RETURN BIDS TO:
RETOURNER LES SOUMISSIONS À:

Bid Receiving Public Works and Government Services Canada/Réception des soumissions Travaux publics et Services gouvernementaux Canada
Pacific Region
401 - 1230 Government Street
Victoria, B.C.
V8W 3X4
Bid Fax: (250) 363-3344

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

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 - Pacific Region
401 - 1230 Government Street
Victoria, B. C.
V8W 3X4

Title - Sujet CNC WIRE ELECTRIC DISCHARGE MACHINE	
Solicitation No. - N° de l'invitation W3555-146945/A	**Date** 2013-09-30
Client Reference No. - N° de référence du client W3555-146945	
GETS Reference No. - N° de référence de SEAG PW-$VIC-210-6325	
File No. - N° de dossier VIC-3-36080 (210)	**CCC No./N° CCC - FMS No./N° VME**
Solicitation Closes - L'invitation prend fin **at - à 02:00 PM** **on - le 2013-11-12**	**Time Zone** **Fuseau horaire** Pacific Daylight Saving Time PDT
F.O.B. - F.A.B. **Plant-Usine:** ☐ **Destination:** ☑ **Other-Autre:** ☐	
Address Enquiries to: - Adresser toutes questions à: Buchan, Torrey	**Buyer Id - Id de l'acheteur** vic210
Telephone No. - N° de téléphone (250) 363-3249 ( )	**FAX No. - N° de FAX** (250) 363-0395

Destination - of Goods, Services, and Construction:
Destination - des biens, services et construction:

DEPARTMENT OF NATIONAL DEFENCE
CAPE BRETON ATTN CONTRACT OFF.
CFB ESQUIMALT
BLDG. 250 DOCKYARD
VICTORIA
BRITISH COLUMBIA
V9A7N2
CANADA

Instructions: See Herein

Instructions: Voir aux présentes

Delivery Required - Livraison exigée See Herein	**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**

Canada

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PART 1 - GENERAL INFORMATION

1. Security Requirement
There is no security requirement associated with this bid solicitation.

2. Requirement
The requirement is detailed under Article 2 of the resulting contract clauses.

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.

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.

3. Enquiries - Bid Solicitation
All enquiries must be submitted in writing to the Contracting Authority no later than seven (7) 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 British Columbia.

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 - Two hard copies
Section II: Financial Bid - One hard copy
Section III: Certifications - One hard 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:

(a) use 8.5 x 11 inch (216 mm x 279 mm) paper;
(b) 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 should:

1) use 8.5 x 11 inch (216 mm x 279 mm) paper containing fibre certified as originating from a sustainably-managed forest and 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 should explain and demonstrate how they propose to meet the requirements and how they will carry out the Work.

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

C3011T (2010-01-11), Exchange Rate Fluctuation

Section III: Certifications

Bidders must submit the certifications required under Part 5.

PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION

1. Evaluation Procedures

(a) Bids will be assessed in accordance with the entire requirement of the bid solicitation including the technical and financial evaluation criteria.

(b) An evaluation team composed of representatives of Canada will evaluate the bids.

1.1 Technical Evaluation

1.1.1 Mandatory Technical Criteria

The Bidder must provide proof and/or verification of the Mandatory Technical Criteria herein through supporting documentation such as certificate of qualifications and letters of authenticity from industry associations, as applicable. Failure to provide supporting documentation to verify claims may result in the bid being declared non-responsive.

Item	Mandatory Criteria	Complies? (Yes/No)	Vendor Remarks & Reference to Supporting Materials
1.	**Legislation and Bylaws**		
1.1.	All equipment supplied to Fleet Maintenance Facility Cape Breton (FMF CB) must have either a Canadian Standards Association (CSA) or Underwriters Laboratory Canada (ULc) certification for all electrical components and controls		
2.	**Capacity and Processing Requirement**		
2.1.	The WEDM must include an appropriate sized cooling system to maintain the correct temperature the dielectric fluid		
2.2.	The WEDM must include an appropriate filtration system to remove particles from the dielectric fluid		
2.3.	The WEDM must be designed to use deionized water as the dielectric fluid. The WEDM must include a suitable deionizing system that deionizes tap water to the specifications required for operating the machine.		

