



EXTRACTING VALUABLE MINERALS FROM BRINE



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Elevator Pitch

Sustainable businesses **face a problem** with rising costs of raw materials. **So, for** manufacturers, **who** need reliable and ecofriendly sources of minerals, our product **is a** mineral extraction solution **that** provides high-purity minerals efficiently. **Unlike** traditional mining operations, **our product** utilizes a sustainable extraction process that minimizes environmental impact.

Constraints

Brine must not contain Chloride concentration exceeding **1,000 mg/L** after extraction

Particulate matter emissions must not exceed **150 mg/Nm³**

Boron level in the discharge must not exceed **0.75 ppm**

Target Specifications

Target purity of **95%** or higher of product magnesium.

Concentration of magnesium should be at least **1,500 mg/L**.

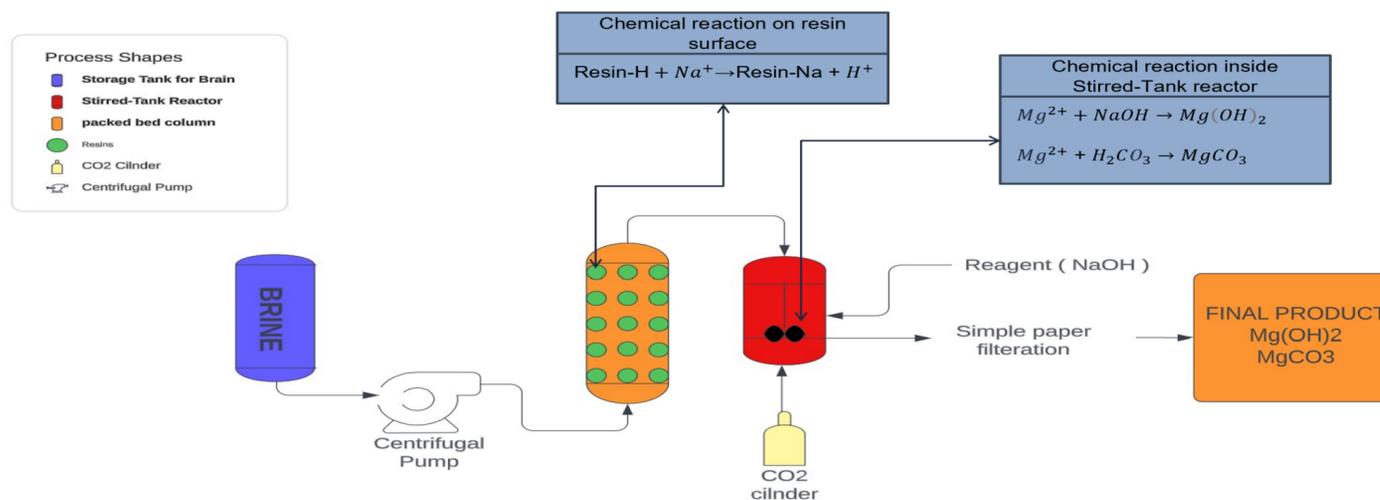
Extraction efficiency should be at least **80%**.

pH level should be maintained between **6.5** and **8.5**.



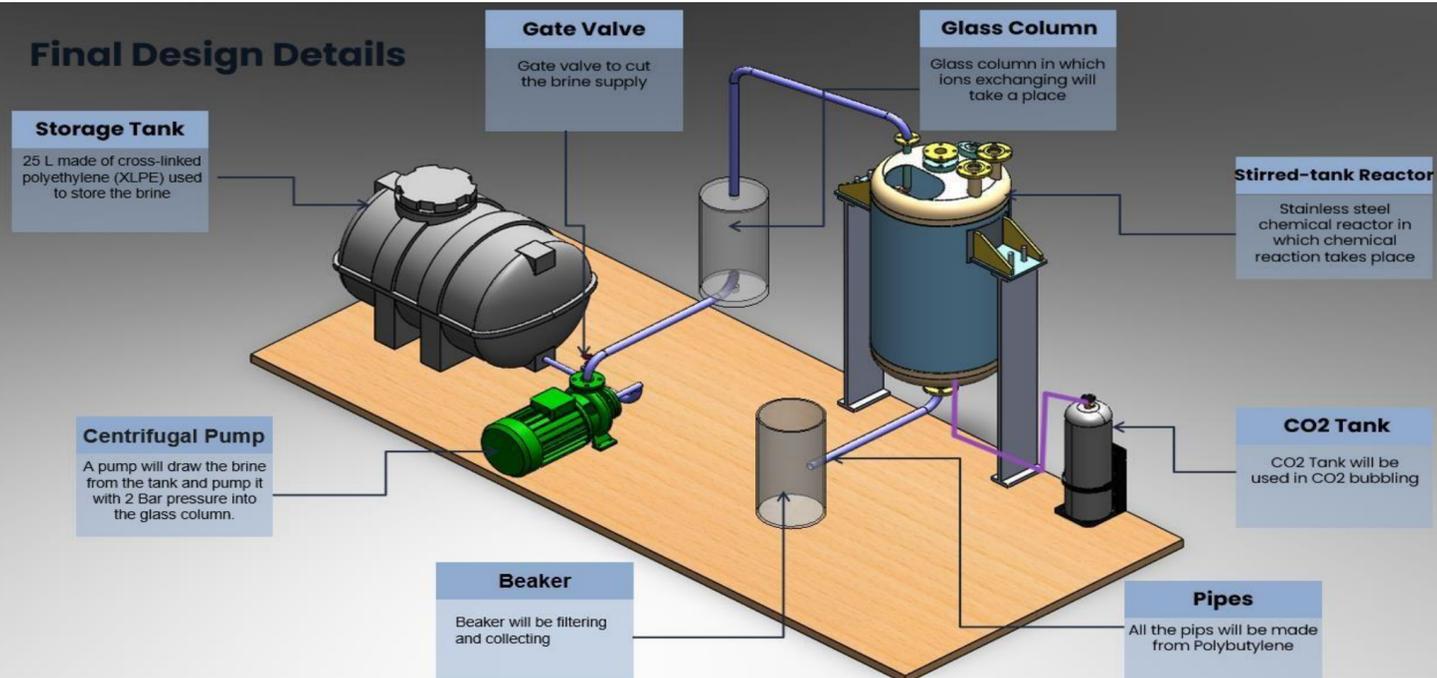
Chemical Prototype Design

Final Design details



Mechanical Prototype Design

Final Design Details



Testing/Validation

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Extraction efficiency should be at least **80%**.

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Conclusion

Our innovative mineral extraction process offers a sustainable and cost-effective solution for producing high-purity minerals. By addressing the rising costs and environmental challenges faced by manufacturers, our approach minimizes ecological impact while ensuring efficiency and reliability in mineral sourcing.

Acknowledgment

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