



## 郑州天阳耐火材料有限公司

### 预组装标准

# Pre-assembly Standards of Zhengzhou Sunrise Refractory Co., Ltd

#### 1. 定义和控制步骤

1. Definitions and control steps

##### 1.1. 砖的尺寸

##### 1.1. Dimensions of brick

砖的尺寸定义在制品的一般技术规范中给出。

Definitions of dimensions of brick have been given in the common technical specifications of the products.

##### 1.2. 几何特性

##### 1.2. Geometrical features

预组装的几何尺寸在常温、无砖缝（干砌）的条件下测量。

Physical dimensions of pre-assembly should be measured under the conditions of normal temperature and brickwork joint (dry masonry).

#### 尺寸

##### Dimensions

- 尺寸检验：检验总体组装尺寸 并优先保证总体尺寸，可不保证每块砖的尺寸偏差。

- 尺寸检验用2米长的、10米长的或30米长的钢卷尺测量，读数指示以 mm 递增。

- Dimensional inspection: inspect the overall assembly dimension and give priority to guarantee the overall dimensions. Dimensional variation of each brick should not be guaranteed.

-Steel tapes with the length of 2m, 10m or 30m can be used for dimensional inspection. Reading indicator should increase progressively by mm.

#### 成直线偏差

Alignment Deviation

相邻两块砖成不成直线用钢卷尺在砖的角上测量。

If the neighboring two bricks are not in line, measure the corner of bricks with steel tape.

#### 接缝

##### Joint

- 两个接触面间存在的缝隙。

- 所有接缝的最大膨胀缝按下列方式测量：

对加工面的接缝用塞尺测量，间隙<1mm。

塞尺至少伸进两砖缝深20 mm。



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-aperture existing between two contact faces;

-the maximum dilatation joint of all joints should be measured according to the following methods:

As for joints of working faces, measure with spacer gage, clearance should be less than 1mm.

The spacer gage should extrude into the brickwork joint by at least 20mm.

### 1.3. 外观特性

#### 1.3. Appearance characteristics

外观特性的定义在一般产品技术规范中给出，归入“熔铸耐火制品标准”中。

Definition of appearance characteristics is already given in the general technical specifications of products. It is classified among the “Standards for Fused Cast Refractory Products”.

### 1.4. 标记

#### 1.4. Marks

每一块砖定义如下:

Definition of each brick is as follows:

-产品型号

- 组装标记

-Type of products

-Assembly marks

### 1.5. 预组装检验记录

#### 1.5. Inspection record for pre-assembly

对每一预组装，用户应得到一套用户资料表，其中包括以下几点。

For each pre-assembly, users should be provided with a set of users' manual, which should include the following points:

1、用户原始组装图及变更图纸。

2、用户订货材料表及技术要求。

3、各部位对应预组装编号图。

4、各部位对应预组装照片。

5、总装箱明细表。

1. Original assembly drawing and modified drawing for users.

2. Users' ordering material list and technical requirements.

3. The corresponding pre-assembly numbering drawing of each part.

4. The corresponding pre-assembly picture of each part.

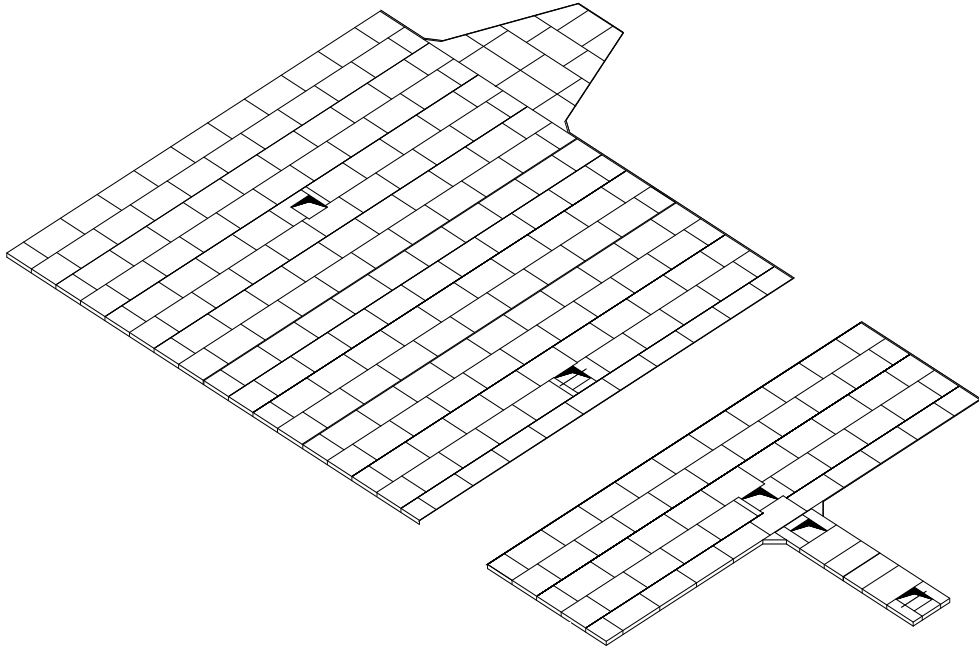
5. Detailed overall packing list

## 2. 火焰窑

### 2. Fired tank furnace

## 2.1 火焰窑底部

### 2.1 The bottom of fired tank furnace



#### 2.1.1 组装要注意的问题

##### 2.1.1 Problems need attention during assembly

本规范仅考虑满足下列条件所定义的底部:

This specification only takes the bottom defined as below into consideration:

- 窑的类型:

-Type of the furnace

回热式火焰窑 (断面加热和末端加热)、同流换热的火焰窑。

Backheating type fired tank furnace (section heating and terminal heating), recuperation fired tank furnace.

- 窑池的范围:

-Scope of furnace:

熔化池和澄清池(抑制的或可延伸的)

Melting tank and defecation tank (which can be restrained or expanded)

-产品类型:

-Type of products:

用DY-33WS、DY-36WS、DY-41WS。

Use DY-33WS, DY-36WS, DY-41WS

- 组装尺寸要求:

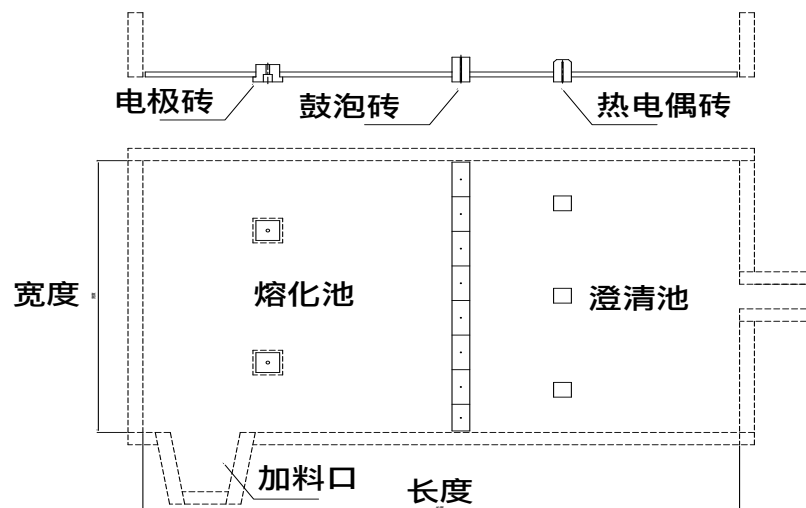
-Requirements for assembly dimensions

厚度: 75-150 mm Thickness: 75-150 mm

宽度: 3000mm-12000mm Width: 3000mm-12000mm

长度: 8000mm-40000mm Length: 8000mm-40000mm

### 2.1.2. 定义: 2.1.2: Definitions



图中文字: 电极砖: Electrode brick 鼓泡砖 bubbling brick 热电偶砖 thermal couple brick 宽度 width 熔化池 melting tank 澄清池 defecation tank 加料口 feed port 长度 length

