

# AQUAVAC ADVANCED: Negative Pressure Wound Therapy Device



## THE PROBLEM

Acute traumatic wounds that cannot be closed primarily pose a global challenge for clinicians, with treatment goals focused on improving outcomes, reducing wound closure time, and speeding up healing, though financial limitations often hinder progress. Negative Pressure Wound Therapy (NPWT), introduced in the 1990s, uses vacuum pressure in a sealed dressing system and has become widely adopted in wound management. Over the past 23 years, new techniques have emerged to meet growing demand. Affordable alternatives to expensive equipment are increasingly needed, and locally developed NPWT systems offer the same effectiveness as commercial ones at a lower cost.

## THE SOLUTION

To address this, a low-cost NPWT system was thus developed utilizing a cheap vacuum pump and locally-available materials as NPWT dressings. Aquavac Advanced is a compact NPWT (Negative Pressure Wound Therapy) device designed to deliver advanced wound care treatment. The device features automatic pressure regulation with leak detection for enhanced safety. It is equipped with a backup battery that lasts up to 12 hours in continuous mode and 24 hours in intermittent mode. The device has been available for purchase since April 2024 at a price of Php 50,000.00, which includes 10 sets of dressings and 5 sets of canisters. Additional canisters and dressings are offered at Php 1,500 per set. The affordability of the device allows doctors to enable patients to take it home, promoting outpatient care and reducing hospitalization costs.



## TECHNOLOGY GENERATOR

Ayo Tech Corporation  
Project Leader: Dr. Jair Kimri Jingco

## TECHNOLOGY DEVELOPMENT

The technology is currently at Technology Readiness Level (TRL) 9. With the start up grant fund received, 100 NPWT devices with dressings and canisters were produced. Since April 2024, 20 units have been sold, generating Php 1,000,000.00 in revenue, as each set is priced at Php 50,000.00. The startup has also participated in two midyear conventions: the Philippine Orthopaedic Association and the Philippine College of Surgeons. Clients include individual doctors, patients requiring long-term NPWT treatment, hospitals, and wound care centers, with one facility alone purchasing five machines.

*Interested technology adopters may send a letter of intent addressed to:*



**Ayo Tech Corporation**  
ayotech@gmail.com  
09173100585 / 09088618331