

REQUEST FOR PROPOSALS

No. 22-15

ROCKDALE COUNTY, GEORGIA

May 4, 2022

PURCHASE & INSTALL: PARTICLE COUNTERS AT THE WATER TREATMENT PLANT



**ROCKDALE COUNTY FINANCE DEPARTMENT
PROCUREMENT OFFICE
958 Milstead Avenue
CONYERS, GA 30012
770-278-7552**

INTRODUCTION:

Rockdale County is requesting Competitive Sealed Proposals for the **Purchase and Install of Particle Counters at the Water Treatment Plant**. Instructions for preparation and submission of a proposal are contained in this packet. Proposals must be typed or printed in ink.

Rockdale County provides equal opportunity for all businesses and does not discriminate against any person or business because of race, color, religion, sex, national origin, handicap, or veterans' status. This policy ensures all segments of the business community have access to supplying the goods and services needed by Rockdale County.

PURCHASING CONTACT FOR THIS REQUEST:

All questions concerning this RFP and all questions arising subsequent to award are to be addressed to the Purchasing Division via email to Meagan Porch, Buyer, at meagan.porch@rockdalecountyga.gov or the following address:

Rockdale County Finance Department
Purchasing Division
Attn: Meagan Porch
958 Milstead Avenue
Conyers, GA 30012
Phone: (770) 278-7557, Fax: (770) 278-8910
E-mail: meagan.porch@rockdalecountyga.gov

To maintain a "level playing field", and to assure that all proposers receive the same information, proposers are requested **NOT** to contact anyone other than the contact above until after the award of the contract. Doing so could result in disqualification of the proposer.

PROPOSAL COPIES FOR EVALUATION:

Technical Proposal:

One (1) hard copy, one (1) original hard copy, and one Flash Drive in Adobe PDF format will be required for review purposes. (*Original must be clearly marked "Original" and the Copies clearly marked "Copies."*). Flash Drives that are blank or have incorrect information on them will not be acceptable and may be justification for disqualification. Check your Flash Drive(s) to ensure that they have the appropriate material on it before submitting.

Price Proposal:

Two (2) hard copies of the Price Proposal Form are required to be submitted in a separate sealed envelope labeled "Proposal Form". Please also include a copy of the Price Proposal Form on the Flash Drive.

CONTRACT TERM:

The Contract Term TBD.

DUE DATE:

Sealed proposals will be received at the Rockdale County Finance Department, Procurement Division, 958 Milstead Avenue, Conyers, GA 30012 no later than **2:00 P.M., local time, Thursday, June 2, 2022.** Proposals received after this time will not be accepted.

PRE-PROPOSAL CONFERENCE:

There will be a **MANDATORY** Pre-Proposal Conference and Site Visit held at the **Rockdale County Water Treatment Plant, 3090 Gees Mill Road NE, Conyers, GA 30013, at 10:30 A.M., local time, Wednesday, May 18, 2022.** Any questions and/or misunderstandings that may arise from this RFP may be asked and answered at the pre-proposal conference; however, oral responses are not authoritative. Proposers are encouraged to review the RFP before attending the pre-proposal conference. Questions received after the pre-proposal conference must be submitted in writing to meagan.porch@rockdalecountyga.gov or at the above address. *Any contractor who intends to submit a proposal is required to attend this meeting.*

QUESTIONS AND CLARIFICATIONS:

All questions and requests for clarifications concerning this RFP must be submitted to the Purchasing Division via email to meagan.porch@rockdalecountyga.gov or at the above address no later than **2:00 p.m., local time, on Thursday, May 26, 2022.** It shall be the proposer's responsibility to seek clarification as early as possible prior to the due date and time. Written responses from the County to the questions it receives will be in an addendum and posted to the County's website at www.rockdalecountyga.gov, under Bid Opportunities. Questions or requests for clarifications received after this deadline will not receive a response.

ADDENDA:

Answers to questions submitted that materially change the conditions and specifications of this RFP will be issued in an addendum and posted to the County's website at www.rockdalecountyga.gov Bid Opportunities. Any discussions or documents will be considered non-binding unless incorporated and issued in an addendum.

It is the proposer's responsibility to check the Rockdale County website at www.rockdalecountyga.gov, Bid Opportunities for any addenda that may be issued, prior to submitting a proposal for this RFP.

DELIVERY

NOTE: F.O.B. POINT: Unless otherwise stated in the invitation and any resulting contract, or qualified by the bidder, all articles will be F.O.B. Destination, Freight Prepaid and Allowed. This shall include delivered, unloaded, and placed in designated place. Successful bidder must comply with this paragraph. Please call during business hours, 8:00am to 5:00pm, to the telephone number listed below.

F.O.B. LOCATION: Rockdale County Water Treatment Plant
3090 Gees Mill Road NE
Conyers, Georgia 30013
Telephone: (770) 278-7485
(valid during normal business hours only)

INFORMATION TECHNOLOGY DISCLOSURES

This section is intended to obtain a full disclosure from the responder of all requirements related to the use of Information Technology for the successful implementation and operational readiness of the proposed solution. This disclosure should include all computer hardware, software, and network connectivity requirements that are needed.

Software that provides built-in data archiving mechanisms for all documents and files, and that can also be programmed to reflect State-defined retention schedules will receive preference.

Information must include:

- Point of Contact for Technical follow up (Name, title, email address, phone number)
- System Hosting (Cloud-based or Rockdale County Data Center)
- Compute requirements (server, workstations, field devices – Mfg. and Model)
- Storage requirements (Mfg. and Model, estimated 1st year requirement, estimated rate of growth, total capacity in Gb required for initial 2 years)
- Platforms involved – list all (Windows, iOS, Android, Linux, etc.)
- Scanners, cameras, monitors, printers (Mfg. and Model)
- Software requirements (utilities, DB scripts, applications, – Name and Developer)
- High-level diagram of the solution (Host, Storage, DBs, Applications, Interfaces to other applications)

The Total Solution Cost should include all I.T. costs, plus (2) years of Maintenance (Support) Costs of all applications and equipment.

Responses must contain Payment Terms based on project-defined deliverables that include Project Plan Approval, Installation, Training, and Testing – both Systems and End-to-End (E2E) testing.

All systems that have been designated as “live”, “in use”, or “in Production” must follow the Change Management Procedures of the County in order for any subsequent changes to be approved, scheduled, and implemented. These procedures call for testing and adequate proof of testing.

QUALIFICATIONS OF OFFERORS:

Proposers must have a current business license from their home-based jurisdiction and provide a copy of that license with the submittal of their proposal response.

Proposals from any offeror that is in default on the payment of any taxes, license fees, or other monies due to Rockdale County will not be accepted.

Any contractor submitting a Proposal must complete the Contractor's Qualification Statement and Questionnaire if provided in this package.

In evaluating Proposals, the County may seek additional information from any contractor concerning such contractor's proposal or its qualifications to construct the Project.

Proposers are to submit at least **three (3) references** from projects with similar experience using the materials and process in this RFP.

PROPRIETARY INFORMATION

Careful consideration should be given before submitting confidential information to Rockdale County. The Georgia Open Records Act permits public scrutiny of most materials collected as part of this process. Please clearly mark any information that is considered a trade secret, as defined by the Georgia Trade Secrets Act of 1990, O.C.G.A. §10-1-760 et seq., as trade secrets are exempt from disclosure under the Open Records Act. Rockdale County does not guarantee the confidentiality of any information not clearly marked as a trade secret.

FINANCIAL STABILITY

The Offeror will provide financial information that would allow proposal evaluators to ascertain the financial stability of the firm.

- If a public company, the Offeror will provide their most recent audited financial report.
- If a private company, the Offeror will provide a copy of their most recent internal financial statement, and/or a letter from their financial institution, on the financial institution's letterhead, stating the Offeror is in good standing with that financial institution.

SELECTION PROCESS:

The Rockdale County Procurement Office and Evaluation Committee makes a recommendation for award. The Board of Commissioners will make the actual award of the contract and has the authority to award the contract to a company different than the company recommended by the Procurement Office and/or Evaluation Committee.

This is a past performance/quality/price trade-off source selection in which competing offeror's past and present performance history and product quality will be evaluated on a basis approximately equal to price. Award will be made to the responsible offeror whose proposal represents the best value after evaluation in accordance with the factors listed below. Rockdale County Board of Commissioners may reject any or all proposals and to waive any technicalities or informalities if such action is in the county's interest.

Rockdale County may evaluate proposals and award a contract without discussions with offerors. Therefore, the offeror's initial proposal should contain the offeror's best terms from a price and technical standpoint. The County reserves the right to conduct discussions if the County later determines them to be necessary.

Proposers will be evaluated based on the following criteria and may be called in for an interview. The County intends to award the contract to the responsible and responsive contractor whose proposal is determined in writing to be the most advantageous to the County taking into consideration all of the evaluation criteria.

