

# **A REAL VALUE ADDITION**

## **NEPTUNE APPROACH FOR FLY ASH NEUTRALIZATION FOR**

**POWER PLANTS**

**STEEL PLANTS**

**CAPTIVE POWER PLANTS**

By  
**NEPTUNE INDUSTRIES LIMITED**



## Content

- **Background**
- **Executive Summery**
- **Proposed Approach**
- **Mutual Business Benefits**
- **Neptune Capability**

# BACKGROUND

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**Total Number of Power Station :-  
202 Nos**

**2,13,030 MW Power Generation from  
Coal Based Thermal Power Plant**

**Coal based Power Plants generate  
approximately 233 Million Tones of  
Fly Ash per Year**

# EXECUTIVE SUMMERY

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- **Safe disposal and effective utilization of such voluminous quantity of fly ash is of immediate concern and strict compliance of the provisions laid by the Ministry of Environment & Forest and NGT for utilization of fly ash generated.**
- **Neptune has strong technical capabilities and history as technology PARTNER for Fly Ash Utilization.**

# FLY ASH – WASTE TO WEALTH

## **Strong Awareness and Demand for Sustainable Development**

### ✓ ***Our Goal***

- ❖ Save up to 300 Mn tons of Carbon emissions upfront
- ❖ Curtailed use of river sand to save environmental disasters
- ❖ Utilization of Fly Ash through Green Building Material Solutions
- ❖ Reduce the Burden on Natural Resources
- ❖ Drive Sustainable growth in India's booming economy

# USAGE OPTIONS...

## 1. CONVENTIONAL USE OF ASH IN



**FLY ASH BRICKS**



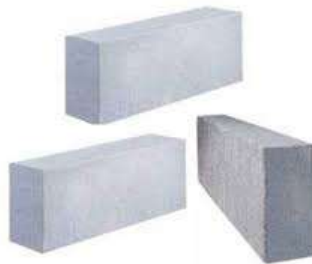
**BH BRICK / Block**



**TH BRICK / Block**



**INTERLOCKING BRICK / BLOCK**

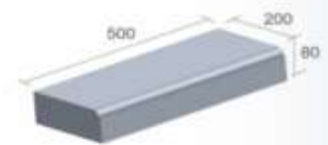
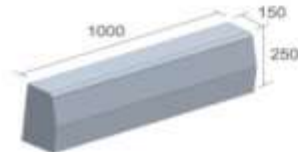
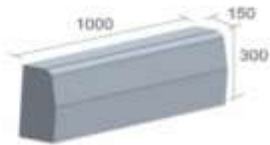
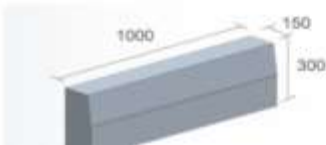
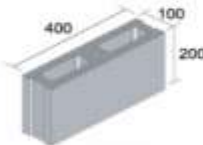
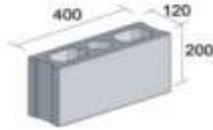
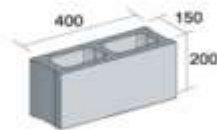
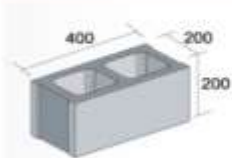
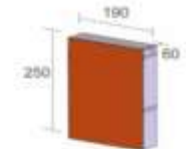
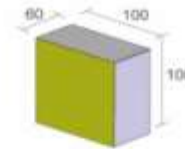
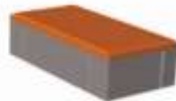
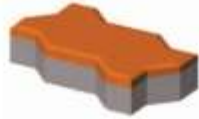
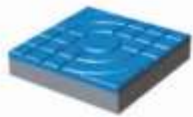


