

OPERATING PERFORMANCE

34

Backlog & Order Intake

The Group built its backlog at Rub 24,035 million, down 2 percent yoy due to the decline in the compressors business segment.

Backlog, Rub mn	2016 FY	2015 FY	Change yoy
Industrial pumps	10,318	10,075	2%
Oil & Gas equipment	8,512	5,716	49%
Compressors	3,476	6,915	-50%
EPC	1,730	1,702	2%
Construction	719	581	24%
Project and design	1,011	1,121	-10%
Total	24,035	24,409	-2%

In the pumps business segment, the backlog increased 2 percent yoy to Rub 10,318 million because of inflow of contracts for recurring products. In the oil & gas equipment business segment, the backlog increased by 49 percent yoy to Rub 8,512 million due to the increase in the number of signed contracts for recurring products. The compressors' backlog declined to Rub 3,476 million because of revenue recognition of two large contracts signed in 3Q 2015 and 1Q 2016 and fewer contracts signed for recurring products. The EPC backlog increased by a minor 2 percent to Rub 1,730 million due to better performance of the construction sub-segment.

Order intake, Rub mn	2016 FY	2015 FY	Change yoy
Industrial pumps	15,999	15,399	4%
Oil & gas equipment	17,125	7,919	116%
Compressors	5,172	8,145	-36%
EPC	2,328	1,517	53%
Construction	771	-181	n/a
Project and design	1,557	1,698	-8%
Total	40,624	32,979	23%

Order intake¹ grew by 23 percent and equalled Rub 40,624 million based on growth of all segments except the compressors. Order intake for industrial pumps increased by 4 percent because of more orders for recurring products. The oil & gas equipment grew by 116 percent not only because of large contracts signed but also due to 72 percent growth of recurring business.

In 2016, HMS Group signed three large contracts: two contracts worth almost Rub 5.6 billion in the oil & gas business segment, and a Rub 2.8 billion contract – in the compressors segment.

Order intake for compressors decreased by 36 percent because the large contract signed in the reporting period (Rub 2.8 bn) was smaller than the large one signed in the comparative period (Rub 3.7 bn) combined with fewer recurring contracts signed. The latter was less because Kazankompressormash slowed down its activity in the area of recurring business to keep its productive capacity free as there were several large contracts under discussion. One of these discussed contracts was signed in 1Q 2017, adding Rub 3.9 billion to the compressors' order intake and backlog.

In the EPC segment, TGS (the construction sub-segment) signed a number of new contracts.

¹ According to management accounts

FINANCIAL PERFORMANCE

Group Performance

Group revenue was up by 11 percent yoy and reached a new high of Rub 41,582 million, growing for the third year in a row.

In terms of revenue mix, this growth was supported the most by recurring products. In 2016, recurring business increased by 15 percent and as a share of revenue amounted to 75 percent vs. 73 percent last year. Here, machine-building recurring products² grew by 18 percent yoy. Revenue from large contracts also grew, but at a slower pace, by only 3 percent yoy.

In terms of segments, the compressors business segment was the driver of the revenue increase because of large contracts.

Financial highlights, Rub mn	2016 FY	2015 FY	Change yoy
Revenue	41,582	37,296	11%
EBITDA	6,369	7,446	-14%
EBITDA margin	15.3%	20.0%	

EBITDA margin decreased to 15.3 percent from 20.0 percent in the comparative period due to two main factors:

- A decrease in the profitability of the pumps business segment because of the revenue mix with a larger share of recurring business, which has lower margins compared to large projects;
- An increase in the share of large contracts in the compressors segment, that still have low margins.

EBITDA declined by 14 percent yoy to Rub 6,369 million mainly because of the decline in the pumps business segment due to smaller share of large contracts, especially in 1Q 2016. The pumps' EBITDA was almost completely generated by recurring business. In the oil & gas business segment, EBITDA generated by large contracts declined, and recurring business, in contrast, grew significantly, due to a higher profitability of innovative projects, among other things. Also, there was a high basis of comparison for the oil & gas equipment segment last year. The compressors segment increased its share in the company's EBITDA as well as in the large contracts' portfolio.

