



## SPECIFICATION FOR CAST IRON BRAKE BLOCKS

### Summary:

This specification is based on a Fidax Foundry which in turn was based on a Freight Corp standard number TRS1008.01 dated April 1995. It relates to the manufacture of the SRA0200 and CFE0004 brake blocks currently supplied in Australia by PowerCast Pty Ltd.

#### 1. MATERIAL SPECIFICATION

The brake block shall be grey iron casting generally in accordance with AS 1830 – 1986 Grade H241 except as specified herein.

The chemical composition shall meet the following requirements:-

Phosphorous	0.5% - 0.8%
Sulphur	0.15% max
Manganese	0.60% maximum

Carbon, silicon and carbon equivalent are to be decided by the manufacturer to achieve the correct hardness range as described in section 4.2

#### 2. MANUFACTURE

Castings shall comply with the drawing and shall be free of gross porosity or other harmful defects. The grooves and cored holes shall be clean and free from any defect. The blocks shall be free from blow holes, chill spots and other defects. The manufacturer's identification mark and the standard SRA pattern number shall be cast on each block.

Sample brake block heads and keys to standard dimensions will be loaned to PowerCast by the customer to ensure correct fitment. Any brake blocks which, on delivery, will not properly fit the sample brake block heads and keys shall be rejected and shall be collected and replaced by PowerCast at PowerCast's expense.

#### 3. INTERCHANGABILITY

The SRA0200 is designed to be interchangeable with the brake heads of all customers in NSW, Vic and SA. Particularly for freight rail locomotives, XPT power cars and freight rolling stock.

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#### **4. TESTING**

4.1 The manufacturer is to carry out standard tests during all production runs, including chemical composition, hardness test and microstructure. These results are to be made available on request.

4.2 Hardness is to be tested in 3 places on the back side of the block. Not less than 3mm nor more than 6mm shall be machined from the test site. The average hardness shall not be less than 187 nor more than 241 HB.

4.3 The test block shall be broken , including the bridge and the fracture shall be completely grey.

#### **5. QUALITY ASSURANCE**

The manufacturer shall operate a quality assurance system meeting the requirements of AS/NZS ISO 9002.

The manufacture, inspection, test, packaging and delivery of all cast iron brake blocks shall be carried out to approved documented procedures.

All inspection, measuring and test equipment used to determine compliance to this specification, shall be maintained within known calibration during the time of use.

Quality records shall be generated to demonstrate compliance to this specification.