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NA
Ontario

**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
Public Works and Government Services Canada
Ontario Region
10th Floor, 4900 Yonge Street
Toronto
Ontario
M2N 6A6

| | |
|---|--|
| Title - Sujet CNC Electric Press Brakes | |
| Solicitation No. - N° de l'invitation W3474-211541/A | Amendment No. - N° modif. 008 |
| Client Reference No. - N° de référence du client A12F-0155RP01 | Date 2020-11-27 |
| GETS Reference No. - N° de référence de SEAG PW-\$TOR-015-7978 | |
| File No. - N° de dossier TOR-0-43048 (015) | CCC No./N° CCC - FMS No./N° VME |
| Solicitation Closes - L'invitation prend fin at - à 02:00 PM Eastern Standard Time EST on - le 2020-12-04 Heure Normale du l'Est HNE | |
| F.O.B. - F.A.B. Plant-Usine: <input type="checkbox"/> Destination: <input checked="" type="checkbox"/> Other-Autre: <input type="checkbox"/> | |
| Address Enquiries to: - Adresser toutes questions à: Abela, Aaron | Buyer Id - Id de l'acheteur tor015 |
| Telephone No. - N° de téléphone (416) 262-6212 () | FAX No. - N° de FAX () - |
| Destination - of Goods, Services, and Construction: Destination - des biens, services et construction: | |

Instructions: See Herein

Instructions: Voir aux présentes

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

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Solicitation Amendment No. 008 is being issued to address the following:

- A) Amend Solicitation Closing Date to December 4, 2020 @ 2PM EST.**
- B) Amend PART 6, Section 6.5.1 – Contracting Authority**
- C) Amend Annex A – Requirement**
- D) Amend Annex E – Bid Evaluation Criteria**
- E) Questions and Answers**

- A) Amend Solicitation Closing Date to December 4, 2020 @ 2PM EST.**

- B) At PART 6, Section 6.5.1 – Contracting Authority**

Delete in its entirety;

Insert:

Name: Aaron Abela
Title: Supply Specialist
Public Works and Government Services Canada – Ontario Region
Acquisitions Branch
Address: 10th Floor, 4900 Yonge Street
Toronto, Ontario
M2N 6A6

Telephone: 416-262-6212
E-mail Address: aaron.abela@pwgsc.gc.ca

- C) Annex A – Requirement**

Delete in its entirety;

Insert:

1.0 TITLE

Computer Numeric Controlled Electric Press Brakes

2.0 OBJECTIVE

The Department of National Defence (DND) has a requirement for two (2) identical, CSA compliant Computer Numerically Controlled (CNC) Electric Press Brakes. The requirement includes delivery, on-site installation and a single training session on the operation of the equipment.

3.0 BACKGROUND

Aerospace and Telecommunication Engineering Support Squadron (ATESS) based out of 8 Wing Trenton, ON provides a wide variety of manufacturing capability and capacity to the Canadian Armed

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Forces particularly aircraft parts. This capability requires the bending of various types of aerospace grade metals to very accurate tolerances.

4.0 REQUIREMENT

4.1 Specifications

The contractor must provide CNC Electric Press Brakes with the following specifications:

- .1 Capacity: 40 US tons minimum
- .2 Foundation Requirements: Flush on floor level
- .3 Machine Dimensions:
Length: 66" – 84"
Width: 50" – 62"
- .4 Machine net weight: 20,000 lbs maximum

***NOTE:** Contractor must provide appropriate weight distribution plates. Maximum floor weight per square inch will be provided at contract award as the information is not currently available.
- .5 Motor Capacity: no less than 10 horse power (HP) where 5 Hp per servo-motor minimum
- .6 Bending Length: 40" minimum to 62" maximum
- .7 Stroke length: 7.9" minimum
Stroke repeatability: +/- 0.0005" maximum
- .8 Throat (depth of gap): 5.5" – 8"
- .9 Distance between housing: 36" minimum to 60" maximum
- .10 Clamping System:
Designed to receive American Standard Tooling
Top beam manual/electric/hydraulic clamping for sectionalized tooling (smallest tool section of 0.5")
Bed manual/electric/hydraulic clamping for sectionalized tooling (smallest tool section of 0.5")

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.11

Back Gauge: no less than 5 axis

One solid back gauge unit in/out – X axis – 11" min

Back Gauge Unit up/down, R, 0" from bed top to 7" min.

