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Certificate Number FM 37970

PIPELINE SUCTION UNIT

The function of the Pipeline Suction Unit is to provide a controllable Suction level from a Piped Vacuum supply.

There are three types available:

High Suction	-	Vacuum 0 to –625mmHG
Low Suction	-	Vacuum 0 to –150mmHG (Relief Valve set at –180mmHG)
Thoracic Suction	-	Vacuum 0 to –40cmH2O (Relief Valve set at –45cmH20)

The unit should be operated and stored in a dry clean environment within the temperature range of -10°C to +40°C.

USER INSTRUCTIONS

1. Unpack the Controller from the packaging
2. Push the Controller Probe into the Yellow Vacuum Wall Outlet.
3. Push the Suction Tubing over the coned end of Pipeline Protector Bowl at the bottom of the unit, ensuring that a good fit is achieved, and that the tubing cannot come loose.
4. Turn the unit on using by moving the On/Off Tap on the side of the unit 180° so that the green ON is showing.
5. The level of vacuum required can then be adjusted by turning the Control Knob on the top of the unit. (Increase – clockwise; Decrease – anti-clockwise).
6. To pre-set the vacuum level before use, occlude the Suction Tubing between the Controller and the Receiver Jar. Turn the Control Knob until the required level of suction reads on the gauge at the front of the unit. The Suction Unit should be turned off however will apply vacuum level set the next time the unit is switched on.
7. The unit should be switched off by moving the On/Off Tap on the side of the unit back to the red OFF position whenever not in use.

High/Low Suction controllers should not be used for continuous drainage.

The Pipeline Suction Unit should only be used by persons who have received adequate instructions in its use.

It is the responsibility of the end user to ensure that the correct unit and vacuum level is selected. Therapy Equipment accepts no responsibility for the selection of an incorrect unit or vacuum setting

PIPELINE PROTECTORS

The Pipeline Protector is a complete plastic bowl fitted to the bottom of a High and Low Suction Controller. The unit is supplied complete with a Hydrophobic Filter that automatically shuts down the Suction Controller when the filter comes into contact with fluid, thereby giving 100% protection against possible contamination of the Vacuum Pipeline.

The Pipeline Protector should be changed immediately if the filter becomes wet or discoloured. It is also recommended that the Pipeline Protector be changed routinely as follows:

High Usage Area i.e. Theatres, HDU etc.	-	Every 3 months
Low Usage Area i.e. Wards etc.	-	Annually

The Pipeline Protector is changed by turning the plastic bowl in an anti-clockwise direction until the bayonet mechanism releases. The entire plastic bowl complete with filter should be disposed of and replaced with new. The new Pipeline Protector should be fitted by lining up the 'lugs' on the Bowl with the mating sections of the underneath of the Suction Unit, and turning in a clockwise direction until the bowl is locked into place.

Spare Pipeline Protectors - Part No. 4900 (Pack of 10)

DUE TO FLOWRATE RESTRICTIONS THE PIPELINE PROTECTOR SHOULD NOT BE FITTED TO THORACIC SUCTION CONTROLLERS.

CLEANING INSTRUCTIONS

The Pipeline Protector fitted to each unit will protect the unit from becoming contaminated with any fluid. Apart from external cleaning with a 5% Alcohol Solution no cleaning/sterilisation is required.

RECEIVER JARS

A Suction Receiver Jar Assembly should always be used in conjunction with Suction Controllers. Whilst Therapy Equipment supplies its own Receiver Jar system, the Suction Controllers can be used with any manufacturer's Jar System, including Disposable Liner Systems. Standard Receiver Jars can be used with High and Low Suction Controllers, however more specialist Drainage systems are required for use with Thoracic Suction Controllers to maintain the very low levels of Suction being applied.

TECHNICAL SPECIFICATION

The range of Pipeline Suction Equipment manufactured by Therapy Equipment Ltd fully conforms to ISO 10079-3.

Inlet Connection	-	Direct British Standard Vacuum Probe Or 9/16 UNS Male Connector Or 1/8" Female Connector		
Outlet Connection	-	6.4mm Male – Tapered		
Constitutional Materials	-	External Components	-	Polycarbonate
		Internal Metal Components	-	Brass/Stainless Steel
		On/Off Tap	-	Polysulphone
Flowrates	-	High Suction Unit – 35LPM @ -80 kPa Low Suction Unit – 25LPM @ -20 kPa Thoracic Suction Unit – 15LPM @ -7 kPa		

Unless specifically supplied, the Suction Controller contains magnetic parts, and is therefore unsuitable for use in a MRI suite. MRI Compatible Suction Controllers are available.

RISK ANALYSIS

RISK	RISK ANALYSIS	ACTION
Faulty Gauge	Suction Controller indicating wrong vacuum	• Return to the Hospital Department responsible for maintenance or Manufacturer
Relief Valve on Thoracic or Low Suction Malfunctions	Too high vacuum maybe applied to the patient	• Adjust the controller up to the full, and ensure that the relief valve is functional, before connecting to the patient.
Pipeline Protector malfunction or has been contaminated	Suction Controller will not function or if Pipeline Protector becomes contaminated will cease to function	• Ensure adequate safeguard against contamination of Controller • Ensure that the new Pipeline Protector is functional if contamination has occurred.
Breakage of On/Off Tap	If Tap is in Off Position the Controller will not function If Tap is in On Position the Controller can be turned off be means of the Control Knob	• Visual Inspection to ensure that the Suction Controller is not damaged • If damaged return the unit to the Hospital Department responsible for maintenance or Manufacturer

PREVENTATIVE MAINTENANCE

Whilst the Suction Controllers are supplied with a Lifetime Function Warranty (7 years), the unit should be included in an annual service inspection.

- The unit should be wiped with a 5% Alcohol Solution to clean.
- A check for leakage as follows:
  1. Turn Suction Controller on and adjust Control Knob to maximum
  2. Occlude Pipeline Protector/Filter Jar outlet and wait for full vacuum (in excess of –500mmHG) to register on gauge.
  3. Adjust Control Knob to minimum.
  4. The gauge should not drop showing the unit is leak tight (A drop over the complete scale on Low and Thoracic Controllers taking 30 seconds or more is acceptable)
- A check for function/flowrate as follows:
  1. Turn Suction Controller on and adjust vacuum to maximum
  2. Occlude Patient outlet on Receiver Jar and ensure that a vacuum of –400mmHG (High Suction) or –150mmHG (Low Suction) is registered within 4 seconds.
- The Pipeline Protector (Part No. 4900) should be regularly changed. The frequency of the change depends on hospital policy however we recommend every 3 months in a high usage area e.g. Theatre and annually in a low usage area e.g. Wards.

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