
CLEMENTS

proven through performance

Pedal Operated High Vacuum High Flow Suction Pump

SUC 82010

SUC 82012



User Manual

Manual No. SUC 91005 449
Issue 10

Safety

Thank you for purchasing this Clements Pedal Operated High Vacuum High Flow Suction Pump.

For your safety it is imperative that this unit only be operated by authorised personnel in accordance with the instructions as described in this manual. Operated in this way, the Pedal Operated High Vacuum High Flow Suction Pump will provide years of service.

Due to continual improvements in product design, the Pedal Operated High Vacuum High Flow Suction Pump may vary in detail from the descriptions in this manual. In the event of further questions please contact your local distributor or BMDi TUTA Healthcare direct.

User Manual

Pedal Operated High Vacuum High Flow Suction Pump
Manual Number SUC 91005 449 Issue 10

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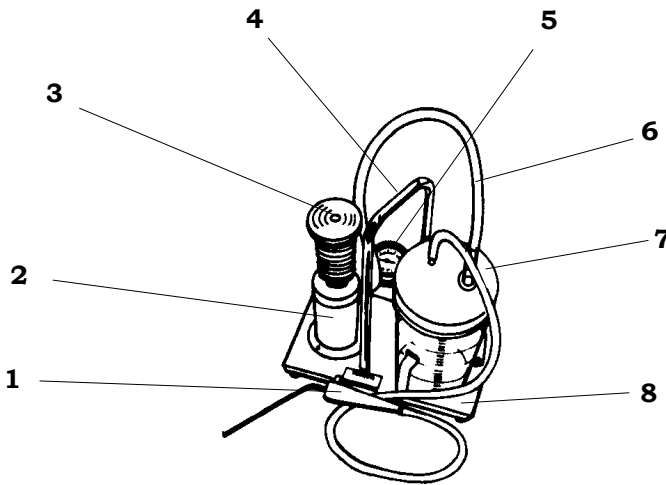
This manual applies only to the following models of the Clements
Pedal Operated High Vacuum High Flow Suction Pump

SUC 82010	Standard Suction System
SUC 82012	Obstetric Suction System

Description

The Clements Pedal Operated High Vacuum High Flow Suction Pump is a portable, manually operated pump with vacuum gauge and fluid collection jar, providing suction where electricity is not available. The Clements Pedal Operated Obstetric Suction System is also available to assist in obstetric deliveries and pharyngeal suction of the mother. Robust construction gives reliable operation and long service life. Maintenance requirements are low and may be carried out with basic tools. The supplied handpiece with auto-shutoff finger valve maintains a vacuum charge and permits convenient intermittent rather than continuous manual pumping.

Main Components of Unit



- | | | | |
|---|-----------------|---|--------------|
| 1 | Metal Handpiece | 5 | Vacuum Gauge |
| 2 | Pump Cylinder | 6 | Tubing |
| 3 | Foot Plate | 7 | Bung and Jar |
| 4 | Handle | 8 | Base Plate |

Specification

Model Number	Suction System Type
SUC 82010	Standard Suction System
SUC 82012	Obstetric Suction System

Manual Requirement	24 consecutive pump strokes to achieve a minimum of -80kPa or -600mmHg
Vacuum Range	0 to at least -80 kPa 0 to at least -600 mm Hg
Peak Flow Rate	32 Litres of Free Air Per Minute (FAPM)
Pump	Piston valve mechanism
Collection Container	2 litre autoclavable, shatter resistant, polycarbonate jar with self-sealing polypropylene bung
Overfill Protection	Float valve mechanism
Gauge	Bourdon Tube type; Dual Scale, graduated in kPa and mm Hg
Gauge Range	0 to -100 kPa graduated at 5 kPa 0 to 760 mm Hg graduated at 20 mm Hg
Standards	AS 2120.2 - 1992
Packed Dimensions	Height 36 cm, Width 19 cm Depth 33 cm Volume 0.023 m Weight 3.8 kg

Installation and Operation

Installation

The Clements Pedal Operated High Vacuum High Flow Suction Pump is supplied with:

- 1x 2 litre Collection Jar with Bung Assembly
- 1x Metal Handpiece SUC 80350
- 1x 2.0m length of Suction Tubing for model SUC 82010
- 1x 2.0m length of Silicone Suction tubing for model SUC 82012
- 1x 320mm length of Suction Tubing for connecting from the pump inlet to the Collection Jar Bung
- Set of 3 Obstetric Cups (40mm, 50mm, 60 mm) for model SUC 82012

WARNING

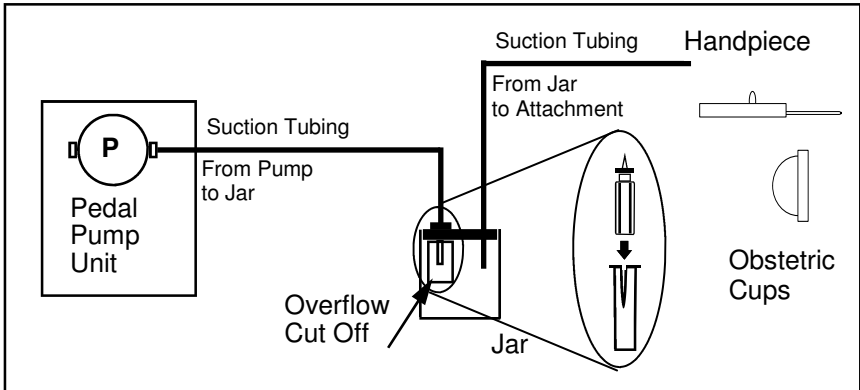
This unit can generate very high vacuums. It must not be used for applications which require low vacuum.

Always check patient requirements before applying the Clements Pedal Operated High Vacuum High Flow

For applications which require low vacuum please contact your distributor for information about the Clements Low Suction range of products.

Connecting The Collection Jar

Connect the Collection Jar according to the block diagram below. Prior to using the unit, always check the Bung and Suction Tubing. Ensure that they fit tightly to avoid loss of



Operation

To Operate the Pump, follow the steps listed below.

1. Install the Collection Jar and Suction Tubing as previously described.
2. Pump the unit to the desired vacuum. (24 times will achieve a minimum of -80kPa or -600mHg.)
3. Check that there is no loss of vacuum in the tubing and fittings. There will be slight loss of vacuum over time.
4. Check the gauge to ensure that the desired suction setting is being achieved.

Please Note:

- Although the Collection Jar is fitted with an Overflow Cut Off Valve, the fluid level should be monitored to prevent spillover into the pump unit.

Accessories and Spares

Accessories

SUC 80150	Set of 3 Obstetric Cups (40mm, 50mm, 60mm)
SUC 80151	40 mm Obstetric Cup with Puller
SUC 80152	50 mm Obstetric Cup with Puller
SUC 80153	60 mm Obstetric Cup with Puller
SUC 80154	Set of 3 Posterior Obstetric Cups (40mm, 50mm, 60mm)
SUC 80155	40mm Assembled Posterior Obstetric Cup
SUC 80156	50mm Assembled Posterior Obstetric Cup
SUC 80157	60mm Assembled Posterior Obstetric Cup
SUC 80297 001	Yellow Medical Suction Tubing (20 metre roll)
SUC 80301	2 litre Collection Jar for Suction Pumps (Jar Only)
SUC 80350	Metal Handpiece with Finger Valve and Rose Nipple
SUC 84200 033	Bung Assembly with Overflow Cut Off Valve for 2 litre Collection Jar
SUC 91005 449	User Manual for Pedal Operated Suction Pump
SUC 91005 454	Technical Information for the 2 litre Collection Jar with Self-Sealing Bung

Spare Parts

MUL 81500 037	Base Pads
MUL 91000 576	Silicon Suction Tubing
SUC 80151 001	40 mm Obstetric Cup
SUC 80151 002	50 mm Obstetric Cup
SUC 80151 003	60 mm Obstetric Cup
SUC 80330	High Vacuum Gauge 0 to -100kPa
SUC 81000 026	Washer for Overflow Cut Off Valve
SUC 82010 030	Pedal Spring for Pedal Operated Suction Pumps
SUC 82010 033	Rubber Cover for Pedal Spring in Pedal Operated Suction Pumps
SUC 82010 036	Valve for Pedal Operated Suction Pumps
SUC 82010 051	Pedal Rubber
SUC 82010 054	Oil Seal for Pedal Operated Suction Pumps
SUC 82010 073	Leather Piston for Foot Valve
SUC 82010 079	Cylinder Barrel for Foot Valve
SUC 82010 080	Rubber Boot for Foot Valve
SUC 84200 501	Seal for Collection Jar Bung (Set of 2)
SUC 84200 502	Suction Inlet Nipple for 2 litre Jar Bung (Set of 4)
SUC 84200 503	Overflow Cut Off Valve Assembly (Set of 2)
SUC 89140 006	Large Diaphragm

Maintenance

To keep your Clements Pedal Operated Suction Pump in good condition, the following maintenance is recommended.

