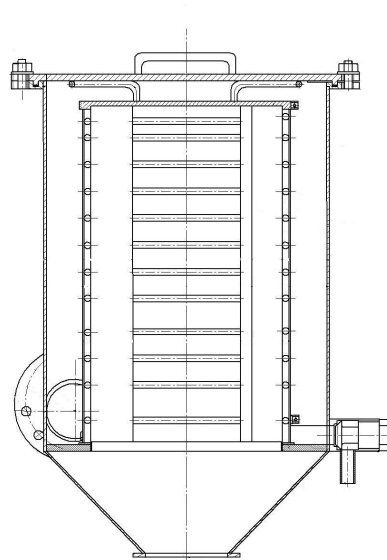




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## **Filter for fusion nitrogen and complex fertilizers of FHF (filter-homogenizer for fusion) type**



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Filter for fusion nitrogen and complex fertilizers is used for breaking the coarse particles, homogenization of initial components and filtering fusion of nitrogen or complex fertilizer before delivering it into granulator. Fusion circulation and breaking of its particles takes place due to liquid phase pressure.

Sumy State University acts as an invention applicant and therefore an owner of more than 80 copyright certificates and patents for means and instrument designs of granulation processes for various substances (including about 40 designs of vibro-granulators and filters for nitrogen fertilizers fusion).

Filter for fusion nitrogen and complex fertilizers of FHF type corresponds to the world analogs.

Using the filter one can clean granulator 3-5 times less often. Filter cleans fusion from admixtures before it is delivered into the granulator, and so it eases granulator's maintenance; the result product is of better granulometric composition, which is achieved because granulator cage holes are less blocked. Beside that filter provides breaking admixtures in the fusion and their homogenization in the liquid phase; so it helps to produce complex fertilizers. Estimated economic effect of the filter is 200.000USD a year for the granulator AC-67. It is achieved due to less product losses because of granulator turnoffs for cleaning and due to no product losses with dust.

Filter for fusion nitrogen and complex fertilizers of FHF type is used in the chemical industry in particularly by companies producing nitrogen and complex mineral fertilizers.

Filter for fusion nitrogen and complex fertilizers of FHF type is ready for operation.

Filter for fusion nitrogen and complex fertilizers of FHF type successfully operate on the enterprises of Russia and Cuba.

The design documentation and equipment of filter for fusion nitrogen and complex fertilizers of FHF type



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designed and manufactured by Sumy State University are certificated by NP "SC NASTHOL» № ROSS UA.AЯ45.A01260 from 24.04.2008, authorized for use by Russian Federal Agency of Ecologic, Technologic and Nuclear Supervision № PPC 00-22575. The development and production unit of granulation and mass-exchange equipment is certificated, as the one that meets the requirements of ISO 9001:2000, certificate HU 08/3130 from 28.03.2008 and is certified in BUREAU VERITAS (certificate № KIV/ITD/096/2010).