

Indian Institute of Technology Palakkad

भारतीयप्रौद्योगिकीसंस्थानपालक्काड

STORES & PURCHASE SECTION

Email: purchase@iitpkd.ac.in Telephone: 04923-226586/87 GSTIN: 32AAAAI9910J1ZR

Tender No: GTE/2023-24/087 Date of Publication: 04-12-2023 Date/Time of Closing: 26-12-2023, 15:00 hours

Indian Institute of Technology Palakkad Invites Global Tender under Two-bid system for the:

SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF AUTOMATED DRIP IRRIGATION SYSTEM

Conforming to the specifications as in BoQ Technical.

Tender Documents may be downloaded from the e-Wizard Portal https://mhrd.euniwizarde.com/. Aspiring Bidders who have not enrolled/registered in e-Wizard should enroll/register before participating through the website https://mhrd.euniwizarde.com/. Bidders are advised to go through the instructions provided at "Procedure for Submission of E-tender". [Special Instructions to the Contractors/Bidders for the e-submission of the bids online through this e-Wizard Portal"].

Bidders can access tender documents on the website. For searching in the site, kindly go to Live Tenders option, Click "Advance Search" and select Department as 'IIT Palakkad'. Thereafter, Click on "Search" button to view all IIT Palakkad tenders. Select the appropriate tender and fill them with all relevant information and submit the completed tender document online on the website https://mhrd.euniwizarde.com/ as per the timeline below.

No manual bids will be accepted. All tender documents including Techno-Commercial, Technical and Financial bids should be submitted in the e-Wizard portal.

S. No.	Events	Date and Time
1	Publication of the Tender Document	04-12-2023
2	Date of Pre-Bid Meeting	12-12-2023, 15 00 hours
3	Last Date/Time for submission of ONLINE Bids	26-12-2023, 15:00 hours
4	Opening of Technical Bids	26-12-2023, 15:15 hours

Pre-Bid Meeting:

- Online Pre-Bid meeting will be held on 12-12-2023 at 15:00 hours to clear the doubts of intending bidders. The details of the meeting will be intimated through ONLINE Portal. Bidders, who are unable to attend the Pre-Bid meeting, may send their queries for the same, latest by 11-12-2023, 14:00 hours to purchase@iitpkd.ac.in
- Queries received after the Pre-Bid Meeting shall not be considered. Addendum/ Corrigendum/ Clarifications to the queries will be uploaded, paused the Pre-Bid meeting in the online portal, which shall be the part of the tender document.

TERMS AND CONDITIONS

1	GENERAL	(a) The responsibility of submission of the bids on or before the last date
		shall rest with the tenderer. The institute will hold no responsibility for
		the non-receipt of the bids or the bids received after the date/time
		specified. Any bid received by IITPKD after the bid submission deadline
		prescribed by IITPKD, shall be rejected and returned unopened to the
		Bidder.
		(b) Canvassing or offer of an advantage or any other inducement by any
		person with a view to influencing acceptance of a bid is an offence under
		the Laws of India. Such action will result in the rejection of bid, in
		addition to other punitive measures.
		(c) Each bidder shall submit only one bid, either by himself or as a partner
		in a joint venture or as a member of the consortium. If a bidder or if any
		of the partners in a joint venture or any one of the members of the
		consortium participate in more than one bid, the bids (of both the
		individual and the partnership/consortium/joint venture) are liable to be
		rejected.
		(d) The bidder shall bear all costs associated with the preparation and
		submission of his bid and IITPKD shall in no case be responsible or
		-
		liable for those costs, regardless of the conduct or outcome of the tender
		process.
		(e) IITPKD will respond to any request for clarification or modification
		of the Tender Document that are received up to TWO DAYS prior
		to the deadline for submission of bids prescribed by IITPKD. For
		this purpose, the prospective bidder(s) requiring clarification in the
		Tender Document shall notify IITPKD through the ONLINE Portal
		ONLY. Any such clarification, together with all the details on which
		the clarification had been sought, will be published in the ONLINE Portal ONLY. Deviations, if any, observed by the Institute in the
		submitted bids, from the Terms and Conditions of the Tender
		Document will not be accepted by the Institute.
		(f) Except for any such clarification by the Institute, which is expressly
		stated to be an addendum to the tender document issued by the Registrar,
		IIT Palakkad, no written or oral communication, presentation or
		explanation by any other employee of any of the Sections/Departments
		of the Institute, shall be taken to bind or fetter the Institute.
		(g) The bidder is expected to examine all instructions, forms, terms and
		conditions in the Tender Document. In the event of discovery of any
		missing pages, the bidder shall inform the same to the Section/
		Department concerned. Failure to furnish the information required by the
		Tender Document or submission of a tender not substantially responsive
		to the Tender Document in every respect will be at the bidder's risk and
		may result in rejection of the bid.
		(h) The bidder shall not make or cause to be made any alteration, erasure or
		obliteration to the text of the Tender Document.
		(i) The Supplier shall not, without the prior written consent of the IITPKD,
		assign to any third party, the Contract or any part thereof.
2	COMPOSITION OF THE	(a) The Tender Document comprises of:
	TENDER DOCUMENT	Instruction to the bidders including terms and conditions
		Technical Specifications (Annexure-I)
		2. Undertaking by the Bidder (Annexure-II)
		3. Fall Clause Notice Certificate (Annexure-III)
		4. Annexure regarding Blacklisting/Debarment (Annexure-IV)
		5. Self-Declaration – MII Order (Annexure-V)
3	DOCUMENTS	(a) The Technical, Techno-commercial and Commercial Bids (Cover
	20001111110	(w) The recommend recommendation and commendation blus (Cott)

	COMPRISING THE BID	One) and Commercial Bid (Cover Two) shall be submitted ONLINE
		through the e-Wizard Portal.
		(b) Bids submitted in any mode other than ONLINE will be rejected
		outright.
		(c) Documents establishing the conformity of the terms and conditions of
		the Tender Document shall be provided along with the bid. The
		offer/bids should be sent only for a system or that is available in the
		market and supplied to a number of customers. A list of customers in
		India and abroad with details must accompany the quotations.
		Quotations for a prototype machine will not be accepted.
		(d) Original catalogue (not any photocopy) of the quoted model duly signed
		by the principals must accompany the quotation in the Technical bid. No
		prices should ever be included in the Technical bid. (e) Compliance or Confirmation report with reference to the specifications
		and other terms and conditions should also be obtained from the
		principal.
		(f) Information related to the agency/bidder such as photocopies of the
		Registration/PAN/GST/TIN shall be furnished.
		(g) The technical bid should consist of all technical details along with
		commercial terms and conditions. No prices should be included in the
		technical bid. Mentioning Prices in the Technical Bid shall lead to
		DISQUALIFICATION.
		(h) Bidders (or OEM) who are bidding for this tender,
		1) Should have implemented at least THREE ORDERS of
		AUTOMATED DRIP IRRIGATION SYSTEM during previous
		FIVE financial years (2018-19, 2019-20, 2020-21, 2021-22, 2022-
		23) from Centrally Funded Technical Institutes (IITs, NITs, IISc,
		IISER), DRDO, ISRO, CSIR labs or Government Firms in India.
		Copies of the most recent purchase orders and user certificates of
		successful implementation must be included. Copies of financial
		statements or evidence of turnover must be furnished.
		2) Should have an Average Annual Turnover of Rs 89,00,000/-
		(RUPEES EIGHTY-NINE LAKHS ONLY) during the last THREE financial years (2020-21, 2021-22, 2022-23). The bidder
		shall enclose the audited statements of the indicated financial years,
		which should have been certified by a Chartered Accountant or a
		Competent Authority.
		3) Should submit Digitally signed Tender Document in Cover One.
4	EARNEST MONEY	(a) The bidder shall furnish EMD of Rs. 88,100/- (RUPEES EIGHTY-
	DEPOSIT (EMD)	EIGHT THOUSAND ONE HUNDRED ONLY) through online
	,	payment gateway in the E-Wizard.
		(b) Bids not accompanied by EMD shall be DISQUALIFIED.
		(c) The firms who are registered with National Small Industries Corporation
		(NSIC) / or Small Scale Industrial (SSI)/ Micro & Small Enterprises
		(MSEs) are exempted from submitting the EMD. NSIC / MSME
		registered bidders must submit a copy of a valid NSIC / MSME
		Registration Certificate for exemption of EMD. It will be applicable for
		those bidders who shall produce their own goods or provide their own
	PEDEG D. 5 1 1/2=	services, and not applicable for trading purposes.
5	PERFORMANCE	(a) The performance security shall be submitted within FIFTEEN DAYS of
	SECURITY	receipt of the material by the IITPKD. The successful bidder shall
		furnish the Performance Security equal to 5% of the order/contract value
		(excluding the value of annual maintenance charges). The Performance
		Security shall be valid all along the warranty period and shall extend
		upto SIXTY DAYS after the date of completion of warranty period. It
		shall be ensured by the successful bidder that the validity of the

		Performance Security submitted is extended depending on the date of commencement of the Warranty. (b) The performance security shall be an E-Bank Guarantee (Digital Document Execution – DDE MODE by National E-Governance Service Limited) issued by the Indian Scheduled bank acceptable to the IITPKD or a Demand Draft favoring, INDIAN INSTITUTE OF TECHNOLOGY PALAKKAD payable at PALAKKAD. (c) The performance security shall automatically become null and void once all the obligations of the Supplier under the Contract have been fulfilled, including, but not limited to, any obligations during the Warranty Period and any extensions to the period. The performance security shall be returned to the Supplier not later than fifteen (15) days after its expiration. (d) Failure of the successful Bidder to comply with the requirements shall constitute enough grounds for the annulment of the award and forfeiture of the EMD, in which event the IITPKD may make the award to the next lowest evaluated bid submitted by a qualified Bidder or call for new bids.
6	BID PRICES AND CURRENCY	 (a) Prices must be quoted separately for each equipment/item identified. (b) Price quoted for equipment/items shall include all the costs associated with packing, local transportation from the point of clearance to IITPKD, insurance, loading, unloading and associated delivery charges. The delivery shall be on DOOR DELIVERY basis to the institute including its installation, commissioning, integration and validation. It is the sole responsibility of the supplier to ensure that the equipment is delivered on DDP mode to IIT Palakkad. An undertaking to this effect as in Annexure-II. (c) Prices quoted by the bidder shall be fixed during the validity of the bid. (d) Prices of the equipment/items shall be quoted in Indian Rupees (INR).
7	LETTER OF CREDIT	 (a) Upon the successful Bidder's furnishing of the copy of the Purchase Order duly signed on each page and the Performance Security, for the equipment ordered in foreign currency, IITPKD will open a letter of credit (LC) in a convenient Nationalized Bank in India. For opening of LC necessary information shall be provided by the supplier or its authorized agents. (b) In case the successful bidder is a foreign company and wishes to submit Performance Security in the form of Bank Guarantee, the Bank Guarantee should be routed through the Beneficiary Bank to the end user bank. Otherwise, the Indian Agent of the foreign vendor shall submit a Bank Guarantee from a Nationalized Bank of India. The following documents shall be submitted in case of an Indian agent submitting the Performance Security on behalf of his principal: Foreign principal's proforma invoice indicating the commission payable to the Indian agent and nature of after-sales service to be rendered by the Indian agent. Copy of the agency agreement with the foreign principal and the precise relationship between them and their mutual interest in the business. (c) For imported equipment, a Letter of Credit (LC) shall be opened for 100% CIP price on receipt of the acknowledgment of the purchase order. However, 80% of the LC amount only shall be released on proof of the shipment of the consignment with necessary documents to be provided in detail at the time of placing of the purchase order. Balance 20% of the LC amount shall be released upon the receipt of a performance security of 5% of the total value of the purchase order and installation, commissioning,

		integration, validation and installation report/certification jointly given by the	
		end user and the supplier.	
		Any costs associated with the amendments made in the LC as per the request made by the Supplier's should be borne by the supplier.	
		Any fluctuation in rates / rate conversions arising due to the amendment	
		requests made by the supplier shall be on the supplier and not on the	
		institute.	
8	PERIOD OF VALIDITY	(d) Bids shall remain valid for a period of 180 DAYS after the date of the	
	OF BIDS	deadline for submission of bids prescribed by IITPKD.	
		(e) If the deadline is extended due to unforeseen circumstances, the bid	
	THE EOD GUDDIN	validity shall be deemed to have extended accordingly.	
9	TIME FOR SUPPLY, INSTALLATION,	(a) The Supplier shall supply the equipment/items within the period	
	COMMISSIONING AND	specified in the tender document i.e. within 12 WEEKS of signing the purchase order or within the period mutually agreed between IITPKD	
	VALIDATION OF THE	and supplier. All the equipment and accessories should be delivered at,	
	EQUIPMENTS/ITEMS	IIT PALAKKAD, SATCARD, SAHYADRI CAMPUS, PALAKKAD	
		- 678 623.	
		(b) The Supplier shall thereafter proceed with the installation,	
		commissioning, integration and validation and demonstrate operational	
		acceptance of the equipment/items within the period specified. The	
		equipment/items shall be installed and commissioned by the successful	
		bidder within 20 to 25 days from the date of its receipt. (c) The tenderer should indicate clearly the time required for delivery of the	
		item. In case there is any deviation in the delivery schedule, liquidated	
		damages clause will be enforced or penalty for the delayed supply period	
		will be levied.	
		(d) In the event of failure of supply of the item/equipment/items within the	
		stipulated delivery schedule, IITPKD has all the right to purchase the	
		item/equipment/items from other sources on the total risk of the Supplier	
10		under the risk purchase clause.	
10	PRODUCT UPGRADES	The Supplier shall continue to support and maintain the version/model of the	
		Equipment supplied by upgrading the software and the hardware as and when amendments are carried out in the existing version or the product is upgraded.	
		Whereas upgrades to the software shall be supplied free of cost, the Supplier may	
		charge for upgrade in hardware provided it is of major nature. An upgraded	
		higher version of the instrument and software related with the instrument shall be	
		supplied.	
11	PENALTIES	If the Supplier fails to complete any of the activities in accordance with the time	
		specified for it, or any extension of time granted by IITPKD, Liquidated	
10	TID THIME CHARASTERS!	Damages Clause shall be invoked.	
12	UP-TIME GUARANTEE/ DOWNTIME PENALTY	(a) The Supplier should provide up-time guarantee of 95% [24 (hours) X 7 (days) X 365 (days)] basis during the warranty period.	
	CLAUSE PENALTY	(b) The Supplier should provide up-time guarantee of 95% (24 hours/day basis)	
		both during warranty. If downtime exceeds the 5% limit, extension of the	
		warranty period will be twice the excess down time period.	
13			
	LIQUIDATED	If a firm accepts an order and fails to execute the order, in full or part, as per	
	LIQUIDATED DAMAGES	the terms and conditions stipulated therein, it will be open to the Institute to	
	_	the terms and conditions stipulated therein, it will be open to the Institute to recover liquidated damages from the firm at the rate of 1% of the value of the	
	_	the terms and conditions stipulated therein, it will be open to the Institute to recover liquidated damages from the firm at the rate of 1% of the value of the undelivered goods per month or part thereof, subject to a maximum of 5% of	
	_	the terms and conditions stipulated therein, it will be open to the Institute to recover liquidated damages from the firm at the rate of 1% of the value of the undelivered goods per month or part thereof, subject to a maximum of 5% of the value of the undelivered goods. It will also be open to the Institute	
	_	the terms and conditions stipulated therein, it will be open to the Institute to recover liquidated damages from the firm at the rate of 1% of the value of the undelivered goods per month or part thereof, subject to a maximum of 5% of the value of the undelivered goods. It will also be open to the Institute alternatively, to arrange procurement of the required stores from any source,	
	_	the terms and conditions stipulated therein, it will be open to the Institute to recover liquidated damages from the firm at the rate of 1% of the value of the undelivered goods per month or part thereof, subject to a maximum of 5% of the value of the undelivered goods. It will also be open to the Institute alternatively, to arrange procurement of the required stores from any source, at the risk and expense of the firm, accepted and failed to execute the order	
	_	the terms and conditions stipulated therein, it will be open to the Institute to recover liquidated damages from the firm at the rate of 1% of the value of the undelivered goods per month or part thereof, subject to a maximum of 5% of the value of the undelivered goods. It will also be open to the Institute alternatively, to arrange procurement of the required stores from any source, at the risk and expense of the firm, accepted and failed to execute the order according to stipulations agreed upon. This will also entail the removal of the	
14	_	the terms and conditions stipulated therein, it will be open to the Institute to recover liquidated damages from the firm at the rate of 1% of the value of the undelivered goods per month or part thereof, subject to a maximum of 5% of the value of the undelivered goods. It will also be open to the Institute alternatively, to arrange procurement of the required stores from any source, at the risk and expense of the firm, accepted and failed to execute the order	