固定位置:

fixed position:

下列部位被认为固定位置:

The following parts are regarded as fixed positions

热电偶砖、鼓泡砖、电极砖、嵌入窑坎。

thermal couple brick, bubbling brick, electrode brick and imbedded furnace weir

基准边:

reference edge:

基准边的定义为底部的外侧，其作为预组装和控制组装的基准。

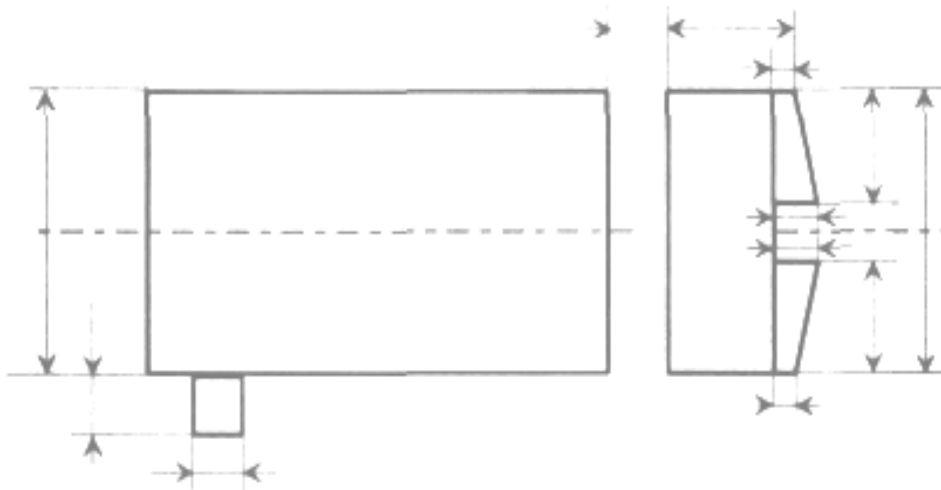
Reference edge refers to the outer flank of the bottom, which serves as base for pre-assembly and assembly controlling.

### 2.1.3. 几何尺寸

#### 2.1.3 Physical dimensions

##### 2.1.3.1. 尺寸

##### 2.1.3.1 Dimensions



	预组装完的公差要求
≤5 m	0 /-5 mm
5 m到 10m	≤0/-1‰
>10m	0-10 mm
延伸型窑底	±20 mm, 和 ΔA 尺寸差 ≤10mm



	预组装完的公差要求 Tolerance requirements after completion of pre-assembly
≤5 m	0 /-5 mm
5 m to 10m	≤0/-1‰
>10m	0-10 mm
Extending type furnace bottom	±20 mm, and Δ A variation of tolerance ≤10mm

ΔA 尺寸差 = 同一尺寸最大和最小测量值的差。

Δ A variation of tolerance=difference of the maximum and minimum measured value of the same dimension

### 2.1.3.2. 固定点的位置

#### 2.1.3.2 Position of the fixed point

对抑制型窑底或延伸型窑底的固定点的位置为: ± 5 mm.

As for restrainable or extending type furnace bottom, position of the fixed point is ±5 mm.

### 2.1.3.3. 周边的直线性偏差

≤ 5 mm.

#### 2.1.3.3 Linear deviation of the surrounding

≤ 5 mm

### 2.1.3.4. 垂直接缝

#### 2.1.3.4 Vertical joints

	缝的%	浇铸的砖缝	加工后的砖缝
膨胀缝	90%	≤ 1.5 mm	≤ 1.0 mm
	10%	≤ 2 mm	≤ 1.5 mm

	% of the joint	Casting brickwork joint	Machined brickwork joint
dilatation joint	90%	≤ 1.5 mm	≤ 1.0 mm
	10%	≤ 2 mm	≤ 1.5 mm

### 2.1.3.5. 多层铺底砌筑, 而不是整体衬 (干式底)

#### 2.1.3.5 Multilayer **pudi** masonry, but not integral linear (dry type bottom)

3个基准平面(setting faces) 要进行局部加工,以保证预组装时铺面平稳. 该加工使窑底厚度减少 5 到 6 mm.

Three setting faces should be machined selectively so as to guarantee that the **paving** is stable during

pre-assembly. The machining can reduce the thickness of furnace bottom by 5 to 6mm.

#### 2.1.4. 外观

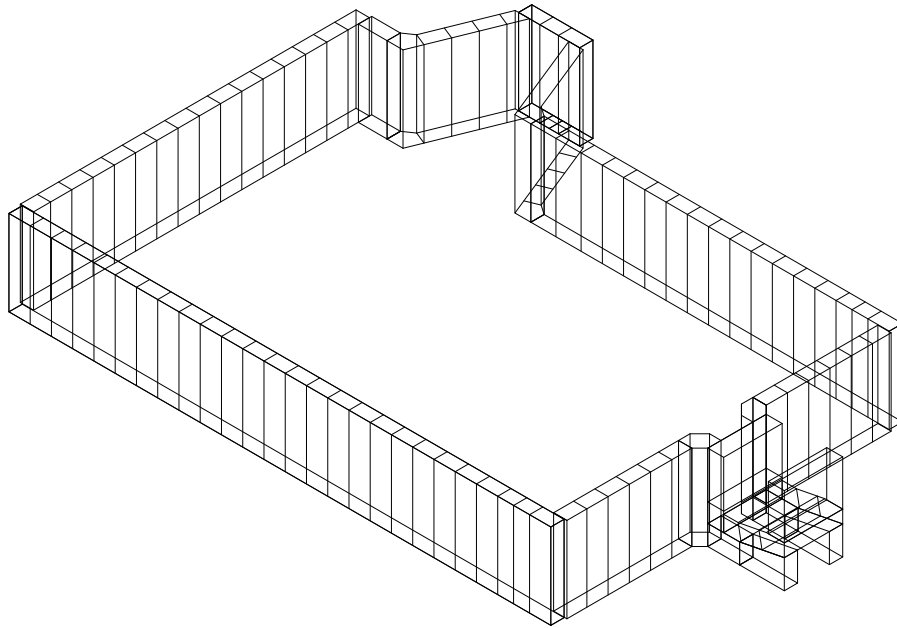
#### 2.1.4 Appearance

参照“熔铸耐火制品标准”。

Refer to [Standards for Fused Cast Refractory Products](#).

## 2.2 火焰窑池壁

### 2.2 Tank walls of fired tank furnace



#### 2.2.1. 组装范围

##### 2.2.1 Scope of assembly

本规范仅包含满足下列条件的窑池:

This specification only includes furnace tanks meeting the following requirements:

- 窑的类型:

-Type of the furnace

回热式火焰窑 (断面加热和末端加热)、同流换热的火焰窑。

Backheating type fired tank furnace (section heating and terminal heating), recuperation fired tank furnace.

