

纯氧天然气回转炉

PURE OXYGEN NATURAL GAS ROTARY FURNACE



Enterprise spirit

Never give up, dare to pursue, unite and innovate

Corporate Vision

**To be a respected enterprise in the industry, to create
more value for employees and society**

Employee Declaration

**Do every job well, today's efforts are only for a better
tomorrow**

Business philosophy

Integrity, innovation, efficiency, harmony, responsibility



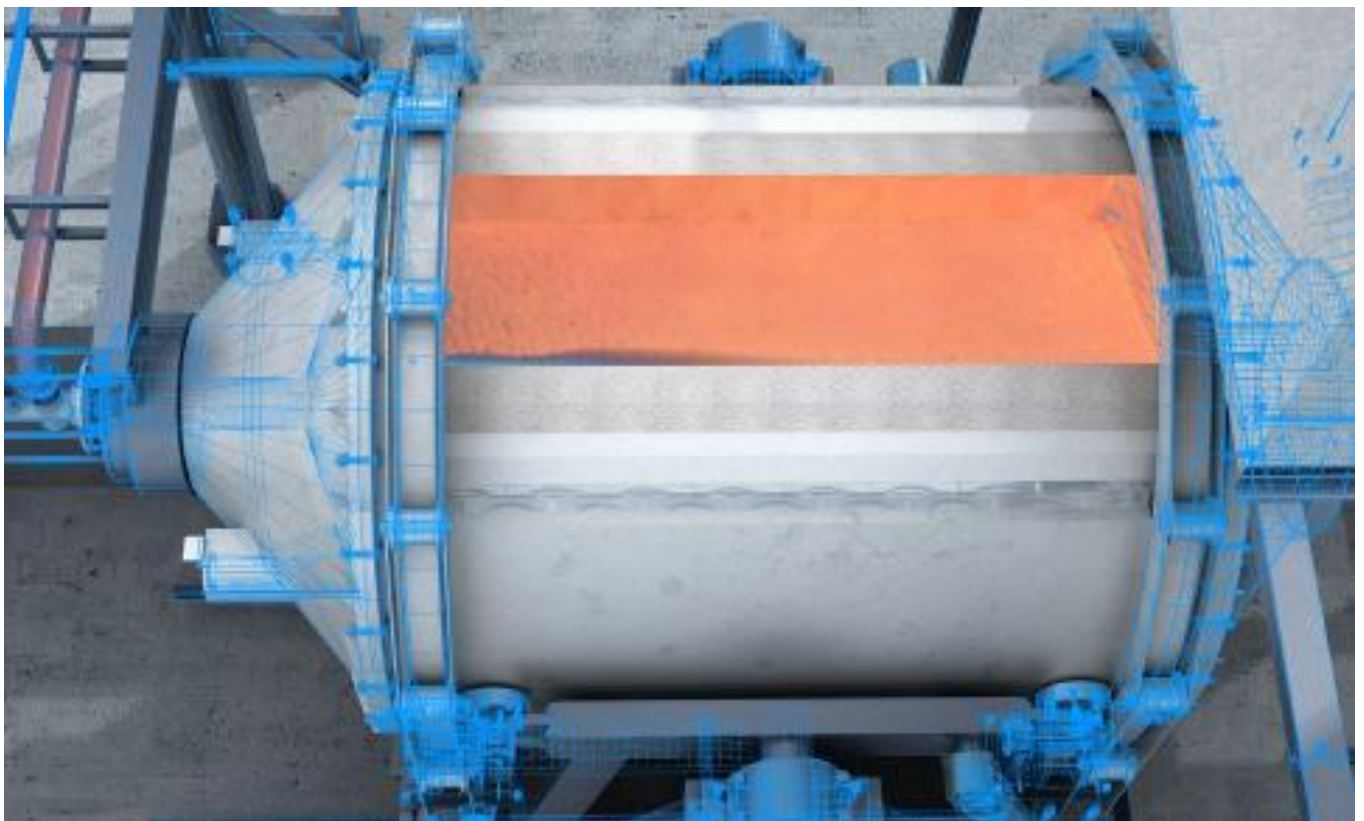


Shandong Xinxu Group Corporation has professional team on the research and production of pure oxygen natural gas rotary metal smelting furnaces. In 2016, we developed the new pure oxygen natural gas rotary furnace, which has the advantages of energy saving, environmental protection, high efficiency, safety, can be used to smelt gray iron, ductile iron, vermicular iron, malleable cast iron (malleable steel), cast steel, alloy cast iron and can also produce non-ferrous metals such as copper and aluminum alloys. At present, the company's products have been widely used in various domestic small and medium-sized foundries.

PURE OXYGEN NATURAL GAS ROTARY FURNACE



Compared with other smelting equipment, the scientific furnace structure is safer, more clean, energy-saving, less thermal energy escape, shorter smelting time, to extend the furnace working life, help customer save operation cost.



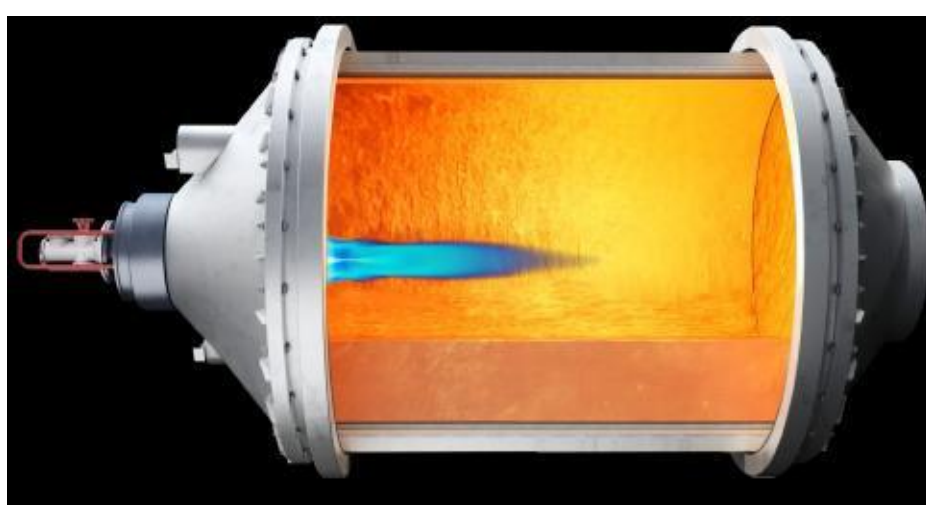
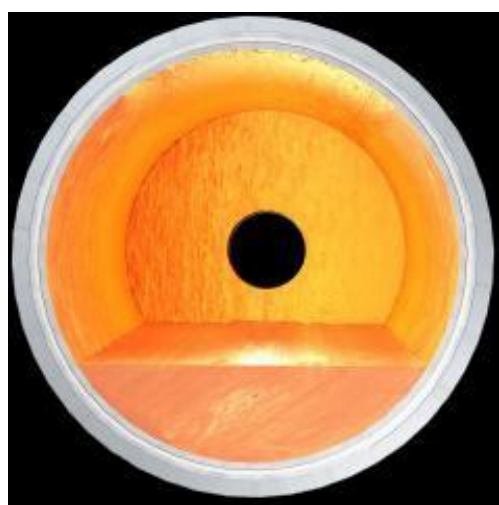
1 Structure and working principle

By burning of mixture of pure oxygen and natural gas to generate 2700 °C flame to heat the wall and smelt the material.

The furnace body is installed on the rotating frame. Use the hydraulic station to rotate the main body to finish the activity of material feeding, smelting and metal output.

The furnace body can rotate around of axis to backtrack. This activity is very useful to increase the heating efficiency to control the liquid over-heating.

During the smelting, the slag-making additive should be put into the furnace to prevent metal oxidation.



The burning loss rate of elements such as silicon and manganese in the rotary furnace is equivalent to that of the coke-burning cupola. The content of carbon in the rotary furnace is on the downward trend, so it is necessary to mix a certain amount of recarburizer in the charge. The following table shows the general burning loss rate of each element of carbon, silicon and manganese in the rotary kiln, for reference of ingredients.

Alloy element	C	Mn	Si
Burning rate (mass fraction/%)	5~10	15~20	10~15

2 SUPERIORITY

The furnace has the following advantages: simple structure, convenient installation, less space occupation, and low equipment investment:



1.High automation, only one person can operate from feeding, tapping to slag discharge.

2.Can produce gray iron, ductile iron, malleable iron, alloy cast iron, cast steel and non-ferrous metal materials such as copper and aluminum.

