

OFFICE OF THE SUPPLY CHAIN MANAGEMENT

1.1 DESCRIPTION OF SERVICE: WATER PURIFICATION SYSTEM FOR ULTRA PURE WATER (SIMILAR TO PURELAB CHORUS 1) IN TISSUE CULTURE BUILDING. (CROP DEVELOPMENT)

Supply and installation of the water purification system for ultra pure water similar to purelab chorus 1 including pre-treatment cartridges, composite vent filters, and final purification cartridges.

BACKGROUND:

The water purification system should provide pure and ultrapure water for experiments and lab work. Microporous depth filters should provide an entrapment/adsorption barrier for the removal of large suspended particles and some colloids from the water entering the purification process. Filters should be typically rated at 5 – 10µm and combined with an activated carbon treatment, these filters act to protect system from fouling and blockage.

PURPOSE

The purpose of the submission is to approve the supply and installation of the water purification system for ultra pure water (similar to purelab chorus 1) including pre-treatment cartridges, composite vent filters, and final purification cartridges in the tissue culture lab. The availability of a fully functional water purification system is critically important to the success of the running of projects, maintenance of plants, and continued supply of species.

SCOPE OF WORK

To provide ultra pure water similar to purelab chorus 1 to reduce or completely eliminate the concentration of contaminants. Thus improving the state of health of the planted material and increasing the number of desirable germplasms.

SPECIFICATION	Comply with specification. Please indicate (Yes or No)		
	Yes	No	If no, indicate deviation
Treated water specifications: For Analytical research			
Nominal output at 15°C 10L/10hr			
pH should be effectively neutral			
Bacterial Endotoxin of <0.001 EU/ml			
Inorganics @25oC 18.2 MΩ.cm 18.2 MΩ.cm 18.2 MΩ.cm			
Bacteria <0.001 CFU/ml			
Purification pack capacity - Liters to 18.2 MΩ.cm = 94,100/(µS/cm + (2.3 x ppm CO2)			
Particles pore size should be 0.05 µm			

Inorganics @25oC 18.2 MΩ.cm 18.2 MΩ.cm 18.2 MΩ.cm			
Total organic carbon (TOC) 1-3 ppb* 1-3 ppb* 3-10 ppb*			
RNase <1 pg/ml <1 pg/ml			
DNase <5 pg/ml <5 pg/ml			
Feed water requirement: Source – originally from potable supply, then pretreated - Similar to RO produced by PURELAB Chorus 1 or filtered service deionization (SDI) or distilled. Note: mixed bed or twin bed deionized supplies should be cation limited at exhaustion			
Fouling index (max) - 1 for all models. A 5-10 micron membrane prefilter is recommended for all non-RO feeds			
Service deionization (SDI) – MΩ.cm 1 MΩ.cm minimum resistivity at exhaustion			
Reverse Osmosis (RO) – μS/cm Recommended <30 μS/cm			
Free Chlorine 0.05 ppm max			
TOC <50 ppb max (RO feed) Halo dispenser			
Carbon dioxide 30 ppm (max recommended)			
Silica 2 ppm (max recommended)			
Particulates - Filtration down to 5-10 micron advisable to protect internal and/or point of use filters			
Temperature 1-35oC (Recommend 10-15oC)			
Flowrate (maximum requirement) 130 l/hr (34 USG)			
Drain requirements Up to 2 l/min (0.5 USG)			
Feedwater pressure 0.7 bar (10 psi) maximum; 0.07 bar (1 psi) minimum			
Weight not exceeding 19 kg (42 lbs) 19 kg (42 lbs) 18 kg (40 lbs)			
Fit LA652 Pressure Regulator where feedwater pressure exceeds specified limits			

1.2 PRICING SCHEDULE

Item description	QTY	Unit price	Total Price
1. WATER PURIFICATION SYTEM	1		
2. Installation			
3. Training will be done on the premises during installation			
4. Standard manufacturer / product warranty/guarantee shall apply to whole system, must be provided			
5. Other: Delivery: Crop Development-Tissue Culture, ARC Infruitec-Nietvoorbij, Nothern Terrain Campus, Marula Building			
SUBTOTAL			
VAT			
GRANDTOTAL			

1. The specification prepared by

NameMiss Sthandiwe Shange

Date..... 28/10/2022

Signature



2. The specification approved by commodity specialist

Name...Trevor Koopman.....

Signature



28/10/2022

The specification concurred by SCM specialist

Name Silindile Mqana.....

Date 31 October 22

Signature... 

EVALUATION PROCESS & CRITERIA STAGE ONE FOR

ADMINISTRATIVE COMPLIANCE EVALUATION OF ALL PROPOSALS

	Comply with specification. Please indicate (Yes or No)		
	Yes	No	If no, indicate deviation
EVALUATION PROCESS: NB: It must be noted that ARC reserve the rights to request for clarification if all the below questions are not answered properly.			
<u>STAGE ONE: ADMINISTRATION COMPLIANCE</u>			
<p>All suppliers are duly lodged will be examined to determine compliance with quoting requirements and conditions. Quotes with obvious deviations from the requirements/conditions, will be eliminated or disqualified from further adjudication.</p> <p>(a) Mandatory</p> <p>Quotes will only be compliant if supplier has submitted the following documents:</p>			
<p><i>Administrative documents</i></p> <p>1. According to National Treasury SCM Instruction number 4 of 2016/2017, only suppliers who are registered on Central Supplier Database (CSD) may be appointed. Suppliers is therefore encouraged to register their entities on CSD, www.csd.gov.za and such information will be verified through Central Supply Database (CSD);</p>			
2. All SBD documents must be submitted and completed;			
3. The supplier must comply with all the specification			
4. Contact Details, VAT number, Company registration number, Bank details must be appended on the supplier quote.			
5. Valid tax pin certificate			
<p>(b) Non-Mandatory</p> <ul style="list-style-type: none"> Valid B-BBEE certificate or sworn affidavit certify by commissioner of oaths. 			

Delivery Address: ARC Infruitec-Nietvoorbij, Nothern Terrain campus, Tissue culture, Marula building, Stellenbosch

SUPPLIER'S DETAILS:

Company Name:

Contact person:

Contact number & Email:

Date & Signature: