“PetroTool” LLC is a reliable company in the fields of drilling tool production, engineering support (engineering), project management and service provider for oil and gas well drilling for the customers in Russia and abroad.

The main objective of “PetroTool” LLC is providing both high quality drilling tools, as well as integrated service, that gives the Customer assurance in reliably protecting its interests and investments.

“PetroTool” LLC has its own modern technology equipped logistics center carrying out delivery of the equipment in the required timeframe.

All production processes are held according to implemented quality management standard ISO 9001:2008, environmental management standard ISO 14001:2004 and production is certified according to API Q standard.
Company’s History

2016 - Operation of the IPM-projects.

2015 - Implementation and operation of the IPM-projects.

2014

- Establishment of the PDM repair facility.
- Purchase of the milling-machine centre Micron™ (Switzerland).
- Organization of NDT laboratory inspection using visual, ultrasonic, magnetic-particle, liquid penetrant, electromagnetic methods according to oil and gas and equipment of explosive and chemically hazardous industries.

2013

- Purchasing of modern high-precision metal-working machines (made in USA, Japan). Fixed-cutter bits, drilling equipment production.

2012

- Start of downhole motors support while drilling wells on the fields of Bashkortostan.

2010

- Purchase of modern high-precision metal-working machines (made in USA). Development of drill-pipe subs for casing pipes and lifting pipes in accordance with GOST 7360-82.
- Organization of PDM operation department, new market development (Western Siberia), own pdm & drill bit service in the fields of western siberia and Samara region.

2009

- Establishment of company providing drill bit services.
- Extension of drill bit range (roller cone and fixed cutters).

2008

- Implementation and operation of the IPM-projects.

2007

- Organization of PDM operation department, new market development (Western Siberia), own pdm & drill bit service in the fields of western siberia and Samara region.

2006

- Beginning of providing complete integrated services for drilling of oil and gas wells.
- Opening of subdivision in Samara presented by highly-qualified design engineers. Product certification according to API standards.

2005 - 2016

- Certification of Authority to use the Official API Monograms License No. 7-1-962
- Establishment of company providing drill bit services.
- Beginning of providing complete integrated services for drilling of oil and gas wells.
- Opening of subdivision in Samara presented by highly-qualified design engineers. Product certification according to API standards.
INTEGRATED PROJECT MANAGEMENT

Since 2014 the PetroTool LLC has a new type of service - “turnkey” well construction or Integrated Project Management (IPM).

2015 one exploration well was successfully drilled at the field of our Customer - Bashneft JSC. Today there are 6 drill crews. PetroTool has built 12 wells in 2016 and nowadays 4 wells are being drilled for Rosneft.

IPM is the management of well construction contract works in the Customer’s license areas, including the full range of activities: drill site preparation, drilling rig and equipment mobilization, camp and access roads construction, communications and equipment installation and well drilling, all in accordance with Oil and Gas industry safety rules.

IPM is the fastest achievement of the goals and tasks set by the Customer, including engineering, technical and logistics support of project provided by Project Management Group.

IPM is the advanced well construction management technology using special forms, methods and tools for the development and implementation of balanced management decisions.

The list of services includes but is not limited to the following:

- Tender Documents Preparation (in accordance with Customer’s requirements).
- Contractors identification to perform various types of work.
- Evaluation of the contractors including site inspection.
- Evaluation of the bids in accordance with the Customer’s requirements for all types of services.
- Contracts Preparation in accordance with the applicable legislation.
- Contracting, management and administration of subcontractors.
- Development of well construction programs for each type of service for each well.
- Preparation of the detailed mobilization plan, network diagrams of construction, mobilization, rig up operations and drilling sites preparation.
- Wellsite and access roads construction arrangement.
- Arrangement of drilling rig mobilization, equipment and residential town.
- Drilling operations arrangement in accordance with the approved project.
- Preparation of reports on the progress of work, daily reports, management reports and other documents required by the Customer.
- Final report preparation. Object handover to the Customer.
PetroTool LLC is a manufacturer of own design rock cutting tools with size range from 3 ¼” to 26”. Besides design and manufacturing service support for these tools is provided, considering Customer’s geological data and operating conditions. Drill bit production is a repetitive process which starts from data analysis, design of the bit for given task, material choice, production, field run support and further bit evaluation.

PetroTool drill bit service includes following:

• Production of an optimal drill bit design for the actual well or region based on geological data and drilling parameters;

• High qualified engineers for product design and optimization with vast field background experience, as well as well-trained field engineers, who have industry safety certificates;

• Full time drilling parameters control for best performance and price per foot drilled optimization;

• Providing the Customer daily reports and bit run reports;

• Full technical support on all stages of cooperation with Customer;

• Technical, technological and economical analysis of bit runs.
Downhole motor operation department of PetroTool provides following services:

- Rental and engineering support of downhole motors (PDM), double acting hydromechanical drilling jars. As well as range of supporting equipment including lifting subs, safety clamps, chain spiders.
- Equipment selection meeting Customer requests.

All equipment is subject to go through mandatory interrepair maintenance and non-destructive testing at the repair facility of the company.

Delivery of drilling equipment to drilling site, if needed, is possible by own fleet of modern trucks coordinated by logistics center.

PDM repair facility provides following services:

- Repair and maintenance of own PDM, as well as Customer drilling equipment (packers, PDM jars).
- Spare parts productions for driveshaft & bearing section.
Directional Drilling Branch of PetroTool LLC is the new dynamically developing division providing directional drilling services in drilling directional and lateral wells using own design MWD tool called ‘Target’.

PetroTool has developed and manufactured MWD system called ‘Target’. It is designed for real-time control of drilling direction parameters of directional and horizontal wells using electromagnetic (EM) link and for formation gamma-ray shooting. Directional Drilling Branch also has following MWD tools with hydraulic link: «PDT» (Pulse Directional Technologies, Canada) and «SureShot» (APS Technology Inc., USA).

The company develops Near Bit ‘Target’ sub and resistivity meter. Also works on MWD tool with electromagnetic (em) and mud-pulse (mp) link association in one tool that will significantly increase the scope of the ‘Target’ system.

‘Target’ MWD tool measuring parameters:
- inclination angle
- tool face position
- azimuth angle
- generator RPM
- formation gamma-ray radiation
- downhole shock levels

‘Target’ MWD tool features:
- Drilling with BHA rotation is allowed;
- Titanium generator design is available (500 hours turnaround time);
- ‘Target MWD’ software provided (with ability to store data in las, csv, gamma-ray logging in pdf, through WITS data transmission);
- Gravitational and magnetic axis raw values real-time issuing available;
- On bottom frequency change available;
- Following NMDC OD sizes available: 4…9”.

Parameter | Value
--- | ---
Measurement range, degree: |  
Inclination angle | 0 - 180
Azimuth angle | 0 - 360
Tool face position | 0 - 360

Measurement accuracy, degree: |  
Inclination angle | ±0.2°/−0.2°
Azimuth angle | ±1.0°/−1.0°
Tool face position | ±2.0°/−2.0°

Max operational temperature, C | 120
Max operational hydrostatic pressure, psi | 8700
Max allowed BHA RPM | 70
Minimum flowrate, GPM | 95.1

Dimensions: |  
Suitable for NMDC OD, in | 4…9
Length, ft | 37.7
Effectiveness of well drilling is determined by well oil or gas production rate. Technological fluids used in well construction process, including drilling fluids, are crucial for outcome. Thus another IPM key product is comprehensive drilling fluid service.

Drilling Fluid Service includes:
- Development and preparation of drilling fluid program with detailed description of mud composition, required amount and explanation of chemical reagents;
- Choosing of the proper mud type for effective borehole cleaning and saving reservoir properties based on geological conditions of reservoir and analysis of previously drilled wells;
- Qualified engineering support using modern ways of mud properties control utilizing API certified measuring equipment;
- When facing hole problems while drilling on-time providing recommendations with preparation and implementation of emergency plan;
- Maintenance of operational documentation (daily reports; end of well summary and analysis).

