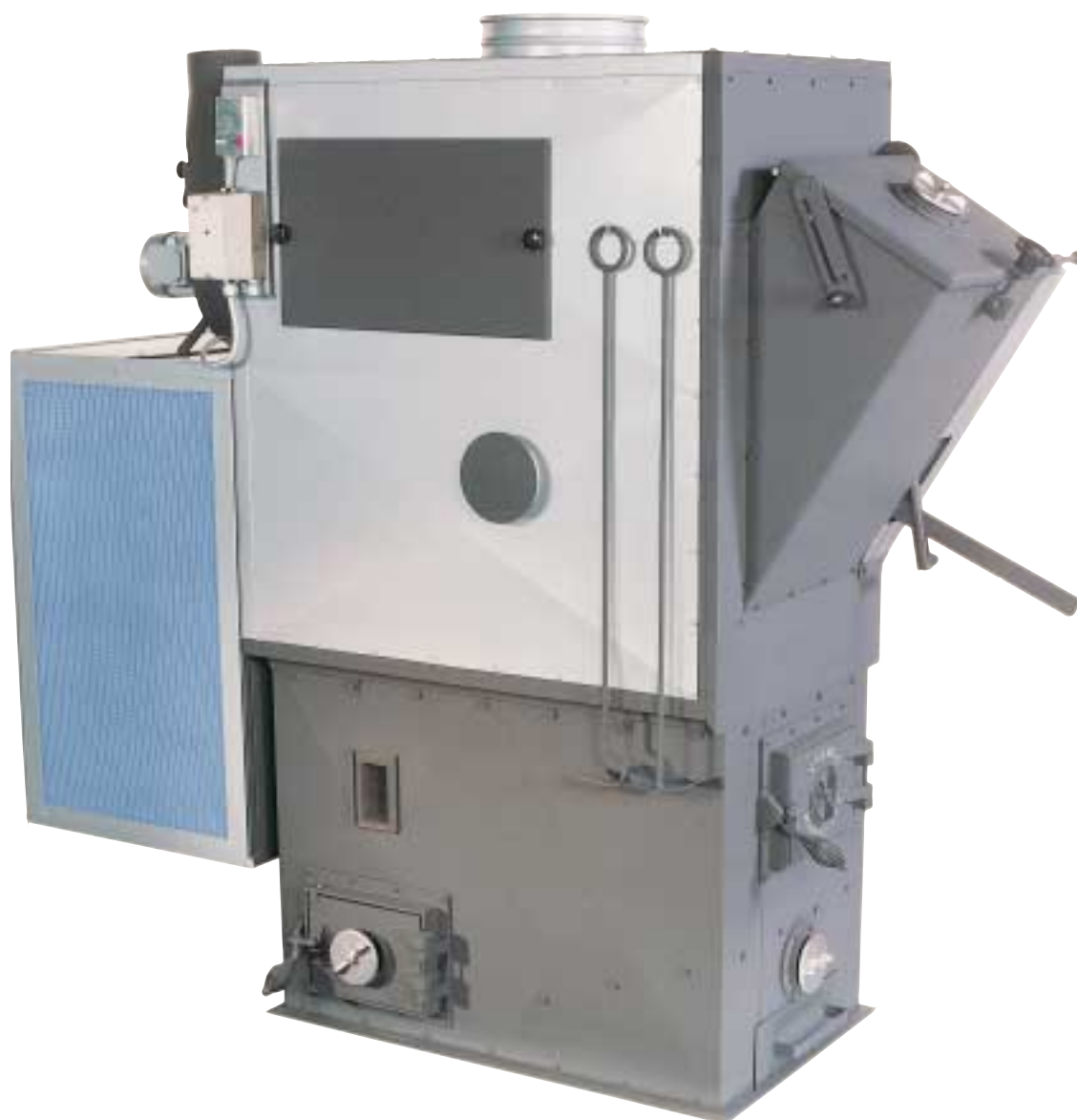


HOT AIR STOVES

Type ,PRESTIGE-SE' and ,OPTIMAL-E'



Heating with progressive hot-air technology
Short heating-up times Hot-air heating system of
pre-assembled components
Favourable acquisition costs - rapid amortization
Low servicing costs

EWI-Therm Hot-Air Heating Systems

Use the advantages of progressive hot-air technology in your company:

1. Immediately available heat
2. No long heating-up time like for water
3. Air does not boil
4. Air does not freeze
5. No water damage caused by pipe fracture or other leaks
6. No buffer storage required
7. Considerable saving of space and free wall surfaces since no radiators are necessary
8. Favourable acquisition costs
9. Quick and reasonably priced assembly
10. 91% absorption of dust due to efficient filter technology and multiple air changes
11. No permanent circulation of dust caused by hot radiators
12. Rapid amortization due to saving of energy, disposal costs or overcharged heating systems. (The difference can be used to buy profitable tools and equipment !)

EWI-Therm hot-air stove heating systems are fit for the future. This is confirmed by both the legislative authorities and the competent Trade Supervisory.

1. CONCEPT

1.1 Heating with Hot Air

Rooms of almost any size can be heated with hot-air heating systems quickly, efficiently and in a manner not harmful to the environment. In a way, heating starts from a standing position since energy is transmitted to the room air directly and straight away. No long starting time and no energy losses will occur like when using in-line media, like water for example.

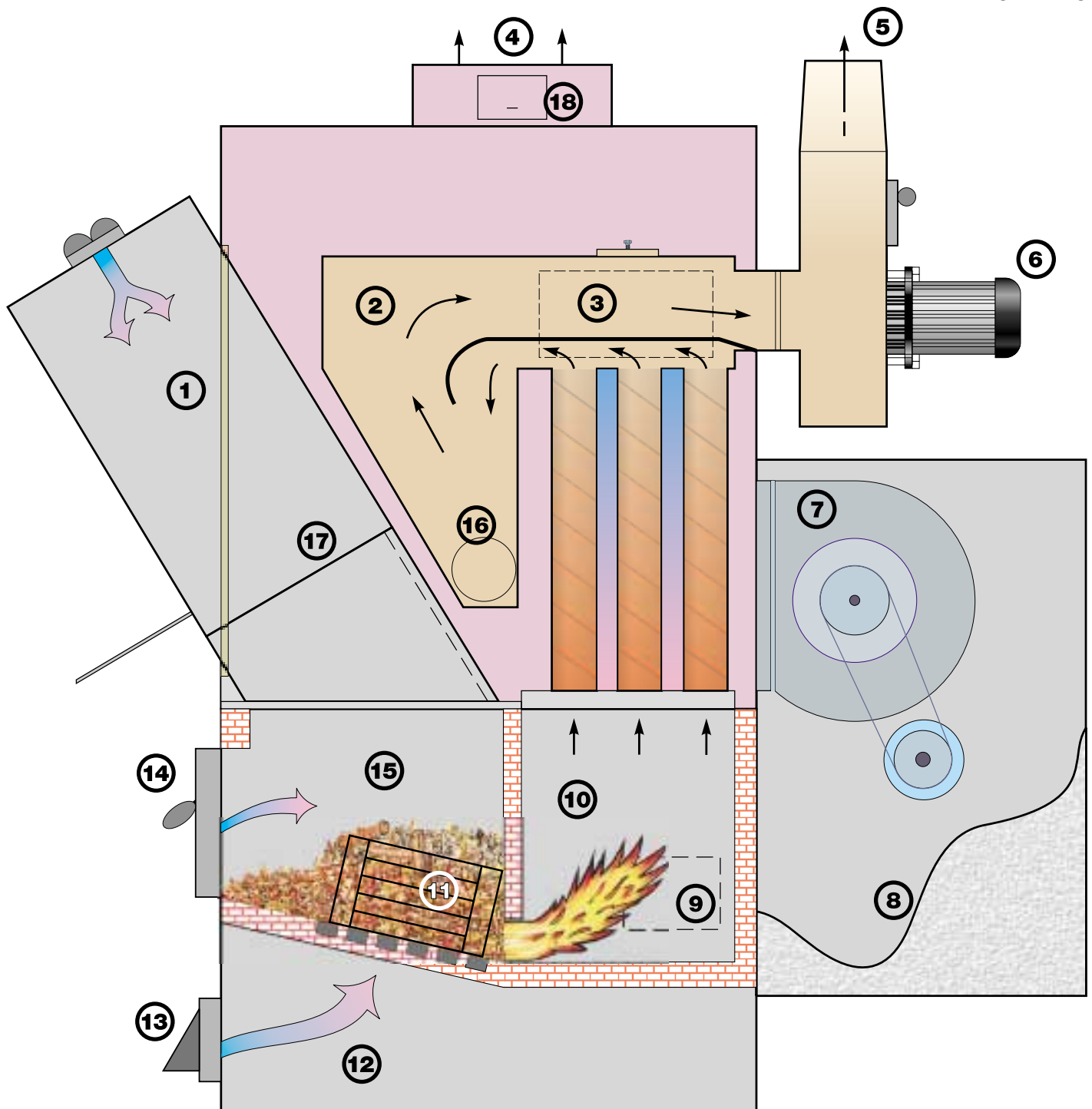
The advantage:

The heating operation can be reduced to the absolute minimum during night time or can even be interrupted totally. Due to the short heat-up time, energy is used only when actually needed. This will reduce the costs and preserve the environment.

1.2 Heating with Wooden Waste

Wooden waste is a source of energy which is seldom used. A raw material that can be exploited both economically and ecologically in an efficient way. This necessitates:

1. Wood remainders like sawdust, chopped wood, chips or wood pieces of sufficient quantity;
 2. Low-polluted material with little contamination by foreign matters like adhesives, resins, enamel, synthetic material, etc.;
 3. A technology which transfers almost all combustibles used into energy by the working principle of wood gasification, permitting a smokeless combustion with extremely low emission and observing the limit values stipulated in the 1st Emission Protection Act.
- Not fit for the combustion of dust of any kind since they will lead to detonations.



- | | |
|-------------------------------|---------------------------------------|
| 1. Shell | 11. Flame bridge |
| 2. Flue gas de-dusting system | 12. Soot dump |
| 3. Flue gas collector box | 13. Soot door/drawer |
| 4. Hot-air outlet | 14. Fire door |
| 5. Flue gas outlet | 15. Fill and fire room |
| 6. Induced draught fan | 16. Cleaning eye |
| 7. Hot-air blower | 17. Safety damper/double interlocking |
| 8. Return air filter box | 18. Hot-air thermostat |
| 9. Cleaning eye | |
| 10. Reheating chamber | |

2. CONSTRUCTION

A practical and advantageous hot-air heating system must be fit for easy installation, even with difficult space conditions. And it must comply with the high demands of every day.

EWI-THERM hot-air heating systems are produced with a modular concept which permits the assembly of the components at the location concerned. All models are available for “left” and “right” installation.

The following describes the preassembled components and their quality features:

2.1 The combustion room

The two-part combustion room with 6-12 cm thick fireproof special fireclay lining (in accordance with DIN Standard 51068) and cast-iron fire and/or soot door (DIN 1691) is designed for an operating temperature of up to 1,200°C. These high combustion temperatures permit the burning of chip board, when filled in manually and when observing the limit values (more than 50 kW heating capacity).



2.2 The hot-air blower

The double-side intake, powerful radial blower with external motor and V-belt drive guarantees both a high hot-air capacity and a low-noise operation.



2.3 The shell

Due to the large volume and the double-type locking, which is just as simple as efficient, the shell warrants a secure, time-saving and effortless charging.

The shell is in compliance with the Guidelines of the Trade Associations for charging appliances ZH 1/472.

2.4 The heat exchanger with de-dusting system

A large-sized heating element made of steel 2 mm thick is surrounded by cast plates, 2 to 15 mm thick, according to DIN 1691, and permits the rapid transmission of combustion energy into hot air. A highly efficient radial blower conveys the heated air through ducts even into distant rooms. The integrated flue gas de-dusting system safeguards the observance of emission limits stipulated by the law.



2.5 The induced draught blower

It guarantees uniform combustion, independent of the location and draught intensity of the existing chimney; in addition, it can be manually regulated by a reducing damper.



2.6 Automatic control

The hot-air stoves of series PRESTIGE-SE and OPTIMAL-E with a capacity range of 25 to 145 kW are delivered with switch cabinet for fully automatic operation. The customer obtains a hot-air stove with the latest circuitry for a safe and comfortable operation. An integrated control by safety thermostat precludes overheating and guarantees quick and automatic reduction of critical temperature ranges in the stove. A graphic display of the hot-air stove with integrated illuminated diodes is located on the front of the switch cabinet. These keep the operator constantly informed on the current operation status of the system. The modern SPS-technology allows several options for the installation of circuit modules like lowering of temperature by room thermostat and monitoring of the degree of soiling of the return-air filter.



The hot-water module (optional)

The hot-air module is an air-water heat exchanger. Hot air flowing through the deflectors with about 70 to 80 degrees Celsius is heating the water medium which can be used for underfloor heating, plate radiators or domestic water heating. The module can be designed for up to 1/3 of total heating capacity.



Advantages:

- no boiling water
- no buffer storage required
- uncomplicated connection to existing heating systems
- no additional operating costs
- favourable acquisition costs
- quick assembly

3. FUNCTION

The following prerequisites must be met for the installation of a EWI-THERM hot-air heating system:

1. a chimney with a cross section matching the heating system size
2. sufficient supply of combustion air
3. faultless return air flow
4. feeder cable to switch cabinet 400 V/5 x 2.5 mm.sq
5. for systems with a heating capacity of more than 50 kW, an enclosed heating room in accordance with the standards (ZTA) is required.

3.1 Operation

The commissioning of the EWI-THERM hot-air heating system is as simple as that:

1. Charging of the combustion room with combustibles through the shell.
2. Ignite the combustibles through the fire door.

3. Switch on automatic control.
4. When heated up, the combustion room can be filled to full capacity. The burning and thus the heating capacity are controlled by the opening of the primary and secondary air supply. The hot-air blower is automatically controlled by a thermostat.

3.2 Maintenance

The maintenance effort is limited to the cleaning of the air filters as well as to the flue gas de-dusting, burner and heat exchanger and the soot dump. Due to the high degree of combustion efficiency an extremely low quantity of ashes will remain in the stove. The cleaning of air filters depends on the dust contents of the conveyed air volume. The conclusion of a low-price service contract will guaranty a long-term operativeness of the hot-air stove.

