

# AUTOMATIC EQUIPMENT FOR MASS PRODUCTION OF FILTERS THAT REMOVE MORE THAN 60% OF TOXIC COMPOUNDS FROM TOBACCO SMOKE

**P** PATENTED TECHNOLOGY



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## ABSTRACT

The *Institute of Chemical Process Engineering* of the University of Alicante has developed equipment that makes it possible to manufacture filters capable of trapping 60% of the tars and toxic compounds present in tobacco smoke.

The process used is fully automated, allows mass production, is environmentally friendly, and produces very economical and efficient filters suitable for use in both conventional cigarettes and roll-your-own tobacco. Scientific experiments carried out on a laboratory scale support the excellent results of this new filter concept that protects the health of smokers.

The technology is patent protected. Companies interested in acquiring this technology for worldwide commercial exploitation are being sought.

## TECHNOLOGY ADVANTAGES AND INNOVATIVE ASPECTS

### ADVANTAGES OF THE TECHNOLOGY

The main **advantages** of this new equipment are listed below:

- 1) It is **cost-effective** to manufacture these filters.
- 2) The process is **fully automatable**, which significantly increases production capacity and allows **mass production**.
- 3) The manufacturing process is **very fast**.
- 4) The materials used are **environmentally friendly**.
- 5) The **raw materials** used are commercially **available** and readily available.
- 6) The resulting filters are **very effective** (they reduce around 60% of tars and other toxic compounds in tobacco smoke).
- 7) The **pleasant sensation** of the smoking process is maintained (no change in taste, no increase in the number of puffs).
- 8) The membrane is inseparable from the filter, which is **very convenient for the user**.

### INNOVATIVE ASPECTS OF THE TECHNOLOGY

1. At present, there is no commercial equipment on the market capable of **automatically producing this type of filter** to protect smokers' health.
2. The equipment allows **several stages of the production process to be carried out simultaneously**, which significantly increases the production capacity of the filters and they can be mass-produced.
3. This innovative technology can be **easily implemented** in the production of filters for conventional cigarettes, RYO (Roll-Your-Own) and MYO (Make-Your-Own).

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## MARKET APPLICATIONS

The present invention falls within the technical field of **cigarette filters**, specifically, the manufacture of **combined filters and of installations and procedures for their manufacture**.

These novel filters incorporate a specific membrane that reduces the toxicity of inhaled smoke by around 60%, and can be incorporated into conventional cigarette filters:

- Conventional cigarettes.
- RYO (Roll-Your-Own) cigarettes.
- MYO (Make-Your-Own) cigarettes.

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## COLLABORATION SOUGHT

Companies interested in acquiring this technology for **commercial exploitation** are sought:

- Patent licensing agreements.
- Development of new applications.
- Agreements on technology and knowledge transfer.

**Company profile** sought:

- Manufacturers of filter machines for conventional cigarettes.
  - Manufacturers of filter machines for rolling tobacco.
  - Manufacturers of punching machines for the tobacco industry.
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