2.4.	The materials and components used in the chiller and in the WEDM must be compatible for use with deionized water as the dielectric fluid.		
2.5.	The WEDM must be capable of cutting a minimum 48° taper at max Z height.		
2.6.	The WEDM must be equipped to cut the following materials:		
2.6.1.	Steel		
2.6.2.	Stainless Steel		
2.6.3.	Copper		
2.6.4.	Brass		
2.6.5.	Copper Nickel		
2.6.6.	Monel		
2.6.7.	Aluminum		
2.6.8.	Titanium		
2.6.9.	Carbide		
2.7.	The supplied machine must have a minimum work piece cutting capacity as follows:		
2.7.1.	50 inches minimum length		
2.7.2.	38 inches minimum width		
2.7.3.	19 inches minimum height		
2.8.	The supplied machine must have a maximum noise level of no greater than 85dB.		
2.9.	The WEDM system must include a quick automatic wire re-thread system that turns off the generator,		

	cuts the wire, re-threads the wire, and turns the generator on in under 25 seconds		
2.10.	The entire cutting area must be enclosed to shield operators, other personnel, and electronic equipment from EMI		
2.11.	The WEDM must employ an anti-collision system for all axes that will stop machine and alert the operator		
2.12.	The WEDM system must utilize a working table with adequate rigidity to support the work piece being cut. The working table must include holes distributed around the frame that are compatible with Tooling Start-Up Package described in Section 2.8		
2.13.	The WEDM system must have a work bed capacity of 6600 pounds (2993 kg) as a minimum		
2.14.	The supplied machine must include a rail kit to interface between the table and the tooling start up package described in Section 2.8 Tooling Start Up Package		
2.15.	The supplied machine must have cutting wire parameters as follows:		
2.15.1.	Minimum wire size of 0.006”.		
2.15.2.	The wire spool must have a minimum capacity of 15 pounds		
2.16.	The machine must be equipped to cut material using the following wire sizes: 0.006”, 0.008”, 0.010”, 0.012” and 0.013”.		

2.17.	The supplied machine must have a maximum resolution of 0.00002” on all axes		
2.18.	The supplied machine must be capable of a rapid traverse speed of 3 metres per minute (m/min)		
2.19.	Compressed air requirement for the machine and all simultaneously used accessories must not exceed 100 psig		
3.	**Physical Requirements**		
3.1.	The base machine must not exceed a footprint of 120” in overall length, 130” in overall width, and 105” in overall height. This size does not include manufacturers recommended maintenance and access envelopes		
3.2.	The supplied machine must not exceed a total weight of 13,000 lbs including all accessory and ancillary components.		
3.3.	The chiller must not exceed the dimensions of 40 inches long, 25 inches wide and 35 inches high.		
4.	**Electrical Requirements**		
4.1.	The WEDM system must use 460 volt, 3 phase power. If a power other than 460 volts is required a step up or step down transformer must be supplied as part of the equipment package.		
4.2.	The WEDM system must not use in excess of 15 kVA of power, including chiller.		
5.	**System Requirements**		

5.1.	The WEDM system must be supplied with an onboard control system that utilizes standard computer numeric code (NC Code) to control movements of the axes of the machine during cutting operations.		
5.2.	The WEDM system must be supplied with at post processor that is compatible with D.P. Technologies Esprit and the rotary axis specified in 2.5.25		
5.3.	The machine and controller must provide a repeatability of 0.00007 inches or less.		
5.4.	The linear axes on the machine must have a resolution of 0.0000036 inches or less for the encoders, and 0.000019 inches or less measuring axes displacement		
5.5.	The drive mechanism used to move the linear axes must be ball screws.		
5.6.	The WEDM system must include an auto-restart feature which restarts the machine in the event of a power outage		
5.7.	The supplied machine must be capable of maintaining a minimum cutting speed of 35 square inches per hour		
5.8.	The WEDM must include a feature which searches for the wire start hole without contacting the workpiece		
5.9.	The WEDM supplied must have the following axis travels:		
5.9.1.	X-Axis travel of 30 inches minimum		

5.9.2.	Y-Axis travel of 20 inches minimum		
5.9.3.	Z-Axis travel of 19 inches minimum		
5.9.4.	U-Axis travel of 30 inches minimum		
5.9.5.	V-Axis travel of 20 inches minimum		
5.10.	The system must include off line programming software that allows users to create programs from imported programs such as SolidWorks, AutoCAD Inventor, or similar programs		
5.11.	The offline software must be capable of creating drawings to be programmed for cutting		
5.12.	The offline software must be capable of creating program code ready to run on the WEDM system		
5.13.	The software and machine must automatically set offsets and power settings based on material type and thickness information entered by operator		
5.14.	The supplied machine must have a minimum hard drive storage capacity of 40Gb		
5.15.	The supplied machine must have no less than 512Mb of RAM		
5.16.	The supplied machine must have at least one (1) USB port		
5.17.	The supplied machine must have a RJ45 standard Ethernet port		

5.18.	The machine controller must include a touch screen monitor with a minimum diagonal size of 12 inches. The screen must be an LCD Colour type display		
5.19.	The WEDM system must include a Windows operating system (Windows XP minimum) to ensure compatibility with existing computer systems for communication and data transfer		
5.20.	The WEDM system must include a feature which automatically optimizes speed, flushing, flushing pressure, wire tension, frequency, and spark intensity to reduce wire breakage		
5.21.	The WEDM system must include an auto-diagnostic feature which checks electronic connections within the machine		
5.22.	The WEDM system must include a feature which automatically threads wire through holes when the work piece is submerged and non-submerged		
5.23.	The work tank must include a level sensor and automatic valve to ensure the work tank is filled according to the upper head position		
5.24.	The WEDM must display the parameters such as: conductivity of the dielectric fluid, and dielectric fluid level		
5.25.	The WEDM must include a rotary table which allows programmable indexing and turning of the workpiece for 5 axes simultaneous burning		
6.	**Maintenance Requirements**		

6.1.	Machine must be supplied with all consumables required to set machine to work, operate, and provide preventative maintenance as recommended by manufacturer during the first 12 months of operation. This must include but not be limited to all fluids required, all filters required, and all other consumable items required by manufacturer to adhere to the recommended preventative maintenance schedule maintain the warranty during the initial 12 months of operation.		
7.	**Tooling Start Up Package**		
7.1.	The equipment provided must be supplied with the following Tooling Start-Up Package as part of the minimum mandatory requirements for the machine. The following tooling is specified from System 3R USA and either System 3R or equivalent tooling must be supplied with the WEDM		
7.1.1.	3R-239.XXX WEDM 3Ruler System (size TBD) - Qty 2		
7.1.2.	3R-239.20 WEDM 3Ruler Accessory Kit - Qty 1		
7.1.3.	3R-239.2 WEDM 3Ruler Edge Clamp Set - Qty 2		
7.1.4.	3R-294.2 WEDM Vise – Vertical for 3Ruler - 0 to 50mm - Qty 1		
7.1.5.	3R-294.1 WEDM Vise Pallet -Qty 1		
7.1.6.	3R-239.1 WEDM 3Ruler Vise Attachment - Qty 2		