		then it shall notify the IITPKD in writing of the occurrence of such event and the circumstances of the event of Force Majeure within FIFTEEN DAYS after the occurrence of such event. (b) The Supplier, when affected by the event of Force Majeure shall use
		reasonable efforts to mitigate the effect of the event of Force Majeure upon its performance of the Contract and to fulfill its obligations under the Contract, but without prejudice to IITPKD's right to terminate the Contract.
		 (c) No delay or non-performance by the Supplier caused by the occurrence of any event of Force Majeure shall: Constitute a default or breach of the Contract; Give rise to any claim for damages or additional cost or
		expense occasioned by the delay or non-performance. (d) If the performance of the Contract is substantially prevented, hindered, or delayed for a single period of more than THIRTY DAYS or an aggregate period of more than SIXTY DAYS on account of one or more events of Force Majeure, the IITPKD shall have the right to terminate the Contract by giving a notice to the Supplier.
15	EXTENSION OF TIME	(a) The time limit for supply, installation & commissioning, integration &
	LIMITS FOR SUPPLY	validation shall be extended if the supply is delayed or impeded in the
	AND MAKING	performance of any of its obligations under the Contract by reason of
	OPERATIONAL, THE	any of the following:
	EQUIPMENT	i. Any occurrence of Force Majeure;
		ii. Any other matter specifically mentioned in the Contract;
		(b) By such period as shall be fair and reasonable in all the circumstances and as shall fairly reflect the delay or impediment sustained by the Supplier.
16	GOVERNING LAW AND	(a) The Contract shall be governed by and interpreted in accordance with the laws of India.
	SETTLEMENT OF DISPUTES	(b) Any dispute or claim arising out of/relating to this Contract of the breach, termination or the invalidity thereof, shall be settled by the Hon'ble Courts of Justice at Palakkad.
		(c) The page number should be marked in all pages serially (including all supporting documents enclosed with the tender document) and the declaration for the same shall be submitted by the bidder as in Annexure-II.
		(d) IITPKD reserves the right to accept or reject any or all the tenders in part or whole or may cancel the tender at its sole discretion without assigning any reason whatsoever. No further correspondence in this regard will be entertained.

AWARD OF CONTRACT

1	AWARD CRITERIA	1 HTPKD will award the Contract to the Ridder whose hi
1	AWARD CRITERIA	 IITPKD will award the Contract to the Bidder whose by has been determined to be substantially responsive and a per the Order No. P-45021/2/2017-PP(BE-II) dated 10 09-2020 from Department for Promotion of Industrand Internal Trade (Public Procurement Section Ministry of Commerce and Industry, Govt. of India. The bidder should be a Class-I / Class-II Local Supplied meeting the requirement of minimum 20% Local Content in line with the Public Procurement (Preference to Make in India) Order 2017 No. P-45021/2/2017-PP(BE-II) dated 16-09-2020. The Institute reserves the right to buy different terms/quantities from different bidders considering price of the procurement in the procurement of the procurement in the
		individual/group of equipment/items or any other factor as decided by the Committee.
2	AWARD OF PURCHASE ORDER	 Prior to the expiration of the period of bid validity. IITPKD will issue the Letter of Intent / Purchase Order to the successful Bidder in writing.
		 Any amendment(s) in the Purchase Order will be permitte within SEVEN DAYS of its issuance. No amendmen
		will be permitted beyond this period.
		3. The Purchase Order will constitute the foundation of the
2	CONTRACT AGREEMENT	Contract.
3	CONTRACT AGREEMENT	 Within SEVEN DAYS of receipt of the Purchase Orde the successful Bidder shall sign and date its copy on each
		page and return it to the Purchaser.
		2. Copy of Purchase Order duly signed and dated by the
		successful Bidder on each page shall constitute th
		Contract Agreement.
4	CONTRACT DOCUMENTS /	1. All documents forming part of the Contract (and all par
	AMENDMENT TO CONTRACT	of these documents) are intended to be correlative complementary and mutually explanatory. The Contraction
		shall be read as a whole.
		 The order of precedence of the Contract documents sha
		be as follows:
		(i) Contract Agreement/Purchase Order
		(ii) All Forms/Annexures
		(iii) equipment/items and their requirement(iv) Supplier's Bid
		(v) Tender Document
		3. No amendment or other variation of the Contract shall be
		effective unless it is in writing, is dated, expressly refers t
		the Contract and is signed by a duly authorize
		representative of each party to the Contract.

REGISTRAR

TECHNICAL SPECIFICATIONS

Name of the Item:	Automated Drip Irrigation and Fertigation System
Quantity:	1
Warranty Period:	1 Year

S.	Items	IIT PKD required Specification
No.		
	Fully Automatic Irrigation Controller and Fertigation with On-line Ec-pH Control System - Quantity -1(one) Number	 IIT PKD required Specification 16 outputs assembly for irrigation controller expandable up to 64 outputs 15 Irrigation programs 10 fertilizer dosing programs Input 230VAC & Output 24VAC, each output 2 Amps load Surge protection on inputs & Outputs 11 analogue Inputs (Ec-pH, Temp, Moisture, Etc., & 8 digital inputs (Water Meter,Pressure & External Switches, Etc.,) Number of valves per irrigation program –Up to 40 Irrigation strategy based on dosing program, water run time and irrigation program Irrigation starts based on Time, Volume, Moisture Condition, VPD sum or radiation sum Activates local and remote devices such as pumps, dosing systems, main valves, field valves, filters etc This system shall be Controlling Online via Ethernet (Mobile App and Web remote Access & Offline (HMI keypad) & PC link option RS-232, RS-485 Inbuilt 5 Venturis and extendable up to 8 venturis with online EC & PH monitoring and provides fast and accurate fertilizer and acid controlling facility EC Sensor-Cell constant1 K=1.0, Typical measuring range - 0.1 to approx. 5 mS/cm, Temperature compensation - PT100, Electrode material - Special Graphite pH Sensor - Active pH element UW glass (pH 0 — 12 berief et al. (20 pt 1) and controlled to the controlled of the controlle
		 (Mobile App and Web remote Access & Offline (HMI keypad) & PC link option RS-232, RS-485 Inbuilt 5 Venturis and extendable up to 8 venturis with online EC & PH monitoring and provides fast and accurate fertilizer and acid controlling facility EC Sensor-Cell constant1 K=1.0, Typical measuring range - 0.1 to approx. 5 mS/cm, Temperature compen-
		•
		Unique mixing chamber
		Each venturi flow rate 50 LPH
		Booster pump 3-Phase 440 vac ,3 Hp Head 53m and acid proof EPDM technology.
		acid proof EPDM technologyMade from high quality components and PVC with an
		aluminum, corrosion –resistant frame & adjustable legs
		System operating pressure 2.5 to 4.0 Bar
2	Output Board Serves mainly	Number of outputs @ Each Board – 8 Output voltage 24 VAC
	for controlling valves, pumps, dosing systems, etcQuantity	Output voltage 24 VACMax output current per channel 2.0 Amps
	2 (Two) Number	Frequency 50 Hz

3	Communication Box - Quantity -1 (one) Number	 The remote management irrigation and fertigation controllers with intuitive dashboard, hot keys, visuals. Includes different access level by accounts: view only, partial access, full access or administrator work even without internet access by simply plugging a display or monitor directly 24/7 access to irrigation controllers Multiple, simultaneous users have network access Web, cloud, and cellular connectivity Push notifications Irrigation controller's analytics
4	Communication Board Quantity - 1(One) Number	 Communication Mode RS485 Baud Rate - 9600 BPS Maximum working Distance Via 1.0 Sq.mm Shield Cable – 2000 Meters
5	Pump Interface Unit , b	 Pump Auto On/Off Interface Unit Powder-coated metal box Input Operating voltage 24 VAC, 50Hz
6	Disc filter- Quantity - 6 (Six) Numbers	 Size: 3/4" Filtration: 130 micron/120mesh Capacity 4m3/Hr Plastic parts-corrosion free
7	Ball Valve- Quantity - 2 (two) Numbers	 1.5" PP Ball Valve Corrosion free Body material (Engineered plastic) Flow rate: 12m3/Hr
8	Combination Air Valve. Quantity - 3(three) Numbers	 1" Air and Vacuum and Automatic Air Release Valves PRESSURE RATING (BAR) – 10 Body material PA66 (Engineered plastic) Air Release at 10 bar (M3/Hr) -40 Air Relief at +0.4 BAR (M3/Hr) – 250 Air Intake at -0.4 BAR (M3/Hr) – -180
9	Surge Protector. Quantity-2(Two) Number	 Control Safety for High Voltage and lightning protection Maximum Surge Voltage – 250 VAC Maximum Load – 5 Amps with Fuse Accuracy: 2% +/-
10	Solenoid Valve. Quantity -11(Eleven) Number	 Size 2" with flow control & pressure regulating Operating voltage 24VAC Flow rate 0.1 to 34 m3/hr Operating for Auto, Manual options Production class F, IP66(CE Certification) Body material PA66 (Engineered plastic) Operating pressure 0.3 to 10 Bar Diaphragm EPDM
11	2" Pressure Sustaining Valve Quantity -1(one) Number	 Maximum pressure – 10 Bar Minimum recommended flow - 1 m3/h Maximum Flow at 0.2m head loss - 35 m3/h Minimum operating pressure - 0.4 bar (6 p
12	Water Meter Quantity - 1(one) Number	 2" water meter, flow rate 40 m3/hr Woltman Silver Turbo (WST) with a wide measuring rate Resistance – bearings and materials used in the WST to ensure long life expectancy. Magnetic Coupling – the WST has a unique measuring unit with only one moving element in contact with water, and has repelling magnets, the impeller and the transmitting gear, instead of the attracting magnets install the WT. Maximum working pressure 16 Bar

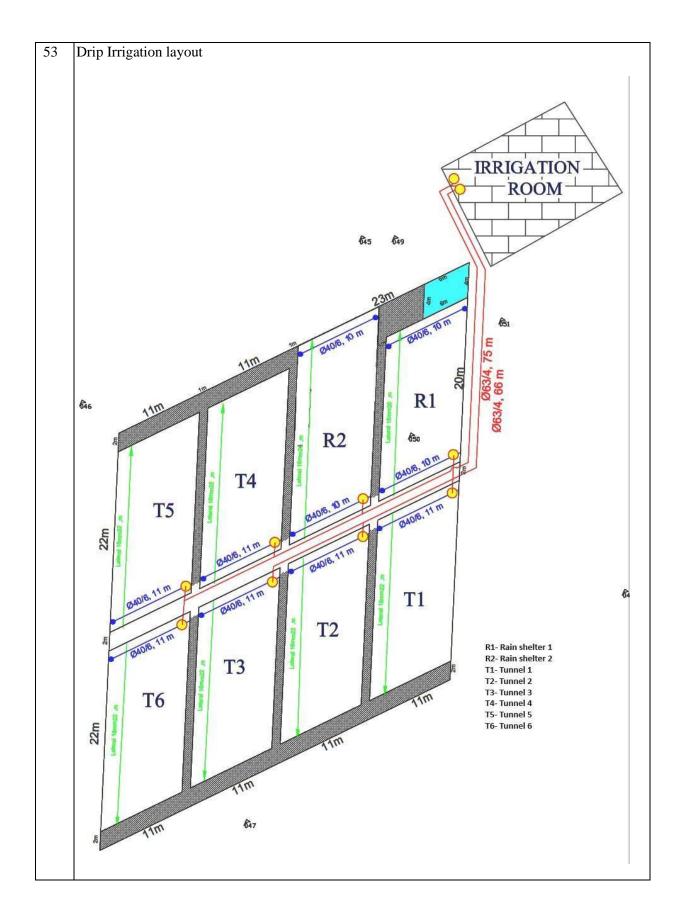
		• Dial plates can be supplied in m3 or US gallons. Totalizer
		has big and clear numerals
		• Sensor based output: Digital (10 lit/pulse)
		• Sensor monitors the volumetric water content (VWC) of
		the soil based on time domain transmissometry (TDT)
		technology
		Stainless steel, robust all-soil sensor
		Output format: 0.5-5.0mA
		• Typical measurement field 4 cm in all directions from the
		most external element
		• Power requirements: 5.5-18VDC, 10-20mA (max)
		Accuracy: 1% volumetric soil moisture
		• Temperature range Full accuracy: over 0 to 50 C
		• Environmental IP68 with shield cables
13	Soil Moisture Sensor	Sensor monitors the volumetric water content
		(VWC) of the soil based on time domain transmis-
	Quantity - 4 (four) Number	sometry (TDT) technology
		Stainless steel, robust all-soil sensor
		Output format: 0.5-5.0mA
		Typical measurement field 4cm in all directions
		from the most external element
		Power requirements: 5.5-18VDC, 10-20mA (max)
		Accuracy: 1% volumetric soil moisture
		Temperature range Full accuracy: over 0 to 50 C
		Environmental IP68 with shield cables
		Environmental if 60 with shield easies
14	Weather Station	Provides real-time weather monitoring. Effective
		under the most demanding conditions. The station
	Quantity - 1 (one) Number	is fully integrated with an Irrigation controller ena-
		bling viewing and storing of data on any device -
		anytime, anywhere. It can be directly wired to the
		Irrigation controller connection.
		Data Coverage
		Air temperature, Relative humidity, Radiation,
		Wind speed, Wind direction, Rain gauge, Daily
		rain counter, ET calculation (evapotranspiration)
1.7		av. a 1
15	Air Blower Agitator	3Hp, 3 phase agitator Comparing from Alaminum Podu
	Quantity -1(one) Number	Corrosion free Aluminum Body Ll 1
		• Inlet & Outlet size - 2" (63mm)
1.0		• • Air flow rate 420m3/Hr
16	Sand & Disc Filter Back-	2" Reinforced-Polyamide body 2 directional dealth already and a second and a second and a second are a second as a second and a second are a second as a second are a second as a second are a second as a second as a second are a second as a second are a second as a second as a second are a second as a second as a second are a second as
	Flushing Control Valve	3-directional, double-chamber valve Second for the second in the second s
	Quantity - 3(three) Number	Super-fast position change Super-fast position change Super-fast position change Super-fast position change
		Operating Voltage - 24VAC Florents fortunat filtrains 18 m2/h
		• Flow rate factor at filtering - 18 m3/h
		• Flow rate factor at flushing – 20 L/M
		Operating pressure range: Standard model: 1 - 10
		bar
		Maximal operating temperature: Standard models - 65°C
17	Cond Elton Dockers at Day as	65°C
17	Sand Filter Backwash By-pass	• Size 2" with flow control & pressure regulating
	Valve Overtity 1(one) Number	• Operating voltage 24VAC ,90mA
	Quantity- 1(one) Number	• Flow rate 0.1 to 34 m3/hr • Operating for Auto,
		Manual options Production class F. IR66(CF Contification)
		Production class F, IP66(CE Certification) Pody meterial PA 66 (Eng.)
1		Body material PA66 (Eng

1.0	C4-1-11:	1 T/X/A C / 1 '1'
18	Stabilizer	1 KVA Servo stabilizer L
1	Quantity - 1(one) Number	Input 440VAC, Output 220VAC
		Surge production
		• Accuracy + or - 5%
		High and Low voltage production
19	Sand Filter	Material - M/S With Powder Coated Rugged tank
	Quantity - 1(one) Number	design and industry-leading anticorrosion and UV
		resistance
		 Sand filter tank includes an upper service opening,
		side service opening, upper inlet water diffuser,
		gravel filtration media, inner filtration chamber
		floor with filter elements, and an outlet opening for
		the filtered water (Equal or better than)
		Gravel filtration is a process where water, contami-
		nated with silt, sand and organic materials flows
		through a media of small gravel at a relatively slow
		rate
		Sand filter provides deep, three-dimensional filter-
		ing with back flush cleaning
		Maximum Flow – 20 m3/H
		Maximum working pressure – 4.0 Bar
		Inlet, Outlet and Backflush Size - 2"
20	Disc Filter	• Filter size - 2" Filtration - 130 micron/120mesh
20	Quantity -1(one) Number	Adapts to horizontal or vertical installation • De-
	Quantity 1(one) 1 (unice)	tachable spine with Pressure differential disc com-
		pression
		Maximum working pressure – 8.0 Bar
		Capacity – 20 m3/Hr
		Total filtration area- 950 cm2 • Total filtration vol-
		ume - 1225 cm3
		Material Poly-Propylene Plastic
21	Venturi Injector	Inject liquid into a continuousflow based on a
	Quantity -1(one) Number	pressure difference (venturi principle).
		Self-operated chemical injector system
		Operated by existing water pressure
		Integral non-return valve
		Nonelectrical operation & no moving parts
		• Size – ³ / ₄ " Working pressure – 1.40 to 4 Bar
		• Maximum suction flow – 150 L/H at 2 m3/h motive
1		flow
		Material - Reinforced polypropylene
		• Venturi kit with 1.0 meters of clear hose, manual
		control valve, filter
22	Pressure Gauge	Measurement of pressure in irrigation systems
		• Gauge Diameter - 63 mm (2")
	Quantity -3(Three) Number	Connection - 1/4" bottom brass connection
		Maximum range - 1 to 8 bar
		Working pressure - 0.1 x full range
		• Temperature: -20 °C to 60 °C
		Materials - Metal glycerine-filled (housing), white
		plastic (dial face) plastic (sight glass)
23	Combination Air Valve	1" Air and Vacuum and Automatic Air Release
		Valves
	Quantity - 4(Four) Number	• PRESSURE RATING (BAR) – 10
		Body material PA66 (Engineered plastic)
		Air Release at 10 bar (M³/Hr) -40
		• Air Relief at +0.4 BAR (M³/Hr) – 250
		• Air Intake at -0.4 BAR (M³/Hr): -180
	1	

24	Quick Pressure Relief Valve	Pressure-relief Valve protects a system against
	Quantity - 1(One) Number	pressure surges caused by pump startup or valves
		closure
		• Valve will be hydraulic, direct sealing diaphragm
		type, which allows inline maintenance
		• No stem, shaft, or guide bearing will be located
		within the water passage
		 Valve will be activated by the line pressure
		• The valve will be operated by a pressure relief pilot
		valve for fast opening at a high-pressure set point
		 Body and Bonnet material - Cast Iron, Ductile Iron,
		Bronze & Coating – Polyester
		Diaphragm - Natural Rubber & Spring - SST 302 Oxiols Relief valve Size 2" Pressure editestment
		• Quick Relief valve Size - 2", Pressure adjustment range – 1.0 to 9.0 Bar
		• Control Bores 1/8",1/4",1/2" National Pipe Thread
		(NPT) & Coated steel Bolts/ Nuts
		• Connections - Female British Standard Pipe (F-
		BSP) Threads
25	Kinetic Air Valve	Air & Vacuum Valve discharges air at high flow
	Quantity - 8(eight) Number	rates during the filling of the system and admits air
		at high flow rates during drainage, pump shut-off or
		at water column separation.
		 Made of high strength Polypropylene materials, and
		all operating parts are made of specially selected
		corrosion-resistant materials
		• Drip-tight sealing at low pressure & All parts are
		UV protected
		• Working Pressure Range: 0.2 - 10 bar
		• Working Temperature: 60 C
		• Size - 1" (25mm) male threaded
26	N. D. A. W. I.	Orifice Area - 314 Sq.mm Orifice Area - 314 Sq.mm
26	Non-Return Valve	Size - 2" Material Stainless Steel
	Quantity - 1(one) Number	Maximum working Pressure 10 bar
		Connection Type Flanged End Type Single Wester People Place Cheels Wester
27	D C 11D;	Type Single Wafer Dual Plate Check Valve Output Description: Output Description
27	Pressure Compensated Drip	• Pressure-compensated range: 0.4 bar – 3.5 bar.
	Line Overtity 4100 (four thousand	Injected dripper, very low CV with injected silicon displayed.
	Quantity - 4100 (four thousand	diaphragm.
	one hundred) meters	• High UV resistant. Resistant to standard nutrients used in agriculture.
		 ISO 9261 Standards with Israel Standard Institute
		(SII)-certified production.
		 Pressure Compensated mechanism & self-flushing
		& continuous self-cleaning mechanism
		Anti Siphon Mechanism, TurboNet Technology &
		Wide Filtration area.
28	Plain Lateral	Made with the finest available low/medium density
20	Quantity - 500 (Five Hundred)	polyethylene resin.
	meters	 Manufactured with UV and oxidation protection
		making them durable to solar radiation without sig-
		nificant damage for many years.
		 PE pipes are resistant to saline water, acid, or alka-
		line solutions.
		 The blank drip lines meet ISO 9261 Standards with
		Israel Standard Institute (SII)- certified production.
		 Utilizing high standard manufacturing to ensure the
		uniformity of internal diameter and wall thickness.
	1	differences of internal diameter and wan unexhess.

16mm Barb Coupling Connector Quantity - 50 (Fifty) Numbers
Quantity - 50 (Fifty) Numbers Highly reliable connector, relatively easy to inst
Output Connector Countity - 200 (Two Hundred) Numbers Wresistant, Durable one-piece construction Highly reliable connector, relatively easy to instance Countity - 450 (Four Hundred and fifty) Numbers UV resistant, Durable one-piece construction Highly reliable connector, relatively easy to instance UV resistant, Durable one-piece construction Wresistant, Durable one-piece construction UV resistant, Durable one-piece cons
17mm Barb Coupling Connector Quantity - 200 (Two Hundred) Numbers
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Quantity - 200 (Two Hundred) Numbers
Numbers Commerce Coupling Connector Quantity 450 (Four Hundred and fifty) Numbers UV resistant, Durable one-piece construction Used to take lateral connector Uversitant, Durable one-piece construction UV resistant, Durable one-piece construc
31 16mm End Line Plug Quantity
Quantity- 450 (Four Hundred and fifty) Numbers
Section Start Connector Quantity 450 (Four Hundred and fifty) Numbers Highly reliable connector, relatively easy to inst UV resistant, Durable one-piece construction UV resistant, Durable one-piece
32 16mm Barb Start Connector Quantity- 450 (Four Hundred and fifty) Numbers UV resistant, Durable one-piece construction Highly reliable connector, relatively easy to insta UV resistant, Durable one-piece construction UV resistant, Durable one-piece construction Highly reliable connector, relatively easy to insta UV resistant, Durable one-piece construction Highly reliable connector, relatively easy to insta UV resistant, Durable one-piece construction Highly reliable connector, relatively easy to insta UV resistant, Durable one-piece construction Highly reliable connector, relatively easy to insta UV resistant, Durable one-piece construction Highly reliable connector, relatively easy to insta UV resistant, Durable one-piece construction Highly reliable connector, relatively easy to insta UV resistant, Durable one-piece construction Highly reliable connector, relatively easy to insta UV resistant, Durable one-piece construction UV resistant, Durable one-piece construction Highly reliable connector, relatively easy to insta UV resistant, Durable one-piece construction UV resistant, Durable
Quantity- 450 (Four Hundred and fifty) Numbers UV resistant, Durable one-piece construction
and fifty Numbers
Used to connect plan lateral to dripline.
Coupling Connector Quantity- 450 (Four Hundred and fifty) Numbers
Quantity- 450 (Four Hundred and fifty) Numbers
and fifty) Numbers 1
34 16mm Rubber Grommet Quantity-450 (Four Hundred and fifty) Numbers
Quantity-450 (Four Hundred and fifty) Numbers 40
 and fifty) Numbers G3mm PVC Pipe 4Kg/Sq.cm Quantity-180 (One Hundred Eighty) Meters 40mm PVC Pipe 4Kg/Sq.cm Quantity- 120 (One Hundred Twenty) Meters Manufacture as per BIS standard (IS 4985:2000) Unplasticized PVC Pipes for Potable Water splies Manufacture as per BIS standard (IS 4985:2000) Unplasticized PVC Pipes for Potable Water splies Manufacture as per BIS standard (IS 4985:2000) Used for controlling valve operation at submain. Easy to install, Available in Threaded & plan concetion. Unplasticized PVC Pipes for Potable Water Splies Manufacture as per BIS standard (IS 4985:2000) Unplasticized PVC Pipes for Potable Water Splies Manufacture as per BIS standard (IS 4985:2000) Unplasticized PVC Pipes for Potable Water Splies Manufacture as per BIS standard (IS 4985:2000) Unplasticized PVC Pipes for Potable Water Splies Used to remove excess air trapped in the pipe protect against bursting. Operating pressure of 0.1 bar to 16 bar Maximal water temp. for continuous operation for Continuous
Samm PVC Pipe 4Kg/Sq.cm Quantity-180 (One Hundred Eighty) Meters
Quantity-180 (One Hundred Eighty) Meters 36
Eighty) Meters 40mm PVC Pipe 4Kg/Sq.cm Quantity- 120 (One Hundred Twenty) Meters 50mm Polypropylene Ball Valve Quantity-14 (Fourteen) Numbers Water Carrying Pipeline 63mm PVC Pipe 4Kg/Sq.cm Quantity-30 (Thirty) Meters 27 Non-Return Valve Quantity-1 (One) Number 40 1" Kinetic Air Valve Quantity-1 (One) Number 40 Dosing valve Quantity-1 (One) Number 41 Dosing valve Quantity-1 (One) Number 42 Dosing valve Quantity-1 (One) Number 44 Dosing valve Quantity-1 (One) Number 45 Manufacture as per BIS standard (IS 4985:2000
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Quantity- 120 (One Hundred Twenty) Meters 37
Quantity- 120 (One Hundred Twenty) Meters 37
Twenty) Meters 50mm Polypropylene Ball Valve Quantity-14 (Fourteen) Numbers Water Carrying Pipeline 63mm PVC Pipe 4Kg/Sq.cm Quantity-30 (Thirty) Meters 2" Non-Return Valve Quantity-1 (One) Number 40 1" Kinetic Air Valve Quantity-1 (One) Number Dosing valve Quantity-1 (One) Number 41 Dosing valve Quantity-1 (One) Number • Manufacture as per BIS standard (IS 4985:2000) • Unplasticized PVC Pipes for Potable Water S plies • Manufacture as per BIS standard (IS 4985:2000) • Used to avoid reverse flow in the pipeline. • Used to remove excess air trapped in the pipel protect against bursting. • Operating pressure of 0.1 bar to 16 bar • Maximal water temp. for continuous operation of 60°C / 140°F • Leak-proof sealing at all conditions, including I system pressure. 41 Dosing valve Quantity-1 (One) Number • FIP S12 24 VAC 50/60 HZ viton valve for dos channel
 50mm Polypropylene Ball Valve Quantity-14 (Fourteen) Numbers Water Carrying Pipeline 63mm PVC Pipe 4Kg/Sq.cm Quantity-30 (Thirty) Meters Won-Return Valve Quantity-1 (One) Number Winetic Air Valve Quantity-1 (One) Number Used for controlling valve operation at submain.
 Valve Quantity-14 (Fourteen) Numbers Water Carrying Pipeline 63mm PVC Pipe 4Kg/Sq.cm Quantity-30 (Thirty) Meters Pused to avoid reverse flow in the pipeline. Winetic Air Valve Quantity-1 (One) Number Used to remove excess air trapped in the pipeline. Used to remove excess air trapped in the pipeline. Operating pressure of 0.1 bar to 16 bar Maximal water temp. for continuous operating for continuous operating system pressure. Dosing valve Quantity-1 (One) Number FIP S12 24 VAC 50/60 HZ viton valve for dos channel
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bers Water Carrying Pipeline 63mm PVC Pipe 4Kg/Sq.cm Quantity-30 (Thirty) Meters 9 2" Non-Return Valve Quantity-1 (One) Number 40 1" Kinetic Air Valve Quantity-1 (One) Number 40 Operating pressure of 0.1 bar to 16 bar Maximal water temp. for continuous operation 60°C / 140°F Leak-proof sealing at all conditions, including 1 system pressure. 41 Dosing valve Quantity-1 (One) Number • Used to remove excess air trapped in the pipe protect against bursting. • Operating pressure of 0.1 bar to 16 bar • Maximal water temp. for continuous operation 60°C / 140°F • Leak-proof sealing at all conditions, including 1 system pressure. • FIP S12 24 VAC 50/60 HZ viton valve for dos channel
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63mm PVC Pipe 4Kg/Sq.cm Quantity-30 (Thirty) Meters 9 2" Non-Return Valve Quantity-1 (One) Number 40 1" Kinetic Air Valve Quantity-1 (One) Number 40 Operating pressure of 0.1 bar to 16 bar Maximal water temp. for continuous operation 60°C / 140°F Leak-proof sealing at all conditions, including 1 system pressure. 41 Dosing valve Quantity-1 (One) Number Plies Manufacture as per BIS standard (IS 4985:2000) Used to avoid reverse flow in the pipeline. Used to remove excess air trapped in the pipeline protect against bursting. Maximal water temp. for continuous operation 60°C / 140°F Leak-proof sealing at all conditions, including 1 system pressure. 41 Dosing valve Quantity-1 (One) Number
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Quantity-1 (One) Number 40 1" Kinetic Air Valve Quantity-1 (One) Number • Used to remove excess air trapped in the pipe protect against bursting. • Operating pressure of 0.1 bar to 16 bar • Maximal water temp. for continuous operati 60°C / 140°F • Leak-proof sealing at all conditions, including I system pressure. 41 Dosing valve Quantity-1 (One) Number • FIP S12 24 VAC 50/60 HZ viton valve for dos channel
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Quantity-1 (One) Number protect against bursting. Operating pressure of 0.1 bar to 16 bar Maximal water temp. for continuous operation for cont
 Operating pressure of 0.1 bar to 16 bar Maximal water temp. for continuous operation 60°C / 140°F Leak-proof sealing at all conditions, including lasystem pressure. Dosing valve FIP S12 24 VAC 50/60 HZ viton valve for dos channel
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 60°C / 140°F Leak-proof sealing at all conditions, including I system pressure. 41 Dosing valve Quantity-1 (One) Number FIP S12 24 VAC 50/60 HZ viton valve for dos channel
 Leak-proof sealing at all conditions, including I system pressure. Dosing valve FIP S12 24 VAC 50/60 HZ viton valve for dos channel
system pressure. 41 Dosing valve Quantity-1 (One) Number • FIP S12 24 VAC 50/60 HZ viton valve for dos channel
41 Dosing valve • FIP S12 24 VAC 50/60 HZ viton valve for dos channel
Quantity-1 (One) Number channel
• Check valve for dosing channel
Quantity-2 (Two) Number
• Aquanet 2-11/2 Operat. Mechan. AC. Replace
Quantity- 4 (Four) Number Operating voltage 24 VAC
44 Rain Shelter • Area: Rain—shelter having 240 m2 of length 24
1 (One) Number and width 10 m.
UV stabilized, diffused, IR blocked, anti-dust 2
micron polyethylene sheet.
Shade net red 50% monofilament & Shade net
% green monofilament
% green monofilament Structure dimension

	<u>, </u>	
		• Total width: 10 m
		• Span width: 10 m
		• Bay length: 4m
		 Pipe thickness: 2mm GI B' Class
		 All nut bolt and self-drilling screws of stainless
		steel 202 grade
		 Proving and fixing of the framework using GI pipes 2mm thick hot dipped zinc
		• galvanized (275gsm) with ISI mark, grade. B class,
		including the cost for installation and necessary fit-
15	Dain Chaltan	tings and accessories.
45	Rain Shelter	 Area: Rain-shelter having 200 m2 of length 20 m and width 10 m.
	1 (One) Number	
		UV stabilized, diffused, IR blocked, anti-dust 200- migrap polyethylana chapt
		micron polyethylene sheet.Shade net red 50% monofilament & Shade net 35
		% green monofilament
		Structure dimension
		• Central height: 3.5 m
		• Gutter height: 1.90 m
		• Total width: 10 m
		• Span width: 10 m
		Bay length: 4m Bigg 4h; the area 2 and CLP; Characteristics
		Pipe thickness: 2mm GI B' Class All and held and held lilling assume of stainless.
		• All nut bolt and self-drilling screws of stainless
		steel 202 grade
		• Proving and fixing of the framework using GI
		pipes 2mm thick hot dipped zinc
		• galvanized (275gsm) with ISI mark, grade. B class,
		including the cost for installation and necessary fit-
1.5		tings and accessories.
46	Electrical Cable & Accessories.	
	LS(Lump sum)	
47	Fertilizer Stock Tank with PVC &	
	UPVC Accessories	
	LS(Lump sum)	
48	Labour charges for supplying,	
	fixing in position, laying, fittings,	
	trench work, and backfilling,	
	commissioning, etc.	
	LS(Lump sum)	
49	Manifold for Mainline	
	LS(Lump sum)	
50	Manifold for Venturi	
	LS(Lump sum)	
51	Head Unit Fittings	
	LS(Lump sum)	
52	Complete fittings and accessories,	
	Installation charges, and transpor-	
	tation charges	
	LS (Lump sum)	



