

Spec Section	Description	Status	Requirement	Yes	No	Bidder Response	Bidder Cross Reference (SIR)	What's expected in your proposal
	The Pulse Research Unit of the Grain Research Laboratory (GRL) at the Canadian Grain Commission (CGC) requires a laboratory air classifier to expand pulse research projects. The primary objective of the GRL's Pulse Research program is to provide insights into the factors that affect biochemical components and end-use quality of Canadian pulse crops. The Pulse Research Program also involves developing new or improved methods for measuring and assessing pulse end-use quality. The laboratory air classifier will be utilized to product fractions from pulses, which will allow us to investigate how pulse quality characteristics are related to the quality of end-use pulse products. Information generated from the research will assist in the diversification of end-uses of Canadian pulse crops and enhance the marketability of Canadian pulses.							<b>STATUS : M=Mandatory; I = Information ; D=Desirable</b>
<b>Part 1: GENERAL PERFORMANCE SPECIFICATIONS</b>								
	<b>Minimum mandatory performance specifications for one (1) Laboratory Air Classifier System</b>	<b>M</b>						Provide detailed documentation, brochures with proposal to demonstrate compliance with the specifications of the solicitation.
1	The laboratory air classifier system must be able to separate flours of different pulse crops including peas, lentils and beans into fine (protein-enriched with no less than 50% protein as dry weight basis) and coarse (starch-enriched with no less than 70% starch as dry weight basis) fractions according to density.	<b>M</b>						
2	The lab air classifier must be capable of separating fine ground pulse flours with particle sizes of less than $d_{97}$ 50 $\mu\text{m}$ .	<b>M</b>						
3	The air volume flow rate into the lab air classifier must be adjustable in the range of 35-70 $\text{m}^3/\text{h}$ .	<b>M</b>						
4	The lab air classifier must include a classifier wheel to separate the powder material. The speed of the lab classifier wheel must be adjustable via a variable frequency drive up to a maximum speed of 18,000 rpm.	<b>M</b>						
5	The air classifier wheel must be on a horizontal shaft and be able to achieve desired separation limits up to $d_{97}$ 2 $\mu\text{m}$ via adjusting the classifier wheel speed.	<b>M</b>						
6	The gap between classifier wheel and fines outlet must be air purged to ensure that product is free of oversized particles.	<b>M</b>						
7	The lab air classifier must be able to operate with extremely small amounts of material (100 grams) up to large amounts (five kilograms) a batch.	<b>M</b>						
8	The lab air classifier must have a dry powder feeder which accurately doses fine pulse flours into the lab air classifier.	<b>M</b>						
9	The feeder must be a twin-screw type which is suitable for dosing finer pulse flours.	<b>M</b>						

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10	The feed rate of the dry powder feeder must be adjustable and compatible to the throughputs of the lab air classifier ranging from a minimum of 0.5 up to a maximum of 10.0 kg/h.	M						
11	A twin-screw feeder must be able to dose 100 g to 1.0 kg pulse flour batches.	M						
12	The lab air classifier system must include a cyclone system for collecting fine product, a fine product discharge hopper and a product container with maximum capacity of 10 liters.	M						
13	The lab air classifier system must also include a bypass pipe for bypass the cyclone to collect all fines when a small amount of raw material (i.e. 100 g-200 g) is processed.	M						
14	The lab air classifier system must include a container for collecting coarse product with maximum capacity of 10 liters.	M						
15	The lab air classifier system must include a housed vent filter unit for dust-free operation.	M						
16	The housed vent filter unit must have accessibility from the front or top of the equipment for cleaning or changing the filter.	M						
17	The dust or very fine powder must be discharged via a dust discharge hopper, and collected in a container with maximum capacity of 10 liters.	M						
18	The lab air classifier system must be compact, self-contained and permit assembly in a very small space. The laboratory space available is a maximum of 1.5 m (L) w x 1.0 m (W) x 2.2 m (H).	M						
19	The completed lab air classifier plant must be mounted on a base frame.	M						
20	The lab air classifier system must have accessibility from the front, side or top of the equipment to allow access to all removable parts for easy and quick cleaning between sample batches.	M						
21	The lab air classifier system must have an on-board control system for monitoring and regulating all important process parameters in a graphic display.	M						
22	All process parameters including feed rate of dosing raw material to the lab air classifier, speed of the lab air classifier wheel and air flow rate must enable to be set via an operator panel.	M						
23	The completed lab air classifier system must be delivered ready for operation, i.e. fully assembled and operational upon power-up, with no additional installation required.	M						
24	The product-contacted parts of the lab air classifier must be constructed of food-grade stainless steel.	M						
25	The power supply must be 120 V or 220 V. Preference for the power supply is 120 V; 220 V must be specified in the bid by the vendor to allow CGC time for installation of the required power supply in the lab.	M						
26	All electrical requirements including voltage, amperage and specific receptacle types required by the lab air classifier system must be specified by the vendor.	M						
27	Requirements for compressed air including pressure and fittings required by the lab air classifier system must be specified by the vendor.	M						

