

- Ramming Mass (Silica Ramming Mass) is used in Inner Lining of an Induction furnace. Silica Ramming Mass is the cost-effective way to protect the Inner lining of an Induction furnace.
- Silica Ramming Mass is basically protection against heat with melting temperature of around 1700-1800°C while the melting of iron ore or metal is about 1600°C. So, Silica Ramming Mass works as a Heat Insulator for wall of furnace. So basically, it is a refractory used in induction furnace.
- There are 2 types of furnaces used for secondary steel manufacturing 1) Induction furnace & 2) Electric Arc furnace. Since last 20 years Induction furnace is getting popularity due to cost effectiveness.
- The normal cost of Silica Ramming Mass is very less like 4-5 Rs. Per Kg & this industry is generally localized in nature & the manufactures are located near by the steel manufacturing hubs. So, this is a small scale & unorganized space as of now.
- Raghav is trying to organize this unorganized industry & trying to provide customized solutions to India & Globally based on its in-house R&D & came up with better quality product. Due to high quality product customer are ready to pay in range of 10 to 30 Rupees per Kg which is available for 4-5 Rupees per Kg in local Market.
- Furnaces are usually heated around 1600° C and once the molten metal is removed from furnaces the temperature drops from 1600° C to 1000,800, 500° C. This causes thermal shock for refractory lining. Due to this type of thermal shock the inner lining continuously gets eroded & cracks appears on it. And after certain point the inner Silica lining needs to be replaced.
- Once the inner lining gets replaced then the furnace again needs to be heated from Room temperature to 1600-1650°C which requires Energy consumption, Time required for this pre-heat is about 1 to 3 Hrs. depending upon the type/size of the furnace. So, this affects the production time, maintenance cost & life of a furnace.
- Furnace Owner usually keeps 2 furnaces one working & one standby for lining replacement. Usually lining erosion takes place in 36 hours so furnace owner works on one furnace & keeps ready the standby furnace with lining replacement & preheating so when the first furnace lining replacement time comes up the second furnace will be ready for the work to continue without interruption of production. This cycle repeats continuously with alternate use of the furnaces.
- Local Ramming Mass products can take up to 12 cycles of heating-cooling of furnaces before erosion of the refractory lining while Raghav's Ramming Mass can take up to 18-24 heating & cooling cycles before lining erosion which saves the production down time for lining replacement for furnace owner. Usually, local ramming mass lining needs to be removed in 24 hrs. while Raghav's ramming mass lining needs to be removed in 36 hrs. providing 10-12 hrs. extra working time.
- So, with the better the quality of inner lining it saves the power cost, enhances the production time, reduces the maintenance cost & increases the furnace life. This is the reason why customers are happy to pay higher prices to Raghav compare to local manufacturer.

- For the Ramming mass production, quarts need to be purified then binders are added & the combination are prepared based on the different types of furnaces. This process is difficult to be performed in a manual plant facility which Raghav is doing with automation for better product quality. Raghav is able to do it because of past many years' experiences as it is not any standard process but need to do many customizations based on the data & automation & scaling up which is an USP/technical know-how for Raghav (Company has applied for the Patent for manufacturing process) which local manufactures are unable to do due to lack of data, expertise, customized automation & capital.
- Raghav has tie-up with IIT Mumbai & one European agency for R&D works.
- Raghav has highest capacity of 180K TPA in India, which will increase to 288K after the Capax plan. In India, there are approx. 300 players in Ramming mass business out of almost 290 players has capacity of less than 10K TPA. Even second largest player after Raghav is having Capacity of 40K TPA so Raghav will be about 7 times larger than the second player in India after Capax kicks In.
- Regarding the steel industry there is a shift from Primary steel manufacturing (Which uses Blast furnaces) to secondary steel manufacturing. In Secondary steel manufacturing there is migration from Electric Arc furnaces to Induction furnaces due to cost effectiveness.
- Raghav has about 10% Market in domestic Industry the rest 90% is with un organized & small player so Raghav estimates for expansion from 10% to 20-25%. Regarding Exports earlier they were negligible but currently Raghav is exporting about 25% of the production which company expects to grow to 40% in coming years. Earlier major clients are from steel manufacturing side but now company is also exploring the foundry businesses.
- Company operates the only automated plant based on VSI technology in the world. This is not any standard make plant but based on in house design company has customized it so difficult to copy by other players
- Raw material is sourced from Rajasthan only. Rajasthan has high quality Quarts sources & due to companies' location in Rajasthan company receives Raw material with less logistic cost. Also, there are many mines supplying quarts so due to heavy competition there is no pricing pressure on Raw material side.
- Raghav has some of the largest secondary steel manufacturer as client like Prakash Industries in India, and also have clients in Africa & middle east. Raghav is targeting big furnace manufactures as due to big size, the cost effectiveness due to superior quality ramming mass is more visible so they can easily pay the premium charges compare to localized products and these clients places continuous orders. And Raghav focuses to work with clients with good financial health to avoid any payment issues.
- Currently the plant capacity is 180K TPA and company operates at 90% considering the maintenance & other requirements.
- The new Capax of 108K TPA is expected to finish by Q2 (Approx. Aug or Sep-22). Plant is almost finished and the trial run & commissioning is expected to start from July-22.
- There is no major debt planning as of now, may be small debt for operating be taken if required but there is no plan of any major debt for the foreseeable future.

- Credit cycle from client is around 60 to 150 days so average 90 days credit period.
- The amount received by issuance of CCD to Mr. Rakesh Jhunjhunwala was utilized for CAPAX purpose of the new 108K TPA upcoming plant.
- Mr. Hemant Madhusudan which resigned last year from board of director was due to some technical issue so he needed to resign for 3 months, now he has been re-appointed recently.
- Regarding the Investor Con Call company will start doing it once it scales up in size
- The margin pressure in Dec21 quarter is due to shipping rate increase in recent time
- Company is ready to provide access for Plant Visit once the new Plant is ready in Q2 this year