

COMPACT AND AUTOMATICALLY ADJUSTABLE NOPAL SPINE REMOVAL MACHINE

<i>Offering Organization:</i>	Centro de Investigación y Asistencia en Tecnología y Diseño del Estado de Jalisco, A.C.
<i>Type of Organization:</i>	Public Research Center
<i>Development Stage:</i>	Pilot level.
<i>Desired Relationship:</i>	<ul style="list-style-type: none">– Technological research and development financing (technological partner)– Specialized application tests– Creation of a new company (Joint Venture) for the commercialization of the products outlined herein– Licensing of patents
<i>Sector:</i>	Agriculture
<i>Area of knowledge:</i>	Mechanics
<i>Key words:</i>	Spine removal machine, Nopal, Nopal cactus, spines, compact, de-spining machine

DETAILED DESCRIPTION:

Problem to be solved:

The de-spining operation is one of the essential stages in the process of harvesting the nopal cactus and is most commonly done manually, making it the primary bottleneck in the industrialization of nopal. Currently, many different apparatus exist that look to improve the nopal de-spining process. However, these do not resolve the issue of contamination associated with the handling of the product and they can only handle small quantities of nopal at a time.

Solution:

A compact, auto-adjustable de-spining machine. This machine consists of an improved cutting system, a compact and efficient compression traction system, a trimming system, a waste removal system, a power unit, an electronic control system, and an emergency shutdown system.

New and Innovative Aspects:

This invention refers to a compact, auto-adjustable nopal de-spining machine that resolves the issue of contamination associated with product handling. This machine can be used for small, large, or industrial-sized quantities.

TECHNICAL CHARACTERISTICS:

This invention refers to a compact auto-adjustable nopal de-spining machine that can also be used to de-spine other similar products. This machine consists of an improved cutting system, a compact and efficient compression traction system, a trimming system, a waste removal system, and power unit, an electronic control system, and an emergency shutdown system.

Main advantages derived from its utilization:

- The invention is a compact, auto-adjustable nopal de-spining machine.
- It resolves the issue of contamination associated with product handling.
- It can be used to process industrial quantities.

Applications:

- To be used for de-spining the nopal cactus and similar products.

INTELLECTUAL PROPERTY

- Patent granted in 2013, valid until 2023.

ABOUT THE OFFERING ORGANIZATION

Presentation:

El Centro de Investigación y Asistencia en Tecnología y Diseño del Estado de Jalisco, A.C. (CIATEJ) is a public research center that belongs to the national technology development and innovation network, the National Council for Science and Technology (CONACyT). CIATEJ is focused on the agricultural, food, health, and environmental sectors with an emphasis on the application of innovative biotechnology.

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