

KEENE STATE COLLEGE

Purchasing Office
Keene State College
229 Main Street
Keene, NH 03431-1601
Phone: (603)358-2493; 358-2494
Fax: (603)358-2495
Web Site: www.keene.edu/purchasing

This page MUST be faxed to the KSC Purchasing Office IMMEDIATELY!

BIDDER INFORMATION FORM

7/6/2012

Bid Number: 10368 - 0001

Due Date: 7/26/12 at Noon

Project Description: TOOLS & CMM– per attached specifications

Returning this form will indicate your intention on bidding and ensure we have correct information for future correspondence regarding this project.

The Information below applies to:

Will Bid ☐ Will Not Bid ☐
This bid only ☐ All bids ☐

(Please type)

Company Name: _____

Contact Person: _____

Email: _____

Address: _____

Please fax this page to: (603) 358-2495.

K E E N E S T A T E C O L L E G E

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Today's Date: 7/6/12

Bid Number: 10368-0001

Due Date: 7/26/12 at Noon

Project Description: TOOLS & CMM– per attached specifications

Request for Bid (RFP). This is not an order. The University System of New Hampshire reserves the right to reject any or all bids and to waive any formalities in the bidding.

Fax bids will NOT be accepted.

KSC Inclement Weather Policy:

It is the College's policy to declare curtailed operations when the most severe weather conditions are expected or experienced. Before coming to a bid opening during inclement weather, you may call the KSC purchasing office at 603/358-2493 to learn if the College is open or if curtailed operations are in effect. Any bid openings scheduled for a day when curtailed operations have been declared will be postponed until the next business day. All delayed bid openings will be at the same time as originally scheduled.

James B Draper III

Authorized Purchasing Signature

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Due Date & Time: 7/26/12 at Noon

Web Site: www.keene.edu /purchasing

**STATEMENT OF WORK
for the
Keene State College**

Project Description: TOOLS & CMM – per attached specifications

I. INTRODUCTION

A. Purpose

The Keene State College is requiring bids for a variety of Tools & CMM per the attached specifications, terms and conditions. Firms can bid on one or both schedules.

B. Contact(s)

Questions concerning this request for bid are to be directed to Jim Draper at (603) 358 - 2493.

C. Definition of Terms:

The University System of New Hampshire, Appendix A – General Terms and Conditions, and the KSC Building Standards are an integral part of this bid document and as such become a part of the overall agreement. All bidders are responsible to read, review and apply them to this project. All can be seen <http://www.keene.edu/purchasing/> Click on the Bid Information button on the left side of the page.

D. Background

KSC strives to conduct business in a sustainable manner. This is an effort to balance economic priorities with environmental health and human health. KSC will, when economically feasible, do business with companies that can further our sustainable objectives. We are interested in receiving environmental mission statements or any programs or policies that have to do with sustainable issues. These programs or policies can be, but are not limited to, reducing, reusing and recycling resources, disposal of organic and other solid waste, conservation efforts in regards to transportation, energy and water, disposal of hazardous waste, giving back to the community. Please include as part of your bid any pertinent information in reference to any sustainable practices of your company, if applicable.

All packing materials, boxes and debris must be removed from Campus after delivery and then recycled appropriately.

II. SCOPE OF WORK: Installation, Additional Terms & Conditions

TOOLS & CMM RFP #10368-0001

Keene State College is in the process of constructing a new Technology–Design & Safety building. This new state of the art facility will require very careful delivery and installation efforts. Attention to avoiding any damage to this facility is paramount.

Please bid on the attached description of Tools & CMM for bid #10368-0001.

All bids are sealed, to be opened in the Keene State College Purchasing Office, **7/26/12, at Noon.**

The items specified represent the type and quality the Institution expects to purchase.

Feel free to provide options with pricing for this specified equipment for our review.

Any/all alternates will only be considered if the Bidder provides a detailed and comprehensive comparison to the items specified showing that their products are equal or better and more cost effective than those shown in this RFP.

These CMM machine must be delivered, installed, tested and KSC representatives trained on the equipment.

The tools are F.O.B. Keene State College.

Please include all installation/delivery/set-up and training fees.

Please fully describe how you intend to complete all of these tasks.

The total costs to the Institution must be included with your bid responses.

All refuse; boxes and packaging materials must be removed from Campus after installation/delivery.

All work must be coordinated with the KSC Project Managers, Norman Fiske.

Please bid on those items your firm can supply.

All Bidders must submit the attached prices pages, priced by item and then as a total cost to be considered for bid award..

The College reserves the right to award this bid per item or as a package, whichever is in the best interest of the Institution.

Please reference bid #10368-0001 on the outside of your return envelopes.

Please fully detail any/all terms and conditions that should be considered for bid award.

A certificate of insurance must be on file in the Keene State College Purchasing Office prior to Campus delivery.

The College would like to have all items delivered/installed **ASAP**.

The delivery/installation date will have an effect upon bid award.

Installation and Delivery:

- Any/all items must be delivered/installed during normal business hours, i.e. 8AM – 4:30PM
- Any deviations from this schedule must be approved in writing prior to delivery/installation.
- Include installation/delivery fees in bid pricing.
- Please provide a detailed plan on how you intend to accomplish this work, (i.e. labor force, estimated hours, name of installation manager, rigger firm, references, etc.).

III. REQUEST FOR RFP INSTRUCTIONS/INFORMATION

A. Overview of RFP Process/Timeline

1. Bid packages to be posted to the KSC Purchasing website by July 6, 2012.
2. Questions concerning this RFP should be e-mailed to Jim Draper at jdraper@keene.edu. Questions will be accepted until 7/13/12 at Noon.
3. Bids are due no later than July 26, 2012 at Noon. Bids will be opened and read aloud at that time. Bidders and the general public are welcome to attend the opening. Fax bids will NOT be accepted. Late bids will not be considered.
4. All bids will be read, reviewed and evaluated by the evaluation committee which will consist of members from KSC.
5. Finalists may be asked to come to campus to discuss their bids further with the evaluation committee.

B. General Instructions

1. Contact with or visitation to personnel at any campus regarding this RFP may not be made by bidder's personnel without the prior approval of the KSC Agent/Manager or his/her designee.
2. Any oral information received from the evaluation committee or any other KSC personnel will not alter or change this RFP.
3. Bids may be hand delivered or mailed.
4. **Submit one original and a CD or Flashdrive** in a sealed package(s) by 7/26/12 at Noon. Package(s) should be clearly marked "RFP #10368-0001. One package must be marked "Official Bid" and the rest should be marked "Copy".
5. By responding to this RFP the bidder acknowledges that s/he has read and understands the information contained within this RFP and has taken the contents into account in the preparation of the bid amount(s) as well as any alternate bid prices.
6. The cost for developing the bids shall be absorbed by the bidder.
7. KSC considers all terms and conditions to be accepted unconditionally by a contractor unless written exceptions are made to specific clauses of this specification. Such exceptions may, however, be used as a basis for rejection of the bid.
8. Failure of a bidder to follow the instructions of the RFP may result in rejection of the bid.

C. Evaluation Committee Rights/Rules of Conduct

1. The evaluation committee expressly reserves the right to reject any and all bids without penalty, to waive all technicalities and irregularities and deviations of bids from this RFP, to decide whether a bid does or does not substantially comply with the requirements of this RFP, to be the final judge as to which is the overall bid, and to award a contract to the contractor whose bid it considers to be in the best interest KSC.
2. The evaluation committee reserves the right to award a contract without discussion or negotiation if it determines that such an award will result in fair and reasonable prices and would be the most advantageous to KSC.
3. The evaluation committee will treat all bids received prior to the opening date as confidential. In no event shall the committee be liable for any breach of confidentiality. All materials submitted in response to this RFP, with the exception of any materials that both the bidder and committee deem as confidential (and so marked by the bidder) will become the property of the committee and will become part of the public record. Pricing may not be considered confidential information.
4. The content of the evaluation committee's working papers and discussions relating to the bids will be considered confidential.
5. The evaluation committee will evaluate all bids against the evaluation criteria listed in this RFP and determine which contractor will best meet the needs of KSC.
6. USNH reserves the right to negotiate simultaneously with more than one bidder.

