

Leading manufacturers of RCC Pipes,
Box Culverts, Manholes & Other Precast products
by Vertical Vibration Casting Technology



With Advance Machineries of...





## **Company Profile**

Kalokhe pipes and precast Industries is a new launch in the RCC pipes & precast field, the company founded in the year 2018 is the brother concern of Shri Ambica Stone Crusher who are expertise in this field from 30 years of quarrying stone crushing industry.

The mission of the company is to build a trust worthy supply chain of construction materials using Quality mark based materials with our 'High End Technology' and team of expertise who have decades of experience in the field.

We serve a wide range of products which meet the needs of the customers which are namely of the grades NP3 & NP4 with varying sizes of 450-2600 ID accompanied by the box culverts and Manholes. (Using our in-house supply of Quality raw material of aggregates, crushed sand & RMC).

#### Vision

- To be a hallmark and trustworthy name of suppling best Quality and highly accurate Products.
- To our Provide a reliable service to our customers with best Quality, timely execution and cost effective approach.

#### **Our Values**

**Honesty:** Behave with integrity when performing our duties and be truthful in our dealings with customers.

**Teamwork:** Believe in the importance of teamwork to maintain our company's success.

**Appreciation:** Show appreciation to our customers and staff in order to develop meaningful long term relationships.

Quality: Provide products and service that meet the customer's specification and requirements.

Customer Service: Meet the needs of our customers and aim to exceed their expectations.

**Human Resources:** Care about the health, safety and welfare of our employees and actively look to train, develop and provide career progression.

**Achievement:** Achieve our aims by working to the guideline of the company.

## **Process & Machinery**

 Concrete Batching plant (ATP-45) for RMC with 45m³/hr concrete output (right mix of Speed, Quality and Capacity)



All these efforts result in providing uniform and assured quality of concrete to the customers. In contrast, in a typical sitemixed concrete there is poor control on the quality of input materials, batching of ingredients and mixing of concrete, thus the resultant quality of concrete is poor, non-uniform and inconsistent.

### **OUALITY CONTROL MANAGEMENT**

- Strong foundation to encourage the continuous improvement of internal processes of the company and to support the company in achieving its strategic goals.
- Reducing the probability of lag in carrying out product deliveries to client.
- Boost the production process through continuous improvement
- Evaluate the quality checking system based on established industry specific and International standards

## **OUALITY CONTROL SET UP**

- Concrete mixes are supplied only after exhaustive laboratory and plant trials
- Regular testing of incoming raw materials
- Sampling and testing of concrete as per Codal stipulations
- Daily Sampling and testing.

## **Ouality of Concrete**

Our team's constant quest to deliver best in class product have enabled us to sustain top class quality.

We use sophisticated plant and equipment's, which enable us to produce high quality concrete. The company exercise strict control on the quality of all ingredients by performing rigorous testing, applying stringent protocols on process parameters, monitoring key properties of concrete in the fresh as well as hardened state and applying the well known Cusum technique to quickly detect any changes in the properties of concrete.



Consent from MPCA (Maharashtra Pollution Control Board) Consent No. SRO-PUNE II/ CONSENT 1903001133

## **Features of our Products**

- Best Performance
- Higher Strength
- Best in Class Precision Product Easy Installation
- ▶ Assured Quality Strict Process ▶ Overall Economy Control
  - Timely Delivery

Highly Durable



**CAP** Series Machines from Apollo Hawkeye Pedershaab are dry cast machine for manufacturing almost any type of high quality concrete products.

- Reinforced and non-reinforced pipes
- Circular and non-circular pipes with a "Bell" or in wall joint
- Lined pipe with PE, HDPE
- Jacking Pipes
- Box Culverts
- Manhole Risers
- Cones

**CAP 250 (Double Station)** 

Apollo Hawkeye Pedershaab (Vertical Vibrator Casting Technology)

## Pipe Manufacturing : Vertical Vibrator Casting v/s Traditional Spining Process



The traditional method used to manufacture concrete pipes in India is the horizontal, wet cast, spinning method. Here, cement, sand, gravel, aggregate and other admixture are accumulated in small manual mixers, using approximate measurements (manually). The mix is poured into a mould, which is spun using a motor to generate centrifugal force which binds the concrete. Each pipe takes 24 hours before it can be de-moulded.

