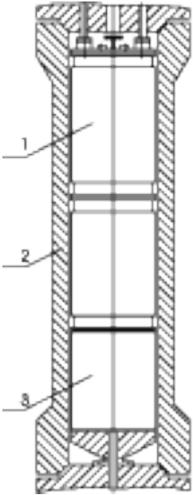


PACKED COLUMN APPARATUS

Packed column apparatus with dumped packing are used for fractionation of highly aggressive or viscous media, as well as in necessity of small liquid inventory, in rectification processes, not requiring fine separation, and in absorption processes with high specific loads by liquid.

Material structure — steel grades St3sp; 16GS; 08X13; 12X18H10T; 08X22H6T; 10X17H13M2T. Working temperature, °C — from -40°C till +400°C. Pressure: from 5 millimeters of mercury to 2.5 MPa. Shell diameters : ranging from 400 to 2800 mm. Separate delivery of packing to vertical vessels is possible.

AMMIAK SYNTHESIS COLUMN PACKING



Packing is intended for operation in the ammonia synthesis column of 1000 mm diameter.

- 1 - catalyst box;
- 2 - synthesis column;
- 3 - plate-type heat exchanger.

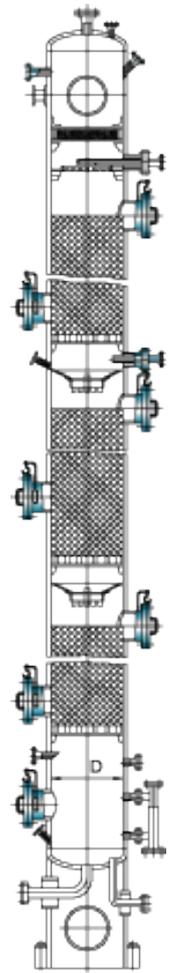


PLATE COLUMN APPARATUS

Intended for realization of mass- and heat exchanging processes (rectification, distillation, desorption, absorption, cooling, gas purification etc.) in chemical, petrochemical, oil refining, gas processing industries, in production of mineral fertilizers and in other branches.

Plate types used:

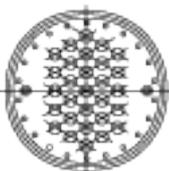
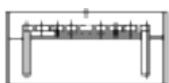
- bubble-cap plates (OST 26-01-66-86);
- perforated and valve-perforated plates (OST 26-01-108-85);
- louver-valve plates (OST 26-01417-85);
- perforated plates with bumping elements, one-flow and two-flow (OST 26-02-2054-75).

Material structure — steel grades St3sp; 16GS; 08X13; 12X18H10T; 08X22H6T; 10X17H13M2T.

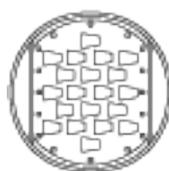
Operational temperature limit — from -40 till +400 °C.

Shell diameters: 400, 600, 800, 1000, 1200, 1400, 1600, 1800, 2000, 2400, 2600, 2800.

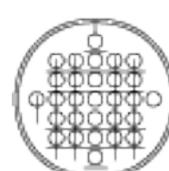
Separate plates delivery to column apparatus is possible.



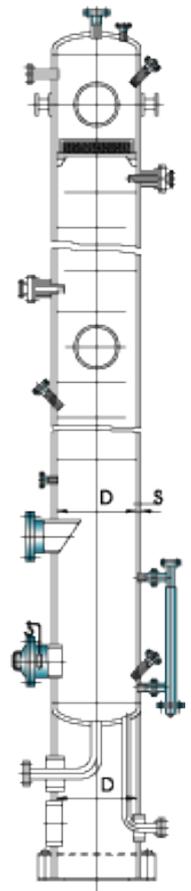
bubble-cap plate



valve plate (collar)



perforated plate

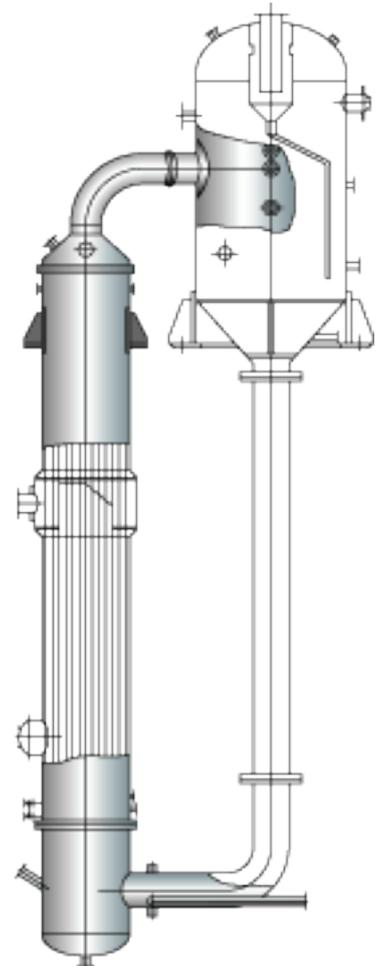


EVAPORATING VERTICAL TUBE APPARATUS WITH INDIVIDUAL ENGINEERING DESIGN

Evaporating apparatus are used for concentration of solutions in the production of mineral salts, organic semi-products and fertilizers, protein-vitamin concentrates, fodder yeast, and in other production processes.

Apparatus are made with natural and forced circulation, with coaxial or remote heating chamber.

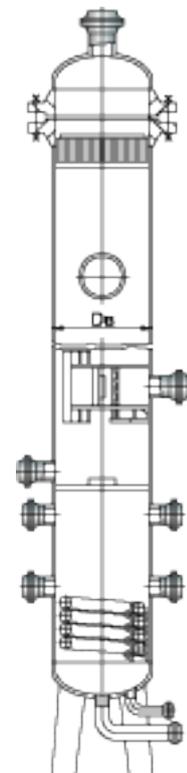
Heat exchange surface, m ²	10-2500
Apparatus diameter, mm	800-4000
Heating chamber diameter, mm	325-3000



GAUZE GAS SEPARATORS

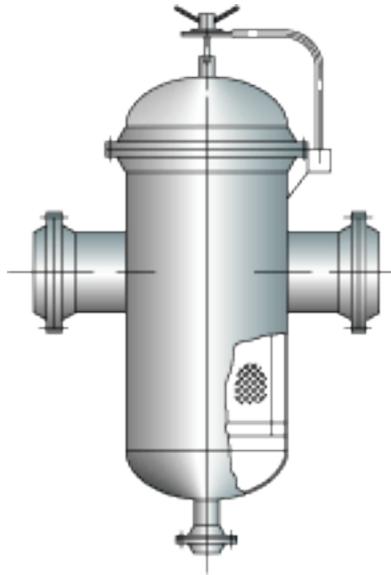
Gauze gas separators are intended for final cleaning of natural and dissolved oil gas from liquid condensate, hydrate formation inhibitor, water) in the industrial units of gas processing during conveying to gas- and oil refinery plants.

Internal diameter D _i , mm	600	800	1200	1600	2000	
Rated pressure, MPa	0,6	1	1,6	2,5	4	6,3
Temperature, °C	working from -30 up to +100					



LIQUID SCREEN FILTERS FOR PIPELINES CDZH

Intended for protection of pumps and heat exchanging equipment in the technological units of oil refining, petrochemical, oil- and gas industries.



Internal diameter D_i , mm	8	150	250	300
Conventional pressure p_c , MPa	1,6		4	
Temperature, °C	from -60 till +300			
Material: housing filter element	steel 20, steel 10G2, (screen) 12X18H10T			
Overall dimensions, mm:				
height	820 ... 1580			
width	720 ... 1920			
Weight, kg	94 ... 1620			