

# Gravitech Inc

Plot no. C4, KSSIDC Industrial estate, Sagar  
Road, Shimoga.

**GRAVITY/SAND CASTING AND MACHINING SOLUTIONS: NON FERROUS**

# Contents of the Presentation:

- Casting and post-casting facilities
- Laboratory department
- Quality certifications
- Component photos
- Achievements in technical know how
- Future road map

# Casting and Post-casting facilities

- Gravitech Inc apart from other companies aims to provide both casting and post-casting facilities at one stop
- In order to ensure highest quality of the components, each activity is done in-house
- The plant embodies the best in class machinery to attain highest efficiency
- A deeper look into each of the facility is discussed in the further slides...

# Furnace

- In order to ensure continuous production, the plant is equipped with dedicated tilt type melting furnace along with holding furnaces
- The furnaces come with a melt capacity of 300 Kg each
- Furnaces are equipped with PID and Thyristor functions for better melt control and constant monitoring



# Mobile Nitrogen Degasser

- With degassing being an important part of the casting process, Gravitech uses a mobile nitrogen degasser to ensure hydrogen free molten metal
- For the various disadvantages present with the use of nitrogen tablets, it is not used
- Our degasser comes with the PLC to ensure perfect degassing



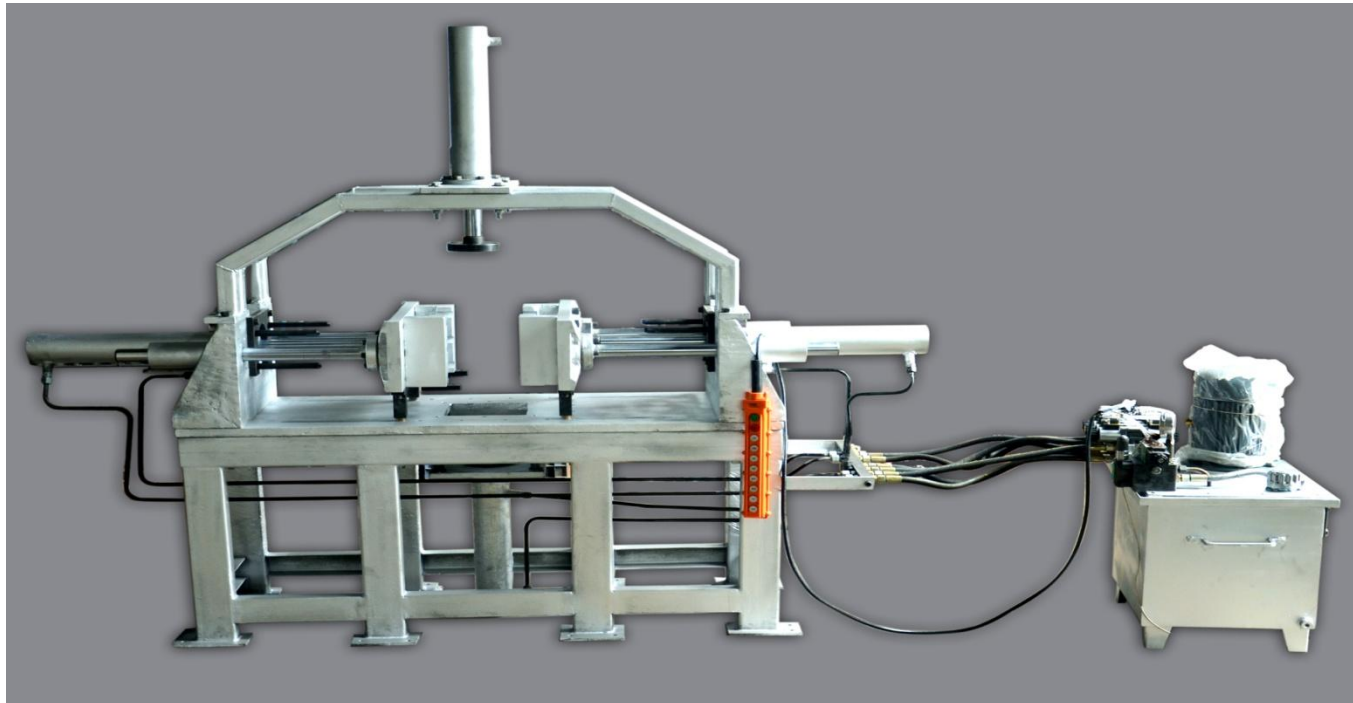
# Tilting Die Casting Machine

- Machines are PLC controlled with fault diagnosis and display for best reproducibility and consistent results for minimum rejection. With Memory for different dies.
- Up to 4 core pulls available. Bottom core pull also available. Versatile enough to manufacture intricate designs
- 0-90 degree jerk free tilt .With tilting process considerable amount of returns is reduced due to reduction of gating.
- Tilting speed control with hydraulic proportional valve