Cost of sales increased by 19 percent yoy to Rub 30,799 million compared with Rub 25,783 million. This growth outpaced revenue (+11% yoy) and was driven by materials and components (+22% yoy). The main reason was a change in the prevailing type of contracts, which became more material-intensive in particular because of a specific nature of KKM's contracts. Labour costs stayed unchanged, and as a share of revenue even decreased to 11 percent from 12 percent.

Cost of sales, Rub mn	2016 FY	2015 FY	Change yoy	Share of revenue 2016 FY	Share of revenue 2015 FY
Cost of sales	30,799	25,783	19%	74.1%	69.1%
Materials and components	20,172	16,520	22%	48.5%	44.3%
Labour costs	4,627	4,607	0%	11.1%	12.4%
Construction & design and engineering services of subcontractors	2,173	1,135	91%	5.2%	3.0%
Depreciation and amortization	1,340	1,281	5%	3.2%	3.4%
Others	2,487	2,239	11%	6.0%	6.0%

Operating expenses excl. Cost of sales grew by 3 percent yoy to Rub 6,771 million, whilst as a percentage of revenue decreased to 16.3 percent.

Distribution and transportation expenses increased by 23 percent yoy and amounted to Rub 1,700 million. As a percentage of revenue, they also grew, to 4.1 percent from 3.7 percent. Major contribution to the increase was made by transportation expenses and other expenses related to contracts' execution. Here, transportation expenses grew due to a growth of the number of heavy and oversized products dispatched as well as more deliveries to remote northern regions of Russia.

² Machine-building products include standard pumps, oil & gas equipment, and compressors, and exclude EPC (GTNG and TGS)

FINANCIAL PERFORMANCE (CONTINUE)

36

General and administrative expenses declined by 2 percent to Rub 4,523 million.

SG&A expenses³ grew by 4 percent yoy to Rub 6,223 million, with lower share in revenue (15% in 2016 vs 16% in 2015). The growth of SG&A expenses was mainly because of an increase in transportation costs.

Expenses other than Cost of sales, Rub mn	2016 FY	2015 FY	Change yoy	Share of revenue 2016 FY	Share of revenue 2015 FY
Distribution and transportation	1,700	1,378	23%	4.1%	3.7%
General and administrative	4,523	4,603	-2%	10.9%	12.3%
Other operating expenses	548	624	-12%	1.3%	1.7%
Operating expenses ex. Cost of sales	6,771	6,605	3%	16.3%	17.7%
Finance costs	1,905	2,087	-9%	4.6%	5.6%

Operating profit declined by 20 percent to Rub 3,624 million compared with Rub 4,525 million because of the lower EBITDA. Operating margin decreased to 8.7 percent (2015: 12.1%).

Finance costs declined by 9 percent yoy to Rub 1,905 million. Foreign exchange revaluation gain more than compensated for the growth of interest expenses of 11 percent yoy.

As of January 1, 2017, average interest rate grew to 12.2 percent (01.01.2016: 11.4 percent), where Ruble-denominated only, in contrast, decreased to 12.4 percent (01.01.2016: 12.5 percent). Within a year, interest rate increased during the first 9 months. The reasons for the growth were the same as in the previous reporting period: a Euro-denominated loan was refinanced with a Ruble-denominated one, "old" before-the-crisis loans at low interest rates were replaced with more expensive ones. But since 4Q 2016, the average interest rate began to decrease.

Profit for the year decreased by 32 percent yoy to Rub 1,198 million from Rub 1,764 million, due to the lower operating profit. And profit for the year adj. equaled to Rub 1,587 million, down 26 percent from Rub 2,148 million.

Segment Performance

The reportable operating segments derive their revenue primarily from the manufacture and sale of industrial pumps, oil and gas equipment, compressors, oil and gas construction and other products and services. From 2015 onwards, HMS Group reports a total segment's revenue, which includes external revenue and intersegment revenue, for more consistent demonstration of the performance of each segment.

Industrial pumps Business Segment^a

The industrial pumps business segment's revenue declined by 7 percent yoy to Rub 16,724 million. EBITDA decreased by 33 percent yoy to Rub 2,755 million. As a result, EBITDA margin decreased to 16.5 percent.

The main reason for the lower financials was a decline in the share of large high-margin contracts in revenue and EBITDA. Here, EBITDA was almost completely generated by recurring business with lower margin.

