

# APS

ATLANTIC PURIFICATION SYSTEMS LTD.



## Innovation in Full Flow



## Qdos Pumps & Hach Analytical Equipment

Operation, Calibration & Preventative Maintenance Schedules



**WATSON  
MARLOW**

Fluid Technology Group

## Company Profile:

- Atlantic Purification Systems Ltd. is a family-owned business, successfully serving the municipal, industrial and commercial markets in Atlantic Canada since 1970. Representing quality manufacturers, APS provides and supports innovative solutions for water and wastewater (systems and analytical equipment), pumps and fluid handling, paint spray and sandblasting, industrial air & filtration, and wholesale water conditioning.

## Mission Statement

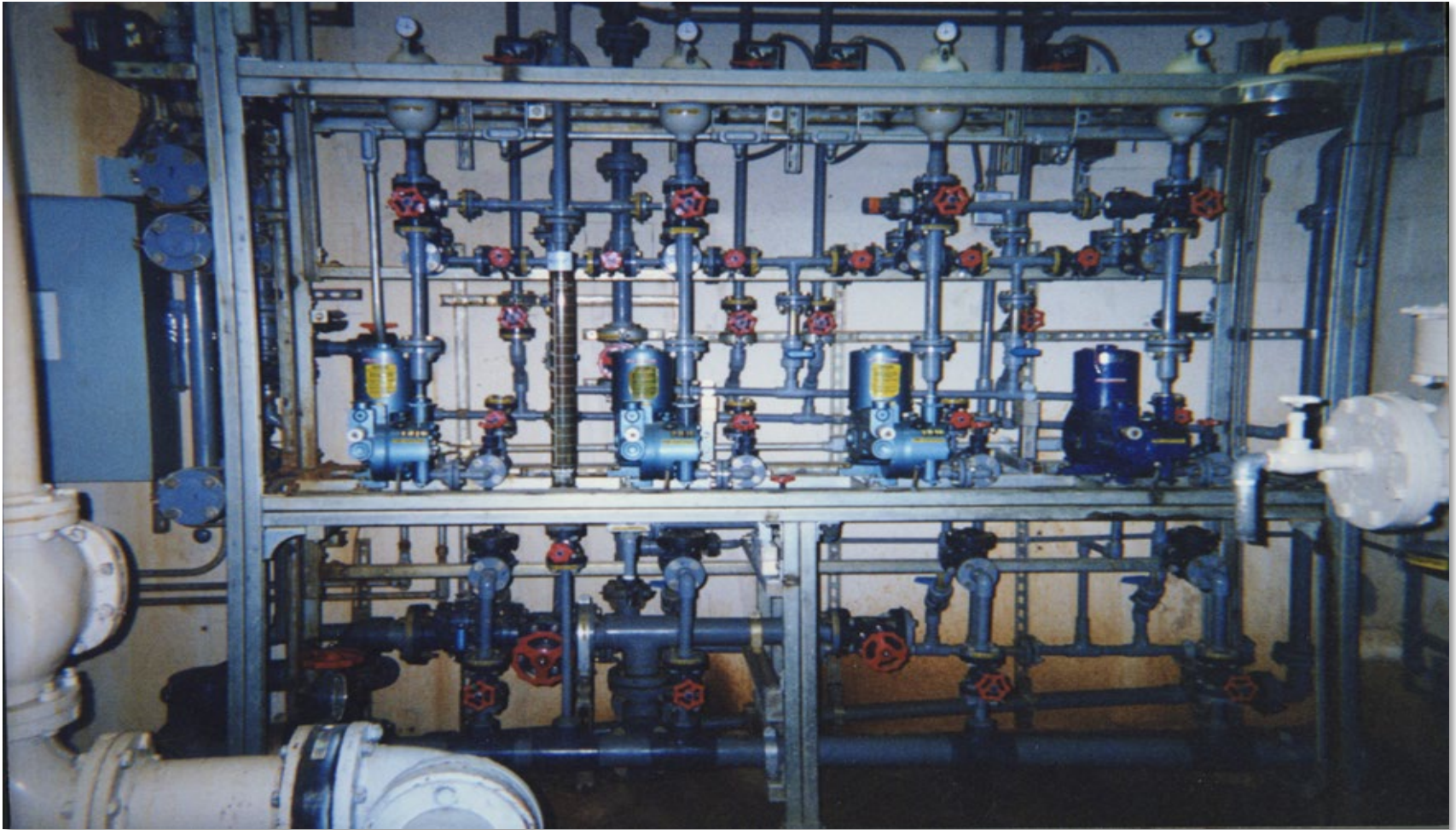
- Our mission is to honour a tradition of Quality, Integrity & Performance when serving the needs of our markets in Atlantic Canada. These guiding principles will continue to be the driving force behind the success of the company, its employees and the customers we serve.