Drilling fluid types provided:
- Water-based muds:
  - Clay mud, thin clay mud, polymer clay mud,
  - Clayless mud;
  - Gypsum-lime based mud;
  - Biopolymer fresh water based muds
  - Biopolymer salt based mud 'AzTec-BRIGS'
  - Oil based mud;
- Oil based mud.

Regions of work:
- Territories of Russian Federation: Republics of Bashkortostan, Komi, Tatarstan and regions of Samara, Saratov and Ulyanovsk.
- Customers including 3 of world top-40 oil production companies, Rosneft, LUKoil, Tatneft.

Our advantages in drilling fluid service:
- High-qualified personnel with vast well site experience.
- Round-the-clock technical support by supervisors in ‘rig-office’ system.
- Full supply by API certified modern rig laboratory equipment by OFITE® and FANN®.
Specialists of PetroTool Drilling Fluids Division developed a method of loss circulation control while drilling using own developed certified reagent ‘RTS’. Use of that method with ‘RTS’ reagent eliminated usage of expandable systems where historically it was the only option.

Use of ‘RTS’ reagent in loss circulation control while drilling is based on it’s chemical and physical properties:

- Has the form of fine disperse powder with density of 9-11 ppg;
- Polymerizes in contact with fresh water or fresh water based drilling fluid;
- After polymerization it becomes aggressive substances proof (acids, strong alkalis);
- One volume binds up to 20 volumes of fresh water or fresh water based drilling fluid, after polymerization turning into a rubbery substance.

Method consists of few steps and is as follows:

- Run and set packer to the problem interval;
- Prepare high viscosity fluid (hi-visc pill) based on fresh water with LCM (grain size of 0.4-2” and concentration of 30-100kg/m3);
- Add ‘RTS’ reagent with concentration of 6-20kg/m3 depending on intensiveness of drilling fluid loss;
- Pump prepared solution until receiving working pressure (WP) (depending on intensiveness of fluid loss may need extra amount of pumping);
- After receiving of WP stop pumping of the solution, pump spacer fluid based on fresh water without exceeding of maximum allowable working pressure;
- After receiving of circulation pump gel cement in the problem zone.

Advantages of the method:

- Allows use of same bit size, without need of spud of extra casing to solve the circulation issue;
- Reduces time spend on resolving issue with loss of circulation;
- Cheaper than expandable systems;
- Not harmful for environment;
- Used with standard rig equipment.
In addition to conventional drilling services PetroTool offers sidetracking. For casing cutting own design patented whipstock system called ‘AzTec’ is offered. It consists of hydraulic anchor, wedge-deflector and successful mill design.

Advantages of ‘AzTec’ whipstock:
• One trip operation without landing on bottom hole or cementing. Anchor, Wedge-deflector & mills connected on rig site and tripped, set at required depth and direction, cut casing and/or drill formation in 1 run.
• Double Mill can cut all casing types and more than one casing in one run. Mill cutting structure in armed with durable tungsten carbide blades baked in vacuum oven above 600°C. Thus allowing to cut the casing without losing mill OD. Any thread for connecting to drill pipes can be made.
• Anchor designed to be set in casing or open hole without landing on bottom hole or cementing. It can hold axial load of more than 50 tons or 110k lbs. Hydraulic pressure required for anchor setting is 1500 psi and can be achieved by drilling pumps.
• Wedge-deflector comes with preset deflection angle of 1,5…2,5 degrees depending on required in dogleg severity. It can be set at any inclination angle without shutting the ‘window’ and any direction of drilling.

Whipstock comes with all support equipment:
- casing scraper,
- elevator for hanging an anchor,
- floating sub for back flow while tripping,
- orientation sub for orienting the wedge-deflector in desired direction,
- on request anchor packer for isolation of previous borehole is offered.

