INDUSTRIAL HOT AIR BOILERS, MOBILE CONTAINER BOILER ROOMS





DILOTOP MACHINE & EQUIPMENT







Industrial hot air boilers

Industrial hot-air boilers are designed for heating buildings and equipment where filtered hot air supplied by a boiler and fan can be used. This mainly concerns the heating of halls, agricultural buildings, cereal dryers, wood chip or sawdust dryers, residential buildings, etc. The boilers are structurally assembled primarily for biomass combustion, they can also be equipped with a light fuel burner or a gas combustion unit. We also offer mobile container boiler rooms, where the boiler itself, including accessories, is installed in a 20 or 40 ' transport container. This option is advantageous in terms of handling and transport. The container unit includes a fuel storage, the boiler itself with accessories, a fan, a dust separator, etc.



Hot air boilers are manufactured in several modifications, heat output and design, type designation:

* KD150, KD300, KD500, KD700, KD900, KD1300, KD1800, KD2200, KD2500 ** KDV UNI150, KDV UNI300, KDV UNI500, KDV UNI700, KDV UNI900, KDV UNI1300, KDV UNI1800, KDV UNI2200, KDV UNI2500







Hot air boilers KD



Hot-air boilers with the KD type designation are structurally assembled in such a way that flue gases are used to create the drying medium, which are then further filtered by means of a centrifugal cyclone and an electrostatic filter. They are designed for the distribution of hot air into the assembly, where it is possible to dry using filtered combustion gases. With this version, temperatures of up to 480 °C can be achieved, exceptionally up to 550 °C for drying non-flammable materials. **KD boilers** can be used for drying commodities and other materials that tolerate higher temperatures for drying.



- 1. Main air inlet for heating
- 2. Fireplace
- 3. Control flap for air intake into the combustion chamber
- 4. Filtration and afterburning chamber
- 5. Outlet temperature control flap
- 6. Furnace fan
- 7. Combustion chamber fan
- 8. Safety emergency chimney flap

- 9. Cyclone spark and dust separator
- 10. Electrostatic separator of sparks and dust
- 11. Adjustable output temperature 50-480 °C, max. 550 °C
- 12. Chimney exhaust of emergency flap exhaust gases
- 13. Container for filtered particles and dust
- 14. Container for separated dust particles
- 15. Automatic ash removal, connection of an external ash container

Overview of the type and performance of hot air boilers KD

Type designation	Rated performance	Outlet temperature	Air performance max.	Elektric power	Dimension of the boiler LxWxH (mm)	Total weightt
KD150	150 kW		5600 m3/hour	2,2 kW	1150x800x1200	1120 kg
KD300	300 kW		7500 m3/hour	2,6 kW	1210x925x1200	1620 kg
KD500	500 kW		8000 m3/hour	2,8 kW	1450x1050x1300	2750 kg
KD700	700 kW		8450 m3/hour	2,8 kW	1450x1300x1300	3950 kg
KD900	900 kW	480 °C	9600 m3/hour	3,4 kW	1960x1425x2100	5320 kg
KD1300	1,3 MW		11500 m3/hour	3,8 kW	2250x1675x2180	7290 kg
KD1500	1,5 MW		12700 m3/hour	3,8 kW	2250x1925x2180	8440 kg
KD1800	1,8 MW		14500 m3/hour	4,2 kW	2710x2175x2220	10780 kg
KD2200	2,2 MW		16800 m3/hour	4,8 kW	2960x2300x2220	12990 kg
KD2500	2,5 MW		20100 m3/hour	4,8 kW	3210x2425x2220	14880 kg



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Hot air boilers KDV UNI

Hot-air boilers with the KDV UNI type designation are boilers with an installed heat exchanger made of stainless steel material and are designed for the production and distribution of hot air into a set where it is necessary to dry with clean air without flue gases and impurities from combustion. These are commodities that will be further used as feed or in the food industry after processing, or the drying of some commodities is limited by both temperature and the need for clean air without flue gases. The design of the KDV UNI boiler also allows the possibility of connecting the flue gases to the exchanger by means of a control flue gas flap and thus connecting the flue gases to the drying medium-air. With this version, temperatures from the exchanger can be reached of 50-150 °C and by connecting the flue gases to the system, the temperature can be increased up to 480 °C, in the extreme limit up to 550 °C. KDV UNI boilers can be used for drying Agro commodities as well as other materials that tolerate higher temperatures for drying.