Two Back Gauge Fingers – left/right – Z1/Z2 – min spread between fingers 4" to the maximum available width of the machine between the uprights

One Back Gauge Finger – forward/backward 2" min – Delta X

OR

Two separate back gauge units – in/out

Each unit goes up/down, left/right/ fingers forward and backward

This configuration must be equivalent to the one solid back gauge capability

.13

Controls:

Movable control console

No less than 15" Colour Display

Provide a standalone computer for off line programming pre-loaded with press brake operating software

Software:

Compatible with DFX format at minimum

Capable to import 2D and/or 3D models

.14

Laser and/or Optical Safety System

4.2 Standard Equipment

Standard Equipment for the (CNC) Electric Press Brakes must include each of the following:

1. All steel welded or combination of welded and bolted frame construction. The equipment must sit flush on the floor
2. Machine enclosure: Self-contained hydraulic unit (clamping), servo drives and electric motor.
3. Electric transformer to be included with the machine (transformer sizing to suit existing building electrical to be done upon contract awarding).
4. Operator console to be attached to the main machine on either side (left or right) including:
On-off key switch and E-Stop button.
5. CNC controlled 5 axis back gauge minimum.
6. Hydraulic, electric or manual (quick Tool clamping):
7. Operator footswitch
8. Machine self leveling screws. Weight distribution plates to be included if machine is more than 20 000 lbs net.
9. Air conditioned electrical cabinet.
10. Working zone led lighting.
11. Laser and physical barrier for operator safety.
12. Machine operator maintenance tooling.
13. Machine manuals: operation manual(s) and maintenance manual(s).

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4.3 Program Numeric Control

Standard Program Numeric Control for the (CNC) Electric Press Brakes must include each of the following:

1. Industrial PC based.
2. Microsoft Windows embedded OS.
3. Screen size of 15 inches minimum
4. Touchscreen.
5. Pre-loaded soft keyboard.
6. Solid state hard drive.
7. USB ports (minimum 2).
8. Network port (Ethernet).
9. Loaded with machine bending operation software.
10. Pre-loaded with Wilson tool file library.
11. Imperial and metric
12. Easy part programing at the machine (part design from cross section, flat pattern)
13. Quick bend.
14. Full automatic bending program.
15. Forming mode: Angle, Ram Position and absolute at minimum.
16. Software to allow operator to input corrections into bending programs (set up mode).
17. Speed change position input by operator (down, forming and return speed).
18. Bending angle correction.
19. Manual and/or automatic tool selection for all steps.
20. Automatic and manual back gauge positioning for all steps.
21. Material clamping (pause/stop) and back gauge retraction.
22. Tonnage reversal auto calculation
23. Z axis position auto calculation.
24. Part/batch counter.
25. Back-up and restore wizard.
26. Password protected rights on controller (Operator, Manager and Administrator).

4.4 Electrical Equipment

Standard Electrical Equipment for the (CNC) Electric Press Brakes must include each of the following:

The machine drive system must be composed of 2 electro-mechanical drives, one on each ram. The system must be composed of an electric motor coupled to the roller drive screw via a belt or directly attached to a ball screw drive. A strain gauge must installed on the drives to allow tonnage reversal of the rams. The electrical motors must generate enough force to deliver full tonnage at full speed. If a physical strain gauge cannot be installed on the electrical brake then the machine software in the computer must include a cut-off to protect the servo-drive units when showing overload. The machine control must not allow the servos to operate and must prevent the ram from coming down until the condition is corrected.

The machine operator console and the machine actuating drives system have to be electrically powered thru the machine electrical panel.

