

# Installation and Operation Qualification

**InTech**  
Instrumentos y Equipos C.A.

 Anton Paar

## Density and Concentration Meter DMA™ 5000 M

Serial No.	83218996
Software Version	2.97.93
Purchase Order Number	
Date of Purchase	
Date of Installation	19/11/2020
Installed by	Jose Olaya



Name (Customer)	Demerara Distillers LTD
Person in Charge	Delicia Paul
Address (Street)	St. Kingston
(City)	Georgetown
(Country)	Guyana

## 1 Installation Qualification (IQ)

The IQ checks the space requirements, the environmental and the electrical conditions.

### 1.1 Supplied Documents

Instruction & Safety Manual  OK  NOK Comment: .....

Certificate of Compliance  OK  NOK Comment: .....

Calibration Certificate  OK  NOK  Not relevant Comment: .....

### 1.2 Shipped Goods

Do the shipped goods correspond to the packing list?  OK  NOK

If NOK, which parts are missing:

.....

.....

### 1.3 Installation of the Instrument

Is the power supply according to national laws and instrument specifications?  OK  NOK

Is the instrument placed away from direct sunlight (advisable)?  OK  NOK

Is the instrument placed away from heaters and air conditioning units?  OK  NOK

Are the environmental conditions fulfilled?  OK  NOK

Indoor use / Humidity 10 – 90 % non-condensing /  
Ambient temperature 15 – 35 °C / 59 – 95 °F

Are the injection adapters Luer mounted properly and checked?  
only DMA™ 4100 M and DMA™ 4500 M (tightness test acc. to manual)  OK  NOK  Not relevant

Are the syringe holder, the filling hose and the injection adapters  
¼" UNF mounted properly and checked?  
only DMA™ 5000 M (tightness test acc. to manual)  OK  NOK  Not relevant

Is the air hose with male Luer adapter mounted to the air outlet of the instrument?  OK  NOK

Is the drying cartridge properly connected and activated?  OK  NOK  Not relevant

Is a printer / PC interface cable (with gender changer) mounted to the DMA™ Generation M COM port?  OK  NOK  Not relevant

- Is a USB device connected to USB connector 1 on the side of the instrument?  OK  NOK  Not relevant
- Is a USB device connected to USB connector 2 on the side of the instrument?  OK  NOK  Not relevant
- Is a USB device connected to USB connector 3 on the side of the instrument?  OK  NOK  Not relevant
- Is a USB device connected to USB connector 4 on the rear of the instrument?  OK  NOK  Not relevant
- Is a network cable mounted to Ethernet interface?  OK  NOK  Not relevant
- Is a VGA cable mounted to the VGA interface?  OK  NOK  Not relevant
- Is the power cord properly attached to the rear power inlet and main power supply?  OK  NOK

## 2 Operation (OQ) & Performance Qualification (PQ)

The IQ has to be completed before starting the Operation Qualification. The OQ reviews, evaluates and tests the instrument to verify that it is capable of operating satisfactorily within the defined operating limits and to ensure that the equipment meets the design criteria.

Prior to testing the instrument, turn the power on and allow approx. 30 minutes for the instrument's internal temperature to equilibrate.

### 2.1 Power ON Functional Tests

- Is the green light illuminated indicating that the power is on?  OK  NOK
- Is the TFT display functioning?  OK  NOK
- Can the buttons area be operated by tapping on the touch screen?  OK  NOK
- Does the U-View™ quick access icon switch on the camera and is the picture OK (position, contrast, focus, brightness)?  OK  NOK
- Does the air pump quick access icon switch the air pump on and off and is the air pump working properly?  OK  NOK
- Is the communication with the PC via network working?  OK  NOK  Not relevant
- Is the communication with the printer via COM working?  OK  NOK  Not relevant
- Is the communication with the printer via USB working?  OK  NOK  Not relevant
- Is the communication with the printer via network working?  OK  NOK  Not relevant

- Is the communication with the USB flash drive or external hard disk via USB working?  OK  NOK  Not relevant
- Is the USB communication with the keyboard working?  OK  NOK  Not relevant
- Is the USB communication with the mouse working?  OK  NOK  Not relevant
- Is the USB communication with the bar code reader working?  OK  NOK  Not relevant
- Is the communication with the external screen via VGA working?  OK  NOK  Not relevant
- Is the communication with the external touch screen via VGA, USB and additional USB hub working?  OK  NOK  Not relevant

## 2.2 General Settings

- Are the measuring system settings properly set?  OK  NOK
- Is the correct date and time set?  OK  NOK  Not relevant
- Is the required display layout set?  OK  NOK  Not relevant
- Is the required result output set?  OK  NOK  Not relevant

## 2.3 Customer-specific Settings

- Are customer-specific methods defined?  YES  NO  
If the answer is YES, use the optional sheet.  
(with DMA™ Generation M Software Version 2.30 and higher: Menu > Service > IQ/OQ Report)
- Are customer-specific tables, polynomials or formulae programmed?  YES  NO  
If the answer is YES, use the optional sheet.  
(with DMA™ Generation M Software Version 2.30 and higher: Menu > Service > IQ/OQ Report)
- Is a backup of the instrument settings saved externally?  YES  NO
- Is the instrument password protected?  YES  NO

## 2.4 Safety Instructions

- Is the customer trained according to the "Safety Instructions" of the according manual?  YES  NO



## 2.5 Checking Procedure, Adjustment, Calibration and Cleaning Procedure

Is the customer trained to prepare and fill the sample properly?  YES  NO

Is the customer trained to perform a check, adjustment and calibration of the instrument (see according manual)?  YES  NO

Signature of customer

*[Signature]*

Is the customer trained to perform a proper cleaning procedure (see according manual)?  YES  NO

Signature of customer

*[Signature]*

## 2.6 Traceable Density Check

Prior to the traceable density check, make sure that the density meter has been properly cleaned and readjusted with degassed, deionized water according to the instruction manual.

Is the calibration certificate available for the traceable standard? (The certificate is attached to this record)  YES  NO

Serial number of the standard ASE 0354

Calibration Certificate No. 657622

Liquid density standard measured at 20 °C

Measured value 0.998200

Certified value 0.998200

Is the measured density within the specifications?  YES

NO Deviation: 0.000000

## 2.7 Density Check with Customer's Sample

Sample Alcohol at 20 °C

Measured value 95,902

Reference value 96,000

Determined by (name) Delicia

Using method Ethanol

On (date) 19-11-2020

Measured value accepted?  YES

NO, because .....



## 3 Signatures of Test Approval

At the time of the IQ/OQ record the instrument, its installation and its performance was found to be in conformance with all manufacturer's specifications.

Date: 19-11-2020

Signature of customer:

  
.....

Signature of Anton Paar GmbH authorized and trained person:

Jose Olaya

### Attached Documents

.....# Optional page for user accounts, customer-specific methods, tables, polynomials and formulae  
(with DMA™ Generation M Software Version 2.30 and higher: Menu > Service > IQ/OQ Report)

- IQ/OQ of the installed Xsample™ ..... (.....)
- IQ/OQ AlcoLyzer ME (C83IQ001EN)
- IQ/OQ CarboQC ME + O<sub>2</sub> (C85IQ001EN)
- IQ/OQ Modulyzer (C63IQ006EN)
- IQ/OQ pH ME (C88IQ002EN)