Industrial pumps, Rub mn	2016 FY	2015 FY	Change yoy
Revenue	16,724	17,925	-7%
EBITDA	2,755	4,098	-33%
EBITDA margin	16.5%	22.9%	

³ SG&A expenses = Selling, General and Administrative Expenses = Distribution and transportation + General and administrative

^a The industrial pumps business segment designs, engineers, manufactures and supplies a diverse range of pumps and pump-based integrated solutions to customers in the oil and gas, power generation and water utilities sectors in Russia, the CIS and internationally. The business segment's principal products include customized pumps and integrated solutions as well as pumps built to ordinary specifications; it also provides aftermarket maintenance and repair services and other support for its products.

Oil & Gas equipment Business Segment^b

Revenue stayed almost flat at Rub 15,144 million and EBITDA was down by 7 percent yoy to Rub 3,032 million. From the perspective of recurring business, the oil & gas equipment segment continued to deliver strong results.

There was a twofold decrease in revenue from large contracts in the oil & gas business segment, but recurring business almost substituted them. EBITDA generated by large contracts declined. Recurring business, in contrast, showed significant growth in EBITDA terms. Also, the oil & gas equipment segment last year demonstrated a high basis of comparison.

EBITDA margin declined to 20.0 percent because of a larger share of recurring business. But, margins for recurring oil & gas equipment are higher than in the previous periods due to a higher level of innovation and added value of new equipment put into operation.

Oil & Gas equipment, Rub mn	2016 FY	2015 FY	Change yoy
Revenue	15,144	15,218	0%
EBITDA	3,032	3,246	-7%
EBITDA margin	20.0%	21.3%	

Compressors Business Segment^c

Revenue grew by 108 percent to Rub 8,700 million, and EBITDA increased to Rub 619 million mainly due to growing portfolio of large contracts. EBITDA margin was almost the same 7.1 percent vs. 7.5 percent in the compared period.

Compressors, Rub mn	2016 FY	2015 FY	Change yoy
Revenue	8,700	4,183	108%
EBITDA	619	315	96%
EBITDA margin	7.1%	7.5%	

Engineering, Procurement and Construction (EPC) Business Segment^d

The EPC business segment continued its negative dynamics. Revenue was down to Rub 2,297 million from Rub 2,617 million. EBITDA dropped to minus Rub 75 million from plus Rub 180 million due to poor performance of the both sub-segments: project & design and construction. These weak results are a direct consequence of the shrinking contracts portfolio because of tougher pricing of oil & gas majors and stronger competition in the stagnating market for a small number of orders. As a result, EBITDA margin turned negative 3.2 percent from positive 6.9 percent last year.

EPC, Rub mn	2016 FY	2015 FY	Change yoy
Revenue EPC	2,297	2,617	-12%
EBITDA EPC	-75	180	-142%
EBITDA margin EPC	-3.2%	6.9%	

^b The oil & gas equipment business segment manufactures, installs and commissions modular pumping stations, automated metering equipment, oil, gas and water processing and preparation units and other equipment and systems for use primarily in oil extraction and transportation. The segment's core products are equipment packages and systems installed inside a self-contained, free-standing structure which can be transported on trailers and delivered to and installed on the customer's site as a modular but fully integrated part of the customer's technological process.

^c The compressors business segment designs, engineers, manufactures and supplies a diverse range of compressors and compressor-based solutions, including compressor units and compressor stations, to customers in the oil and gas, metals and mining and other basic industries in Russia. The business segment's principal products include customized compressors, series-produced compressors built to ordinary specifications, and compressor-based integrated solutions.

^d The engineering, procurement and construction (EPC) business segment provides design and engineering services, project management and construction works for projects for customers in the oil upstream and midstream, gas upstream and water utilities sectors.

FINANCIAL PERFORMANCE (CONTINUE)

38 Cash Flow Performance, Debt and Liquidity Position

Working capital⁴ increased by 13 percent yoy to Rub 9,962 million because of the continuing execution of large contracts. But as a share of revenue it stayed stable at 24 percent.

Working capital, Rub mn	2016 FY	2015 FY	Change yoy
Working capital	9,962	8,813	13%
Working capital / Revenue LTM	24%	24%	
Capital expenditures	1,701	1,457	17%

Despite the increase in working capital, HMS Group generated net operating cash inflow of Rub 1,808 million.

