

**RETURN BIDS TO:**  
**RETOURNER LES SOUMISSIONS À:**  
Bid Receiving - PWGSC / Réception des soumissions  
- TPSGC  
11 Laurier St./ 11 rue, Laurier  
Place du Portage, Phase III  
Core 0B2 / Noyau 0B2  
Gatineau, Québec K1A 0S5  
Bid Fax: (819) 997-9776

**SOLICITATION AMENDMENT**  
**MODIFICATION DE L'INVITATION**

The referenced document is hereby revised; unless otherwise indicated, all other terms and conditions of the Solicitation remain the same.

Ce document est par la présente révisé; sauf indication contraire, les modalités de l'invitation demeurent les mêmes.

**Comments - Commentaires**

**Vendor/Firm Name and Address**  
Raison sociale et adresse du  
fournisseur/de l'entrepreneur

**Issuing Office - Bureau de distribution**  
Scientific, Medical and Photographic Division /  
Division de l'équipement scientifique, des produits  
photographiques et pharmaceutiques  
11 Laurier St./ 11 rue, Laurier  
6B1, Place du Portage  
Gatineau, Québec K1A 0S5

<b>Title - Sujet</b> Coordinate Measuring Machine	
<b>Solicitation No. - N° de l'invitation</b> W8486-162804/A	<b>Amendment No. - N° modif.</b> 003
<b>Client Reference No. - N° de référence du client</b> W8486-162804	<b>Date</b> 2015-10-13
<b>GETS Reference No. - N° de référence de SEAG</b> PW-\$\$PV-940-67792	
<b>File No. - N° de dossier</b> pv940.W8486-162804	<b>CCC No./N° CCC - FMS No./N° VME</b>
<b>Solicitation Closes - L'invitation prend fin</b> <b>at - à 02:00 PM</b> <b>on - le 2015-10-26</b>	
<b>Time Zone</b> Fuseau horaire Eastern Daylight Saving Time EDT	
<b>F.O.B. - F.A.B.</b> Specified Herein - Précisé dans les présentes	
<b>Plant-Usine:</b> <input type="checkbox"/> <b>Destination:</b> <input type="checkbox"/> <b>Other-Autre:</b> <input checked="" type="checkbox"/>	
<b>Address Enquiries to: - Adresser toutes questions à:</b> Hooper, Marlyn	<b>Buyer Id - Id de l'acheteur</b> pv940
<b>Telephone No. - N° de téléphone</b> (613) 219-8478 ( )	<b>FAX No. - N° de FAX</b> (819) 956-3814
<b>Destination - of Goods, Services, and Construction:</b> <b>Destination - des biens, services et construction:</b>	

**Instructions: See Herein**

**Instructions: Voir aux présentes**

<b>Delivery Required - Livraison exigée</b>	<b>Delivery Offered - Livraison proposée</b>
<b>Vendor/Firm Name and Address</b> Raison sociale et adresse du fournisseur/de l'entrepreneur	
<b>Telephone No. - N° de téléphone</b> <b>Facsimile No. - N° de télécopieur</b>	
<b>Name and title of person authorized to sign on behalf of Vendor/Firm</b> <b>(type or print)</b> <b>Nom et titre de la personne autorisée à signer au nom du fournisseur/</b> <b>de l'entrepreneur (taper ou écrire en caractères d'imprimerie)</b>	
<b>Signature</b>	<b>Date</b>

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003

Buyer ID - Id de l'acheteur

pv940

Client Ref. No. - N° de réf. du client

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File No. - N° du dossier

pv940W8486-162804

CCC No./N° CCC - FMS No/ N° VME

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This amendment is raised to publish all answers to the questions received as of September 2, 2015 and to modify mandatory specifications at Annex B.