EVALUATION CRITERIA:

Offerors will be evaluated based on the following criteria and may be called in for an interview.

Respondents will have their submissions evaluated and scored. Submissions will be evaluated to assess the respondent's ability to provide anticipated services for Rockdale County. Rockdale County shall be the sole judge of the quality and the applicability of all statements of qualifications. Approach, scope, overall quality, local facilities, terms, and other pertinent considerations will be taken into account in determining acceptability.

Selection Committee shall evaluate and rank the statements of qualifications based on the following criteria:

- Responsiveness to the RFP - **(10%)**
- Warranty information for the product and the installation; Life cycle of the product. Sustainability for the economic and/or environmental benefits - **(15%)**
- Delivery time and implementation schedules - **(15%)**
- Total Cost – **(40%)**
- Customer experience with similar type of installs - **(20%)**

INTERVIEWS

Interviews may be scheduled. Interviews will be informal and will provide respondents with an opportunity to answer any questions the selection team may have on a submission.

INSURANCE:

Before starting any work, the successful contractor must furnish to Rockdale County certificate(s) of insurance from companies doing business in Georgia. The Company shall maintain in full force and effect the following insurance during the term of the Agreement:

| Coverages: | Limits of Liability: |
|--|--------------------------------|
| Workers' Compensation | Statutory |
| Employers' Liability | \$1,000,000.00 |
| Bodily Injury Liability | \$1,000,000.00 each occurrence |
| except Automobile | \$1,000,000.00 aggregate |
| Property Damage Liability | \$1,000,000.00 each occurrence |
| except Automobile | \$1,000,000.00 aggregate |
| Personal & Advertising Injury Limit | \$1,000,000.00 |
| Products / Completed Ops. | \$2,000,000.00 aggregate |
| Automobile Bodily Injury | \$1,000,000.00 each person |
| Liability | \$1,000,000.00 each occurrence |
| Automobile Property Damage | \$1,000,000.00 each occurrence |
| Liability | |
| (If hazardous substances are involved) | |
| Contractor's Pollution Liability (with 1-year extended reporting period) | |
| Each Occurrence | \$1,000,000.00 |
| Aggregate | \$2,000,000.00 |
| Environmental Impairment Liability (with 1-year extended reporting period) | |
| Each Occurrence | \$1,000,000.00 |
| Aggregate | \$2,000,000.00 |
| General Liability | \$1,000,000.00 |

All insurance shall be provided by an insurer(s) acceptable to the County and shall provide for thirty (30) days prior notice of cancellation to the County. Upon contract award, Contractor shall deliver to the County a certificate or policy of insurance evidencing Contractor's compliance with this paragraph. Contractor shall abide by all terms and conditions of the insurance and shall do nothing to impair or invalidate the coverage.

Rockdale, GA shall be named as Additional Insured under any General Liability, Business Auto and Umbrella Policies using ISO Additional Insured Endorsement forms CG 2010 or its equivalent. Coverage shall apply as Primary and non-contributory with Waiver of Subrogation in favor of Rockdale County, Georgia.

The insurance carrier must have a minimum rating of A or higher as determined by the rating firm A.M. Best.

Certificates must contain policy number, policy limits, and policy expiration date of all policies. The Request for Proposals (RFP) number and project name must be inserted in the Description of Operations section of the certificate.

Certificates are to be issued to:

Rockdale County, Georgia
958 Milstead Avenue
Conyers, GA 30012

BONDS:

N/A

PERMITS:

N/A

AWARD OF CONTRACT

The Rockdale County Procurement Office and Evaluation Committee makes a recommendation for award. The Board of Commissioners will make the actual award of the contract and has the authority to award the contract to a company different than the company recommended by the Procurement Office and/or Evaluation Committee.

ILLEGAL IMMIGRATION REFORM AND ENFORCEMENT ACT OF 2011

Vendors submitting a Qualification package in response to this RFP must complete the Contractor Affidavit under O.C.G.A. §13-10-91(b)(1) which is provided with the RFP package to verify compliance with the Illegal Immigration Reform and Enforcement Act of 2011.

- A. The form must be signed by an authorized officer of the contractor or their authorized agent.
- B. The form must be notarized.
- C. **The contractor will be required to have all subcontractors and sub-subcontractors who are engaged to complete physical performance of services under the final contract executed between the County and the contractor complete the appropriate subcontractor and sub-subcontractor affidavits and return them to the County a minimum of five (5) days prior to any work being accomplished by said subcontractor or sub-subcontractor. Format for this affidavit can be provided to the contractor if necessary.**

GENERAL INFORMATION

No proposals received after said time or at any place other than the time and place as stated in the notice shall be considered. No responsibility shall attach to Rockdale County for the premature opening of a proposal not properly addressed and identified.

WITHDRAWAL OF PROPOSAL:

A proposer may withdraw his proposal before the proposal due date, without prejudice to the proposer, by submitting a written request of withdrawal to the Rockdale County Procurement Office.

REJECTION OF PROPOSAL:

Rockdale County may reject any and all proposals and must reject a proposal of any party who has been delinquent or unfaithful in any formal contract with Rockdale County. Also, the right is reserved to waive any irregularities or informalities in any proposal in the proposing procedure. Rockdale County shall be the sole judge as to which proposal is best, and in ascertaining this, will take into consideration the business integrity, financial resources, facilities for performing the work, and experience in similar operations of the various proposers.

STATEMENT OF EXPERIENCE AND QUALIFICATIONS:

The proposer may be required, upon request, to prove to the satisfaction of Rockdale County that he/she has the skill, experience, necessary facilities, and ample financial resources to perform the contract(s) in a satisfactory manner and within the required time. If the available evidence of competency of any proposer is not satisfactory, the proposal of such proposer may be rejected. The successful proposer is required to comply with and abide by all applicable federal and state laws in effect at the time the contract is awarded.

NON-COLLUSION AFFIDAVIT:

By submitting a proposal, the proposer represents and warrants that such proposal is genuine and not sham or collusive or made in the interest or in behalf of any person not therein named, that the proposer has not directly or indirectly induced or solicited any other proposer to put in a sham proposal, or any other person, firm or corporation to refrain from proposing and that the proposer has not in any manner sought by collusion to secure to that proposer any advantage over any other proposer.

INTEREST OF:

By submitting a proposal, the proposer represents and warrants that a Commissioner, Administrator, employee, nor any other person employed by Rockdale County has, in any manner, an interest, directly or indirectly, in the proposal or in the contract which may be made under it, or in any expected profits to arise there from.

DOCUMENTS DEEMED PART OF THE CONTRACT:

The notice, invitation to proposers, general conditions, and instructions for proposers, special conditions, specifications, proposal, and addenda, if any, will be deemed part of the contract.

STANDARD INSTRUCTIONS

1. The instructions contained herein shall be construed as a part of any proposal invitation and/or specifications issued by Rockdale County and must be followed by each proposer.
2. The written specifications contained in this proposal shall not be changed or superseded except by written addendum from Rockdale County. Failure to comply with the written specifications for this proposal may result in disqualification by Rockdale County.
3. All goods and materials shall be F.O.B. Destination Conyers, Georgia and no freight or postage charges will be paid by Rockdale County unless such charges are included in the proposal price.
4. The following number, RFP No. **22-15** must be written clearly on the outside of each proposal envelope in order to avoid prior opening in error.
5. All proposals must be received and in-hand at proposal due date and time. Each proposer assumes the responsibility for having his/her proposal received at the designated time and place of proposal due date. Proposals received after the stated time and date may be subject to rejection without consideration, regardless of postmark. Rockdale County accepts no responsibility for mail delivery.
6. Unless otherwise stated, all proposals submitted shall be valid and may not be withdrawn for a period of 120 days from the due date.
7. Each proposal form submitted must include the name of the business, mailing address, the name, title and signature of the person submitting the proposal. When submitting a proposal to Rockdale County the Proposal Form must be submitted in a separate sealed envelope labeled "Proposal Form".
8. Rockdale County reserves the right to accept a proposal that is not the lowest price if, in the County's judgment, such proposal is in the best interest of the County and the public. The County reserves the right to reject any and all proposals.
9. Telephone, Emailed or Facsimile proposals will not be accepted.
10. No sales tax will be charged on any orders except for contracts that include construction materials being purchased through a third party.
 - i. Federal I.D. #58-6000882
 - ii. Sales Tax Exempt #58-800068K
11. If applicable, completed questionnaires must be signed manually. Rockdale County reserves the right to accept or reject any proposal on the basis of incomplete or inaccurate answers to the questionnaire.
12. If applicable, warranty information shall be provided.
13. Proposers shall state delivery time after receiving order.
14. Proposers shall identify any subcontractors and include an explanation of the service or product that they may provide.

BID SPECIFICATIONS:

The specifications are as follows below and, on the examples, attached.

General:

Purchase Price shall include delivery, F.O.B. Rockdale County WTP, Conyers, GA 30013.