HMS' capex grew 17 percent. This growth affected Net cash used in investing activities, the net outflow of which increased to Rub 1.8 billion (2015: Rub 1.4 billion).

The company continues execution of its Localization project⁵ where it invested Rub 665 million during 2016 year. Excluding these capital expenditures, HMS raised its maintenance capex by 26 percent yoy to Rub 1.0 billion. In 2014-2015, the company reduced its capital expenditures due to the economic crisis in Russia and imposed sanctions, and today is increasing them to a "normal" level required for further development.

Increased investment activities decreased free cash flow⁶, which amounted to Rub 20 million.

Cash flow performance, Rub mn	2016 FY	2015 FY	Change yoy
Net cash (used in)/from operating activities	1,808	1,881	-4%
Net cash used in investing activities	-1,788	-1,431	25%
Free cash flow (FCF)	20	451	-95%
Net cash (used in)/from financing activities	-394	-1,594	-75%
Cash & cash equivalents	2,990	3,496	-14%

Cash & cash equivalents were down to Rub 3.0 billion vs. Rub 3.5 billion last year.

Net cash (used in)/from financing activities increased by Rub 1.2 billion.

Total debt increased by 3 percent yoy to Rub 16,336 million. Net debt grew by 8 percent yoy to Rub 13,347 million because financing cash flows (buy back of issued shares, dividends paid and purchase of a stake of Apollo), that totaled almost Rub 1.1 billion, weren't covered by free cash flow of Rub 20 million. Larger Net debt and lower EBITDA resulted in the higher 2.10x Net debt-to-EBITDA LTM ratio.

In December 2015, the Group exercised its right under the option agreement to acquire the remaining 25% share in Apollo Goessnitz GmbH. Share purchase transaction was legally completed in February 2016, and, as a result of this transaction, the Group increased its ownership interest in Apollo Goessnitz GmbH from 75% to 100%.

Debt & Liquidity, Rub mn	2016 FY	2015 FY	Change yoy
Total debt	16,336	15,884	3%
Long-term debt	12,770	11,218	14%
Short-term debt	3,566	4,667	-24%
Net debt	13,347	12,388	8%
Net debt / EBITDA LTM	2.10	1.66	

³ Working capital is calculated as Inventories + Trade and other receivables (excluding Short-term loans issued, Bank deposits and Promissory notes receivable) + Current income tax receivable - Trade and other payables - Short-term provisions for liabilities and charges - Current income tax payable - Other taxes payable - Dividends payable (Rub 393 mn) which emerged because of dividends announcement in Dec 2016 and their payment in Jan 2017

Credit rating

Fitch Ratings assigns JSC “HMS Group” (legal entity, the holder of HMS Group’s assets, located in Russia) a first time Foreign and Local Currency Issuer Default Rating (IDR) of “B+”, the outlook “Stable”.

Significant Events & Financial Management After the Reporting Date

In March 2017, HMS Group signed two large contracts: Rub 3.9 billion for delivery of compressor equipment and Rub 10.2 billion for delivery of oil & gas equipment.

Financial management

In February 2017, HMS Group successfully placed a Rub 3.0 billion exchange bonds issue of JSC “Hydromashservice”, one of the main operational subsidiary of the Group. The company came back to the public debt capital markets with Rub 3 billion 10.75 per cent coupon bonds with a 3-year put option and 10-year maturity. It was the first HMS Group debt issuance since 2013.

The same month, HMS signed a credit agreement with UniCredit Bank totaling Rub 800 million. The 3-year loan facility with maturity in 2020 was utilized for general corporate needs, including refinancing at lower interest rates its previously signed credit lines.

As of mid-April, 2017, average interest rate of Ruble-denominated loans decreased to 11.2 percent and to 11.0 percent for all loans, including FX-denominated.

In April 2017, HMS did the following, among other things:

- Lowered the interest rates of one credit line without its refinancing, and
- Refinanced Rub 1.86 billion at a lower interest rate.