**AAC BLOCKS & PANEL**



# USAGE OPTIONS...

## CONCRETE BLOCKS & PAVERS



# USAGE OPTIONS...

## DRY MIX MORTAR PRODUCTS



**Plastering Mortar**



**Thin Bed Mortar**



**Tile Adhesive**



# USAGE OPTIONS...

## LIGHT WEIGHT AGGREGATE

Sintered



Geopolymer



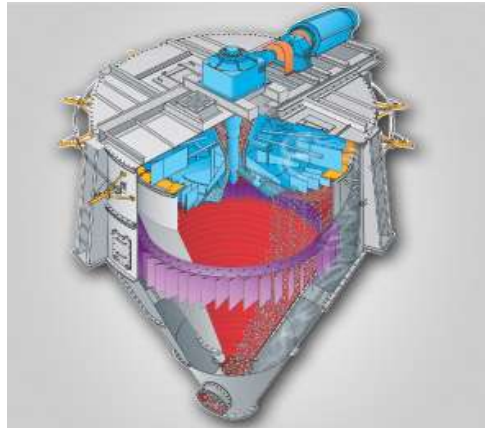
Unshaped  
Fly ash based  
Aggregate



# FLY ASH UTILIZATION TECHNIQUES

## Neptune Classifier(150-35 $\mu$ )

1,000 TPD



500 TPD

100 TPD

400 TPD  
< 45  $\mu$



MEGA 10,000  
2 Lac Bricks per Day



Concrete Product



VHP 6000

# NEPTUNE – Your Partner In Transforming Fly Ash into Value Added Building Materials.



# A NEPTUNE BREAKTHROUGH

## UHDP Technology Ultra High Density Pressing



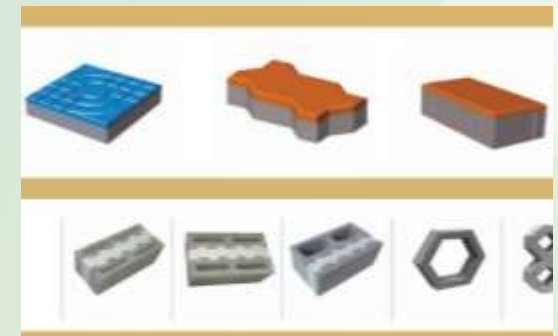
A COMPACTING TECHNOLOGY FOR FLY ASH BRICK,  
INTERLOCKING BLOCKS

**First in India to utilize up to 85 % Fly Ash in Bricks**

Capacity :- 10,000 to 300,000 Bricks/Day

VIBRO COMPACTING FOR CONCRETE PRODUCTS

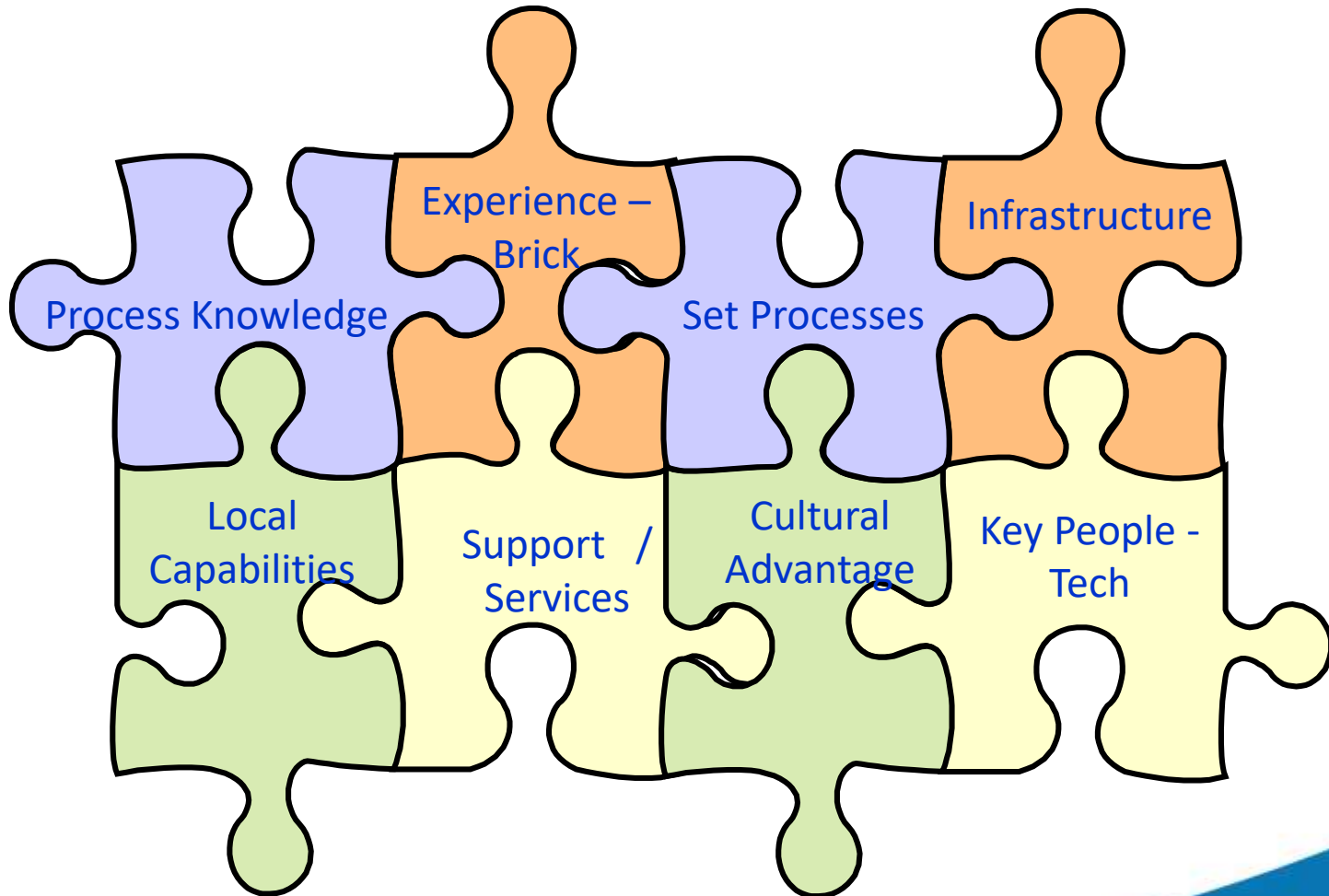
Capacity :- 5,000 to 25,000 Blocks/Shift