3.Only 50m³ to 80 m³ gas and 100- 160 m³ oxygen required for 1T output, 60-100 mins/cycle, and the temperature is increased to 1500 °C.

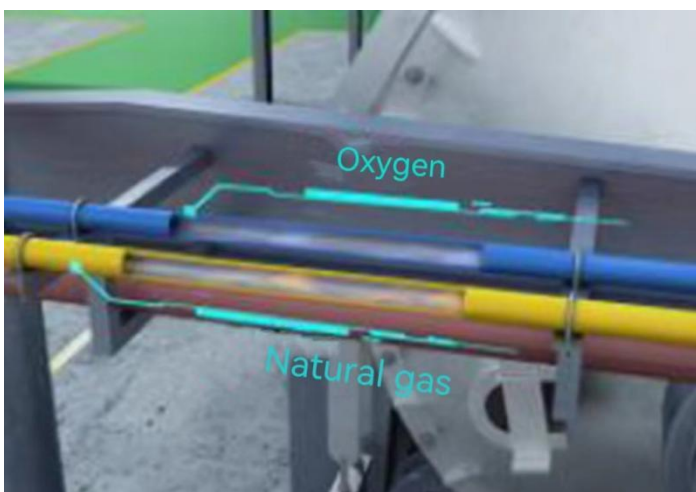
4.Power consumption/hr is no more than 25 kWh.

5.Environmental protection and the carbon emission is only equal to 30% of cupola furnace, and less than 38% of electric furnace .

6.24 hours continuous production.

※ The slagging agent can effectively prevent metal oxidation, which is a major breakthrough in rotary kiln technology

※ The melting technology is world-class, and the patented technology "slag retention method" is invented



2 SUPERIORITY



The furnace is a new choice of casting and melting equipment, which is suitable for small and medium-sized iron plants with small output and many varieties. The economic and technical indexes of the rotary cupola are as follows:

Technology project	Unit	Value of number
Temperature of melt	° C	1400~1600
Gas consumption	m ³ /t Metal	50~80
Consumption of oxygen	m ³ /t Metal	100~160
Furnace cycle life	Heat batch	300~1000

3 SPECIFICATION AND RATED GAS FLOW



7 size of rotary furnace for option with cycle time between 60-80 mins. Other than smelting, still takes time for furnace cleaning, material feeding, metal output and slag output.

The following table shows main working parameter.

Model Specifications	RF3	RF5	RF8	RF10	RF15	RF20	RF30
Furnace liquid metal capacity /t	3	5	8	10	15	20	30
Smelting time /min	60	75	90	100	110	120	135
Assistant time /min	40	40	42	50	50	60	75
Total time/min	100	115	132	150	160	180	210
Melting efficienty/ (t/h)	3	4	5.3	6	8.2	10	13
Maximum annual output 8hrs shift /t	3600	5200	7280	9000	11240	13340	17140
Gas flow rate Nm3/h	210	280	380	480	580	700	950
Oxygen flow rate Nm3/h	480	650	900	1050	1350	1650	2200
Pressure/ Mpa	0.15-2.0(1.5-2.0bar)						

4 EQUIPMENT DISPLAY

◆ PLC



◆ Feeder



◆ Liquid Metal






5 CUSTOMER SITE PHOTO


◆ Working photo





PARTIAL SYSTEM CERTIFICATION

QUALITY MANAGEMENT SYSTEM CERTIFICATE	
Registration No. Q35Q520Q30277R0S	
This is to certify that the quality management system of Shandong Xinxu Group Corporation Room 101/102, Floor 10, Building E, Xinxue Group (Guangzhou) Guangyuan Changsheng Zhangjiang, Zibo No. 179, Xinxun West Rd., Zhongshan, Zibo, Shandong, 255000 Social Credit Code: 91370500MA7C9T977	
is in conformity with GB/T 19001-2016 / ISO 9001:2015 Standard	
<p>This certificate is valid to the following product(s) Assembly and service of electro-mechanical equipment (pressure disassembling machine, paste filling system, automatic inspection system), sales and services of wooden package, battery and spare parts, battery tooling and mold, lead assembling products, lifelifts and forklift, spare parts; import and export of goods within the scope of qualification; and technology support (Silk General); Room 101/102, Floor 10, Building E, Xinxue Group (Guangzhou) Guangyuan Changsheng Zhangjiang, Zibo No. 179, Xinxun West Rd., Zhongshan, Zibo, Shandong, Henrich Road, Science and Technology Industrial Park, Zhongshan District, Zibo City, Shandong Province).</p>	
Date of issue: September 09, 2020	XINXU GROUP CORPORATION CENTRE CO. (CN) (XGQ)
Date of expiry at most: September 08, 2023	有效期 (CN) Tary "Xinxiang" Jiaozhi, No. 8 Zhangji 3 St., Haidian, Beijing)
Representative: Wang Xiaofang	
 INTERNATIONAL ASSOCIATION OF FRANCHISES	 中国合格评定 国家认可中心 MANAGEMENT SYSTEM CNAS C035-M
NOTE: This certificate shall be maintained by regular surveillance audit. The validity of the certificate can be verified by scanning QR code. The information of the certificate can be available in http://www.ccnw.com.cn , the website of CNCA, and in our website http://www.xgpc.com.cn .	
	



