

## Instruction Cum User Manual For **EP-30**





#### Dear Customer.

Congratulations on your excellent choice of ANAND's dual power suction unit. "EP-30" is an easy-to- use and easy-to-maintain suction unit of proven diaphragm pump (electrical) with reliable P-9 (Pedal). So it is universally acceptable in hospitals, private practice, surgical and gyncaecology.

#### **ASSEMBLY AND GENERAL INFORMATION**

Motorized and manual pumps are housed in the cabinet. To fasten in the motorized pump well with the base, two black hexa bolts (used as holdfasts for transportation at the bottom of the unit) MUST be removed by rotating anticlockwise with the aid of a simple hand tool. On the platform is a safety jar with autoclavable filter which is the suction inlet. Before the unit is put on please see that;

- 1. The plug is connected to the grounded outlet.
- 2. The vacuum control knob is not loose. It must be fully tightened clockwise.
- The lids and tube are tightly placed on the jars. To avoid leakage the push-in and angular connectors must be inserted as far as the stop. While unplugging, twist and pull. The tubing should be without any kinks

#### **ATTENTION**

Always turn the power off with the power switch after job is complete or, in case of breakdown, in between the use.

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#### **TECHNICAL**

Housing MS Powder Coated, SS Top on two wheels

Max. Vacuum / LPM Electric 600 mm Hg, 45 Ltrs / min / Pedal 600mm Hg, 200 ml / Push stroke

Pump Type Electric - Diaphragm / Pedal - Piston

Jars 2 x 2 Ltr. PC Jar
Filter Bacterial Filter Autoclavable / Reusable

 Tubing
 10 mm ID x 2 mtr. (PVC)

 Vacuum Gauge
 6.25 cm dia 0-760 mm Hg

 Power Supply
 220 V AC, 50 / 60 Hz, 90 Watt

Noise Level 55 dB A ± 3

Dimensions 42 x 39 x 64 cms

Net Weight 15.5 Kg

Overflow Safety Dual Mechanical Optional 110 V on request

#### **VACUUM AT ALTITUDES**

The specified maximum vacuum refers to sea level. According to local conditions, and barometric pressure, slight deviations in vacuum reading may be noted. As a reference, the table below shows several factors by which the indicated maximum vacuum value must be multiplied, according to the altitude of location where the measurement is carried out.

#### Location / Maximum Vacuum

Location	Sea level	1000m	2000m	4000m
Factor	1.00	0.88	0.78	0.60

#### **New Development:**

Between the motorized pump mechanism and the suction jar, an autocavable safety jar with antibacterial filter (element replaceable) has been added.

#### **GUIDELINES FOR USE**

No lubrication is required.

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Apart from the holding over-flowing splash droplets it filters the evacuated air before it enters the pump and thereby infects the environment. For reasons of hygiene the filter paper must be changed each time the unit has been used and the housing cleaned /autoclaved.

**Negative Pressure:** Before the unit is put to use, required vacuum must be set by occluding the safety jar nozzle and controlling the release valve. Fully tightened (clockwise) vacuum control knob means full vacuum. Please note that when the unit is used manually, the user controls the vacuum by pedal.

**Pedal Unit:** Pedal unit P-9 is incorporated in the housing. The safety jar and release valve are only for electric system.

**Jars/Tubing:** The material of the jars polycarbonate (PC) is superior to glass. It is less fragile when subjected to impact and less sensitive to temperature shock. PC is resistant up to 120°c provided it is not subjected to any physical loading.

As the flow rate is high 3/4th filling of the jar is recommended. The lid has a built-in antifrothing device. The jars are easier to clean if a little water or disinfectant is put into it prior to suction operation. The safety jar must, however, remain dry.

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## Instruction Cum User Manual For **FP-30**

#### CLEANING AND DISINFECTING:

The mechanical overflow cut off device in Jars will debar fluids from entering into the safety jar. However, splash droplets might enter the safety jar (which should always be dry) and which has another mechanical safety device fitted in the lid

After each use, jars, lids, overflow cut off valves, connectors, etc. should be cleaned thoroughly. When cleaning is necessary after infective fluid has been evacuated, the jars, lids, cut off valve, safety jar can be sterilized by autoclaving upto 120° C which is almost equal to 5 minutes boiling and tubing by some sterilizing solution e.g. chemical method: rinse disinfectants and gas. Alkaline cleaning agents and disinfectants based on phenyel may not be used. Please note that the PVC becomes brittle after some time and should be changed.

Adherence to hospital directives on hygiene is of prime importance. The instructions provided by the suppliers of cleaning agents as well as by the manufacturers of sterilization and/or disinfection units must also be followed, where application, temperature, process duration and airing, etc. are concerned.

#### **PUMP CLEANING (Electric)**

The unit fitted with Diaphragm type oil-free pump, provides reduced maintenance cost.

- A. Pull the safety jar (with filter on top), run the unit, and occlude the filter holder, 'On & Off'. If this exercise is done immediately after the fluid has entered the pump, the valves in the pump will be flutter-cleaned and pump will function normally. But if you dont get proper vacuum;
- B. Open the back plate of the unit and disconnect the tube from the inlet and outlet points on the pump housing.
- C. Unscrew the 4 hexa bolts from the bottom of the unit and take out the motorized pump fitted on (and together with) the platform.
- D. The fly valves are fitted in the top which can be opened. The valve and sieve are alternately fitted one upon the other in the two nozals making one for vacuum and the other for outlet. The diaphragm is fitted below the top plate and over the eccentrically rotated came. Just wipe clean these parts and set the unit again.
- E. If worn out the fly valves can be changed. Please run the unit and see its satisfactory functioning before the motorized pump is put in place and back plate is screwed up. Unlike the rotary design, NO LUBRICATION IS REQUIRED IN THIS PUMP. The unit has not to be tampered with by any mechanic other than our factory engineer, or the person authorized.

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#### **TERMS OF WARRANTY**

Anand Medicaids Private Limited warranty the high quality and workmanship of each Anand's EP-30 for a period of one year subsequent to the date of delivery by the company. During this period, faulty material will be replaced free of charge. This warranty does not extend to components that are subject to wear and tear in the course of normal operation or due to improper treatment/maintenance as per instructions. Further conditions in accordance with international standard IEC 601.1 item 6.8.2b. The manufacturer is only responsible for effects on the safety, the reliability and the performance of the appliance if;

Installation, additions, adjustments, modifications or repairs are carried out by personnel authorized by the manufacturer.

The electrical installations within the room concerned satisfy the requirements laid down by IEC.

The appliance is used in full accordance with the instruction manual which is solely a guide and no substitute for professional training. The safe and effective use of this product largely depends on the skill of the operator. We are not liable for any damages due to mishandling or improper and unauthorised use.

The company reserves the right to change technical specifications, designations and catalogue numbers without prior notice.

### CAUTION 1

Ensure that your electrical wirings are well earthed with 1 line and 1 neutral phase and voltage is between 220 V – 230 V, 50 hz. : for electric suction units only

Ensure the suction unit should not be lifted above human body level

Dispose of used products/packaging in safe manner so as not to harm stray cattle, children and environment.

# WARRANTY CARD Model No. SN Date of Purchase: Dealer Name: ANAND MEDICAIDS PRIVATE LIMITED

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(Regd. Office) 33/16, Punjabi Bagh (Extn.)

Tel: + (91) - (11) - 25225225 / 25229206 / 42464264 Fax: + (91) - (11)-25225062, E mail: sales@anandind.com (Works) 1460 M.I.E., Bahadurgarh, Haryana -124507, India

New Delhi - 110026, India