

HEAT RECOVERY DEVICES

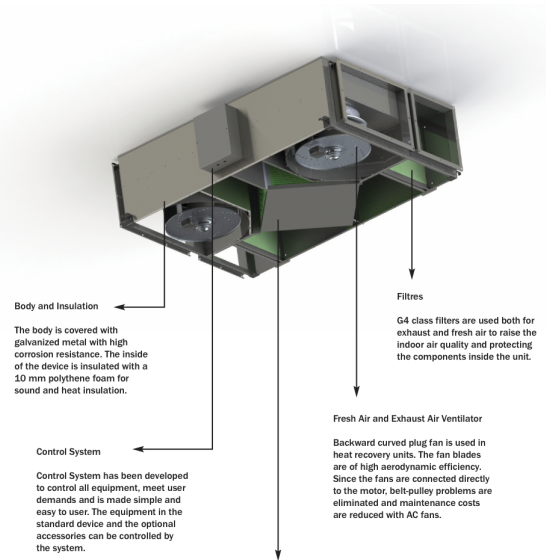
BGK Devices are used in Hotels, Malls, Business Centers, Hospitals and similar applications to meet the needs of fresh air and removal of the wasted air from the place.

Thanks to the high efficiency plate heat exchanger, the exhausted air and fresh air from the outside transfers heat and the process provides preheated air in the winter conditions and precooled air in the summer conditions.

In the meantime, since no additional energy is consumed, energy to be consumed for heating or cooling the fresh air is obtained from the ambient air.

Product Specifications:

- ◆ In the devices, high pressure static and dynamically balanced, motor-driven direct coupled silent operated external rotor motor radial fans are used.
- ◆ The whole body is made of galvanized sheet which can resist to corrosion.
- ◆ The body of the device is insulated with polyethylene insulation material against sound and heat.
- ◆ Electrical Heater Specifications: Resistance electric heater, Limit upper and lower safety temperature thermostat.
- ◆ Easy service for fan, motor and filters.
- ◆ Due to recovery of the exhaust air, it reduces the initial buying investment and sustainable operating costs.



Body and Insulation
The body is covered with galvanized metal with high corrosion resistance. The inside of the device is insulated with a 10 mm polythene foam for sound and heat insulation.

Control System
Control System has been developed to control all equipment, meet user demands and is made simple and easy to use. The equipment in the standard device and the optional accessories can be controlled by the system.

The control unit can be used more functionally through the panel. The Heat Recovery Unit can be switched on and off via the BMS, fault signal can be received and all functions of the device can be controlled via ModBus.

Filters
G4 class filters are used both for exhaust and fresh air to raise the indoor air quality and protecting the components inside the unit.

Fresh Air and Exhaust Air Ventilator
Backward curved pug fan is used in heat recovery units. The fan blades are of high aerodynamic efficiency. Since the fans are connected directly to the motor, belt-pulley problems are eliminated and maintenance costs are reduced with AC fans.

Aluminium Plated Heat Exchanger
BGK Heat Recovery Units use an aluminum cross-flow plated heat recovery exchanger. Heat Recovery Exchanger consists of plates that have an improved surface area to ensure high efficiency and no leakage from the edges. With heat exchanger optimization, heat transfer efficiency is increased and pressure loss is reduced.

HEAT RECOVERY DEVICES / CEILING TYPE HEAT RECOVERY DEVICES



BGK CEILING TYPE HEAT RECOVERY DEVICES / Plate Heat Exchangers

Device Components and Material Properties
The body is manufactured from galvanized sheet metal. Some of the fans of the BGK are made of high quality galvanized steel which is resistant to corrosion. All models have an external rotor motor with closed structure. The device is capable of handling air at max.40°C. It consists of high efficiency plate heat exchanger, external rotor motor plug fan, filters and control panel components. An electric heater is available as an option.

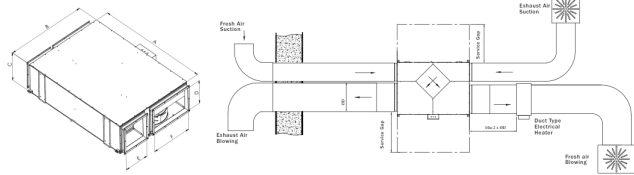
Device Structure
Polyethylene insulation material is used for sound insulation and thermal insulation of the device body. There is a condensation pan designed to drain the condensate on the heat recovery exchanger.

Electric Heater Features
Heated electric heater, low and high limit safety temperature thermostat.

Benefits
By means of the heat exchanger, the heat is transferred by means of heat exchanger without the mixture between the exhausted air and the fresh air taken from the outer space, pre-heating in winter conditions and pre-cooling in summer conditions. Since no extra energy is consumed in the meantime, some of the energy to be consumed for heating or cooling the fresh air is obtained from the indoor or outdoor air. Due to the recovery of exhaust heat, it reduces the initial investment and operating costs of air conditioning systems. The speed can be adjusted via the control panel. Easy access to plug fans and filters.