ENVIRONMENTAL MANAGEMENT SYSTEM CERTIFICATE

Registration No. 0350520E20176R0S

This is to certify that the environmental management system of
Shandong Xinxu Group Corporation

Room 1501/02, Floor 15, Building 8, Xinxu Group Headquarters (Shandong) Zhangjiang, Zibo
No. 179, Xinxu West Rd., Zhangjiang, Zibo, Shandong 255000

Serial Credit Code: 913703016030706772

is in conformity with

GB/T 24001-2016 / ISO 14001:2015 Standard

This certificate is valid to

Assembly and service of electromechanical equipment (pressure die-casting machine, paste filling system, weld circuiting system, sales and service of wooden package, battery and spare parts, battery tooling and mould, lead shielding products, forklifts and forklift repair parts; import and export of goods within the scope of coal (iron) and technology export (Zibo General: Room 1501/02, Floor 15, Building 8, Xinxu Group Headquarters (Shandong) Zhangjiang, Zibo) No. 179, Xinxu West Rd., Zhangjiang, Zibo, Shandong. Nanchi Road, Science and Technology Industrial Park, Zhangjiang District, Zibo City, Shandong Province).

Date of issue: September 2, 2020


Date of expiry at most: September 08, 2023

Representative: *Wang Fenglin*


XINXU GROUP CORPORATION
CENTRE CO., LTD. (ORG)

FOR CERTIFICATE

(ZPL Tower, Zhongshan Road, No. 9 Zhangjiang 3 St., Heilong, Beijing)



INTERNATIONAL ASSOCIATION
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ACREDITATION SERVICE

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认可委员会

MANAGEMENT SYSTEM
CERTIFICATION

0350520E20176R0S-M

NOTE: This certificate shall be maintained by regular surveillance audit.
The validity of the certificate can be verified by scanning QR code.
The information of the certificate can be available in <http://www.xqcc.com.cn>,
the website of CNCA, and in our website <http://www.xqcc.com.cn>.



	
<h2> OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT SYSTEM CERTIFICATE </h2>	
Registration No. 0350520530161R0S	
<p>This is to certify that the occupational health and safety management system of</p> <h3> Shandong Xinxu Corporation </h3>	
Room 1505/1506, Floor 15, Building 4, Xinxing Center (Shandongshanghangyuan Zhongxin, Zibo) No. 179, Xinxun West Road, Zhenqiang, Zibo, Shandong, 255000 Social Credit Code: 91370302083766772	
<p>is in conformity with</p> <h3> GB/T 4501-2020 / ISO 45001:2018 Standard </h3>	
<p>This certificate is valid to</p> <p>Assembly and service of electromechanical equipment (pressure elevating machine, paste filling system, and circulation system) parts and services of modern packaging, battery and core parts, battery tooling and mould, lead shielding products, forklifts and forklift spare parts; import and export of goods within the scope of qualification and technology export (Zibo General Room 1505/1506, Floor 15, Building 4, Xinxing Center (Shandongshanghangyuan Zhongxin, Zibo) No. 179, Xinxun West Road, Zhenqiang, Zibo, Shandong, Hencheli Road, Science and Technology Industrial Park, Zhenqiang District, Zibo City, Shandong Province).</p>	
<p>Date of issue: September 09, 2020 Date of expiry at most: September 08, 2023</p>	
<p>Representative: <i>Wang Hongfei</i></p>	
	
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