INSTALLATION MANUAL

Spittoon Drain Valve (1PH)

C-021960 – Post Box Mount & C-021974 – Universal/Floor Box Mount

CONTROL SPECIFICATIONS

Power:	24V AC/DC 50/60Hz 0.2A 5W
Output:	24VAC 5W
Flow Rate:	3l/min
Working Temp:	+5ºC to +35ºC
Insulation:	Class I
Device:	Type B
Operation:	Intermittent operation
Dimensions:	Post Box Mount 180mm (H) x 93mm (L) x 47mm (W) Universal/Floor Box Mount 180mm (H) x 100mm (L) x 110.7mm (W)
Protection:	**Type B** **Normal (Liquid) Protection against direct or indirect contact.**

RISKS

Electrical Shock – 24V AC/DC can cause harm.

HAZARDS

Waste fluids in the dental suction pipeline and exhaust air emitted by the suction unit are contaminated.

Appropriate personal protective equipment (PPE, such as gloves, mask and eye protection) MUST be worn.

IMPORTANT NOTE

To comply with regional electrical standards the wiring required for the installation of this item must be performed by a suitably qualified and licensed electrical contractor.

INTENDED PURPOSE

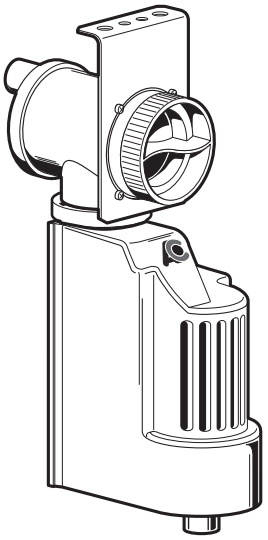
The intended purpose of Spittoon Drain Valve is to divert waste fluid from the drain of the spittoon/cuspidor bowl into the dental vacuum pipe work system from post box or floor box location.

C-021960 Spittoon Drain Valve (Post Box mount)

This item has a breather that vents to atmosphere and needs to be installed with the vent tube as high as possible (close to the height of the drain of spittoon bowl).

C-021974 Spittoon Drain Valve (Universal/Floor Box mount)

This item has a breather that recirculates back into the vacuum line – hence making for an easier installation in the floor box as there is no need to run the breather tube up into the post box to gain the necessary height. Therefore, this model can be fitted in either the floor box or post box of the dental chair. This model also includes two different mounting brackets to suit either form of installation.

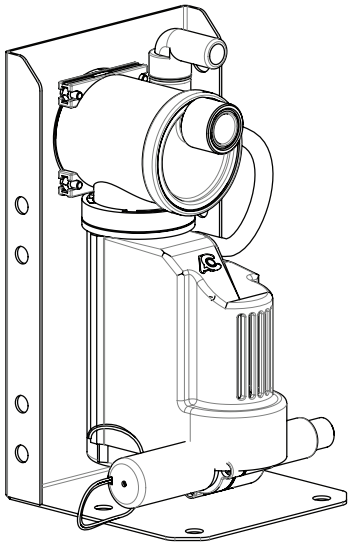


PRODUCT OVERVIEW

Items supplied with the Spittoon Drain Valve

C-021960 Spittoon Drain Valve (Post Box mount)

1.5m	Clear Vinyl tubing
1m	11mm Black spiral tubing
2x	Adapter for EP Valve to 40mm DWV PVC pipe
2x	25mm connector

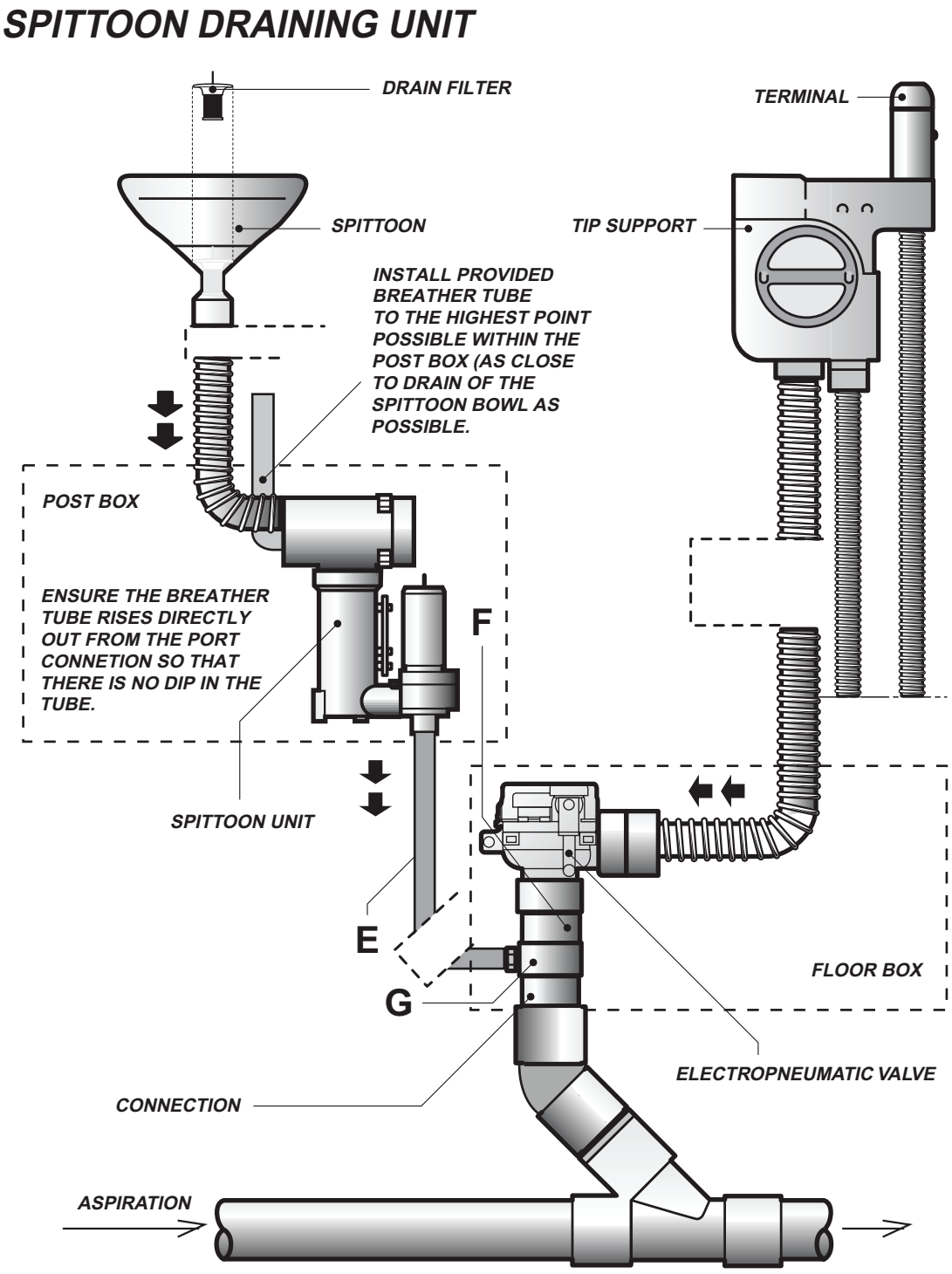


C-021974 Spittoon Drain Valve (Universal/Floor Box mount)

1.5m	Clear Vinyl tubing
1.5m	11mm Black spiral tubing
2x	Adapter for EP Valve to 40mm DWV PVC pipe
2x	25mm connector
2x	Cable ties

