



BINDAL
ENGINEERING & CASTING (P) LTD.

ANCHOR
For Refectory Application



ANCHORS

REFRACTORY ANCHORS SYSTEMS

A wide range of refractory anchor fixings to suit any particular application for retaining castable and brick installation.

- ▣ Refractory Anchors
- ▣ Refractory Brick Fixing
- ▣ Special Fixing and Special fabrication

Manufactured from round bar or plate section the anchors are available in a standard shapes. They are fixed with a thread or a weld and can be supplied with a weld foot. The fixings are available in the full range of stainless steel and alloys and can be made to suit any depth of lining.

CAST – IN ANCHORS

Y Anchors

These anchors are manufactured from 5-12 mm diameter bar or from plate section. Y anchors made from round bar can be supplied open to any angle with a plain end, weld leg or thread.

The tips can be fitted with plastic caps to enable expansion of the tips at temperature. Y anchors from plate section can be supplied open to any angle or supplied closed for installation of pre-drilled fibreboard or other initial layers prior to opening on site.

Anchors can also be supplied pre-welded to a mild steel base plate for ease of installation on site.

V Anchors

Manufactured from bar diameter 5-12 mm. The anchors legs can be supplied to individual requirements with odd length with bend crimps and with plastic end caps.

V Anchors

Crook anchors are manufactured 5-12 diameter. The crook is available with a span of 75mm, 100mm or 125mm. Crook anchors can be supplied with a plain end, weld thread bent to fit a pre-welded clip.

REFRACTORY FIXINGS

ANCHORS FOR BRICK INSTALLATION

A range of refractory fixings to fit refractory bricks, and can be made to customer's specification to suit any furnace. The range includes brick hook made from bar, C-clips manufactured from plate and 'scissor clips'.

BESPOKE ANCHORS

Bespoke refractory anchors can be made to order, including two part anchors and fixings with multiple anchors legs.

MESH ANCHORS

A mesh fixing is available for retaining mesh lining. The fixing is supplied open and is welded to the furnace lining.

SPECIAL FABRICATIONS

Bindal has many years experience producing special fabrication to individual customer requirement. Bespoke stainless steel refractory fabrication can be designed and manufactured to operate in high temperature environments. These include brick work support systems for chimney and furnace application, and incineration components. Advanced manufacturing equipment and a substantial raw material stock are available to provide a consistently high level of service.



REFRACTORY FIXINGS

Our Main Products Are -

Refractory Anchors (V,Y,Zig -Zag etc)

Brick plates

Hangers

S.S Fibers

C-Clips

Retainer Plate

Roof Hangers

Blots

Stiffren Plate

Studs Etc

Refractory anchors & other material are available in expanded metal, has steel grid and special. All products are available in stainless steel grades 304,316,310,321,as well as carbon steel,

Material Specifition

Refractory fixings are available in a range of stainless steel and high alloys

Grade 1.4301(304)(18/8)

The most widely used stainless steel grade containing typically 18% Nickel as the main alloying elements. This grade has excellent welding properties easily formed and fabricated.

Grade 310

A hest resisting steel that combines excellent resistance to both corrosion and oxidation at elevated temperatures. It is resistant to moderate themal shock and show high strength at high temperatures.

Inconel Alloys 601

Inconel 601 has an outstanding resistance to corrosion and to high temperature oxidation. The material also has good resistance to aqueous corrosion and high mechanical strength.

Other Grades

Refractory fixings can be supplied in other grades on request including stainless steel grade 1.4401.(316),please contact TR for mare details.

Using Stainless Steel At High Temperatures

The resistance to oxidation of stainless steel depends largely on the chromium content. Two other alloying elements, nickel and silicon. Also be instrumental in enhancing the oxidation resistance of the of the steel. Nickel in the alloy minimises oxide spalling, silican increases oxidation resistance by improving the compaction of the scale formed and thereby alloy the steel to be used at higher operating temperatures. Corrosion in air or steam occurs relatively slowly due to the formation of a compact adherent chromium oxide based scale.



Typical Chemical Specification(%)

| Spccification | Type 304 | Type 310 | Inconel Alloy 600 | Type 309 | Type 316 | Type 321 | Type 330 | 600 Alloy | 800 Alloy |
|---------------|-----------|-----------|-------------------|----------|----------|----------------------------------|----------|-------------|---|
| | 1.4301 | 1.4845 | - | 1.4833 | 1.4401 | 1.4878 | - | - | - |
| C | 0.040 | 0.050 | 0.500 | 0.060 | 0.040 | 0.050 | 0.060 | 0.050 | 0.060 |
| S | 0.20-1.00 | 0.20-1.00 | 0.500 | 1.00 | 1.000 | 1.000 | 1.750 | 0.500 | 1.000 |
| Mn | 0.50-2.00 | 0.50-2.00 | - | 2.000 | 2.000 | 2.000 | 2.000 | 1.000 | 1.500 |
| P (Max) | 0.045 | 0.045 | 0.015 | 0.450 | 0.045 | 0.045 | 0.400 | 0.015 | - |
| S 9Max0 | 0.030 | 0.030 | 21.00-2400 | 0.030 | 0.030 | 0.030 | 0.300 | 0.015 | - |
| Cr | 18.30 | 18.30 | 1.00-1.70 | 22.00 | 16.80 | 17.30 | 19.000 | 14.00-17.00 | 19.00-23.00 |
| Al | - | - | 1.00-1.70 | - | - | - | - | - | 0.15-0.60 |
| Ni | 8.70 | 20.00 | 58.00-63.00 | 12.50 | 10.70 | 9.20 | 35.000 | 72.000 | 30.00-35.00 |
| Other | - | - | Cu 0.5 Bal Fe | - | - | It Less Then/ equal to 5xC | - | Cu 0.5 | Cu 0.5 max s=0.015 max Alt=Ti=0x85-1.20 |
| Mo | - | - | - | - | 2.20 | 2.20 | - | - | - |
| Ti | - | - | - | - | - | - | - | - | 0.10-0.60 |



BEc
The Art of Engineering

CONTACT US

BINDAL ENGINEERING & CASTING (P) LTD.

📍 238-39, 2nd Floor, Rishabh Complex, MG Road , Raipur (CG) 492001 , INDIA.

☎ +91 - 88172 92360, 88178 92360 ☎ +91 - 771 - 2228001

✉ sales@bindalcasting.com 🌐 www.bindalcasting.com