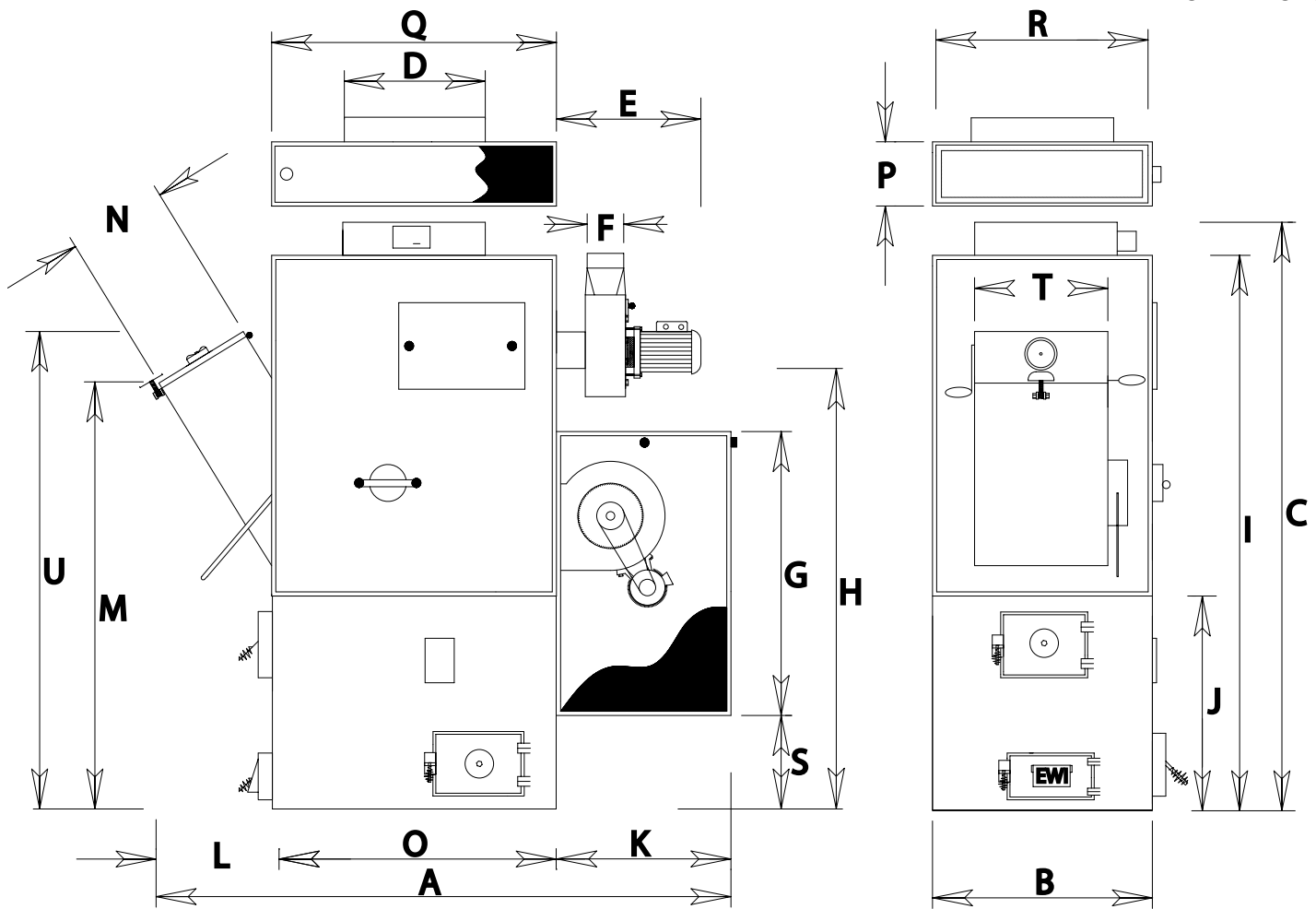
Optional EWI-Therm hot-water heating module

The EWI-THERM hot-air stove can be additionally and/or subsequently equipped with a hot-water heating module. This permits use of hot air for the workshop area and parallel use of hot water for the supply of office, staff and other rooms. Domestic water storage can also be supplied. The hot water heating module can heat up all kinds of radiators, air heaters, underfloor heating systems and domestic water boilers. Even the oil or gas heating system of an adjacent apartment or office building can be relieved by parallel connection of the heating module to the existing heating system and thus costs for oil or gas can be saved.

Since the module is integrated in the hot-air range (max. 80 degrees C) no extensive circuitry for buffer storage or thermal controls are needed. Even if no energy is taken from the module the water temperature will not exceed the boiling point.

The advantage:

You can efficiently exploit the hot air for your workshop and simultaneously use hot water for the remaining rooms. No extensive and costly hot-water heating system with automatic supply is needed. Even an expensive chipper to crush pieces of wood is obsolete.