# Qdos Series Peristaltic Chemical Metering Pumps



- Positive Displacement  
~ Peristaltic
- Cartridge Style Pumphead
- General Operation
- Maintenance
- Calibration

# Typical piping layout for a diaphragm pump



# Housekeeping – The Basics



- Tubing
  - Min lengths & widths
  - Straight
- Clean
- Set a schedule



# Qdos Series Calibration

Calibrations are only required for flowrate verification..... Obviously

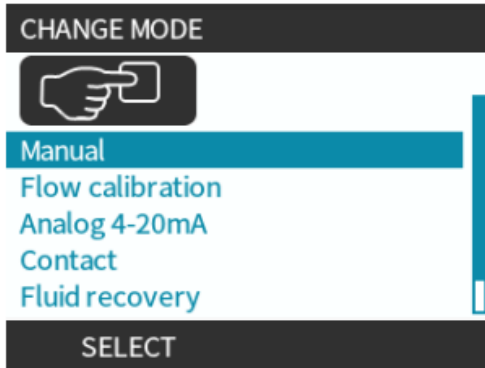
- After pumphead change
- After pipework modifications
- Periodically to maintain accuracy

**MODE > Flow Calibration > Set Flow > Pump a Volume > Enter Actual Volume Pumped**

# Calibration Procedure – Qdos Universal

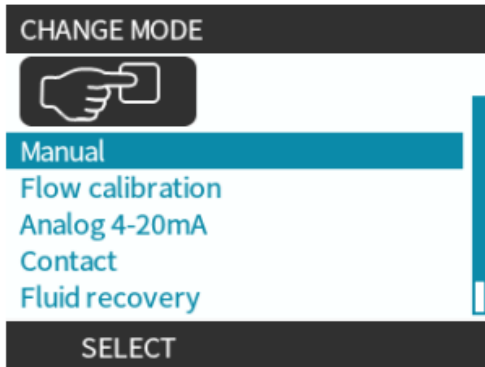
## Procedure

1. Press **MODE** key  
or  
Choose **Mode Menu** from **MAIN MENU**.



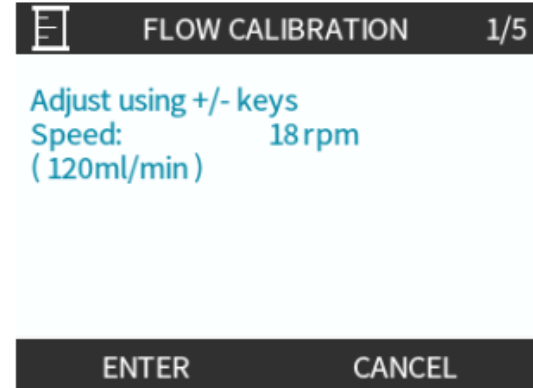
## Procedure

2. Use the **+/-** keys to highlight options.





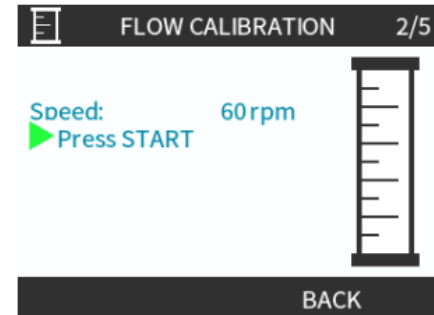
## Procedure

1. Highlight **Flow Calibration**
2. **SELECT** .



## Procedure


3. Use **+/-** keys to enter maximum flow rate limit.
4. **ENTER** .
5. Press **START**  to begin pumping a volume of fluid for calibration.

