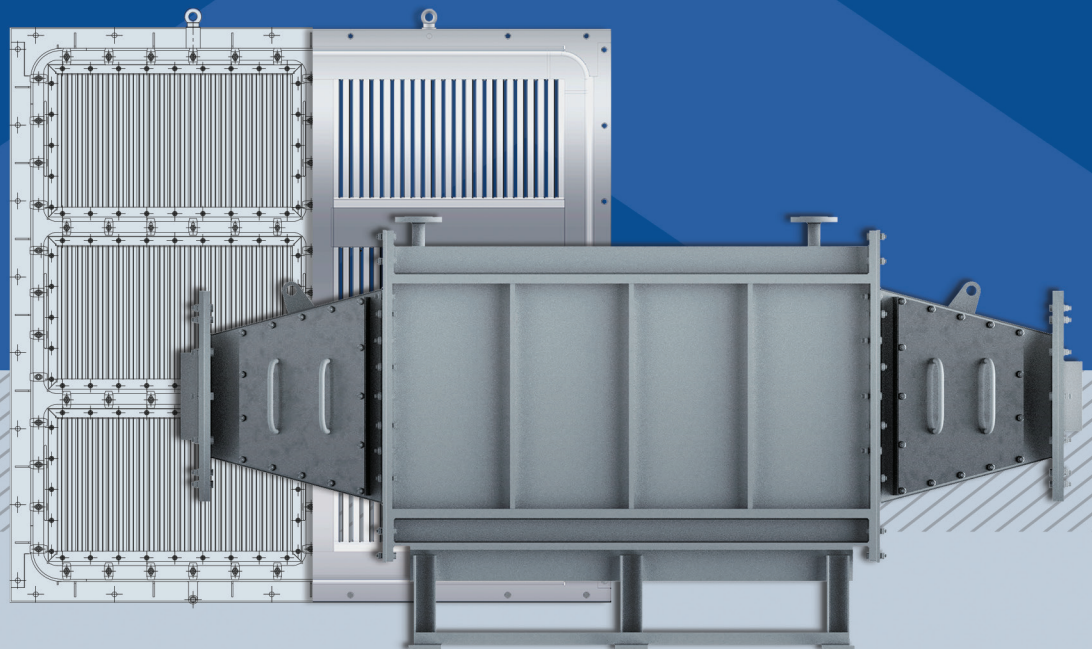


Air and gas purification equipment

4.0

- System to clean and cool exhaust gas of heat engines
- Air separators
- Inertial separator, single-stage, hinged version
- Inertial separator, two-stage, one-piece case



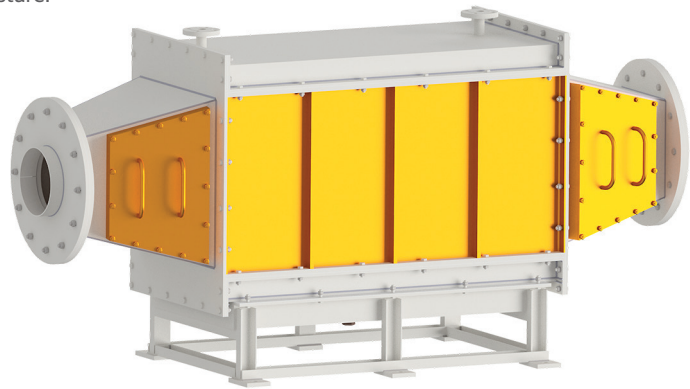
System to clean and cool exhaust gas of heat engines

4.0

Air and gas purification equipment

Function and technical data

- The system is intended for the noncontact cleaning and cooling of exhaust gases from solid combustion products and moisture.



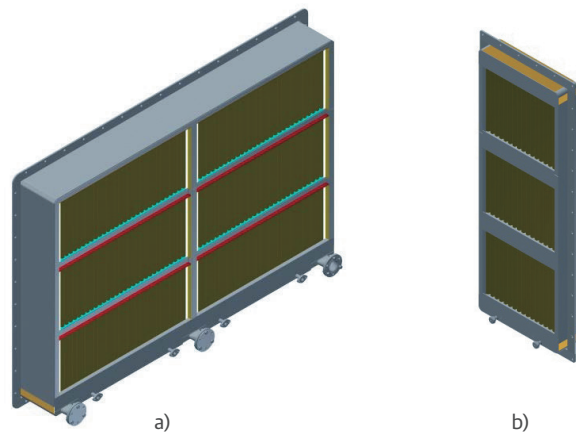
Technical data, main parameters and characteristics

Name	Value
Gas flow, kg/sec	0,5
Inlet gas temperature, °C	400
Outlet gas temperature, °C	40
WP, MPa (kgf/cm ²)	0,11 (1,1)
Thermal output, kW, max	200
Cooling medium	solution of propylene glycol
Inlet temperature of the cooling medium, °C	5
Nominal flow rate of the electric pump, kg/sec (m ³ /h)	3,47 (12,5)
Overall dimensions, L x W x H, mm	2385 x 890 x 1240
Weight, kg	1400

Air separators

Function and technical data

- The separator is intended for the preliminary cleaning of air in air intake systems of marine gas turbine power plants.
- Possible to be either steam-heated (is a part of heating system of air intake channel) – pic. a) or unheated (installed to bypass the air flow) – pic. b).
- Efficient for the rate of airflow max 10 m/sec.
- Possible to manufacture under the required sizes.



