

PORTABLE NOPAL DESPINING 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>	Machine design
<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 despinning machine, Nopal, Nopal cactus, spines
DETAILED DESCRIPTION:	
<i>Problem to be solved :</i>	
<p>The demand for nopal has significantly increased throughout Mexico and other countries. Because of this, the necessity has arisen for a portable nopal despinning apparatus that can be used at the retail-sales level. Currently there exist many apparatus which seek to improve upon the manual process of despinning nopal, but they do not resolve the problem of microbiological contamination that is caused by improper handling of the product.</p>	
<i>Solution:</i>	
<p>A portable nopal despinning machine comprised of two parts that can be easily disassembled for cleaning. The machine removes spines from both sides of the nopal, which is manually fed into the top part of the machine. The nopal passes through the machine vertically and is ejected from the bottom.</p>	
<i>New and Innovative Aspects:</i>	
<p>It is preferable to despine nopal right before consumption to reduce the risk of deterioration, oxidation, withering, or microbial contamination caused by exposure to handling and external contaminants. The current invention refers to a portable nopal despinning machine for use at the retail-sales level that accomplishes this.</p>	
TECHNICAL CHARACTERISTICS:	
<p>The current invention refers to a portable nopal despinning machine which is to be used primarily at the retail-sales level. The machine is comprised of two self-adjusting cutting rollers, two self-adjusting compression traction rollers, one splash-guard for waste per cutting roller, two collection trays, a waste-drainage system, and a control panel to regulate the machine's operations. All of these elements are mounted in a two-part structure that can be disassembled for easy cleaning. The despinning machine removes spines from both sides of a nopal that is fed into the upper part of the machine. The nopal passes vertically through the machine and is ejected from the bottom.</p>	
<i>Main advantages derived from its utilization:</i>	
<ul style="list-style-type: none"> – The machine is portable and therefore can be used to despine nopal at the retail-sales level. – The machine is comprised of two parts that can easily be disassembled for cleaning. – This machine resolves the microbiological contamination problem caused by the handling of the product. 	

Applications:

- Nopal spine removal machine.

INTELLECTUAL PROPERTY

- Patent granted in 2012, valid until 2025.

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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