



*Welcome to
Bajrang Foam Cast
Rajkot (India)*

A Group Company of Vishal Manufacturer Pvt. Ltd. Rajkot





BFC Introduction

Bajrang Foam Cast (BFC) is a group company of Vishal Manufacturer Pvt. Ltd. (VMPL).

Since the electric power load limit can not be exceeded at VMPL, hence BFC has been made as a separate legal business entity.

It is a Vacuum Lost Foam process-based casting manufacturing plant, having installed capacity of 1000 MT per month to produce Grey & Ductile Iron castings.

The plant equipment, machinery & tooling have been imported from CHINA having intensive process integration to avoid any future process or product repercussions in routine production.

The plant has been commissioned in production from April 2025 & certified with the quality certification ISO: 9001:2015.

BFC Certification





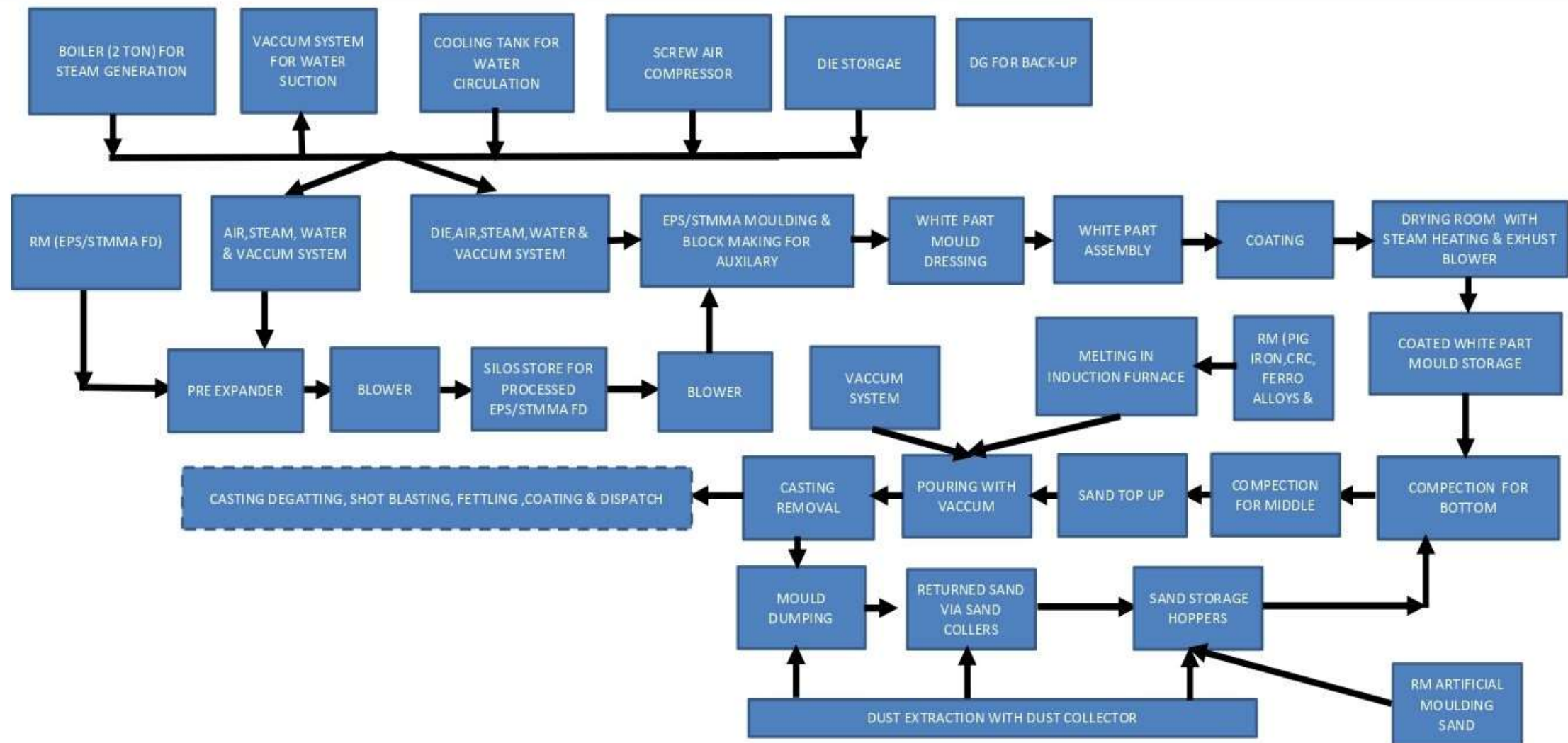
Brief About Vacuum Lost Foam Casting Process