D. Evaluation Factors

1. Bid
Each bid should address all sections of this request for bid. The submission must be in sufficient detail to allow the evaluation committee the ability to evaluate the bid.
2. Evaluation criteria will be based on, but not necessarily limited to the following factors:
This bid will be decided based upon:
 - A) Adherence to bid specifications
 - B) Pricing and delivery
 - C) Ability to meet the overall needs of the College
 - D) References

E. Terms and Conditions (ALSO SEE APPENDIX A – on website)

1. Bidder shall guarantee their pricing structure for a specific period of time. If pricing changes, contractor must request increase in writing and all increases must be documented.

F. Termination

1. The Owner may without prejudice to any right or remedy, and after giving the contractor and his sureties written notice, terminate the contract forthwith if any of the following conditions (a.-d.) exist:
 - a. If the contractor should be adjudged bankrupt;
 - b. If the contractor shall make a general assignment for the benefit of his creditors, or a receiver should be appointed over the property;
 - c. If the work under this contract shall be abandoned or for deficiencies not corrected within a reasonable time; and,
 - d. If this contract or any part hereof shall be subcontracted without previous written consent of KSC and the Owner.

G. Rights Afforded To Both Parties

1. Each party shall indemnify and hold the other party and its affiliates and their trustees, officers, directors, employees and agents harmless from and against any and all liabilities, claims, damages, awards, judgments, costs and expenses (including reasonable attorneys' fees) arising out of its negligent acts or omissions of the negligent acts or omissions of its employees, agents, contractors or affiliates. This section shall survive termination of the contract.
2. If, because of riots, war, public emergency or calamity, fire, earthquake, Acts of God, government restriction, labor disturbance or strike, business operations at the University/ College shall be interrupted or stopped, performance of this contract, with the exception of moneys already due and owing shall be suspended and excused to the extent commensurate with such interfering occurrence, and the expiration date of the contract may be extended for a period of time equal to the time that such default in performance is excused.
3. Choice of law and legal remedies: The contract shall be governed by and construed in accordance with the laws of the State of New Hampshire. In the event any provision of these terms and conditions shall be declared illegal or unenforceable by a competent court within this jurisdiction the remaining provisions shall remain in full force and effect.
4. This contract is one of specialized service. Neither party may assign this contract without the written consent of the other party; and any assignment attempted without such consent shall give the other party the immediate right to cancel this contract except that the contractor may assign this contract with the consent of Owner to any subsidiary or affiliate of the contractor or any corporation into which the contractor or its successor may be merged, converted or consolidated, or which may otherwise succeed to substantially all of its assets; but the contractor shall during the term hereof remain liable for its obligation hereunder.

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Bid Number: 10368-0001

Due Date & Time: 7/26/12 at Noon

BIDDER STATEMENT OF QUALIFICATIONS

*****FAILURE TO REPLY MAY RESULT IN DISQUALIFICATION OF BID*****

1. Business Name: _____

2. Addresses, Telephone Numbers and Fax Numbers (800/888 if available) for:

a. Principal Place of Business:

b. Principal Mgr. or Sales Rep:

c. Bids:

d. Order Placement:

e. Accounts Receivable:

3. Federal ID/SSN Number _____

4. Are you registered with the NH Secretary of State? Yes ☐ No ☐ Date _____
Do you have a current Certificate of Authority? Yes ☐ No ☐ Date _____

5. General Classification of Business or Character of Work Performed: _____

6. Doing Business as:

☐ Contractor
☐ Dealer

☐ Manufacturer
☐ Individual

☐ Wholesaler ☐ Distributor
☐ Partners ☐ Corporation

in State of: _____

7. Year Organized: _____

8. Number of years engaged in this business under present business name

If another name, supply details: _____

9. Standard Conditions of Order: a. Minimum \$ Amount, if any: \$
 b. Terms: _____ c. F.O.B. _____

10. If a contractor, what categories of work do you perform with your own forces?

11. Major current projects (Include name of project, owner, contract amount, percent complete, and scheduled completion date. Attach separate sheet if necessary.)

12. List any projects completed for the University System within the last five years. (Include name, gross amount, completion date, and owner representative.)

13. Has this business ever defaulted on a contract? _____ If "yes", state circumstances.

14. Has this business ever failed to complete any project awarded to it? _____ If "yes", state circumstances

15. List your major equipment available.

16. List and provide brief resume of key personnel available to manage and supervise.

17. Trade References.

18. List bank with which your firm does business. Do you grant permission to a responsible KSC Administrator to contact these banks? Yes ☐ No ☐ Banks: _____

19. Name of bonding company and address of agent.

20. If submitted with a bid, list projects that are similar to this project and/or the major projects completed by this business in the past five years. (Include name of project, owner, contract amount, and completion date. Attach separate sheet if necessary.)

21. Number of full-time employees _____ AA/ EEO Employer? _____

22. Does your Concern meet any of the following US Government criteria?

a. _____ Minority enterprise Concern. A minority enterprise is one that is at least fifty percent owned by minority group members, or in the case of publicly owned businesses at least fifty-one percent of the stock is owned by minority group members. (If checked, indicate ethnic group below)

- _____ Black American (not of Hispanic origin)
- _____ Asian American
- _____ Hispanic American
- _____ American Indian/Alaskan Native

b. _____ Women Owned and Operated Concern. A business that, regardless of ethnic background is at least fifty percent owned by women members, or in the case of publicly owned businesses at least fifty-one percent of the stock is owned by women.

c. _____ Small Business Concern. A business independently owned and operated, not dominant in its field and meets employment and/or sales standards developed by the Small Business Administration.

d. _____ Labor Surplus Area Concern. A business located in an area (designated by the US Government Department of Labor) in which unemployment exceeds the national average.

23. While furnishing goods and services to any unit of the University System of New Hampshire pursuant to any purchase order, contract, or agreement, whether written or oral, the undersigned certifies that his/her firm or organization will comply with the provisions of Executive Order 11246, as amended, Section 402 of the Vietnam Era Veterans Readjustment Act of 1974 and Section 503 of the Rehabilitation Act of 1973, as well as all regulations and orders of the Secretary of Labor pursuant to these provisions. Further, the undersigned certifies that his/her firm or organization will incorporate by reference in each contract, purchase order or agreement with the University System meeting the appropriate jurisdictional limits the equal employment and affirmative action clauses contained in 41 CFR 60-1.4, 41 CFR 60-250.4, and 41 CFR 60-741.4. The undersigned also certifies that

employees of the firm or organization have been instructed not to engage in any acts of sexual harassment against students or employees of the University System.

Will this organization act as guarantor of the contract for installation? _____

I certify the above information to be correct and authorize the University System of New Hampshire to investigate all facts contained herein, including facility visitation.

Name of organization: _____

By: _____ Date: _____

Printed Name: _____

Title: _____

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INSURANCE REQUIREMENTS

1. The contractor shall purchase and maintain for the life of the contract the insurance indicated below:

- a. Workers' Compensation and Employer's Liability Insurance for all his employees to be engaged on Work in the project under the Contract.
- b. Commercial General Liability, including all coverages outlined in paragraph four (4).
- c. Comprehensive Auto Liability including all coverages outlined in paragraph four (4).
- d. Professional Liability as outlined in paragraph four (4).
- e. Umbrella/Excess Liability as outlined in paragraph four (4).

2. Owner's Protective Liability Insurance

When required by Section 4, the Contractor shall obtain Owner's Protective Liability Insurance. Evidence of this policy covered under this paragraph shall be delivered to the Owner prior to starting any operations. The policy is to cover the interest of engineers and all authorized personnel of the Owner.

3. Property Insurance

- a. Builders Risk coverage or comparable coverage, if required in Section 4, shall insure all parts of the Work comprising new buildings, structures, paths, roadways, utility and landscape structures, utility distribution systems and the like, and all additions to or extensions of existing buildings, structures and systems. If the Contract Work also includes renovation within an existing structure, then this portion of the Work shall also be insured and so described and endorsed to the policy. Coverage shall be written on an "All Risk" basis. The amount of coverage shall be the full value of the Work. The policy or policies shall be in the names of the Owner and Contractor, as their interest may appear, shall provide for inclusion as insured of the names of all other contractors,

Subcontractors, Sub-subcontractors and others employed on the premises, and shall stipulate that the insurance company or companies shall have no right of subrogation against any of the insureds for any portion of the Work. Coverage shall be on all Work in place, stored on the Site, stored off the Site as provide in Section 4, or in transit. Contractor shall provide a complete copy of this insurance policy to Owner

prior to beginning the Work.

- b. Renovation Risk coverage, if required by Section 4, shall insure all parts of existing buildings, structures, paths, roadways, utility and landscape structures, utility distribution systems and the like within or in connection with which the Work is performed, on a flat or no coinsurance basis.