# Die Casting Machine

- Horizontal cum vertical machine with the ability of 4-side pull-out
- Maximum stroke length of 300 mm to suit majority of the dies
- Ability to remove the top cylinder when not in need
- Ability to adjust pressure for each of the cylinders





# Fettling facility

- Fettling area is equipped with Band saw machines and belt sanders





# Heat Treatment

- Heat treatment furnace with 850 mm basket size with 48kw heating element.
- Hydraulically controlled bottom quench tank
- Control panel with digital indication time based controller, paperless temperature recorder & duplex K type thermocouple



# Shot Blasting

- Shot blasting is available in-house to ensure smooth surface finish of the component
- Double door type to reduce the cycle time of loading and unloading the material



# Cold Box Core Shooter

- Along with the above mentioned facilities, we are also equipped with an in-house cold box core shooter
- Cold box increases our ability to manufacture components which are porosity free



# Machine Shop

- The machine shop is equipped with 2 CNC turning centers, 1 Drill tap center and 1 VMC
- For pre-machining and other requirements, it is also equipped with a long bed conventional lathe and drilling machine
- Our machine shop enables us to provide the customer with fully finished component ready for their use.

Machine	Make	Model	Quantity
CNC	AMS	Jobber Junior	2 nos
VMC	Kira	DTC	1 nos
VMC	AMS	MCV450	1 nos
Drilling machine	Gujrath		1 nos
Conventional Lathe	Nagmathi		1 nos





# Laboratory facilities

- We at Gravitech give utmost importance to both casting process and the quality of the component
- An in-house state of the art laboratory is an evidence of our quality consciousness
- Laboratory facility is equipped with a spectrometer, hardness tester and other gauges and basic equipments

# Spectrometer

- Based on the concept of Total Quality Management, we are following strict quality standards in every stage of manufacturing process namely raw-material inspection, melting & casting.
- We use Metavision 108 NF for intensive check up of chemical composition assuring the best castings to our customers





# Hardness tester

- In addition to spectrometer out lab is equipped with Hardness tester machine to measure the hardness of the components post heat treatment.



# Other Lab Equipments

- Other lab equipment includes 600mm height gauge, depth gauge, micro meter and all other measures

