

TOPIVAC®

NEGATIVE PRESSURE WOUND THERAPY MODES

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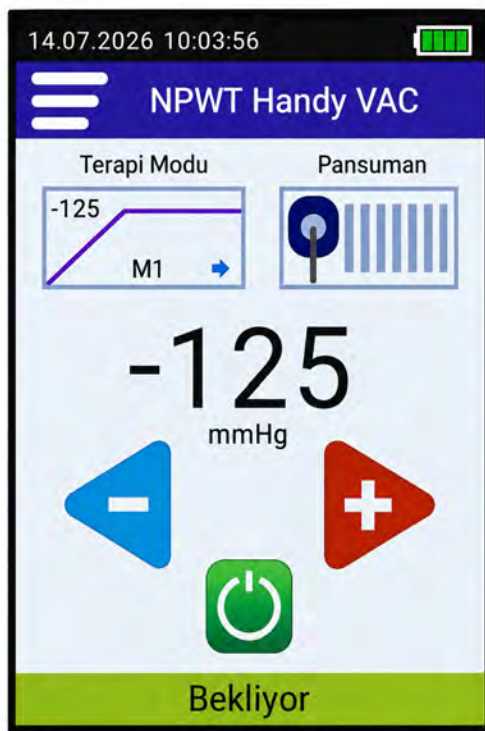
Negative Pressure Wound Therapy (NPWT/VAC) devices are programmed with different operating modes according to the wound type, the amount of exudate (wound drainage), tissue sensitivity, and the patient's pain threshold.

Physicians and wound care specialists adjust the device to different therapy modes depending on the treatment objective, such as removing exudate, promoting tissue growth, or cleansing the wound.

KEYS

NPWT, VAC, Continuous, Intermittent, Ramp, Mode, Exudate, Granulation, Graft.

1. CONTINUOUS THERAPY MODE (M1)

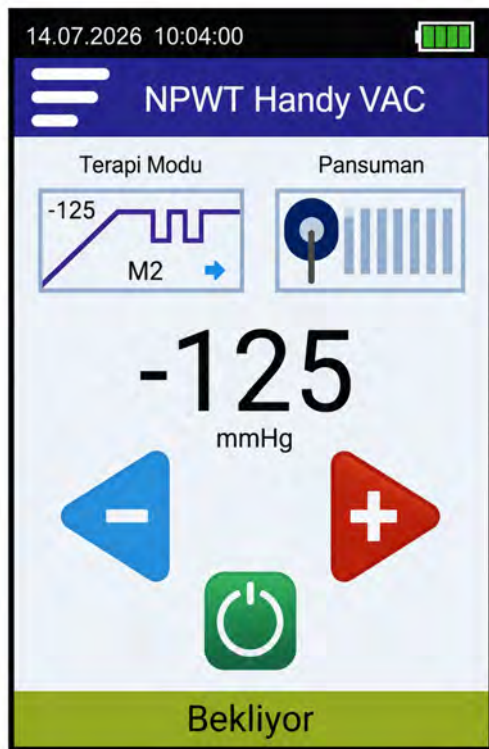


The device maintains the preset negative pressure level (e.g., –120 to –125 mmHg) continuously throughout the treatment and applies it to the wound without interruption.

► When Is It Selected?

- **Highly Exudative Wounds:** Preferred for wounds with excessive exudate to ensure continuous removal of wound fluid from the wound bed and to prevent maceration (softening and breakdown due to prolonged moisture) of the surrounding healthy tissue.
- **Graft and Flap Fixation:** Continuous mode is used during the first 48–72 hours after the surgical placement of skin grafts or tissue flaps to prevent displacement and ensure firm adherence to the wound bed.
- **Patients with High Pain Sensitivity:** Since fluctuations in pressure may trigger pain, maintaining a constant negative pressure provides greater comfort for patients with a low pain threshold.

2. INTERMITTENT THERAPY MODE (M2)



The device applies negative pressure for a predetermined period (e.g., 5 minutes ON), then completely releases the pressure to atmospheric pressure and enters a resting phase (e.g., 2 minutes OFF). This cycle is repeated continuously throughout the treatment.

► When Is It Selected?

- **Granulation Tissue Formation (Cell Proliferation):** The regular application and release of negative pressure provides mechanical stimulation to the cells within the wound bed. This significantly increases local blood flow compared to continuous mode, thereby maximizing the formation of new granulation tissue.
- **Low to Moderate Exudative Wounds:** Used for chronic wounds (such as diabetic foot ulcers and pressure ulcers) where exudate has decreased but additional tissue growth is still required to achieve wound closure.
- **Acute Trauma and Open Abdomen:** In large, unstable, deep wounds resulting from major trauma, continuous negative pressure is essential during the initial stage to achieve wound stabilization.

3. INCREMENTAL (RAMP) THERAPY MODE (M3)



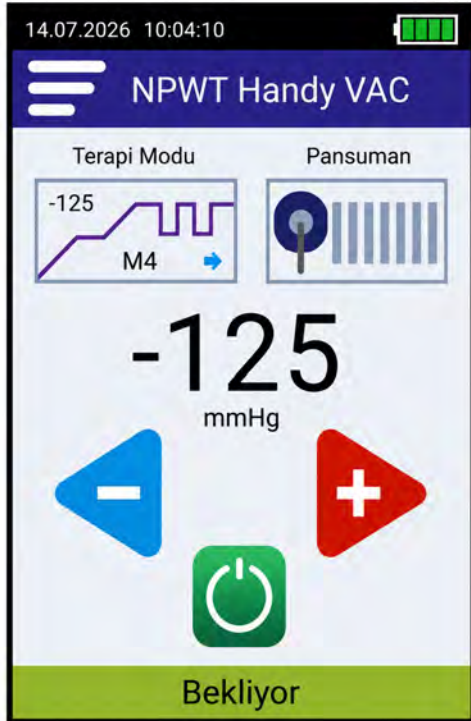
The Incremental (Ramp) Therapy Mode available in NPWT (Negative Pressure Wound Therapy) devices is a mechanism that gradually increases the negative pressure to the target level through predefined pressure increments and time intervals, rather than applying the target pressure immediately.

At the beginning of therapy or during transitions in intermittent therapy cycles, the device does not instantly reach the target pressure (e.g., -120 mmHg). Instead, it follows a user-defined program (for example, increasing the pressure by 40 mmHg every 60 seconds) to create a stepwise/ramp pressure curve. Once the target negative pressure is reached, the pressure is maintained at the preset level.

► When Is It Selected?

- **Pediatric Patients:** Children have delicate skin and lower pain thresholds. This mode is ideal for minimizing the fear and discomfort associated with the sudden application of negative pressure.
- **Geriatric Patients:** Prevents tissue damage in elderly patients with fragile, atrophic ("paper-thin") skin caused by age-related deterioration of skin integrity.
- **Patients with Low Pain Thresholds and Anxiety:** Improves patient compliance in individuals who refuse or panic during NPWT due to the sudden pulling sensation experienced at the beginning of treatment.
- **Patients with Limited Cooperation:** Provides a more comfortable transition for patients with dementia, Alzheimer's disease, or neurological disorders who are at high risk of removing the dressing due to panic or confusion.

4. ARALIKLI (INTERMITTENT) VE ARTAN (INCREMENTAL/RAMP) TERAPİ MODU (M4)



This is one of the most advanced combinations in modern wound care. This dynamic therapy combines the strong biological stimulation provided by the intermittent mode with the patient comfort and tissue protection offered by the incremental (ramp) mode. The system operates by combining these two methods in a sequential cycle (periodic waveform) through the following mechanism:

Unlike the conventional intermittent mode, in which the pressure is completely released to atmospheric pressure and the wound is left unpressurized, this mode provides smooth transitions between two different negative pressure levels (for example, -125 mmHg and -25 mmHg). The pressure is never completely released.

► When Is It Selected?

- **Patients Experiencing Pain in Intermittent Mode:** The sudden release and reapplication of pressure causes the foam dressing to expand and contract, which may result in pain. This variable mode provides smooth pressure transitions, delivering the enhanced blood flow benefits of intermittent therapy while minimizing patient discomfort.
- **Patients with Fragile Wound Margins:** Prevents the sudden contraction of wound edges, enhances patient comfort, and reduces the risk of dressing displacement and air leakage.

**** THE NPWT (VAC) THERAPY MODES DESCRIBED ABOVE ARE PROVIDED FOR THE PURPOSE OF INFORMING HEALTHCARE PROFESSIONALS. THE MOST APPROPRIATE THERAPY MODE SHOULD ALWAYS BE DETERMINED BY A QUALIFIED HEALTHCARE PROFESSIONAL BASED ON THE PATIENT'S WOUND CONDITION.**