LIQUID JET GAS COMPRESSORS
FOR SIMULTANEOUS GAS COMPRESSION AND TREATMENT

BPC Engineering – the leading provider of power equipment for oil & gas industry – presents an advanced solution for hydrocarbon gases compression and separation within a single COMPEX unit. Extensive experience in the field of power supply and gas processing for petroleum industry and close collaboration with the Russia’s leading R&D companies led us to the creation of liquid jet gas compressor systems that meet the key requirements of oil&gas industry in terms of reliability and efficiency.

Equipment is manufactured at the Company’s facility in Tutaev city, Yaroslavl Region, under own brand COMPEX ensuring full compliance of the products to customer’s specifications.

Liquid jet gas compressor systems are designed for various gases compression combined with the following processes:

<table>
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<th>PURPOSES</th>
<th>PROCESS LIQUIDS</th>
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<tr>
<td>Desulfurization – hydrogen sulfide and mercaptan sulfur removal</td>
<td>Amine solution</td>
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<tr>
<td>Methane number increase</td>
<td>Diesel fuel, gas oil, stabilized condensate</td>
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<tr>
<td>Dehydration – water dew point depression</td>
<td>Glycol solution</td>
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<tr>
<td>Heavy hydrocarbons separation – hydrocarbon dew point depression</td>
<td>Diesel fuel, gas oil, stabilized condensate</td>
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APPLICATIONS

- Hydrocarbon gases treatment for further use or transportation
- Associated gas gathering and processing including low-pressure gas
- Conditioning of natural gas, associated gas, coalbed gas or gas mixtures to fuel quality
- Chemical waste gases and off-gases capture
- Vacuum generation in oil processing plants

COMPEX solution employs highly-efficient jet compression technology that uses potential energy of high-pressure gas, liquid or two-phase streams to compress and separate gases in a two-phase jet compressor. The units can use various absorption fluids eligible for mixing with gas and depending on the required quality of the final product.

Two-phase liquid jet gas compressor is a type of ejector where motive liquid entrains low-pressure gas forming high-pressure liquid-gas mixture.
Gas is fed to the suction of liquid jet gas compressor (1). Absorption liquid is pumped (5) into the jet compressor at high pressure through motive nozzle entraining and compressing the gas to required level while absorbing undesired gas components.

Then gas-liquid mixture enters separator (2) where gas is separated from liquid and released for the further use.

The absorption liquid goes in thermal desorber (3) – where absorbed components are removed – and through heat exchanger (4) the liquid is fed into the pump for next cycle.