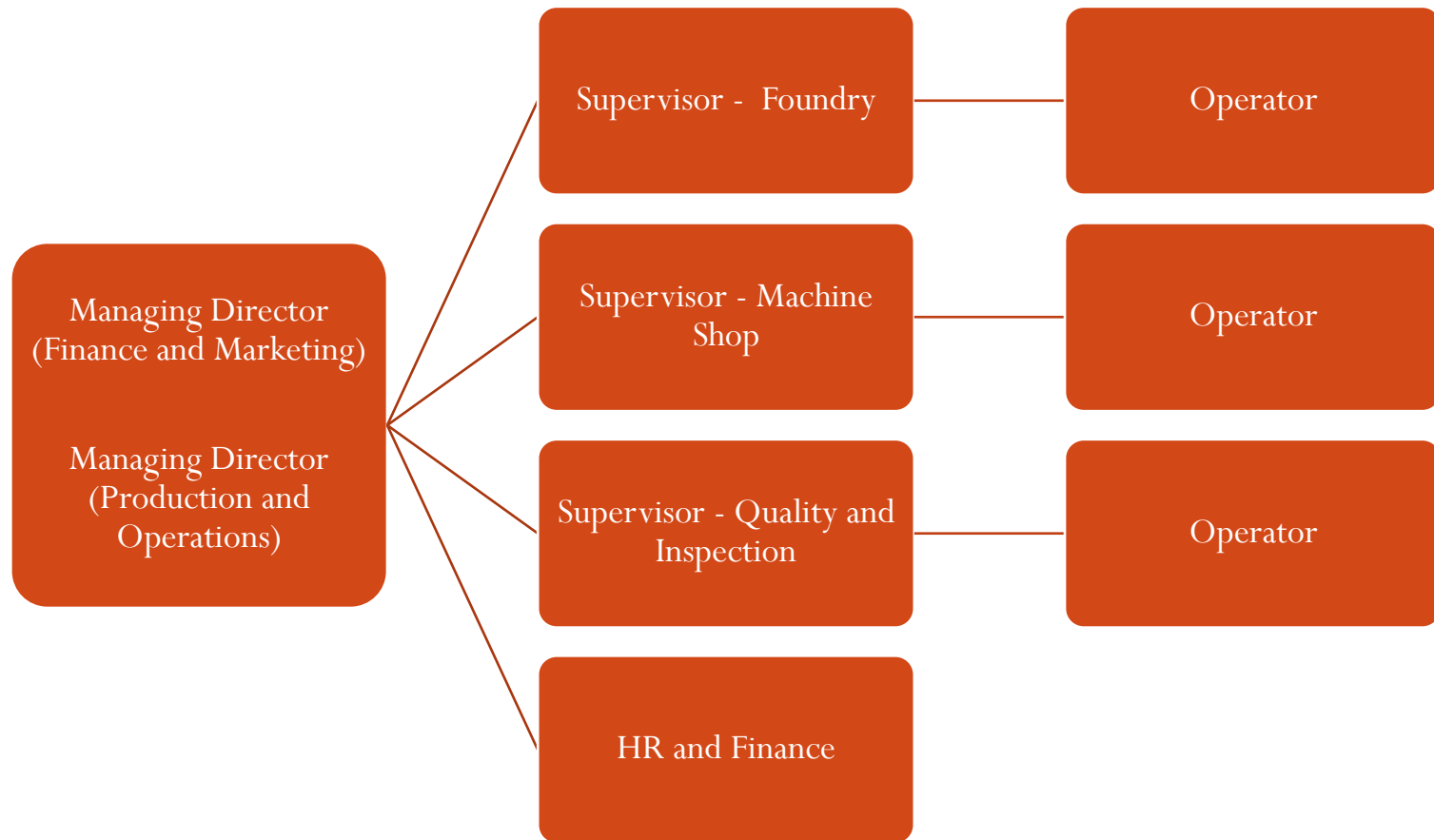


# Quality Certification and Road Map

- We have been coveted with Quality management certification as per ISO 9001:2015.
- We are ready to implement the required quality systems by the customer which aid in our continual improvement.

