



UNIVERSITY OF KENTUCKY Purchasing Division

INVITATION FOR BIDS

CCK-2665-23

ADDENDUM# 2

10/20/2022

ATTENTION: This is not an order. Read all instructions, terms and conditions carefully.

IMPORTANT: BID AND ADDENDUM MUST BE RECEIVED BY: 10/27/2022 @ 3:00 P.M. LEXINGTON, KY TIME

The bidder must acknowledge receipt of this and any addendum as stated in the Invitation for Bids.

1. Please refer to and incorporate within the offer, the attached information from Omni Architects and CMTA.
2. If you have any questions, please contact Ken Scott at the number below or at kenneth.scott@uky.edu.

**OFFICIAL APPROVAL
UNIVERSITY OF KENTUCKY**

SIGNATURE

Ken Scott _____

10/20/2022

Contracting Officer / (859) 257-9102

Typed or Printed Name

ADDENDUM NUMBER TWO

Bidders shall conform to the following changes, as same shall become binding on the Contract to be issued in response to this Invitation to Bid.

CORRECTIONS / CHANGES

1. **Mechanical and Electrical Revisions** – Refer to the attached summary of mechanical and electrical changes by CMTA Engineers (3 pages).

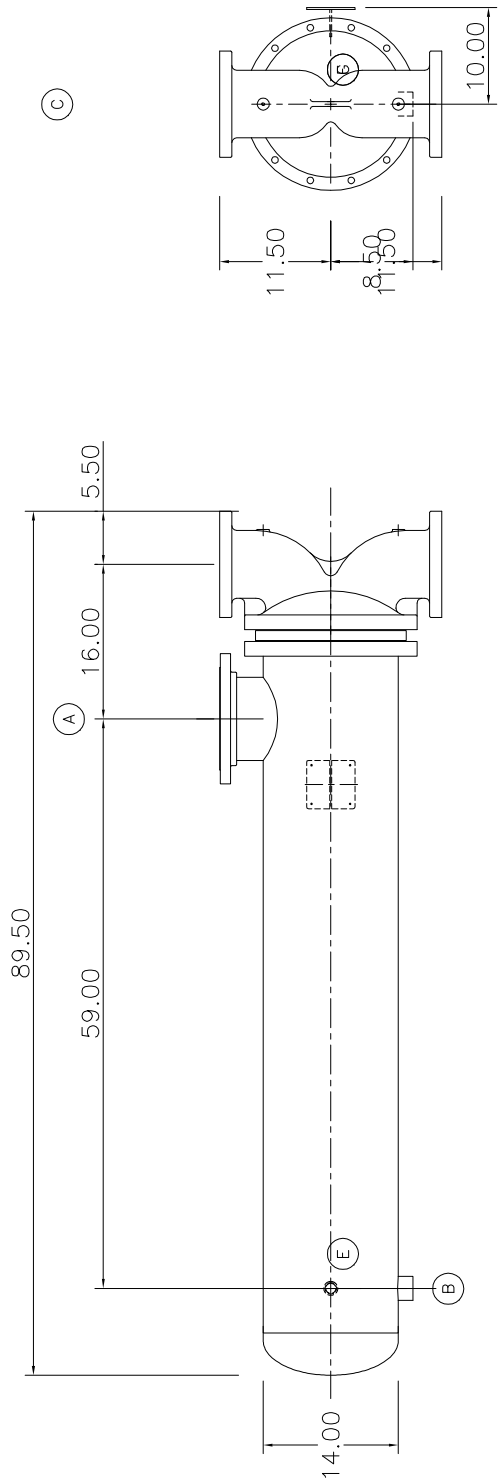
END OF ADDENDUM NO. 2

UK Chemistry Physics Heat Exchanger
ADDENDUM # 2- MEP **10/20/2022**

- Item #1 Refer to Mechanical Drawing IC1.0
- A. The point of contact for Johnson Controls during the bidding process shall be Megan Coleman (megan.fern.coleman@jci.com).
 - B. There is an existing data wire run to the JCI control panel on the plan east side of the penthouse that can be utilized for the new controller.
- Item #2 Refer to Mechanical Drawing M2.3
- A. The steam piping to the 1/3-2/3 steam control valves shall be sized for 2450 lbs/hr and 4900 lbs an hour. The pipes shall be 4 inch and 5 inch respectively.
- Item #3 Refer to Mechanical Drawing M2.
- A. The cutsheet for the owner provided heat exchanger is attached. The heat exchanger is scheduled to ship 12/13/2022.