**In vertical casting,** the cage is placed over a base pallet, which is attached to the outer mould and lifted by the crane. The crane carries the mould into the pit, around the inner core. The concrete is fed into a pit in the ground that is pre-fit with a mechanical vibrator, between the inner core and the outer mould, thus in the shape of the pipe. In the case of a manhole, there are sockets left open for pipes to later be fitted into. The concrete is vibrated in the machine and pressed down by a hydraulic pressing head to give the concrete its shape (by removing air bubbles and adding pressure). The pipe/manhole is then removed from the pit using a crane and put into a curing area. Depending on size, pipes are in the machine for 5-10 minutes.

As Vibration is used in Vertical cast process, the concrete develops greater strength and the uniform aggregate distribution along the horizontal span of the pipe. Whereas in the sprinting method, the centrifugal force causes the small and large aggregates to separate.

Secondly, the vertical cast process is dry-cast, using 50% less water than the spinning process. This allows faster curing, resulting in greater output.

Thirdly, the vertical cast machine used by Kalokhe Pipes & Precast Industries is fully automatic. Concrete mixes are completely consistent for every cubic meter produced, resulting in the exact same pipe quality throughout.

# Advantages ertical Vibrated Casting

- ▶ NP3 & NP4 precast reinforced pipes are capable to resist heavy loads.
- ▶ Precise dimensional socket and spigot joints with rubber ring eliminates joints leakages.
- ▶ Pipes made with Vibrated casting Technology having smoothest inner surface, results reduction of frictional losses by increasing higher output.
- Dur high strength pipes increase durability which reduces breakages and after sale service cost.
- Fast quality production of concrete pipes can be achieved from single source and delivered quickly to reduce project cost.

,			
	Class	Description	Conditions Where Normally Used
	NP-3	Reinforced Concrete, Medium Duty, Non-Pressure Pipes	For Drainage and Irrigation use, for Cross Drains / Culverts carrying Medium Traffic.
	NP-4	Reinforced Concrete, Heavy Duty, Non-Pressure Pipes	For Drainage and Irrigation use, for Cross Drains / Culverts carrying Heavy Traffic.
		Jacking Pipe	1.Storm Water Drainage     2.Sewerage System     3.UnderRoads,Railways,Waterways,Airport     Runways,Waterways or developed areas
		HDPE Lined Pipe	Aggressive Sewer Lines     Storm Water Drains
	1	RCC Precast Manholes and Chambers	They are used to carry out inspection, cleaning and removing obstruction in the sewer line. Manhole allows joining of sewers or changing the direction of sewer or alignment of sewer or both. They allow the escape of considerable gases through perforated cover and thus help in ventilation of sewage. They facilitate the laying of sewer line in convenient lengths
	-	RCC Precast Box Culverts	<ol> <li>Culverting Watercourses and Channels</li> <li>Attenuation Tanks</li> <li>Road Crossings and Subways</li> <li>Pipe Replacement</li> <li>Service and Escape Tunnels and Portal</li> </ol>
	-	RCC Cable Trench	Concrete cable trenches with PCC cover are used for laying of power and control cables in the switchyard. Cable racks are installed inside the cable trenches to lay the cables in multi tier formation.
	-	RCC Precast U shape Channel Section	U-Channel drains and Saucer drains for storm water drainage systems can be pre cast in sections



## **PRODUCTS**

## **RCC PIPES** (Hume Pipe)

We pride ourselves to be high quality manufacturers of RCC pipes. We have the capacity to manufacture NP3 and NP4 pipes with spigot and socket joints, with sizes ranging from 300mm to 2800mm. The pipes are manufactured using a fully automatic machine imported from Germany, via a process known as vertical casting.

Vertical casting using an automatic machine, coupled with the fully automatic batching plant, allows us the following benefits:

Concrete quality is highly consistent, and raw material contents are exactly as per the specifications.

Each individual pipe has exactly the same quality.

Vibration allows for equal distribution of aggregates inside the pipe, unlike the centrifugal force used in the spinning process – which leads to aggregate separation. The vertical cast process results in a pipe with far greater strength

RCC pipes have applications in underground drainage, sewage systems, storm water drains, irrigation and cross drainage under roads. Linings can be added to our pipes as required by departments. We can also manufacture jacking pipes and elliptical pipes, as required by clients.