Change in Business segments and reporting structure

Due to the change in the internal management and reporting structure effective 1 January 2017, the results of the Group’s subsidiaries Giprotymenneftegaz PJSC and Institute Rostovskiy Vodokanalproekt OJSC since 1 January 2017 will be presented within “Oil and gas equipment” segment, whereas previously these entities were included in “Engineering, procurement and construction” and “Industrial pumps” segments, respectively. Additionally, starting from 1 January 2017, “Engineering, procurement and construction” segment will be renamed “Construction” segment, and “Oil and gas equipment” segment will be renamed “Oil and gas equipment and projects” segment. Because such changes occurred after the period end, they have not been reflected in the segment information herein, but will be reflected for the first time in the reporting period for 2017.

HMS GDRs

During the period from December 1, 2016 up to and including April 26, 2017, HMS Group repurchased 37,693 of its global depository receipts (“GDRs”). The share repurchases are part of the Company’s buy-back program. In total, HMS Group purchased 903,562 GDRs (3.86 percent of its issued share capital).

⁵ Development of manufacture competences for high capacity oil transport pumps and nuclear pumps in Russia, Orlov region (Livny) at HMS Livgidromash

⁶ Free cash flow (FCF) = Net cash (used in) / from operating activities (operating cash flow) + Net cash used in investing activities (investing cash flow), represents the cash that a company is able to generate after laying out the money required to maintain or expand its assets base.

KEY PROJECTS AT HMS

40



Centrifugal compressor 4GC2-75/30-83 GTU with gas-turbine engine



Major Siberian gas field

Completed Projects

In 2016, HMS Group completed the delivery of oil & gas equipment to a major Russian oil & gas company under the so-called “Liquid Hydrocarbon Project,” signed in 2Q 2014. The total size of the contract, including additionally signed specifications, amounted to 7 billion rubles.

SUCCESSFUL COMPLETION OF THE LH PROJECT WITH ONE OF THE RUSSIAN OIL & GAS MAJORS RESULTED IN FOLLOW-UP CONTRACTS

7 RUB BN

Projects on Track

In December 2013, the company signed a 5.7 billion rubles contract to supply an integrated solution to a major Siberian gas field. According to the contract, HMS will design, manufacture, deliver, supervise and test the complex technological facility, including compressors, pumps, tanks, vessels, filters, coolers and other components. The project is planned for completion in the near future.

In 2016, the company signed several follow-up contracts as a result of the successful execution of recently completed large-scale projects:

- Contracts for the production of a boosting compressor station. The station, based on 3centrifugal-type compressor units with gas-turbine engines intended for the compression of low-pressure associated gas, will be manufactured by Kazankompressormash and installed on an oil and gas condensate deposit, located in Western Siberia;
- A contract for the delivery and installation of technologically integrated solutions for two Siberian gas fields. HMS Neftemash will deliver complex integrated solutions for the pumping of natural gas liquids and the pumping of oil, wash-down water and rust preventive chemicals.

DEVELOPMENT OF DESIGN DOCUMENTATION, MANUFACTURING, DELIVERY, SUPERVISION AND TESTING OF COMPLEX TECHNOLOGICAL FACILITY, INCLUDING COMPRESSORS, PUMPS, TANKS, VESSELS, FILTERS, COOLERS AND OTHER COMPONENTS FOR PROVIDING COMPLEX INTEGRATED SYSTEMS

5.7 RUB BN



API 610 oil-refining pumps



Inter-stage compressor stations based on turbo-compressor units

New Projects

In the autumn, HMS Group signed a 9 million Euro contract to deliver oil-refining pumps in line with the API 610 international standard. This project is managed by a top international engineering company, which serves as a customer engineer under its EPS (Engineering and Procurement Services) contract with the Russian customer. HMS will produce and deliver more than 50 centrifugal API pumps of different designs for an atmospheric crude distillation unit/vacuum distillation unit, to be installed at one of Russia's largest high-tech oil refining plant located in Western Siberia.

In addition, several contracts with a total worth of 7 million US dollars were signed to deliver 8 turbine feed pumps and other pumping equipment to the third and the fourth power plant units in 2017 and 2018 respectively. These contracts are a follow-up to the contracts executed in 2004-2006 for the delivery of main pumping equipment to the first and the second units of this nuclear power plant.