4.0

Technical data, main parameters and characteristics

Designation	Heating	Overall dimensions, mm			Clear dimension*, mm		Weight, kg
		L	B	H	B1	H1	
ИУШД.637632.001	available	458	2610	1790	2480	1660	411
ИУШД.637632.002	available	472	2310	1790	2310	1790	366
ИУШД.637632.003	available	280	1720	2070	1560	1910	140
ИУШД.637632.004	n/a	161	780	2014	660	1884	65

* are actual dimensions that determine the open flow area of the separator. For dimensioning assembly openings of separators, it is necessary to add the required mounting clearance to this clear dimension.

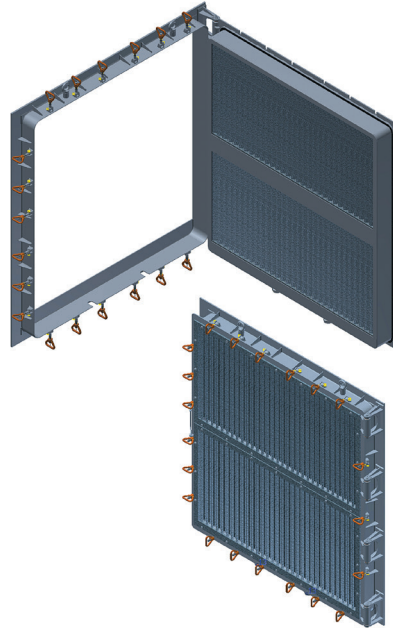
Inertial separator, single-stage, hinged version

4.0

Air and gas purification equipment

Function and technical data

- 1200 × 1300 inertial separator is intended to clean air from water and mechanical impurities in the systems of air intake for combustion in ship (marine) diesel engines. Separators have simple and reliable construction built on a modular principle. It is based on welded steel body with a hinged cover with mounted in replaceable sections out of composite material. Separators have one stage of the cleaning.



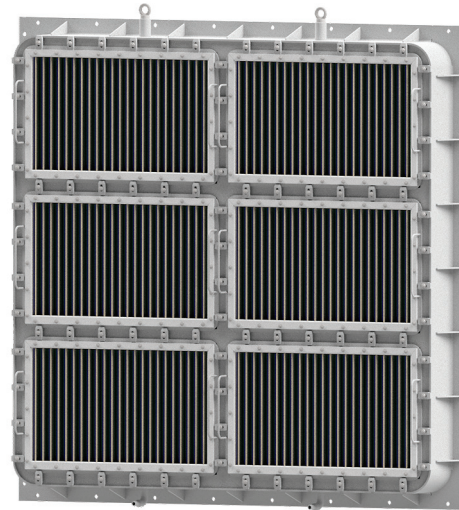
Technical data, main parameters and characteristics

Name	Value
Inlet air velocity, m/sec	10
Hydraulic resistance of one stage of cleaning (main version or version-01), Pa (mm w.g.)	420 (42,8)
Hydraulic resistance of filter-coalescer (main version or version-01), Pa (mm w.g.)	300 (30)
Specific capacity per unit area, m ³ /1m ² per second	10
Inlet content of water, sand, salt, g/kg, max	35
Max permissible outlet air salt content, mg/kg	0,03
Inlet particle pollutant size, μm, max	3
Purification efficiency of vitiated air flotation, %, min (at the velocity of the air flow being max 8,5 m/sec)	75
Max local non-uniformity of the velocity field on the area, not exceeding 5% of the cross-section area of the air duct, %, max	10
Q-ty of cleaning stages, pcs.	1
Weight of 1 m ² of section, kg, max	25
Relative humidity under the temperature +32°C, %	100

Inertial separator, two-stage, one-piece case

Function and technical data

- Inertial separator is intended to clean air from water and mechanical impurities in the systems of air intake for combustion in ship (marine) diesel and gas turbine engines. Separators have simple and reliable construction built on a modular principle. It is based on welded body of light aluminum alloy with mounted in replaceable sections out of composite material. Separators have two stages of the cleaning.



4.0

Technical data, main parameters and characteristics

Name	Value
Inlet air velocity, m/sec	10
Hydraulic resistance of one stage of cleaning (main version or version-01), Pa (mm w.g.)	420 (42,8)
Hydraulic resistance of two stages of cleaning (main version or version-01), Pa (mm w.g.)	920 (93,8)
Hydraulic resistance of filter-coalescer (main version or version-01), Pa (mm w.g.)	300 (30)
Specific capacity per unit area, m ³ /1m ² per second	10
Inlet content of water, sand, salt, g/kg, max	35
Max permissible outlet air salt content, mg/kg	0,03
Inlet particle pollutant size, μm, max	3
Purification efficiency of vitiated air flotation, %, min (using two stages of cleaning)	99,96*
Max local non-uniformity of the velocity field on the area, not exceeding 5% of the cross-section area of the air duct, %, max	10
Ambient temperature range, °C	-35...+50**
Relative humidity under the temperature +32°C, %	100
Q-ty of cleaning stages, pcs.	2
Weight of 1 m ² of section, kg, max	25

Notes:

*100% cleaning rate under the air flow decrease

** Provided efficient heating system or heating of the space where the air separator is installed under the temperature range being not below +5 °C



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