Include any brochures and specifications that pertain to the equipment that you are proposing.

List any options and the cost for the options separately.

Warranty information must be provided with the submittal of bid.

All manuals associated with the equipment must be delivered with the equipment at no additional charge to Rockdale County. Manuals included but not limited to: Electrical, Pump, Wiring, Mechanical, Operational, Parts, Service, etc.

Particle Counters:

- Seven (7) Particle Counter Units to replace existing units.
- Must provide real time data on our SCADA system, as existing units do (4 – 20)
- Delivery, removal, installation, and configuration will be required.

Particle Counters Examples of Product Specifications:

- Example #1 – Chemtrac Particle Counter - PC3400
- Example #2 – HACH 2200 PCX Particle Counter

Technical:

The attached specifications that are listed are “desired” specifications based on the current product knowledge of Rockdale County. The purpose of this Bid Request is to review and evaluate other similar alternatives that could meet the County’s needs. Any reference to a particular vendor or their product specifications is for descriptive purposes only and will not alter the competitiveness of this Bid Request.

PROPOSAL FORM

Instructions: Complete all THREE parts of this bid form.

PART I: Proposal Summary

Complete the information below. If you wish to submit more than one brand, make a photocopy of this Proposal Form.

| | Item Description | COST OF EACH | TOTAL COST |
|----|--|--------------|------------|
| 1. | Particle Counter Unit Cost | \$ | \$ |
| 2. | Delivery | \$ | \$ |
| 3. | Removal & Installation | \$ | \$ |
| 4. | Additional Costs (if applicable) | \$ | \$ |
| 5. | Total Lump Sum - All Seven (7) Units, Removal, Delivery & Install (including additional cost) | \$ | \$ |

PART II: Addenda Acknowledgements (if applicable)

Each vendor is responsible for determining that all addenda issued by the Rockdale County Finance Department – Purchasing Division have been received before submitting a bid.

| Addenda | Date Vendor Received | Initials |
|---------|----------------------|----------|
| "1" | | |
| "2" | | |
| "3" | | |
| "4" | | |
| "5" | | |
| "6" | | |

PART III: Vendor Information:

| | |
|-----------------------------|--|
| Company Name | |
| Address | |
| Telephone | |
| E-Mail | |
| Representative (print name) | |
| Signature of Representative | |
| Date Submitted | |

ROCKDALE COUNTY BOARD OF COMMISSIONERS
NON-COLLUSION AFFIDAVIT OF VENDOR

State of _____)

County of _____)

_____, being first duly sworn, deposes and says that:

(1) He is _____ (owner, partner officer, representative, or agent) of _____, the Vendor that has submitted the attached RFP;

(2) He is fully informed respecting the preparation and contents of the attached RFP and of all pertinent circumstances respecting such RFP;

(3) Such RFP is genuine and is not a collusive or sham RFP;

(4) Neither the said Vendor nor any of its officers, partners, owners, agents, representatives, employees or parties in interest, including this affidavit, has in any way colluded, conspired, connived or agreed, directly or indirectly with any other Vendor, firm or person to submit a collusive or sham RFP in connection with the Contract for which the attached RFP has been submitted or refrain from proposing in connection with such Contract, or has in any manner, directly or indirectly, sought by agreement or collusion or communication or conference with any other Vendor, firm or person to fix the price or prices in the attached RFP or of any other Vendor, or to fix any overhead, profit or cost element of the proposing price or the proposing price of any other Vendor, or to secure through any collusion, conspiracy, connivance or unlawful agreement any advantage against Rockdale County or any person interested in the proposed Contract; and

(5) The price or prices quoted in the attached RFP are fair and proper and are not tainted by any collusion, conspiracy, connivance or unlawful agreement on the part of the Vendor or any of its agents, representatives, owners, employees, or parties in interest, including this affidavit.

 (Signed)

 (Title)

Subscribed and Sworn to before me this _____ day of _____, 202__

Name _____

Title _____

My commission expires (Date)

ROCKDALE COUNTY BOARD OF COMMISSIONERS
NON-COLLUSION AFFIDAVIT OF SUB-CONTRACTOR

State of _____)

County of _____)

_____, being first duly sworn, deposes and says that:

(1) He/She is _____ (owner, partner officer, representative, or agent) of _____, the sub-contractor that has submitted the attached RFP;

(2) He is fully informed respecting the preparation and contents of the attached RFP and of all pertinent circumstances respecting such RFP;

(3) Such RFP is genuine and is not a collusive or sham RFP;

(4) Neither the said sub-contractor nor any of its officers, partners, owners, agents, representatives, employees or parties in interest, including this affidavit, has in any way colluded, conspired, connived or agreed, directly or indirectly with any other Vendor, firm or person to submit a collusive or sham RFP in connection with the Contract for which the attached RFP has been submitted or refrain from proposing in connection with such Contract, or has in any manner, directly or indirectly, sought by agreement or collusion or communication or conference with any other Vendor, firm or person to fix the price or prices in the attached RFP or of any other Vendor, or to fix any overhead, profit or cost element of the proposing price or the proposing price of any other Vendor, or to secure through any collusion, conspiracy, connivance or unlawful agreement any advantage against Rockdale County or any person interested in the proposed Contract; and

(5) The price or prices quoted in the attached RFP are fair and proper and are not tainted by any collusion, conspiracy, connivance or unlawful agreement on the part of the sub-contractor or any of its agents, representatives, owners, employees, or parties in interest, including this affidavit.

(Signed)

(Title)

Subscribed and Sworn to before me this _____ day of _____, 202__.

Name _____

Title _____

My commission expires (Date)

Contractor Affidavit under O.C.G.A. §13-10-91(b)(1)

By executing this affidavit, the undersigned contractor verifies its compliance with O.C.G.A. §13-10-91, stating affirmatively that the individual, firm or corporation which is engaged in the physical performance of services on behalf of (name of public employer) has registered with, is authorized to use and uses the federal work authorization program commonly known as E-Verify, or any subsequent replacement program, in accordance with the applicable provisions and deadlines established in O.C.G.A. §13-10-91. Furthermore, the undersigned contractor will continue to use the federal work authorization program throughout the contract period and the undersigned contractor will contract for the physical performance of services in satisfaction of such contract only with subcontractors who present an affidavit to the contractor with the information required by O.C.G.A. §13-10-91(b). Contractor hereby attests that its federal work authorization user identification number and date of authorization are as follows:

Federal Work Authorization User Identification Number

Date of Authorization

Name of Contractor

Name of Project

Name of Public Employer

I hereby declare under penalty of perjury that the foregoing is true and correct.

Executed on _____, ___, 202__ in _____(city), _____(state).

Signature of Authorized Officer or Agent

Printed Name and Title of Authorized Officer or Agent

SUBSCRIBED AND SWORN BEFORE ME
ON THIS THE _____ DAY OF _____, 202__.

NOTARY PUBLIC
My Commission Expires:

Subcontractor Affidavit under O.C.G.A. § 13-10-91(b)(3)

By executing this affidavit, the undersigned subcontractor verifies its compliance with O.C.G.A. § 13-10-91, stating affirmatively that the individual, firm or corporation which is engaged in the physical performance of services under a contract with (name of contractor) on behalf of (name of public employer) has registered with, is authorized to use and uses the federal work authorization program commonly known as E-Verify, or any subsequent replacement program, in accordance with the applicable provisions and deadlines established in O.C.G.A. § 13-10-91. Furthermore, the undersigned subcontractor will continue to use the federal work authorization program throughout the contract period and the undersigned subcontractor will contract for the physical performance of services in satisfaction of such contract only with sub-subcontractors who present an affidavit to the subcontractor with the information required by O.C.G.A. § 13-10-91(b). Additionally, the undersigned subcontractor will forward notice of the receipt of an affidavit from a sub-subcontractor to the contractor within five business days of receipt. If the undersigned subcontractor receives notice that a sub-subcontractor has received an affidavit from any other contracted sub-subcontractor, the undersigned subcontractor must forward, within five business days of receipt, a copy of the notice to the contractor. Subcontractor hereby attests that its federal work authorization user identification number and date of authorization are as follows:

Federal Work Authorization User Identification Number

Date of Authorization

Name of Subcontractor

Name of Project

Name of Public Employer

I hereby declare under penalty of perjury that the foregoing is true and correct.

Executed on _____, ___, 202__ in _____(city), _____(state).

Signature of Authorized Officer or Agent

Printed Name and Title of Authorized Officer or Agent

SUBSCRIBED AND SWORN BEFORE ME
ON THIS THE _____ DAY OF _____, 202__.

