

**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 0A1 / Noyau 0A1  
Gatineau, Québec K1A 0S5  
Bid Fax: (819) 997-9776**

**REQUEST FOR PROPOSAL  
DEMANDE DE PROPOSITION**

**Proposal To: Public Works and Government  
Services Canada**

We hereby offer to sell to Her Majesty the Queen in right of Canada, in accordance with the terms and conditions set out herein, referred to herein or attached hereto, the goods, services, and construction listed herein and on any attached sheets at the price(s) set out therefor.

**Proposition aux: Travaux Publics et Services  
Gouvernementaux Canada**

Nous offrons par la présente de vendre à Sa Majesté la Reine du chef du Canada, aux conditions énoncées ou incluses par référence dans la présente et aux annexes ci-jointes, les biens, services et construction énumérés ici sur toute feuille ci-annexée, au(x) prix indiqué(s).

**Comments - Commentaires**

|  |  |  |
|--|--|--|
| <b>Title - Sujet</b><br>COMPOSITES MANUFACTURING PLATFORM  |  |  |
| <b>Solicitation No. - N° de l'invitation</b><br>31030-134353/A   | <b>Date</b><br>2013-10-15              |  |
| <b>Client Reference No. - N° de référence du client</b><br>31030-134353  |  |  |
| <b>GETS Reference No. - N° de référence de SEAG</b><br>PW-\$\$HN-460-63699   |  |  |
| <b>File No. - N° de dossier</b><br>hn460.31030-134353  | <b>CCC No./N° CCC - FMS No./N° VME</b> |  |
| <b>Solicitation Closes - L'invitation prend fin</b><br><b>at - à 02:00 PM</b><br><b>on - le 2013-11-25</b>   |  | <b>Time Zone</b><br><b>Fuseau horaire</b><br>Eastern Daylight Saving<br>Time EDT |
| <b>F.O.B. - F.A.B.</b><br><b>Plant-Usine:</b> <input type="checkbox"/> <b>Destination:</b> <input checked="" type="checkbox"/> <b>Other-Autre:</b> <input type="checkbox"/>                              |  |  |
| <b>Address Enquiries to: - Adresser toutes questions à:</b><br>Guertin, Benoit   |  | <b>Buyer Id - Id de l'acheteur</b><br>hn460                                      |
| <b>Telephone No. - N° de téléphone</b><br>(819) 956-4479 ( )   |  | <b>FAX No. - N° de FAX</b><br>( ) -  |
| <b>Destination - of Goods, Services, and Construction:</b><br><b>Destination - des biens, services et construction:</b><br>NRC- Boucherville facility<br>75 de Mortagne Blvd.<br>Boucherville QC J4B 6Y4 |  |  |

**Instructions: See Herein**

**Instructions: Voir aux présentes**

**Vendor/Firm Name and Address**

**Raison sociale et adresse du  
fournisseur/de l'entrepreneur**

**Issuing Office - Bureau de distribution**

Electrical & Electronics Products Division  
11 Laurier St./11, rue Laurier  
6B1, Place du Portage, Phase III  
Gatineau, Québec K1A 0S5

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

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## TABLE OF CONTENTS

### **PART 1 - GENERAL INFORMATION**

1. Security Requirement
2. Requirement
3. Debriefings

### **PART 2 - BIDDER INSTRUCTIONS**

1. Standard Instructions, Clauses and Conditions
2. Submission of Bids
3. Enquiries - Bid Solicitation
4. Applicable Laws

### **PART 3 - BID PREPARATION INSTRUCTIONS**

1. Bid Preparation Instructions

### **PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION**

1. Evaluation Procedures
2. Basis of Selection

### **PART 5 - CERTIFICATIONS**

1. Mandatory Certifications Required Precedent to Contract Award

### **PART 6 - RESULTING CONTRACT CLAUSES**

1. Security Requirement
2. Requirement
3. Standard Clauses and Conditions
4. Term of Contract
5. Authorities
6. Payment
7. Invoicing Instructions
8. Certifications
9. Applicable Laws
10. Priority of Documents
11. SACC Manual Clauses (Delivery)

#### **List of Annexes:**

- |         |   |
|---------|---|
| Annex A | Requirement   |
| Annex B | Pricing Schedule  |
| Annex C | Federal Contractors Program for Employment Equity - Certification |

## PART 1 - GENERAL INFORMATION

### 1. Security Requirement

There is no security requirement associated with the requirement.

### 2. Requirement

The contractor must provide the goods and/or services in accordance with the technical requirements stated herein at Annex "A"

#### 2.1 Delivery Requirement

Delivery is requested to be completed by March 1, 2015.

### 3. Debriefings

Bidders may request a debriefing on the results of the bid solicitation process. Bidders should make the request to the Contracting Authority within 15 working days of receipt of the results of the bid solicitation process. The debriefing may be in writing, by telephone or in person.

## PART 2 - BIDDER INSTRUCTIONS

### 1. Standard Instructions, Clauses and Conditions

All instructions, clauses and conditions identified in the bid solicitation by number, date and title are set out in the *Standard Acquisition Clauses and Conditions Manual* (<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual>) issued by Public Works and Government Services Canada.

Bidders who submit a bid agree to be bound by the instructions, clauses and conditions of the bid solicitation and accept the clauses and conditions of the resulting contract.

The 2003 (2013-06-01) Standard Instructions - Goods or Services - Competitive Requirements, are incorporated by reference into and form part of the bid solicitation.

Subsection 5.4 of 2003, Standard Instructions - Goods or Services - Competitive Requirements, is amended as follows:

Delete: sixty (60) days

Insert: ninety (90) calendar days

#### 1.1 SACC Manual Clauses

| SACC Reference | Section               | Date       |
|----------------|-----------------------|------------|
| A9033T         | Financial Capability  | 2012-07-16 |
| B1000T         | Condition of Material | 2007-11-30 |

## **2. Submission of Bids**

Bids must be submitted only to Public Works and Government Services Canada (PWGSC) Bid Receiving Unit by the date, time and place indicated on page 1 of the bid solicitation.

Due to the nature of the bid solicitation, bids transmitted by facsimile to PWGSC will not be accepted.

## **3. Enquiries - Bid Solicitation**

All enquiries must be submitted in writing to the Contracting Authority no later than ten (10) calendar days before the bid closing date. Enquiries received after that time may not be answered.

Bidders should reference as accurately as possible the numbered item of the bid solicitation to which the enquiry relates. Care should be taken by bidders to explain each question in sufficient detail in order to enable Canada to provide an accurate answer. Technical enquiries that are of a proprietary nature must be clearly marked "proprietary" at each relevant item. Items identified as "proprietary" will be treated as such except where Canada determines that the enquiry is not of a proprietary nature. Canada may edit the questions or may request that the Bidder do so, so that the proprietary nature of the question is eliminated, and the enquiry can be answered with copies to all bidders. Enquiries not submitted in a form that can be distributed to all bidders may not be answered by Canada.

## **4. Applicable Laws**

Any resulting contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in Ontario.

Bidders may, at their discretion, substitute the applicable laws of a Canadian province or territory of their choice without affecting the validity of their bid, by deleting the name of the Canadian province or territory specified and inserting the name of the Canadian province or territory of their choice. If no change is made, it acknowledges that the applicable laws specified are acceptable to the bidders.