In addition, the "other insurance" clause shall be deleted. Coverage shall be written on an "All Risk" basis. The amount of such coverage shall be as required in Section 4. The policy or policies shall be in the names of the Owner and Contractor, as their interests may appear, shall provide for the inclusion as insureds the names of all other contractors, Subcontractors, Sub-subcontractors and others employed on the premises, and shall stipulate that the insurance company or companies shall have no right of subrogation against any of the insureds for any portion of the Work. Coverage shall be on all Work in place, stored on the Site, stored off the Site for which the Owner holds title, and in transit if title is held by the Owner. Contractor shall provide a complete copy of the insurance policy to Owner prior to beginning the Work.

4. Coverage

The Contractor shall purchase those coverages identified below by an "X" in the column titled "Required".

Required	Category	Limits of Liability in Thousands (000)	
X	a. Commercial General Liability		
X	Premises-Operations	General Aggregate	2,000
X	Products/ Completed Operations	Products-Comp. Ops Agg.	1,000
	Explosion, Collapse and Underground Hazard	Personal & Advertising Injury	1,000
X	Contractual Insurance	Each Occurrence	1,000
X	Broad Form Property Damage	Fire Damage (any one fire)	50
X	Independent Contractors	Medical Expense (any one person)	5
	Personal Injury with Advertising Injury		
X	b. Automobile Liability		
X	Owned	Bodily Injury and Property Damage	
X	Hired	Combined Single Limit	1,000
X	Non-owned		
	c. Professional Liability		
	Each Claim		1,000
X	Aggregate		1,000
	d. Excess Liability	This coverage can supplement limits in item a, b, and e to satisfy required Emits	
	Umbrella Form	Bodily Injury and Property Damage	
	Other than Umbrella	Combined Single Limit and Aggregate	
X	e. Workers' Compensation		
X	Workers' Compensation	Statutory	
X	Employer's Liability	\$100 (each accident)	
		\$500 Disease, Policy Limit	
		\$100 Disease, Each Employee	
	f. Other		
	Owner's Protective Liability	Bodily Injury and Property Damage	
	Builder's Risk/Or	Combined Single Limit	1,000
	Comparable Coverage in an Installation Floater		

5. Conditions

- a. The University System of New Hampshire, its trustees, officers and employees will be listed as additional insured on all policies, where applicable.
- b. Subcontractors and sub-subcontractors must carry all insurance specified in Section 3 and 4 or Prime Contractor must insure activities of subcontractors and sub-subcontractors in his own policy.
- c. Contractor shall not commence the Work under this Contract until insurance required hereunder has been obtained and such insurance has been approved by the Owner, nor shall the Contractor allow any subcontractor or sub-subcontractor to commence Work on subcontract or sub-subcontract until all required insurance has been obtained and approved. Insurance required under this article shall be carried during the life of the Contract and for not less than one year thereafter.
- d. A Certificate of Insurance, Acord 25 form, or other comparable form, shall be filed with Owner. Any Certificate filed with Owner and found incomplete or not according to form will be returned as unsatisfactory. Rejected certificates of insurance and copies of policies shall be corrected as necessary and resubmitted until approved.
- e. Every policy shall contain an endorsement stating that insurance company will not, prior to completion of the Project or any policy expiration date shown on the Policy or Certificate, whichever occurs first, terminate the Policy or change any coverage therein without first mailing, by registered mail, written notice of such action at least thirty (30) days prior to termination or change, to the Owner at whose request the Policy and Certificate are issued.
- f. The Contractor agrees to assist in every manner possible, in reporting and investigation of any accident, and to cooperate with all interested insurance carriers in handling any claim, by securing, giving evidence, and obtaining attendance of witnesses, as required for any claim, or suit.
- g. The required insurance shall be written by a company licensed to do business in the State of New Hampshire or on the New Hampshire Insurance Department's approved list of Non-Admitted Carriers.
- h. The title of the buildings and equipment shall remain with the University and property insurance will be the responsibility of the University. The Contractor assumes responsibility for loss or damage to all personal property brought on the University premises.
- i. The contractor assumes full responsibility and liability for losses, expenses, damages, demands and claims in connection with any injury, including death, or alleged injury, or damage, or alleged damage, to property sustained or alleged to have been sustained in connection with or to have arisen out of the