### Equipment type
<table>
<thead>
<tr>
<th>Equipment type</th>
<th>Casing OD, in</th>
<th>Tool max OD, mm</th>
<th>Double Mill OD, mm</th>
<th>Overall length, ft</th>
<th>Drill bit max OD, in</th>
</tr>
</thead>
<tbody>
<tr>
<td>AzTec-140</td>
<td>5</td>
<td>116</td>
<td>116…120</td>
<td>21,33</td>
<td>4 3/8</td>
</tr>
<tr>
<td>AzTec-146</td>
<td>5 3/4</td>
<td>118</td>
<td>124…128</td>
<td>21,33</td>
<td>4 7/8</td>
</tr>
<tr>
<td>AzTec-168</td>
<td>6 5/8</td>
<td>137</td>
<td>143…148</td>
<td>22,97</td>
<td>5 5/8</td>
</tr>
<tr>
<td>AzTec-178</td>
<td>7</td>
<td>154</td>
<td>156</td>
<td>26,90</td>
<td>6 1/8</td>
</tr>
<tr>
<td>AzTec-194</td>
<td>7 5/8</td>
<td>160</td>
<td>168</td>
<td>27,56</td>
<td>6 3/4</td>
</tr>
<tr>
<td>AzTec-219</td>
<td>8 5/8</td>
<td>180</td>
<td>194</td>
<td>27,62</td>
<td>7 1/2</td>
</tr>
<tr>
<td>AzTec-245</td>
<td>9 5/8</td>
<td>200</td>
<td>216…223</td>
<td>27,62</td>
<td>8 3/4</td>
</tr>
</tbody>
</table>
One of the main activities of our company is the manufacture of parts and assembly units for any industry, construction and agriculture, as well as different metalware production.

Our company provides full life cycle of production from design up to delivery of finished products to the warehouse of the customer.

Using our knowledge, experience, advanced metalworking technology and modern equipment we successfully solve problems of any complexity designing drawings based on the customer’s specifications or sample parts and we manufacture products in accordance with current technological normative documentation (GOST (Russian standard specification), OST (Branch Standards), TU (Technical Specifications) and customer’s drawings. API (for oil and gas industry).

Design engineering, staff training and technology planning allows working on ferrous and non-ferrous, stainless, nonmagnetic metals, non-metallic materials and fluoroplastic, and allow to make a semiautomatic arc welding, gas (acetylene) welding and brazing (using molten solder).

Professional technological preparation of production and available production facilities allow any type of processing of ferrous, non-ferrous, stainless metals and other materials, regardless of their delivery conditions. The modern metalworking technologies implemented at the enterprise in combination with the unique welding, brazing, soldering operations allows manufacturing products of the highest complexity that can meet any customer’s requirements.

The ordered products are made within confirmed time, providing the highest quality, confirmed by multilevel control throughout the process, starting with the incoming materials and components inspection, ending the final inspection of finished products with the compulsory use of non-destructive testing.

PetroTool LLC provides drill pipe repair services. Drill pipe repair is carried out under production conditions with modern equipment.

The following operations are performed in the process of repair:

• Cleaning. Inner and outer pipe surfaces are mechanically cleaned.
• Defects Diagnostics. Lock joints and pipe body flaw inspection is performed.
• Pipe straightening. Inspection is performed to correct the curvature of pipe
• Re-threading. Lock joint re-threading operation is made with modern pipe-threading machines. Control is carried out by gauge rings. API.
• Revitalizing of the lock joint geometry. This operation involves the repair of lock joints by metal welding on the worn surfaces and a subsequent machining of lockis up to sizes corresponding to the GOST requirements. API.
• Hard banding (Hard Facing). Hard banding (hard facing) is used to prevent wear of lock joint outer diameter. The operation is performed with flux cored wire. This alloying material has the following advantages:
  - substantial increase of service life;
  - multiple drill pipe refacing by hard banding (hard facing) without removing of the old worn-out reinforcement facing;
  - significant wear reduction of casing pipe due to contact with the drill pipe;
• Phosphating. Thread connections are subjected to phosphating to protect against corrosion and antifriction properties.
NON-DESTRUCTIVE INSPECTION

PetroTool LLC has the certified modern equipped non-destructive testing laboratory to provide non-destructive testing services.