NOTARY PUBLIC
My Commission Expires:

Sub-subcontractor Affidavit under O.C.G.A. §13-10-91(b)(4)

By executing this affidavit, the undersigned sub-subcontractor verifies its compliance with O.C.G.A. §13-10-91, stating affirmatively that the individual, firm or corporation which is engaged in the physical performance of services under a contract for (name of subcontractor or sub-subcontractor with whom such sub-subcontractor has privity of contract) and (name of contractor) on behalf of (name of public employer) has registered with, is authorized to use and uses the federal work authorization program commonly known as E-Verify, or any subsequent replacement program, in accordance with the applicable provisions and deadlines established in O.C.G.A. §13-10-91. Furthermore, the undersigned sub-subcontractor will continue to use the federal work authorization program throughout the contract period and the undersigned sub-subcontractor will contract for the physical performance of services in satisfaction of such contract only with sub-subcontractors who present an affidavit to the sub-subcontractor with the information required by O.C.G.A. §13-10-91(b). The undersigned sub-subcontractor shall submit, at the time of such contract, this affidavit to (name of subcontractor or sub-subcontractor with whom such sub-subcontractor has privity of contract). Additionally, the undersigned sub-subcontractor will forward notice of the receipt of any affidavit from a sub-subcontractor to (name of subcontractor or sub-subcontractor with whom such sub-subcontractor has privity of contract). Sub-subcontractors hereby attest that its federal work authorization user identification number and date of authorization are as follows:

Federal Work Authorization User Identification Number

Date of Authorization

Name of Sub-Subcontractor

Name of Project

Name of Public Employer

I hereby declare under penalty of perjury that the foregoing is true and correct.

Executed on _____, _____, 202__ in _____(city), _____(state).

Signature of Authorized Officer or Agent

Printed Name and Title of Authorized Officer or Agent

SUBSCRIBED AND SWORN BEFORE ME
ON THIS THE _____ DAY OF _____, 202__.

NOTARY PUBLIC
My Commission Expires: _____

Affidavit Verifying Status for County Public Benefit Application

By executing this affidavit under oath, as an applicant for the award of a contract with Rockdale, County Georgia, I _____. [Name of natural person applying on behalf of individual, business, corporation, partnership, or other private entity] am stating the following as required by O.C.G.A. Section 50-36-1:

1) _____ I am a United States citizen

OR

2) _____ I am a legal permanent resident 18 years of age or older or I am an otherwise qualified alien or non-immigrant under the Federal Immigration and Nationality Act 18 years of age or older and lawfully present in the United States.*

In making the above representation under oath, I understand that any person who knowingly and willfully makes a false, fictitious, or fraudulent statement or representation in an affidavit shall be guilty of a violation of Code Section 16-10-20 of the Official Code of Georgia.

Signature of Applicant:

Date

Printed Name:

* _____

Alien Registration number for non-citizens

SUBSCRIBED AND SWORN
BEFORE ME ON THIS THE
_____ DAY OF _____, 202__.

Notary Public
My commission Expires:

***Note:** O.C.G.A. § 50-36-1(e)(2) requires that aliens under the federal Immigration and Nationality Act, Title 8 U.S.C., as amended, provide their registration number. Because legal permanent residents are included in the federal definition of "alien", legal permanent residents must also provide their alien registration number. Qualified aliens that do not have an alien registration number may supply another identifying number below.

CONTRACTOR'S QUALIFICATION STATEMENT AND QUESTIONNAIRE

NAME OF PROPOSED CONTRACTOR: _____

I. INSTRUCTIONS

- A. All questions are to be answered in full. If copies of other documents will answer the question completely, they may be attached and clearly labeled. If additional space is needed, additional pages may be attached and clearly labeled.
- B. The owner, Rockdale County, Georgia, its agents and representatives, shall be entitled to contact each and every reference listed in response to this questionnaire, and each entity referenced in any response to any question in this questionnaire. By completing this questionnaire, the contractor expressly agrees that any information concerning the contractor in possession of said entities and references may be made available to the owner.
- C. Only complete and accurate information shall be provided by the contractor. The contractor hereby warrants that, to the best of its knowledge and belief, the responses contained herein are true, accurate, and complete. The contractor also acknowledges that the owner is relying on the truth and accuracy of the responses contained herein. If it is later discovered that any material information given in response to a question was provided by the contractor, knowing it was false, it shall constitute grounds for immediate termination or rescission by the owner of any subsequent agreement between the owner and the contractor. The owner shall also have and retain any other remedies provided by law.
- D. The completed form shall be submitted with contractor's proposals.
- E. This form, its completion by the contractor, and its use by the contractor, and its use by the owner, shall not give rise to any liability on the part of the owner to the contractor or any third party or person.

II. GENERAL BACKGROUND

- A. Current address of contractor: _____

- B. Previous Name or address of contractor: _____

- C. Current president or CEO and years in position: _____
- D. Number of permanent employees: _____
- E. Name and address of affiliated companies: _____

III. FINANCIAL STATUS

- A. Please attach financial statements for the past three years for which they are complete. If such statements are not available, please furnish the following information:

1. LAST COMPLETE FISCAL YEAR:

- A. Revenues (Gross) _____
- B. Expenditures (Gross) _____
- C. Overhead & Admin (Gross) _____
- D. Profit (Gross) _____

2. YEAR PRIOR TO "1" ABOVE:

- A. Revenues (Gross) _____
- B. Expenditures (Gross) _____
- C. Overhead & Admin (Gross) _____
- D. Profit (Gross) _____

3. YEAR PRIOR TO "2" ABOVE:

- A. Revenues (Gross) _____
- B. Expenditures (Gross) _____
- C. Overhead & Admin (Gross) _____
- D. Profit (Gross) _____

B. BANKRUPTCIES

1. Has the Contractor, or any of its parents or subsidiaries, ever had a Bankruptcy Petition filed in its name, voluntarily or involuntarily? (If yes, specify date, circumstances, and resolution).

2. Has any Majority Shareholder ever had a Bankruptcy Petition filed in his/her name, voluntarily or involuntarily? (If yes, specify date, circumstances, and resolution).

C. BONDING

1. What is the Contractor's current bonding capacity? _____

2. What is the value of the Contractor's work currently under contract? _____

IV. COMPANY EXPERIENCE – SIMILAR PROJECTS

A. List three projects of reasonably similar nature, scope, and duration performed by your company in the last five years, specifying, where possible, the name and last known address of each owner of those projects:

Project #1:

Name and Address:

Date of Project: _____

Type of Project: _____

Contract Price: _____

Owner contact info: _____

Architect/Engineer contact info:
(if applicable) _____

Project #2:

Name and Address: _____

Date of Project: _____

Type of Project: _____

Contract Price: _____

Owner contact info: _____

Architect/Engineer contact info:
(if applicable) _____

Project #3:

Name and Address: _____

Date of Project: _____

Type of Project: _____

Contract Price: _____

Owner contact info: _____

Architect/Engineer contact info: _____
(if applicable) _____

V ARBITRATIONS, LITIGATIONS, AND OTHER PROCEEDINGS

Has your company been involved in any construction arbitration demands filed by, or against, you in the last five years? _____

Has your company been involved in any construction-related lawsuits (other than labor or personal injury litigation) filed by, or against, you in the last five years? _____

Has your company been involved in any lawsuits, proceedings, or hearings initiated by the National Labor Relations Board or similar state agency in the past seven years? _____

Has your company been involved in any lawsuits, proceedings, or hearings initiated by the Occupational Safety and Health Administration concerning the project safety practices of the Contractor in the last seven years? _____

Has your company be involved in any lawsuits, proceedings, or hearings initiated by the Internal Revenue Service, or any state revenue department, concerning the tax liability of the Contractor (other than audits) in the last seven years? _____

Have any criminal proceedings or investigations been brought against the Contractor in the last ten years? _____

If you answered yes to any of the questions above, please identify the nature of the claim, the amount in dispute, the parties, and the ultimate resolution of the proceeding (attach documentation if needed):

VI COMMENTS

Please list any additional information that you believe would assist the Owner in evaluating the possibility of using the Contractor on this Project. You may attach such additional information as an Exhibit to this Statement and Questionnaire.

I certify to the Owner that the information and responses provided on this Questionnaire are true, accurate and complete. The Owner, or its designated representative, may contact any entity or reference

listed in this Questionnaire. Each entity or reference may make any information concerning the Contractor available to the Owner, or its designated representative.

Contractor:

Signature

Date

Title

Sworn to and subscribed before me
This _____ day of _____

Signature

Notary Public

My Commission Expires:

**SAMPLE CONTRACT
(PAGE 1 OF 6)**

PURCHASE AND INSTALLATION OF EQUIPMENT (SAMPLE CONTRACT)

This Agreement entered into on this _____ day of _____, 2022, between ROCKDALE COUNTY, GEORGIA, a political subdivision of the State of Georgia, whose address is 962 Milstead Avenue, Conyers, Georgia 30012, (hereinafter referred to as the "County") and _____, a _____ corporation, whose address is _____, (hereinafter referred to as "Contractor").

WHEREAS, the County desires to engage the services of Contractor for the purchase and installation of _____, which includes _____.

WHEREAS, Contractor is qualified to perform this service and desires to render this service to the County as provided herein.

NOW THEREFORE, the County engages the services of Contractor for and in consideration of the mutual promises contained in this Agreement and the parties agree as follows:

1. **Services Provided by Contractor.**

The Contractor shall furnish all products, tools, skill and labor of every description necessary to carry out and to complete in a good, firm, substantial workmanlike manner the installation of _____ in accordance with the Contractor's Proposal dated _____ (hereinafter called "Work"), attached hereto and made a part hereof. Contractor shall provide, at their expense, all vehicles and equipment necessary to provide this Work. The Work shall be performed at the direction of the _____ Director or his/her designee and consistent with all Federal, State and Local laws.

The Contract Documents and Contractor's Proposal is considered essential parts of the Agreement, and requirements occurring in one are as binding as though occurring in all. They are intended to define, describe, and provide for all labor necessary to complete the Work in an acceptable manner, ready for use, or operation by the County.

The Contractor shall commence the Work to be performed under this Contract Agreement on a date to be specific in a written Notice to Proceed and shall fully complete all work hereunder within _____ days/months, unless modified and agreed upon by both parties in writing.

2. **Fees and Compensation.**

- a) **Contract Price:** The Contract Price shall not exceed _____ (\$ _____), and shall be the total amount payable by the County to the Contractor for the performance of the Work set forth in the Contract Documents, unless amended as agreed upon by both parties in writing as detailed in Section 6 of this Agreement. It is understood that the Contractor shall provide and pay for all products, labor (including labor performed after regular working hours, on Saturdays or Sundays, or on legal holidays), tools, supervision, and all other services and facilities of any nature whatsoever necessary to execute, complete, place into operation, and deliver the Work.

The Contractor shall be responsible for any additional expenses incurred by the County as a result of the extended work hours, including resident inspection overtime. The cost associated with resident inspector overtime will be deducted from the Contractor's monthly payment request.

**SAMPLE CONTRACT
(PAGE 2 OF 6)**

- (b) **Payments Withheld:** The County may decline to approve an application for payment, in whole or in part, as may be necessary to protect the County from loss because of:
- (1) Failure of the Contractor to make payments properly to subcontractors or for labor or products.
 - (2) Unsatisfactory prosecution of the Work by the Contractor either due to quality of the Work or if the Contractor is behind the currently approved construction schedule.

When the above reasons for nonpayment are corrected, then payment will be made for amounts withheld because of such reasons, not later than the next payment.

Payment Terms: Payment shall be as follows: Net 30

3. **Effective Dates of Agreement.**

The effective date of this Agreement shall be the date said Agreement is signed by the Chairman of the Rockdale County Board of Commissioners (the "Board"). The term of this Agreement shall be _____ days/months from the date the Contractor receives notice to proceed from the County, unless terminated by either party as detailed in section 13 of this Agreement.

Time is of the essence and is an essential element of this Contract, and the Contractor shall pay to the County, not as a penalty, but as liquidated damages, the sum of \$100.00 for each calendar day that there is default of completing the Work within the time limit named herein. Contractor will not be penalized for the inability to complete the installation caused by other vendor's delays. If the Contractor abandons the Contract before commencement of the Work or defaults in completion of all the Work after commencement thereof, the Contractor shall be liable for such liquidated damages. These fixed liquidated damages are not established as a penalty but are calculated and agreed upon in advance by the County and the Contractor due to the uncertainty and impossibility of making a determination as to the actual and consequential damages incurred by the County and the general public of Rockdale County, Georgia as a result of the failure on the part of the Contractor to complete the Work on time. Such liquidated damages referred to herein are intended to be and are cumulative and shall be in addition to every other remedy now or hereafter enforceable at law, in equity, by statute, or under the Contract.

4. **Rejection of Work and Materials.**

All products furnished and all Work completed will be inspected by the County. All products furnished and all Work completed that is not in accordance with the Contract Documents or that is defective will be rejected. All rejected products or Work shall be removed immediately. If rejected products or Work is not removed within 48 hours, the County will have the right and authority to stop the Work immediately and will have the right to arrange for the removal of said rejected products or Work at the cost and expense of the Contractor.

5. **Supervision of Work.**

The Contractor shall supervise and direct the Work. The Contractor shall be solely responsible for the means, methods, techniques, sequences and procedures of the Work. The Contractor shall employ and maintain on the Work a qualified supervisor or superintendent who shall be designated in writing by the Contractor as the Contractor's representative at the site. The supervisor shall be present on the site at all times as required to perform adequate supervision and coordination of the Work.

The supervisor shall have full authority to act on behalf of the Contractor and to execute the orders or directions of the County without delay. The supervisor shall have full authority to promptly supply products, tools, plant equipment and labor as may be required. The supervisor's authority shall be such that all communication given to the supervisor shall be as binding as if given to the Contractor.

**SAMPLE CONTRACT
(PAGE 3 OF 6)**

The Contractor shall employ only competent and skilled personnel. The Contractor shall, upon demand from the County, immediately remove any superintendent, foreman or workman whom the County may consider incompetent or undesirable.

6. **Changes in the Contract.**

The County may at any time, as the need arises, order changes within the scope of the Work without invalidating the Contract Agreement. If such changes increase or decrease the amount due under the Contract Documents, or in the time required for performance of the Work, an equitable adjustment will be authorized by Change Order.

7. **Insurance.**

The Contractor shall not commence any work under this Contract until all insurance, as stipulated in the RFP, has been obtained and such insurance has been approved by the County, nor shall the Contractor allow any subcontractor to commence any work on subcontractor's contract until all similar insurance required of the subcontractor has been so obtained and approved by the Contractor.

8. **Interruption of Facility Operations.**

The Contractor shall provide the County with written notice at least three days prior to any interruption in facility operations required by construction activity. The notice shall include the date and time of the scheduled interruption, the length of time the interruption will be in effect, the procedures to be followed, a complete identification of all those processes, equipment, and operations to be affected, and all other information the County may require. The Contractor shall provide any equipment, piping, auxiliary power, or other means necessary to sustain facility operations.

9. **Protection of Work, Property and Persons.**

- (a) The Contractor shall be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. The Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury, or loss to all employees on the Work and other persons who may be affected thereby, all the Work and all products to be incorporated therein, whether in storage on or off the site, and other property at the site or adjacent thereto.
- (b) The Contractor shall remedy all damage, injury or loss to any property, improvements or facilities caused, directly or indirectly, in whole or in part, by the Contractor or any of the Contractor's subcontractors or anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable. The property, improvements or facilities shall be replaced or restored to a condition as good as when the Contractor entered upon the Work. In case of failure on the part of the Contractor to restore such property, or make good such damages or injury, the County may, after 48 hours written notice, proceed to repair, rebuild, or otherwise restore such property, improvements or facilities as may be deemed necessary. The cost thereof will be deducted from any monies due, or which may become due the Contractor under this Contract.
- (c) In emergencies affecting the safety of persons or the Work or property at the site or adjacent thereto, the Contractor, without special instruction or authorization from the County, shall act to prevent threatened damage, injury, or loss.
- (d) Completed Work and stored products shall be suitably protected during unseasonable weather, to allow Work to proceed in a timely fashion. Work planned, or in progress, should be performed to minimize impact of adverse weather.

**SAMPLE CONTRACT
(PAGE 4 OF 6)**

10. **Indemnification.**

In addition to its agreement to obtain and maintain insurance as set forth herein, the Contractor agrees to indemnify and hold harmless the County, its officers, agents, and employees, from any and all claims against the County, its officers, agents and employees, which arise out of any act or omission of the Contractor or any of the Contractor’s officers, agents and/or employees, and any and all claims which result from any condition created or maintained by the Contractor or anyone employed by the Contractor or any of their officers, agents or employees, which condition does not specify to be created or maintained by this Contract.

11. **Termination of Agreement.**

In the event either party elects to terminate this Agreement for whatever reason deemed appropriate, written notice shall be provided and termination shall be effective fifteen (15) days from receipt of written notice.

12. **Notice.**

Any notice or other communication required or permitted to be given under this Agreement must be in writing and must be mailed by overnight delivery or certified mail, postage prepaid, so that the notifying party can prove delivery of notice and the date thereof, and addressed as follows:

To the County:

Rockdale County, Georgia
Attn: Tina Malone
P. O. Box 289
Conyers, Georgia 30012
Phone – 770-278-7553
Email – tina.malone@rockdalecountyga.gov

To the Contractor:

Attn: _____

Phone – _____
Email - _____

The addresses stated in this paragraph may be changed by the respective parties upon a documented notice delivered in advance, pursuant to this paragraph.

13. **Assignment.**

The Contractor shall have no right to transfer or assign its interest in this Agreement without the prior written consent of an authorized representative of the County.