7.1.7.	3R-239.22 WEDM Support Tabs 5mm thick (set of 2) - Qty 2		
7.1.8.	3R-239.24 WEDM 3Ruler Low Profile Clamps (set of 2)		
7.1.9.	3R-230.1 WEDM Clamp Kit w/6mm bolts - Qty 1		
7.1.10.	3R-228J Preset Block w/ Separate Zero-Line Block (2 separate blocks) - Qty 1		
7.1.11.	3R-200.XJ-X Reference element WEDM - Qty 2		
7.1.12.	3R-225 Reference Stop - Qty 2		
7.1.13.	3R-226.4 Fixed mounting head WEDM - Qty 1		
7.1.14.	3R-242-HP User kit (head and vices) - Qty 1		
7.1.15.	3R-294.1 Vice (up to 17mm thickness) - Qty 1		
7.1.16.	3R-294.2 Vice (up to 50mm thickness) - Qty 1		
7.1.17.	3R-294 Adaptor (for above vices) - Qty 1		
8.	**Manuals and Documentation**		
8.1.	All equipment and accessories included with the hydrostatic testing machine must include a minimum of three (3) hard copies of the following manuals:		
8.1.1.	Service and maintenance manuals;		
8.1.2.	Electrical, pneumatic, hydraulic,		

	mechanical, and city water schematics for the unit as built;		
8.1.3.	Complete parts list for all components excluding computer, printer, or related computer accessories (For commercially available off-the-self type components, the original manufacturer, brand, and part number must be provided along with the Contractor's own part number)		
9.	**Quality, Safety, and Delivery**		
9.1.	The Machinery must come equipped with the following Safety and Operation Labeling:		
9.1.1.	Contractor must identify the lifting points for the equipment.		
9.1.2.	Contractor must identify the center of gravity and the center of mass of the equipment for safe lifting.		
9.1.3.	Any pinch points, hazard areas, operator safety concerns, and moving components are clearly labeled in English.		
9.1.4.	Operating instruction labels are clearly identified and printed in English		
9.2.	The Machinery must come with the following performance guarantee:		
9.2.1.	The equipment must meet all operating, performance, and design requirements for the duration of the warranty period as a minimum. If the equipment does not meet the specified performance within the		

	warranty period, the Contractor must take the necessary remedial action to achieve the specified performance. The equipment must be designed and constructed to be free from defects in manufacturing and workmanship.		
9.3.	The Machinery and all other associated materials must be packaged and transported as follows:		
9.3.1.	All deliverables must be properly packaged, crated, and/or boxed to ensure no damage is sustained to the equipment during the transport, loading, unloading, or general handling of equipment prior to the final installation.		
9.3.2.	All crates or packages must identify rigging points or fork lift truck points for off-loading purposes.		
9.3.3.	Contractor is responsible for removal/disposal of all packaging material from equipment and accessories. Waste may be disposed of in FMF CB designated bins in accordance with FMF CB and MARPAC waste disposal policies.		
10.	**Installation and Training**		
10.1.	Installation of the machinery must occur as follows:		

10.1.1.	The Contractor must deliver, offload, move into position, and install the equipment into its final location. FMF CB can provide equipment assistance during offloading by providing an overhead crane; Contractor must supply all rigging services and equipment		
10.1.2.	FMF CB will make all connections from the equipment to the facility, including but not limited to the electrical connection, compressed air connection, and plumbing and drain connection to the facility as required, and any data connections as required.		
10.2.	The Contractor must provide the following installation services:		
10.2.1.	The Contractor must level the machine once positioned and in place.		
10.2.2.	The Contractor must connect the chiller to the WEDM system		
10.2.3.	The Contractor must connect the dielectric unit and the dielectric reservoir to the WEDM system		
11.	**Training**		
11.1.	The Contractor must provide operator and maintenance personal training for the machine. Contractor must provide a detailed training schedule for both operator and maintenance training with the tender submission		
11.2.	The training schedule must outline in detail the timelines and content for the training. Training schedule must be for a minimum of 6 operators and		

	4 maintenance persons. Operator and maintenance training must not be combined together, they must each have their own dedicated times and schedule. Training schedule must provide a minimum of 4 days at 8 hours per day of operator training and 2 days at 8 hours per day of maintenance training for a total combination of 6 days at 8 hours per day. Training must occur on DND premises at CFB Esquimalt in Victoria, BC. Contractor personnel shall receive reimbursement for authorized travel and accommodations costs as per the National Joint Council's Travel Directive.		
12.	**Warranty**		
12.1.	Supplies and services furnished shall be covered by warranty from defects in design, materials and workmanship. The warranty must be a minimum duration of 12 full months following the suppliers Factory Service Representative (FSR) powering up of the machine and training. Acceptance of the manufacturer's standard commercial warranty shall not minimize the rights of the Government under clauses in the contract, and in any conflict that arises between the terms and conditions of the contract and manufacturer's warranty, the terms and conditions of the contract shall take precedence. The warranty period shall commence from the date of acceptance.		