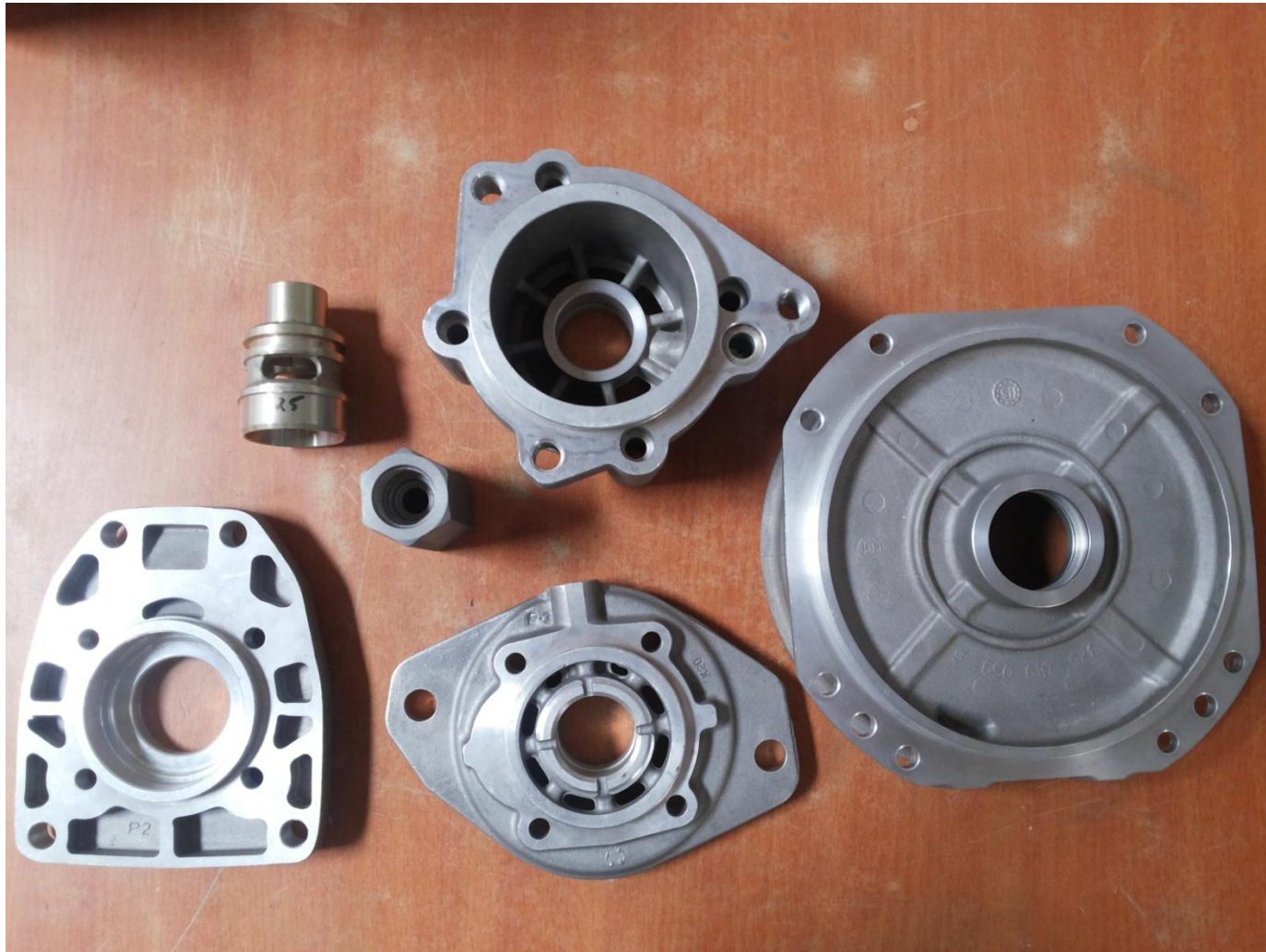


# Organization Structure

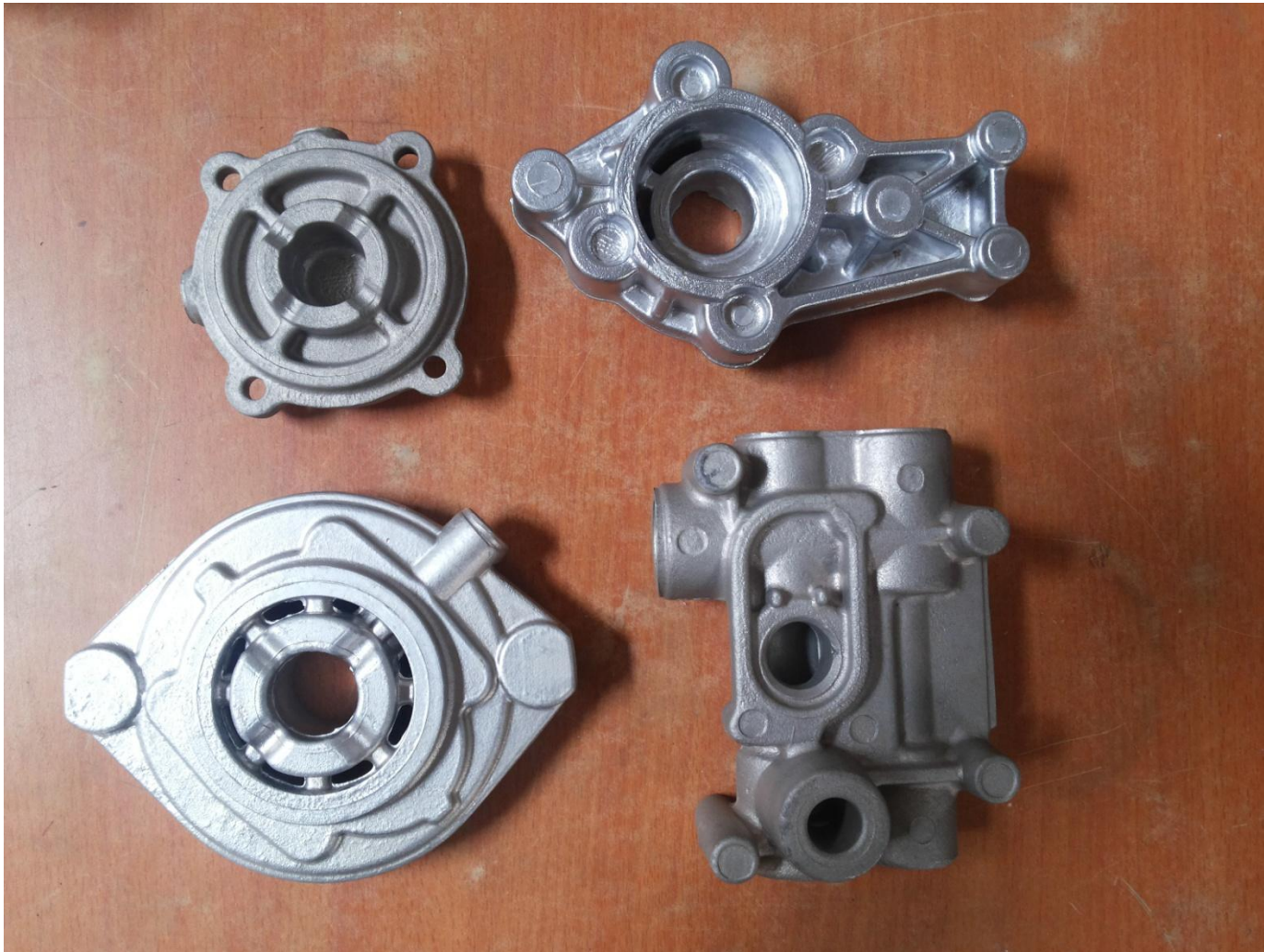




# Machining range of components

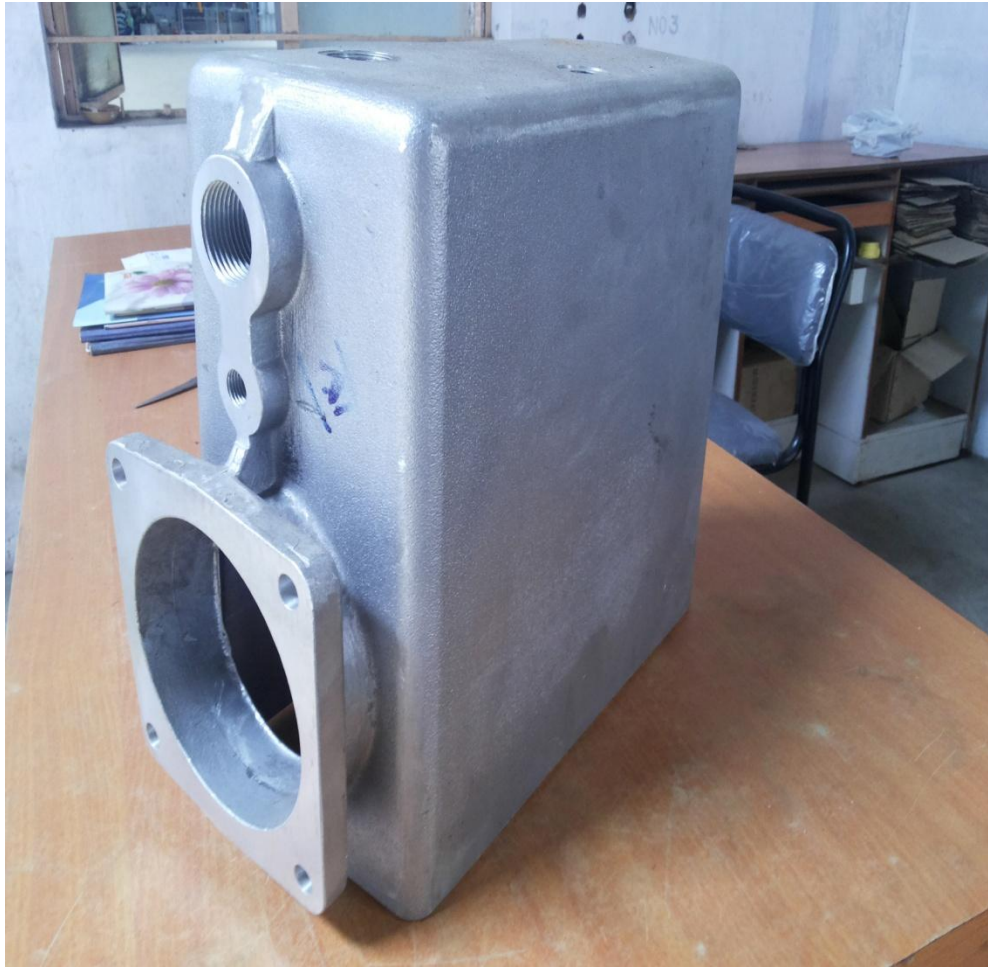


# Casting range of components





# Big size components





# Big size components



# Technical achievements in casting

- Produced parts with porosity standard meeting to Level 1 of radiography
- Samples submitted with special alloy in aluminium with ability to achieve 40% IACS
- Parts converted from PDC to GDC owing to customer requirement

# Future Road Map

- End to End Solutions from Casting to Assembly.
- Implementation of Best Practices by adhering to world class Quality Management systems.

# Contact Details

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**We look forward for your valuable association.**

**THANK YOU**