Usage Areas
School, hotel, shopping center, business centers, villa, hospital etc. structures where high amounts of fresh air are needed. It is used in cases where air freshening and air conditioning is desired to be done in an efficient way.

Technical Drawing and Tables



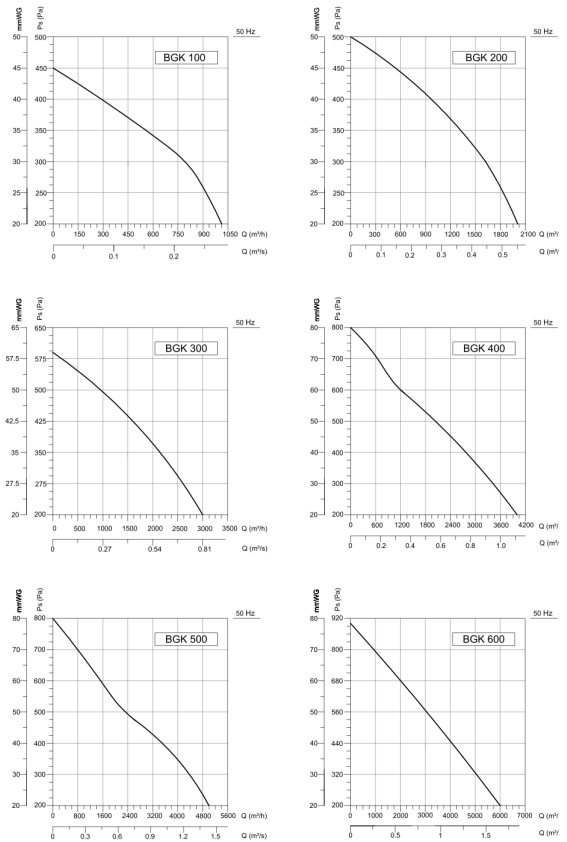
TYPE	A	B	C	D	E	F
BGK 100	1100	900	315	220	200	455
BGK 200	1200	1000	368	270	300	455
BGK 300	1500	1200	415	320	400	555
BGK 400	1700	1200	475	380	400	555
BGK 500	1800	1300	515	420	400	655
BGK 600	2000	1500	615	520	400	855

Dimensions are in (mm)

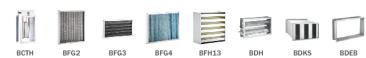
TYPE	VOLTAGE	FREQUENCY	POWER	CURRENT	CAPACITOR	SPEED	AIR FLOW	STATIC PRESSURE	INSULATION CLASS	PROTECTION CLASS	WEIGHT	ELECTRICAL HEATER	VOLTAGE OF ELECTRICAL HEATER
TYPE	V	Hz	W	(A)	(µF)	r.p.m	m ³ /h	Pa	Ins. cl.	IP	kg	kW	V
BGK 100	230	50	120X2	0,55X2	6	1400	1000	45	F	44	80	3	380
BGK 200	230	50	200X2	0,92	6	1420	2000	46	F	44	113	3	380
BGK 300	230	50	310X2	1,55X2	10	1430	3000	48	F	44	160	5	380
BGK 400	230	50	500X2	2,8X2	10	1435	4000	49	F	44	195	8	380
BGK 500	230	50	780X2	3,5X2	16	1280	5000	54	F	44	215	10	380
BGK 600	230	50	1550X2	7,3X2	25	1250	6000	57	F	44	240	13	380

Sound Level Measured from 3m distance in non condition.

CEILING TYPE HEAT RECOVERY DEVICES / HEAT RECOVERY DEVICES



Accessories





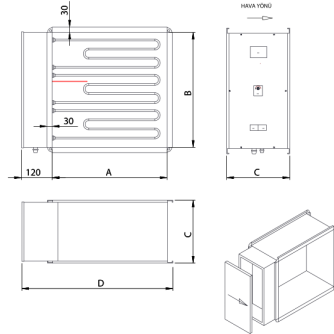
BCTH DUCT TYPE HEATING

Body material of channel type heaters are galvanized sheet or stainless steel sheet. Heating elements of the heaters produced as 304 stainless steel pipe as produced.

General applications are ventilation systems. Different channel types and these devices are produced according to the dimensions of the preheater to heat the outside air, they are used as main or final heaters for heating air or blowing air.

Easy to channel, especially when aqueous system heaters are unavailable they are quite useful devices with mounting possibilities.
* 70 110C and 110 70C (manual reset) safety standard for all heaters thermostat.

Technical Drawing and Tables



TYPE	A	B	C	D
BCTH 100	455	220	200	605
BCTH 200	455	270	200	605
BCTH 300	555	320	200	705
BCTH 400	555	380	200	705
BCTH 500	655	420	200	805
BCTH 600	855	520	200	1005

Dimensions are in (mm)

TYPE	VOLTAGE	POWER
BCTH 100	380	3
BCTH 200	380	3
BCTH 300	380	5
BCTH 400	380	8
BCTH 500	380	10
BCTH 600	380	13

Sound Level Measured from 3m distance in room condition.