NDT methods offered:
- Visual and measurement control;
- Ultrasonic;
- Magnetic-particle;
- Electromagnetic;
- Dye penetrant

Types of activity

Inspection of the equipment and materials by non-destructive methods of testing in the manufacturing, installation, repair, reconstruction and technical diagnosis of oil and gas industry units.

Distinctive features of PetroTool NDT laboratory:
- Efficiency request performance;
- Flexible service prices;
- Availability of modern control devices relevant to both Russian and international methods of control;
- Using of electromagnetic scanning unit;
- Availability of special equipment for washing and steam cleaning of inspection units under temperature of 138°C and pressure up to 200 bar.

Inspection carried out by specialists trained according to international standards ISO 9712 (equivalent to ASNT), and under NDC CR 03-440-02 of the Russian Federation.
**ROCK CUTTING TOOLS**

- **Product Outer Diameter (I)**
- **Product Line (II)**
- **Quantity of Blades (III)**

### I - Product Outer Diameter
For conventional bits indicates outer diameter in inches. For corehead bits second value of nominal inner diameter is added through the sign ‘X’. For bi-center bits two diameters are indicated through ‘X’: first is the pass through diameter, second one is borehole enlargement diameter.

### II - Product Line:
- **P** - standard bits with steel or matrix bodies for drilling of vertical or controlled directional wells.
- **PB** - bi-center bits with steel or matrix bodies for drilling with simultaneous borehole enlargement.
- **PC** - corehead bits with steel or matrix bodies for coring.
- **PS** - special steel body bits equipped for sidetracking.
- **PSB** - special steel body bits equipped with tungsten carbide inserts and/or hard abrasive facing intended for drilling out of cement plugs, sand bridges, intervals (gaps) under casing and collar piping and other operations.

### III - Quantity of Blades.
This item indicates the quantity of blades for bits.

### IV - Cutter Size.
This value explains the dominant diameter of the main cutters for bits. Base cutter diameter is 5/16 - 7/8 inch written in mm. If different sizes of PDC cutters are used only largest size is given.

### V - Bit Body Material
Bit body material is given by letters:
- **M** - Matrix
- **S** - Steel

Note: in case of steel body it is allowed not to put the letter "S".

### VI - Design Option.
Alternative bit design is given by numbers for extra information.

---

**PRODUCT LINE P**

**DRILL BITS**

Most common drill bit product line, enclosing steel or matrix body drill bits. Depending on task can be designed for vertical or directional drilling. Includes bit designs for rotary BHA, for downhole motors or rotary steering systems.

**PRODUCT LINE PP**

**DRILL BITS**

Designed for sidetracking.

**SPECIAL BITS**

**PRODUCT LINE PNP**

Steel bodied, armed with tungsten carbide and PDC cutters.

Designed for drilling out of cement plugs, sand bridges, casing shoes.
ABOUT COMPANY

IPM - PROJECT

SERVICES

PRODUCT

Product / Coreheads

BI-CENTER
PB LINE DRILL BITS

Designed for reaming while drilling exceeding previous casing OD, casing shoe and cement plug drillable.

PSB PRODUCT LINE
SPECIALIZED BITS

Designed for cement plugs and sand bridges drill out procedures.

PRODUCT LINE PC
CORING BITS

Designed for coring.

RR LINE
REAMERS

Designed for 2 step reaming of existing borehole or use with drill bit for reaming while drilling.

R LINE
REAMERS

For reaming while drilling with drill bit or for reaming of existing borehole.

ROLLER CONE
REAMERS

For reaming of previously drilled borehole in soft and medium-soft formations. Used with pilot bit.
CONICAL CASING MILLS
PRODUCT LINE FPK

They are equipped with tungsten carbide inserts.
Armed with tungsten carbide inserts. Designed for repair operations in wells, scraping of casings.

STABILIZERS
Bladed stabilizers designed for smoothing of borehole walls in soft, medium and hard formations. As well as for BHA stabilizing, downhole shock reduction and better directional control.