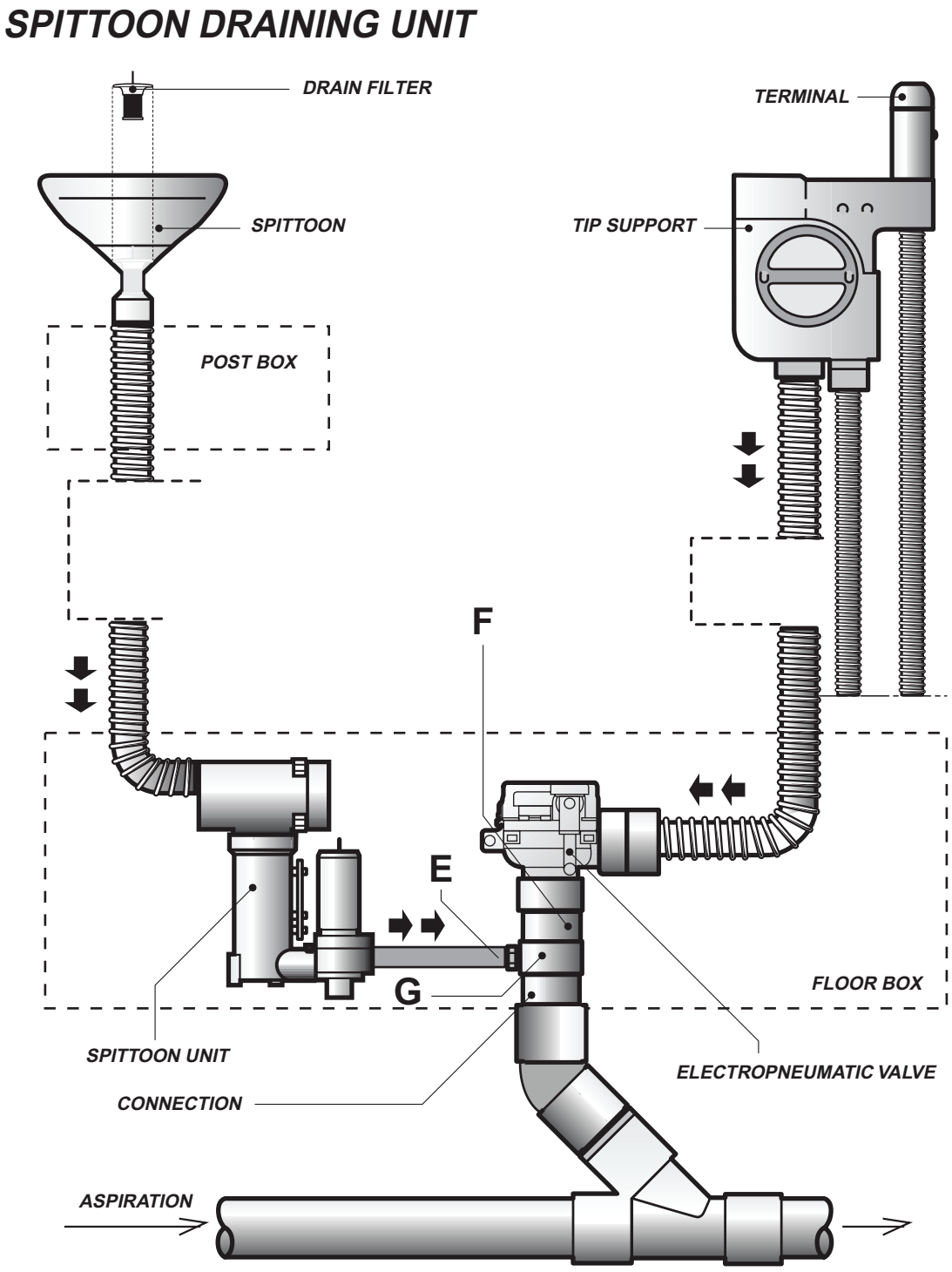
SCHEMATIC DIAGRAM

Representation of Spittoon Drain Valve connection C-021960 Post Box Mount

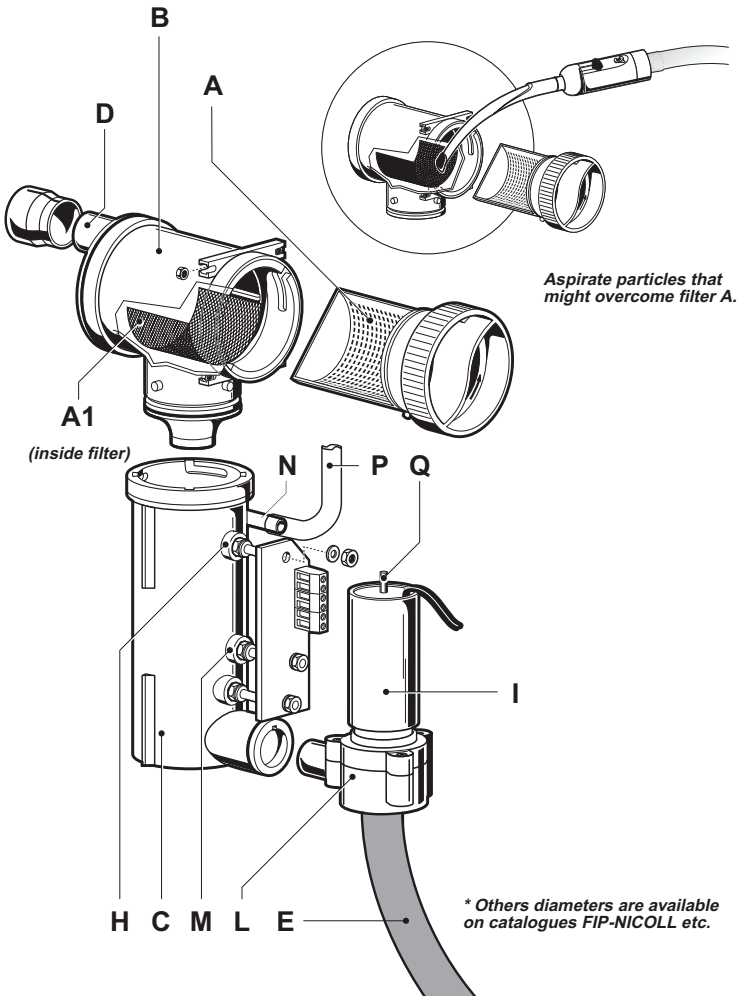


SCHEMATIC DIAGRAM

Representation of Spittoon Drain Valve connection C-021974 Universal/Floor Box Mount



OPERATION



Fluid coming from the spittoon enters the filter housing **(B),** passes through the inlet filter and then enters the chamber **(C).** When fluid reaches the high-level sensing probe **(H),** the solenoid **(I)** opens the diaphragm **(L),** energises a relay which activates the suction system. The vacuum evacuates the fluid from the chamber **(C).** When fluids fall below the middle level sensing probe **(M),** the solenoid **(I)** closes the diaphragm **(L),** whilst the suction system continues to run on for the predetermined time (adjustable from 10 – 120 seconds via the dip switch on the PCB).

WARNING:

The Spittoon Drain Valve rinse should be timed to approx. 20 seconds to ensure the vacuum line is not overcome by excessive volumes of fluid.

INSTALLATION

The Spittoon Drain Valve should be installed in a VERTICAL position within the dental unit using the brackets provided. It should be located in such a way that it is accessible for maintenance/filter cleaning.

The filter housing **(B)** can be rotated in four different positions (021960 only) in relation to the chamber **(C)** to allow flexibility to face the filter in an appropriate direction for proper access.