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<b>2</b>	<b>Part 2: ELECTRICAL SPECIFICATIONS</b>							
2.1	The power requirements must not exceed 220 V. All electrical requirements including voltage, amperage and specific receptacle types required by the system must be specified by the vendor in their proposal. A standard three (3) prong grounded plug must be installed on the power cord.	<b>M</b>						Provide detailed documentation, brochures with proposal.
<b>3</b>	<b>Part 3: SOFTWARE SPECIFICATIONS</b>							
3.1	The programmable control for monitoring and regulating all important process parameters in a graphic display via an operator panel must be included with the lab air classifier system.	<b>M</b>						
<b>4</b>	<b>Part 4: TECHNICAL SUPPORT</b>							
4.1	Application and service support must be available during regular business hours, i.e. Monday to Friday 8:00 AM to 4:00 PM CST.	<b>M</b>						
4.2	Must be able to provide a minimum one (1) year full parts and labour warranty.	<b>M</b>						
<b>5</b>	<b>Part 5: DELIVERY, INSPECTION, PACKAGING</b>							
5.1	FOB Destination, 1622-303 Main Street, Winnipeg MB R3C 3G8 - Grain Research Laboratory of the Canadian Grain Commission. Including delivery, uncrating and all related charges, to destination.	<b>M</b>	Delivery date					
5.20	Delivery is requested before March 15, 2013	<b>M</b>						
5.30	All documentation to be provided by Contractor to clear delivery from outside Canada, to Geo. H. Young & Co. Ltd. at 809-167 Lombard Avenue, Winnipeg MB R3B 3H8, Phone: (204) 947-6851 Fax: (204) 947-3306	<b>M</b>	Must supply complete shipping documentation					
5.4	Inspection and acceptance will be done in Winnipeg to the satisfaction of the Designated User or an authorized representative. The acceptance testing will include using the equipment in a variety of applications to ensure it operates to the performance standards listed herein. Acceptance at this time in no way limits the performance expected throughout the lifetime of the equipment or the obligations of the vendor during the warranty period.	<b>M</b>	Inspection and Acceptance.					Confirm your commitment to these supply requirements.
5.5	Packaging and shipping are to be in accordance with the industry standard for all items in order to ensure their safe arrival at destination. Packing slips must accompany each shipment. The Contractor will be responsible for the safe delivery, installation and obtaining acceptance of the Unit. All items shall remain the responsibility of the Contractor until delivered, inspected and accepted by an authorized representative of Canada. Following acceptance of the Unit, all charges incurred for the replacement of malfunctioning equipment will be borne by the Contractor. Costs associated with replacement of equipment damaged in transit to the destination will be borne by the Contractor and the equipment shall not be considered "delivered" for the purposes of satisfying the delivery time requirements as detailed above, unless the equipment is undamaged and ready for acceptance testing.	<b>M</b>	Packaging					Confirm your commitment to these supply requirements.

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<b>6</b>	<b>Part 6: DOCUMENTATION &amp; MANUALS</b>							
6.1	Documentation/Technical Manuals. The Contractor shall provide a complete and current set of end-user documentation and technical reference manuals from the Original Equipment Manufacturer (OEM) for the apparatus. Manuals may be unilingual English. Canada has the right to translate any of the unilingual technical manuals into the second of the two Official Languages and to make free use of that translation for Canada's purpose. This right shall include the right to make, or to have made, copies for Canada's purposes only and to ultimately destroy those copies and the Contractor shall have no right to the translation.	<b>M</b>						Confirm your commitment to the provision of documentation/technical manuals.
<b>7</b>	<b>Part 7: DOCUMENTATION &amp; MANUALS</b>							
7.1	The equipment offered shall be "off-the-shelf" in that it shall be composed of standard equipment requiring no further research or development and shall be in current production and conform to the current issue of the applicable specification and/or part number of the Original Equipment Manufacturer. <b>All equipment shall be new, in that it shall not include refurbished equipment and in that all equipment shall be of current manufacture.</b>	<b>M</b>	Must be new equipment of most current product line - no refurbished parts may be used in the equipment					Demonstrate your commitment to meeting this requirement.
<b>8</b>	<b>Part 8: QUALITY ASSURANCE</b>							
8.1	The Manufacturer of the Unit is ISO 9000 or 9001:2008 compliant.	<b>D</b>	ISO compliant					Provide documentation to demonstrate this requirement.
8.2	The Bidder is ISO 9000 or 9001:2008 compliant.	<b>D</b>	ISO compliant					Provide documentation to demonstrate this requirement.
8.3	The Bidder must be an Authorized Reseller for the Unit they are offering to the Crown.	<b>M</b>	Authorized Reseller					Provide documentation to demonstrate this requirement.