141,2	44	1200	400	3 1/2 REG	3 1/2 REG	3 straight blades
6	141,2	44	1200	400	3 1/2 REG	3 1/2 REG	3 spiral blades



Products

Calibrators and centralizers

Calibrators and centralizers are used as a link element of a drill string bottom when drilling for oil and gas. Calibrators and centralizers are intended to:

- calibrate the well bore along the bore bit diameter;
- improve operating conditions of a bore bit;
- diminish hole curvature.



Bladed calibrators are intended for calibrating and centralizing a drill string and a bore bit in order to improve operating conditions of a bore bit, a bottom-hole motor and a drill string. Calibrators and centralizers with straight blades help to diminish rod friction when drilling soft formations, that apt to swelling and a thick mud cake capping.

Bladed spiral calibrators are intended for well bore enlargement and calibrating along a bore bit diameter and centralizing and improvement of a bore bit operating conditions in soft, intermediate and hard abrasive and low-abrasive formations. Calibrators are produced with straight and spiral blades, for soft and intermediate formations, and for intermediate and hard formations. Calibrators and centralizers with spiral blades completely overlap the well cross section and form a continuous circular contact with its wall. Such calibrators and centralizers are recommended for use in turbine and rotary drilling of hard and intermediate rocks.

Our calibrators are made of steel type 40XH2MA with straight or spiral blades with reinforcement of their working surfaces with a hardband coating "Technolase 40S" by laser cladding".

No.	Working OD (mm)	ID (mm)	Total length (mm)	Blade working length (mm)	Thread type		Design
					Top	Down	
1	393,7	89	1212	280	NC61	6 5/8 REG	3 spiral blades
2	390,5	101	1252	320	6 5/8 FN	6 5/8 FN	5 straight blades
3	393,7	82	756	220	6 5/8 FN	6 5/8 FN	5 spiral blades
4	390,5	120	750	380	6 5/8 REG	7 5/8 REG	3 straight blades
5	292,1	90	1175	320	6 5/8 FN	6 5/8 REG	3 spiral blades
6	295,3	90	1252	400	6 5/8 REG	6 5/8 REG	5 straight blades
7	295,3	120	546	240	6 5/8 REG	6 5/8 REG	5 straight blades
8	292,1	76	567	170	6 5/8 REG	6 5/8 REG	3 straight blades
9	215,9	90	957	310	5 1/2 FN	5 1/2 FN	3 spiral blades
10	214,3	71	784	340	NC46	NC46	5 straight blades
11	215,9	82	546	280	4 1/2 REG	4 1/2 REG	3 spiral blades
12	214,3	82	546	280	4 1/2 REG	4 1/2 REG	5 straight blades
13	142,8	44	397	87	3 1/2 REG	3 1/2 REG	5 spiral blades
14	141,2	44	397	87	3 1/2 REG	3 1/2 REG	5 straight blades
15	123,8	32	259	100	2 7/8 REG	2 7/8 REG	5 spiral blades



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Products

Casing pipes and pup joints

The small-scale production of casing pipes and their landing joints on the basis of seamless and electric-welded pipes of various steel types, including a high-tensile one.

Steel grade: different steel grade.

Screw joints types: Trapezoidal, triangular, buttress thread and others.



- thread cutting at the ends of pipes with an outer diameter from 102 to 245 mm;