END OF ADDENDA ITEMS

63.500 IN. REQ'D
TO REMOVE BUNDLE



DIMENSIONS NOT CERTIFIED FOR CONSTRUCTION

REPLACEMENT PARTS		MATERIAL SPECIFICATION			
DESCRIPTION/MATERIAL	PART NUMBER	FRONT HEAD: C. IRON	SHELL: STEEL		
BUNDLE KIT W/GSKT & PKNG	4-246-14-072-011	REAR HEAD:	TUBE SUP: BRASS		
GASKET ELASTAGRAPH	3-299-9-00-929-14	TUBESHEET:	STEEL		
GASKET ELASTAGRAPH	3-298-9-00-932-14	TUBES:	COPPER		
WEIGHT WET: 1657 DRY: 1103 BDL: 378 LBS.					
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				TITLE	
NOZZLE SCHEDULE		D.P.	T.P.	MAX.TEMP	MIN.TEMP
SHELLSIDE	150 PSI	300 PSI	300 PSI	375 °F	-20 °F
TUBESIDE	150 PSI	300 PSI	300 PSI	375 °F	-20 °F
MADE REP		DATE	09-02-22		
CHECK REP		DATE	09-02-22		
SCALE: .052IN.=1.000IN.		INQUIRY NUMBER		09020901	

- (G) .25 NPT CONN.
- (F) .25 NPT CONN.
- (E) .75 NPT CONN.
- (D) 6"-150# ANSI-FF OUTLET
- (C) 6"-150# ANSI-FF INLET
- (B) 1.50 PIPE TAP OUTLET
- (A) 8"-150# ANSI-RF INLET

Bell & Gossett™

Shell & Tube Heat Exchanger Specification Sheet

175 Standard Parkway
Cheektowaga, New York 14227
1-800-447-7700
www.xylem.com/bellgossett

Customer
Inquiry Number 2022-9-1-16:48

Date Friday, September 02, 2022
Item Number NA

Performance of One Unit: QSU-146-2

Units Connected in Parallel: 1

	Shell Side	Tube Side
Fluid Name	Steam	Propylene Glycol 50%
Total Flow	6,677.88 lb/hr	620.98 GPM
Inlet Temperature	217.8 °F	33.0 °F
Outlet Temperature	217.8 °F	57.0 °F
Operating Pressure	2 PSIG	150 PSIG
Pressure Drop, Allow./Calc	3.34 / 0.92 PSIG	6.5 / 5.83 PSIG
Velocity	134.76 ft/s	7.96 ft/s
Density	0.04 lb/ft ³	65.35 lb/ft ³
Viscosity, Mean	0.01 cp	13.53 cp
Viscosity, Wall	0.01 cp	9.67 cp
Specific Heat	0.49 Btu/lbm, °F	0.83 Btu/lbm, °F
Thermal Conductivity	0.01 Btu/ft, h, °F	0.2 Btu/ft, h, °F
Specified Fouling Factor	0.000000 hr, ft ² , °F/Btu	0.000500 hr, ft ² , °F/Btu
Total Heat Exchanged	6,500,000 Btu/h	
LMTD	172.52 °F	
Overall Heat Transfer Coefficient, Clean/Dirty	261.6/227.39 Btu/hr, ft ² , °F	
Overall Heat Transfer Coefficient, Service	211.83 Btu/hr, ft ² , °F	
Surface Area	177.7 ft ²	
Excess Surface Area	7.34 %	

Construction

	Shell Side	Tube Side
Number of Passes	1	2
Design Pressure	150PSI	150PSIG
Design Temperature	375(°F)	375(°F)
Inlet Connection (Location) Type	8.0 in FLG 150#	6.0 in K-FLG
Outlet Connection (Location) Type	1.5 in NPT	6.0 in K-FLG
Tube Material / Diameter	COPPER / 3/4 in	
No. Tubes / Gauge / Length / Pitch	150 / 18 BWG / 72 / 15/16 TRI	
Shell Material	STEEL	
Head Type/Material	CAST IRON	
Tubesheet Material	STEEL	
Baffle Material	BRASS	
Gasket Material	Elastagraph	
Tube to Tubesheet Joint	Roller Expanded	
Approvals	ASME Sect VIII Div 1 w/U stamp.	

- Customer to verify fluid/material compatibility.

Performance evaluation is dependent on customers' ability to provide sufficiently accurate measurements.

NOTES: