



SMART SHOE CLEANER MACHINE

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1.0 EXECUTIVE SUMMARY

This smart shoe cleaner machine is an innovation idea to improvise the ordinary shoe brush that operated manually. This concept of idea basically to be a universal cleaning machine for any material and size of shoe. This product also will boost its business to spread widely through the worlds, as long as the people use the shoe to walk with clean and tidy. The target market should be larger, not only for ladies, but for all men too in the world. The smart shoe cleaner machine is suitable for any type of shoe, as it design to be a standard shape for all size and gender. Besides, people who travel around the world will be more easy to use this machine because it will widely use in the most country as an instant services machine. Thus, the focus for this smart shoe cleaner machine is projected on the potential customers such as executive person, streetwear fashion, travelers and kids too. This shoe cleaner machine combine with the rotor brush and dryer to give a complete services for all shoe user. Thus, it will be much helpful for workers, student and traveler to maintain their shoe clean and tidy all the time. Definitely, a great product comes from the great management team, which must be consisting of a proactive leader, a creative product designer, a hardworking market analyst and also the smart entrepreneur. Then the whole combination of vital skills in management will make this smart shoe cleaner machine becoming a new world class product.

2.0 PRODUCT DESCRIPTION

This machine cleans overall shoes using mechanical wet scrubbing method. It is made of stainless steel body frame with unique and high quality brushing mechanics, the machine is specially designed to effectively clean shoes before entering to clean place environment. Specially formulated low foaming cleaning chemical is available to further enhance shoes cleaning effectiveness.

This smart shoe cleaner machine is designed to prevent turbulence flow or air in the machine. Customer has the option to use the special formulated low foaming cleaning chemicals that will not cause excessive foaming during shoes cleaning process.

As soon as user steps in the cleaning machine, it will automatically start cleaning process by moving the rolling brush assembly in left-right and forward-backward directions. Contaminants at shoes bottom sole will be effectively washed away with this unique brushing mechanism.

The sponge pad is placed after the smart shoe cleaner machine to absorb residual water at shoes. By just letting the sponge pad for 3~5 seconds, more than 99.5% of residual at the shoes will be removed. This sponge pad can be re-use after cleaning with water and detergent. The sponge pad assembly has built-in water collector panel beneath its housing.

This design concept provides easy operation of both shoes cleaning and drying where in cleaning operations is provided interior of the machine which helps the user to freely let the shoe clean over the rotating brush. The cleaning liquid is applied manually to the shoe before the machine is operated. Entire gears, shaft and bearings mounts are rested on the iron bar base arranged according to the space needed to carry out the operations, at the bottom a tray is provided in order to collect the dust particles obtained during the operation of shoe cleaning.

3.0 TECHNOLOGY DESCRIPTION

The smart shoe cleaner machine is a machine that does not use a complex technology. There are gears, shaft, and bearings rested on a iron bar base arranged according to the space needed to carry out the operations. The machine used a single shaft which carries the cleaning brush and the shaft is supported with bearings at respective positions. Necessary gear train for the rotation of shaft are arranged in order to achieve the motion to carry out the process of the machine.

This machine is included with brushes. The machine has five internal brushes for thorough cleaning of all types of shoe. There are several types of brush such as a flexible nylon brush and a tough fiber rotational brushes which are arranged to reach deep into the seams, welts, cracks and every part of the shoes. There are also an internal control that allows user to adjust the rotational speed of the brushes which is slow, medium, and fast according to the type of shoe need to be cleaned. The brushes require replacement about once every six months to achieve higher cleaning rate.

The machine also has its own internal vacuum system and disposable paper bags. The contaminants that are brushed from the shoes will be vacuumed and collected in the disposable paper bags. This The paper bag can be thrown when it is full and replace a new bag in the machine. A heater is also installed in this machine in purpose of drying shoes. There are also control that can set the heater to cold, medium or hot.

The housing of this machine is made of thermo-formed plastic that resists dent and will not shed particle. It is light in weight so it can easily moved to any desired location. The component of the machine are sealed inside the unit to ensure optional cleanliness.