

**NUMBER:** 10487

**DATE:** 5/1/24

**TO:** Riverside Water Quality Control Plant  
5950 Acorn St  
Riverside, CA, 92504  
Attn: Brett Keaster  
Tel: (951) 351-6181  
Direct: (951) 231-5223  
Email : bkeaster@riversideca.gov

**REF.:** Dewatering Centrifuge

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Budget Proposal  
City of Riverside – New Build Dewatering  
Riverside, CA  
CS26-4EV 2PH



**Centrisys Contact**

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Regional Sales Manager  
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Kenosha, WI 53144  
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**Centrisys Representative**

Gariel Zink  
Misco Water – Southern CA  
27101 Burbank, Suite B  
Foothill Ranch, CA 92610  
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Direct: (925) 322-1551  
Email: gzink@miscowater.com

Centrisys is pleased to provide this budget quotation for the following:

**ITEM 1. ONE (1) DECANTER CENTRIFUGE UNIT, MODEL CS26-4EV 2PH COMPLETE WITH AUTOMATIC HYDRAULIC BACKDRIVE**

**1.A Basis of Design – Sludge Feed Characteristics**

Industry Type:	Municipal Wastewater
Application:	Anaerobically Digested Sludge
Number of units:	One (1)
Design Feed Flow rate/Unit:	225 gpm (excluding polymer flow)
Dry Solids loading:	3,262 lbs/hr
Feed Concentration:	2.9 %
Operation time:	24 hrs/day; 7 days/week
Temperature:	Ambient
pH:	6-9

**1.B Anticipated Performance\***

TBD

\*- Lab sample testing is recommended to confirm

**1.C Centrifuge specification**

Model:	CS26-4 EV 2PH
Inside bowl diameter (in):	26
Bowl length (in):	94
Bowl length to diameter ratio:	4.2:1
Beach angle (deg):	15
Maximum Bowl speed (RPM):	2850
Type of lubrication:	Grease
Main Motor HP:	100
Back Drive Motor HP:	40
G-Force (g):	3000

**1.D Equipment description**

- (1) Each unit will be provided based on the attached drawing CS26-4EV 2P Centrifuge GA.pdf
  - (i) Centrifugally Casted Duplex SS Solid bowl
  - (ii) Scroll conveyor with Duplex SS Scroll shaft; 316SS flights.
  - (iii) 316SS lower and upper casing
  - (iv) Solid and liquid flexible connectors
  - (v) Dewatered Sludge and Centrate Chutes/Hoppers
  - (vi) Powder coated carbon steel base/frame
  - (vii) Vibration isolators
  - (viii) Spare parts/tools
  - (ix) Control Panel (A/C cooled)
    - A. 316SS NEMA 4X Enclosure for each centrifuge

- B. Main circuit breaker
- C. VFD for main drive motor
- D. Allen Bradley PLC (compact logix), valve amplifier and motor starter for automatic hydraulic back drive system
- E. Ethernet communication and historical trending of key parameters
- F. 10" Allen-Bradley panel view touch screen
- (x) Instrumentation
  - A. One (1) vibration sensor per unit
  - B. One (1) main bearing temperature sensor, type PT100 on each bearing
  - C. One (1) each Bowl/Scroll speed sensor/unit
  - D. One (1) Hydraulic oil level/temp, hydraulic pressure sensor/unit
- (xi) Automatic Grease Lubrication System
  - A. One (1) low grease level sensor per unit
- (xii) Stand with no walkway or ladder, Material: Hot Dipped Galvanized Steel
- (xiii) One (1) trip and 5 days or 40 hours (whichever occurs first) of startup assistance.
- (xiv) shaftless sludge conveyor with 12" UHMW-PE lined trough
- (xv) 316SS Conveyor Support Stands
- (xvi) Two (2) Seepex BN 130-6LS Sludge Feed Pumps
- (xvii) Two (2) Seepex MD 006-12 Polymer Transfer Pumps
- (xviii) Solenoids for bowl flush, drain flush, and HPU and Panel Cooling

**BUDGET PRICE:**

All of the above for ..... **\$827,700** USD  
 F.O.B. Job Site, freight included, taxes excluded.

**PAYMENT TERMS:**

30% with order; 60% upon shipment; 10% after startup not to exceed 90 days after shipment.

Lead Time: 40-45 weeks following receipt of the Approval drawings.

**BUYER/OWNER RESPONSIBILITY:**

- Stand/Supports
- Feed pump
- Flowmeter
- Polymer feed system/polymer totes
- Anchor bolts
- Air compressor
- Solenoid valves
- Building and building plans (Centrisys provides only the layout drawings without any responsibility of updating any plans or building)
- Building modifications
- Structural and civil engineering labor
- Sludge grinder
- Cake discharge pump
- Wash water booster pump
- Centrate discharge pump
- Centrate tank



- All utilities that are required for operation.
- Unloading, uncrating, installation, and installation supervision. Installation will, at minimum, require a forklift and possibly a crane/hoist.
- Readiness of the equipment before requesting start-up service; non-readiness may incur additional charges.
- Compatibility of equipment materials of construction with the process environment
- Piping connections, platforms, gratings, and railings unless stated otherwise.
- Harmonic analysis - The electrical installation contractor is responsible for Motor Drive (VFD) Installation Considerations on the customer distribution system.
- Any other auxiliary equipment or service not detailed above.

Issued by

Matt Marhefke  
Applications Engineer

Date: 5/1/24



Proposal  
**Panel Upgrade**

To	City of Riverside, CA
Centrisys Ref - Opp#	12891
Project Name	Riverside Panel Upgrade
Date	5/1/24
Prepared By	Matt Marhefke



Centrisys is pleased to provide this quotation for the following:

**ONE (1) DECANTER CENTRIFUGE PANEL UPGRADE FOR CENTRIFUGE MODEL CS21-4HC**

**ITEM 1. Scope, Level 1 Panel Upgrade – Complete Panel Replacement**

- Nema 4X 316SS Enclosure.
- PLC controller with I/O
- HMI 10" touchscreen
- One Bowl VFD
- One Sludge Feed VFD
- One reversing starter for conveyor
- MAI211 speed controller with Lynch Hydraulic Amplifier
- Enclosure temperature control (AC)
- (1) Vibration Sensor
- (2) Bearing Temp Transmitter
- Feed Flow Meter Transmitter
- Bowl & Scroll Speed Sensors
- HPU Oil Temp /Level & Hydraulic Pressure Transmitter
- Proportional Cartridge
- Standard PLC program included, any changes to program will incur additional cost
- Support or site time for SCADA integration available at additional cost

**ITEM 2. Services**

**A** One (1) factory representative on site for two weeks to assist in panel testing and start up. Dates of service to be scheduled upon Buyer’s written request.

Below cost estimate for field services may not reflect final costs. Final costs to be billed based on actual time on site plus travel expenses.

**B** Centrisys can provide free, environmentally friendly disposal of the panel to be replaced if desired. Centrisys does not purchase used electrical equipment.

**ITEM 3. Pricing and Payment Terms**

**Purchase Price**

All of the above for.....**\$121,400 USD**

F.O.B. Job Site, freight included, taxes excluded.

**Validity**

Purchase price is valid sixty (60) calendar days from the quotation date, for shipment of equipment within the timetable stated below in ITEM 4.

**Payment Terms**

30% with order; remainder upon shipment



**ITEM 4. Timetable**

Shipment Phase 45 weeks following receipt of the approval drawings

***Dates are subject to confirmation upon receipt of a written purchase order.***

**ITEM 5. Warranty**

Level 1: One (1) year warranty

**Terms and Conditions**

All sales are subject to Centrisys' terms and conditions of sale found at the end of this document.

**ITEM 6. Buyer/Owner Responsibility**

- Installation of above scope
- Any VFDs not stated in scope
- Building and building plans (Centrisys provides only the layout drawings without any responsibility of updating any plans or building)
- Building modifications
- Structural and civil engineering labor
- All utilities that are required for operation
- Unloading, uncrating, installation, and installation supervision Installation
- Readiness of the equipment before requesting start-up service; non-readiness may incur additional charges
- Compatibility of equipment materials of construction with the process environment
- Connections, platforms, gratings, and railings unless stated otherwise
- Any other auxiliary equipment or service not detailed above



## TERMS AND CONDITIONS OF PURCHASE

These terms and conditions apply to all quotations, proposals, orders acknowledgements or confirmations and contracts of Centrisys (hereinafter "Equipment"). As used in these terms and conditions of sale, the word "Equipment" includes all hardware, parts, components, software and options.