14. **Corporate Authority.**

Contractor represents to the County that this Agreement, the transaction contemplated in this Agreement, and the execution and delivery hereof, have been duly authorized by all necessary corporate proceedings and actions, including, without limitation, the action on the part of the directors. The individual executing this Agreement on behalf of Contractor warrants that he or she is authorized to do so and that this Agreement constitutes the legally binding obligation of the corporation.

15. **Waiver.**

No action taken pursuant to this Agreement shall be deemed to constitute a waiver by the party taking such action of compliance with any representation, warranty, covenant or agreement in this Agreement. The waiver by any party of a breach of any provision or condition contained in this Agreement shall not operate or be construed as a waiver of any subsequent breach or of any other conditions.

**SAMPLE CONTRACT
(PAGE 5 OF 6)**

16. **Severability.**

If any provision of this Agreement or application to any party or circumstances shall be determined by any court of competent jurisdiction to be unenforceable to any extent, the remainder of this Agreement or the application of such provision to such person or circumstances, other than those as to which it is so determined invalid or unenforceable, shall not be affected thereby, and each provision hereof shall be valid and shall be enforced to the fullest extent permitted by law.

17. **Interpretation.**

Should any provision of this Agreement require a judicial interpretation, the parties agree that the body interpreting or construing this Agreement will not apply the assumption that the terms of this Agreement will be more strictly construed against one party by reason of the rule of legal construction that an instrument is to be construed more strictly against the party which itself or through its agents prepared the Agreement. The parties acknowledge and agree that they and their agents have each participated equally in the negotiation and preparation of this Agreement.

18. **Venue & Jurisdiction.**

The County and the Contractor, by entering into this Promissory Note, hereby agree that the courts of Rockdale County, Georgia shall have jurisdiction to hear and determine any claims or disputes between them pertaining directly or indirectly to this Agreement. Contractor expressly submits and consents in advance to such jurisdiction in any action or proceeding commenced in said courts. The choice of forum set forth in this section shall not be deemed to preclude the bringing of any action by the County or the enforcement by the County of any judgment obtained in such forum in any other appropriate jurisdiction. Further, the Contractor hereby waives the right to assert the defense of forum non-conveniens and the right to challenge the venue of any court proceeding.

19. **Governing Law.**

This Agreement shall be construed and interpreted according to the provisions of the laws of the State of Georgia.

20. **Binding Effect.**

This Agreement shall be binding upon the Contractor and its successors and permitted assigns.

21. **Further Assurances.**

The Contractor agrees to execute, acknowledge, seal and deliver, after the date of this Agreement, without additional consideration, such further assurances, instruments and documents, and to take such further actions, as the County may reasonably request in order to fulfill the intent of this Agreement and the transactions contemplated by this Agreement.

22. **Entire Agreement.**

This Agreement, its attachments, and essential documents (as provided in paragraph 1 above) represent the entire understanding of the parties with regard to the subject matter of this Agreement. There are no oral agreements, understandings, or representations made by any party to this Agreement that are outside of this Agreement and are not expressly stated in it. No supplement, modification, or amendment of this Agreement will be binding unless executed in writing by all parties.

**SAMPLE CONTRACT
(PAGE 6 OF 6)**

By signing this Agreement, the parties acknowledge that they have read each and every page of this Agreement before signing same and that they understand and assent to all the terms thereof. In addition, by signing this Agreement, the parties acknowledge that they are entering into this Agreement freely and voluntarily and under no compulsion or duress. For purposes of executing this Agreement and any Change Orders, electronic/scanned/photocopied signatures shall be as valid as the original.

IN WITNESS WHEREOF, the parties have hereunto set their hands and seals on the date and year first above written.

ROCKDALE COUNTY, GEORGIA

By: _____

By: _____
Osborn Nesbitt, Sr., Chairman

Name (Typed or Printed)

Attest:

Title

Federal Tax I.D. Number

Jennifer Rutledge, Executive Director/
County Clerk

Attest:

Approved as to Form:

Corporate Secretary or Assistant
Corporate Secretary

M. Qader A. Baig, County Attorney

SUBCONTRACTORS

Instructions: Type or clearly print all information.

| NAME, ADDRESS, & PHONE NUMBER OF SUBCONTRACTOR | SUBCONTRACT WORK ITEM | DOLLAR VALUE OF SUBCONTRACT WORK |
|---|--------------------------|-------------------------------------|
| 1. | | |
| 2. | | |
| 3. | | |
| 4. | | |
| 5. | | |
| 6. | | |

Representative's Signature: _____ Date: _____

PROPOSAL CHECKLIST

_____ Two (2) Hardcopies (one original & one photocopy) and One (1) Flash Drive (containing a copy in Adobe PDF format) of the following documents: all documents shall be fully completed, signed, and dated:

- _____ Price Proposal Form (See Page 13)
*Two (2) Hard Copies of the Price Proposal Form must be submitted (one original & one photocopy).
- _____ All Applicable Affidavit Forms (See Pages 14 - 19)
- _____ Contractor's Qualification Statement & Questionnaire (See Pages 20 - 24)
- _____ Subcontractors (See Page 31)
- _____ Any Proposed Deviations from the Required Specifications, Including Necessary Explanations and Conditions
- _____ Proof of Business License
- _____ Proof of Georgia General Contractor or Utility Contractor License (if applicable)

The purpose of this checklist is to remind proposers of the documents generally required for the proposal submittal. It is the proposer's responsibility to include additional documents requested in the proposal that may not be shown on the checklist.



PARTICLE COUNTER PC3400

STANDARD FEATURES

- Counts particles in liquid from 2-750 microns
- Sizes particles from 2-125 microns
- Up to 8 user programmable size ranges
- Large display with 8 channel readout & graph
- Reports total counts, cnts/mL, or cnts/100mL
- User friendly, menu driven calibration
- MODBUS RTU communication
- Laser & cell condition readout (0-100%)
- External sensor with sapphire optics

OPTIONAL FEATURES

- TracWare data acquisition software
- Analog Outputs, Inputs, & Alarm Relays
- Multiple communication protocols supported
- Larger sizing capability upon request
- Parts-per-billion (ppb) display for particle concentrations*



BENEFITS

- Provides a reliable and accurate measurement of particles down to low ppt levels
- Advanced firmware and menu functions eliminates need for external software to perform setup and calibration
- User friendly calibration routine makes calibration fast, simple, and lowers maintenance cost
- Large display shows all 8 particle size channels at once, plus graph of last 64 readings and other sensor performance info
- External sensor is easy to clean and water is kept away from electronics

APPLICATIONS

Water Treatment

Wastewater Treatment

Reverse Osmosis Pretreatment

Membrane Filtration

Boiler/Condensate

Parts Washing

Food & Beverage

Pharmaceutical

DESCRIPTION

The PC3400's performance reliability, ease of use, and measurement capability make it an ideal choice for online filter performance monitoring and optimization. This is most clearly demonstrated in the PC3400's ability to detect filter breakthrough often hours in advance of any NTU change. Close to two decades of customer experience with Chemtrac's Particle Counters has proven the effectiveness of this technology to take water quality monitoring to the next level. Chemtrac's PC3400 is the right choice if the optimization demands of your application are not being met by relative and less sensitive measurements of water quality like those provided by turbidimeters or SDI test systems.

Chemtrac has experience with many applications that require the measurement of liquid borne particles. Our team of professionals can help you with just about any application. Contact us or go to www.chemtrac.com for more details.

Particle Detection

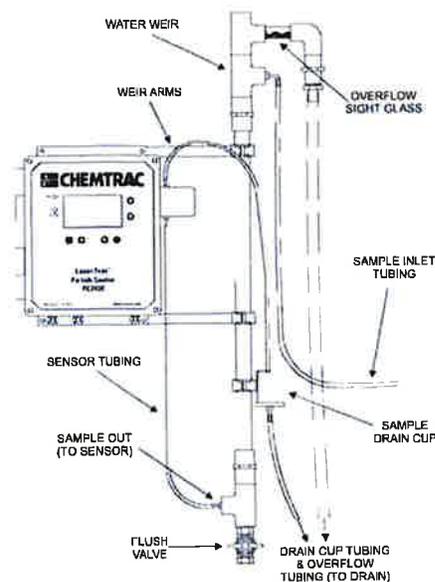
Chemtrac, Inc.
6991 Peachtree Industrial
Boulevard, Building 600
Norcross, GA 30092
USA

PH: 770.449.6233
US: 800.442.8722
FX: 770.447.0889
www.chemtrac.com

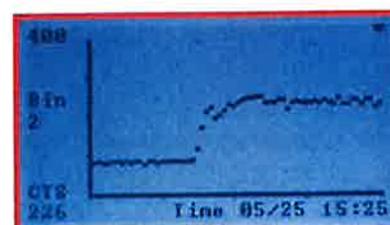
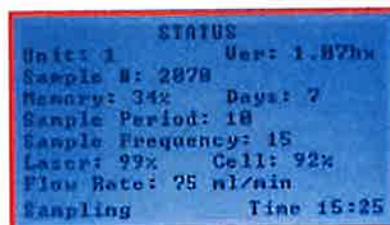
GENERAL SPECIFICATIONS

| | |
|--------------------------|--|
| Laser Type: | Solid-state laser diode (780 nm) |
| Cell Material: | Nituff coated aluminum PEEK plastic (optional) |
| Viewing Windows: | Sapphire |
| Detection Range: | 2-750 microns |
| Sizing Range: | 2-125 microns |
| Flow Rate: | 75 mL/min |
| Sample Temperature: | 32° - 120° F (0° - 50° C) |
| Resolution: | Better than 10% at 10 micron (ASTM-F658) |
| Coincidence Limit: | 20,000 cnts/mL (2 micron) |
| Signal to Noise Ratio: | Better than 5:1 |
| Size Channels: | 8 - user selectable and total counts |
| Alarms: | Sensor diagnostic, particle count limit |
| Laser Diode Life: | MTBF 75,000 hours @ 55° C |
| Measurement Type: | Light obscuration, Volumetric |
| Local Display: | Graphical, 8 size channels displayed at once, unit info/diagnostic screen, alarm screen, total count screen, graphical trending, user menus |
| Display Readout: | Size channel, counts, cell condition (0-100%), laser condition (0-100%), unit address, sample period, sample frequency, flow rate, days until data log overwrite ppb volumetric concentration (optional) |
| Graphical Trending: | Trending of last 64 logged values for any size range, analog input, or sensor status % |
| Data Storage: | 65,000 sample strings User defined logging interval (1 - 254 min.) |
| Keypad Interface: | All instrument settings may be modified via the keypad interface, including instrument calibration (some settings require password) |
| Serial Communications: | 2 wire RS485 (Network) and RS232 |
| Communication Protocols: | Standard: MODBUS RTU (RS485) Optional: MODBUS TCP (Ethernet), multiple communication protocols supported |
| Analog Outputs**: | 2, 4, 6, or 8 channels, 4-20 mA (optional) |
| Analog Inputs**: | 2, 4, 6, or 8 channels, 4-20 mA 0-5V, 0-10V (optional) |
| Alarm Relays**: | 2, 250V, 1 Amp (optional) |
| Power Requirements: | 100-240 VAC, 200mA, 47 - 63 Hz 12 or 24 VAC (optional) |
| Operating Temperature: | 32° - 120° F (0° - 50° C) |
| Dimensions: | 12" W x 11" H x 5" D (305 mm W x 280 mm H x 127 mm D) |
| Weight: | 7 lbs (3.2 kg) |

PC3400 and Weir set-up



PC3400 Display Screens



*Calculated volumetrically for particles larger than 2 micron & assuming spherical shape

**Can only have up to a maximum of 8 outputs, inputs & relays combined

Chemtrac – PC3400 Particle Counter - Engineering Specifications

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. On-line Particle Counter for detecting 2 to 750 μm diameter particles in water.

1.2 PERFORMANCE REQUIREMENTS

- A. Sensor shall be laser-illumination, light-blocking, volumetric type (meaning the detection area shall include the entire cross-section of the sample flow path).
- B. Sensor shall be capable of detecting particles from 2 to 750 μm in diameter and sizing particles from 2 to 100 μm in diameter.
- C. Coincidence error shall be less than 10% at 20,000 particle counts/mL.
- D. Resolution shall be better than 10% at 10 μm .
- E. All setup and calibration functions shall be accessible via front panel keypad and not require the use of external computers or software.
- F. The Sensor's electronics shall automatically adjust the calibration threshold during the user-calibration process and not require manual determination of threshold values.
- G. Instrument shall have large graphical display capable of displaying measurement results for up to 8 size channels at once.

1.3 CERTIFICATIONS

- A. CE Approved
- B. Sensor must be factory calibrated per ASTM F658 using NIST traceable PSL spheres.

1.4 WARRANTY

- A. The product shall include a one-year warranty from the date of shipment.

1.5 ENVIRONMENTAL REQUIREMENTS

- A. Operating Temperature: 32° to 120°F (0° to 50°C)
- B. Max Operating Pressure: 80 psig

PART 2 PRODUCTS

2.1 MANUFACTURER

- A. Chemtrac, Inc. Norcross, GA

- 1. Model PC3400

2.2 EQUIPMENT

- A. The enclosure shall have a NEMA 4X rating to provide protection in indoor and outdoor environments.
- B. Wetted parts of the sensor must be kept external to the enclosure housing the electronics to avoid potential damage arising from leaks. Instruments that route sample tubing into the enclosure housing the electronics are not acceptable.
- C. The optics shall be made of sapphire to avoid scratches that can occur with inferior materials of construction.
- D. Electronics shall have 16-bit A/D resolution with a minimum of 350 kHz sample rate, and a 60 MHz (or better) microcontroller.
- E. Local display shall be 3.5" x 2" (or larger) graphical LCD that is capable of displaying all 8 size channels at one time. Instruments that only display totalized counts or one size channel at a time are not acceptable.
- F. Unit shall be capable of operating in composite or differential counting modes, and report results as either counts per ml, counts per 100 ml, or raw counts.
- G. Analog I/O and Alarm Relays shall be available as options. Instrument shall have the ability to accept any two of the following I/O expansion cards for a user customized configuration: (1) 4 analog outputs; (2) 4 universal inputs; (3) 2 analog outputs with 2 alarm relays; (4) 2 universal inputs with 2 alarm relays; and (5) 2 analog outputs with 2 universal inputs.
- H. Communication capability shall include MODBUS RTU over RS485 and RS232 Serial communications as a standard. MODBUS TCP over Ethernet shall be available as an option.
- I. Particle count data shall be transmitted in user definable units of counts per ml, counts per 100 ml, or raw counts.
- J. The following information must be provided through MODBUS registers: (1) size range settings for all 8 channels; (2) particle counts for all 8 channels as well as total counts; (3) analog input values; (4) cell %; (5) laser %; and (6) flow rate.

2.3 ACCESSORIES

- A. A flow control weir shall be provided to maintain a constant flow rate to the sensor without the use of a valve. A 40 mesh strainer shall be provided for each sensor monitoring a raw or settled water source.
- B. Software for downloading the datalog shall be provided. This software shall allow the downloading of all recorded data and exporting to an Excel spreadsheet.
- C. Optional software shall be available for collecting and analyzing data from up to 96 particle counters over RS-485 network. Software shall include graphing and tabular data views with the ability to view historical data stored on the computer hard drive. A data export and reporting feature shall also be available. Data collected by the software shall include: particle counts in all size ranges, total counts, cell cleanliness, analog input values, and backwash status.

Chemtrac – PC3400 Particle Counter - Engineering Specifications

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. On-line Particle Counter for detecting 2 to 750 μm diameter particles in water.

1.2 PERFORMANCE REQUIREMENTS

- A. Sensor shall be laser-illumination, light-blocking, volumetric type (meaning the detection area shall include the entire cross-section of the sample flow path).
- B. Sensor shall be capable of detecting particles from 2 to 750 μm in diameter and sizing particles from 2 to 100 μm in diameter.
- C. Coincidence error shall be less than 10% at 20,000 particle counts/mL.
- D. Resolution shall be better than 10% at 10 μm .
- E. All setup and calibration functions shall be accessible via front panel keypad and not require the use of external computers or software.
- F. The Sensor's electronics shall automatically adjust the calibration threshold during the user-calibration process and not require manual determination of threshold values.
- G. Instrument shall have large graphical display capable of displaying measurement results for up to 8 size channels at once.

1.3 CERTIFICATIONS

- A. CE Approved
- B. Sensor must be factory calibrated per ASTM F658 using NIST traceable PSL spheres.

1.4 WARRANTY

- A. The product shall include a one-year warranty from the date of shipment.