performance of work by the contractor, its agents, servants and employees or subcontractors, including losses, expenses or damages sustained by the University and shall indemnify and hold harmless the University, its trustees, officers, and employees, and the agents, servants, and employees of the foregoing, from any and all such losses, expenses, damages, demand and claims, and shall, to the extent permitted by law, defend any suit or action brought against them, or any of them, based upon any such alleged injury or damage, and shall pay all damage's costs, and litigation, judgments, losses, or expense, including reasonable attorney's fees which the University, its trustees, officers, and employees, and its successors and assignees, may incur or sustain by reason of the failure of the selected management company to fully perform and comply with the terms and obligations of any Contract resulting from this Request for Bid (RFP) or Request for Proposal (RFP).

- j. To the full extent permitted by law the Contractor agrees to indemnify, defend and save harmless the Owner and its agents and employees from and against any and all claims, damages, losses or expenses (including but not limited to court costs and attorneys fees) by reason of liability imposed by law, Contract or otherwise because of (1) bodily injury, including death, at any time resulting therefrom, sustained by any person or persons or (2) damage to property, including loss of use thereof, arising out of or resulting from Work performed by the subcontractors, sub-subcontractors, suppliers, or materialmen.
- k. Should the project specifications and resulting Contract be based on A.I.A. documents A101 and A201, the insurance provisions of Article 11 of A201 shall apply to this Contract, except to the extent that such provisions are inconsistent with this document, in which event the provisions of this document shall govern. To the extent that they are consistent with or are not displaced by this document, the provisions of Article II of A201 shall apply to this Contract.

DEBARMENT: The firm certifies, by submitting this Statement of Qualifications, that neither it nor its principals are presently debarred, suspended, proposed for debarment, have been declared ineligible, or voluntarily excluded from participation in this transaction (contract) by any governmental department or agency. If the firm cannot certify this statement, attach a written explanation for review by the University.

I hereby certify the above information to be correct and authorize the University System of New Hampshire to investigate all facts contained therein, including facility visitation.

Dated at _____ this _____ day of _____, _____.

Name of

Organization

By :

Title:

State of _

County of

_____, being duly sworn, deposes and says that he
is _____ of _____ and that the
(Title)(Name of Organization)

answers to the foregoing questions and all statements contained therein are true and

correct. Sworn to before me this _____ day of _____, _____.

Notary Public

My commission expires _____.

END OF DOCUMENT

OWNER SUPPLIED PRICE TABLE
ALL BIDDERS MUST COMPLETE & SUBMIT ALL PRICE PAGES

Project Description: DELIVER/INSTALL TOOLS & CMM

Bid Number: 10368-0001

Due Date & Time: at 7/26/12 at Noon

THIS BID IS VALID FOR _____ DAYS

VENDOR _____

CONTACT PERSON _____

TELEPHONE NO. _____

FAX NO. _____

TERMS _____

FOB: DESTINATION, PP & ALLOW - INSTALLED

AUTHORIZED SIGNATURE _____

KSC RFP#10368-0001

SCHEDULE A - CMM

4.5.4 SF

Coordinate Measuring Machine



4.5.4 SF CMM SYSTEM SUMMARY
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MACHINE

The 4.5.4 SF CMM from Sheffield offers a robust dimensional inspection capability in a fully automated and economical CMM designed and built to excel in harsh manufacturing environments, shoulder-to-shoulder with machine tools. Linear bearings and heavy-duty components provide you with a highly reliable, low maintenance measurement solution.

- 4.5.4 SF Metrology Frame
- UMP-360 Controller
- Universal Jogbox Base Unit
- TESASTAR® touch trigger manual swivel integral probe head and probe
- Stylus Kit #103
- Probe Qualification Sphere
- Demonstration Block

COMPUTER & SOFTWARE SYSTEM

The computer and software offering have been optimized for walk up and measure and Single Touch Interface operation. Computer and software upgrades are available for part programming environments.

- 15" LCD Touch Screen
- PC-DMIS CAD

SERVICE & SUPPORT

- Installation
- Shipping to Keene, NH
- Onsite Performance Verification¹
- Online Help Files, PC-DMIS
- System User's Manual on CD
- PC-DMIS CAD Training (one Student for four Days)²
- One Year System Warranty with Telephone Applications Support³

¹ Upon completion of the measuring system installation, a technician will verify performance to either ISO or ASME B89 standards.

² Software training credits are valid for one year from the date of shipment and do not include travel and living expenses of attendees

³ Successful completion of the basic PC-DMIS software training is prerequisite for telephone applications support.

INCLUDED IN PACKAGE

UMP-360 Control System

Controller electronics supports touch-trigger capability and temperature compensation models. The UMP-360 comes in a compact IP-32 rated electrical cabinet that is mounted to the back of the machine.

Universal Jogbox (UJB) Base Unit

Hexagon's Universal Jogbox is our next generation handheld input device improved ergonomics, reliability, and a touch screen user interface for maximum flexibility. The base unit can be optionally upgraded to include DMIS interface that allows the user to directly interact with PC-DMIS, eliminating much of the time consuming back and forth to the PC.



with
a PC-

TESASTAR

The TESASTAR is a manual swiveling unit with the probe and head integrated into one compact unit. The TESASTAR has an M3 thread stylus interface.

Styli Kit #103

The kit contains the following M3 threaded components:

- (Qty. 1) 4 mm $\varnothing$ x 31 mm ball stylus
- (Qty. 1) 2 mm $\varnothing$ x 21 mm ball stylus
- (Qty. 1) 10 mm extension
- (Qty. 1) 20 mm extension
- (Qty. 1) 5 way stylus center.

Monitor

15" LCD Touchscreen (1024x768)

Probe Qualification Sphere

25 mm diameter ceramic qualification sphere equipped with a 30 degree angled support, for accessibility. The 140 mm angled support is assembled with an extra tall mounting base for machines with greater daylight between the probe and work surface. Assembly stands a total height of 264 mm from the work surface.

TESASTAR-i-m8, TESASTAR-mp, and Stylus Kit #7

TESASTAR-i-m8

The TESASTAR-i-m8 is a manual indexable probe head with an M8 probe interface. TESASTAR-i-m8 can be manually rotated to 168 indexed positions 15° increments in two axes without the requirement for recalibration of the tip.

TESASTAR-mp

The TESASTAR-mp is an M8 threaded probes with a magnetic kinematic mount that allows easy force modules changes, either an automatic change rack. Includes one standard and one medium



Included



in

manually or with force module.

TESASTAR Stylus Kit #7

M2 threaded stylus kit includes:

(Qty. 2) 3 mm x 10 mm Ball Stylus

(Qty. 2) 2 mm x 20 mm Ball Stylus

(Qty. 1) 5 Way Star Stylus

(Qty. 6) 2 mm x 10 mm Ball Stylus

(Qty. 2) 1 mm x 10 mm

(Qty. 2) 4 mm x 10 mm Ball Stylus

(Qty. 1) 3 mm x 20 mm Ball Stylus

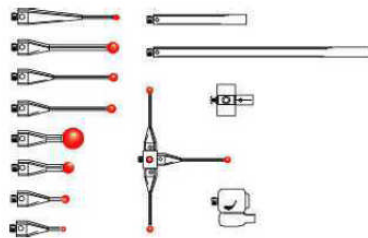
(Qty. 1) 4 mm x 20 mm Ball Stylus

(Qty. 1) 1 mm x 20 mm Ball Stylus

(Qty. 1) Swivel 10 mm extension

(Qty. 1) 20 mm extension

(Qty. 1) 5 way center



SOFTWARE UPGRADES AND OPTIONS

Upgrade from PC-DMIS PRO to PC-DMIS CAD and Autopath**Included**

PC-DMIS CAD lets customers create inspection programs and evaluate measurement results taking full advantage of their CAD models. The software provides the tools needed to work with CAD files ranging from simple 2D drawings through complex 3D solid models. Includes the PC-DMIS Autopath module – exciting new measurement software technology that automatically optimizes feature measurement and probe path creation. Includes PC-DMIS CAD training which is a five day class for one operator at a Hexagon Metrology Training Facility (travel expenses excluded).