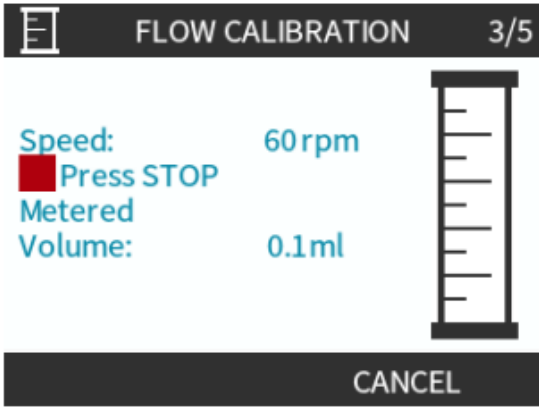



# Calibration Procedure – Qdos Universal



**Procedure**

5. Press **STOP**  to stop pumping fluid for the calibration.

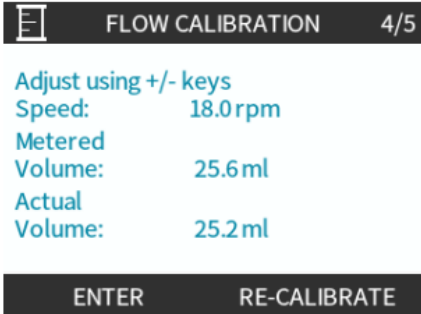


Speed: 60rpm  
Press STOP   
Metered Volume: 0.1ml

CANCEL

**Procedure**



6. Using the +/- keys enter the actual volume of fluid pumped.

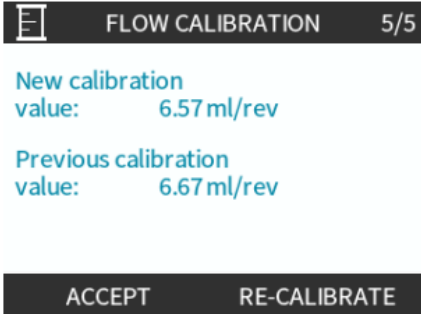


Adjust using +/- keys  
Speed: 18.0rpm  
Metered Volume: 25.6ml  
Actual Volume: 25.2ml

ENTER RE-CALIBRATE

**Procedure**

7. Pump now calibrated.  
8. **ACCEPT**   
or  
**RECALIBRATE**  to repeat procedure.



New calibration value: 6.57ml/rev  
Previous calibration value: 6.67ml/rev

ACCEPT RE-CALIBRATE

**Procedure**

9. Press **HOME** or **MODE** to abort.





# Hach CL17sc & TU5300sc – The Basics

## CL17sc vs. Legacy CL17



## TU5300 vs. Legacy 1720e



# Hach CL17sc - Calibration

The Hach CL17 / CL17sc does not require routine calibration. All units come factory calibrated for a lifetime of operation.

The CL17sc calibration curve is set at the factory for performance to specifications. User adjustment of the factory calibration curve is only recommended in two instances: if required by a regulatory agency for compliance reporting purposes or if a large repair of the analyzer is done.



# Hach TU5300sc Calibration

## Section 7 Calibration

### ⚠ WARNING



Chemical exposure hazard. Obey laboratory safety procedures and wear all of the personal protective equipment appropriate to the chemicals that are handled. Refer to the current safety data sheets (MSDS/SDS) for safety protocols.

The instrument is factory calibrated and the laser light source is stable. The manufacturer recommends that a calibration verification be done periodically to make sure that the system operates as intended. The manufacturer recommends calibration as local regulations require and after repairs or comprehensive maintenance work.

Use the optional calibration lid and a vial(s) with a StablCal standard or Formazin standard to calibrate the instrument. Refer to the Calibration lid documentation for more calibration procedures with and without RFID vials, 1-point and 2-point calibrations. As an alternative, use a syringe and StablCal standard or Formazin standard to calibrate the instrument.

Refer to the expanded user manual on [www.hach.com](http://www.hach.com) to calibrate the instrument and configure the calibration settings.



# CL17sc & TU5300sc Maintenance Schedules

## CL17sc

### 7.1 Maintenance schedule

Table 6 shows the recommended schedule of maintenance tasks. Facility requirements and operating conditions may increase the frequency of some tasks.

**Table 6 Maintenance schedule**

Task	1 month	6 months	As necessary
Clean the cell on page 20	X <sup>2</sup>		
Replace the reagent bottles on page 21	X		
Replace the stir bar and tubing harness <sup>3</sup>		X	
Clean the screen in the Y-strainer on page 22			X

## TU5300sc

### 9.1 Maintenance schedule

Table 2 shows the recommended schedule of maintenance tasks. Facility requirements and operating conditions may increase the frequency of some tasks.

**Table 2 Maintenance schedule**

Task	1 to 3 months	1 to 2 years	As necessary
Clean the vial on page 23 <i>Note: The cleaning interval is dependent on the water quality.</i>	X		
Clean the vial compartment on page 25			X
Replace the vial on page 26		X	
Replace the desiccant cartridge on page 28 <i>Note: The replacement interval is dependent on the ambient humidity, ambient temperature and sample temperature.</i>		X <sup>7</sup>	
Replace the tubing on page 28			X

# Questions?