1.2 Financial Evaluation

SACC Manual Clause A0220T (2013-04-25), Evaluation of Price

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 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.hrsdc.gc.ca/eng/labour/index.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.

PART 6 - RESULTING CONTRACT CLAUSES

1. Security Requirement

There is no security requirement applicable to this Contract.

2. Requirement

The Contractor must provide the items detailed under the "Requirement" at Annex A.

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.

4. Term of Contract

4.1 Delivery Date

All the deliverables must be received on or before _____.

4.2 Shipping Instructions - Delivered Duty Paid

Goods must be consigned and delivered to the destination specified in the contract:
Incoterms 2000 "DDP Delivered Duty Paid" Fleet Maintenance Facility - Cape Breton, Victoria, BC, Canada.

5. Authorities

5.1 Contracting Authority

The Contracting Authority for the Contract is:

Name:	Torrey Buchan
Title:	Supply Officer Public Works and Government Services Canada Acquisitions Branch
Telephone:	250-363-3249
Facsimile:	250-363-0395
E-mail address:	torrey.buchan2@pwgsc.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 provided upon contract award.

Name:	_____
Telephone :	___ ___ _____
Facsimile:	___ ___ _____
E-mail address:	_____

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 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

Supplier is to complete table below and submit with their bid.

Contact for:	Name	Telephone	Email
Contracting issues			
Technical issues			
Invoicing issues			

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 price as specified in Annex B for a cost of
$ _____ . 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 Single Payment

SACC Manual clause H1000C (2008-05-12), Single Payment

7. Invoicing Instructions

The Contractor must submit invoices in accordance with the section entitled "Invoice Submission" of the general conditions. Invoices cannot be submitted until all work identified in the invoice is completed.

Invoices must be distributed as follows:
The original and one (1) copy must be forwarded to the address shown on page 1 of the Contract for certification and payment.

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.

9. Applicable Laws

The Contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in _____.

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) the general conditions 2010A (2013-04-25), General Conditions - Goods (Medium Complexity);
(c) Annex A, Requirement;

(d) Annex B, Basis of Payment;
(e) the Contractor's bid dated _____

11. Insurance

The Contractor is responsible for deciding if insurance coverage is necessary to fulfill its obligation under the Contract and to ensure compliance with any applicable law. Any insurance acquired or maintained by the Contractor is at its own expense and for its own benefit and protection. It does not release the Contractor from or reduce its liability under the Contract.

12. SACC Manual Clauses

B1501C (2006-06-16), Electrical Equipment

ANNEX A

REQUIREMENT

I. Overview

This requirement covers the minimum Government requirement for one (1) computer numerically controlled (CNC) Wire Electric Discharge Machine (WEDM) with the required tooling, chiller, dielectric unit, offline and online programming software, installation, training, maintenance visits, and specified accessories

II. Specifications

1. Legislation and Bylaws

1.1. All equipment supplied to Fleet Maintenance Facility Cape Breton (FMF CB) must have either a Canadian Standards Association (CSA) or Underwriters Laboratory Canada (ULc) certification for all electrical components and controls

2. Capacity and Processing Requirement

2.1. The WEDM must include an appropriate sized cooling system to maintain the correct temperature the dielectric fluid;

2.2. The WEDM must include an appropriate filtration system to remove particles from the dielectric fluid;

2.3. The WEDM must be designed to use deionized water as the dielectric fluid. The WEDM must include a suitable deionizing system that deionizes tap water to the specifications required for operating the machine.

2.4. The materials and components used in the chiller and in the WEDM must be compatible for use with deionized water as the dielectric fluid.

