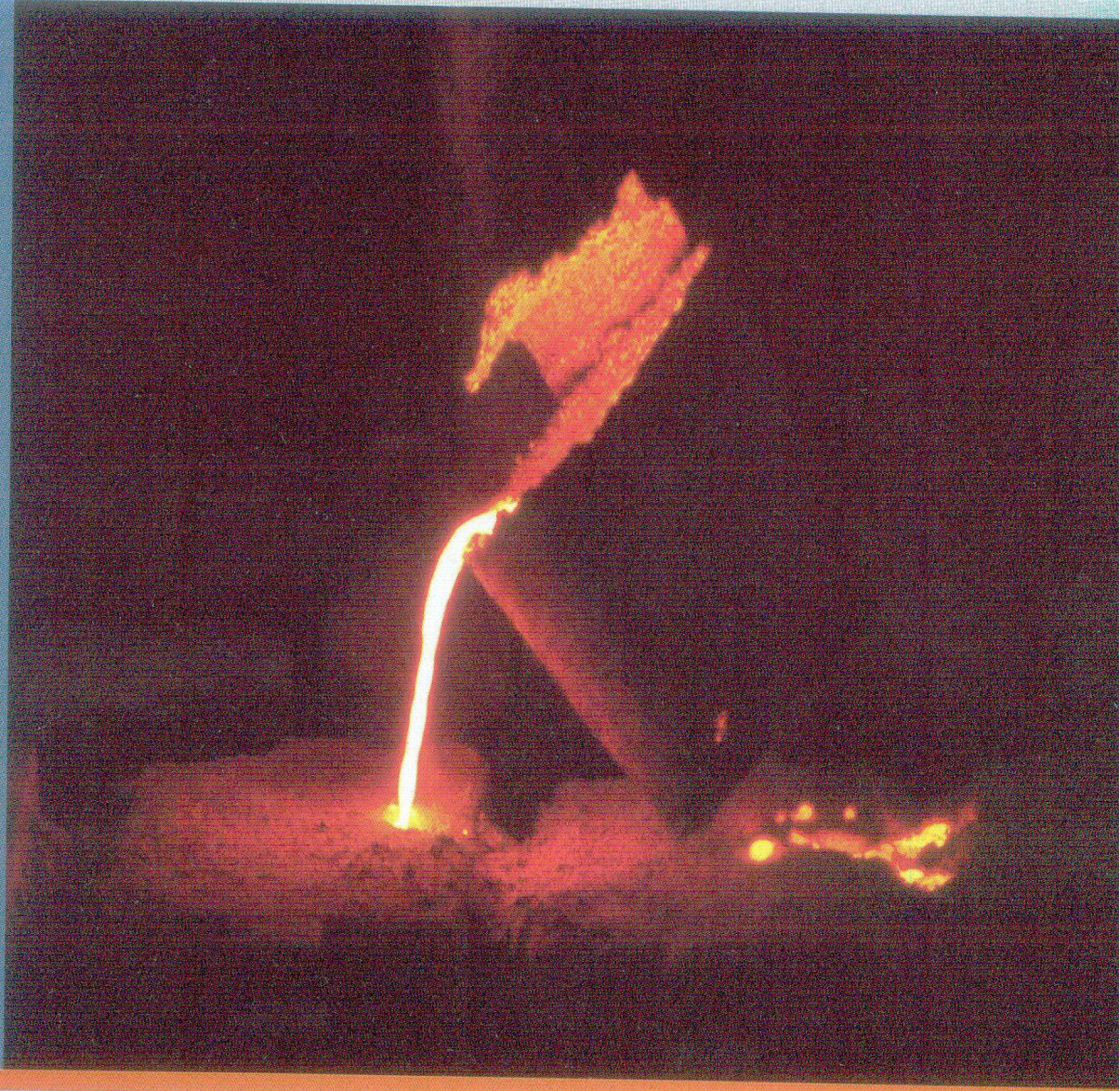




Centrifugal Pipes, Fittings, Earthing Pipes & Manholes Covers



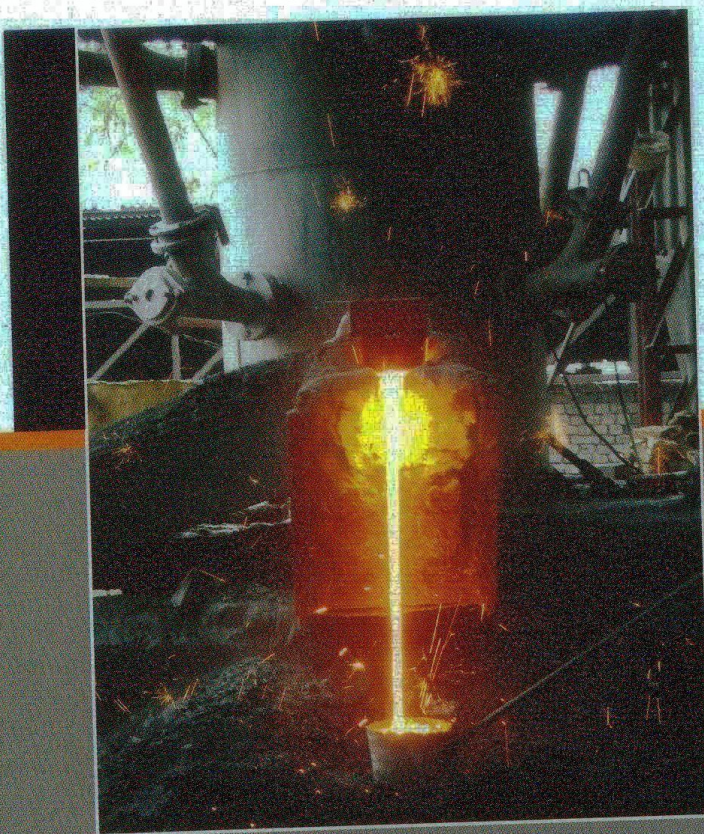
NAGPUR FOUNDRIES LTD.



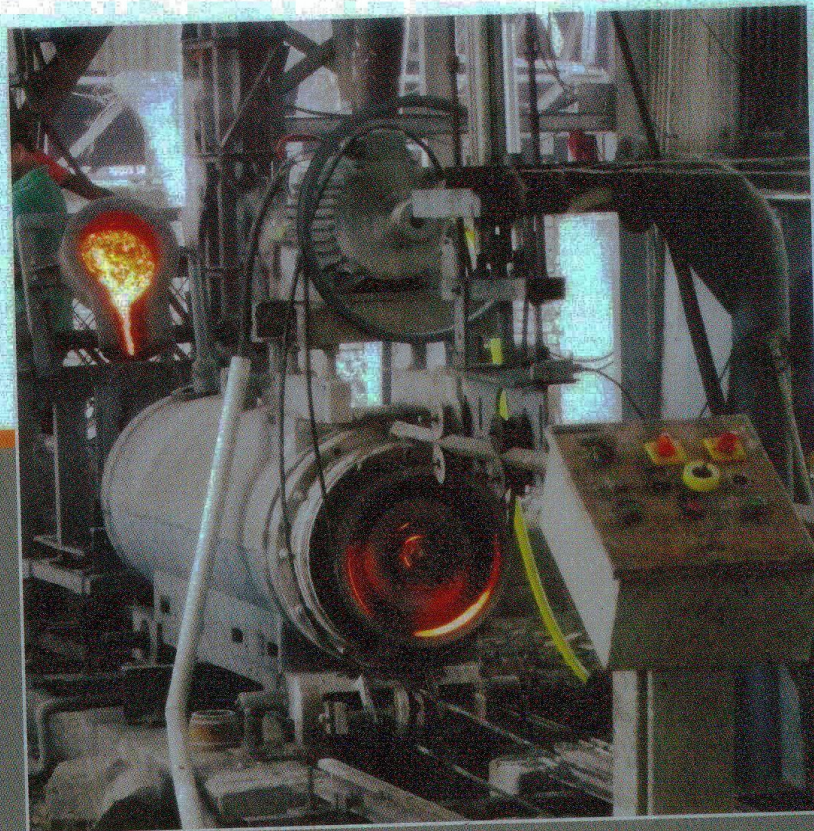


## NAGPUR FOUNDRIES LTD.

Nagpur Foundries Ltd. with their expertise in manufacturing in the field of casting. We are existing since 1992 almost 22 years register. In this period we had supplied different types of castings. Centrifugally Cast (spun) Iron Spigot and Socket Soil, Waste & Ventilating pipes, fitting and Accessories for all your Drainage System needs i.e. to Railway, Garden articles, Pipe from 75 mm to 150 mm in different thickness & length apart from chambers. We are register in Bureau of Indian Standard for soil pipes & fittings as per IS: 3989: 09 We also started manufacturing CI Earthing pipe as per IS: 3043 Centrifugal casting and according to the drawing. We have full equipped laboratory for all types of test of raw material for quality productions of material. We are also having Test certificate from Central Power Research Institute, Bhopal., ie - CPRI for Earthing pipes. We are also manufacturing Of various sizes of CI manhole covers from 2.5 Kg. to 1 ton, Nagpur Foundries Ltd., has always been a front runner in adapting better ways & means for improving product quality. Needless to say all these efforts are aimed towards offering a better value to end users and channel partners. Hence, it is no surprise that NFL was among the very first to install and implement the path breaking technology. In NFL plant the furnace result are tremendous. You can Now have highly improved cast iron products at no extra cost.



CUPOLA FURNACE



CENTRIFUGAL MACHINE



## **Centrifugally Cast Iron Earthing Electrode As per IS:3043**

### **PIPE IS BETTER THAN PLATE**

The surface being circular the distance from the center to any point is always equal which facilitates uniform distribution of fault current from electrode to earth. Also Pipe have multistage current. As per IS 3043:1987 (P.19 C I.9.1) NFL electrode pipe road or stip has a much lower resistance than a plate. As per IS:3043: 1987 (P.47 ci.20.5.2 )under 20. Earthing in power station and substations. 20.5.2 choice and design as an alternative to plates, cast iron pipes may be installed.

### **OBJECTIVE OF CI EARTHING**

- ▶ Provide an alternative path for the faulty current to flow so that it will not endanger the user.
- ▶ Ensure that all exposed conductive parts do not reach a dangerous potential.
- ▶ Maintain the voltage at the any part of an electrical system at a known value so as to prevent over current or excessive voltage on the appliances

### **MAIN FEATURES OF CI EARTHING PIPE**

- ▶ resistivity to soil corrosion 4excellent connectivity & conductivity
- ▶ less capitalized cost 4durable & reliable 4pipe superiority
- ▶ excellent & Uniform current dissipation 4easy installation

### **OBJECTIVE OF GOOD EARTHING SYSTEM**

- ▶ Must be low electrical resistance
- ▶ Must be able to dissipate high fault current repeatedly
- ▶ Must be of good corrosion resistance.

### **RESISTIVITY TO SOIL CORROSION -**

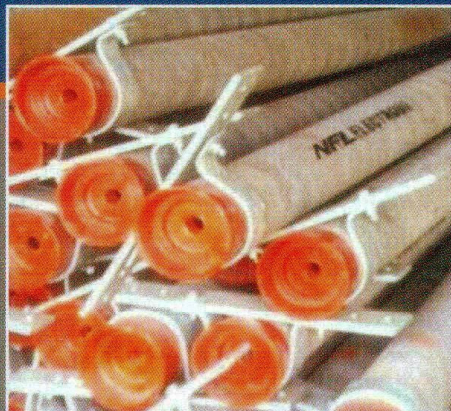
The following agents tends to damage pipe surfaces

Inorganic and Organic salts, Humic acid & Fulvic acid to circumvent thee agents the presences of Iron phosphide is there which prevents soil corrosion. No galvanization is required to prevent from moisture.