The drain tube of the spittoon connects to the tube holder **(D)** on the filter housing.

The outlet tube **(E)** connects to the vacuum line via the provided adaptor.

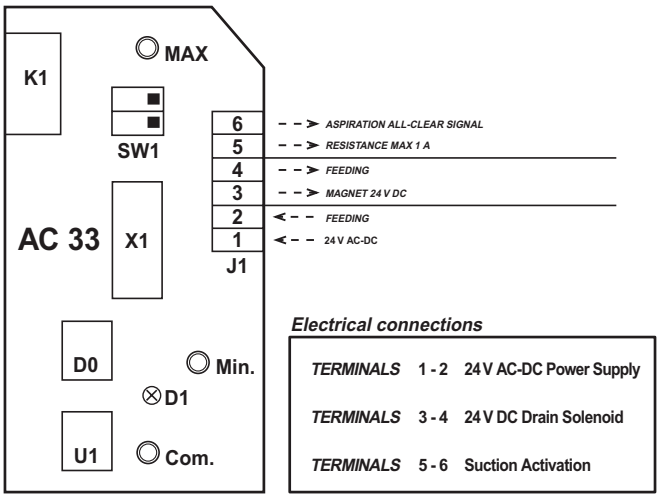
For model 021960, the breather tube **(P),** which vents to atmosphere, should be connected to the tube holder **(N).** The tube should face upwards, without any dips and terminate as high as possible within the post box (as close to the height of the spittoon bowl drain as possible). Due to unlikely circumstances (blockage, valve failure etc), depending on the height of the breather tube, it is possible for waste-water to leak out of the end of the breather tube by siphon effect. Ensure that the outlet of breather tube is not in the near vicinity of any electronic components of the dental unit.

For model 021974, the breather is internally connected to the vacuum line. The valve activates the vacuum pump as it senses fluid in the chamber. Due to the variables of the amount of fluid rinsing from the spittoon and the delay in vacuum arriving to the valve, it is possible for fluid to leak out of the breather due to siphon effect if the vacuum pump is not already active. It is highly recommended to test this operation and install a short length of tube (provided) to the breather connection.