2.5. The WEDM must be capable of cutting a minimum 48° taper at max Z height.

2.6. The WEDM must be equipped to cut the following materials:

- 2.6.1. Steel;
- 2.6.2. Stainless Steel;
- 2.6.3. Copper;
- 2.6.4. Brass;
- 2.6.5. Copper Nickel;
- 2.6.6. Monel;
- 2.6.7. Aluminum;
- 2.6.8. Titanium;
- 2.6.9. Carbide;

2.7. The supplied machine must have a minimum work piece cutting capacity as follows:

- 2.7.1. 50 inches minimum length;
- 2.7.2. 38 inches minimum width;
- 2.7.3. 19 inches minimum height;

2.8. The supplied machine must have a maximum noise level of no greater than 85dB.

2.9. The WEDM system must include a quick automatic wire re-thread system that turns off the generator, cuts the wire, re-threads the wire, and turns the generator on in under 25 seconds.

2.10. The entire cutting area must be enclosed to shield operators, other personnel, and electronic equipment from EMI.

2.11. The WEDM must employ an anti-collision system for all axes that will stop machine and alert the operator.

2.12. The WEDM system must utilize a working table with adequate rigidity to support the work piece being cut. The working table must include holes distributed around the frame that are compatible with Tooling Start-Up Package described in Section 7.

2.13. The WEDM system must have a work bed capacity of 6600 pounds (2 993 kg) as a minimum.

2.14. The supplied machine must include a rail kit to interface between the table and the tooling start up package described in Section 7 Tooling Start Up Package.

2.15 The supplied machine must have cutting wire parameters as follows:
2.15.1. Minimum wire size of 0.006";
2.15.2. The wire spool must have a minimum capacity of 15 pounds;

2.16. The machine must be equipped to cut material using the following wire sizes: 0.006", 0.008", 0.010", 0.012" and 0.013".

2.17. The supplied machine must have a maximum resolution of 0.00002" on all axes.

2.18. The supplied machine must be capable of a rapid traverse speed of 3 metres per minute (m/min).

2.19. Compressed air requirement for the machine and all simultaneously used accessories must not exceed 100 psig.

3. Physical Requirements

3.1. The base machine must not exceed a footprint of 120" in overall length, 130" in overall width, and 105" in overall height. This size does not include manufacturers recommended maintenance and access envelopes.

3.2. The supplied machine must not exceed a total weight of 13,000 lbs including all accessory and ancillary components.

3.3. The chiller must not exceed the dimensions of 40 inches long, 25 inches wide and 35 inches high.

4. Electrical Requirements

4.1. The WEDM system must use 460 volt, 3 phase power. If a power other than 460 volts is required a step up or step down transformer must be supplied as part of the equipment package.

4.2. The WEDM system must not use in excess of 15 kVA of power, including chiller.

5. System Requirements

5.1. The WEDM system must be supplied with an onboard control system that utilizes standard computer numeric code (NC Code) to control movements of the axes of the machine during cutting operations.

5.2. The WEDM system must be supplied with a post processor that is compatible with D.P. Technologies Esprit and the rotary axis specified in 5.25.

5.3. The machine and controller must provide a repeatability of 0.00007 inches or less.

5.4. The linear axes on the machine must have a resolution of 0.0000036 inches or less for the encoders, and 0.000019 inches or less measuring axes displacement .

5.5. The drive mechanism used to move the linear axes must be ball screws.

5.6. The WEDM system must include an auto-restart feature which restarts the machine in the event of a power outage.

5.7. The supplied machine must be capable of maintaining a minimum cutting speed of 35 square inches per hour.

5.8. The WEDM must include a feature which searches for the wire start hole without contacting the workpiece.

5.9. The WEDM supplied must have the following axis travels:

5.9.1. X-Axis travel of 30 inches minimum;
5.9.2. Y-Axis travel of 20 inches minimum;
5.9.3. Z-Axis travel of 19 inches minimum;
5.9.4. U-Axis travel of 30 inches minimum;
5.9.5. V-Axis travel of 20 inches minimum;

5.10. The system must include off line programming software that allows users to create programs from imported programs such as SolidWorks, AutoCAD Inventor, or similar programs.

