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BALEXCO Continues Casting Division Projection and feasibility report

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Introduction

Melting division is the new heart of aluminium extrusion plants in the era of Carbon neutrality and new product development. Using aluminium Scrap will reduce greenhouses gases dramatically without impact on product quality. Primary aluminium using 15000 Kw/h per Ton in the other hand Aluminium Scrap just Using 1020 kw/h per ton just 6.20% of the primary aluminium.

1. **Cost reduction: 3-5% Basis.**
2. **new alloys development for better margin.**
3. **Reduce carbon footprint.**

To save environment scrap recycling is the main key to achieve carbon neutrality.

Project Technical and Proposed Equipment

To achieve 22-28 ton/Day our recommendation is 8 ton Tilting furnace without holding furnace for first stage and 10 or 15 ton homogenising furnace with single casting pit. Changing time of mould is less than 30 Minute and very easily done. Provision in layout and design for adding more melting furnaces, holding furnace, hot top pit and homogenizing furnace.

As per our experience that single melting furnace doesn't require holding furnace it will lead to wastage of energy, time and will increase running cost and capital cost both.

With our design you can add multiple melting furnaces, Casting pit and Homogenizing furnace without affecting present setup and it will achieve perfect process flow.

Melting Requirement		
Operating Days	26	Days
Production /day	21	Ton
Production/month	545	Ton
Operating Month*	11	Month
Throughput/year	6,000	Ton

*Consider with Door and furnace mouth Maintenance

Cycle time for Single Drop: 6-8 Hrs

Per Day Drop: Three (3)

Process flow



Depreciation

Depreciation working (Straight Line basis as per Balexco)

Fixed Assets	(BHD)	Salvage %	Life	Depr Rate
Plant and Machine	490,278			
Plant and Machine Salvage	-12,257	2.5%		
Plant and Machine Net	478,021		10	10%
Building	50,000		10	10%

Particular	Capital Expenditure			Depreciation			Net Book Value
	Building	Plant and Machine Net	Total Capex	Dep on Building@10%	Dep on Capex	Total Depreciation	
Year 1	50,000	490,278	540,278	5,000	47,802	52,802	487,476
Year 2	45,000	442,476	487,476	5,000	47,802	52,802	434,674
Year 3	40,000	394,674	434,674	5,000	47,802	52,802	381,871
Year 4	35,000	346,871	381,871	5,000	47,802	52,802	329,069
Year 5	30,000	299,069	329,069	5,000	47,802	52,802	276,267
Year 6	25,000	251,267	276,267	5,000	47,802	52,802	223,465
End Year 6	50,000	490,278	540,278	5,000	47,802	52,802	487,476

Conclusion

Internal Scrap is huge advantage for BALEXCO. New Inhouse melting system will increase a profit margin minimum 3% and will generate more cash flow for the company. It also helps to reduce carbon footprint.

BALEXCO can target new customer with new inhouse alloy development quickly and adjust production accordingly that there is lot of new development in the Extrusion market just like AL-Sc alloys for sports goods. Now buyers demand so many different alloys in extrusion for their specific requirement. If BALEXCO catch the nerve of this kind of buyer it will be real advantage of this proposed Cast house. And we hope it will increase 7-10% profit more than regular alloys. As we study that BALEXCO procured 1500 Ton 6082 alloy billets in past so casting inhouse 6082 alloy billets increase profit margin. Other scrap like 6082/6061 are cheaper than 6063 scrap and Talon/wire scrap.

Advantage of choosing US: We just wanted to drop you a note to thank you for the opportunity you gave us to submit the Feasibility study report for Remelting Renovation project As stated in the report, we could get the results in the conservative.

We have a team of veterans and expert those are diligent and hard working will contribute to the project and achieve the results as said in the report Our ideas, input and enthusiasm will be most helpful and have assisted in making valuable improvements to our project.

Once the project allotted to our team will help to insure the project finish within guideline of capex and timeline. We will work with team BALEXCO to ensure the maximised benefits and saving. We know how to get best technology and best price. As we know which supplier offering best technology at reasonable prices.

We will help BALEXCO to secure raw material supplies and desired continue supply contract with suppliers from different countries like Australia, Singapore, USA, EU Etc. We will help to arrange the skilled manpower for the foundry.

As we know how to ENGINEER TO PERFECTION and we ensure the perfect process flow, Quality installation and energy saving at the best.