# **PART 3 - BID PREPARATION INSTRUCTIONS**

## **1. Bid Preparation Instructions**

Canada requests that bidders provide their bid in separately bound sections as follows:

- Section I: Technical Bid (2 copies)
- Section II: Financial Bid (1 copy)
- Section III: Certifications (1 copy)
- Section IV: Additional Information (1 copy)

If there is a discrepancy between the wording of the soft copy and the hard copy, the wording of the hard copy will have priority over the wording of the soft copy. Prices must appear in the financial bid only. No prices must be indicated in any other section of the bid.

Canada requests that bidders follow the format instructions described below in the preparation of their bid:

- 1) use 8.5 x 11 inch (216 mm x 279 mm) paper;
- 2) use a numbering system that corresponds to the bid solicitation.

In April 2006, Canada issued a policy directing federal departments and agencies to take the necessary steps to incorporate environmental considerations into the procurement process Policy on Green Procurement

(<http://www.tpsgc-pwgsc.gc.ca/ecologisation-greening/achats-procurement/politique-policy-eng.html>). To assist Canada in reaching its objectives, bidders are encouraged to:

- 1) use paper containing fibre certified as originating from a sustainably-managed forest and/or containing minimum 30% recycled content; and
- 2) use an environmentally-preferable format including black and white printing instead of colour printing, printing double sided/duplex, using staples or clips instead of cerlox, duotangs or binders.

## **Section I: Technical Bid**

In their technical bid, bidders must explain and demonstrate how they propose to meet the requirements and how they will carry out the Work.

### **Technical Documentation**

TECHNICAL/DESCRIPTIVE LITERATURE MUST BE SUBMITTED AS PART OF THE TECHNICAL BID PACKAGE PRIOR TO THE BID CLOSING DATE. FAILURE TO COMPLY WILL RENDER YOUR BID NON RESPONSIVE.

## **Section II: Financial Bid**

Bidders must submit their financial bid in accordance with the Basis of Payment. The total amount of Applicable Taxes must be shown separately.

### **1.1 Exchange Rate Fluctuation**

The requirement does not provide for exchange rate fluctuation protection. Any request for exchange rate fluctuation protection will not be considered and will render the bid non-responsive.

**(End of page)**

**Section III: Certifications**

Bidders must submit the certifications required under Part 5.

**Section IV: Additional Information****1.2 Delivery Offered**

While delivery is requested as indicated above, the best delivery that could be offered is \_\_\_\_\_.

**1.3 Contractor Representatives**

Name and telephone number of the person responsible for :

**General enquiries**

Name: \_\_\_\_\_

Telephone: \_\_\_\_\_

Facsimile: \_\_\_\_\_

E-mail: \_\_\_\_\_

**Delivery follow-up**

Name: \_\_\_\_\_

Telephone: \_\_\_\_\_

Facsimile: \_\_\_\_\_

E-mail: \_\_\_\_\_

**PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION****1. Evaluation Procedures**

Bids will be assessed in accordance with the entire requirement of the bid solicitation including the technical and financial evaluation criteria. An evaluation team composed of representatives of Canada will evaluate the bids.

**Evaluation Criteria**

All bids must be completed in full and provide all of the information requested in the bid solicitation to enable full and complete evaluation.

**1.1 Mandatory Technical Criteria**

- Technical compliance (description of requirements herein at Annex "A");
- Simply stating a compliancy to a criteria is insufficient. Bidders must present a clearly organized, printed (i.e., not handwritten) proposal that includes all necessary

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technical and descriptive literature, in order to clearly demonstrate their compliancy to all items presented in the Requirement at Annex "A".

## 1.2 Financial Evaluation

The following **Mandatory** factors will be taken into consideration in the evaluation of each bid:

- Compliance with Pricing Basis

The Bid price will be determined by processing items in Annex "A" as follows:  
Sum of all items total price

## 1.3 Pricing Basis

The bidder must quote firm lot prices in Canadian dollars, DDP Delivered Duty Paid (destination), Applicable Taxes extra, as applicable. Freight charges to destination and all applicable Custom duties and Excise taxes must be included

## 2. Basis of Selection

A bid must comply with the requirements of the bid solicitation and meet all mandatory technical evaluation criteria to be declared responsive. The responsive bid with the lowest evaluated price on an aggregate basis will be recommended for award of a contract.

## PART 5 - CERTIFICATIONS

Bidders must provide the required certifications and documentation to be awarded a contract.

The certifications provided by bidders to Canada are subject to verification by Canada at all times. Canada will declare a bid non-responsive, or will declare a contractor in default, if any certification made by the Bidder is found to be untrue whether during the bid evaluation period or during the contract period.

The Contracting Authority will have the right to ask for additional information to verify the Bidder's certifications. Failure to comply with this request will also render the bid non-responsive or will constitute a default under the Contract.

## 1. Mandatory Certifications Required Precedent to Contract Award

### 1.1 Code of Conduct and Certifications - Related documentation

By submitting a bid, the Bidder certifies that the Bidder and its affiliates are in compliance with the provisions as stated in Section 01 Code of Conduct and Certifications - Bid of Standard Instructions 2003. The related documentation therein required will assist Canada in confirming that the certifications are true.

## 1.2 Federal Contractors Program for Employment Equity - Bid Certification

By submitting a bid, the Bidder certifies that the Bidder, and any of the Bidder's members if the Bidder is a Joint Venture, is not named on the Federal Contractors Program (FCP) for employment equity "FCP Limited Eligibility to Bid" list ([http://www.labour.gc.ca/eng/standards\\_equity/eq/emp/fcp/list/inelig.shtml](http://www.labour.gc.ca/eng/standards_equity/eq/emp/fcp/list/inelig.shtml)) available from Human Resources and Skills Development Canada (HRSDC) - Labour's website.

Canada will have the right to declare a bid non-responsive if the Bidder, or any member of the Bidder if the Bidder is a Joint Venture, appears on the "FCP Limited Eligibility to Bid" list at the time of contract award.

Canada will also have the right to terminate the Contract for default if a Contractor, or any member of the Contractor if the Contractor is a Joint Venture, appears on the "FCP Limited Eligibility to Bid" list during the period of the Contract.

The Bidder must provide the Contracting Authority with a completed annex Federal Contractors Program for Employment Equity - Certification, before contract award. If the Bidder is a Joint Venture, the Bidder must provide the Contracting Authority with a completed annex Federal Contractors Program for Employment Equity - Certification, for each member of the Joint Venture.

## PART 6 - RESULTING CONTRACT CLAUSES

### 1. Security Requirement

There is no security requirement associated with the requirement.

### 2. Requirement

The contractor must provide the goods and/or services in accordance with the technical requirements stated herein at Annex "A"

#### 2.1 SACC Manual Clauses

| SACC Reference | Section              | Date       |
|----------------|----------------------|------------|
| B1501C         | Electrical Equipment | 2006-06-16 |
| B7500C         | Excess Goods         | 2006-06-16 |

### 3. Standard Clauses and Conditions

All clauses and conditions identified in the Contract by number, date and title are set out in the Standard Acquisition Clauses and Conditions Manual (<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual>) issued by Public Works and Government Services Canada.



### 3.1 General Conditions

2010A (2013-04-25), General Conditions - Goods (Medium Complexity), apply to and form part of the Contract.

### 3.2 Warranty Period

Section 09 of general conditions 2010A (2013-04-25) is amended as follows:

Delete: twelve (12) months

Insert: two (2) years for parts and labour; five (5) years for structure.

All other provisions of the warranty section remain in effect.

## 4. Term of Contract - Delivery Date

All the deliverables must be received on or before \_\_\_\_\_ (Delivery as offered and as accepted will be inserted at contract award).

## 5. Authorities

### 5.1 Contracting Authority

The Contracting Authority for the Contract is:

Benoit Guertin - Supply Specialist

Public Works and Government Services Canada - Acquisitions Branch

Logistics, Electrical, Fuel and Transportation Directorate - "HN" Division

7B3, Place du Portage, Phase III, 11 Laurier Street, Gatineau, QC, K1A 0S5

Telephone: (819) 956-4479 Facsimile: (819) 953-4944

E-mail address: benoit.guertin@pwgsc-tpsgc.gc.ca

The Contracting Authority is responsible for the management of the Contract and any changes to the Contract must be authorized in writing by the Contracting Authority. The Contractor must not perform work in excess of or outside the scope of the Contract based on verbal or written requests or instructions from anybody other than the Contracting Authority.

### 5.2 Project Authority

The Project Authority for the Contract is:

Name: will be inserted at contract

Title: will be inserted at contract

Telephone: (xxx) xxx-xxxx

Facsimile: (xxx) xxx-xxxx

E-mail: will be inserted at contract

The Project Authority is the representative of the department or agency for whom the Work is being carried out under the Contract and is responsible for all matters concerning the

Solicitation No. - N° de l'invitation

31030-134353/A

Amd. No. - N° de la modif.

File No. - N° du dossier

hn46031030-134353

Buyer ID - Id de l'acheteur

hn460

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

31030-134353

CCC No./N° CCC - FMS No/ N° VME

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technical content of the Work under the Contract. Technical matters may be discussed with the Project Authority, however the Project Authority has no authority to authorize changes to the scope of the Work. Changes to the scope of the Work can only be made through a contract amendment issued by the Contracting Authority.

### 5.3 Contractor's Representative

Name and telephone number of the person responsible for:

#### General Enquiries

Name: will be inserted at contract

Telephone: will be inserted at contract

Facsimile: will be inserted at contract

E-mail: will be inserted at contract

#### Delivery Follow-up

Name: will be inserted at contract

Telephone: will be inserted at contract

Facsimile: will be inserted at contract

E-mail: will be inserted at contract

## 6. Payment

### 6.1 Basis of Payment

In consideration of the Contractor satisfactorily completing all of its obligations under the Contract, the Contractor will be paid a firm lot prices, as specified in Annex B. Customs duties are included and Applicable Taxes are extra.

Canada will not pay the Contractor for any design changes, modifications or interpretations of the Work, unless they have been approved, in writing, by the Contracting Authority before their incorporation into the Work.

### 6.2 Limitation of Price

SACC Manual clause C6000C (2011-05-16) Limitation of Price

### 6.3 Multiple Payments

SACC Manual clause H1001C (2008-05-12) Multiple Payments

### 6.4 Insurance

SACC Manual clause G1005C (2008-05-12) Insurance

### 6.5 Method of Payments

#### 6.5.1 Milestone Payments

1. Canada will make milestone payments in accordance with the Schedule of milestones detailed in the Contract and the payment provisions of the Contract, up to 90 percent of the amount claimed and approved by Canada if:

1. an accurate and complete claim for payment using form PWGSC-TPSGC 1111, Claim for Progress Payment, and any other document required by the Contract have been submitted in accordance with the invoicing instructions provided in the Contract;

2. The total amount for all milestone payments paid by Canada does not exceed 90 percent of the total amount to be paid under the Contract;

3. all the certificates appearing on form PWGSC-TPSGC 1111 have been signed by the respective authorized representatives;

4. all work associated with the milestone and as applicable any deliverable required have been completed and accepted by Canada.

2. The balance of the amount payable will be paid in accordance with the payment provisions of the Contract upon completion and delivery of all Work required under the Contract if the Work has been accepted by Canada and a final claim for the payment is submitted.

### **6.5.2 Schedule of Milestones**

1. 1st milestone: Completion and approval of engineering design and delivery of the drawings (less 10% holdback);
2. 2nd milestone: Delivery and acceptance of Equipment (less 10% holdback);
3. 3rd milestone: Installation and Start-up Costs (less 10% holdback);
4. 4th milestone: Document and holdbacks.

### **6.5.3 Time Verification**

Time charged and the accuracy of the Contractor's time recording system are subject to verification by Canada, before or after payment is made to the Contractor. If verification is done after payment, the Contractor must repay any overpayment, at Canada's request.

## **7. Invoicing Instructions - Progress Payment Claim**

1. The Contractor must submit a claim for payment using form PWGSC-TPSGC 1111 (<http://www.tpsgc-pwgsc.gc.ca/app-acq/forms/1111-eng.html>), Claim for Progress Payment.

Each claim must show:

- all information required on form PWGSC-TPSGC 1111;
- all applicable information detailed under the section entitled "Invoice Submission" of the general conditions;

- the description and value of the milestone claimed as detailed in the Contract.

2. Applicable Taxes, must be calculated on the total amount of the claim before the holdback is applied. At the time the holdback is claimed, there will be no Applicable Taxes payable as it was claimed and payable under the previous claims for progress payments.

3. The Contractor must prepare and certify one original and two (2) copies of the claim on form PWGSC-TPSGC 1111, and forward it to the Project Authority for appropriate certification after inspection and acceptance of the Work takes place, at:

National Research Council  
Integrated Manufacturing - Technologies Institute  
800 Collip Circle, London ON N6G 4X8

The Project Authority will then forward the original and two (2) copies of the claim to the Contracting Authority for certification and onward submission to the Payment Office for the remaining certification and payment action.

4. The Contractor must not submit claims until all work identified in the claim is completed.

## **8. Certifications**

### **8.1 Compliance**

Compliance with the certifications and related documentation provided by the Contractor in its bid is a condition of the Contract and subject to verification by Canada during the term of the Contract. If the Contractor does not comply with any certification, provide the related documentation or if it is determined that any certification made by the Contractor in its bid is untrue, whether made knowingly or unknowingly, Canada has the right, pursuant to the default provision of the Contract, to terminate the Contract for default.

### **8.2 Federal Contractors Program for Employment Equity - Default by the Contractor**

The Contractor understands and agrees that, when an Agreement to Implement Employment Equity (AIEE) exists between the Contractor and HRSDC-Labour, the AIEE must remain valid during the entire period of the Contract. If the AIEE becomes invalid, the name of the Contractor will be added to the "FCP Limited Eligibility to Bid" list. The imposition of such a sanction by HRSDC will constitute the Contractor in default as per the terms of the Contract.

**(End of page)**

## 9. Applicable Laws

The Contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in \_\_\_\_\_. *(Insert the name of the province or territory as specified by the Bidder in its bid, if applicable)*

## 10. Priority of Documents

If there is a discrepancy between the wording of any documents that appear on the list, the wording of the document that first appears on the list has priority over the wording of any document that subsequently appears on the list.

- (a) the Articles of Agreement;
- (b) 2010A (2013-04-25) General Conditions - Goods, (Medium Complexity);
- (c) Annex A - Requirement;
- (d) Annex B - Milestone payments
- (e) the Contractor's bid dated \_\_\_\_\_ *(insert date of bid)* *(If the bid was clarified or amended, insert at the time of contract award: “, as clarified on \_\_\_\_\_” or “, as amended on \_\_\_\_\_” and insert date(s) of clarification(s) or amendment(s))*

## 11. SACC Manual Clauses (Delivery)

| SACC Reference | Section               | Date       |
|----------------|-----------------------|------------|
| D2000C         | Marking               | 2007-11-30 |
| D2001C         | Labelling             | 2007-11-30 |
| D9002C         | Incomplete Assemblies | 2007-11-30 |

### 11.1 Shipping Instructions - Delivery at Destination

Goods must be consigned to the destination specified in the Contract and delivered: Delivered Duty Paid -DDP- (Boucherville QC) Incoterms 2000 for shipments from a commercial contractor.

## ANNEX “A” - REQUIREMENT

### 1 GENERAL DESCRIPTION

The molding platform will be used in research projects involving the development of new materials and forming processes. It will mainly be used for molding/forming thermoplastic-based semi-finished products (e.g. prepregs, pre-consolidated blanks and GMTs<sup>1</sup>) using the thermoforming-stamping process, thermoset-based ones such as SMCs<sup>2</sup> as well as for pressing

<sup>1</sup> Glass Mat Thermoplastics

<sup>2</sup> Sheet Molding Compound

various fiber reinforced laminates used in ballistic protection. The molding platform consists of a four-post hydraulic press fully integrated with an infrared oven, a blank transfer system and a self-standing cooling unit. Guide rails maintain accurate level and parallelism of the upper moveable platen (ram) of the hydraulic press during pressing. The lower platen of the press is fixed. The press is supplied with a set of smooth (i.e. not tee slotted) heated/cooled platens and a set of "cold" (i.e. not heated) tee slotted platens. The hydraulic system is mounted on top of the press to minimize the footprint of the platform. Finally, a moveable sturdy mold changing table allows for the rapid and safe installation and removal of the mold.

The buyer is looking for a turnkey deliverable consisting of a molding platform and all ancillary equipment meeting the following technical requirements, equipment documentation, delivery to site, installation, acceptance tests / commissioning and Buyer's employees training (on Buyer's site).

## 2 QUALITY SYSTEM

- 2.1 Vendor must at a minimum be ISO 9001:2008 certified by a recognized certification body.

## 3 TECHNICAL REQUIREMENTS

### 3.1 Press

#### 3.1.1 Press capacity

- 3.1.1.1 Minimum net clamping force: 12,500 kN. Clamping force must be adjustable from 1000 kN or less to at least 12,500 kN.
- 3.1.1.2 Minimum net opening force (at maximum opening speed): sufficient to lift a heavy tool attached to upper platen at maximum opening speed. Tool will not weigh more than 5,000 kg.
- 3.1.1.3 Minimum net opening force (at release speed): sufficient to lift a heavy tool attached to upper platen and to overcome other loads such as, but not limiting to, inertia loads (acceleration of tool) and sticking forces (e.g. adhesion, vacuum). Tool will not weigh more than 5,000 kg.

#### 3.1.2 Work zone and platens

- 3.1.2.1 Press must be supplied with a set of smooth (i.e. not tee slotted) heated/cooled platens for consolidation of thin composite sheets and a set of "cold" (i.e. no heating) tee slotted platens for attaching heavy molds such as those required for SMC. The design of the structure and that of the platens shall be such as to allow easy and rapid reconfiguration of the press and to ensure that all performance criteria remain unaffected as a result of repeated configuration

changes. By the nature of the work performed by the Buyer, configuration changes may occur as often as every month.

### 3.1.2.2 Smooth heated/cooled platens

3.1.2.2.1 Press must be supplied with a set of smooth (i.e. not tee slotted) heated/cooled platens for molding/consolidation, at high temperatures (up to 425 °C) and maximum press capacity, thin sheets of long or continuous fiber reinforced composite materials.

3.1.2.2.2 The smooth heated/cooled platens must be removable for maintenance and repair purposes.

3.1.2.2.3 Usable platen area (smooth surface): 1,100 mm x 1,300 mm.

3.1.2.2.4 Threaded holes shall be machined in both top and bottom platens to allow for clamping light tools. Threaded holes must be located outside the usable platen area (1,100 mm x 1,300 mm) which must remain perfectly smooth and free of any such clamping features. Hole diameter and number must be such as to safely resist all operating loads, including the worse combinations of loads such as, but not limiting to: weight of tool (tool attached to upper platen in this case will not weigh more than 1,500 kg), acceleration of tool and sticking forces (e.g. adhesion, vacuum).

3.1.2.2.5 Platens and supporting structure must allow for the compression molding, at maximum press capacity, of a 0.4 m<sup>2</sup> charge of material placed directly on the platen (i.e. without load spreader plates) and located at the center of the platens (no eccentric moment). Maximum deflection of platens at maximum press capacity with load distributed over a surface of 0.4 m<sup>2</sup> located at the center of the platens: 0.17 mm/m in both the X and Y directions. Hardness of the platens' surface must be such as the surface will suffer no dents while repeatedly consolidating materials at high temperature under such loading conditions.

3.1.2.2.6 Flatness of platens: 0.1 mm/m maximum.

3.1.2.2.7 The platens are electrically heated (electrical cartridges) and the heating power is provided by the press. Cooling is provided by compressed air (provided by building) and/or cooling water. Cooling water is provided by a separate self-standing cooling unit (see 3.4 below). The control system of the press must allow for a



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single point of control of the complete heating/cooling process to ensure efficient and safe operation of the molding platform.

3.1.2.2.8 Heating rate (press closed, no material): minimum of 5 °C/min. Heating rate must be fully adjustable and heating cycle programmable up to the maximum heating rate achievable.

3.1.2.2.9 When the press is closed (i.e. platens are in contact), the temperature must be uniform within 5 °C (e.g. 425 °C ± 5 °C) over the entire usable surface of the platens and over the entire operating temperature range. Temperature uniformity must be achieved within 30 minutes maximum stabilization time (to reach steady state condition).

3.1.2.2.10 Cooling rate (press closed, no material): cooling capacity profiles must be as follows:

A) from the maximum operating temperature of 425 °C down to 325 °C: average rate of no less than 20 °C/min;

B) from 325 °C down to 120 °C: average rate of no less than 10 °C/min;

C) from 120 °C down to 50 °C: average rate of no less than 5 °C/min.

Cooling rates must be fully adjustable within each of the above ranges and cooling cycle programmable.

3.1.2.2.11 Design must be so as to prevent the heat coming from the high temperature heated platens from dissipating into the lower press bed and ram. Hence, but not limiting to: 1) insulation plates must be installed between the heated/cooled platens and the structure and 2) the press must have a cooling circuit for cooling the structure. The cooling circuit and system providing cooling must be designed and sized so as to ensure that usage of the heated platens at their maximum rated temperature for extended continuous periods of time will not impede the proper functioning of the press and that performance, accuracy and service life, as per the requirements listed in this specification and/or industry's best practices, will be maintained throughout. Cooling is provided by the self-standing cooling unit (see 3.4 below).

**(End of page)**

### 3.1.2.3 Cold, tee slotted platens

3.1.2.3.1 Press must be supplied with a set of removable “cold” (i.e. no heating, no cooling) tee slotted platens as required to clamp heavy molds. As having to remove the smooth heated/cooled platens each time is highly undesirable, these tee-slotted platens shall be installed on top of the smooth heated/cooled platens. Overall concept and design shall allow for the easy and rapid installation and removal of these tee slotted platens. Overall concept and design shall also be so as to prevent damage of the smooth heated/cooled platens either during installation/removal of the tee slotted platens or during molding operations at full press capacity.

3.1.2.3.2 Usable platen area: 1,100 mm long x 1,300 mm wide.

3.1.2.3.3 Flatness of platens: 0.1 mm/m maximum.

3.1.2.3.4 Upper and lower platens supplied with tee-slots over entire surface for easy tool installation. Tee-slots can either be oriented along the X or Y directions, or a combination of, and shall run the full platen length.

3.1.2.3.5 Maximum center-to-center distance between tee-slots: 250 mm.

3.1.2.3.6 Tee-slots (and corresponding tee-bolts when an appropriate number is used with respect to tool size and weight) must be able to safely resist all operating loads, including the worse combinations of loads such as, but not limiting to: weight of tool (tool attached to upper platen will not weigh more than 5,000 kg), acceleration of tool and sticking forces (e.g. adhesion, vacuum).

### 3.1.2.4 Hydraulic lifters

3.1.2.4.1 Press must be equipped with retractable hydraulic lifters with lateral guiding to ease mold change operations.

### 3.1.2.5 Work height

3.1.2.5.1 Work height: 600 mm from top of floor to top surface of the bottom platen. This dimension will be confirmed to Vendor by Buyer upon reception of general arrangement drawings (see Project Management section below). Whether this work height is set for the smooth or the tee slotted platens will also be discussed with Vendor once the general arrangement drawings are available.

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Buyer recognizes that a pit might be required to meet that work height.

3.1.2.6 Hydraulic auxiliary functions

3.1.2.6.1 No auxiliary hydraulic functions are required. The press shall however be designed and built so as to allow for simple and easy ulterior addition of such auxiliary hydraulic functions.

3.1.3 Daylight, stroke and parallelism

3.1.3.1 Daylight (open height): 2,000 mm minimum with the tee slotted platens in place.

3.1.3.2 Stroke height (ram displacement): sufficient to ensure the heated/cooled platens are in contact when the press is closed (no gap).

3.1.3.3 Parallelism of platens (in any molding configuration, i.e. either with the smooth platens alone in place or with the tee slotted platens in place): 0.1 mm/m maximum under central loading (no eccentric moment) at maximum press capacity.

3.1.4 Operating speeds and clamping duration

3.1.4.1 All operating speeds must be accurately and repeatedly achievable over the entire specified speed range, and especially in the lower limit of specified operating speeds.

3.1.4.2 Press closing

3.1.4.2.1 Closing cycle must have 3 distinct regimes, each operating within their own speed range and over a certain distance: fast approach speed, intermediate approach speed and slow ("pressing") speed.

3.1.4.2.2 Position (height) of "switching point" for switching from fast approach to intermediate approach speeds must be fully adjustable over entire stroke height.

3.1.4.2.3 Position (height) of "switching point" for switching from intermediate approach to slow closing ("pressing") speeds must be fully adjustable over a minimum stroke height of 30 mm.

3.1.4.2.4 Fast approach speed at no pressure build-up in tool: 500 mm/s or more.

3.1.4.2.5 Intermediate approach speed: adjustable from 500 mm/s to 60 mm/s.

3.1.4.2.6 Slow closing speed with pressure build-up in tool (“pressing”): adjustable from 60 mm/s to 1 mm/s.

3.1.4.2.7 All the above closing speeds must be attainable from minimum press capacity and up to at least 10,000 kN. From 10,000 kN up to maximum press capacity, two (2) closing speed regimes are acceptable with a fast approach speed at 500 mm/s or more and slow closing speed (“pressing”) at 10 mm/s or less.

3.1.4.2.8 All closing speeds must be attainable in both the “no tool attached to upper platen” and “heavy tool weighing up to 5,000 kg attached to upper platen” conditions.

3.1.4.2.9 The design of the press and of the hydraulic system must allow for the automatic stopping of the upper platen (ram) at any given predetermined point to produce partially molded charges or components. This action is to occur when the press operates in the slow closing speed (“pressing”) regime. Stop position tolerance:  $\pm 0.1$  mm or less.

### 3.1.4.3 Press opening

3.1.4.3.1 Opening cycle must have 2 distinct regimes, each operating within their own speed range and distance: slow (“release”) speed and fast opening speed.

3.1.4.3.2 Position (height) of “switching point” for switching from slow opening speed (“release” speed) to fast opening speed must be fully adjustable over a minimum stroke height of 150 mm.

3.1.4.3.3 Slow opening speed (“release” speed): adjustable from 6 mm/s to 60 mm/s.

3.1.4.3.4 Fast opening speed: 500 mm/s or more.

3.1.4.3.5 All opening speeds must be attainable with a heavy tool attached to the upper platen, weighing up to 5,000 kg.

#### 3.1.4.4 Clamping duration

3.1.4.4.1 Clamping duration, at pre-set full clamping force (i.e. excluding time required for pressure build-up), must be adjustable from 10 seconds or less to 6 hours or more. Press must be able to maintain the pre-set clamping force over entire clamping duration and up to maximum press capacity.

#### 3.1.5 Pressure build-up time

3.1.5.1 Pressure build-up time to full pressing capacity: 0.8 s or less.

### 3.2 **Material loading and blank transfer system**

- 3.2.1 Material to be molded will be manually loaded either from the front of the press (e.g. SMC/BMC charges) or from the back of the oven (e.g. pre-consolidated blanks consisting of thin laminated composite sheets).
- 3.2.2 The blank transfer system moves the composite blank from the loading station located at the back of the oven through the infrared oven and then accurately and repeatedly positions it over the tool for the stamping operation.
- 3.2.3 Blank transfer system must be able to handle a blank of up to 1,200 mm x 1,200 mm.
- 3.2.4 Average transfer speed from oven to press (considering acceleration and deceleration of transfer system including whatever blank holding device used and the blank itself) shall be such that blank is in tool and under full pressure in no more than 5 seconds. Transfer speed is to be determined by Vendor so as to ensure that all process performance and quality criteria are met.
- 3.2.5 Transfer system must be fully operable up to temperature required to mold, using the thermoforming-stamping process, PEEK<sup>3</sup>-based fiber reinforced composites.
- 3.2.6 The movement of the blank transfer system must be controlled by the press (single point of control).
- 3.2.7 The blank transfer system must be delivered to Buyer complete with any blank holder, frame, support or device required to fabricate parts during the acceptance tests (see Section 4 below). A drawing of the part to be formed will be provided to Vendor once the contract is awarded.