ELECTRICAL CONNECTIONS

AC33 Spittoon Drain Valve Level Control PCB

AC 33 SPITTOON DRAINING UNIT LEVEL CONTROL



Electrical connections

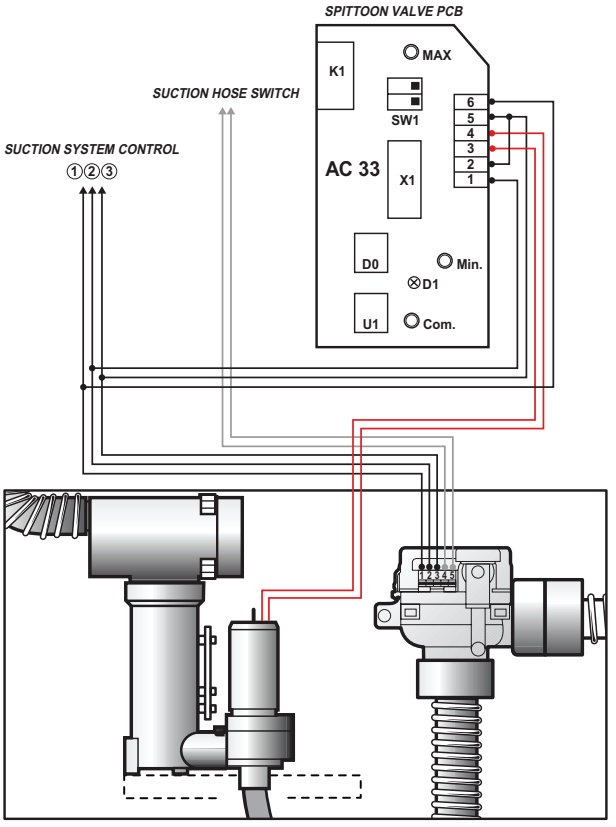
TERMINALS	1 - 2	24 V AC-DC Power Supply
TERMINALS	3 - 4	24 V DC Drain Solenoid
TERMINALS	5 - 6	Suction Activation

ELECTRICAL CONNECTIONS

3-Wire System (Remote 24V Supply)

Connection of Spittoon Draining Unit to Cattani Suction Units (24V supplied in suction unit or D-RS Switch Box)

CONNECTION OF SPITTOON DRAINING UNIT TO ELECTRICAL CONTROL PANELS, IN SEMI-WET AND WET ASPIRATION SYSTEMS FITTED WITH ELECTRIC-PNEUMATIC CONTROL PANELS AND WITH ONE OR MORE ASPIRATION UNIT



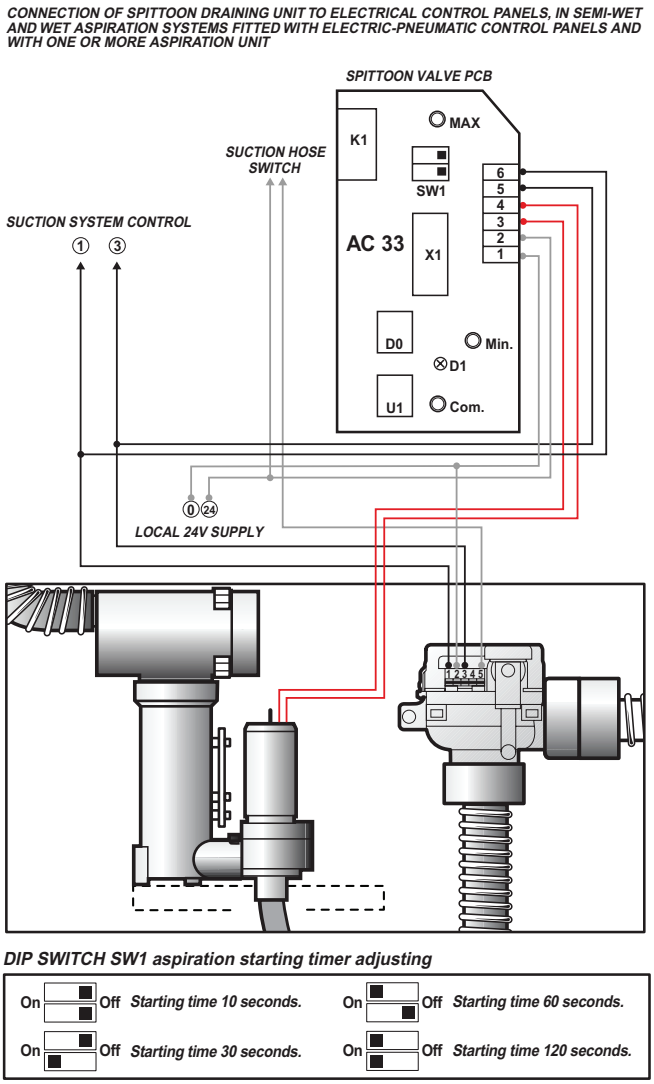
DIP SWITCH SW1 aspiration starting timer adjusting

