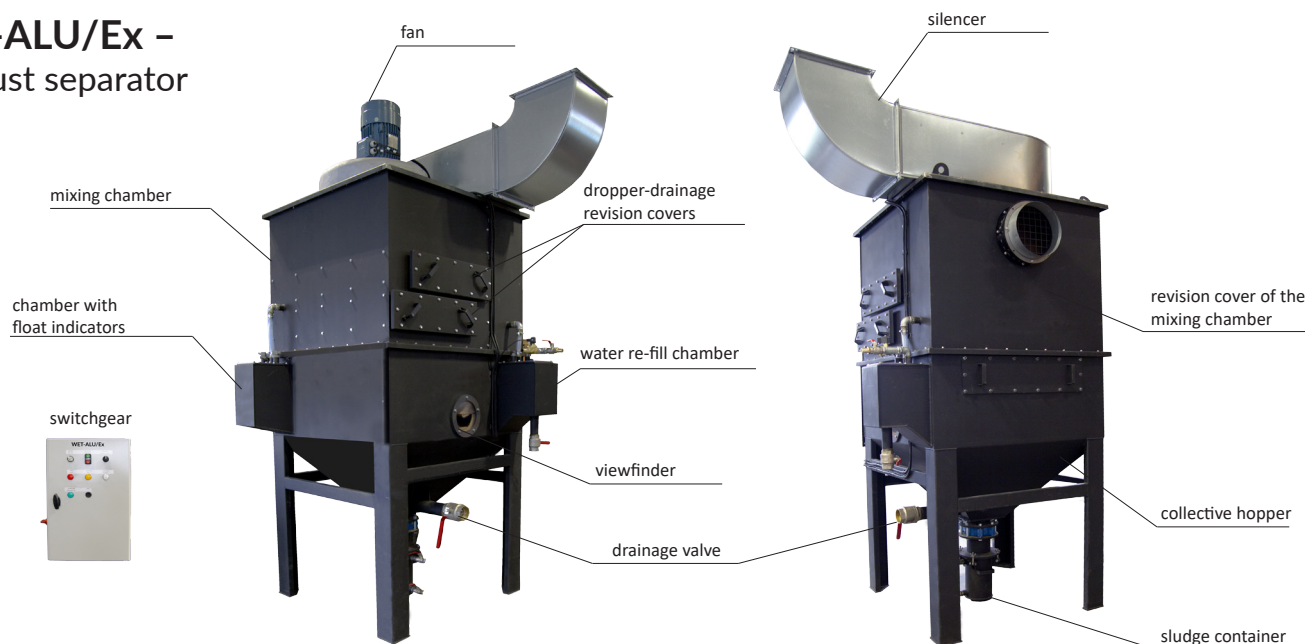


WET-ALU/Ex – wet dust separator

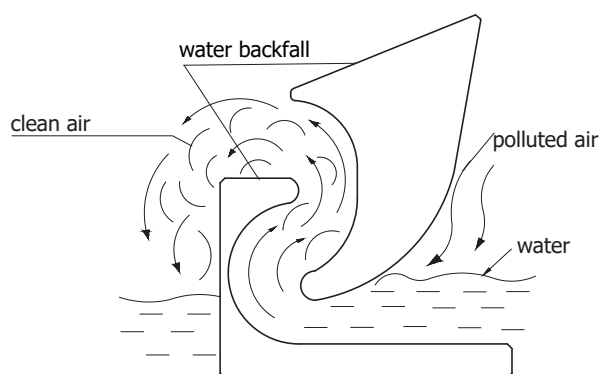


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Application

WET-ALU/Ex wet dust separators are efficient in cleaning the dust-laden air from the impurities arising during the manufacturing processes. They are irreplaceable in removal of dust particles of dry, humid, viscous nature and. Additionally, they are efficient in capturing the dust with high amount of sparks. WET-ALU/Ex separators are also designed for removal of dusts of explosive properties, especially for dusts arising during the aluminium grinding.

Function



The polluted air flows through an immersed in the water guiding plate (backfall) and here the air gets mixed with the water, creating an aerated foamy dust-water mixture with bubbles. Particles that are captured in the separator, create sludge with the water. The sludge sediments in the hopper (collecting the waste) and in the sludge container.

Having passed the backfall, the cleaned air is additionally separated from the leftover water particles in the dropper-drainage.