## **RCC Jacking Pipes**

#### **Features**

- Installation without disruption to existing surface facilities or activities.
- Capable of withstanding typical installation forces
- Strong and Durable
- Proven Performance

#### **HDPE Lined Pipes**

**HDPE** Lined Pipes for Aggressive Environment:

Products and authorities responsible for installation of sewage pipe lines around the world seeks the solutions how to make use of the excellent life time properties of concrete pipe and at the same time protect the pipelines against aggressive chemicals.

Lined pipes is consist of a thin layer of PVC or PE Liners on the inside surface of the concrete pipe surface has since many years proved its ability to meet the market demand for such kind of concrete surface protection.



We manufacture pre cast manholes entirely in our factory, giving the contractor a product that simply needs to be aligned and installed at the site. Site work is minimal compared to in-situ manholes. This saves time for contractors, and reduces the overall disruption to traffic.

Manholes are manufactured in 3 sections. The first section is the base, which contains the inlets and outlets for discharge. This can be custom manufactured for each base at our factory. The second section is the riser, which will be manufactured in sections. Multiple risers will be used to raise the height of the manhole as required. The third section is the cone, which narrows the manhole to the diameter of the cover. Manholes can be pre-fitted with stairs if desired.

Although manufacturing is pre cast, the manholes are designed in a way that allows contractors to vary the height of each manhole as per site conditions, using simple risers. This allows for a lot of flexibility during installation.

#### **RCC PRE CAST BOX CULVERTS**

Box culverts are used for cross drainage in highways and in storm water drains. Typically, they are cast in-situ. We can use our casting machine to manufacture box culverts (in sections) and supply them to construction sites for easy installation. A box culvert section of dimensions up to (2000mm x 2000mm) can be cast in one single piece. Larger sized are typically cast in sections for easy handling.

Manufacturing box culverts pre-cast reduces site work tremendously, saving time and cost and reducing traffic disruption. Variations of the box culvert can be used for various storm water drain applications and also in making pre cast valve chambers, sumps, security cabins, septic tanks and other pre cast products.

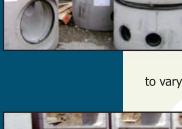
#### RCC PRE CAST U-SHAPED CHANNEL SECTIONS

U-Channel drains and Saucer drains for storm water drainage systems can be pre cast in sections. We can design these drains as per the site requirements of clients, and manufacture them in sections to allow for easy laying. This can be used in city wide storm water drainage projects, as well as in real estate projects with product dimension ranging from  $300 \text{mm} \times 300 \text{mm}$  to  $1200 \text{mm} \times 1200 \text{mm}$ 

## RCC Cable Trench

RCC Cable trenches are used for efficient laying of cables, electric wires and other connecting cables without taking any time consuming construction method for laying the cables or to erect poles with Product ranging from 600mm x 600mm to 2000mm x 2000mm.













## Why us?

- Customer Centric Approach
- Transparent Business Practice
- Products Of High Dimensional Accuracy
- ▶ Large Production Capacity with Preferred Quality Control (200 Pipes per day)
- Efficient Logistic Support
- ▶ Reduced Curing time due to use of Sprinkler Technology
- > State of the art infrastructure and advanced manufacturing Processes.

# **Vertical Vibrated Casting Technology**

With Advance Machineries of...





#### **Testing**

- > Hydraulic Pressure Test
- ▶ Three Edge Load Bearing Test
- ▶ Permeability Test
- We ensure rigourous testing of our products to meet high dimensional accuracy, before dispatch. In House testing Facility Available with certified Lab for RMC, RCC Pipe and other Precast Products.



#### **Application:**

- Water mains
- Sewers
- Culverts
- Irrigation
- Conveyance of treated fluids and effluents
- Heavy Road Side Drainage
- Cross Drainage
- All products with BIS certification



a Brother concern of



#### Address (Office / Plant):

Gat no. 44, Jadhavwadi Village, Navalakh Umbre, Talegaon MIDC, Tal. Maval, Pune - 410507

**Contact No.:** 9858012525 / 9607422525

Mail ID: info@kalokhepipes.com, sales@kalokhepipes.com

Website: www.kalokhepipes.com