



# DEBIT-E

Engineering • Manufacturing • Service

"Suleymanov winch" Automatic Well Dewaxing Mechanism



# AWDM

Automatic well  
dewaxing mechanism  
"Suleymanov winch"

Our equipment increases  
well flow rate up to 100%



# Time-tested technologies

## Dear colleagues, managers, and specialists in the oil and gas industry

On behalf of all employees at Debit-E, I am pleased to extend a warm welcome. Since 1992, for more than 30 years, our company has been at the forefront of developing and implementing advanced well dewaxing technologies and equipment.

Today, Debit-E remains the only specialized company in Russia offering a complete cycle of development, production, installation, and maintenance of the AWDM Suleymanov Winch.

Over the decades, our engineers have gained invaluable practical experience in deploying this equipment across diverse field conditions and climatic zones—from the Arctic to the tropics.

**35**

years on the market

**100**

professional staff members

**30 000**

winches installed

I wish you continued success  
in all your endeavors.

Aleksandrov A.V.  
General Director





# Features of AWDM

The AWDM (Automatic Well Dewaxing Mechanism) "Suleymanov Winch" is designed for the mechanical cleaning of inner surface of tubing from ARPD (Asphalt-Resin-Paraffin Deposits) in wells operated by electric centrifugal pumps, gas-lift, or gushing methods, including periodic operations.



## UNIVERSALITY

Compatible with most wells, including remote locations where road access is periodically unavailable due to weather. The system can be installed even in the most challenging environments.



## SIMPLICITY

Our compact mechanism is easy to install and operate. The control station doesn't require warm box and supports fully automated winch operation, with an option for semi-automatic (manual) use.



## ECONOMY

A highly cost-effective solution compared to chemical and thermal treatments. Our method ensures maximum well flow rates



## EFFICIENCY

Engineered for consistent performance with guaranteed scraper diameter passage. Our proprietary telemetry system streamlines operations and maximizes both time and cost efficiency.

# Standard equipment

Optional enhancement: the base two-line monochrome HMI can be upgraded to a full-color industrial touchscreen interface, enabling real-time parameter adjustments, schedule programming, and diagnostics directly from the control panel.

Data retrieval and system logs are available via standard USB interface for archiving or further analysis.

## ACA control station

Color touch screen



## The AWDM consists of the following elements

The winch stand is mounted on the top of the lubricator

Explosion-proof electric motor

Wire drum with a wire capacity of up to 2000 meters

KSP mounting box

Weather-resistant protective cover included

Gearbox

Wire Tension Control Unit

Wire

Gland packing device (GP) preventing oil and gas release

Built-in coil active SPS-CA

Scraper

Self-regulating explosion-proof heating cable

Heated lubricator

High-pressure tap

Flange



## SPECIAL OFFER!

With a single purchase of five or more AWDM units, we provide complimentary access to our proprietary telemetry system for remote performance monitoring and operational analytics.  
(Applies to three units for a trial period of three months.)

# Scrapers for AWDM

With extensive in-house production capabilities, we design and manufacture custom scraper tools to meet specific wellbore and operating requirements.

## Axial Blade Scraper (SLO):

For high-efficiency removal of ARPD in straight and moderately deviated wells.



## Metal Turbine Scrapers (STM):

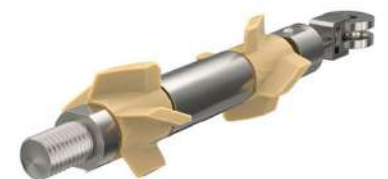
Engineered for aggressive mechanical cleaning in harsh operating environments.

High durability and optimized fluid flow dynamics



## Polyamide Turbine Scrapers (STP):

Designed for sensitive well conditions. Lightweight, corrosion-resistant and ideal for wells requiring reduced mechanical impact.



Over 25 scraper configurations available across our product range

# Additional equipment for AWDM



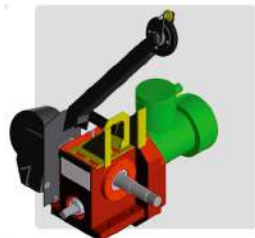
Catcher tool



Spare parts



Service area



Drum changing device



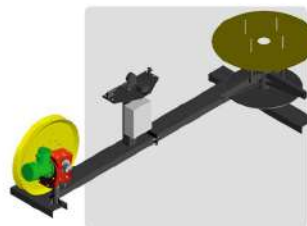
Autonomous power supply module



Preventor



Quick release couplings



Winding machine



Thermal cover for well dewaxing mechanism



# Our services



## MAINTENANCE

Field service technicians perform scheduled maintenance in accordance with the approved maintenance plan.

## TRAINING OF YOUR STAFF AT THE MANUFACTURER'S FACILITY

Comprehensive training delivered through technical manuals, video materials, and hands-on sessions. Personnel are evaluated to confirm operational readiness.

Theory and bench-based practice  
Skill development in equipment operation  
Duration: up to 7 days

## YOUR PERSONAL TECHNICAL MENTOR

Field engineer visits on a recurring schedule to provide continuous operational support:

- Telemetry system monitoring
- Ensuring adherence to maintenance schedules
- Diagnosing and resolving technical issues
- Establishing a direct technical support line
- Training on AWDM operations, telemetry, maintenance, and risk management

## SUPERVISING INSTALLATION AND COMMISSIONING WORKS

Joint support of Incoming QA/QC of AWDM units

- On-site installation
- First-run operation in automatic mode
- Adjustment for optimal cleaning parameters
- Setup of telemetry-based remote control
- Operator training during live deployment

# Pilot Field Testing (PFT)

AWDM (Automatic Well Dewaxing Mechanism) "Suleymanov Winch" is **designed for mechanical cleaning of the inner surface of tubing** from ARPD at wells operating with electric centrifugal pumps or with the gushing method, including periodic wells.

- 01 Selection of candidate wells based on technical characteristics to enable pilot field testing;
- 02 Installation of AWDM is carried out by our company; commissioning works are carried out by our company;
- 03 Setting up remote monitoring and remote control of the equipment (telemetry and control via the Internet);
- 04 System monitoring of the AWDM during is possible by our on-site officer;
- 05 Providing the customer with archives of AWDM work for the entire controlled period

! All your messages are logged, so that you can analyze any questions you may have and prevent the recurrence of errors or supplement the operating instructions.





# Our development – express telemetry

## PROBLEM WE ARE ADDRESSING

In the oil and gas industry, freshly drilled wells need to be continuously monitored, but when drilling well clusters, stationary telemetry will not be installed until the entire well cluster is brought online, which can take years. Moreover, there are areas where there is no electricity at all. In this case, our telemetry on one compact solar installation can cover an area of about 9 square kilometers.

## DEBIT-E DECISION

Telemetry is usually a very complex and expensive hardware and software system. We offer a completely different concept in addition to the existing one.

The customer realizes the need to monitor the object, buys a ready-made set of equipment from us, brings it to the object, installs it (hangs the box on the pole, screws on the sensors, supplies power) and within an hour sees telemetry information on the computer screen.

## THIS WAY

In real time, you will receive

01

a detailed picture of the operation of equipment and provisions at the sites

02

make timely adjustments

03

prevent accidents

04

evaluate the performance of equipment and personnel at the sites



# Advantages of cooperation

For us, the Customer's trust in our company is critical. The price of our mistake detected in the production process is high. The cost of our error detected at the Customer is huge.

Our goal is a mutually beneficial relationship with our suppliers.

- ✓ We continuously improve AWDM design and software. We apply advanced manufacturing technologies
- ✓ We can produce customized quality always meets the customer's requirements and expectations
- ✓ The design features of our products take into account the conditions of use (light, medium, heavy), the criticality of continuous operation for the customer, the staffing of the maintenance personnel
- ✓ We promptly implement the customer's wishes, adapt the operation of AWDM to the conditions of a particular field
- ✓ Works in all climatic zones (extreme heat and cold)
- ✓ Provision of AWDM for a probationary period
- ✓ Debit-E LLC provides supervision of installation, initial training and service maintenance of AWDM
- ✓ The AWDM is designed for fully automatic operation, minimizing the "human factor"
- ✓ Quality is also determined by the selection of components with the best price/quality ratio for the end customer
- ✓ Our experts are available 24/7



# Cases



**Task:** Implementation of mechanical dewaxing technology for well dewaxing. Adaptation of equipment to individual conditions of the customer.



**Region:** Orenburg region

**Problem:** 73 tubing string. Oil supply – fountain. Lack of power supply at the well.

**Solution:** First stage – delivery of mobile power supply (gasoline generator), second stage – development of autonomous power station (Saturn) by our engineers, delivery and adjustment instead of mobile power supply.

**Result:** uninterrupted operation of our equipment in hard-to-reach areas with no power supply.



**Task:** Implementation of mechanical dewaxing technology for well dewaxing. Adaptation of equipment to individual conditions of the customer.



**Region:** Republic of Komi, Yakutia

**Problem:** 73 tubing. Very high pressure at the wellhead. Very high gas factor.

**Solution:** Development and testing of a new device with 2 glands.

**Result:** thanks to our technical solution the customer was able to use the technology of mechanical cleaning of tubing from ARPD (asphalt-resin-paraffin deposits) even at wells with high pressure.





**Task:** Implementation of mechanical dewaxing technology for well dewaxing. Adaptation of equipment to individual conditions of the customer.



**Region:** Yakutia

**Problem:** Far north. NKT 73. Very low temperatures. Need to work at -45 and below.

**Solution:** Oil selection, conversion to continuous cleaning and special maintenance schedule. Design and manufacture of protective covers for the winch.

**Result:** thanks to our technical solution, the customer was able to use the technology for mechanical cleaning of the tubing from ARPD (asphalt-resin-paraffin deposits) even at EXTREMELY low temperatures.



**Task:** Implementation of mechanical dewaxing technology for well dewaxing. Adaptation of equipment to individual conditions of the customer.



**Region:** Yakutia and Irkutsk Oblast

**Problem:** tubing 73. Salt deposits on tubing walls, wire and pig itself and, as a consequence, difficulty of pig passage and increased wear of glands.

**Solution:** Development and testing of a new type of pig. Development and testing of a new type of gland.

**Result:** thanks to our technical solution the customer was able to use the technology of mechanical cleaning of tubing from ARPD (asphalt-resin-paraffin deposits) and optimize the number of trips to treat wells with chemical composition to dissolve salts, which significantly saves time and costs.





**Task:** Implementation of mechanical dewaxing technology for well dewaxing. Adaptation of equipment to individual conditions of the customer.

**Region:** Yugra, TURKMENISTAN, KAZAKHSTAN

**Problem:** tubing 73. Flow rate up to 100 m<sup>3</sup>.

Gas elevator up to 50 thousand cubic meters

Standard pig does not sink (floats), is pushed out by upward flow of oil and gas.

**Solution:** Thanks to our experience and our own production team, we developed a customized technical solution, i.e. a lubrifier extended to 4 meters, a long prefabricated scraper with the same diameter and a 2-fold increase in weight.

**Result:** Thanks to our technical solution, the customer was able to utilize the technology for mechanical cleaning of the tubing from ARPD.



**Task:** Implementation of mechanical dewaxing technology for well dewaxing. Adaptation of equipment to individual conditions of the customer.

**Region:** Vietnam

**Problem:** 73 tubing. Flow rate up to 60 m<sup>3</sup>, Oil feed system - gas elevator, up to 30 thousand m<sup>3</sup>. Standard pig does not sink (float), pushed out by upward flow of oil and gas. High risk of tossing (accident). Impossibility to make a long lubricator because the operating conditions on the offshore platform do not allow.

**Solution:** A new scraper cutting head was developed and patented. The scraper layout was changed. A new material of the core of the weighting scrap was used, which made it possible to use the technology of mechanical cleaning of tubing from ARPD (asphalt-resin-paraffin deposits).







**Task:** Implementation of mechanical dewaxing technology for well dewaxing. Adaptation of equipment to individual conditions of the customer.



**Region:** AZERBAIJAN

**Problem:** NKT 73. Very high temperature of the area. Overheating of automatics – shutdown of cleaning control station.

**Solution:** Development and testing of two cooling systems for automation – passive and active. On-site testing at the customer's site (OPT). Selection of the optimal system

**Result:** Thanks to our technical solution, the customer was able to use the technology for mechanical cleaning of the tubing from ARPD (asphalt-resin-paraffin deposits) even at high temperatures.



**Task:** Implementation of mechanical dewaxing technology for well dewaxing. Adaptation of equipment to individual conditions of the customer.



**Region:** Yakutia and Komi Republic

**Problem:** 73 tubing string. Difficult inclinometry (large angle of deviation in zenith), as a consequence, difficult pig movement and decreased efficiency of dewaxing process

**Solution:** Development and testing of pigs with center rollers. Change of scraper layout (non-standard arrangement of scraper heads). Testing at the customer's premises. Selection of the optimum layout.

**Result:** thanks to our technical solution the customer was able to use the technology of mechanical cleaning of tubing from ARPD (asphalt-resin-paraffin deposits).





**Task:** Implementation of mechanical dewaxing technology for well dewaxing. Adaptation of equipment to individual conditions of the customer.



**Region:** Kazakhstan, Perm, Komi, Orenburg region, Khanty-Mansiysk Autonomous Okrug.

**Problem:** tubing 73. Presence of H<sub>2</sub>S and CO in oil and, as a consequence, increased corrosion of metal, which leads to failure of the whole mechanism.

**Solution:** Design and manufacture of equipment made of corrosion-resistant materials (K2 and K3).

**Result:** Thanks to our technical solution, the customer was able to use the technology for mechanical cleaning of the tubing from ARPD (asphalt-resin-paraffin deposits).



**Task:** Implementation of mechanical dewaxing technology for well dewaxing. Adaptation of equipment to individual conditions of the customer.



**Region:** Turkmenistan, Kazakhstan, Orenburg

**Problem:** Tubing 73 High fountain valves. High wind load, as a consequence, high risk of falling or significant deflection of the lubricator, which will lead to its failure.

**Solution:** Development of a winch slinging system for stability. Supply of complete slinging systems.

**Result:** Thanks to our technical solution, the customer was able to use the technology to mechanically clean the tubing from ARPD (asphalt-resin-paraffin deposits).

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Website



Youtube

debit-e.com