## A Pioneer in Fly Ash Brick Technology in India



# NEPTUNE CAPABILITY NET



**Fully Automatic Plant – Capacity 2,00,000 Brick/day  
Supply at Jindal Steel & Power – Raigarh (C.G)**



**WELCOME  
TO  
INDIA'S LARGEST  
AUTOMATIC HIGH STRENGTH  
FLY ASH BRICK PLANT**



**Fully Automatic Plant – Capacity 2,00,000 Brick/day  
Supply at Jindal Steel & Power – Raigarh (C.G)**



**Fly Ash Utilize :- 1,50,000 Ton per annum**



**Fully Automatic Plant – Capacity 1,00,000 Brick/day  
Supply at NTPC – SIPAT & NTPC – DADARI**





Awarded Turn key (EPC) Project of Fly Ash Brick with Capacity of  
2,00,000 Brick / Day AT SIPAT  
Under Commissioning



**Awarded Turn key Project of Fly Ash Brick with Capacity of 2,00,000  
Brick / Day AT SIPAT  
Under Commissioning**





# KEY CLIENTS



# INFRASTRUCTURE



# Fly Ash



Turning a Problem in to an Opportunity



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# THANK YOU

Let's Get in Touch:

Soham Panchal – Business Operations

Neptune Industries Limited

[soham@neptune-india.com](mailto:soham@neptune-india.com)

+91 - 903372872