### **Questions**

- Q.1 Why is needed a rotary table on machine (Item 1.14 – Annex B)?
- Q.2 Is it for inspecting gears? With our CMMs the rotary tables for inspection gears are not mandatory. Is it for a higher productivity/throughput? Please note that a Rotary Table adds an extra axis to the machine and degrades the overall accuracy.
- Q.3 If the end user wants to inspect gears or special geometries – we have a large number of specialized software modules for gears and we need to make sure we offer the software package that suits the application.
- Q.4 I would like to know the spec of your lab.
- Q.5 At the Annex B, section 1.12

1.12 The system must be supplied with a laser line scanning head capable of producing point cloud data.

We have different laser line scanning models and I would like to be sure that I will propose the right one for your application.

Is it possible to have more details of what you are looking for.

Do you think you can add more specifications in the solicitation or I go with the one I think would be the best for DND?

- Q.6 Are the calibration standards shown below to be supplied to DND as part of the bid request or is it sufficient that we provide our own calibrated standards for use during the inspection of the machine. Does DND wish to own the necessary standards and fixtures to perform the inspection?

#### **6.2.3 Manuals**

Manuals must be provided in English and French, and must cover the calibration, operation and the maintenance of the system.

The coordinate measurement machine calibration standards must be supplied with certificated traceable to the National Standards valid for a minimum of 12 months after delivery.

- Q.7 Our standard practice is to have the machine error mapped at the factory in Japan as part of the manufacturing and preparation process. The machine is then installed on site, where after some time to allow the machine to acclimatize; we provide the calibration testing as per the ISO specifications listed in 1.4 below. In the event that these tests fail to meet the specification in 1.5, then we would consult with the factory and if required staff from the factory would be dispatched to perform the error mapping of the machine on site. These are established requirements and would be included as standard in any contract for a Mitutoyo coordinate measuring machine. While we can offer the service required in 1.3, in our view this would be an unnecessary step once we prove conformance to 1.4 and 1.5.

1.3 The system must be laser error mapped in-situ after on-site installation

Reference in Contractors Proposal: \_\_\_\_\_

- 1.4 The system must be calibrated in accordance with ISO 10360 parts 1 to 5.

Reference in Contractors Proposal: \_\_\_\_\_

- 1.5 The system must achieve a  $MPE_{E0}$  of no greater than  $0.3+L/1000\mu\text{m}$  (L=measured length in mm)
- Q.8 Annex B item 1.12 - "a laser line scanning head" – we can offer a higher accuracy laser point scanner
- Q.9 Annex B item 1.13 – "vision system" – we do not offer a vision system on this ultra-high accuracy machine – we might need to discuss the application and take Exception to this item.
- Q.10 Annex B items 4.2 – 4.7 - we can offer these software modules but we need to understand what would be the application and also which system the customer and they need to export into ( item 4.2).

### **Answers**

A.1, A.2 and A.3

Our use of this CMM is for unique calibrations, inspection, and reverse engineering. It will not be in a production environment or committed to any one particular use. The rotary table is a desired accessory merely to provide the option to the operator to avoid star probes for ease of measurement process development, where uncertainty degradation is acceptable.

- A.4 Our Lab. is a Class 100,000, Temp.  $20\pm 1^\circ\text{C}$ , RH 35%-55%, Pressure +50Pa
- A.5 This Question is no longer valid as it is not a requirement anymore (see below)
- A.6 The intent of the words "calibrated standards" is not to perform inspection, but to use when calibrating the probes (e.g. calibrated master spheres).
- A.7 I currently have a CMM that appeared to have changed as a result of shipping, and has recently been re-mapped to correct the problem. This was not detected using the standard inspection process, but was detected during the course of using it.  
This requirement will remain.
- A.8 This Question is no longer valid as it is not a requirement anymore (see below)
- A.9 This Question is no longer valid as it is not a requirement anymore (see below)
- A.10 We require the ability to export to CAD systems such as Pro-engineer, Rhinoceros, NX, Solid Edge, etc.

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## **ANNEX B**

### **Delete**

Mandatory Specification 1.12 in its entirety  
Mandatory Specification 1.13 in its entirety  
Mandatory Specification 4.10 in its entirety  
Mandatory Specification 4.11 in its entirety

All other terms and conditions remain unchanged