HMS ENTERED THE MARKET FOR PROJECTS OF INTERNATIONAL ENGINEERING CONTRACTORS IN RUSSIA, WITH SIGNING OF THE CONTRACT TO DELIVER API 610 OIL-REFINING PUMPS

9 EUR MN

New Projects after the Reporting Date

In March 2017, HMS Group signed a 10.2 billion rubles contract for the delivery of a range of technologically integrated solutions, including helium concentrate membrane recovery units (skids 1st and 2nd stage), as well as inter-stage compressor stations based on turbo-compressor units and gas booster stations, to be completed in the first quarter of 2018.

Later, the company signed a contract for the delivery of major and accessory processing equipment worth 3.9 billion rubles, for the reconstruction of gas booster stations at the customer's oil & gas condensate field.

THERE ARE VERY FEW SIMILAR PROJECTS REALIZED IN THE WORLD, AND IT IS THE FIRST PROJECT OF THIS KIND IN RUSSIA. HMS GROUP WILL DESIGN AND MANUFACTURE EQUIPMENT TO OPERATE UNDER ADVERSE CLIMATIC CONDITIONS

10 RUB BN

RESEARCH AND DEVELOPMENT

42

HMS Group is continuously strengthening its research and development capabilities, with the Company's strategy being aimed at establishing the best Research & Development in Russia and CIS countries.

Our investments are dedicated to strengthening our core competencies in industrial pumps, oil and gas equipment and compressor technologies, as well as in developing solutions for the oil and gas industry and water utilities.

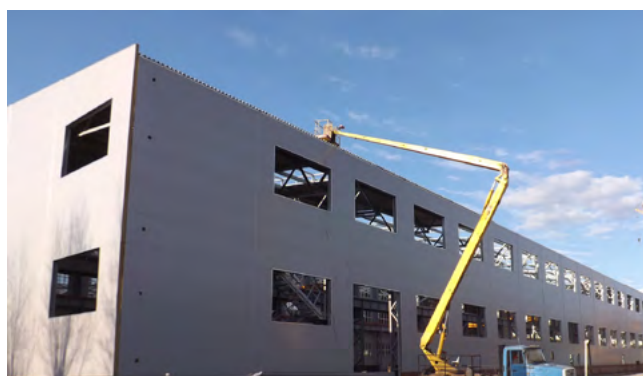
Pumps

Localisation Project

In 2016, HMS deepened the process of localising heavy pumps and pumping equipment, extending the lines of pumps produced at HMS Livgidromash. The company completed the first stage in Q1 2016. Within the framework of this project, HMS constructed a new production unit and a new transformer substation. The newly built test complex has become the only one of its kind in Russia, enabling testing of pumping units installed at the oil pipelines of Transneft and Rosatom's nuclear power plants. It consists of all the main and support systems needed to conduct operational testing of heavy centrifugal pumping units.

Within the second stage of the project, a manufacturing building is to be constructed, which will be equipped with modern high-performance equipment. Additional manufacturing capacities and the multifunctional test complex will maintain HMS Group's leading position and will cover customer requirements for high-tech pumps in the long term.

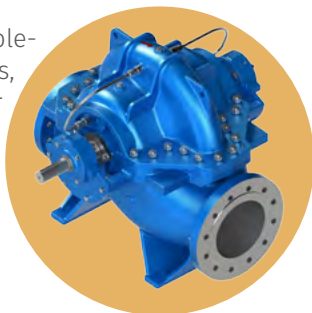
The project is being supported by the Ministry of Industry and Trade of the Russian Federation, the Government of the Orlov region and the Fund of Industry Development of the Russian Federation. HMS Group plans to complete the project by the end of 2017.





New D series pumping units based on double-suction centrifugal pumps are characterized by improved service reliability and easy maintenance. Pumps are completed with ADCHR series induction motors made by RUSELPROM.