5.11. The offline software must be capable of creating drawings to be programmed for cutting.

5.12. The offline software must be capable of creating program code ready to run on the WEDM system.

5.13. The software and machine must automatically set offsets and power settings based on material type and thickness information entered by operator;

5.14. The supplied machine must have a minimum hard drive storage capacity of 40Gb;

5.15. The supplied machine must have no less than 512Mb of RAM;

5.16. The supplied machine must have at least one (1) USB port;

5.17. The supplied machine must have a RJ45 standard Ethernet port;

5.18. The machine controller must include a touch screen monitor with a minimum diagonal size of 12 inches. The screen must be an LCD (or LED) Colour type display;

5.19. The WEDM system must include a Windows operating system (Windows XP minimum) to ensure compatibility with existing computer systems for communication and data transfer.

5.20. The WEDM system must include a feature which automatically optimizes speed, flushing, flushing pressure, wire tension, frequency, and spark intensity to reduce wire breakage.

5.21. The WEDM system must include an auto-diagnostic feature which checks electronic connections within the machine.

5.22. The WEDM system must include a feature which automatically threads wire through holes when the work piece is submerged and non-submerged.

5.23. The work tank must include a level sensor and automatic valve to ensure the work tank is filled according to the upper head position.

5.24. The WEDM must display the parameters such as: conductivity of the dielectric fluid, and dielectric fluid level.

5.25. The WEDM must include a rotary table which allows programmable indexing and turning of the workpiece for 5 axes simultaneous burning.

6. Maintenance Requirements

6.1. Machine must be supplied with all consumables required to set machine to work, operate, and provide preventative maintenance as recommended by manufacturer during the first 12 months of operation. This must include but not be limited to all fluids required, all filters required, and all other consumable items required by manufacturer to adhere to the recommended preventative maintenance schedule maintain the warranty during the initial 12 months of operation.

7. Tooling Start Up Package

7.1. The equipment provided must be supplied with the following Tooling Start-Up Package as part of the minimum mandatory requirements for the machine. The following tooling is specified from System 3R USA and either System 3R or equivalent tooling must be supplied with the WEDM:

7.1.1. 3R-239.XXX WEDM 3Ruler System (size TBD) - Qty 2
7.1.2. 3R-239.20 WEDM 3Ruler Accessory Kit - Qty 1
7.1.3. 3R-239.2 WEDM 3Ruler Edge Clamp Set - Qty 2
7.1.4. 3R-294.2 WEDM Vise - Vertical for 3Ruler - 0 to 50mm - Qty 1
7.1.5. 3R-294.1 WEDM Vise Pallet -Qty 1
7.1.6. 3R-239.1 WEDM 3Ruler Vise Attachment - Qty 2
7.1.7. 3R-239.22 WEDM Support Tabs 5mm thick (set of 2) - Qty 2
7.1.8. 3R-239.24 WEDM 3Ruler Low Profile Clamps (set of 2)
7.1.9. 3R-230.1 WEDM Clamp Kit w/6mm bolts - Qty 1
7.1.10. 3R-228J Preset Block w/ Separate Zero-Line Block (2 separate blocks) - Qty 1
7.1.11. 3R-200.XJ-X Reference element WEDM - Qty 2
7.1.12. 3R-225 Reference Stop - Qty 2
7.1.13. 3R-226.4 Fixed mounting head WEDM - Qty 1
7.1.14. 3R-242-HP User kit (head and vices) - Qty 1
7.1.15. 3R-294.1 Vice (up to 17mm thickness) - Qty 1
7.1.16. 3R-294.2 Vice (up to 50mm thickness) - Qty 1

7.1.17. 3R-294 Adaptor (for above vices) - Qty 1

8. Manuals and Documentation

8.1. All equipment and accessories included with the hydrostatic testing machine must include a minimum of three (3) hard copies of the following manuals:

8.1.1. Service and maintenance manuals;

8.1.2. Electrical, pneumatic, hydraulic, mechanical, and city water schematics for the unit as built;

8.1.3. Complete parts list for all components excluding computer, printer, or related computer accessories (For commercially available off-the-self type components, the original manufacturer, brand, and part number must be provided along with the Contractor's own part number).