4.5 Canadian Standards Association (CSA) Approval

Unit must meet Canadian CSA standards for electric and mechanical components. It also must meet Canadian Safety standards with proper shielding and personnel protection requirements. The unit must have CSA approval and labelling at the time of delivery.

5.0 Performance Test

1. The Contractor must conduct a pre-delivery performance test on the Electric Press Brake to ensure machine specifications have been met and provide a certificate to the Project Authority (PA). The Contractor must obtain approval from the PA prior to commencing with delivery.
2. Bending, programming test to be carried out and provide a proof test certificate stating the results.

6.0 Installation and Calibration

1. The Contractor must complete the installation and the calibration of the CNC Electric Press Brakes. A functional test must be completed at the contractor's location after manufacturing. An additional function test must be completed by the contractor after installation.
2. Contactor to demonstrate machine serviceability by making test bends by creating bending programs with different material thickness and using various tool radius after manufacturing at the contractor's location and another set of test bends must be completed by the contractor after installation. An experienced ACS Specialist Technical Inspector (STI) will accept the machine after proof of functionality.

7.0 WARRANTY AND SUPPORT SERVICE

- 7.1 The Contractor must provide annual maintenance for 5 years from date of delivery that includes each of the following:
 1. The maintenance requirements listed in the machine maintenance manual.
 2. Machine preventive maintenance should be carried out in accordance with machine maintenance manuals.
 3. ATESS will contact the manufacturer to set up site visit timings due to hourly/monthly/yearly preventive maintenance requirements.
 4. ATESS will contact the OEM when machine needs actual repairs.
 5. Provide technical services thru telephone for the duration on the maintenance package. Telephone support must be during regular business days (not including statutory holidays) and between the hours of 7:00 to 17:00 EST.
- .3 Service and parts must be easily accessible to ensure limited interference to serviceability and reduced downtime (within 10 business days).

8.0 TRAINING AND DOCUMENTATION

- . 1 The Contractor must provide a one-day training session for up to ten (10) people within 4 weeks of delivery. Training will be conducted at the ATESS Metal Shop in Trenton, Ontario (see Section 9.1 for full address) Training must include a minimum coverage of operation, operator level preventive maintenance, machine programming, and safety procedures. All expenses related to the training such as labour, travel, housing, food, etc. must be covered by the Contractor.
- .2 The Contractor must provide programming and machine operating manuals (a minimum of one (1) English and one (2) French hard copy, and one (1) English and one (2) French electrical copy – Microsoft compatible). The supplied manuals must provide information on set up and use procedures.

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9.0 DELIVERY

Delivery of the requirement must be made to the delivery point specified below:

1. Aerospace and Telecommunications Engineering Support Squadron
Metal Shop
20 Alert Blvd
Trenton, Ontario
K0K 3W0
Canada

The Contractor must provide the Project Authority with a minimum two (2) business days advance notice of when delivery is to occur. ATESS will provide in-house equipment to offload.

D) At Annex E – Bid Evaluation Criteria

Delete in its entirety;

Insert:

MANDATORY EVALUATION CRITERIA

The bid must meet the mandatory technical criteria specified below. Bidders must provide the necessary documentation to support compliance with this requirement.

Bids that fail to meet the mandatory technical criteria will be declared nonresponsive. Each mandatory technical criterion should be addressed separately.

Bidders must propose products meeting all mandatory technical specifications and components.

The contractor must meet or exceed the following specifications for the CNC Electric Press Brakes:

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| Mandatory Technical Specifications and Components | | Specifications and Components Offered | Title, Page and/or Line in the Technical Documents |
|---|---|---------------------------------------|--|
| M.1 | Capacity: 40 US tons | | |
| M.2 | (CNC) Electric Press Brakes Machine Dimensions must be within the following: Length: 66" – 84" Width: 50" – 62" | | |
| M.3 | Motor Capacity: no less than 10 horse power (HP) where 5 Hp per servo-motor minimum | | |
| M.4 | Bending Length of the (CNC) Electric Press Brakes must be: 40" minimum to 62" maximum | | |
| M.5 | Stroke length: 7.9" minimum Stroke repeatability: +/- 0.0005 maximum | | |
| M.6 | Throat (depth of gap): 5.5" – 8" | | |
| M.7 | Distance between housing: 36" minimum to 60" maximum | | |
| M.8 | Clamping System: must be designed to receive American Standard Tooling <ul style="list-style-type: none"> - Top beam manual/electric/hydraulic clamping for sectionalized tolling (smallest tool section of 0.5") - Bed manual/electric/hydraulic clamping for sectionalized tolling (smallest tool section of 0.5") | | |
| M.9 | Back Gauge: no less than 5 axis One solid back gauge unit in/out – X axis – 11" min Back Gauge Unit up/down, R, 0" from bed top to 7" min. Two Back Gauge Fingers – left/right – Z1/Z2 – min spread between fingers 4" to the maximum available width of the machine between the uprights One Back Gauge Finger – forward/backward 2" min – Delta X OR Two separate back gauge units – in/out Each unit goes up/down, left/right/ fingers forward and backward This configuration must be equivalent to the one solid back gauge capability | | |
| M.10 | Positioning repeatability: +/- 0.002" max | | |

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|------|--|--|--|
| M.11 | The (CNC) Electric Press Brakes Controls must have: <ul style="list-style-type: none">- Movable control console- No less than 15" Colour Display- Provide a standalone computer for offline programming pre-loaded with press brake operating software- Software:<ul style="list-style-type: none">• Compatible with DFX format at minimum.• Capable to import 2D and/or 3D models | | |
| M.12 | Laser or Optical Safety System | | |

E) Question and Answer

Q1: On Amendment No. 002 – Page 1 of 3 - you ask for the following:

- B) INSERT – Line 1 – One solid back gauge unit in/out – X axis – 11" min
Line 2 – Back Gauge Unit up/down – R1/R2 – 0" from bed top to 10" min

If you have a solid back gauge unit – that one unit goes up/down and is just called R.

That line saying R1/R2 should be listed on the next column down under the OR.

EACH UNIT GOES UP/DOWN (R1/R2), LEFT RIGHT (Z1,Z2), FINGERS FORWARD & BACKWARD (DELTA X1, X2)

Also – you request – Line 2 above that the R axis should be from 0" bed top to 10" min.

Our brake has 7.8" R Axis height – is this acceptable – on small machines such as you are requesting? 10" height on the R axis is very unusual.

A1: Agreed that the solid back gauge unit is called R. Also, a brake with an R axis height of 7" minimum is acceptable. Reference the rest of the amendment document for additional details.

Q2: Same area – TWO BACK GAUGE FINGERS – LEFT/RIGHT – Z1/Z2 – MIN SPREAD BETWEEN FINGERS 28"

Our Z1, Z2 back gauge fingers move from: MINIMUM WIDTH – 4.7" TO MAXIMUM WIDTH – 46.5"

A2: The spread between fingers must be minimum of 4" to the whole width of the machine. Reference the rest of the amendment document for additional details.

Q3: Also on page 14 of the solicitation – 4.1 – SPECIFICATIONS:

4.8 THROAT (depth of gap): 6" – 8"

Our brake has 5.9" Throat.

A3: A3: A throat of 5.5" to 8" is acceptable. Reference the rest of the amendment document for additional details.

Q4: Page 16 of the solicitation – 4.4 – ELECTRICAL EQUIPMENT

A STRAIN GAUGE MUST BE INSTALLED ON THE DRIVES TO ALLOW FOR TONNAGE REVERSAL

Strain gauges can be installed on hydraulic brakes – but not electrical brakes – since they are electrical and the servo-drives are driven from the computer – the software in the computer includes cut off systems should any servo-drive units show overload that will not allow the servos to operate and therefore the ram will not come down.

A4: If a physical strain gauge cannot be installed on the electrical brake then the machine software in the computer must include a cut-off to protect the servo-drive units when showing overload. The machine control must not allow the servos to operate and must prevent the ram from coming down until the condition is corrected. Reference the rest of the amendment document for additional details.

ALL OTHER TERMS AND CONDITIONS REMAIN THE SAME