



## INDUSTRIAL AMMONIA COMPRESSOR UNITS COOLTECH AND THEIR APPLICATION IN AMMONIA PRODUCTION

5TH INTERNATIONAL SCIENTIFIC CONFERENCE OF THE RUSSIAN CHEMISTRY UNION

COOLTECH team took part in the 5th International Scientific Conference of the Russian Chemistry Union «Current State and Prospects of Ammonia Production (Modernization, Reconstruction, Ecology, Secure Storage of Liquid Ammonia). 70 companies from all over Europe and Russia attended this conference to share their views and introduce their manufacturing features for the ammonia production.

COOLTECH company is producing industrial refrigeration equipment for hazardous oil and chemical industries including ammonia production for more than 10 years. At our production plants in Finland and Russia we manufacture open-type screw compressor units, chillers, vessels etc. that is used in cooling processes and in particular in storage and filling cycles of ammonia production that guarantees process safety.

As compressor bear blocks we use oil filled open type screw compressors such as HOWDEN (Scotland), AERZEN (Germany), VILTER (USA). COOLTECH compressor units receive the ammonia vapors at the suction line and then condensate them to future return it to the system.

The key to the quality of COOLTECH ammonia screw compressor units is our great experience, proper organization of design and manufacturing processes, implementation of effective oil-separation and oil supply as we use oil-filled compressor blocks. Oil supply and oil separation provide lubrication of all the bearings of the compressor unit, cooling, ammonia compression and capacity control if there is a hydraulic valve. This method of capacity control loading and unloading of the compressor changes gradually from 10 to 100%. Besides there is a possibility to use frequency capacity control of the compressor unit.

COOLTECH company develops and manufactures its own filtration and oil separation systems with very high filtration rate from 15 to 2 p.p.m., that practically eliminates oil from entering into ammonia that is flowing to the system.

As the drive of the compressor unit we use high- and low-voltage electric motors, gas and steam turbines, generators running on liquid fuel and natural gas, including explosion-proof versions.

The automation system of the compressor unit is equipped with a controller with the ability of remote monitoring or with linear automation devices depending on the requirements of the equipment.

COOLTECH compressor units are supplied in full operational readiness as a packaged solution for quick mounting and future use in the part of the ammonia plant. COOLTECH production facilities are able to produce compressor units both as standard product or tailor-made according to your specific requirements.