STABILIZER SPECIFICATION

<table>
<thead>
<tr>
<th>OD inches</th>
<th>Type</th>
<th>Design modification</th>
</tr>
</thead>
<tbody>
<tr>
<td>8 1/2&quot;</td>
<td>ST</td>
<td>Insert type based on formation hardness</td>
</tr>
</tbody>
</table>

Stabilizers are divided by blade types:
- KП – straight blades;
- KLS – spiral blades

Depending on formation hardness stabilizers are divided into:
- М – for soft formations;
- ST – for medium to hard and hard formations

Following connection types are provided:
- box-pin;
- box-box
ABOUT COMPANY

IPM - PROJECT

SERVICES

PRODUCT

STABILIZERS
PRODUCT LINE UCT
Calibrators are equipped with tungsten carbide inserts
Reaming of the hole parts in soft, medium low-abrasive formations

STABILIZERS
PRODUCT LINE UCP
Equipped with PDC inserts
Calibration and hole reaming in soft, medium and abrasive formations

STABILIZERS
With spiral blades (KLS)

STABILIZERS
With straight blades (KP)

Put for order:
- type of calibrator (KP, KLS)
- connecting thread
- type of cutting structure (M, ST)
- length of gauge part
- total length of calibrator

Product / Stabilizers

+7 (34767) 6-55-05
pt-info@petrotool.ru, sb@petrotool.ru
www.petrotool.ru
CROSSOVER SUBS
ACCORDING TO STATE STANDARD SPECIFICATION API SPEC 7, GOST 7360-82, GOST 23979-80 — (RUSSIAN NATIONAL STANDARD), TU 3668-002-79655520-2014

Subs are pipe branches with threads on their upper and bottom ends. They are used as connecting units of drilling and casing pipes, tubing having different diameters and types of thread. Subs are produced of different kinds:

XO SUBS
for drilling strings
They are designed for connecting separate parts of drilling strings and tools used at well drilling. Subs are produced of all types and sizes according to state standard specification GOST (RUSSIAN NATIONAL STANDARD), with thread of varies directions (left as well as right).

XO SUBS
for casing pipes
Made under TU 3668-002-79655520-2014

They are used for connecting of casing pipe parts having different sizes and thread connecting types according to state standard specification GOST 633-80 (RUSSIAN NATIONAL STANDARD). it is possible producing of subs with different thread type antis, sizes and length under individual customer’s requests.

Info required for placing an order:
• type of sub (adaptor, sleeve box, nipple);
• connecting threads;
• outer diameter;
• port diameter;
• total length.

XO SUBS
for tubing
They are used for connecting tubing of different sizes, as well as underground equipment having tubing thread of connecting ends used during oil and gas wells operation. Types and sizes of tubing are according to state standard specification GOST 633-80 (RUSSIAN NATIONAL STANDARD),threads are made in accordance with state standard specification GOST 633-80.
**JUNK SUB**

- Designed for catching cuttings and junk too heavy to be circulated.
- Consists of shaft with threaded connections on which basket is screwed.

**FILTER PIPE SUB**

- Made for catching junk in drilling fluid, placed directly above PDM to prevent it from junk damage.

**FISHING TOOLS**

- Fishing tools are used in emergency cases for catching fish like pipes, BHA elements and junk.
- Basic fishing tools include die collars and taps.

**DIE COLLAR**

- Made for catching drill pipes and lifting pipes.
  - Catching is made by impressing on outer surface of pipe upper end.
  - Die collar consists of shaft with thread on upper end and conical catching surface on lower end.

**LKG AND LKG3 TYPE DIE COLLARS**

- Made for catching drill pipes and lifting pipes.
  - Catching is made by impressing on outer surface of pipe upper end.
  - Die collar consists of shaft with thread on upper end and conical catching surface on lower end.

**K TYPE AND KC TYPE DIE COLLARS**

- Catching is made by screwing in on outer surface of cylindrical elements of pipes. When screwing in die collar catching thread makes certain length thread on fish.
  - Consists of shaft with thread on upper end and conical inner conical catching thread on lower end.
TAPER TAPS

Taper taps are used for catching a fish when pipe broke on thicker end. Taper tap consists of box thread on upper end, taper body and threaded wicker on lower end. Wicker has a form of flattened cone and has vertical chip grooves.