On / Off	*Starting time 10 seconds.*	On / Off	*Starting time 60 seconds.*
On / Off	*Starting time 30 seconds.*	On / Off	*Starting time 120 seconds.*

ELECTRICAL CONNECTIONS

2-Wire System (Local 24V Supply)

Connection of Spittoon Draining Unit to Cattani Suction Units (24V supply in chair).



MAINTENANCE

Maintaining Spittoon Drain Valves and the Spittoon Tube: Best Practices and Protocols

Saliva, blood, debris and mucous can be flushed through the spittoon. Drain tube and spittoon drain valves also require proper maintenance to ensure the longevity of these valves preventing operational issues. It is important to mitigate the formation of biofilm and control bacterial growth, so it is essential to implement an Infection Prevention and Control Protocol using suitable and approved products.

Considering the Components of the Spittoon: Spittoon (Bowl), Tube and Spittoon Valve

After disinfection of the suction system, the remaining fluid in the Pulse Cleaner can be manually aspirated using the suction hose terminal. Alternatively, the remainder can be poured down the dental unit's spittoon to disinfect the drain tube and spittoon drain valve. PLEASE NOTE: The spittoon bowl requires additional cleaning/disinfecting measures, refer below.

Surface Disinfectant, Autoclavable Components and Tube/Valve Disinfection

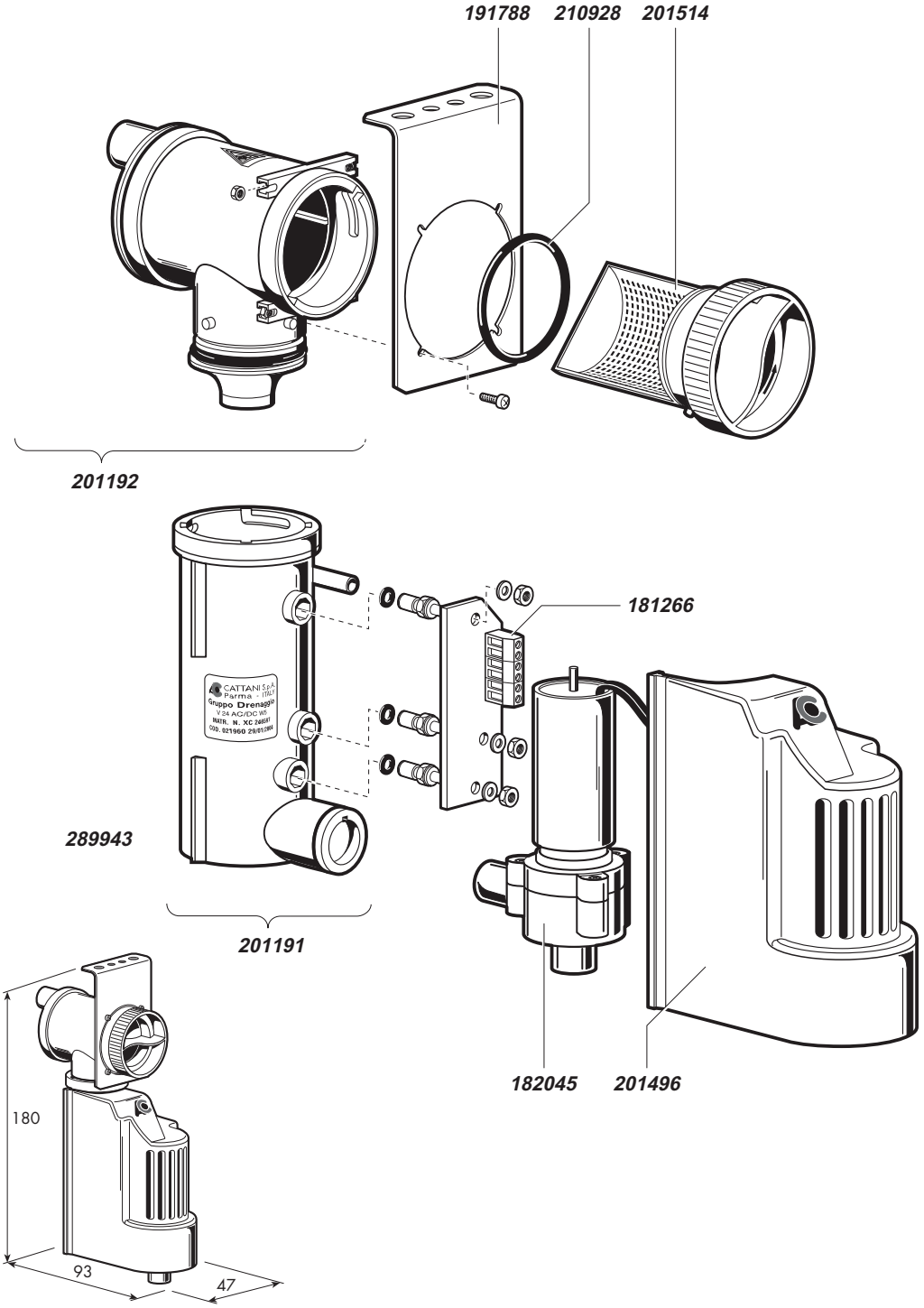
The spittoon bowl can be made of various materials depending on the manufacturer. **As such, the cleaning/ disinfection of the spittoon bowl should follow the dental chair manufacturer's instructions using an appropriate surface disinfectant or cleaner.**