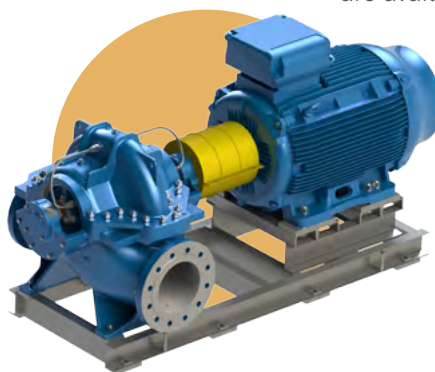
A new generation of the double-suction pumps, DeLiium series, are developed with computer modelling and meet up-to-date requirements for high efficiency, long service life and reliability. Extensive model range and using at least two interchangeable impellers for one casing allows the selection of the most suitable pump within 80-3500 m³/h capacity range and 5-180 m head range. In addition, the impellers could be manufactured in accordance with specific customer requirements. Pump's curves are adopted for parallel operation and operation with variable speed drives. Various versions of pumps



Nasosenergomash continues the differentiation of foundry materials created that are used for pump production. Manufacturing with post-heat treatment was development for the following alloy steels: 1.1138 SEW 685, 1.4107 EN 10213, 1.4317 EN 10213, and others. New steel grades have high rates of resistance to corrosion and cavitation and are thus intended for operation in aggressive environments.

In 2016, we continued to expand our pump products lines with new API pump models. We started to introduce to the market a new line of overhung water pumps (Kordis), launched a new family of pumps for oil refining (2NK, 2NPS), developed and started production of advanced pumps for oil transport (upgraded main line NM and new vertical NMV pumps). We also significantly upgraded our lines of pumps for power generation (PE feed pump and KsV condensate removal pumps) and launched an advanced model of slurry pumps for mining industry (HDP).

2NK series API 610 OH2 pumps are the main processing pumps in petrochemicals and gas refining. They are also widely used in heavy duty industries like petroleum, petrochemical, energy, etc. The new pump line is available in a wide spectrum of construction and numerous design alternatives to meet all demand. It took more than 3 years of intensive work to develop and set up the production.



are available for operation in the regions within -60 to +60°C temperature range.

Oil & Gas Equipment



Binary Mixtures

In 2016, Sibneftemash began the realisation of a project aimed at developing a technology and equipment complex for thermo-chemical, oil-and-gas-bearing formation treatment with the aim of increasing hydrocarbon production and restoring the ecological environment on oil & gas fields, instead of using the foreign technology of proppant-gel fracturing.

The project is being carried out in cooperation with Tyumen State University and the Institute of Biochemical Physics of the Russian Academy of Sciences. Currently, the composition of binary mixtures' components, stabilizers, initiators and the degradation of binary mixture activators in reservoirs, as well as their energy characteristics and mixture preparation procedure, have been optimised. The Company has produced prototypes of units for the preparation, mixing and injection of mixtures into reservoirs. HMS has applied for two patents: one for a mixing pump and one for a unit for the production and injection of binary mixture in reservoirs.

Nitrogen Generator

HMS produced a prototype for a membrane nitrogen generator and completed its element-by-element set up (the heater, the pneumatic valve, the flow controller, and the gas analyser).

Plate Heat Exchangers

In 2016, HMS Neftemash began the realisation of a project for the development and production of plate heat exchangers for Russia's petrochemical facilities. Under this project, HMS set up production of gasketed plate exchangers for oil and gas, in cooperation with G.A.M. Heat (Germany) and Euro Heat (Serbia).



Compressors

Centrifugal Compressor Units

HMS Group has developed and produced a centrifugal compressor unit with a parallel arrangement of pressure cases that is unrivalled throughout the world. The 53GTs2-188/10-87 GTU unit will be put into operation at a boosting compressor station of NOVATEK's Yurkharovskoe field. The realised plan, with parallel cases of low- and high- pressure, enables the effective transportation and processing of natural oil and gas within a wide range of gas composition, flow rate and pressure.

Modular Compressor Unit TAKAT 78.2-7 M3a HL1

HMS developed a modular compressor unit (MCU) based on an oil-flooded screw compressor in order to operate in a technology of distributed compression on GAZPROM's Yamburgskoe oil & gas condensate field. MCU TAKAT is composed of domestic components and consists of two container modules (compressor and separation) with an electrical module, a control module and a reserve generator that serves as a back-up system.

The Group's current operating portfolio includes 246 patents, 46 registered trademarks and 26 registered computer programmes, reflecting our commitment to research & development.

Legal Protection of Intellectual Property

In 2016, the HMS Group continues the complex protection of exclusive rights to its products and the individualisation of produced goods and services that are provided with the purpose to acquire the right of exclusive use in the market. The company has received exclusive rights on 20 intellectual property assets: 16 invention and utility model patents, 1 registration of application software, and 3 trademark registrations.