1. **ACCEPTANCE:** Our sale to you is limited to and expressly made conditional on your assent to the terms and conditions of sale herein and, if applicable, on the attendant quotation, both of which form a part of this order and which supersede and reject all prior agreements, representations, discussions or negotiations, whether written or oral, with respect hereto and any conflicting or additional terms and conditions of yours, or any statement therein, whether or not signed by you. We will furnish only the quantities and Equipment specifically listed on our quotations, proposals, or order acknowledgements or confirmations. We assume no responsibility for the terms or conditions of, or for furnishing other equipment or material shown in, any plans and/or specifications for a project to which the equipment quoted or ordered herein pertain or refer.
2. **PRICES:** Unless otherwise specified in writing, all quoted prices are firm for thirty (30) days from the date of offer. Stenographic, clerical and mathematical errors are subject to correction.
3. **DELIVERY:** Dates for the furnishing of services and/or delivery or shipment of equipment are subject to change. Quoted lead times are figured from the date of receipt of complete technical data and approved drawings as such may be necessary. We shall not be liable, directly or indirectly, for any delay in or failure to deliver caused by carriers or delays from labor difficulties, shortages, strikes or stoppages of any sort failure or delay in obtaining materials from ordinary sources, fires, floods, storms, accidents, or other acts of God or force majeure, by any statute, regulation, administrative order or decree or order or judgment of a court of law or other causes beyond our reasonable control. Unless otherwise agreed to in writing by us, in no event shall we be liable for any damages or penalties whatsoever, or however designated, resulting from our failure to perform or delay in performing due to any of the causes specified in this paragraph 3.
4. **SHIPMENT, RISK OF LOSS, TAXES:** Prices are in US Dollars, F.O.B. Centrisys shipping point, unless otherwise noted. Our prices do not include federal, state, municipal or other government excise, sales, use, occupational, processing, transportation or like taxes now in force or enacted in the future. You shall pay any taxes we may be required to collect or pay now or at any time in the future (including interest and penalties imposed by any governmental authority), or any taxes you may be required to pay, that are imposed on the sale, delivery or support of equipment purchased or licensed as a part of this order, or you shall provide us with a tax exemption certificate acceptable to the appropriate taxing authority.
5. **CREDIT AND PAYMENT:** Unless otherwise noted on our quotation, proposal, or order acknowledgement or confirmation payment for equipment shall be thirty (30) days net. Pro Rata payments shall become due with partial shipments. Any discount period which may be granted by us begins on the invoice date and all payments are due thirty (30) days after the invoice date. All payments should be made without deduction, deferment, set-off, lien, or counterclaim of any nature. All amounts due not paid within the thirty (30) days after the date such amounts are due and payable shall bear interest at the lesser of 1.5 percent per month or the maximum rate of interest allowed by law. We reserve the right at any time to suspend credit or to change credit terms provided herein, when, in our sole opinion, your financial condition so warrants. Failure to pay invoices when such invoices are due and payable, at our election, shall make all subsequent invoices immediately due and payable irrespective of terms, and we may withhold all subsequent deliveries until the full account is settled. We shall not, in such event, be liable for delay of the performance or nonperformance of contract in whole or in part subsequent to such event.
6. **CANCELLATIONS AND CHANGES:** Orders which have been accepted by us are not subject to cancellation or changes in specification except upon prior written agreement by us and upon terms that will indemnify us against all losses resulting from or arising out of such cancellation or change in specifications. In the absence of such indemnification, we shall be entitled to recover all damages and costs of whatever nature permitted by the Uniform Commercial Code.
7. **DEFERRED SHIPMENT:** If shipment is deferred at your request, payment of the contract price shall become due when you are notified that the equipment is ready for shipment. If you fail to make payment or furnish shipping instructions we may either extend the time for doing so or cancel the contract. In case of deferred shipment at your request, storage and other reasonable expenses attributable to such delay shall be payable by you.
8. **EQUIPMENT WARRANTY AND REMEDY**
  - a. For new equipment only, we warrant to you that the equipment that is the subject of this sale is free from defects in design (provided that we have design responsibility), material and workmanship. The duration of this warranty is the earlier of twelve (12) months from startup or eighteen (18) months from notification of equipment being ready for shipment ("Warranty Period"). If you discover within the Warranty Period a defect in design, material or workmanship, you must promptly notify us in writing, preserving the equipment for our inspection. Within a reasonable time after such notification we will correct any such defect with either new or used replacement parts, at our option. Such repair, including both parts and labor, is at our expense.
  - b. For repairs, parts and service provided by us, we warrant to you that the repairs, parts and service we provide to you will be free from defects in material and workmanship. The duration of this warranty is ninety (90) days from as applicable (i) the date which the machine required the repairs, parts or service is returned to you by us, (ii) the date of your receipt of the part, (iii) the date of repair, if performed at your facility. If during this ninety (90) day period you discover a defect in the repairs, parts or service you must promptly notify us in writing.
  - c. All warranty service is subject to our prior examination and approval and will be performed by us at your facility or at one of our service centers designated by us. All transportation to and from the designated service center will be at our expense. If we are