After Each Use

- **Housing**
Wipe clean with a damp soapy cloth. Do not immerse or allow liquid to enter the housing.
- **Suction Tubing**
Suction tubing should be sterilised with sterilants determined by local protocols and compatible with PVC tubing. Suction tubing may be autoclaved to a maximum of 121°C for 20 minutes. At higher temperatures the Suction Tubing will discolour and lose shape.
- **Collection Jar**
Place jar upright or up-side-down in autoclave: **not on it's side**. Autoclave to a maximum of 136°C for 10 minutes. Do not use phenolic solutions as disinfecting agents in polycarbonate jars. See Technical Information sheet SUC 91005 454 for a list of cleaning agents compatible with the 2 litre collection jar.
- **Bung**
Disconnect float cage and float from Bung. Place all items upright or up-side-down in autoclave: **not on their sides**. Autoclave all items to a maximum of 136°C for 10 minutes.

Note: Do not use abrasive cleaning agents as this may damage plastic surface finishes and reduce the expected performance of an item.

Every 3 Months

1. Add several drops of oil onto the piston shaft.

Troubleshooting

Fault	Check	Rectify
No Suction	Tubing Blocked	Clear or Replace
	Overflow Cut Off Valve Closed	Clear, Replace or Empty Jar
	Inlet Blocked	Clear
	Vacuum Gauge Blocked	Replace Vacuum Gauge
	Bung Not Sealing	Adjust or Fit New Seal
	Piston Seal	Oil or Replace
	Oil Seal	Clean or replace
Piston Jammed	Out of alignment	Disassemble and adjust or replace
	Obstruction	Disassemble and clean or replace
	Cylinder damage	Replace

Notes

Notes

Warranty

BMDi TUTA Healthcare Pty Limited ("BMDi TUTA Healthcare") warrants that this product is free from defects in workmanship and materials for a period of 12 months from the date of shipment by BMDi TUTA Healthcare or its authorised agent to the purchaser. Subject to the conditions of this warranty, if the product fails to operate for any reason within the warranty period and the product is returned to the place of purchase at the purchaser's expense, BMDi TUTA Healthcare will repair or replace the product free of charge.

If a valid warranty claim is made within 30 days from the date of shipment, then BMDi TUTA Healthcare will also reimburse the purchaser for reasonable freight costs in returning the product to the place of purchase.

Conditions of Warranty

1. The product must be returned to the place of purchase with proof of purchase.
2. This warranty is only available to the original purchaser of the product.
3. The product must not have had its serial number removed, defaced or changed, its casing opened, its power supply altered or have been tampered with in any other way.
4. This warranty does not cover :
 - inadequate or incorrect site preparation;
 - improper installation;
 - connection to the wrong voltage;
 - failure of the product due to misuse;
 - the use or operation of the product outside of the physical, electrical or environmental specifications of the product;
 - use in a manner or environment in which the product is not designed to be used;
 - improper adjustment, calibration or operation by the purchaser;
 - the use of accessories including consumables, hardware or software which were not manufactured or approved in writing by BMDi TUTA Healthcare;

- any modifications of the product which were not authorised in writing by BMDi TUTA Healthcare;
 - any contamination or leakages caused or induced by the purchaser; and
 - inadequate or improper maintenance of the product.
5. This warranty does not cover normal wear and tear.
 6. BMDi TUTA Healthcare will not be responsible for damage or loss caused during shipping.
 7. In Australia, apart from any warranties implied by the Trade Practices Act 1974 all other warranties expressed or implied and whether arising by virtue of statute or otherwise are hereby excluded.
 8. Outside Australia, all other warranties expressed or implied and whether arising by virtue of statute or otherwise (including any warranties implied by the Vienna Convention) are hereby excluded.
 9. BMDi TUTA Healthcare' obligations under this warranty are limited to the repair or replacement of the product, within the terms of this warranty and the total liability of BMDi TUTA Healthcare for loss or damage of every kind whether arising pursuant to the terms of the sale of the product or otherwise in connection with the product is limited to the amount paid by the purchaser to BMDi TUTA Healthcare for the product.
 10. Apart from any liability imposed by Part VA of the Trade Practices Act, BMDi TUTA Healthcare accepts no other liability for any loss or damage occasioned (including consequential loss or damages) in any way as a result of the use of the product.
 11. The warranty does not extend to cover damage to the following parts as they are inherently prone to wear :
 - motor brushes
 12. This warranty does not extend to cover corrosion due to any cause nor to any damage to painted or anodised surfaces.
 13. BMDi TUTA Healthcare will give the purchaser the benefit of any manufacturer's warranty in respect of any components in the product which were not manufactured by BMDi TUTA Healthcare, if such a manufacturer's warranty is available.

