

500 kW_e Air Burners PG FireBox Specification

Power Generation Module

1	Power Requirements	480 VAC/60 Hz/3φ or 400 VAC/50 Hz/3φ, 1.2 kA Service Higher Voltages Available
2	Power Factor	Load- and site-dependent (0.9 - 1.0)
3	Power Generation Module	Fully-Integrated Organic Rankine Cycle (ORC) Power Module with 500 kW Asynchronous Generator
4	Safety Systems	Electrical Grid Protection Over-Temperature Over-Pressure
5	Control System	PLC-Based; Remote Monitoring and Control over the Internet
6	Transportation and Setup	Ships in containers; Ready for immediate use after simple skid alignment and hood installation; Lifting eyes provided for crane lifting. Skid bases facilitate final positioning
7	Cooling Water (CW) Requirements	725 gpm [45.7 l/s], 77° F [25° C] Max.
8	CW Interface	DN200 PN16 Flanges
9	Induction Fan	VFD-Controlled; Variable Speed
10	Hot Oil (HO) Pump	VFD-Controlled; Variable Speed
11	HO System Thermal Fluid	Theminol 66 (or equiv.)
12	Construction	Steel WF beam and square tubing construction with full-length skid plate; Epoxy-paint
13	Weight (Est.)	69,500 lbs [31,600 kg]
14	Dimensions	L x W x H See Site Plan Drawing

FireBox Module

15	Air Curtain Fan Power	30 hp [22 kW] Electric Motor VFD-Controlled
16	Burn Container (FireBox)	4" [102 mm] thick refractory panels filled with proprietary thermal ceramic material. Two full-height rear doors, two ignition holes
17	Safety Systems	Fully integrated with PGF controller
18	Instrument Panel	Touch-screen control from PGF Control Room
19	Air Curtain Fan Motor Control System	PLC-Based; Speed selection fully integrated with system controller
20	Air Supply	Custom Heavy Duty Fan
21	Transportation and Setup	Shipped fully assembled and tested, requires only connection of the three- phase motor power to the PG Module power distribution panel
22	Waste Material Elimination Rate	Up to 10 tons per hour [9.1 mt/h]
23	FireBox Module Weight	32,500 lbs [14,800 kg]
24	Overall Dimensions	L x W x H 30' 2" x 7' 5" x 8' 6" [9.2 m x 2.3 m x 2.6 m]
25	FireBox Inside Dimensions	L x W x H 19' 8" x 5' 0" x 7' 1" [6.0 m x 1.5 m x 2.2 m]