It is one of the latest casting processes rarely used in India but quite widely used in abroad countries like China, Korea, USA, Russia etc.

It is more or less similar to the Investment Casting process where the EPS patterns are used instead of Wax patterns. In addition to base material, the vacuum is being used at the time of moulding and pouring.

It is mainly categorized in White Part, Yellow Part & Black Part sections. The process sequence is:

- ***Die is made based on component drawing and EPS material is used to make patterns (White Part).***
- ***These EPS patterns are then assembled with a gating system in the form of a tree and coated with ceramic slurry and dried in a heated room (Yellow Part).***
- ***Once dried then it is ready for moulding & pouring.***
- ***The dry artificial synthetic sand is used for making moulds with the help of vacuum.***
- ***Then pouring is done in vacuum condition and thereafter a knock out process is performed to get the castings.***





Salient Features of VLFC Process

- *Smooth & Uniform Surface Finish.*
- *Consistent Casting Weight & Geometry, easy repeatability in machining set ups.*
- *Low chance of Internal Casting Defect due to Vacuum Pouring.*
- *Complicated shapes are feasible.*
- *Faster and better as compared to No Bake (Furon) process.*
- *Eco Friendly process.*

Salient Features of BFC Plant

- *Integrated white part, yellow part & black part imported from China including tooling/dies.*
- *White part molding machines are connected with a centralized vacuum system to avoid water & steam spillage.*
- *Use of imported artificial synthetic sand having fully round shape for better permeability to ensure uniform vacuum during pouring.*
- *Fitted with fire control safety system.*
- *Single piece @700-800 Kg or bunch weight of 1000 Kg, can be done with molding box size 1200 x 1500 x 1200 mm.*

Salient Features of BFC Plant

- *Fitted with IBR approved steam boiler & steam piping along with air preheater, water preheater, water scrubber, accumulator & metal dust collector for better energy saving and also as per GPCB norms.*
- *Fitted with Dust Extraction System as per GPCB norms.*
- *Use of STMMA – FD raw material having very low carbon emission effect as compared to other EPS material.*
- *Use of well proven coating material imported from China.*
- *Centralized Vacuum Pumping System for molding machines & foam bead expander machines.*

Plant & Machinery at a Glance

- *IBR approved steam boiler 2T/Hr.*
- *Two foam beads expander machines with auto feeding system and one foam block making machine.*
- *Centralized Vacuum Pumping System for molding machines & foam bead expander machines.*
- *Separate Vacuum Pumping System for five mold box pouring.*
- *Inductotherm make 1MT/ Hr. Induction Furnace.*
- *Two coating stirrers with 12 drying rooms.*
- *Fully equipped sand plant with sets of compaction machines, mold box lines, mold dumping machine, vibratory feeders, coolers, hoppers, belt conveyor & elevators.*

Glimpses of Plant & Machinery



BOILER



CENTRAL MOLDING VACUUM SYSTEM



MOLDING MACHINES



ASSEMBLY

Glimpses of Plant & Machinery



COATING



DRYING ROOM



MELTING



TRACK LINES

Glimpses of Plant & Machinery



POURING VACUUM SYSTEM



POURING



MOLD DUMPING



SAND COOLER & DES



Thanks!!!

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