- unable to repair the equipment to conform to the warranty after a reasonable number of attempts, we will provide at our option, one of the following: (i) a replacement for such equipment, or (ii) a full refund of the purchase price. These remedies are your exclusive remedies for breach of warranty. Unless otherwise agreed in writing by us, our warranty extends only to you and is not assignable to or assumable by any subsequent purchaser, in whole or in part, and any such attempted transfer shall render all warranties provided hereunder null and void and of no other further force or effect.
- d. We will use all reasonable efforts to obtain for you any manufacturer's guarantees or warranties for any sub-assemblies included in the equipment. To the extent such warranties are assignable; we hereby assign to you all warranties that are granted to us by our suppliers of any sub-assemblies contained in the equipment.
  - e. The warranties set forth above are inapplicable to and exclude (i) any product, components or parts not manufactured by us or covered by the warranty of another manufacturer, (ii) damage caused by accident or the negligence of you or any third party, normal wear and tear, erosion, corrosion or by disasters such as fire, flood, wind and lightning, (iii) damage caused by your failure to follow all installation and operation instructions or manuals or to provide normal maintenance, (iv) damage caused by unauthorized or improper installation of attachments, repairs or modifications, (v) damages caused by a product or component part which we did not design, manufacture, supply or repair, or (vi) any other abuse or misuse by you or any third party.
  - f. EXCEPT AS SET FORTH IN SUBPARAGRAPHS (a) THROUGH (e) ABOVE, WE DISCLAIM ALL EXPRESS AND IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.
9. **LIMITATION OF LIABILITY:** In no event shall we be liable, and you hereby waive any claims against us and release us from liability to you, for any indirect, special, punitive, incidental, or consequential damages whatsoever based upon breach of warranty, breach of contract, strict tort, or any legal theory. Excluded damages include, but are not limited to, loss of profits, loss of savings or revenue, loss of use of the equipment or any associated equipment, cost of capital, cost of any substitute equipment, facilities or services, downtime, the claims of third parties including customers, and injury to property. This limitation does not apply to claims for personal injury. Some states do not allow limits on warranties, or on remedies for breach of certain transactions. In such states, certain of the limitations in this paragraph and subparagraph 8(c) do not apply.
10. **OWNERSHIP:** All drawings, designs, and specifications supplied by us have been prepared or assembled by us and is solely our property. Such drawings, designs and specifications have been furnished in order to provide full documentation and on the condition that they shall not be reproduced or copied in any manner whatsoever, in whole or in part, except for your internal use as necessary, and upon further condition that, as our sole property, they shall not be used, in whole or in part, for furnishing information to others or for any purpose not specifically authorized in writing signed by one of our corporate officers. These ownership provisions shall not be superseded by any printed form used in connection with or arising out of a sale induced by a proposal or otherwise.
11. **PATENT INFRINGEMENT:**
- (a) We warrant that the equipment in the condition sold to you is free of the rightful claim of infringement of any apparatus claims of any third party U.S. patent issued as of the date of our acknowledgement and acceptance of your order, and we will defend, indemnify and hold you harmless from such claims, provided, however, we make no express or implied warranties of non-infringement and undertake no indemnification in respect to third party rights where the alleged patent infringement is based upon or related to (i) any method, process or product claims in third party U.S. patent, (ii) any combination of the equipment with other equipment not supplied by us, (iii) any modifications of the equipment made by you and not approved by us.
  - (b) You shall notify us within thirty (30) days of receipt of notice of an alleged third party patent infringement claim that would entitle you to patent infringement indemnification pursuant to paragraph 11(a), and we shall thereupon assume defense of the claim at our expense. We shall have the sole right to settle or otherwise compromise a third party claim, including but not limited to the right to either (i) modify the equipment to avoid infringement if you are agreeable to the modification, (ii) repurchase the equipment from you at a price equal to the then current fair market value of the equipment, (iii) secure rights by the assignment or license to permit continued use of the equipment.
  - (c) If a third party charges us with patent infringement relating to equipment sold by us to you, we shall have the right to either (i) modify the equipment to avoid infringement if you are agreeable to the modification, (ii) repurchase the equipment from you at a price equal to the then current fair market value of the equipment, (iii) secure rights by the assignment or license to permit continued use of the equipment. If a third party charges us with patent infringement on the basis set forth in paragraph 11 (a)(i), (ii) or (iii), you shall hold us harmless for all expenses and awards of damage against us, and we shall also have the right to modify or repurchase the equipment or to secure rights for continued use by way of assignment or license set forth in this paragraph.
12. **SAFETY AND HEALTH STANDARDS:** The equipment described herein (or on specifications provided herewith) complies with applicable safety and health standards issued pursuant to the Occupational Safety and Health Act of 1970 (the Act) and in effect on this date as such standards are interpreted and understood by us. These standards may be amended and/or their meaning may be clarified prior to shipment or performance, and if such changes or clarification requires changes in the equipment described herein, we shall make the necessary changes available to you. You shall pay for any and all changes at our prices therefore in effect at time of shipment or performance, as the case may be. Because actual compliance by employers with the Act is beyond our control, we cannot and do not represent that the use of the equipment described herein, nor the location, installation or maintenance thereof, will comply with the Act or regulations and standards issued pursuant thereto. We make no representation of compliance with safety and