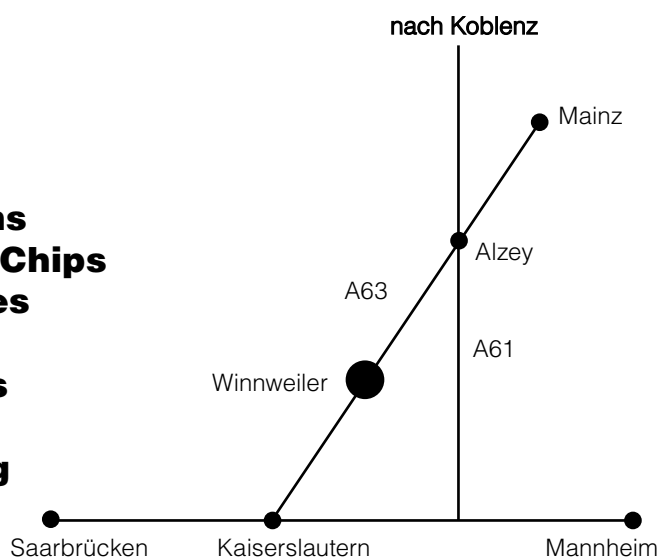
Typ	Prestige-		Optimal - E							
	SE	0	I	II*	III	IV	V	VI		
Size										
Rated heating capacity	KW	25	34	45	58	87	116	145	170	
For rooms as per DIN up to	cbm	350-600	500-850	650-1100	800-1450	1200-2200	1500-2900	1800-3800	2300-4800	
Blower capacity, free-blowing	cbm/hour	1450	2200	3250	4000	6000	7500	9400	14000	
Weight	Kg	400	690	740	1025	1250	1550	1950	2150	
Hot-air blower, to be secured	V	220	380	380	380	380	380	380	380	
with manual motor starter	Amp/KW	2,1/0,49	1,5/0,55	2,8/0,75	2,8/1,1	2,8/1,5	5,1/2,2	5,1/2,2	6/3,0	
Induced draught blower, to be secured	V	380	380	380	380	380	380	380	380	
with manual motor starter n ¹ 900	Amp/KW	0,21/0,03	0,21/0,03	0,21/0,03	0,21/0,03	0,33/0,05	0,33/0,05	0,33/0,05	0,33/0,05	
with manual motor starter n ² 2800	Amp/KW	0,36/0,15	0,36/0,15	0,36/0,15	0,36/0,15	1,3/0,45	1,3/0,45	1,3/0,45	1,3/0,45	
Chimney design acc. to DIN 4705										
Shell capacity depending on size	up to 240 ltr									
Total length	A	mm	1500	2055	2055	2255	2255	2600	2600	2600
Total width	B	mm	570	830	830	930	930	1020	1020	1020
Total height without water module	C	mm	1660	2050	2050	2090	2200	2290	2450	2750
Diameter of hot-air outlet	D	mm	300	350	400	450	550	600	700	700
Length of draught blower	E	mm	500	530	530	550	550	620	620	620
Diameter of smoke pipe	F	mm	150	150	150	180	200	220	220	250
Filter box height	G	mm	700	1000	1000	1000	1000	1200	1200	1200
Height to bottom edge of smoke pipe socket	H	mm	1080	1400	1500	1620	1700	1740	1900	2250
Height to hot-air hood	I	mm	1560	1950	1950	1990	2100	2190	2350	2700
Height of bottom part	J	mm	600	750	750	750	750	750	750	750
Filter box depth	K	mm	380	615	615	615	615	760	760	760
Shell projection	L	mm	370	450	450	450	450	500	500	500
Height to bottom edge of shell	M	mm	1230	1500	1500	1500	1550	1700	1700	1700
Filling depth	N	mm	250	400	400	400	400	400	400	400
Length of bottom part	O	mm	800	1000	1000	1200	1200	1400	1400	1400
Hot-water heating module	P	mm	300	300	300	300	300	300	300	300
Hot-water heating module	Q	mm	800	1000	1000	1200	1200	1400	1400	1400
Hot-water heating module	R	mm	570	830	830	930	930	1020	1020	1020
Height to filter box bottom	S	mm	300	300	300	300	400	400	400	400
Shell width	T	mm	370	480	480	480	550	550	550	550
Height to shell top	U	mm	1350	1700	1700	1750	1750	1900	1900	1900

* Size II-S with 49 kW is equal to size II.
Other sizes and capacities upon request.
Modifications to technical data reserved.

EWI-THERM Hot-Air Heating Systems A good decision !

Our products

EWI THERM	Hot-Air Heating Systems
EWI THERM	Automatic Charging of Chips
EWI THERM	Slow Combustion Stoves
EWI THERM	Heat Exchangers
EWI THERM	Special Steel Chimneys
EWI THERM	Flue Gas De-dusting
EWI THERM	Sheet Metal Processing
EWI THERM	Air Ducts
EWI THERM	Multi-Purpose Grille



If you would like to hear more about EWI-THERM products, please give us a call, our specially trained personnel will give you any information.

Trust the long-term experience of EWI-Therm and invest in a well-proven, modern and profitable heating system.

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