9. Quality, Safety, and Delivery

9.1. The Machinery must come equipped with the following Safety and Operation Labeling:

9.1.1. Contractor must identify the lifting points for the equipment.

9.1.2. Contractor must identify the center of gravity and the center of mass of the equipment for safe lifting.

9.1.3. Any pinch points, hazard areas, operator safety concerns, and moving components are clearly labeled in English.

9.1.4. Operating instruction labels are clearly identified and printed in English.

9.2. The Machinery must come with the following performance guarantee:

9.2.1. The equipment must meet all operating, performance, and design requirements for the duration of the warranty period as a minimum. If the equipment does not meet the specified performance within the warranty period, the Contractor must take the necessary remedial action to achieve the specified performance. The equipment must be designed and constructed to be free from defects in manufacturing and workmanship.

9.3. The Machinery and all other associated materials must be packaged and transported as follows:

9.3.1. All deliverables must be properly packaged, crated, and/or boxed to ensure no damage is sustained to the equipment during the transport, loading, unloading, or general handling of equipment prior to the final installation.

9.3.2. All crates or packages must identify rigging points or fork lift truck points for off-loading purposes.

9.3.3. Contractor is responsible for removal/disposal of all packaging material from equipment and accessories. Waste may be disposed of in FMF CB designated bins in accordance with FMF CB and MARPAC waste disposal policies.

10. Installation and Training

10.1. Installation of the machinery must occur as follows:

10.1.1. The Contractor must deliver, offload, move into position, and install the equipment into its final location. FMF CB can provide equipment assistance during offloading by providing an overhead crane; Contractor must supply all rigging services and equipment;

10.1.2. FMF CB will make all connections from the equipment to the facility, including but not limited to the electrical connection, compressed air connection, and plumbing and drain connection to the facility as required, and any data connections as required.

10.2. The Contractor must provide the following installation services:

10.2.1. The Contractor must level the machine once positioned and in place.
10.2.2. The Contractor must connect the chiller to the WEDM system;
10.2.3. The Contractor must connect the dielectric unit and the dielectric reservoir to the WEDM system.

11. Training

11.1. The Contractor must provide operator and maintenance personal training for the machine. Contractor must provide a detailed training schedule for both operator and maintenance training with the tender submission;

11.2. The training schedule must outline in detail the timelines and content for the training. Training schedule must be for a minimum of 6 operators and 4 maintenance persons. Operator and maintenance training must not be combined together, they must each have their own dedicated times and schedule. Training schedule must provide a minimum of 4 days at 8 hours per day of operator training and 2 days at 8 hours per day of maintenance training for a total combination of 6 days at 8 hours per day. Training must occur on DND premises at CFB Esquimalt in Victoria, BC.

12. Warranty

12.1. Supplies and services furnished shall be covered by warranty from defects in design, materials and workmanship. The warranty must be a minimum duration of 12 full months following the Contractor's Factory Service Representative (FSR) powering up of the machine and training. Acceptance of the manufacturer's standard commercial warranty shall not minimize the rights of the Government under clauses in the contract, and in any conflict that arises between the terms and conditions of the contract and manufacturer's warranty, the terms and conditions of the contract shall take precedence. The warranty period shall commence from the date of acceptance.

ANNEX B

BASIS OF PAYMENT

Itm	Description	Price (CAD$)
1.	(1) Computer Numerically Controlled (CNC) Wire Electric Discharge Machine (WEDM) with the required tooling, chiller, dielectric unit, offline and online programming software, installation, training, maintenance visits, and specified accessories	$_____
2.	Delivery Incoterms 2000 DDP - Fleet Maintenance Facility - Cape Breton	$_____
	Firm Total Price (CAD$)	$_____ __

GST (as applicable), is extra.

DELIVERY: While delivery is requested by March 31, 2014 , the best delivery that could be offered is _____ .