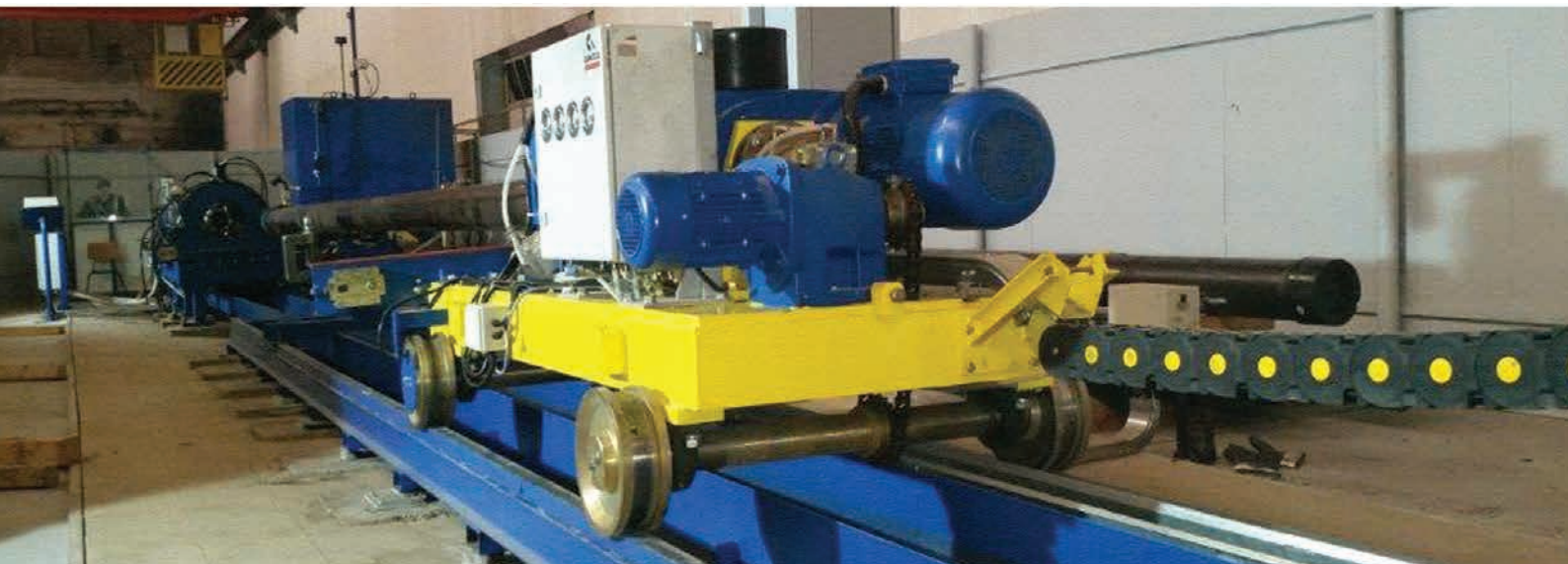
- coupling screwing-on with an outer diameter from 102 to 245 mm on a specialized machine with a thread tightening control;



- hydrostatic testing of a pipe from 1.0 to 13.0 m in length with an outer diameter from 102 to 250 mm assembled with a coupling for sealing with a computer system for collecting and storing information; the maximum proof pressure is 75 MPa;



- coating, indicating and palletizing of pipes.

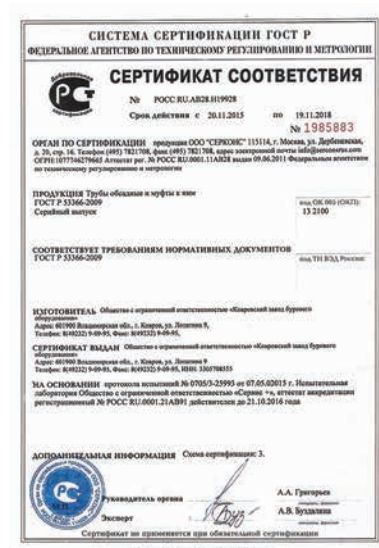


Products

Basic dimensions of casing pipes:

Outer diameter, mm	Wall thickness, mm	Length, m
102,0	6,5	from 1 to 13
114,0	6,4; 7,4; 8,6	
146,1	6,5; 7,0; 7,7; 8,5; 9,5; 10,5; 10,7	
168,3	7,3; 8,0; 8,9; 10,6	
177,8	6,9; 8,1; 9,2; 10,4	
244,5	7,0; 7,3; 7,9; 8,9; 10,0	

Pipes production is carried out in accordance with GOST R 53366-2009 and Specification 1321-003-63459751-2015751-2015 on the basis of collected quality certificates:





GazNefteMash

Services

We provide:

- manufacturing of products at the inventory according to the customer's drawings;
- lathe turning, milling, deep hole drilling operations;
- drill collars and drilling tools repair;
- hydrotesting.

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GazNefteMash



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