



## Diseño e implementación del plan de mantenimiento preventivo de los equipos de la empresa Granitos y Mármoles Acabados SAS [

2021

text (article)

Analítica

This research proposes the design and implementation of a preventive maintenance plan for small industries that began in the form of family businesses, which have not had the chance of adopting a maintenance strategy such as Reliability Centered Maintenance (RCM). The proposal allows identifying the most critical equipment (through a criticality analysis) for the process in order to adopt strategies that eliminate failures. The methodology used in this research, learned in the maintenance courses of the Mechanical Engineering Program at Universidad Libre, allowed generating formats that facilitated the management of equipment and the visualization of information and other documents required for the monitoring and control of the activities related to each asset. The case study company, named Granitos y Mármoles Acabados SAS, is a micro-enterprise in the business of maintenance services to all types of natural stone, which has operated for over 20 years without carrying out any maintenance strategy for its equipment. This company considered the need to implement a maintenance strategy in order to optimize its production methods. The study was complemented with a financial analysis (ROI and IRR calculation) that allowed evaluating the investment in maintenance not only as an expense. By applying theoretical and analytical procedures, it was verified that the services provided by this company tend to become more efficient, proving with figures the economic retribution generated by a maintenance plan. The contribution of this research to future studies lies in the development of a maintenance plan for SMEs that have not implemented this technical or operational culture with their equipment, and that, in the long term, generates a decreased loss of profit and greater productivity

This research proposes the design and implementation of a preventive maintenance plan for small industries that began in the form of family businesses, which have not had the chance of adopting a maintenance strategy such as Reliability Centered Maintenance (RCM). The proposal allows identifying the most critical equipment (through a criticality analysis) for the process in order to adopt strategies that eliminate failures. The methodology used in this research, learned in the maintenance courses of the Mechanical Engineering Program at Universidad Libre, allowed generating formats that facilitated the management of equipment and the visualization of information and other documents required for the monitoring and control of the activities related to each asset. The case study company, named Granitos y Mármoles Acabados SAS, is a micro-enterprise in the business of maintenance services to all types of natural stone, which has operated for over 20 years without carrying out any maintenance strategy for its equipment. This company considered the need to implement a maintenance strategy in order to optimize its production methods. The study was complemented

with a financial analysis (ROI and IRR calculation) that allowed evaluating the investment in maintenance not only as an expense. By applying theoretical and analytical procedures, it was verified that the services provided by this company tend to become more efficient, proving with figures the economic retribution generated by a maintenance plan. The contribution of this research to future studies lies in the development of a maintenance plan for SMEs that have not implemented this technical or operational culture with their equipment, and that, in the long term, generates a decreased loss of profit and greater productivity

This research proposes the design and implementation of a preventive maintenance plan for small industries that began in the form of family businesses, which have not had the chance of adopting a maintenance strategy such as Reliability Centered Maintenance (RCM). The proposal allows identifying the most critical equipment (through a criticality analysis) for the process in order to adopt strategies that eliminate failures. The methodology used in this research, learned in the maintenance courses of the Mechanical Engineering Program at Universidad Libre, allowed generating formats that facilitated the management of equipment and the visualization of information and other documents required for the monitoring and control of the activities related to each asset. The case study company, named Granitos y Mármoles Acabados SAS, is a micro-enterprise in the business of maintenance services to all types of natural stone, which has operated for over 20 years without carrying out any maintenance strategy for its equipment. This company considered the need to implement a maintenance strategy in order to optimize its production methods. The study was complemented with a financial analysis (ROI and IRR calculation) that allowed evaluating the investment in maintenance not only as an expense. By applying theoretical and analytical procedures, it was verified that the services provided by this company tend to become more efficient, proving with figures the economic retribution generated by a maintenance plan. The contribution of this research to future studies lies in the development of a maintenance plan for SMEs that have not implemented this technical or operational culture with their equipment, and that, in the long term, generates a decreased loss of profit and greater productivity

<https://rebiunoda.pro.baratznet.cloud:38443/OpacDiscovery/public/catalog/detail/b2FpOmNlbGVicmF0aW9uOmVzLmJhemF0ei5yZW4vMzEzNjQ5MzI>

---

**Título:** Diseño e implementación del plan de mantenimiento preventivo de los equipos de la empresa Granitos y Mármoles Acabados SAS [electronic resource]

**Editorial:** 2021

**Tipo Audiovisual:** Diseño Implementación Plan de mantenimiento preventivo Equipos Design Implementation Preventive maintenance plan Equipment Design Implementação Plano de manutenção preventiva Equipes

**Documento fuente:** Ciencia y poder aéreo, ISSN 1909-7050, Vol. 16, N°. 2 (Julio-Diciembre), 2021, pags. 98-111

**Nota general:** application/pdf

**Restricciones de acceso:** Open access content. Open access content star

**Condiciones de uso y reproducción:** LICENCIA DE USO: Los documentos a texto completo incluidos en Dialnet son de acceso libre y propiedad de sus autores y/o editores. Por tanto, cualquier acto de reproducción, distribución, comunicación pública y/o transformación total o parcial requiere el consentimiento expreso y escrito de aquéllos. Cualquier enlace al texto completo de estos documentos deberá hacerse a través de la URL oficial de éstos en Dialnet. Más información: <https://dialnet.unirioja.es/info/derechosOAI> | INTELLECTUAL PROPERTY RIGHTS STATEMENT: Full text documents hosted by Dialnet are protected by copyright and/or related rights. This digital object is accessible without charge, but its use is subject to the licensing conditions set by its authors or editors. Unless expressly stated otherwise in the licensing conditions, you are free to linking, browsing, printing and making a copy for your own personal purposes. All other acts of reproduction and communication to the public are subject to the licensing conditions expressed by editors and authors and require consent from them. Any link to this document should be made using its official URL in Dialnet. More info: <https://dialnet.unirioja.es/info/derechosOAI>

**Lengua:** Spanish

**Enlace a fuente de información:** Ciencia y poder aéreo, ISSN 1909-7050, Vol. 16, N°. 2 (Julio-Diciembre), 2021, pags. 98-111

---

## **Baratz Innovación Documental**

- Gran Vía, 59 28013 Madrid
- (+34) 91 456 03 60
- [informa@baratz.es](mailto:informa@baratz.es)