- 1. Main air inlet for heating the exchanger
- 2. Fireplace
- 3. Control flap for air intake into the combustion chamber
- 4. Inspection and service door of the exchanger
- 5. Outlet temperature control flap
- 6. Furnace fan
- 7. Combustion chamber fan
- 8. Safety emergency chimney damper

- 9. Cyclone spark and dust separator
- 10. Electrostatic separator of sparks and dust
- 11. Adjustable output temperature 50-480 °C, max. 550 °C
- 12. Chimney exhaust of emergency flap exhaust gases
- 13. Container for filtered particles and dust
- 14. Dust separation container

15. Automatic ash removal, connection of an external ash container

16. Chimney exhaust of the flue gases of the heat exchanger Overview of the type and performance of hot air boilers KDV UNI

Type designation	Rated performan		Air perfor mance max.	Outlet temperature 150 °C no flue gases, only exchanger	Air perfor mance max.	Elektric power	Dimension of the boiler LxWxH (mm)	Total weightt
KDV UNI 150	150 kW	Outlet temperature 480 °C exchanger plus flue gas	5600 m3/hour		4650 m3/hour	2,2 kW	1150x800x1200	1180 kg
KDV UNI 300	300 kW		7500 m3/hour		6250 m3/hour	2,6 kW	1210x925x1200	1690 kg
KDV UNI 500	500 kW		8000 m3/hour		6700 m3/hour	2,8 kW	1450x1050x1300	2820 kg
KDV UNI 700	700 kW		8450 m3/hour		7050 m3/hour	2,8 kW	1450x1300x1300	4150 kg
KDV UNI 900	900 kW		9600 m3/hour		8000 m3/hour	3,4 kW	1960x1425x2100	5420 kg
KDV UNI 1300	1,3 MW		11500 m3/hour		9600 m3/hour	3,8 kW	2250x1675x2180	7380 kg
KDV UNI 1500	1,5 MW		12700 m3/hour		10700 m3/hour	3,8 kW	2250x1925x2180	8540 kg
KDV UNI 1800	1,8 MW		14500 m3/hour		12100 m3/hour	4,2 kW	2710x2175x2220	10890 kg
KDV UNI 2200	2,2 MW	0 -	16800 m3/hour		14200 m3/hour	4,8 kW	2960x2300x2220	13190 kg
KDV UNI 2500	2,5 MW		20100 m3/hour		16750 m3/hour	4,8 kW	3210x2425x2220	15080 kg

Accessories for boilers KD and KDV UNI





1. Cyclone spark and dust separator: when using flue gases to increase temperature, it is advisable to supplement the hot-air boiler with a centrifugal cyclone separator, which ensures the separation of coarse impurities, ash and partially sparks from the flue gases.





2. Electrostatic separator of sparks and dust: the KDV UNI hot-air boiler with a cyclone separator can be supplemented with an electrostatic filter, which cleans the flue gases of sparks, ash and dust using an electric field.





3. Automatic ash removal: the boilers can be supplemented with automatic ash removal using an external ash pan with a picking screw conveyor and an ash container with a volume of 0.5 m3.



Combination of cyclone and electrostatic separator: by installing the KDV UNI hot-air boiler in a combination of cyclone and electrostatic filter, it is possible to achieve maximum flue gas cleaning from unwanted sparks and dust particles up to 90 %.













Mobile container boiler rooms

Mobile container boiler room with hot-air boiler located in a 20[°] or 40[°] transport container, with a heat output of 150 kW - 1.8 MW, a transport fan with an output of 500 - 6,000 m3/hour, outlet temperature depending on the boiler type 50 - 480 °C. The boiler is assembled for the use of fuel such as biomass, light fuel oil or gas. The boiler room also includes a fuel tank integrated in the container, depending on the size and output of the boiler, it can also be used as an additional tank outside the container. Control and operation is provided by a control system for full automatic operation of the boiler room, the set is equipped with safety elements for safe operation. Boilers and boiler rooms are designed individually according to the needs and requirements of the customer with regard to the spatial layout, the need for power and the operation itself. The boilers meet all emission and technical requirements for operation in the EU and the USA.







Realization

















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