

# Slag Pot



Slag Pot is widely used in steel and casting industry. It is a kind of container that takes up steel slag. The slag pot can be divided into three parts, slag body, trunnion and turning mechanism.

Generally speaking, the slag body is made in cast steel, Steel 25, the trunnion and turning mechanism are made in forged steel. We can also supply the slag pot by whole casting according to the customer request.

## 一、material for the slog pot :

The slag pots are made out of the cast-steel like Carbon Steel, Alloy Steel.

The table as following is showed for Steel Grade SC410.

• **Chemical Composition verified on product**

Elements	C	Si	Mn	S	P
Required	0.15~0.25	0.30~0.50	0.8~1.00	Max 0.020	Max 0.020
Typical	0.16	0.44	0.98	0.012	0.012



- Mechanical Properties Checked at room temperature in the delivery condition i.e. after completion of the quality heat treatment from cylindrical cast-on test blocks

Properties	Yield (MPa)	Strength(MPa)	Elongate %	Reduction area %
Required	Min 205	Min 410	Min 21	Min 35
Typical	280	456	31	44

## 二、 Product Definition:

The product covered here is a load-bearing device whose sole purpose is to collect molten or solid slag generated during metallurgical or chemical processes, to retain it during transport and to deposit it at a place of disposal.

Slag Pots are crucial items as they are part of a lifting equipment and therefore undergo in terms of mechanical design engineering and handling the national safety regulations of the state where they are supposed to be operated.

## 三、 Manufacturing

Except the supply of the forgings for trunnions, all further operations are carried-out at the in-house foundry plant.

### ● Moulding

The castings are manufactured in a workman-like manner as required in the Chinese Standard, or ISO Standard. The moulding is individually carried out within a modular flask by using a sand preparation based on resin bonding.

### ● Trunnions

The trunnions are forged by the material with high hardness. Cast-on or Hot-fitted trunnions can be also provided.



● **Melting**

The melting is carried out in the oxygen steel plant; the ladle capacity allows a continuous bottom pouring process the speed of which is permanently controlled. The metal analysis is checked by using a computer linked spectrograph.

● **Heat treatment**

Every pot undergoes a combined quality heat treatment (annealing) aiming both to grain refining and to stress relieving

● **Fettling and dressing**

The inner surface is processed fit-for-purpose so that the surface discontinuities which might cause sticking of the slag are extensively removed. Additionally, the castings re descaled by shot-blasting and the outside is additionally coated for transportation.

**Quality Assurance**

The fabrication route is governed by the provisions of the implemented Quality System ISO 9001.

The standard documentation ensures the full traceability of every process step. We will offer the Checking Report for each slag pot.

1. Inquiry and Quotation	Customer sends us the drawings, we reply with quotation and delivery date.
2. Order Confirmation	Both of us confirm the order by Contract.
3. Payment	Customer makes the deposit
4. Production and Inspection	Customer makes the balance after the inspection
5. Packing, Shipping and After-sales Service	Order finished





4 or 5. Heat-treatment



5 or 4. Rough Machining



6. Finish Machining.



7. UT Test and other test.



8. Anti-rust Oil.



80T-Ladle-Refining-Furnace

#### 四、Quality Assurance:

The fabrication route is governed by the provisions of the implemented Quality System ISO 9001: 2000. The standard documentation ensures the full traceability of every process step:

- Manufacturer test certificates according to DIN EN 10.204 § 3.1 including chemical composition, mechanical properties and non-destructive examination;
- Dimensional check supported with a “as-built“ sketch;
- Record of the heat treatment chart;



China first-rate integrated service supplier of steel casting parts



**To ensure our quality, our factory provides the following test reports to the buyers:**

- 1) Chemical Composition Report
- 2) Mechanical Properties Report
- 3) Dimension Test Report
- 4) Hardness Test Report
- 5) Heat Treatment Chart Report
- 6) UT, MT Test Report
- 7) Or Others according to clients' demand