FILTER MAINTENANCE

Remove the filter by turning anti-clockwise, being careful to avoid fluid dripping. Empty the contents of the filter in accordance with your clinic's procedure for disposing/recycling contaminated waste (contains amalgam waste), rinse the filter and replace.

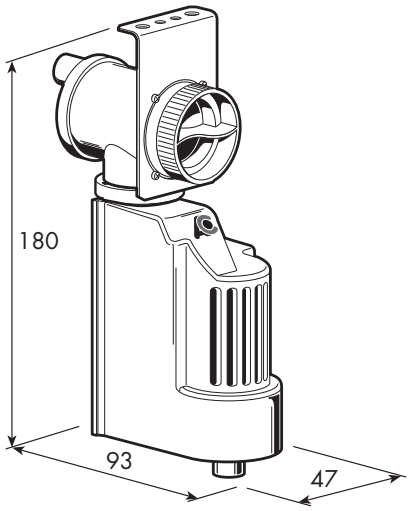
EXPLODED VIEW DIAGRAM

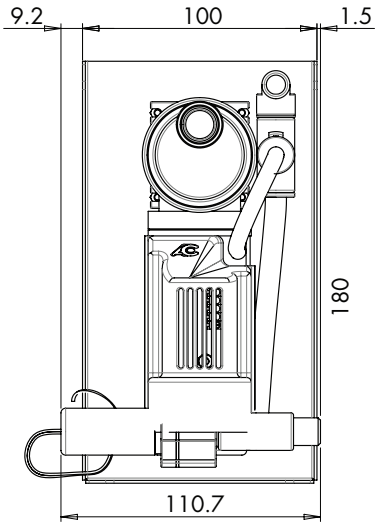