- NFL Electrode Range**
- ▶ Nominal bore (NB)- 75 mm 100 mm 150mm
  - ▶ length 1200 mm to 3000 mm (as per requirement)
  - ▶ Thickness 3.5 mm to 13mm (as per requirement)



**WITH G.I. CLAMP**



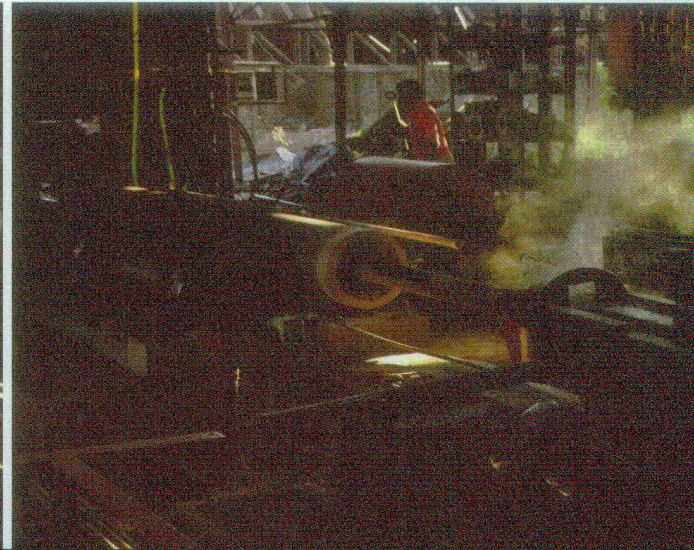
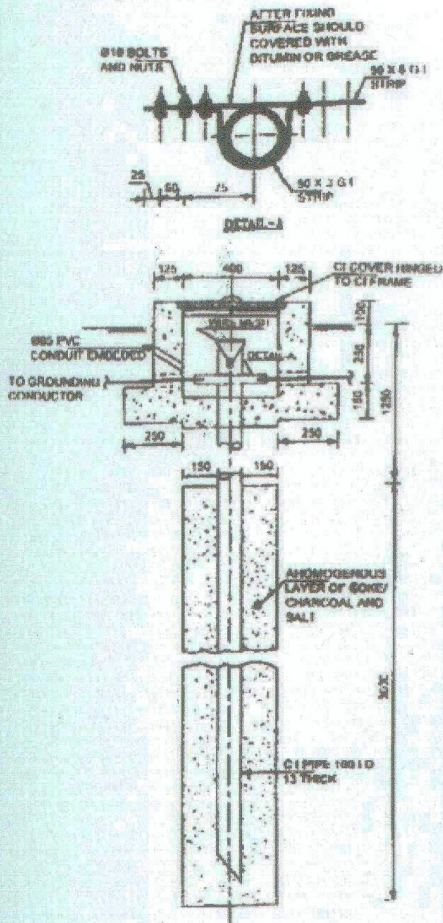
**WITH G. I. CLAMP  
& FUNNEL  
(HOT DIP GALVANIZED)**



## TECHNICAL PARAMETERS:

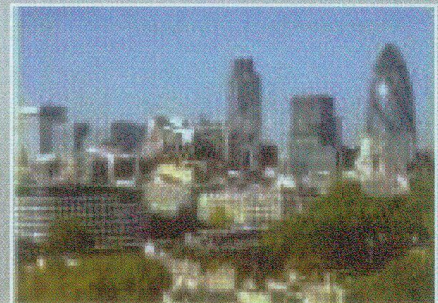
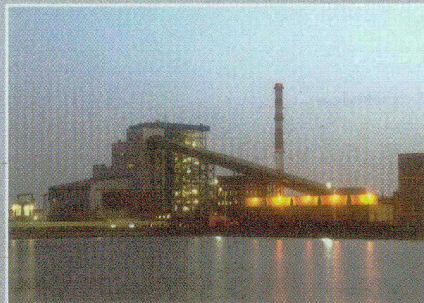
- 1) Metal grade: As per IS : 210
- 2) Mechanical Properties :
  - 4 Tensile strength: 180 MPa for Pipes & 150 MPa for Fittings.
  - 4 Hardness: 230 HBS (Max)
- 3) Hydrostatic Test: At a pressure of 0.07 MPa
- 4) Hammer Test: Clear ringing sound, when struck with light hand Hammer.
- 5) Coating Test: At a temperature of 650 C for flow & at 00 C for chip off.
- 6) Dimensional Check-up: conforming to tolerances specified in Standard Specification.

## MANUFACTURING PROCESS



## INSTALLATION

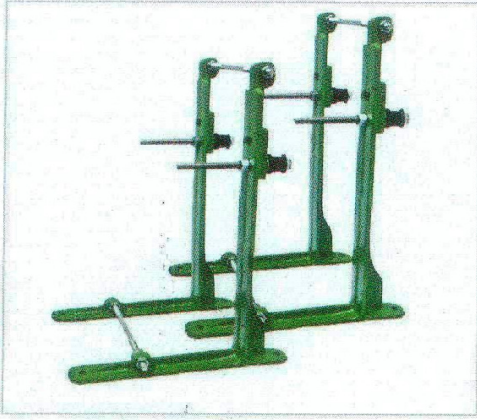
- ▶ Easy to install
- ▶ Control radio frequency emissions & electro magnetic interferences
- ▶ Prevent damage from power surges
- ▶ No danger of theft like copper (being recycled)
- ▶ Uniform holes keep even moisture which help in controlling



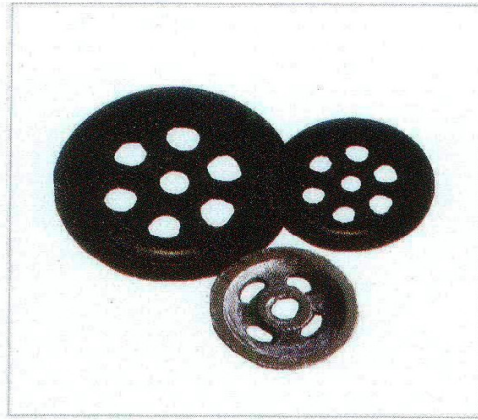
## APPLICATIONS



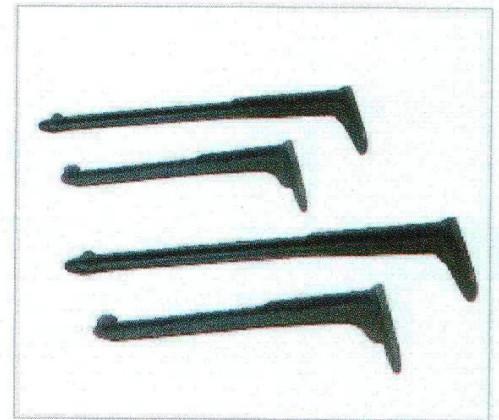
## OTHER CASTING RANGE



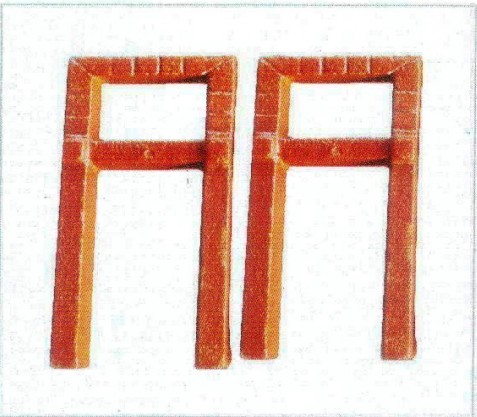
Chair Bracket



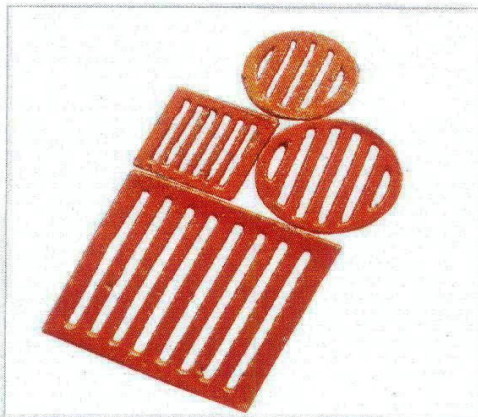
Ghiradi- 4"/5"/6"



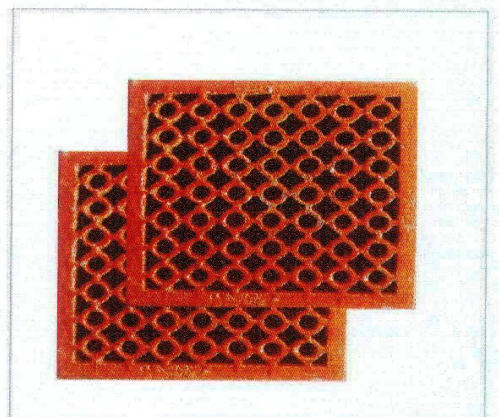
Basin Bracket- 12"/14"/16"/18"



Foot Step

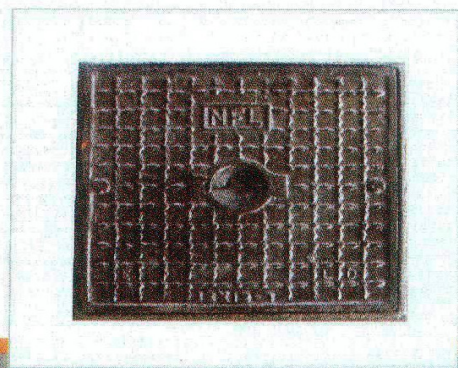


Grating- 4"/5"/6"



Tile

## Manhole Covers



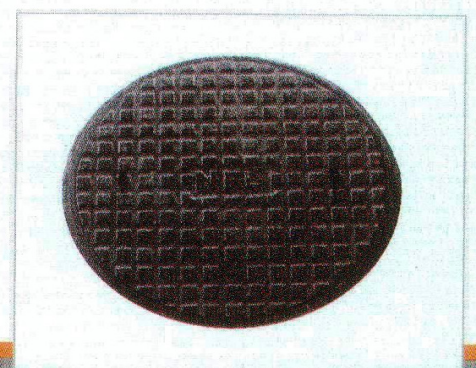
Square Cover

Size	Weight
12"x12"	4/7 Kg
18"x18"	10/18 Kg
22"x22"	25 Kg
24"x24"	22/32/50/60/75/ 110/190 Kg



Rectangular Cover

Size	Weight
9"x12"	3.5/5 Kg
16"x22"	13 Kg
18"x24"	15/25/38 Kg
18"x36"	30/40/50/75/100/125/ 150/175 Kg
24"x36"	75/125/175/250 Kg



Circular Cover

Size	Weight
10"	8 Kg
12"	10 Kg
21"	35/50/75/100/125/ 150/175/230/250 Kg

Circular Tank Cover

Size	18"	21"	24"
Weight	14Kg	18 Kg	25 Kg



# NFL CENTRIFUGAL PIPES & FITTINGS- IS:3989:09



## ADVANTAGE

- ▶ Assured quality as per specifications
- ▶ Better Aesthetic look.
- ▶ Superior corrosion resistance to soil, waste water & Chemicals
- ▶ Also superior Atmospheric weathering & corrosion resistance.
- ▶ High compressive strength & beam load bearing capacity.
- ▶ Smooth inner surfaces giving better flow characteristics
- ▶ Environment friendly as fully recyclable
- ▶ Low thermal expansion

## ECONOMICAL & FASTER IN FITMENT

- ▶ NFL Centrifugal pipes are available in various lengths up to 3 M, reducing number of Joints.
- ▶ Being centrifugally cast, these pipes are light & hence easy to erect.
- ▶ Superior normalizing process, reduces brittleness of pipes & hence less prone to breakage & cracking.
- ▶ No leakage problem. The centrifugal process imparts very dense & homogeneous grain structure reducing porosity- the cause of leakages.



**NAGPUR FOUNDRIES LTD.**

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