

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

Title - Sujet SURFACE GRINDER	
Solicitation No. - N° de l'invitation W3555-157992/A	Date 2014-12-10
Client Reference No. - N° de référence du client W3555-157992	
GETS Reference No. - N° de référence de SEAG PW-\$VIC-240-6616	
File No. - N° de dossier VIC-4-37147 (240)	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM on - le 2015-01-20	Time Zone Fuseau horaire Pacific Standard Time PST
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: Hogg(VIC), Mike	Buyer Id - Id de l'acheteur vic240
Telephone No. - N° de téléphone (250) 363-3916 ()	FAX No. - N° de FAX (250) 363-3344
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction: DEPARTMENT OF NATIONAL DEFENCE CAPE BRETON ATTN CONTRACT OFF. STN FORCES P.O.BOX 17000 BLDG 250 DOCKYARD VICTORIA British Columbia V9A7N2 Canada	

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

Public Works and Government Services Canada - Pacific
Region
401 - 1230 Government Street
Victoria, B. C.
V8W 3X4

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

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PART 1 - GENERAL INFORMATION

1. Security Requirement

There is no security requirement associated with this bid solicitation.

2. Statement of Work

The Work to be performed is detailed under Annex "A".

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 (2014-09-25) 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 (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 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 (2 hard copies)
- Section II: Financial Bid (1 hard copy)
- Section III: Certifications (1 hard copy)
- Section IV: Additional Information (1 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) (<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.

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.

2. Basis of Selection

- 2.1** 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 2004. 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) 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. Statement of Work

The Work to be performed is detailed under 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 (2014-09-25), General Conditions - Goods (Medium Complexity) apply to and form part of the Contract.

4. Term of Contract

4.1 Period of the Contract

The period of the Contract is from date of Contract to _____ inclusive

5. Authorities

5.1 Contracting Authority

The Contracting Authority for the Contract is:

Name: Mike Hogg
Title: Supply Specialist
Public Works and Government Services Canada
Acquisitions Branch

Telephone: 250-363-3916
Facsimile: 250-363-0395
E-mail address: mike.hogg@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:

Name: _____
Title: _____
Organization: _____
Address: _____

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

6. Payment

6.1 Basis of Payment

The Contractor will be reimbursed for the costs reasonably and properly incurred in the performance of the Work, as determined in accordance with the Basis of Payment in Annex B, to a limitation of expenditure of \$_____. Customs duties are included and Applicable Taxes are extra.

6.2 Limitation of Expenditure

Canada's total liability to the Contractor under the Contract must not exceed \$ _____. Customs duties are included and Applicable Taxes are extra. No increase in the total liability of Canada or in the price of the Work resulting from any design changes, modifications or interpretations of the Work, will be authorized or paid to the Contractor unless these design changes, modifications or interpretations have been approved, in writing, by the Contracting Authority before their incorporation into the Work. The Contractor must not perform any work or provide any service that would result in Canada's total liability being exceeded before obtaining the written approval of the Contracting Authority. The Contractor must notify the Contracting Authority in writing as to the adequacy of this sum: when it is 75 percent committed, or four (4) months before the contract expiry date, or as soon as the Contractor considers that the contract funds provided are inadequate for the completion of the Work, whichever comes first.

If the notification is for inadequate contract funds, the Contractor must provide to the Contracting Authority a written estimate for the additional funds required. Provision of such information by the Contractor does not increase Canada's liability

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.

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 supplemental general conditions 2003 (2014-09-25) Standard Instructions - Goods or Services - Competitive Requirements;
- (c) the general conditions 2010A (2014-09-25), General Conditions - Goods (Medium Complexity)
- (d) Annex A, Statement of Work;
- (e) Annex B, Basis of Payment

Solicitation No. - N° de l'invitation

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

W3555-157992

Amd. No. - N° de la modif.

File No. - N° du dossier

VIC-4-37147

Buyer ID - Id de l'acheteur

vic240

CCC No./N° CCC - FMS No/ N° VME

(f) the Contractor's bid dated _____

11. Defence Contract

SACC *Manual* clause A9006C (2012-07-16) Defence Contract

ANNEX B**BASIS OF PAYMENT**

The unit prices below shall be firm and in Canadian funds including Canadian customs duties, excise taxes, delivery and installation charges which are to be Delivered Duty Paid (DDP) to destination as indicated herein.

The amount of the Goods and Services Tax shall be shown as a separate item.

Item	Description	U of I	Qty	Unit Price
1	Precision Automatic/Manual Surface Grinder as per mandatory Statement of Requirements attached at Annex "A"	LOT	1	\$
2	Option to purchase a second identical Precision Automatic/Manual Surface Grinder as per mandatory Statement of Requirements attached at Annex "A" within 12 months of contract award	LOT	1	\$
Sub-Total				
GST				
Grand Total				

Delivery:

Delivery is requested on or before March 31, 2015. The best delivery offered is _____ weeks ARO

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CCC No./N° CCC - FMS No/ N° VME

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W3555-157992

Annex "A"
Statement of Requirements
(see attached)

Statement of Requirements (SOR) - Surface Grinder – Rev 4 – 11/28/2014

The following is the minimum Government of Canada requirements for one (1) Precision Automatic/Manual Surface Grinder, with the option to purchase a second unit within 12 months of contract, to be utilized by the Department of National Defence (DND). The supplied unit will be installed into a permanent location within the Fleet Maintenance Facility (FMF CB) located within CFB Esquimalt in Victoria, British Columbia, Canada.

Item	Minimum Mandatory Requirements	Comments	Bid Ref Page #	Pass/Fail
Regulatory Requirements				
1.0	Unit must be electrically certified by an approved Canadian agency. Acceptable agencies are Canadian Standards Association (CSA), Underwriters Laboratories Canada (ULc), or other approved electrical inspection agencies. On site field certifications are acceptable at no additional cost to FMF CB.			
Machine Specifications				
1.1	The supplied unit must be designed to utilize 460 Volt, 3 Phase power.			
1.2	The drive system for the grinding wheel must be a variable speed system with a speed range between 1000 and 3200 RPM when using a 10 in. (254 mm) diameter grinding wheel.			
1.3	The supplied unit must have scales/linear encoders on both the Y and Z axes.			
1.4	The supplied unit must have the following minimum wheel capacity: <ul style="list-style-type: none"> • Diameter: 10 in. (254 mm) • Width: 0.75 in. (19 mm) 			
1.5	The supplied unit must be designed to utilize grinding wheels with a 3 in. (76 mm) diameter mounting bore hole.			
1.6	The supplied unit must include a coolant system, nozzles, and guards to capture and recycle coolant.			
1.7	The supplied unit must include the following industry standard safety equipment:			
1.7.1	Grinding wheel guards			
1.7.2	Emergency stop button(s)			
1.7.3	Table guards to prevent coolant spillage			
1.8	The supplied unit must be equipped with an adjustable work light.			
1.9	The supplied unit must allow users to operate in either automatic operation or a manual user controlled operation.			
1.10	The supplied unit must have a grinding capacity of 20 in. (508 mm) by 8 in. (203 mm) minimum.			
1.11	The supplied unit must have a distance of 15 in. (381 mm) between the table and a 10 in. (254 mm) diameter grinding wheel, at a minimum.			
1.12	The wheel downfeed must have a precision ball screw and utilize the supplied scales to control the height position of the wheel.			
1.13	The wheel downfeed manual control must have the following selectable movement resolution increments:			
1.13.1	0.00005 in. (0.001 mm)			

Statement of Requirements (SOR) - Surface Grinder – Rev 4 – 11/28/2014

Item	Minimum Mandatory Requirements	Comments	Bid Ref Page #	Pass/Fail
1.13.2	0.0005 in. (0.01 mm)			
1.13.3	0.005 in. (0.1 mm)			
1.14	The minimum automatic downfeed increment must be 0.00001 in. (0.00025 mm) or less.			
1.15	The maximum rapid feed must be 118 in./min. (2997 mm/min.) minimum.			
1.16	The wheel crossfeed must have a precision ball screw and utilize the supplied scales/linear encoders to control the crossfeed position of the wheel.			
1.17	The wheel crossfeed manual control must have the following selectable movement resolution increments;			
1.17.1	0.00005 in. (0.001 mm)			
1.17.2	0.0005 in. (0.01 mm)			
1.17.3	0.005 in. (0.1 mm)			
1.18	The minimum programmable crossfeed increment must be 0.00001 in. (0.00025 mm) or less.			
1.19	The maximum crossfeed rapid feed must be 118 in./min. (2997 mm/min.) minimum.			
1.20	The crossfeed must have a travel of 7.5 in. (191 mm) minimum.			
1.21	The supplied unit must have a table traverse distance of 24 in. (610 mm) minimum.			
1.22	The supplied unit must have a table traverse speed range of between 10 ft./min. (3 m/min.) to 70 ft./min. (21.3 m/min.) minimum.			
1.23	The supplied unit must have the grinding surface table height between 38 in. (965 mm) to 42 in. (1067 mm) from the floor minimum.			
1.24	The supplied unit must have handwheels to manually control the movement of each axis.			
1.25	The supplied unit must have a table capacity of 300 lbs (136 kg) minimum.			
1.26	The machine must not exceed the following footprint: <ul style="list-style-type: none"> • Width: 84 in. (2133 mm) • Depth: 72 in. (1829 mm) 			
1.27	The net weight of the supplied unit without coolant and grinding wheels must not exceed 5500 lbs (2500 kg).			
1.28	The supplied unit must include a coolant system with a replaceable clarifying filter system.			
1.29	The supplied unit must have a coolant capacity of 30 US gallons (113.5 L) minimum.			
1.30	The supplied unit coolant system must have a flow rate capability of 13 US gallons/min (49 L/min).			
1.31	The coolant tank must not exceed the following footprint: <ul style="list-style-type: none"> • Width: 30 in. (762 mm) • Length 60 in. (1524 mm) 			

Statement of Requirements (SOR) - Surface Grinder – Rev 4 – 11/28/2014

Item	Minimum Mandatory Requirements	Comments	Bid Ref Page #	Pass/Fail
1.32	The unit must be supplied with an electro-permanent magnetic chuck capable of handling a minimum work piece of 0.75 in. (19 mm) square.			
1.33	The supplied magnetic chuck must be 20 in. (508 mm) by 8 in. (203 mm) minimum.			
Controller Specifications				
1.34	The controller for the supplied unit must include the following standard grinding cycles:			
1.34.1	Slot/Plunge grinding			
1.34.2	Area Grind/Multi-plunge and area grinding			
1.34.3	Face grinding			
1.34.4	Slot & Face grinding			
1.34.5	Saddle only grinding			
1.34.6	Downfeed only grinding operation			
1.34.7	Special form grinding			
1.35	The controller for the supplied unit must include the following wheel dressing cycles:			
1.35.1	Straight wheel dressing			
1.35.2	Slotted wheel dressing			
1.35.3	Facing wheel dressing			
1.35.4	Vee form wheel dressing			
1.35.5	Special form wheel dressing			
1.36	The unit must be supplied with the appropriate CAD/CAM software to utilize the special form grinding capabilities.			
1.37	The supplied unit must include a control system capable of controlling all axes of unit, running custom and canned grinding cycles, and displaying live wheel location information and speed.			
1.38	The controller must include a minimum of 20 operator programmable standard wheel profiles.			
1.39	The programmable wheel profiles must allow operators to define the radius on either side of the wheel, the angle on either side of the wheel, the wheel width, and the location of the center points of the radius on either side of the wheel. Some profiles may not require all these operator inputs.			
Tooling Requirements				
1.40	The unit must be supplied with a minimum of two (2) multi point diamond wheel dressers and all required hardware to mount and utilize on supplied machine.			
1.41	The unit must be supplied with a minimum of two (2) chisel point standard quality lapped diamond wheel dresser for dressing peripheral, side, and contours of wheels. The supplied chisel point diamonds must include all mounts and hardware to utilize on supplied unit.			
1.42	The unit must be supplied with 6 complete sets of wheel flanges for a 10 in. (254 mm) diameter wheel by 0.75 in. (19 mm) wide with a through hole of 3 in. (76 mm) minimum.			
1.43	The table guarding must be an open top design with an interlocking sliding splashguard including a viewing window.			