C-021960 – Post Box Mount

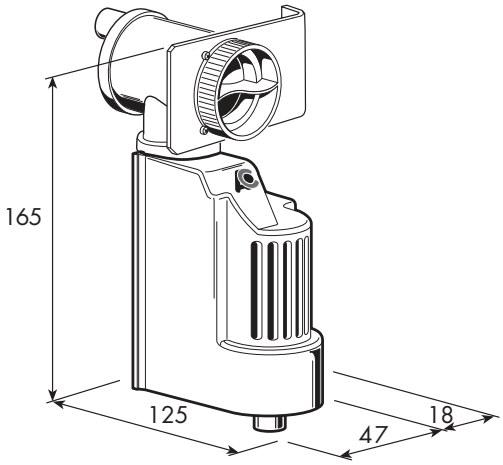


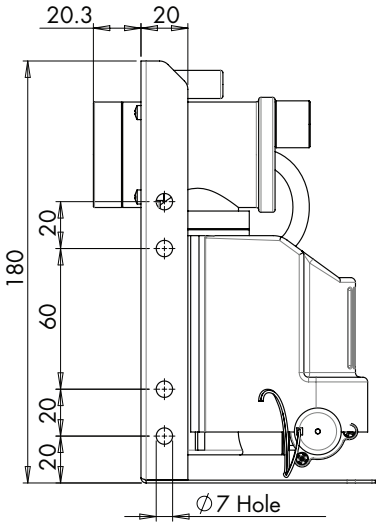
DIMENSIONAL DRAWING

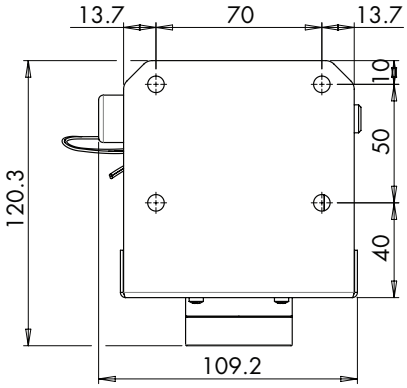
C-021960 – Post Box Mount

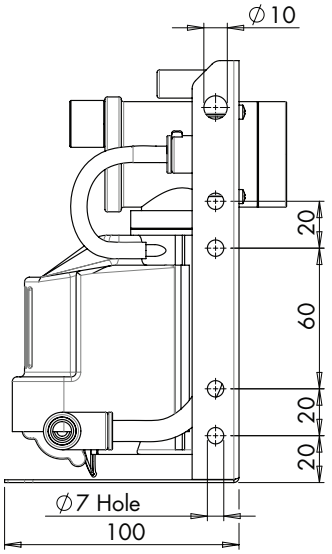






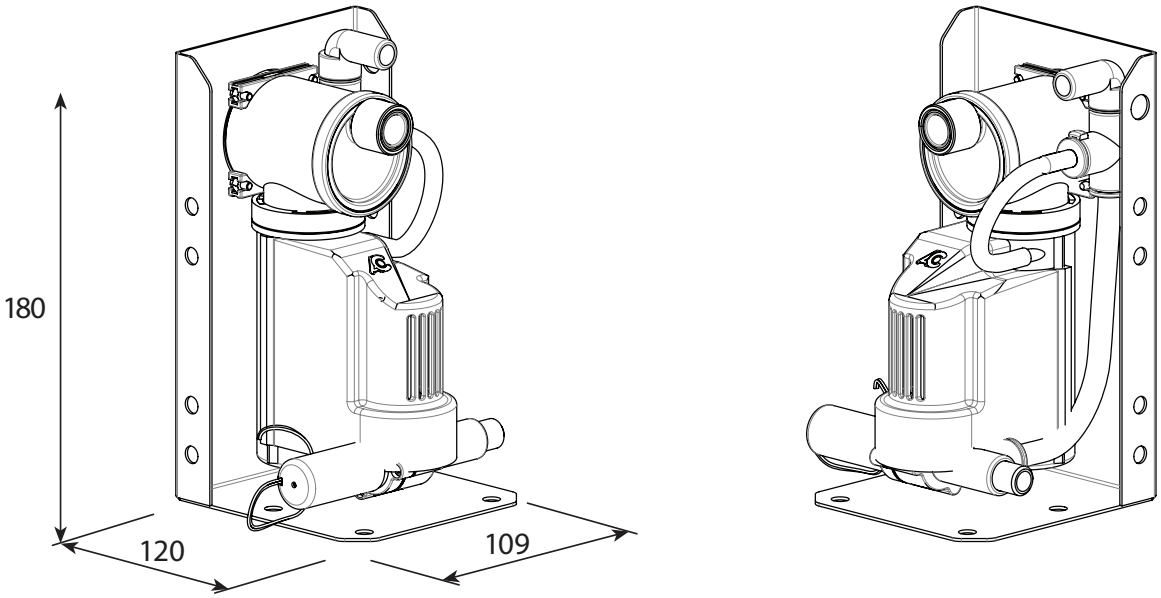






DIMENSIONAL DRAWING

C-021974 – Universal/Floor Box Mount



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