DataPage+ Statistical Process Control Software**INCLUDED**

The days when using SPC was optional, when it was something that might be worth investigating someday are long gone. Today, any company that wants to be competitive knows that SPC is the most useful processes control tool available. DataPage+ is a complete and powerful SPC package and offers a complete set of tools for analyzing data and generating reports that meets the needs of global manufacturers. DataPage+ grows as you grow, manages high volumes of data, offers a comprehensive set of reporting tools, and turns raw data into mission critical information.

PC-DMIS Direct CAD Interfaces (DCIs)

Included

PC-DMIS DCIs let customers directly access native CAD models. A DCI eliminates the need to translate CAD data. Instead, it actually uses the CAD system's native mathematical routines to display and manipulate the model. It also uses this model to generate part programs, evaluate measurement results and generate inspection reports.

DCIs are available for the following CAD systems and requires a CAD seat license.:

- o SolidWorks

SPECIFICATIONS

According to ISO 10360-2:2001:

MPEP: 3.2

MPEE: $3.2 + 3.4 \frac{L}{1000}$

According to ASME B89.4.1b-2001:

R: 2.0

Av[L]: 7.0 [300]

where,

- MPEP is size measurement error in μm , where L is variable length in mm;
- MPEE is probing error in μm ;
- R is repeatability in μm ;
- Av [L] is volumetric accuracy in μm and L is ball bar length in mm.

Accuracy performance specifications valid under the following thermal conditions:

- Ambient temperature: 18-22°C;
- Maximum temporal variation: 2 °C/h and 10°C/d;
- Maximum spatial variation: 1°C/m horizontal and vertical.

Probing configurations used for performance tests:

- TESASTAR, TESASTAR-i: 3 mm tip, 21 mm stylus length;
- TESASTAR-p: 4 mm tip diameter, 10 mm stylus length;
- TESASTAR-mp, TP20: standard force module, 4 mm tip diameter, 10 mm stylus length.

Installation site vibration must be less than 2 μm maximum horizontal and vertical amplitude over 5-50Hz to ensure stated performance levels.

For weight and dimensional information, please consult the products Technical Data Sheet or Site Preparation Manual.

Dynamic Specifications	
Maximum 3D Velocity	433 mm/s
Maximum 3D Acceleration	1732 mm/s ²

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SCHEDULE A – CMM PRICE PAGE

- 1) Price for Unit as specified: _____
- 2) Installation/Delivery Total Costs: _____
- 3) Training Costs: _____
- 4) Total Costs - ALL: _____

Please fully describe and cost out:

- A) Warranty & Service
- B) Training Program
- C) Any/all machine options
- D) Any/All additional costs to the Institution

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SCHEDULE B – TOOL PRICE PAGES

Item	Part Description	Quantity	Price Each	Price Total
1	Cat40 x ER25 x 2.5 Collet Holder	9		
2	ER25 Collet set (16) pcs. 1/16" - 5/8"	3		
3	Cat40 Shell Mill Driver 1.00" dia. x 2.00" Gage Length	1		
4	Cat40 1/8" x 2.00" Gage EM Holder	3		
5	Cat40 1/4" x 2.00" Gage EM Holder	3		
6	Cat40 5/16" x 2.00" Gage EM Holder	3		
7	Cat40 3/8" x 2.00" Gage EM Holder	3		
8	Cat40 1/2" x 2.00" Gage EM Holder	3		
9	#4 Live Center, General Purpose (Royal P/N: 10854)	1		
10	1 Straight Shank Keyless Drill Chuck (Royal P/N: 73580)	1		
11	CP130-5/8 JT #33 Drill Chuck	1		
12	Ingersoll Boring Bar ING3672538	1		
13	Ingersoll Turning Boring Bar ING3602736	1		
14	Ingersoll T TYPE HOLDER ING5519912	10		
15	Ingersoll Turning Insert ING5520806	10		
16	Ingersoll Turning Insert ING5521057	10		
17	ER25 Collet Wrench	1		
18	8" 3 Jaw Power Chuck	1		
19	8" 4 Jaw Scroll Chuck	1		
20	Kurt D688 - 6 Inch Wide - Milling Vise	3		
21	#4 to #3 Morse taper Adapter	1		
22	#4 to #2 Morse taper Adapter	1		
23	72 Stations			
24	Stor-Loc CNC Mini Tool Caddy - CAT40	1		
25	CAT40 Tool Changing Station - Bench Top	1		
	TOTAL FREIGHT/SHIPPING			
	TOTAL ALL COSTS			