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<sup>3</sup> Poly ether ether ketone

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### 3.3 Infrared oven

- 3.3.1 The infrared oven heats the composite blank up to the molding temperature. Infrared oven will be installed at the back of the press. Composite blank will be loaded into the infrared oven from the back of the oven.
- 3.3.2 Infrared oven must be able to heat a blank up to the temperature required for molding, using the thermoforming-stamping process, a wide range of materials, including PP<sup>4</sup>-based and PEEK-based composites.
- 3.3.3 Maximum size of composite blank to be heated up: 1,200 mm x 1,200 mm.
- 3.3.4 Infrared heating must be provided to both the top and bottom surfaces of the blank.
- 3.3.5 The infrared heating elements must be assembled so as to form two (2) heating panels: a top panel and a bottom panel. For each panel, the heating elements must be wired so as to allow independent control of different zones for accurate and uniform heating of the blank. System must also be so designed and wired that only the appropriate heating zones (number and position) are powered when a small blank is being processed (energy saving feature). Exact number, size and position of each independent zone are to be determined by Vendor and shall ensure that all process performance and quality criteria are met.
- 3.3.6 Heating panels must be larger than the maximum blank size to ensure accurate and uniform heating of the blank. Exact size is to be determined by Vendor and shall ensure that all process performance and quality criteria are met.
- 3.3.7 Distance between the heating panels and the blank surfaces: adjustable from 100 mm to 300 mm (both top and bottom panels).
- 3.3.8 Infrared oven must be enclosed to optimize heating performance and vented to prevent fumes from dissipating into the lab. The blank transfer system goes in/out of the enclosed oven through automatic doors, curtains or other acceptable means.
- 3.3.9 Infrared oven (including the exhaust fan) must be controlled by the press (single point of control).

### 3.4 Cooling unit

- 3.4.1 No more cooling capacity is available from the facility's central cooling system and therefore any cooling required by the equipment must be provided by a self standing cooling unit.
- 3.4.2 The self standing cooling unit must operate in closed loop. Heat shall be extracted using liquid/air heat exchangers. The unit shall be so designed and installed as to ensure the heat is extracted to the outside of the building.
- 3.4.3 The cooling unit will be physically installed near the press (approximately 6 m). Exact location in building will be determined once the equipment layout is available. Required hoses to connect cooling unit to press are part of this RFQ.

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<sup>4</sup> Polypropylene

- 3.4.4 The cooling unit is controlled by the controller of the press (single point of control). The cooling cycle must be programmable so as to meet the requirements of 3.1.2.2.10.
- 3.4.5 Unit must have a separate connection point to allow for eventually using its cooling capacity to cool down tools. Cooling down of tools will never occur when the smooth platens are utilized (i.e. providing heating and cooling) and therefore cooling is always only provided to the smooth heated/cooled platens and structure or to the tool, and never both at the same time.

### **3.5 Ancillary equipment and accessories supplied with the molding platform**

#### **3.5.1 Blank holder / blank support device**

- 3.5.1.1 A suitable blank holder or blank supporting device compatible with the blank transfer system is required to support both the pre-shipping and the final acceptance tests and must be supplied with the equipment (see 3.2.7 above). A drawing of the part to be formed will be provided to Vendor once the contract is awarded.

#### **3.5.2 Mold changing table**

- 3.5.2.1 The mold changing table allows for the rapid and safe installation and removal of heavy molds. It is placed in front of the press during mold changing operations and stored aside when not in use. Heavy molds are deposited onto or lifted from the table using a portable gantry crane and from the table pulled in or out the press (pulling in/out mechanism is included in the present request for quote).
- 3.5.2.2 The mold changing table shall be mounted on rollers or on wheels to ease its displacement and two (2) persons must be sufficient to safely move it around. Design shall ensure the table will not move during mold installation/removal operations.
- 3.5.2.3 Table capacity: 10,000 kg.
- 3.5.2.4 Table size: sufficient to handle molds as large as permitted by the usable platens' size.
- 3.5.2.5 Table height shall be adjustable and shall fit the height of the lower smooth heated/cooled platen and that of the lower "cold" tee slotted platen. Height of the hydraulic lifters has to be taken into account where appropriate.

3.5.2.6 A push and/or pull mechanism allows for the mold to be transferred from the table to the press or from the press to the table. Features on the surface of the table will minimize friction loads.

### **3.6 Electrical requirements**

- 3.6.1 Power supply: 600 V, 3f, 60 Hz.
- 3.6.2 Hook up to facility's power distribution network: single connection point.
- 3.6.3 Equipment must comply with all applicable Canadian standards and be CSA approved.

### **3.7 Operation system, controls, input/output ports and electrical cabinet**

- 3.7.1 Operation system must allow the operator to program/set all base molding cycle parameters (e.g. clamping forces, ram speeds, position of ram, clamping times, IR oven temperatures (control for each zone), temperature of platens (in the thin sheet molding configuration), movements of blank transfer system, temperature of mold, etc.) and to follow-up on process parameters in real-time (set points and actual measurements) during molding cycle.
- 3.7.2 Operation system must allow the operator to save, recall, modify and print programmed molding cycles.
- 3.7.3 Operation system must allow the operator to record, save on disk and print all process parameters (set points and actual measurements) during a molding cycle for traceability purposes (part production log). Data acquisition rate must be adjustable.
- 3.7.4 Operation system must record all data in a Microsoft Excel® compatible format for data export and must have a USB port for connection to a personal computer.
- 3.7.5 Operation system must be user-friendly and a computer monitor shall ensure efficient machine-user interface. There can be more than one computer monitor. Menus must be clear and simple and navigation through the system must be logical and intuitive. Information presented to or requested from the operator must be clear and simple. Efficient use of appealing and meaningful graphics and schematics (screens and print outs) must be maximized.
- 3.7.6 Operator interface as well as print-outs must be in English or in French at the request of the operator.
- 3.7.7 Operation system must support SI and Imperial units of measure (selection by the operator).
- 3.7.8 Operation software must be of the most up-to-date version available at time of acceptance tests at Vendor's.
- 3.7.9 Operation system must have remote troubleshooting and maintenance capabilities.