health standards contained in any statute, regulations or ordinance of any state or political subdivision thereof applicable to the equipment described herein unless you have notified us of the existence and contents of such standards and we have agreed in writing to the incorporation of such standards in the specifications relating to such equipment. Nothing in this provision shall operate to modify or affect in any manner whatsoever our disclaimer of any liability for consequential damages contained elsewhere in these terms and conditions of sale.

13. **INSPECTION:** Upon prior written notice, you may make reasonable inspections of equipment at our facility. We reserve the right to determine the reasonableness of the request and to select an appropriate time and location for such inspection. You agree to execute appropriate confidentiality provisions upon our request prior to visiting our facility. All costs of inspection shall be solely determined by us and shall be payable by you. No inspection or expediting by you at the facilities of our suppliers is authorized.
14. **SOFTWARE PROVISIONS:** If software is provided hereunder, you are granted a nonexclusive, royalty free license only for your use of the software provided with our equipment. Under this license you may: (i) use our software in machine readable code only and only with the equipment provided, (ii) copy our software into any machine readable object code form for backup purposes in support of your use of our software on the equipment provided, and (iii) create one additional copy of the software for archival purposes only. This license may not be assigned, sublicensed or otherwise transferred by you with our prior written consent. You hereby recognize and acknowledge that the software provided to you hereunder comprises valuable trade secret and/or copyright property of Centrisys (or its licensor) and you covenant that you will take adequate precautions against access to the software by, or disclosure of the software to, anyone not authorized hereunder to use or have access to the software.
15. **TIME LIMIT FOR BRINGING SUIT:** Any action you file against us, whether for breach of contract, including but not limited to breach of warranty, or for negligence or strict tort, must be commenced within ninety (90) days following the expiration of the Warranty Period.
16. **MODIFICATION OF TERMS:** The terms and conditions set forth herein are an integral part of our quotation, proposal and/or order acknowledgement or confirmation. These terms shall not be deemed altered, modified or added to by printed or other "standard" terms in the purchase order, acceptance or similar document. Our confirmation or acknowledgement of any order is with the express understanding that all printed or other "standard" language on any such documents submitted by you will be entirely disregarded to the extent that it varies from the terms and conditions of this proposal/offer which may be modified only by typed or handwritten language in the body of you order, acceptance or similar document, together with a written acknowledgement and acceptance of such modification by us.
17. **LIMITATION ON WARRANTIES:** THE WARRANTIES SET FORTH HEREIN ARE IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING AN IMPLIED WARRANTY OF MERCHANTABILITY, AN IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND AN IMPLIED WARRANTY OF NON-INFRINGEMENT. WE HERBY EXPRESSLY EXCLUDE FROM THIS CONTRACT THE IMPLIED WARRANTY OF MERCHANTABILITY, THE IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND THE IMPLIED WARRANTY OF NON-INFRINGEMENT, OUR WARRANTIES AND LIABILITIES HEREUNDER ARE LIMITED AS STATED HEREIN.
18. **APPLICABLE LAW:** Any controversy or claim arising out of the contract or the breach thereof shall be finally decided with binding effect on both parties by the courts of Wisconsin and in accordance with the laws of the State of Wisconsin, without giving effect to the provisions thereof relating to conflict of laws. THE EQUIPMENT AND PARTS DESCRIBED IN THESE TERMS AND CONDITIONS OF SALE MAY CAUSE INJURY IF NOT OPERATED PROPERLY AND FOR THIS REASON ALL OPERATORS SHOULD BECOME THOROUGHLY FAMILIAR WITH THE OPERATING INSTRUCTIONS BEFORE OPERATING THE EQUIPMENT.