**PROCESSING MACHINE AND PUNCHER HERBAL MEDICINE SINOM WITH THERMOCOOLERSONIFICATION TECHNOLOGY BASED ON MICROCONTROLLER**

Yosha Dima Distya1, Dwi Safitri1, Achmad Harish Aviansyah1, Lely Farima1, Reza Salfani1, Agung Prijo Budijono, S.T., M.T\*).1

*1Surabaya State University*

[*yosha.dimadistya123@gmail.com*](mailto:yosha.dimadistya123@gmail.com)

[*dwis444@gmail.com*](mailto:dwis444@gmail.com)

[*Achmad.17050754001@mhs.unesa.ac.id*](mailto:Achmad.17050754001@mhs.unesa.ac.id)

[*lelyfarima@gmail.com*](mailto:lelyfarima@gmail.com)

[*Rezasalfani@gmail.com*](mailto:Rezasalfani@gmail.com)

[*agungbudijono @unesa.ac.id*](mailto:agung_pbudiono@yahoo.co.id)*\*(correspondence author)*

**ABSTRACT**

***The purpose*** *The purpose of this study is to provide information available in SMEs Unik Sinom the process of processing the materials still using the traditional way.*

***Method*** *The method used is to utilize Technology Termocoolersonifikasi as beverage processing. This technology is equipped with Microcontroller which is also integrated with Ohmic Heating, Spiral Pipe Fast Fluid Cooling System, UV lamp generator, and Multivalve Filler System that is able to assist the beverage processing. In addition, this machine is also equipped with ETC (Electric Temperature Control) which serves as a beverage temperature controller to stay awake at the safe limit (70˚C).*

***Results*** *The expected result is the increased production of herbal medicine due to the better processing process so as to increase the productivity as much as 300% which originally about 90 liters / day can increase up to 270 liters / day.*

***Findings*** *The findings of this study are the use of Microcontroller based Termocoolersonification Technology as solution of processing of herbal medicine and the use of ETC (Electric Temperature Control) as a temperature controller on herbal medicine drinks.*

***Keywords****: Herbal Medicine, Termocoolersonifikasi, Electric Temperature Control (ETC), Microcontroller*