Statement of Requirements (SOR) - Surface Grinder – Rev 4 – 11/28/2014

Item	Minimum Mandatory Requirements	Comments	Bid Ref Page #	Pass/Fail
Additional Requirements				
1.44	The unit must be supplied to FMF CB with three (3) full copies of the following manuals;			
1.44.1	Operators manual			
1.44.2	Maintenance manual			
1.44.3	Parts manual (including mechanical and electrical)			
1.44.4	Repair manual (including mechanical and electrical schematics)			
1.45	The supplied manuals must include a minimum of two (2) hard copy paper manual for each required manual and the remaining set can be supplied in an electronic format (CD or DVD only).			
1.46	The supplier must provide the following operator and maintenance training:			
1.46.1	The operator training must cover all operation and programming of unit, and daily operator maintenance. The operator training must be for a minimum of 8 hours for up to 6 persons.			
1.46.2	The maintenance training must cover all regular maintenance requirements, preventative maintenance, diagnostics, controller operation, and general trouble shooting. The maintenance training must be for a minimum of 8 hours for up to 4 persons.			
1.47	FMF CB will be responsible to off load and move equipment into installation location. FMF CB will be responsible to ensure all services are supplied and connected to equipment. Supplier will be responsible for initial start up and commissioning of equipment, start up and commissioning time must not be considered as part of the operator or maintenance training requirements.			
1.48	The supplied unit must be supplied with an industry standard 12 month parts and labour warranty. The warranty period must be designated to begin upon completion of initial start-up, commissioning and training by supplier, and not from the delivery date of equipment.			

Item	Optional Requirements
2.0	Optional tooling as specified:
2.0.1	One (1) Suburban Tool Inc. compound angle plate model # CAP-46
2.0.2	One (1) pair Suburban Tool Inc. V-blocks model # VB-222-M-S0
2.0.3	One (1) Suburban Tool Inc. compound sine plate model # SPC-66-S1
2.0.4	One (1) Suburban Tool Inc. sine plate model # SP-66-S1
2.0.5	Two (2) Suburban Tool Inc. sine vises model # SV-337-S1
2.0.6	Two (2) Suburban Tool Inc. precision vices model # V-237-S1
2.0.7	Two (2) Suburban Tool Inc. precision ground steel angle plates model # AP-443-H
2.0.8	One (1) Suburban Tool Inc. precision ground steel angle plate model # AP-664-S1
2.0.9	One (1) Harig manual spin indexer model # 122-100

Statement of Requirements (SOR) - Surface Grinder – Rev 4 – 11/28/2014

Item	Optional Requirements
2.1	Optional precision toolmaker vise as specified: <ul style="list-style-type: none"><li data-bbox="233 302 1159 333">• Tolerances: All sides must be square and parallel within 0.0002 in. (0.005 mm)<li data-bbox="233 336 586 367">• Jaw Width: 2.9 in. (73 mm)<li data-bbox="233 369 683 401">• Jaw Opening Range: 4 in. (101 mm)