These patented technologies are intended to enhance the work of:

- Centrifugal pumps and compressors, and their separate units and parts,
- Gas separators,
- Compressor oil preheating systems,

as well as the improvement of the conditioning process of an oil-gas-water blend for transport, and the design of new products for thermo-chemical, oil-and-gas-bearing formation treatment.

The stable annual dynamics for the registration of exclusive rights are related to HMS' policy of discovery and the necessary provision of legal protection to the high-tech results of its intellectual activity.



SOCIAL RESPONSIBILITY

46

HMS Group fully recognises its responsibility to all of its stakeholders and makes an effort to communicate with them on a regular basis. The Group maintains an enduring and solid record of commitment to its people, contributing to social development and improvements in the quality of life across the local communities in the regions of its operation.



People

As an employer of over 15,000 people and being one of the major job creators across cities where the facilities are located, we carry enormous responsibilities for the people affected by our operations. We believe that employees are one of the core assets of HMS Group, and therefore, we can only be successful and sustainable through the attraction and retention of the best people, and by encouraging and developing them to achieve their full potential.

In 2016, we continued our staff training and education, focusing mainly on the areas of accounting and functional education, including the development of managerial competencies for the company's officers (with MBA/EMBA programs), as well as English language instruction.

HMS conducts systematic actions that address accident prevention and the creation of healthy and safe working conditions. Safety is one of our top priorities and the company is improving its health and safety standards on a regular basis.

This includes courses and trainings on occupational safety, fire and the environment, which are held at all production sites throughout the year. We also hold regular, routine medical check-ups for employees working in hazardous production areas.

HMS' branches issue free personal protective equipment, including work clothes, safety shoes and other personal safety apparel. The company analyses the given personal safety apparel on a regular basis, as well as examining novelty products.

We promote and encourage a healthy lifestyle, not only because it helps to maintain a productive and positive workplace, but also because it is the right thing to do.

In February 2017, one of HMS' employees, Nikolai Kuzovlev, successfully participated in the 2016-2017 Ice Climbing season, winning 8 medals. The last one was the bronze medal in the 2017 Ice Climbing World Championship.

The Environment

The efficient use of natural resources is one of HMS Group's main priorities. The Group systematically implements environmental and energy-saving technologies at its production sites, in spite of the fact that the environmental impact of HMS Group's subsidiaries is generally low.

Not only do we continue to work on developing and selling an energy-efficient product and service solutions, but we also focus all of our businesses on the efficient consumption of fuel, paper, water, electricity and heating.

The HMS Group conducts activities on a regular basis to offset its impact on the environment, including waste management, the analysis and control of water quality on industrial sites, compliance with environmental emissions, and the monitoring of the industrial environment.

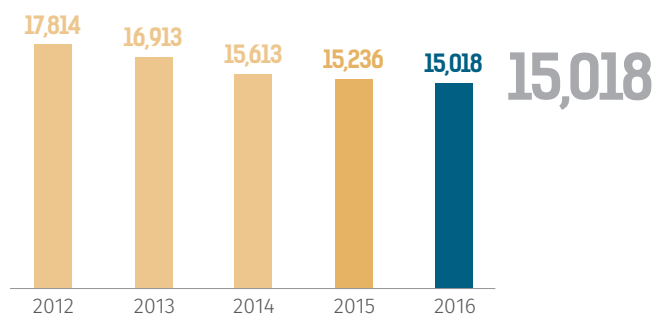
Charity

HMS' charity initiatives are aimed at improving the social climate in regions where the company operates. The creation of jobs and business opportunities also strengthen local economies and provide support for the development of community projects.

HMS Group focuses at helping children who are in need of medical treatment, as well as children in need of social and professional assistance, of which these projects are realised through:

- Social support and protection of citizens, including improvement of the financial position of the indigenous peoples, social assistance to the unemployed, the disabled and other disadvantaged groups who, due to their specific physical or intellectual condition or other circumstances, are unable to implement their legitimate rights and interests by themselves;
- Promoting the prestige and the role of the family in society;
- Promoting the protection of motherhood, fatherhood and childhood.

Average Headcount
as of 31 December 2016



The average headcount decreased mainly because of restructuring in the EPC Business Unit.