- 窑池的范围:



-Scope of furnace:

熔化池和澄清池、深度澄清池。

Melting tank, defecation tank and deep defecation tank

- 产品类型:

- Type of products

DY-33WS、DY-33QX、DY-33ZWS、DY-36WS、DY-36ZWS、DY-41WS

- 组装尺寸要求:

- Requirements on dimensions of assembly

宽度 : 3000mm—12000mm Width: 3000mm—12000mm

长度: 8000mm—40000mm Length: 8000mm—40000mm

高度: ≤3000mm Height: ≤3000mm

## 2.2.2. 定义

### 2.2.2 Definition

“抑制”的定义为池壁包括两连接墙。

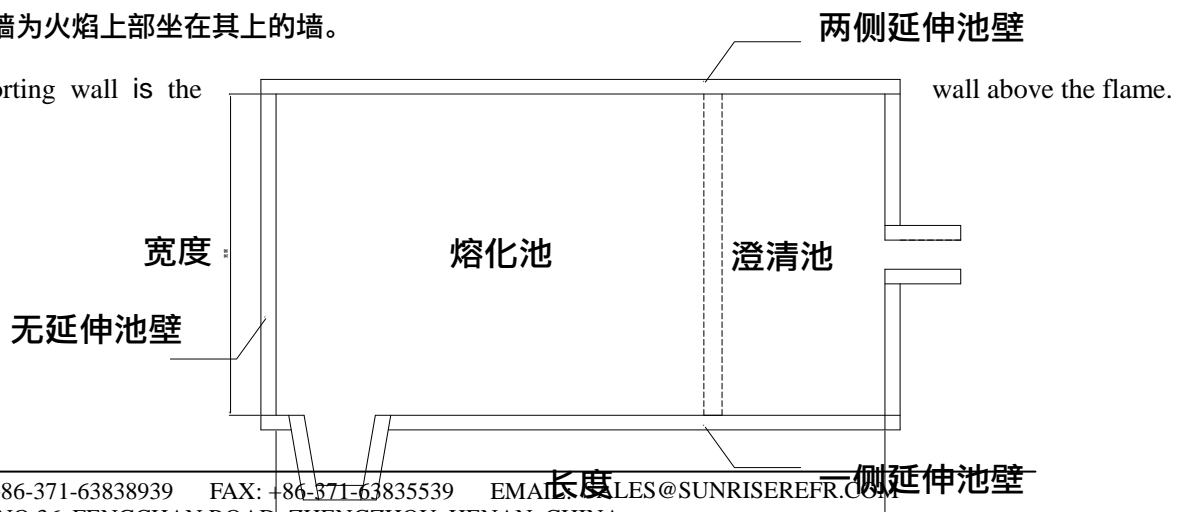
“Restrain” means the tank wall plus two connecting walls.

“延伸”的定义为池壁可沿垂直方向越过连接墙的外面任意延伸。

“Extending” means the tank wall can extend arbitrarily beyond the connecting walls along the vertical direction.

支撑墙为火焰上部坐在其上的墙。

Supporting wall is the





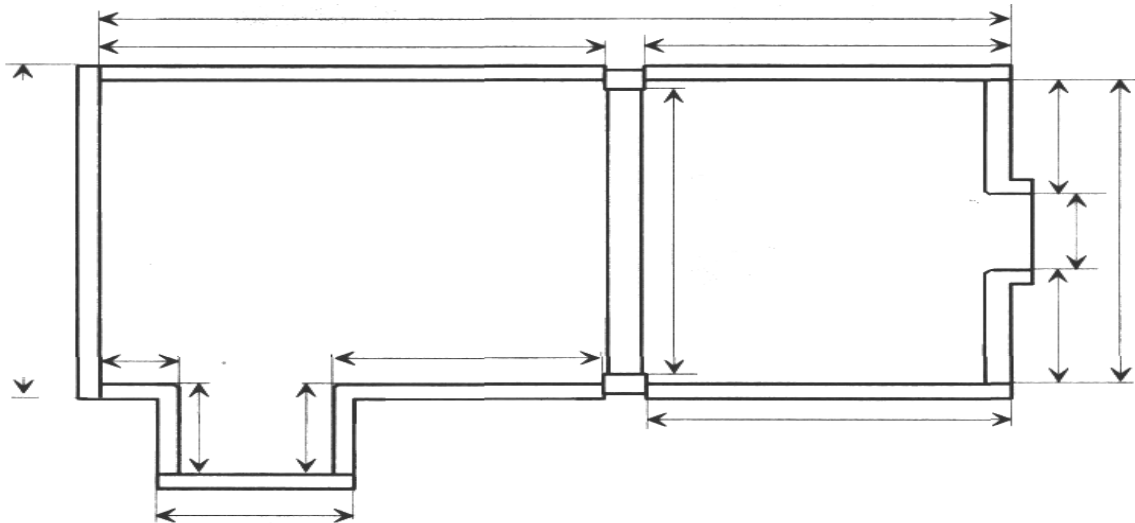
上图中文字: 宽度width 无延伸池壁 tank wall without extension 两侧延伸池壁 extending tank walls to two sides 熔化池 melting tank 澄清池defecation tank 长度 length 一侧延伸池壁 extending tank wall to one side

2.2.3. 几何尺寸要求

2.2.3 Requirements for physical dimensions

2.2.3.1. 尺寸要求

2.2.3.1 Dimension requirements



长度宽度	无延伸侧墙	一侧延伸侧墙	两侧延伸侧墙
≤5m	0 / -5 mm	±10mm	±20 mm
5 - 10 m	0/-1‰		
> 10 m	0/-10 mm		

Length and width	无延伸侧墙 sidewall without extension	一侧延伸侧墙 Extending sidewall to one side	两侧延伸侧墙 Extending sidewall to two sides
≤5m	0 / -5 mm	±10mm	±20 mm



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5 - 10 m	0/-1‰		
> 10 m	0/-10 mm		

窑池高度: 0 / -3 mm

Height of the furnace tank: 0 / -3 mm

### 2.2.3.2. 直线性偏差

2.2.3.2 Linear deviation

支线性偏差类型	浇铸面	加工面
高度方向	≤ 3mm	≤2 mm
不与玻璃液接触的面	≤ 5mm	≤3 mm
与玻璃液接触的面	≤ 8mm	≤3 mm
留有底部膨胀缝的接缝处	≤ 3mm	≤1 mm

支线性偏差类型 Types of linear deviation	浇铸面 Casted surface	Machined surface
高度方向 Attitude direction	≤ 3mm	≤2 mm
The surface doesn't contact with glass liquid	≤ 5mm	≤3 mm
The surface contacts with glass surface	≤ 8mm	≤3 mm
The seaming having bottom expansion joint	≤ 3mm	≤1 mm

### 2.2.3.3. 垂直接缝

2.2.3.3 Vertical joints

	浇铸接缝	加工面接缝
池壁	90% ≤ 1.5mm 100% ≤ 2.0mm	高度 ≤ 1800: ≤1.0mm 高度 > 1 800: ≤1.5mm
底部 <sup>1)</sup>	100% ≤ 2mm	90 % ≤ 1.0mm 10% ≤1.5mm

	浇铸接缝 Casting joints	Joints of machined surface
Tank wall	90% ≤ 1.5mm 100% ≤ 2.0mm	Height ≤ 1800: ≤1.0mm Height > 1 800: ≤1.5mm
Bottom <sup>1)</sup>	100% ≤ 2mm	90 % ≤ 1.0mm 10% ≤1.5mm

<sup>1)</sup> 池壁砖和延伸铺面砖间的接缝。

Joints between the tank wall brick and extending paving brick

#### 2.2.4. 外观

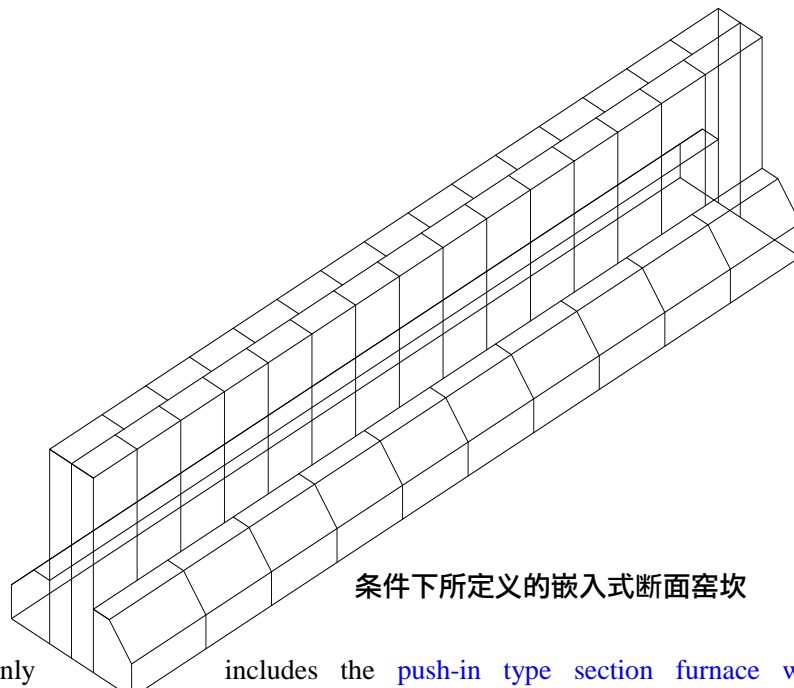
#### 2.2.4 Appearance

与玻璃液接触的面上不允许有剥落。

It is prohibited to have desquamation on the surfaces contacting with the glass liquid.

## 2.3 嵌入式断面窑坎

### 2.3 Push-in type section furnace weir



#### 2.3.1. 组装范围

本规范仅包含就下列

2.3.1 Scope of assembly

This specification only

includes the

条件下所定义的嵌入式断面窑坎

push-in type section furnace weir defined

according to the following conditions.

- 类型:

单个断面嵌入式窑坎(一单排砖)或复合砖 (例如两层复合砖)

-type

Single section push-in type furnace weir (a single row of bricks) or composite brick (such as two layers of composite bricks)

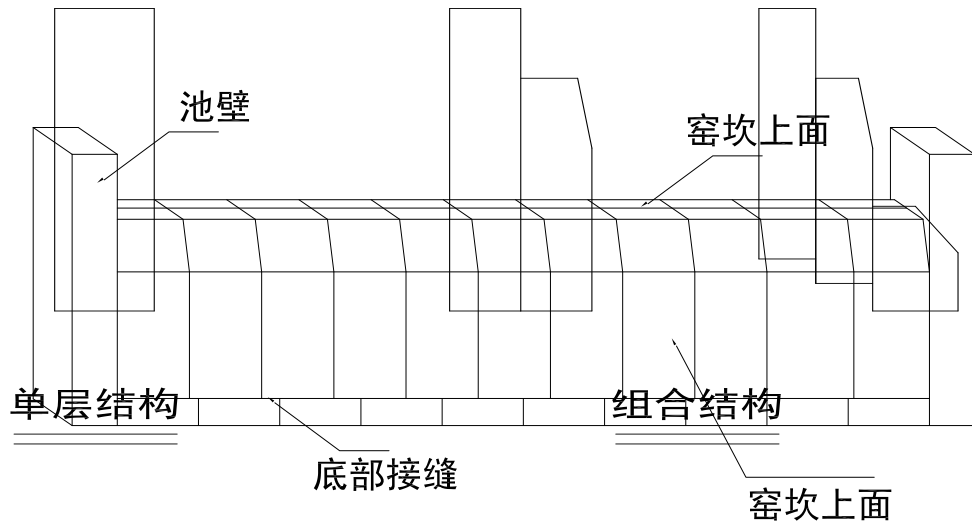
- 产品类型

-products type

DY-33WS、DY-41WS、DY-33ZWS、DY-41ZWS

### 2.3.2. 定义

#### 2.3.2 Definition



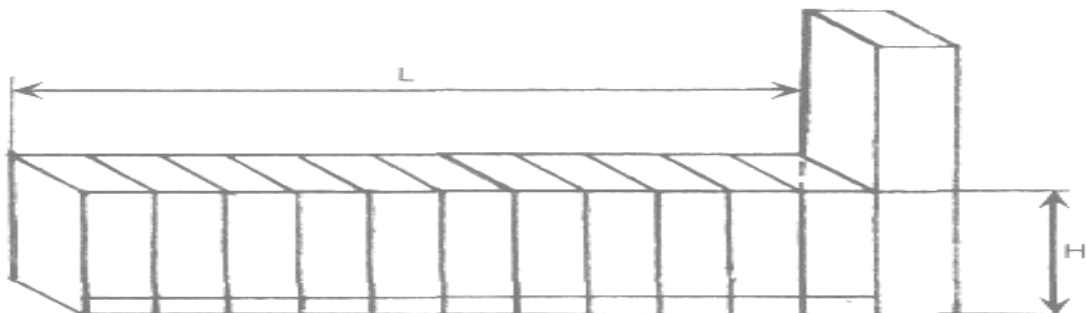
上图中文字：池壁 tank wall 窑坎上面 above the furnace weir 单层结构 single-layer structure 组合结构 composite construction 底部接缝 bottom joint 窑坎上面 above the furnace weir

### 2.3.3. 几何尺寸

#### 2.3.3 Physical dimension

##### 2.3.3.1. 尺寸要求

##### 2.3.3.1 Dimension requirements





长度“L”	L ≤ 5m	0/-5 mm
	5 < L ≤ 10m	0 / -1 ‰
	L > 10m	0/-10mm
在底面的厚度«l»		0 / -3 mm
高度 «H»		± 5 mm

Length “L”	L ≤ 5m	0/-5 mm
	5 < L ≤ 10m	0 / -1 ‰
	L > 10m	0/-10mm
thickness at the base surface «l»		0 / -3 mm
Height «H»		± 5 mm

长度 L 沿着浸入坝顶的顶部测量。

Length should be measured along the top that immersed into the bridge wall.

2.3.3.2. 直线性偏差

2.3.3.2 Linear deviation

	与玻璃接触的面		底部接缝面
	外面	上面	
非加工面	≤ 5 mm	≤ 5 mm	
机磨面			≤ 2mm
手工磨面			≤ 2.5 mm

	The surface contacting with the glass		Joint surface at the bottom
	Outer surface	Upper surface	
Non-machined surface	≤ 5 mm	≤ 5 mm	
Machined grinding surface			≤ 2mm
Manually grinding surface			≤ 2.5 mm

2.3.3.3. 垂直接缝

2.3.3.3 Vertical joints

	接缝的%	浇铸接缝	加工面接缝
膨胀缝	100%	≤ 1.5mm	≤ 1.0 mm
长度 (L)	L ≤ 500 mm		≤ 1.0mm
	500mm < L ≤ 1400mm		≤ 1.3mm

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WEB: CHINAREFR.COM

	% of the joint	Casting joint	Joints of machined surface
expansion joint	100%	$\leq 1.5\text{mm}$	$\leq 1.0\text{ mm}$
Length (L)	$L \leq 500\text{ mm}$		$\leq 1.0\text{mm}$
	$500\text{mm} < L \leq 1400\text{mm}$		$\leq 1.3\text{mm}$

#### 2.3.4. 外观

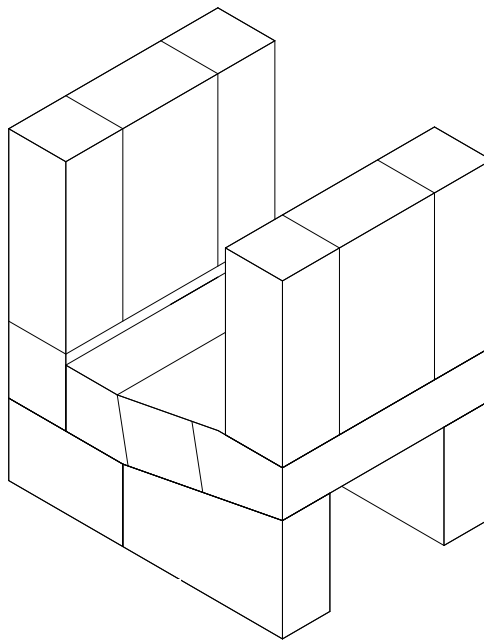
#### 2.3.4 Apperance

参照“熔铸耐火制品标准”。

Refer to “Standards for Fused Cast Refractory Products”.

## 2.4 流液洞

### 2.4 Dog-hole



#### 2.4.1. 组装范围

#### 2.4.1 Scope of assembly

本规范所涉及的仅为满足下列条件的流液洞:

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This specification only involves the dog-hole meeting the following conditions.

- 窑的类型:

-Type of furnace

所有类型 (火焰窑, 电窑, 混合式窑...)

All types (fired tank furnace, electric furnace and composite furnace...)

- 流液洞类型

-type of dog-hole

所有类型

All types

- 产品类型:

Products types:

DY-33WS、DY-41WS

- 组装尺寸要求:

Dimensions requirements for assembly

长度: 600mm -1850mm

高度: 700mm - 2300 mm

宽度: 600mm -1600mm

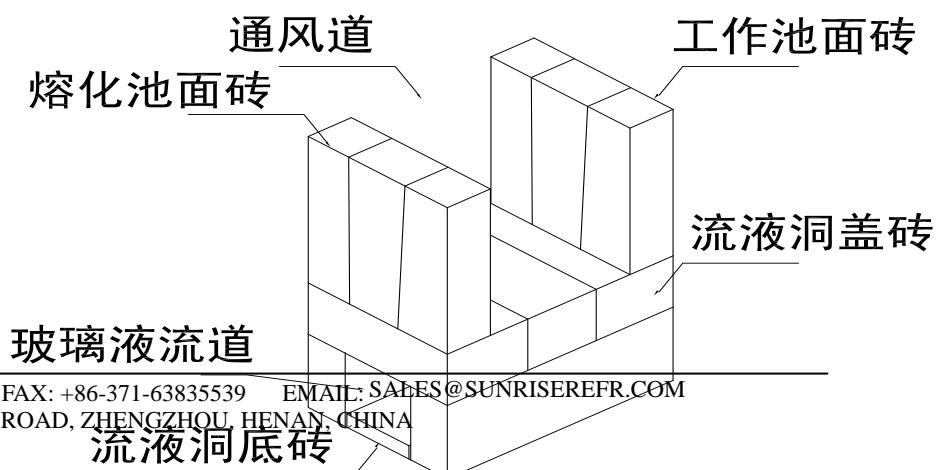
Length: 600mm -1850mm

Height: 700mm - 2300 mm

Width: 600mm -1600mm

## 2.4.2. 定义

### 2.4.2 Definition



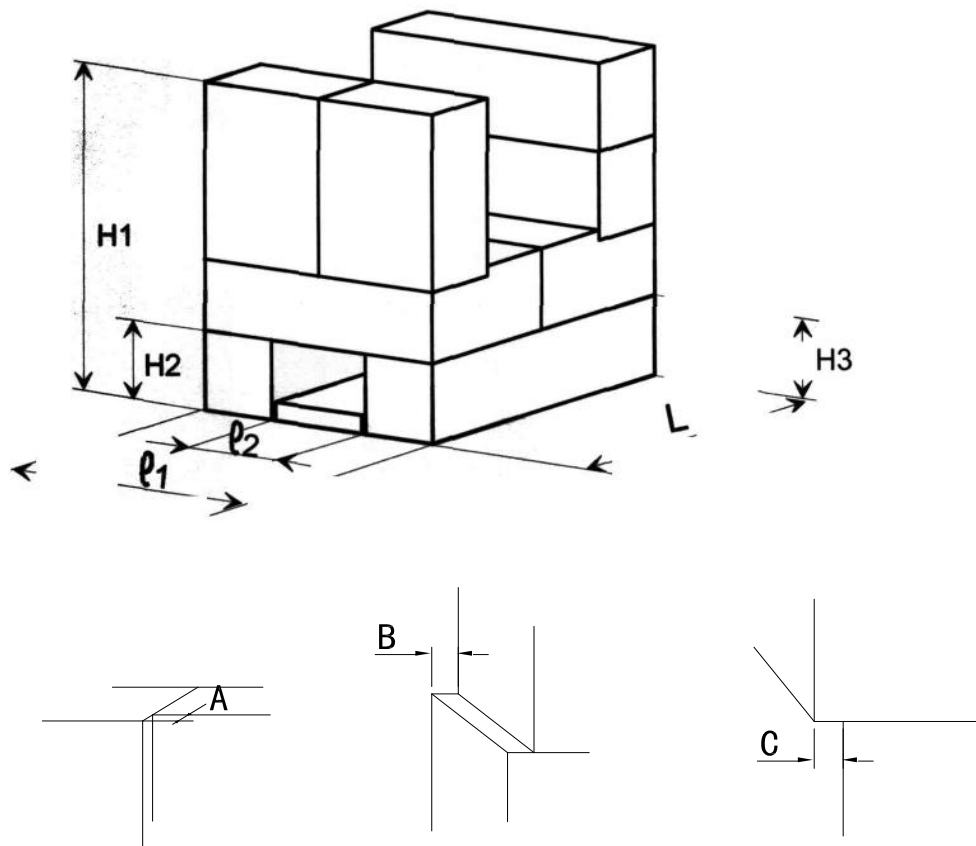
上图中文字: 通风道ventilation duct 熔化池面砖melting tank face brick 工作池面砖 working tank face brick 玻璃液流道sprue of glass liquid 流液洞盖砖cover brick of dog-hole 流液洞底砖bottom brick of dog-hole

### 2.4.3. 几何尺寸

#### 2.4.3 Physical dimension

##### 2.4.3.1. 尺寸要求

##### 2.4.3.1 Dimension requirements



垂直方向

设定后墙

延伸墙

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H1	H2 + H3	L	ℓ1	ℓ2
+ 0 mm -6 mm	±5 mm	+ 0 mm - 5 mm	+ 0 mm -3 mm	+ 10 mm -5 mm

## 2.4.3.2. 直线性偏差

### 2.4.3.2 Linear deviation

与玻璃液接触的面			流液洞—窑池接缝	通风道	
垂直方向	设定后墙	延伸		加工面	浇铸面
A ≤ 5 mm	B ≤ 5mm	不允许	见“接缝”	≤ 2 mm	≤ 3 mm

surfaces contacts with glass liquid			流液洞—窑池接缝 Dog-hole-furnace tank joint	ventilation duct	
垂直方向 Vertical direction	设定后墙 The set back wall	Extension		Machined surfaces	Casting surface
A ≤ 5 mm	B ≤ 5mm	Not allowed	见“接缝” Refer to joints	≤ 2 mm	≤ 3 mm

## 2.4.3.3. 垂直接缝

### 2.4.3.3 vertical joints

	接缝的%	浇铸接缝	加工面接缝
膨胀缝	100%	≤ 1.5 mm	≤ 0.5 mm
长度 (L)		L ≤ 500mm 500mm < L	≤ 1.0mm ≤ 1.5mm

	% of the joint	Casting joint	Joint of the machined surface
expansion joint	100%	≤ 1.5 mm	≤ 0.5 mm
Length (L)		L ≤ 500mm 500mm < L	≤ 1.0mm ≤ 1.5mm

## 2.4.4. 外观

### 2.4.4 Appearance

#### 2.4.4.1. 裂纹

##### 2.4.4.1 Crack

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在流液洞玻璃液流进和流出处的水平边楞上不允许有裂纹。

At the horizontal aris of the place where glass liquid flows into and out of the dog-hole, it is not allowed to have crack.

#### **2.4.4.2.缺边和缺角**

##### **2.4.4.2 wany edge and unfilled corner**

在两相邻处不允许有缺边和缺角。

It is not allowed to have wany edge and unfilled corner at the two neighboring places.

### **3. 浮法窑**

#### **3. Float furnace**

##### **3.1 浮法窑底部**

###### **3.1 The bottom of float furnace**

###### **3.1.1 组装要注意的问题**

本规范仅考虑满足下列条件所定义的底部:

This specification only takes the bottom defined as per the following conditions into consideration:

- 窑的类型:

所有的浮法窑。

-type of furnace

All types of float furnaces

- 窑池的范围:

熔化部、**卡脖**和冷却部(抑制的或可延伸的)

-scope of the furnace tank:

Melting end, **neck** and cooling section (restrainable or extensible)

-产品类型:

Products types:

**用**DY-33WS、DY-41WS。

Using DY-33WS、DY-41WS

- 组装尺寸要求:

Dimension requirements for assembly

厚度: 75-150 mm

宽度: 7000mm-15000mm

长度: 8000mm-40000mm

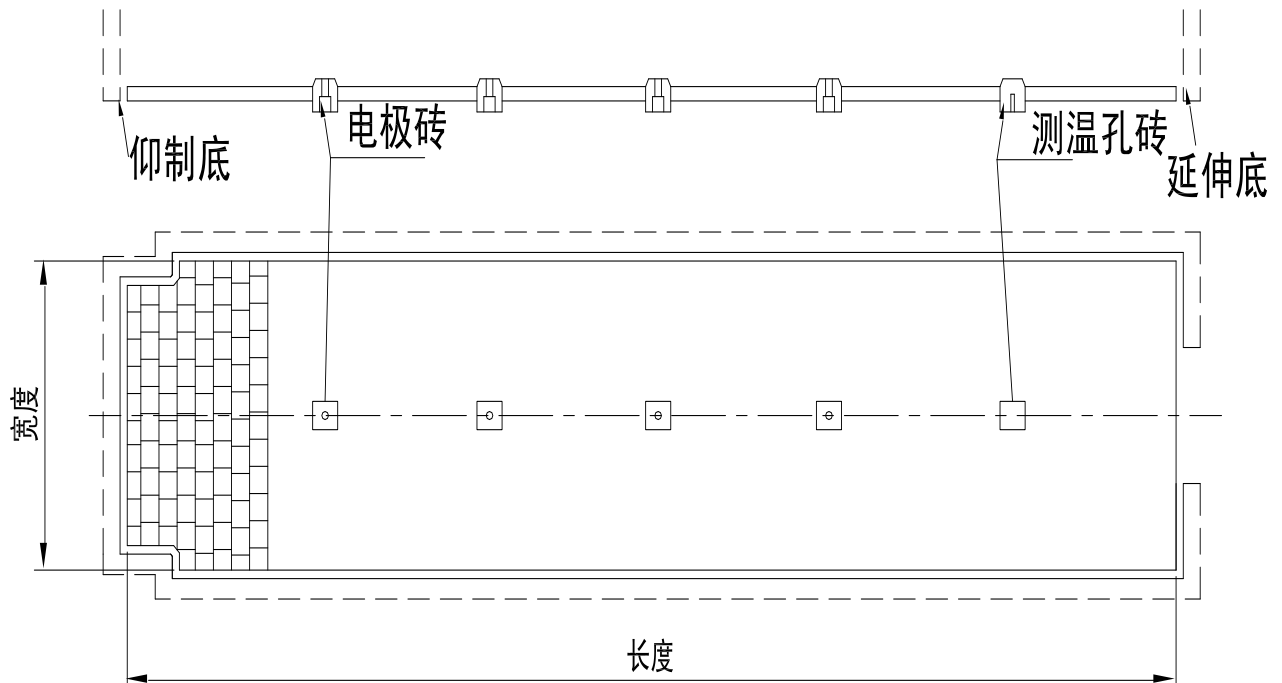
Thickness: 75-150 mm

Width: 7000mm-15000mm

Length: 8000mm-40000mm

### 3.1.2. 定义:

### 3.1.2 Definition



图中文字: 抑制底 restrained bottom 电极砖 electrode brick 测温孔砖 temperature measuring perforated brick 延伸底 extending bottom 宽度 width 长度 length

固定位置:

Fixed position:

下列部位被认为固定位置:

The following parts are regarded as fixed positions

热电偶砖、电极砖。

thermal couple brick and electrode brick

基准边:

reference edge

基准边的定义为底部的外侧，其作为预组装和控制组装的基准。

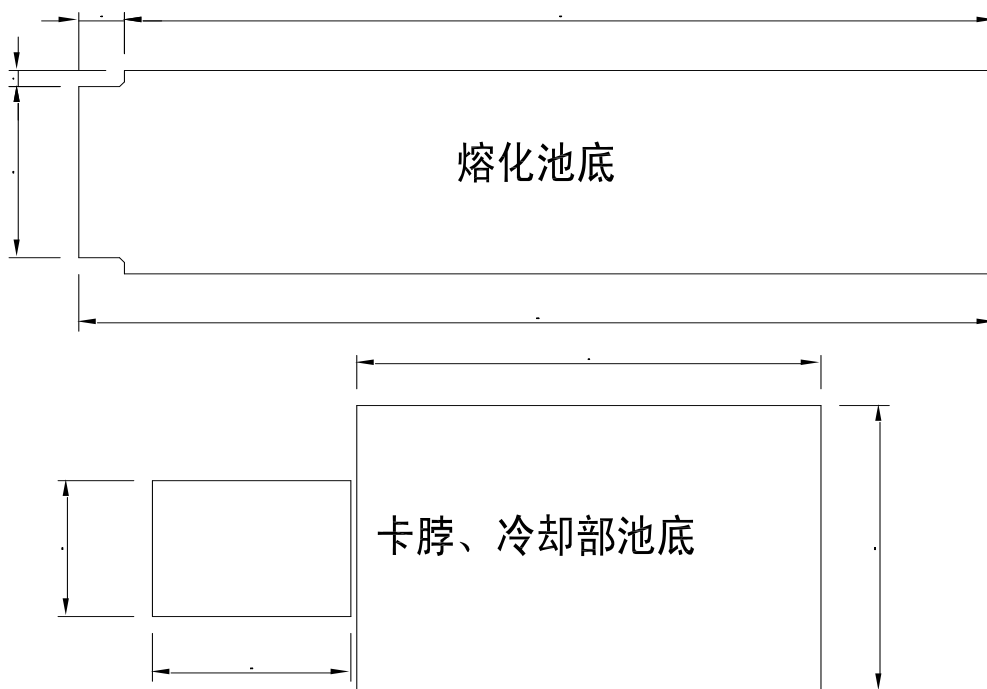
reference edge refers to the outer flank of the bottom. It serves as base for pre-assembly and controlling assembly.

**3.1.3. 几何尺寸**

**3.1.3 Physical dimensions**

3.1.3.1. 尺寸

3.1.3.1 Dimension



图中文字: 熔化池底 bottom of the melting tank

卡脖、冷却部池底 tank bottom of the neck and cooling section

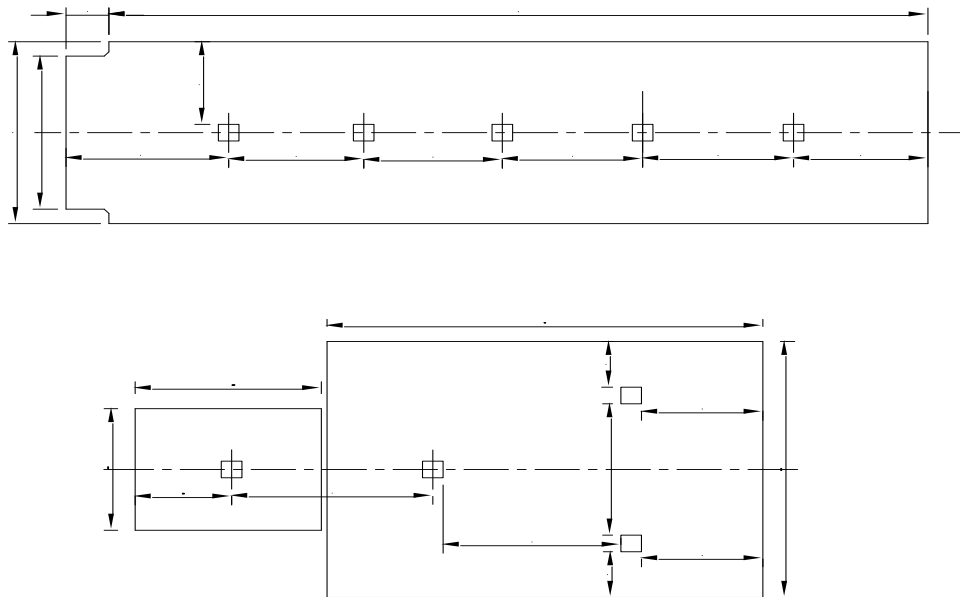
	预组装完的公差要求
≤10 m	0 /-10 mm
10 m到 30m	≤0/-1‰
>30m	0/-30 mm

	预组装完的公差要求 Tolerance requirements after completion of pre-assembly

$\leq 10\text{ m}$ $10\text{ m to }30\text{ m}$ $>30\text{ m}$	$0\text{ /-}10\text{ mm}$ $\leq 0\text{ /-}1\text{‰}$ $0\text{ /-}30\text{ mm}$
--	---

3.1.3.2. 固定点的位置

3.1.3.2 Position of the fixed points



3.1.3.3. 周边的直线性偏差

3.1.3.3 Linear deviation of the surrounding

$\leq 5\text{ mm}$ .

3.1.3.4. 垂直接缝

3.1.3.4 Vertical joints

	缝的%	加工后的砖缝
膨胀缝	90%	$\leq 1.0\text{ mm}$
	10%	$\leq 1.5\text{ mm}$

	% of the joints	Machined brickwork joint
expansion joint	90%	$\leq 1.0\text{ mm}$
	10%	$\leq 1.5\text{ mm}$



## 3.1.4. 外观

### 3.1.4 Appearance

见“熔铸耐火制品标准”。

Refer to “Standards for Fused Cast Refractory Products”

## .2 浮法窑池壁

## 2. Float furnace tank wall

### 3.2.1. 组装范围

#### 3.2.1 Scope of assembly

本规范仅包含满足下列条件的窑池:

This specification only includes the furnace tank meeting the following conditions.

- 窑的类型:

所有浮法窑。

-type of furnace

All types float furnaces

- 窑池的范围:

熔化部、卡脖、冷却部池壁。

-scope of the furnace tank:

Melting end, neck and tank wall of cooling part

- 产品类型:

-product types

DY-33WS、DY-33QX、DY-33ZWS、DY-41WS

- 组装尺寸要求:

-dimension requirements for assembly

宽度 : 3000mm -12000mm

长度: 8000mm – 40000mm

高度: ≤3000mm

Width: 3000mm -12000mm

Length: 8000mm – 40000mm

Height: ≤3000mm

### 3.2.2. 定义

#### 3.2.2 Definition

“抑制”的定义为池壁包括两连接墙。

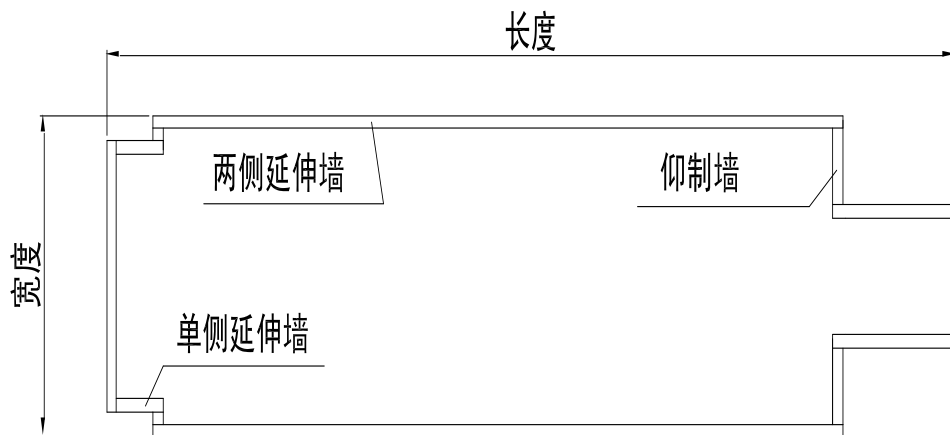
Restrain means the tank walls, including the two [connecting walls](#).

“延伸”的定义为池壁可沿垂直方向越过连接墙的外面任意延伸。

“Extending” means the tank wall can extend arbitrarily beyond the connecting walls along the vertical direction.

支撑墙为火焰上部坐在其上的墙。

Supporting wall refers to the wall above the flame.



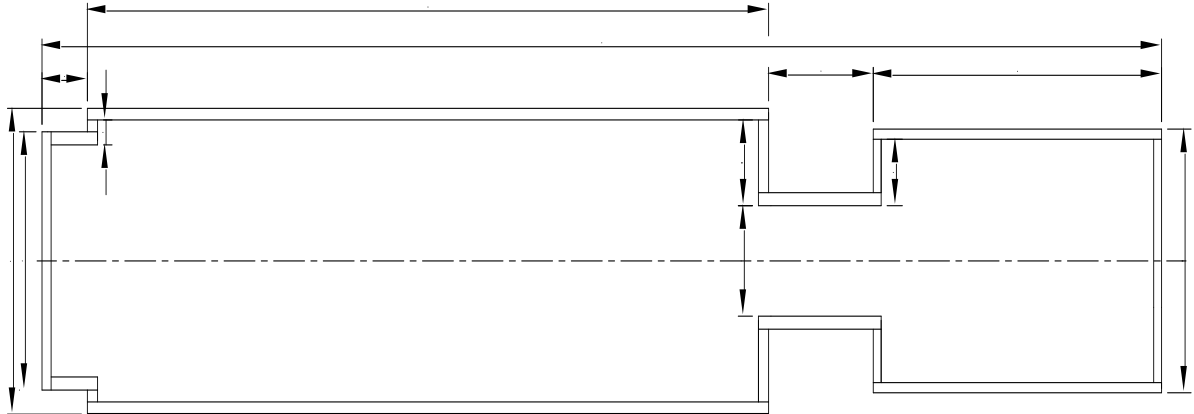
图中文字： 长度 length 两侧延伸墙 extending wall to two sides 抑制墙 restrained wall 宽度 width 单侧延伸墙 extending wall to one side

### 3.2.3. 几何尺寸要求

#### **3.2.3 Requirements of physical dimension**

##### 3.2.3.1. 尺寸要求

##### 3.2.3.1 Dimension requirements



长度宽度	无延伸侧墙	一侧延伸侧墙	两侧延伸侧墙
≤10m	0 / -10 mm	±10mm	±20 mm
10 - 40 m	0/-1‰		
> 40 m	0/-1‰		

Length and width	Sidewall without extension	一侧延伸侧墙 Extending wall to one side	两侧延伸侧墙 Extending wall to two sides
≤10m	0 / -10 mm	±10mm	±20 mm
10 - 40 m	0/-1‰		
> 40 m	0/-1‰		

窑池高度: 0 / -3 mm

Height of the furnace tank: 0 / -3 mm

### 3.2.3.2. 直线性偏差

#### 3.2.3.3 Linear deviation

直线性偏差类型	加工面
高度方向	±0mm
不与玻璃液接触的面	≤3 mm
与玻璃液接触的面	≤2 mm
留有底部膨胀缝的接缝处	≤1 mm

Type of linear deviation	Machined surface
Attitude direction	±0mm
Surface doesn't contact with glass liquid	≤3 mm





Surface contacting with glass liquid	$\leq 2$ mm
Joints having bottom expansion joint	$\leq 1$ mm

### 3.2.3.3. 垂直接缝

#### 3.2.3.3 Vertical joints

	加工面接缝
池壁	高度 $\leq 1800$ : $\leq 1.0$ mm 高度 $> 1800$ : $\leq 1.5$ mm
底部 <sup>1)</sup>	90 % $\leq 1.0$ mm 10% $\leq 1.5$ mm

	Joints of machined surface
Tank wall	Height $\leq 1800$ : $\leq 1.0$ mm Height $> 1800$ : $\leq 1.5$ mm
Bottom <sup>1)</sup>	90 % $\leq 1.0$ mm 10% $\leq 1.5$ mm

1) 池壁砖和延伸铺面砖间的接缝。

Joints between the tank wall brick and extending paving brick

### 3.2.4. 外观

#### 3.2.4 Appearance

参照“熔铸耐火制品标准”。

Refer to “Standards for Fused Cast Refractory Products”.

## 3.3 胸墙

### 3.3 Breast wall

#### 3.3.1. 组装范围

##### 3.3.1 Scope of assembly

本规范仅包含就下列条件下所定义的胸墙

This specification only includes the breast wall defined as follows.

- 类型:

所有浮法窑

-type:

All float furnaces

- 产品类型

Products types

DY-33WS、DY-33PT

- 组装尺寸要求:

Dimension requirements of assembly:

TEL: +86-371-63838939 FAX: +86-371-63835539 EMAIL: SALES@SUNRISEREFRACTORY.COM

ADD: NO.36, FENGCHAN ROAD, ZHENGZHOU, HENAN, CHINA

WEB: CHINAREFR.COM

长度: 8000mm – 40000mm

高度: ≤3000mm

Length: 8000mm – 40000mm

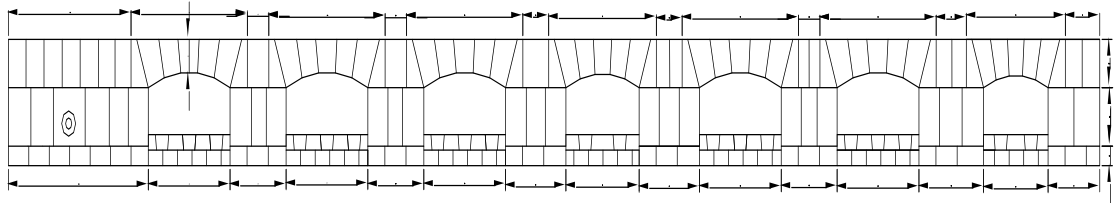
Height: ≤3000mm

### 3.3.2. 几何尺寸

#### 3.3.2 Physical dimension

##### 3.3.2.1. 尺寸要求

##### 3.3.2.1 Dimension requirements



		预组装完的公差要求
长	≤15 m 15 m到 35m >35m	±15 mm ±1‰ ±35 mm
高	≤3m	0 /-3 mm

		预组装完的公差要求 Tolerance requirements after completion of pre-assembly
Length	≤15 m 15 m to 35m >35m	±15 mm ±1‰ ±35 mm
Height	≤3m	0 /-3 mm

##### 3.3.2.2. 周边的直线性偏差

##### 3.3.2.2 Linear deviation of the surrounding

≤5mm。

##### 3.3.2.3. 垂直接缝

##### 3.3.2.3 Vertical joints

	缝的%	加工后的砖缝



膨胀缝	90%	$\leq 1.0 \text{ mm}$
	10%	$\leq 1.5 \text{ mm}$

	% of the joint	Machined brickwork joint
expansion joint	90%	$\leq 1.0 \text{ mm}$
	10%	$\leq 1.5 \text{ mm}$

### 3.3.3. 外观

#### 3.3.3 Appearance

参照“熔铸耐火制品标准”。

Refer to “Standards for Fused Cast Refractory Products”.

## 3.4 小炉

### 3.4 Port

#### 3.4.1. 组装范围

##### 3.4.1 Scope of assembly

本规范所涉及的仅为满足下列条件的**碓**:

This specification only involves the the **crown** meeting the following conditions:

- 窑的类型:

所有浮法窑

-type of the furnace

All float furnaces

- **小炉碓类型**

Type of port crown

小炉入口碓、小炉出口碓、小炉斜碓、小炉侧墙、小炉底。

Inlet crown of the port, outlet crown of the port, inclined crown of the port, sidewalls and port bottom

- 产品类型:

Products type

DY-33WS、DY-33PT

-**组装尺寸要求:**

Dimension requirements of assembly:

长度: 1500mm -3000mm

高度: 300mm - 800 mm

宽度: 300mm -1000mm

Length: 1500mm -3000mm

Height: 300mm - 800 mm

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WEB: CHINAREFR.COM

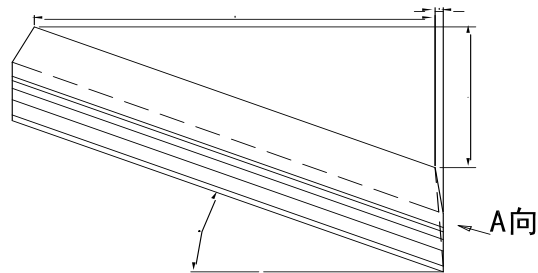
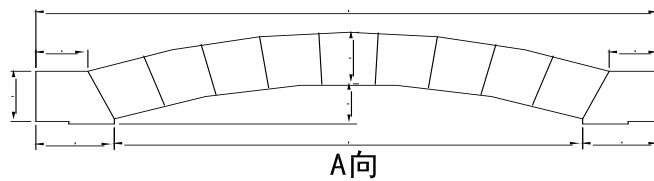
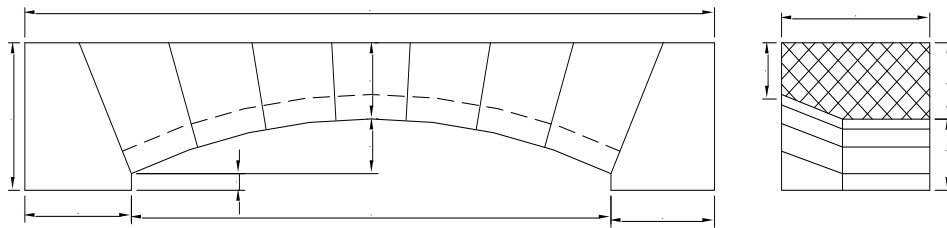
Width: 300mm -1000mm

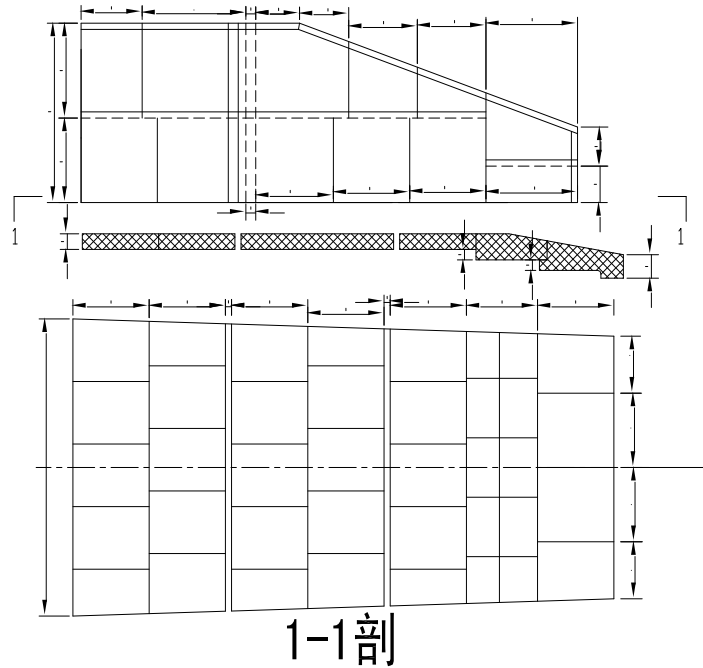
### 3.4.2.几何尺寸

#### 3.4.2 Physical dimension

##### 3.4.2.1. 尺寸要求

##### 3.4.2.1 Dimension requirements





3.4.2.2

预组装完公差要求±5,小炉底宽度公差 0~-5。

Tolerance requirements after completion of pre-assembly is ±5. Width tolerance of the port bottom is 0~-5.

3.4.2.3. 垂直接缝

3.4.2.3 Vertical joints

	接缝的%	加工面接缝
膨胀缝	100%	≤1.0 mm

	% of the joints	Joint of the machined surfaces
expansion joint	100%	≤1.0 mm



### 3.4.3. 外观

### 3.4.3 Appearance

参照“熔铸耐火制品标准”。

Refer to “Standards for Fused Cast Refractory Products”.