1.5 ENVIRONMENTAL REQUIREMENTS

- A. Operating Temperature: 32° to 120°F (0° to 50°C)
- B. Max Operating Pressure: 80 psig

PART 2 PRODUCTS

2.1 MANUFACTURER

- A. Chemtrac, Inc. Norcross, GA

- 1. Model PC3400

2.2 EQUIPMENT

- A. The enclosure shall have a NEMA 4X rating to provide protection in indoor and outdoor environments.
- B. Wetted parts of the sensor must be kept external to the enclosure housing the electronics to avoid potential damage arising from leaks. Instruments that route sample tubing into the enclosure housing the electronics are not acceptable.
- C. The optics shall be made of sapphire to avoid scratches that can occur with inferior materials of construction.
- D. Electronics shall have 16-bit A/D resolution with a minimum of 350 kHz sample rate, and a 60 MHz (or better) microcontroller.
- E. Local display shall be 3.5" x 2" (or larger) graphical LCD that is capable of displaying all 8 size channels at one time. Instruments that only display totalized counts or one size channel at a time are not acceptable.
- F. Unit shall be capable of operating in composite or differential counting modes, and report results as either counts per ml, counts per 100 ml, or raw counts.
- G. Analog I/O and Alarm Relays shall be available as options. Instrument shall have the ability to accept any two of the following I/O expansion cards for a user customized configuration: (1) 4 analog outputs; (2) 4 universal inputs; (3) 2 analog outputs with 2 alarm relays; (4) 2 universal inputs with 2 alarm relays; and (5) 2 analog outputs with 2 universal inputs.
- H. Communication capability shall include MODBUS RTU over RS485 and RS232 Serial communications as a standard. MODBUS TCP over Ethernet shall be available as an option.
- I. Particle count data shall be transmitted in user definable units of counts per ml, counts per 100 ml, or raw counts.
- J. The following information must be provided through MODBUS registers: (1) size range settings for all 8 channels; (2) particle counts for all 8 channels as well as total counts; (3) analog input values; (4) cell %; (5) laser %; and (6) flow rate.

2.3 ACCESSORIES

- A. A flow control weir shall be provided to maintain a constant flow rate to the sensor without the use of a valve. A 40 mesh strainer shall be provided for each sensor monitoring a raw or settled water source.
- B. Software for downloading the datalog shall be provided. This software shall allow the downloading of all recorded data and exporting to an Excel spreadsheet.
- C. Optional software shall be available for collecting and analyzing data from up to 96 particle counters over RS-485 network. Software shall include graphing and tabular data views with the ability to view historical data stored on the computer hard drive. A data export and reporting feature shall also be available. Data collected by the software shall include: particle counts in all size ranges, total counts, cell cleanliness, analog input values, and backwash status.

2200 PCX PARTICLE COUNTER

Applications

- Drinking Water



Look to the leader for your filtration monitoring solution.

The Hach model 2200 PCX is the first particle counter designed specifically to meet the unique requirements of water treatment. The model 2200 PCX can be integrated into your plant control system, used with our water quality software products, or both in parallel. Collected data can be utilized for optimizing chemical dosage, backwash cycles, and filter-to-waste times. Particle count reports can also be used to apply for removal credits and filter high rate studies.

Supports Up to 32 Size Channels and 8 Analog Inputs (turbidity, pH, etc.)

See a wide range of particle data at one time, ensuring you never miss an event in your system

Operates Stand-Alone or as Part of a Networked System

Use the 2200 PCX as a single data point or as an integrated part of your plant

Volumetric – All Particles Pass Through the Sensing Area

See the whole picture with analysis of the entire sample.

Superior Sizing Accuracy and Sensor-to-Sensor Matching

Industry leading calibration yields excellent repeatability



Be Right™

Specifications*

| | |
|-------------------------------------|---|
| Particle Size | 2 to 750 microns |
| Flow Rate | 100 mL/min |
| Pressure Limit | 65 psig not more than 1 minute; 55 psig continuous |
| Operating Temperature Range | 0 to 50 °C |
| Power Requirements (Voltage) | 115 V AC |
| Power Requirements (Hz) | 50/60 Hz |
| Instrument | Power, counting display, clean sensor indicators, and alarm indicator |

| | |
|-------------------------------------|--|
| Data Communications Distance | 4000 foot maximum for entire RS485 signal path |
| Enclosure Rating | NEMA 4X |
| Fluid Connections Inlet | Barbed fitting with self-sealing quick disconnect for 1/4 inch O.D. tubing |
| Fluid Connections Outlet | Barbed fitting with self-sealing quick disconnect for 1/4 inch O.D. tubing |
| Dimensions (H x W x D) | 13.8 in x 8.3 in x 7 in (350 mm x 211 mm x 178 mm) |

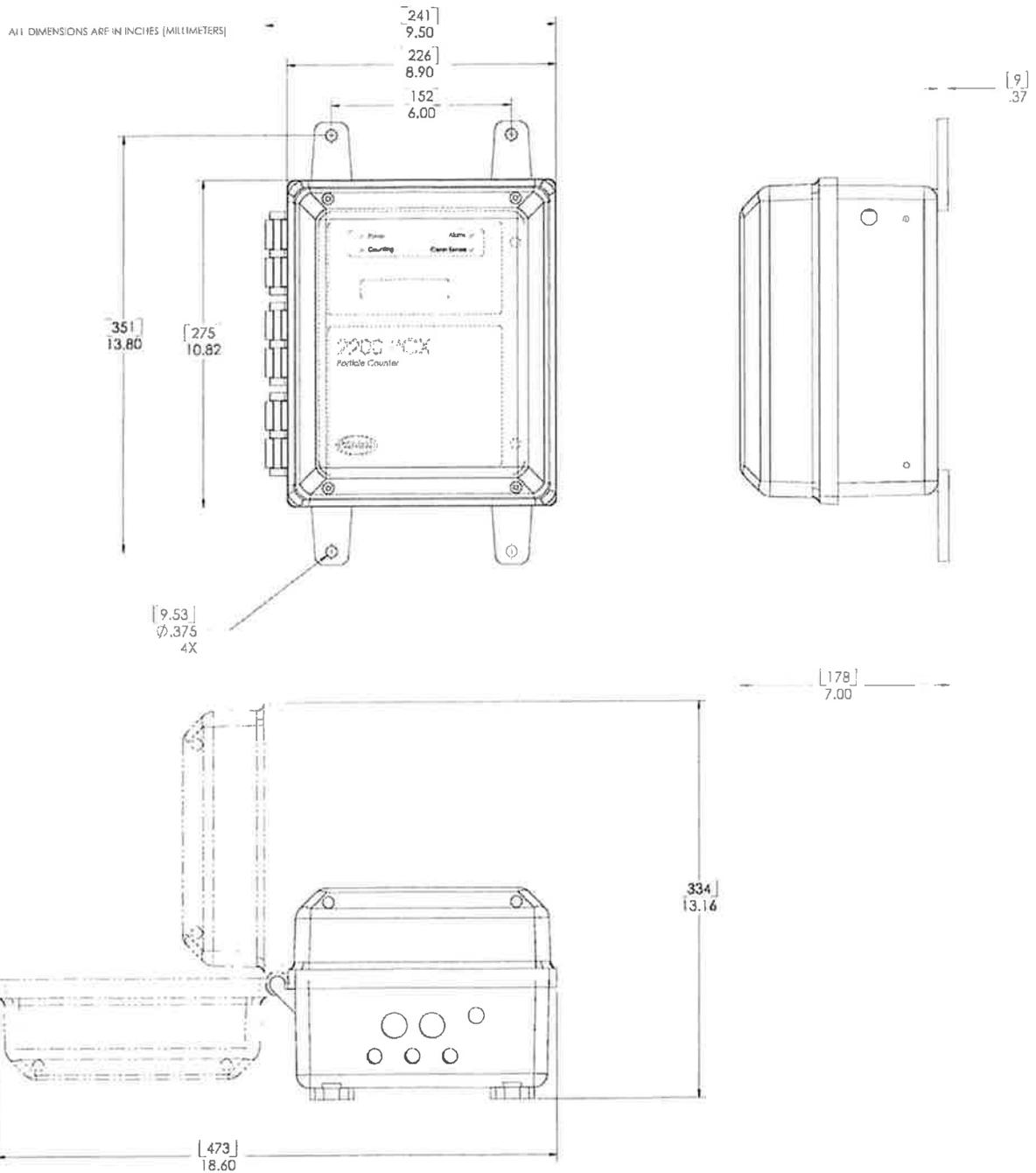
**Subject to change without notice.*

Principle of Operation

Hach's laser-diode-based particle counting sensors are specifically designed for drinking water applications. Water is directed into the sensor and passes through an optical flow cell measuring 750 x 750 microns. Each particle that passes through the sensor generates a signal corresponding to its size.

Each sensor comes with a calibration curve showing the signal response versus size of each particle. Hach uses NIST-traceable spheres of defined size to calibrate each sensor. Calibration information is stored in sensor memory, and is used to separate the particle counts into the proper size category.

Dimensions



Ordering Information

Complete Analyzers

- 5700000** 2200 PCX Particle Counter with Modbus RS485, 115 V AC
5705000 2200 PCX Particle Counter with Analog Output and Water Weir, 115 VAC
5704000 2200 PCX Particle Counter with Modbus RS485 and Water Weir, 115V AC

Accessories

- 5700100** Analog Input/Output Kit, 8 Channels
5700700 Flow Controller with Water Weir
5702500 2200 PCX OPC Software Kit
5701525 WQS Vista Data Collection Software

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LIT4599 Rev 1

K13 Printed in U.S.A.

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*In the interest of improving and updating its equipment,
Hach Company reserves the right to alter specifications to equipment at any time.*



Be Right™