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- 3.7.10 Operation system must be able to detect, record, inform operator of any faults of any nature (e.g. safety, hydraulic system, molding parameters) and, if required, activate an audible/visible alarm and/or take any other appropriate actions (e.g. stop cycle).
  - 3.7.11 Electrical cabinet of press must have a minimum of 20% free space (volume) to allow for the future installation of controllers and power supplies as required to support other added-on functionalities such as, but not limiting to, hydraulic auxiliary functions.
  - 3.7.12 Equipment must have a set of 24 distinct input/output ports for heating and controlling the temperature of a mold (24 zones - 12 for the core, 12 for the cavity – 240 VAC / 6000 W rated capacity each zone with PID-type control). Heating will be provided by electrical heaters (inserted in mold by toolmaker – no mold included in the present request for quote) and temperature read from type J thermocouples (thermocouple by toolmaker - no mold included in the present request for quote).
  - 3.7.13 Operation system must control heating of the smooth platens (single point of control). Heating cycle is programmable. Power is provided by the press.
  - 3.7.14 Operation system must be able to control flow of cooling water (from the free standing cooling unit) and compressed air (from the building) to ensure temperature regulation/cooling of removable heated/cooled platens and tools (single point of control) and allow for programming the cooling cycle.
  - 3.7.15 Operation system must be able to stop the movement of the ram at any given point during a molding cycle and hold it at that point till the material cools down.
  - 3.7.16 Press and operation system must allow for opening, in displacement control mode, the mold slightly during the molding cycle as required for in-mold coating (IMC) or high pressure RTM<sup>5</sup> or to allow for outgassing of the material.
  - 3.7.17 Equipment must have output ports with BNC-type connectors that allow acquisition, by an external data acquisition system, of real analog signal (i.e. not converted) from all process-relevant machine sensors. Equipment must also have output ports with BNC-type connectors that give access to the signals sent by the operation system that are triggering process-relevant machine “actions” to allow synchronization of machine “actions” with data acquired. Output signal must be -10 V / +10 V. The machine-related process relevant data are as follows: stop position of ram, speed profile (deceleration) of ram down to complete stop and force profile of punch (ram) down to complete stop. Deriving the force profile from the hydraulic pressure inside the ram is acceptable. All required sensors and hook-ups are included in this request for quote. The external data acquisition system is by the Buyer.
  - 3.7.18 Operation system must have a minimum of 12 input ports for installation of thermocouples, pressure gages/transducers or alike dedicated to the measurement and record of critical tool and/or material parameters.
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<sup>5</sup> Resin Transfer Molding

### **3.8 Other requirements**

- 3.8.1 Ladder/stairs must allow easy and safe access to upper hydraulic platform.
- 3.8.2 Equipment must comply with all applicable Canadian standards regarding safeguarding of machinery. When and where possible and permitted, light curtains must be used over fencing.
- 3.8.3 Parts/components subject to replacement as part of normal regular maintenance or, if critical to operation of equipment, subject to breakage, shall be easily available in North America.

#### **3.8.4 Paint**

- 3.8.4.1 Components must be painted with a good industrial paint suited for the application, such as polyurethane-based ones, as per industry's best practices. Care must be taken for components potentially exposed to chemicals (e.g. solvents, hydraulic oil) or high temperatures.

3.8.4.2 Stationary components: To be discussed with Buyer.

3.8.4.3 Mobile components: To be discussed with Buyer.

3.8.4.4 Safety items: To be discussed with Buyer.

3.8.4.5 Electrical cabinet: To be discussed with Buyer.

#### **3.8.5 Design and installation constraints**

- 3.8.5.1 Clear ceiling height is approximately 8 m. Clear ceiling height will be confirmed to Vendor when preliminary installation layouts are available.
- 3.8.5.2 Equipment must be shipped in pre-assembled modules to reduce installation work. Modules shall pass through a 4 m wide x 4 m high door.
- 3.8.5.3 There is no overhead crane in the facility.

## **4 Acceptance tests, technical support and training**

- 4.1 Pre-shipping acceptance tests must be performed at Vendor's facility by Vendor. Shipping must be authorized by Buyer pending on acceptance of test results by Buyer. Vendor must offer the Buyer to witness acceptance tests performed at Vendor's facility prior to shipment of the equipment. Travel and living fees for Buyer's representatives will be at Buyer's cost. Tooling and raw materials to support the tests will be provided by Buyer. Quote must include pre-shipping acceptance tests (costed separately).

- 4.2 Quote must include on-site (Buyer's premises) acceptance tests performed by Vendor's staff (costed separately). Tooling and raw materials to support the tests will be provided by Buyer. Vendor will witness the tests.
- 4.3 Quote must include costs for installation by Vendor's staff or a contractor of its choice (costed separately). Site preparation is by Buyer so as all hook-ups to building's electrical power, water and compressed air.
- 4.4 Quote must include on-site (Buyer's premises) training by Vendor's staff (costed separately).
- 4.5 Vendor's staff providing on-site technical assistance shall speak either English or French.
- 4.6 Vendor's staff providing on-site training shall be bilingual English and French.

## **5 Project Management, milestones and other deliverables**

5.1 Within 10 calendar days of reception of contract, Vendor must appoint a project manager and communicate contact information to Buyer. Buyer will appoint a project manager and will communicate contact information to Vendor. All technical communications between Vendor and Buyer during the acquisition process will be between the project managers.

5.2 All communications between project managers will be in English or French as agreed upon between Vendor and Buyer.

5.3 Vendor must provide Buyer with a detailed project schedule, including all project milestones, within 30 calendar days of reception of contract.

5.4 Vendor must provide Buyer with progress reports on a regular basis, as deemed appropriate by both parties, but at a minimum upon submission of invoice as per agreed upon payment schedule. Progress reports must include all information required for Buyer to assess progress such as, but not limited to, layouts/drawings, pictures of sub-assemblies/assemblies, status of parts/components orders/fabrication, updated schedule, etc.

5.5 During the acquisition process, the Vendor must provide the Buyer with appropriate engineering documents demonstrating that all technical requirements are met (e.g. design notes, results of numerical simulation, results of physical testing, etc.). These must be made available to Buyer as early as possible in the acquisition process but no later than 90 calendar days prior to acceptance tests at Vendor's premises.

5.6 Buyer must have reasonable access to Vendor's premises to witness work progress providing request is received reasonably in advance. Visits to the Vendor's premises are at no cost to Buyer, however, travel and living fees, if any, will be at Buyer's expense.

5.7 Within 90 calendar days from reception of contract, Vendor must provide Buyer with general arrangement drawings for Buyer's review.

5.8 Within 120 calendar days from reception of contract, Vendor must provide Buyer with a list of major hydraulic and electrical components for Buyer's review.

5.9 Within 180 calendar days from reception of contract, Vendor must provide Buyer, with all electrical schematics and a layout of the inside of electrical cabinet showing space reserved for the future addition of controllers and power supplies if applicable. These will be submitted for Buyer's review.

5.10 Vendor must provide Buyer with certified installation drawings, including requirements for electrical power, compressed air, city water, concrete work, etc., at least 180 calendar days prior to shipping date.

5.11 Vendor must provide Buyer with all information required for proper handling of modules and components at Buyer's during truck unloading and installation operations (e.g. dimensions, weight, location of lifting points, location of center of gravity, etc.) at least 120 calendar days prior to shipping date.

5.12 Vendor must provide Buyer with the final acceptance program detailing all tests that will be performed at Vendor's for the pre-shipping acceptance of the equipment. Tests will have to demonstrate that all technical requirements are met. This document will have to describe, for each test, the objective (what requirement is being verified), how the test will be performed, how the requirement will be validated (type of measurement, instruments/equipment used, etc.) and what will be the pass/fail criterion. This program will have to be to Buyer's satisfaction. This acceptance program must be submitted to Buyer no later than 60 calendar days prior to the pre-shipping acceptance date. Results of acceptance tests will have to be presented to Buyer in a report prepared by the Vendor.

5.13 Vendor must provide Buyer with the acceptance program detailing all tests that will be performed at Buyer's for the on-site (Buyer's premises) acceptance of the equipment. Tests will have to demonstrate that equipment is fully operational and that all functionalities that may have been altered during shipping or that are sensitive to installation are verified and operational. This document will have to describe, for each test, the objective (what is being verified), how the test will be performed, how the requirement will be validated (type of measurement, instruments/equipment used, raw materials and consumables required, etc.) and what will be the pass/fail criterion. It will also have to list any special equipment that will be required to perform the tests. This program will have to be to Buyer's satisfaction. This acceptance program must be submitted to Buyer no later than 30 calendar days prior to shipping date. Results of acceptance tests will have to be presented to Buyer in a report prepared by the Vendor.

5.14 Buyer's response to items submitted for review will either be "accept as submitted", "accept with comments" or "reject with comments". Acceptance by Buyer of any items submitted for review will not exempt Vendor from its obligations to meet all the

requirements stated in this document and Vendor will remain, at all times, the sole responsible for meeting the requirements.

5.15 All the documents above must be written in the English or French language.

## **6 Equipment documentation (required upon delivery)**

- 6.1 Layout with dimensions ("as built").
- 6.2 Detailed general arrangement drawings of major assemblies and sub-assemblies ("as built").
- 6.3 Operation manual.
- 6.4 Maintenance manual with listing of all commercial components/parts including model/part number and original manufacturer's name.
- 6.5 List of recommended spare parts.
- 6.6 Electrical and hydraulic schematics ("as built").
- 6.7 Grafcet and program listings.
- 6.8 All documentation must be submitted in two (2) hard (paper) copies and one (1) electronic copy (format of electronic documents to be mutually agreed to).
- 6.9 All documentation must be in the English or French language.

## **7 Terms and conditions**

- 7.1 Warranty: minimum acceptable: 2 year – parts and labor, 5 year for the structure.
- 7.2 Within one (1) year of acceptance of equipment by Buyer (Buyer's premises), upgrade of operation software must be at no cost to Buyer.

## **8 Quote documentation (required upon submission of bidding documents)**

- 8.1 Copy of ISO certificate.
- 8.2 Preliminary project schedule, including major project milestones and delivery date.
- 8.3 Reference list with a minimum of three (3) customers with molding equipment of similar capacity used with processes and materials as envisioned by the Buyer. These references must at minimum include name of company, a point of contact (name and title of a person) with address, telephone number and email address. By providing the contact information, the Vendor grants the right for the Buyer to contact these companies for the purpose of gathering information deemed appropriate to support the proposals selection process.
- 8.4 Detailed technical description of the equipment.

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- 8.5 Compliance matrix (i.e. compliance of what is proposed by Vendor to all requirements listed in this present document).
- 8.6 Statement from Vendor explaining how he will make sure the equipment meets all Canadian standards and regulations and how he intends to have the equipment CSA approved (knowledge of Canadian standards and regulations, knowledge of CSA requirements, design approach, certification process, certifying body, etc.).
- 8.7 General description of operation system and user interface that can demonstrate to Buyer user friendliness of proposed equipment.
- 8.8 Preliminary pre-shipping acceptance program (to be performed at Vendor's facility).
- 8.9 Preliminary on-site (Buyer's premises) acceptance program.
- 8.10 Preliminary equipment layout (front, side and top views) with dimensions.
- 8.11 All details pertaining to warranty offered: warranty of Vendor fabricated parts vs. warranty of standard off-the-shelf components from OEMs, how warranty will be applied to parts and labor during the warranty period (e.g. Vendor sends a repair team or Buyer repairs and charge costs back to Vendor?), details for service calls (emergency line, etc.), etc.
- 8.12 All quote documentation must be written in English or in French.

### **ANNEX "B" Pricing Schedule**

All prices must be firm in Canadian dollars, Delivered Duty Paid (London, Ontario), Goods and Services Tax or the Harmonized Sales Tax extra.

#### **1. EQUIPMENT**

1.1 Firm Lot Price for the approval of engineering design and delivery of the drawings as per Annex "A"

FIRM LOT PRICE \$ \_\_\_\_\_

1.2 Firm Lot Price for the equipment as identified in Annex "A"

FIRM LOT PRICE \$ \_\_\_\_\_

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## 2. INSTALLATION, START-UP COSTS & ON-SITE TRAINING

The prices identified must include all costs including travel and living expenses.

2.1 Firm Lot Price for the installation & Start-up costs of the equipment as per Annex "A"

FIRM LOT PRICE \$ \_\_\_\_\_

2.2 Firm Price per Diem for the on-site training, including travel and living expenses as per Annex "A"

FIRM LOT PRICE \$ \_\_\_\_\_

Note: The contract value will be amended to reflect actual time spent for on-site training.

## 3. DOCUMENTATION

3.1 Firm lot price for As-Built drawings as per Annex "A"

FIRM LOT PRICE \$ \_\_\_\_\_

3.2 Firm lot price for all manual documentation packages as per Annex "A"

FIRM LOT PRICE \$ \_\_\_\_\_

### Annex "C"

### FEDERAL CONTRACTORS PROGRAM FOR EMPLOYMENT EQUITY - CERTIFICATION

I, the Bidder, by submitting the present information to the Contracting Authority, certify that the information provided is true as of the date indicated below. The certifications provided to Canada are subject to verification at all times. I understand that Canada will declare a bid non-responsive, or will declare a contractor in default, if a certification is found to be untrue, whether during the bid evaluation period or during the contract period. Canada will have the right to ask for additional information to verify the Bidder's certifications. Failure to comply with such request by Canada will also render the bid non-responsive or will constitute a default under the Contract.

For further information on the Federal Contractors Program for Employment Equity visit HRSDC-Labour's website.

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**Date:** \_\_\_\_\_ (yyyy/MM/DD) (If left blank, the date will be deemed to be the bid solicitation closing date.)

Complete both A and B.

A. Check only one of the following:

- ☐ A1. The Bidder certifies having no work force in Canada.
- ☐ A2. The Bidder certifies being a public sector employer.
- ☐ A3. The Bidder certifies being a federally regulated employer being subject to the *Employment Equity Act*.
- ☐ A4. The Bidder certifies having a combined work force in Canada of less than 100 employees (combined work force includes: permanent full-time, permanent part-time and temporary employees (temporary employees only includes those who have worked 12 weeks or more during a calendar year and who are not full-time students)).

A5. The Bidder has a combined workforce in Canada of 100 or more employees; and

- ☐ A5.1. The Bidder certifies already having a valid and current Agreement to Implement Employment Equity (AIEE) in place with HRSDC-Labour

**OR**

- ☐ A5.2. The Bidder certifies having submitted the Agreement to Implement Employment Equity (LAB 1168) to HRSDC-Labour. As this is a condition to contract award, proceed to completing the form Agreement to Implement Employment Equity (LAB 1168), duly signing it, and transmit it to HRSDC-Labour.

B. Check only one of the following:

- ☐ B 1. The Bidder is not a Joint Venture.

**OR**

- ☐ B2. The Bidder is a Joint Venture and each member of the Joint Venture must provide the Contracting Authority with a completed annex Federal Contractors Program for Employment Equity - Certification. (Refer to the Joint Venture section of the Standard Instructions)