Water level is monitored by means of minimum- and maximum level float indicators.

Structure

The system consists of subsequent assemblies:

- mixing chamber – includes a guiding plate, creating a whirl of the dust-water mixture,
- hopper – collecting the waste from the filtration,
- pneumatic shear damper with the sludge container,
- drainage valve,
- a fan located above the mixing chamber,
- float indicators – a system controlling the water level and its refilling in the mixing chamber,
- gas remover (deaerator),
- switchgear – (installed beyond the Ex area),
- revision covers of the dropper-drainage,
- technological doors.

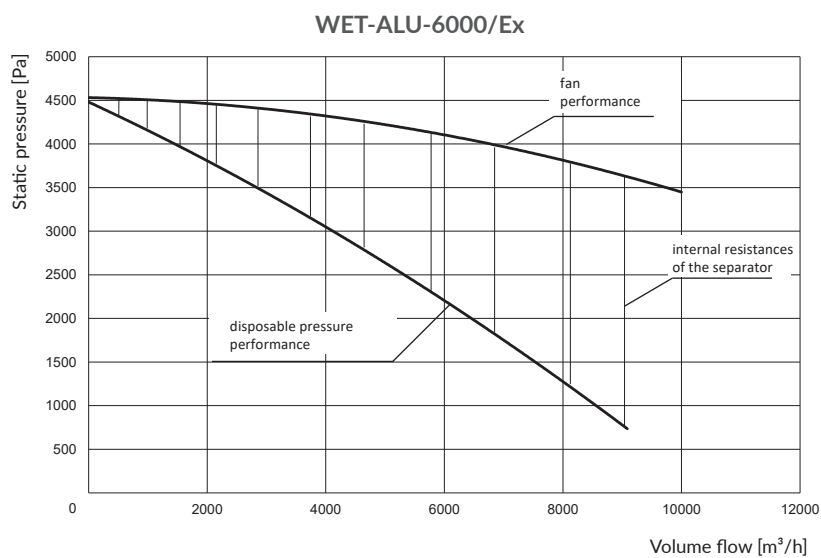
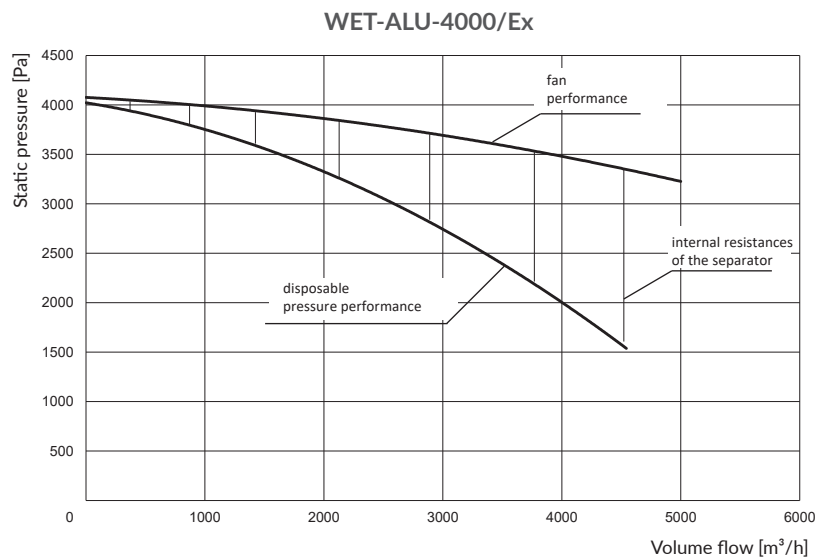
Operational use

The dust separator should be connected to the water supply system to provide the appropriate water level in the device.

The appliance is equipped with a double system of sludge removal. For everyday sludge discharge is used a sludge container, supplied from the external water supply system. The water washes out the accumulated impurities. Subsequently, the waste is transported to a container (barrel) located near the dust separator. It is important to remove periodically the sludge accumulated in the collective hopper – first close the shear damper and then open the drainage valve.

After all the sludge is removed, the water in the mixing chamber is refilled automatically.

