



FERNO2 MVP (MANUAL VACUUM PUMP)

DIRECTIONS FOR USE

Handheld Portable Suction Unit designed to provide quick and effective suction for multiple emergency uses.

1. INTRODUCTION

The **FERNO2 MVP** (MANUAL VACUUM PUMP) is a light, state of the art, high vacuum, portable emergency device that can be powered with one hand operation, leaving the other hand free for different tasks. This unit was designed to provide efficient operation and simple maintenance. Adjustable stroke knob will provide different suction pressures.

2. DIRECTIONS FOR USE

Select the appropriate size suction catheter and connector according to the size of the patient. Attach the adapter with tubing to the cap connection port on the collection jar. Ensure that the collection jar is firmly attached to the cap connection port.

Caution: It is very important that the collection jar cap is attached all the way to the pump handle and that all connections are tight and firm.

Caution: The MVP should not be used upside down. Use of the MVP upside down may cause a blockage. Maintain a close to vertical position to minimize blockage of the unit.

Caution: Don't not use if vacuum pump handle is cracked or broken.

Caution: Do not use if large umbrella valve is missing, torn or folded.

1. The **FERNO2 MVP** is operated by a simple squeezing action of the trigger. The adjustment stroke knob allows for producing various suction volumes. Pull or squeeze the trigger towards the pump handle to create the vacuum in the pump. Fluid will be suctioned into the collection jar. The squeezing action of the trigger will become harder when the container is filled or if the catheter is clogged. Once suctioning is finished, remove the tube slowly from the patient. Unsnap the filled collection jar and catheter from the pump handle. Place filled jar and tubing into the poly bag and dispose of appropriately. If required, place label on the container for transportation to the laboratory.

2. To adjust the stroke of the handle, turn the adjustment stroke knob clockwise at 90°. Select the proper vacuum according to the indication symbol.

Caution: If the pump handle becomes difficult to operate, a blockage may have occurred. Do not continue suctioning until the source of the blockage has been determined. Remove the blockage from the catheter, adapter, or cap.

3. MAINTENANCE

The **FERNO MVP** requires no special maintenance or storage conditions.

4. TECHNICAL SPECIFICATIONS

Vacuum after 1 minute at 20kPa vacuum:	≥ 15 kPa
Vacuum after 6 times suction:	≥ 20 kPa
Vacuum (max):	≥ 39.9 kPa
Disposable container volume:	300 ml
External diameter of cap (suction port):	17 mm
External diameter of catheter connection:	17 mm and 9 mm
Stroke Adjustment:	Turn to 50% or 100%
Operating environmental temperature:	-20° C to +50°C
Storage environmental temperature:	-40° C to +60°C
Height of container and external diameter of bottom:	130 mm and 70 mm
Net Weight:	230 grams

Performance values given are achievable under test conditions. They may vary during actual use.

5. CLEANING AND DISINFECTING

If the vacuum pump was contaminated, disinfect the pump and handle (by scouring with warm, soapy water, mild detergent, bleach solution, etc.) before placing into storage.

**** Do not immerse the pump unit in liquid.**

Caution: When suctioning with MVP avoid using the upside down position. When possible, maintain a semi-vertical position to minimize premature blocking of the valve.

Caution: Do not autoclave vacuum pump handle or its components. Autoclaving may result I device failure.

Basic Functional Test

It is important to check the pump function before returning it for use. Mount a a collection jar, obstruct the connection port with your thumb or palm, and squeeze the handle to check for the vacuum.

Warning and caution:

Read instructions before use. The FERNO2 MVP should be used by people with training in suction techniques. Never immerse the MVP in water or other liquids. The use of suction devices may require that appropriate infectious disease precautions be taken during use, cleaning of the device, and disposal of the tubing and collection jar (as per your protocol).

Federal law restricts this device to sale by or on the order of a physician.

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