CHAIN GRATE BIOMASS BURNER

SIMEC chain grate biomass burner is a mature, widely adopted layered combustion device for biomass fuels. We offer nine standard models, with customization available for special requirements. Please refer to the technical parameter table below for model selection, or contact SIMEC for professional assistance.

Items	Model / Unit	SPB30	SPB48	SPB60	SPB120	SPB180	SPB240	SPB360	SPB480	SPB600
Thermal Power	KW	350	560	700	1400	2100	2800	4200	5600	7000
Thermal Efficiency	/	91%								
Applicable Fuel	/	Biomass pellets Φ8-32 mm, length 10-30 mm, moisture ≤15%. or wood chips, nut shells with similar specifications.								
Fuel Consumption*	kg/h	80	128	160	320	480	640	960	1280	1600
Hopper Capacity	kg	75	100	130	240	450	500	600	650	700
Fire Outlet Center Height	mm	620	800	940	1050	1055	1070	1120	1150	1150
Fire Outlet Diameter	mm	Φ180	Φ219	Φ273	Φ377	Φ430	Φ460	Φ530	Φ600	Φ650
Feeding Motor	W	120	120	120	120*2	120*3	120*3	120*4	120*4	120*5
Grate Motor	W	300	400	400	750	750	1500	1500	2200	2200
Slag Discharging Motor	W	/	/	400	400	400	400	400	400	750
Grate Blower	KW	0.75	1.5	1.5	3.0	4.0	5.5	7.5	11.0	11.0
Slag Discharge Method	/	Manual	Manual	Automatic						
Grate Dimensions	mm	300*780	360*1550	480*1750	800*2100	1080*2500	1200*2800	1600*3200	1600*4200	2000*4200
Ref. Weight	t	0.7	1.8	2.4	3.4	5	6.5	9	12	16
Remarks	/	*Fuel consumption is calculated based on the lower heating value of fuel at 4000 kcal/kg.								

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Technical Features:

1. High combustion efficiency and stable performance

Equipped with a segmented air distribution system and continuous chain grate transmission, it realizes staged combustion of biomass fuels with sufficient fuel-air contact. It runs continuously with stable heat output.

2. Full automatic operation, low labor and management costs

Integrated with automatic ignition, fuel feeding, ash discharge and grate speed control systems, it realizes unmanned continuous operation.

3. Strong fuel adaptability

It is suitable for a variety of processed biomass fuels with uniform particle size. The adjustable grate speed can be flexibly adjusted according to the combustion characteristics of different fuels to avoid coking and incomplete combustion.

4. Reliable structure and easy maintenance

The chain grate has a mature and robust mechanical structure with high-temperature resistant alloy grate segments and sealed air chambers, which can withstand long-term high-temperature operation with low failure rate.

5. Low emission and environmental compliance

The combination of staged air distribution and secondary air disturbance prolongs the flue gas residence time in the combustion chamber, effectively reducing the emission of CO and particulate matter.

Technical specifications are subject to change without notice in the future.

For more information, please contact SIMEC.

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