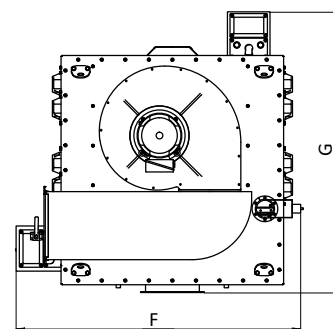
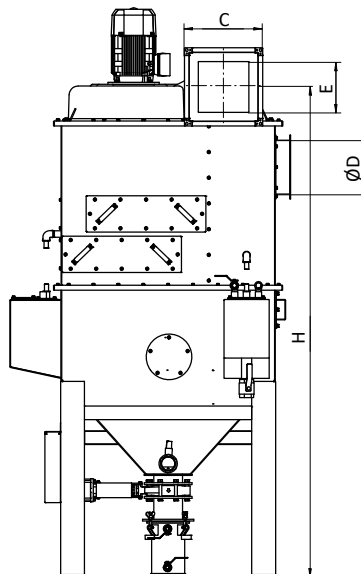
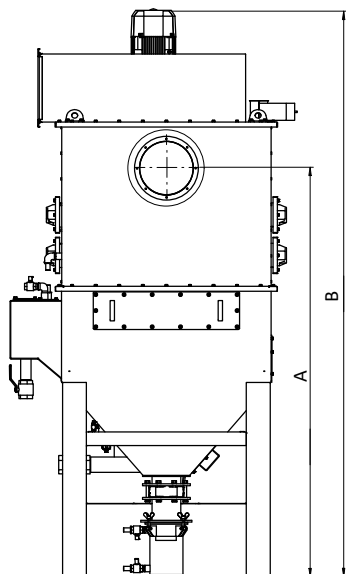
Flow charts



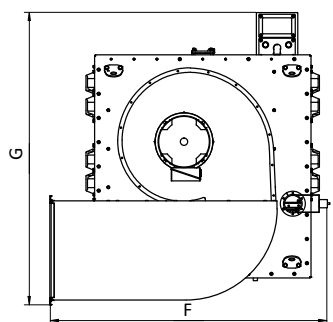
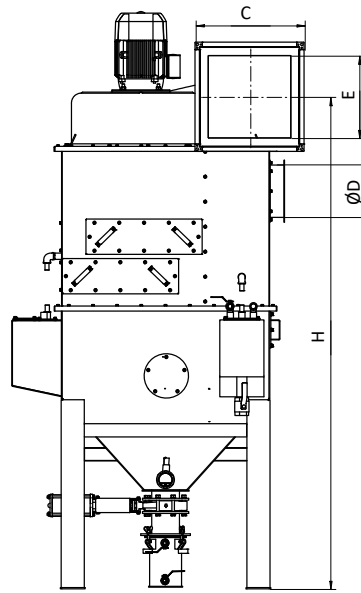
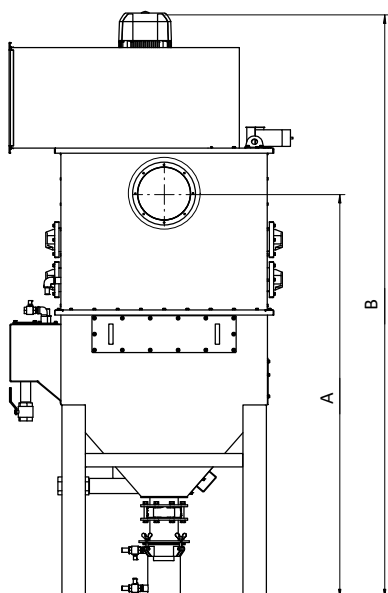
Technical Data

Type	Part No.	Maximum volume flow [m³/h]	Maximum vacuum [Pa]	Supply voltage [V]	Motor rate [kW]	Acoustic pressure level [dB(A)] measured from distance 1m:	Capacity of the water chamber [m³]	Weight [kg]
WET-ALU-4000/Ex	800094	7000	4000	3x400	5,5	72	0,65	937
WET-ALU-6000/Ex	800095	9000	4500	3x400	11	76	0,65	1037

WET-ALU-4000/Ex



WET-ALU-6000/Ex



Dimensions

Name	A [mm]	B [mm]	C [mm]	ØD [mm]	E [mm]	F [mm]	G [mm]	H [mm]
WET-ALU-4000/Ex	2403	3324	460	315	300	1673	1649	2887
WET-ALU-6000/Ex	2403	3474	660	400	500	1673	1767	2974