TAPS

- Type MAU (Universal Operational Tap)
  - Capture and subsequent removal out of the well the left tubing by cutting into plain inner pipe surface

- Type MAS (Special Operational Tap)
  - Capture and subsequent removal out of the well the left drilling string with sleeve ending by screwing into sleeve thread

- Type MBU (Universal Drilling Tap)
  - Capture and subsequent removal out of the well the left drilling string by cutting into plain inner pipe surface

- Type MCZ (Special Lock Tap)
  - Capture and subsequent removal out of drill pipes by screwing into the lock thread

TANK - VACUUM BOTTLE  V = 8M³

- Block - Water Container
  - Tank - Vacuum bottle is a mobile unit for process water storing at the well site. To maintain a positive temperature in the water tank there is a coil moving water vapor and promotes tank outside heating.
  - Tank is made of steel 09G2S with thickness of 10 mm, it is insulated with mineral wool mats and sheathed with galvanized sheets. Tank - Vacuum bottle consists of heat insulated reservoir based on the frame of sledge type.
  - There are strapping units on the tank frame for lifting and loading the tank into transport.
  - The package includes: tank-vacuum bottle, sledge, inspection hole, inspection ladder and coil.
  - Tank-vacuum bottle does not require a special base, so it can be installed anywhere close to the customer’s location.

COMMUNICATION BOX

- Communication boxes are intended for installation in its internal heated cavity of varies pipelines and for protection them from environmental exposure. It can be pipelines for process water, vapor, compressed air, pressure line pumps.
- Inner cavity of communication box is insulated with mineral wool mats and sheathed with galvanized sheets.
- Communication boxes along the full length are equipped with covers for easy installation of pipelines and access to them. The internal cover part is also insulated.
CABLE RACK
There is a rod welded on the central pipe to support cable. There are four pipes at the bottom serve as foot. Safe positioning of cables and wires

ACCESS BOARD
The design of this product consists of pipes welded together. Access board serves as a support for laying of communications.

DERRICK CELLAR ANVILL
It is used to direct quadratic driving stem into the derrick cellar under connection making.

SPRAY ARRESTER
for collection and removal of oil and associated contaminated formation water, drilling mud and salt solution from the wellhead in the process of lifting of drilling pipes (DP) and pump-compressor pipes (PCP) during repair of oil and gas wells at the enterprises of oil and gas industry.

TRANSPORT PALLET
Transport Pallet is a substantial design consists of the steel frame and pine wood floor boards treated with special impregnation to reduce decay and wear. Installed and fastened together pallets are formed a substantial construction that evenly distributes the weight of the rig on the well pad.
MOBILE CONSTRUCTIONS

Mobile constructions are designed, built, equipped with individual customer’s specifications for the different climatic conditions in accordance with the legal and technical requirements.

They do not require special foundations and therefore they can be can be moved to any place at consumers location. Electric heating and ventilation system allow to work in a wide temperature range from -60°C to +40°C. All of these is necessary for organization of the functioning of both residential and technical facilities at a horizontal platform and connection to 220V.

Types of produced mobile housing:

BKV (compression-condensation unit) is the heated mobile unit with water vessels Eurecub inside. BKV is intended for storage of drinking water at the well site. To minimize heat losses by pouring water into the vessels there are special windows in the walls provided to accommodate hoses.

CCB (compressed air unit) is a self-contained mobile compressor station intended for compressed air supply of technological processes at the drilling rig.

DGU (diesel-generator unit of container type) is a mobile metal unit-type building (block-container) with a three-phase diesel generator unit series of CATERPILLAR C15 set inside, that is designed to supply users with three-phase alternating current voltage of 220 / 440V, 50 Hz, and it is equipped with a life-support system.
452600, Bashkortostan Republic, Oktyabrsky, Sadovoe Koltso St., 4a
Tel: +7 (34767) 6-55-05
pt-info@petrotool.ru, sb@petrotool.ru
www.petrotool.ru