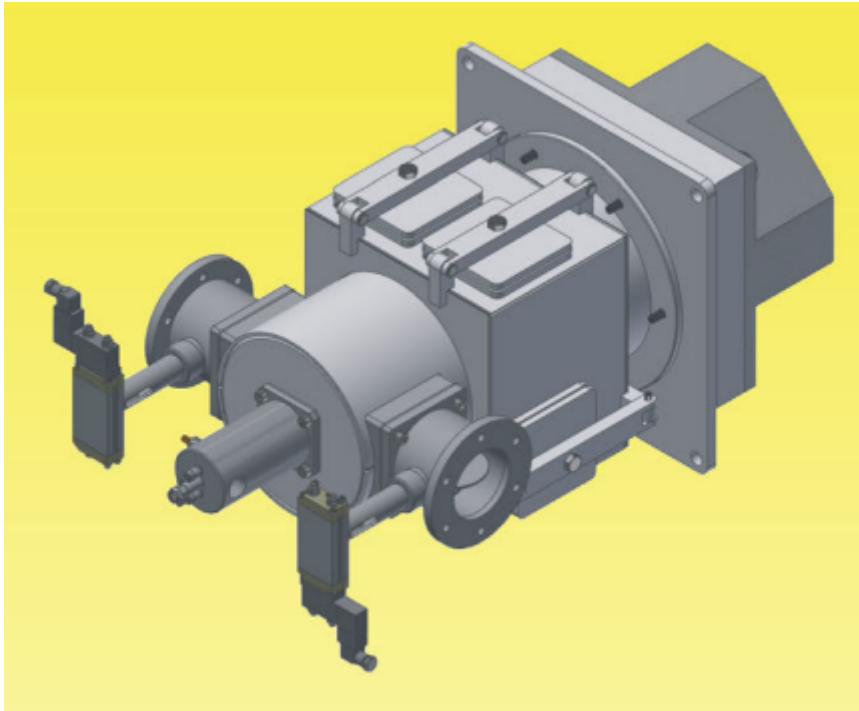




## **A-RC Integrated Regenerative Burner**



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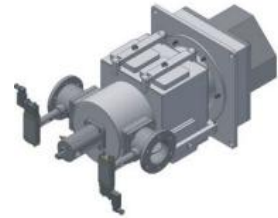
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## A-RC Integrated Regenerative Burner

### Features

AME RC-Integrated Regenerative Burner breaks away from the basic concept of traditional regenerative combustion system: double burner + double regenerator structure. Due to the use of unique combustion and heat exchange technology, the dual heat storage, combustion and commutation system are integrated into an independent, highly integrated, high-tech and epoch-making regenerative burner.



1) the A-RC Integrated Regenerative Burner system replaces the double burner, regenerator and reversing system with one burner, which greatly reduces the manufacturing cost and occupies space.

2) The use method of the single burner regenerative combustion system is the same as that of conventional burner, which greatly facilitates the energy-saving transformation of the furnace.

3) The heating mode of the single burner regenerative combustion system is similar to that of the traditional burner, so it has the least influence on the original heating process.

4) Single burner regenerative combustion system can produce huge energy saving effect, greatly reduce CO<sub>2</sub> emissions, and have the highest income ratio (energy saving benefit / investment).

5) It adopts exhaust gas recirculation and multi-stage combustion technology, which can reduce NO<sub>x</sub> emission.

6) It can use the existing control system, so it can easily replace the existing burner.

7) It realizes single flame continuous combustion, so it will not cause confusion of furnace temperature and atmosphere caused by alternating combustion of double burners.

8) Exhaust gas recirculation and multi-stage combustion technology make there is no extremely high temperature part of the flame, and a very good temperature distribution can be obtained.

9) High temperature air combustion can produce high brightness flame and improve the heat transfer effect of flame radiation.

10) It adopts spherical regenerator, which has longer life and lower cost, and is easy to maintain and replace.

### Applications

- Glass furnace    ● Steel rolling heating furnace    ● Steel Rolling Heating Furnace    ● Aluminum melting furnace
- Foundry furnace

### Product Description

- |   |  |
|---|--|
| ● Applied maximum furnace temperature: 1300°C | ● Regenerator: Ceramic sphere  |
| ● Combustion chamber: Refractory castable     | ● Energy saving rate: 50% ( Max)                                       |
| ● Combustion head: SUS 310S                   | ● Gas Pressure: 100mbar  |
| ● Fixed flange: 45# steel                     | ● Air Pressure: 60mbar   |
| ● Exhaust temperature: 220°C ( Max )          | ● Reversing valve: driven by compressed air( Actuator: Solenoid valve) |
| ● Fuel: Clean gaseous fuel                    | ● Commutation time: 15(s)  |

## A-RC Integrated Regenerative Burner

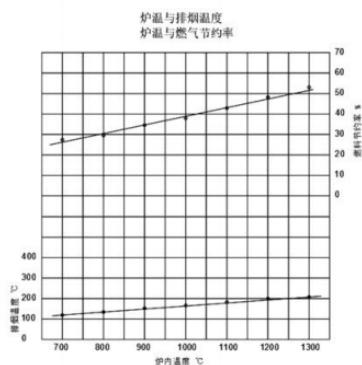
B-\Product specification table

Specifications	Main burner power(kw)	Air flow rate of main burner (m3/h)	Ignition Power (kw)	Ignition air flow (m3/h)	Smoke discharge (m3/h)
A-RC15	150	270	9	9.5	360
A-RC25	250	450	14	15	600
A-RC40	400	720	14	15	960
A-RC60	600	1080	16	17	1440
A-RC100	1000	1800	23	24	2400

### Main performance parameters

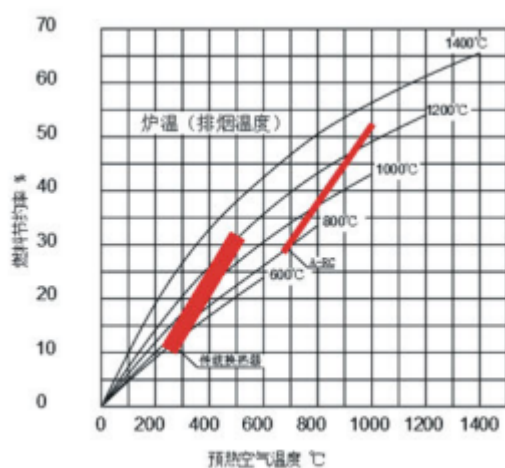
#### Furnace temperature and exhaust temperature

#### Furnace temperature and gas saving rate



#### Preheating air temperature and gas saving rate

Air fuel ratio 1.1



#### Furnace temperature and NOx characteristic curve

O<sub>2</sub> = 0% conversion value

O<sub>2</sub> = 11% conversion value

