OREGON STATE UNIVERSITY
REQUEST FOR QUOTE (RFQ)

		ISSUE DATE:	12/07/2015
RFQ #	MA179998Q	RFQ DUE DATE:	12/15/2015 3:00 PM
DELIVER TO:		REQUESTED BY / RETURN QUOTE TO:	
DEPARTMENT:	OSU Cascades	NAME:	Michele Andersen
ADDRESS:	Attn: Chris Hagen/Shyam Menon 2600 NW College Way	E-MAIL:	michele.andersen@oregonstate.edu
CITY, STATE ZIP:	Bend, Oregon 97703	TELEPHONE:	541-737-3667
REQUIRED DELIVERY DATE:	As Soon as possible	FAX:	541-737-2170

ITEM	DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL PRICE
1	Microchannel Heat Exchanger- Scope of work: Complete Design and Fabrication of a diffusion bonded microchannel heat exchangers to meet Attachment A requirements. -Material Procurement and inspection in accordance with American Society of Mechanical Engineers II Part D -Shim component design and fabrication -Assembly and high-vacuum diffusion bonding of cores, reference American Society of Mechanical Engineers VIII Div.1 - Gas Tungsten Arc Welding and Gas Metal Arc Welding attachment of manifolds, nozzles, and flanges, reference American Society of Mechanical Engineers VIII Div.1 -Nondestructive Examination, reference American Society of Mechanical Engineers VIII Div.1 -Required to provide certification documentation, test reports and material test reports, to support requirements listed above. Units are non-stamped unless otherwise specified. -Packaging included in price	1	EA		
2	Quoter must submit drawings of final product.				
3	For additional specifications and parameters please see Attachment A.				
	Delivery is f.o.b. destination, prepaid and allowed. Shipping, freight and handling must be included in quoted prices. Additional costs for such are disallowed.			TOTAL	
DELIVERY TIME AFTER RECEIPT OF ORDER:			PRICES VALID THROUGH:		

SPECIAL INSTRUCTIONS:

1. Unless otherwise specified, all items quoted are to be new, unused and not remanufactured in any way.
2. Brand names are for the purpose of describing and establishing the characteristics desired and are not intended to limit or restrict competition. Quoters may submit quotes for substantially equivalent products unless the RFQ provides that a specific brand is necessary because of compatibility requirements, etc. All such brand substitutions shall be subject to approval by OSU.
3. Quoters must clearly identify all products quoted. Brand name and model or number must be shown.
4. Only documents issued as addenda by OSU serve to change the RFQ in any way.
5. OSU reserves the right to make the award by item, partial or whole lots, groups of items or entire quote, whichever is in the best interest of OSU.
6. OSU may reject any Quote not in compliance with the RFQ, attachments, and addenda, or if it is in the best interest of OSU.

VENDOR INFORMATION:

COMPANY:	
ADDRESS:	
CITY, STATE, ZIP:	
CONTACT NAME:	
E-MAIL:	
TELEPHONE:	
FAX:	

VENDOR SIGNATURE:

By signature below the undersigned certifies that they are authorized to act on behalf of the quoter and will comply with all aspects of the quote herein.

SIGNATURE:	
NAME/TITLE:	

This procurement is subject to the indicated Oregon State University Standard Terms and Conditions for: ☒ Goods ☐ Services ☐ Purchase Order Construction ☐ Software. The indicated terms and conditions may be viewed at http://pacs.oregonstate.edu/terms-and-conditions

Attachment A

RFQ# MA179998Q

Microchannel Heat Exchanger Requirements: 2 stages in 1 device

Stage 1

STREAM NAME (e.g., water, CO2, etc.)		Hot Side Natural gas (methane)		Cold Side Engine coolant (Water & Ethylene glycol, 50-50%)	
		IN	**OUT**	**IN**	**OUT**
FLUID FLOW RATE (TOTAL)	kg/hr	122		540	
TEMPERATURE (IN/OUT)	°C	145	85	80	90
PRESSURE (IN)	barg	300		1.5	
PRESSURE DROP (ALLOW./CALC.)	barg	0.5		0.5	
HEAT EXCHANGED	kW	6.4			

Stage 2

STREAM NAME (e.g., water, CO2, etc.)		Hot Side Natural gas (methane)		Cold Side R134a (liquid phase at inlet, partially vaporized at exit)	
		IN	**OUT**	**IN**	**OUT**
FLUID FLOW RATE (TOTAL)	kg/hr	122		662	
TEMPERATURE (IN/OUT)	°C	85	25	9	10
PRESSURE (IN)	barg	300		3.5	
PRESSURE DROP (ALLOW./CALC.)	barg	0.5		0.5	
HEAT EXCHANGED	kW	6.8			

Dimensions of space available: 30" x 12" x 4"

Fitting: Unit must have Qty. 6 total 3/8" compression (3 input & 3 output) fittings.

Hydrostatically tested to 1.5 x working pressure