Irrigation Schedule as per field layout									
			OP	ERATIO	SCHED	ULE			
Shift No.	o. Main Line	Туре	CV	Area(m2)	Valve Area (Ac)	Valve Flow (cu.m/h)	Shift Area (Ac)	Shift Flow (cu.m/h)	Operating Time (Hr)
1	- Main Line -1	Rain Shelter-1	CV1	193	0.05	1.61	0.10	3.38	0.96
2		Tunnel-1	CV2	213	0.05	1.78			
		Tunnel-2	CV3	213	0.05	1.78	0.11	3.55	0.96
2		Tunnel-3	CV4	213	0.05	1.78			
3	Main Line - 2	Rain Shelter-2	CV5	193	0.05	1.61	0.10	3.38	0.96
- 1		Tunnel-4	CV6	213	0.05	1.78	0.10	3.30	0.90
4		Tunnel-5	CV7	213	0.05	1.78	0.11	3.55	0.96
		Tunnel-6	CV8	213	0.05	1.78			
	Total			1664	0.41	13.87	0.41	13.87	3.84

55 Irrigation data as per design

IRRIGATION DATA					
Plantaion Type	New				
Crop	Mixed				
Emitter type	Pressure Compensating				
Irrigation System	Inline				
Distance between Rows m	0.60				
Distance between Plants m	0.40				
No of plants	6934				
No of Emitters per lateral	1.00				
Emitter spacing per lateral m	0.40				
No. of laterals per Row	1				
Lateral spacing m	0.60				
Emitter Discharge I/h	2.0				
Application rate mm/h	8.33				
Evaporation Equivalent mm/day	8.0				
No. of Shifts	4				
Application volume m3/ha	80				
Duration of one shift hr	0.96				
Total operational time hrs	3.84				
Max.Disch. Variation %	0.0				
Net Area Ac	0.41				
Area in m2	1664				
Flow Rate CM/H/AC	33.74				
Water Source	Tank				
Total Area, Ac	0.41				
Total Q - (Cum / hr)	13.9				
Flow per Shift (Cum / hr)	3.5				
Area per Shift (Ac)	0.10				

Terms and condition to be included -

- 1. If SATCARD reports any issues during the first 3 years after installation to the vendor via email the vendor is obliged to rectify the problem within 72 hours of notification. In cases where the replacement of parts is required, the vendor must complete the replacement within 1 week. Failure to meet these timeframes will result in penalties, the amount of which will be determined by SATCARD authorities
- 2. The bidder or any one partner of Joint Venture should be a designer and manufacturing company of the drip irrigation systems in India and have production facility to produce the pressure compensating drip lines as per BIS standards.
- 3. The intending Bidder / Firm/ Company /Joint Venture should have satisfactorily executed work of Drip Irrigation & Automation system during the last FIVE YEARS (2018-19 to 2022-23). The certificate should be obtained duly signed from an officer not below the rank of Executive Engineer or equivalent authority and counter signed by the immediate higher authority.
- 4. Drip & Automation material should be from the same supplier/Company.
- 5. All the work including the fabrication works should be done by the same supplier/company
- 6. The execution of work should be completed within 3 months from the date of awarding the contract.

<u>UNDERTAKING BY THE BIDDER</u> (TO BE SUBMITTED ONLY THROUGH ONLINE MODE IN APPROPRIATE FORMAT)

We here by accept all the Terms and Conditions of the Tender Document and strictly adhere to the same in the event of getting Purchase order. We also declare that the Technical and Financial Bids submitted by us has NO DEIVATION from the Tender Terms and Conditions.

We hereby accept that the PRICES OF THE EQUIPMENTS/ITEMS QUOTED ARE AS PER THE INCOTERMS 2022 - DDP MODE, IIT PALAKKAD AND CLAUSE NO.6 OF THE TENDER DOCUMENT.

DOCUMENT.
We hereby undertake that there are pages, serially numbered, in the submitted tender including the supporting documents. (Please serially number all the pages including blank page, if any).
We have submitted our principal's exclusive authorization letter which is specific for this tender No dated
Note: This letter should be on the <u>letterhead of the quoting firm</u> and should be signed by a Competent Authority.
ANNEXURE-III
<u>FALL CLAUSE NOTICE CERTIFICATE</u> (TO BE SUBMITTED ONLY THROUGH ONLINE MODE IN APPROPRIATE FORMAT)
This is to certify that we have offered the maximum possible discount to you in our Quotation No dated (Please do not reveal the prices here, which will lead to outright rejection of your bid).
The prices charged for the Stores supplied under tender should under no event be higher than the lowest prices at which the party sells the items of identical description to any other Govt. organization/PSU's/Central Govt., /State Govt. Autonomous bodies/Central/state Universities/Central/State Educational Institutions, failing which the "FALL CLAUSE" will be applicable. The institute will look into a reasonable past period to ensure this. In case, if the price charged by our firm is found to be more, IIT Palakkad will have the right to recover the excess charged amount from the subsequent/unpaid bill of the supplier.
Note: This letter of authority should be on the <u>letterhead of the quoting firm</u> and should be signed by a Competent Authority and having the power of attorney.
ANNEXURE-IV
UNDERTAKING REGARDING BLACKLISTING / NON – DEBARMENT Tender No
To, M/s. Indian Institute of Technology Palakkad Ahalia Integrated Campus, Kozhipara, Palakkad, Kerala 678623
We hereby confirm and declare that we, M/s are not blacklisted/ De-registered / debarred by any Government department/ Public Sector Undertaking/ Private Sector/ or any other agency for which we have Executed/ Undertaken the works/ Services.
For Company Name and Seal Authorised Signatory
Note: This letter should be on the letterhead of the quoting firm and should be signed by a Competent

Authority.

FORMAT FOR SELF-CERTIFICATION UNDER PREFERENCE TO MAKE IN INDIA (TO BE SUBMITTED ONLY THROUGH ONLINE MODE IN APPROPRIATE FORMAT)

Format for Affidavit of Self-Certification regarding Minimum Local Content in line with "Make in India" Policy vide GoI Order no. P-45021/2/2017-PP (B.E.-II) dated 15.06.2017 (subsequently revised vide orders dated 28.05.2018, 29.05.2019 and 04.06.2020)

Date:	
I/We	
Resident	of
Hereby so	olemnly affirm and declare as under:
Order, 20	ill agree to abide by the terms and conditions of the Public Procurement (Preference to Make in India) 017 (hereinafter PPP-MII order) of Government of India issued vide Notification No:P-45021/2/2017 - ted 15/06/2017, its revision dated 28/05/2018 and any subsequent modifications/Amendments, if any
	local content for all inputs which constitute the said goods/services/works has been verified by me and consible for the correctness of the claims made therein.
) and Fill the Appropriate Category
	I/We [name of the manufacturer] hereby confirm in respect of quoted items(s) that Local Content is equal to or more than 50% and come under "Class-I Local Supplier" category.
	I/We [name of the manufacturer] hereby confirm in respect of quoted items(s) that Local Content is more than 20% but less than 50% and come under "Class-II Local Supplier" category.
	lem:lem:lem:lem:lem:lem:lem:lem:lem:lem:
For and o	on behalf of(Name of firm/entity)
	ed signatory (To be duly authorized by the Board of Directors) Jame, Designation and Contact No.>
from stat	case of procurement for a value in excess of Rs. 10 Crores, the bidders shall provide this certificate autory auditor or cost auditor of the company (in the case of companies) or from a practicing cost not or practicing chartered accountant (in respect of suppliers other than companies) giving the

percentage of local content.]