

Delgado Community College
Purchasing Department
501 City Park Avenue, Bldg 37
New Orleans, Louisiana 70119
(504) 762-3027

Invitation to Bid

Bid Name:
R0020134 – 1100M CNC Mill

Due By & To Be Opened On:
June 9, 2020 at 1:00 PM CST

Contact Person:
Wendy Boesch
Senior Buyer
(504) 762-3031

NAME OF COMPANY

ADDRESS

CITY, STATE, ZIP

PHONE NUMBER FAX NUMBER EMAIL

SIGNATURE OF COMPANY REPRESENTATIVE

NAME (PRINTED) & TITLE OF COMPANY REPRESENTATIVE

**** This form must be completed and submitted with your bid**

I. GENERAL INFORMATION

1. Any questions regarding this Invitation to Bid shall be in writing and shall be addressed to Wendy Boesch at the following address:

Delgado Community College
O'Keefe Administration Building
501 City Park Avenue, Building 37
New Orleans, La 70119
Email: wboesc@dcc.edu
Fax: (504) 762-3089

Any additional information resulting from such inquiries shall be distributed to all bidders via addenda. The College will not be responsible for any other explanation of the documents.

2. Sealed bids may be submitted by mail or in person. Mailed bids and hand carried bids shall go to the address in item #1. **Bids are to be delivered to the attendant at the front Desk.** The bid name and number shall be on the outside of the packaging, including express mail. Please note that express mail or USPS carriers may not deliver directly to 501 City Park Avenue. The bidder/proposer is solely responsible for ensuring that its courier service provider makes inside deliveries to 501 City Park Avenue.

3. Each bidder is solely responsible for the accuracy and completeness of its bid. Errors or omissions may be grounds for rejection, or may be interpreted in favor of the College.

4. Each bidder is solely responsible for the timely delivery of its bid. Delgado Community College will not be responsible for any delays in the delivery of bids, whether delayed in the mail, or for any reason whatsoever.

5. Only the issue of a purchase order or a signed acceptance of a proposal constitutes acceptance on the part of the College.

6. Assuming there is no prompt payment discount provision, payment will be made within 30 days from receipt of products in satisfactory condition, or within 30 days from receipt of invoice, whichever is later.

7. Proposer or bidder, contractor, etc. certifies, by signing and submitting a proposal for \$25,000 or more, that their company, any subcontractors, or principals are not suspended or debarred by the General Services Administration (GSA) in accordance with the requirements in OMB Circular A-133. (A list of parties who have been suspended or debarred can be viewed via the internet at www.epls.gov.)

II. BID FORM
R0020134 – 1100M CNC Mill

SCOPE OF WORK:

The successful bidder shall furnish and deliver the items listed below to Delgado Community College's Sidney N. Collier Site located at 3727 Louisa Street, New Orleans, LA 70129.

All Items must work with the main component 1100M CNC Mill or equivalent.

LIST OF ITEMS:

No.	Qty	UOM	Item & Model/Part No	Model/ Brand Bid	Unit Price	Total Price	Delivery ETA
1)	1	EA	1100M CNC Mill / Tormach Item # 37752 or equivalent ** Must also include a PathPilot Controller / Tormach Item # 38245 & 1100M Machine Owners Kit / Tormach Item # 38937 or equivalent, Please notate if other parts requested are included with your Controller.				
2)	1	EA	1100M Enclosure Kit / Tormach Item # 37549 or equivalent.				
3)	1	EA	Manual Oil Pump / Tormach Item # 38953 or equivalent				
4)	1	EA	1100M Stand / Tormach Item # 39129 or equivalent ** Must also include or equivalent: 1100M Chip Tray / Tormach Item # 37545				
5)	1	EA	Flood Coolant Kit, 1/8hp / Tormach Item # 38881 or equivalent				
6)	1	EA	Lifting Bar Kit / Tormach Item # 31446 or equivalent				
7)	1	EA	Controller Arm / Tormach Item # 38791 or equivalent				
8)	1	EA	1100M Automatic Tool Changer (ATC) / Tormach Item # 38400 or equivalent ** Must also include or equivalent: 1100M Power				

No.	Qty	UOM	Item & Model/Part No	Model/ Brand Bid	Unit Price	Total Price	Delivery ETA
			Drawbar Kit / Tormach Item # 39116				
9)	1	EA	DURKUT DK-9000B Coolant – 1 Gal. /Tormach Item # 37289 or equivalent				
10)	1	EA	TTS CNC Operator’s Set with Tool Assistant Set / Tormach Item # 32284 or equivalent				
11)	1	EA	5” CNC Vise / Tormach ITEM # 31759 or equivalent				
12)	1	EA	2pc Vise Alignment Keys with screws for 4” & 5” CNC Vise / Tormach Item # 31789 or equivalent				
13)	1	EA	Electronic Tool Setter / Tormach Item # 31875 or equivalent				
14)	1	EA	Metric Ball Replacement Tip for Haimer Zero Master/3D Sensor / Tormach Item # 31993 or equivalent				
15)	1	EA	Digitizing Probe Kit / Tormach Item # 31858 or equivalent				
16)	1	EA	Fogbuster Coolant Kit, 230 Vac for 1100M / Tormach Item # 38396 or equivalent				
17)	1	EA	Machine Way Oil (1 Gallon) / Tormach Item # 31386 or equivalent				
18)	1	EA	End Mill Kit for Steel #1 /- Tormach Item # 37441 or equivalent				
19)	1	EA	End Mill Kit for Aluminum #1 / Tormach Item # 37377 or equivalent				
20)	1	EA	Jog Shuttle Controller / Tormach Item # 30616 or equivalent				
21)	1	EA	Waterproof Mini Keyboard / Tormach Item # 38437 or equivalent				

No.	Qty	UOM	Item & Model/Part No	Model/ Brand Bid	Unit Price	Total Price	Delivery ETA
22)	1	EA	Waterproof Mouse / Tormach Item # 38722 or equivalent				
23)	1	EA	Touch Screen Kit 17" (TD) / Tormach Item # 35575-DISC or equivalent				
24)	1	LOT	Shipping/Handling/Freight				

TOTAL BID AMOUNT OF ALL LINE ITEMS: _____

NOTE: All shipping, handling, setup, or any other charges necessary for the provision and delivery of these goods and/or services must be included in your bid. The College will not pay for any charges invoiced other than the unit price as stated on the bid.

By signing below, the Vendor/Contractor agrees that he/she complies with all bid requirements and special conditions as stated in the bid and has reviewed and received any and all addenda if applicable.

Signature _____

****Bid must be submitted on this form***

III. SPECIAL CONDITIONS

1. Delgado Community College of the State of Louisiana is an equal opportunity employer and looks to its contractors, subcontractors, vendors, and suppliers to take affirmative action to effect this commitment in its operations.

All bids must be submitted on the form(s) furnished for this purpose and must be filled out in ink or typewritten and signed in ink. Do not erase, correct, or write over any prices or figures necessary for the completion of this bid proposal. If any corrections are necessary, each must be initialed by bidder. Failure to comply with these requirements may cause your bid to be disqualified.

A response to a bid invitation is our only indication of your interest in college business. Failure to respond to six (6) consecutive bid invitations may cause your name to be removed from the bidders' list.

Effective September 1, 1991, in accordance with Act 1029 of the 1991 Regular Legislative Session, Delgado Community College will not be responsible for any sales tax, either state or local.

Effective August 15, 1997, in accordance with L.R.S. 39:1594 (Act 121), the person signing the bid must be:

- a) A current corporate officer, partnership member or other individual specifically authorized to submit a bid as reflected in the appropriate records on file with the Secretary of State; or
- b) An individual authorized to bind the vendor as reflected by an accompanying corporate resolution, certificate, or affidavit.

By signing the bid, the bidder certifies compliance with the above.

All deliveries shall be made FOB Destination to the College unless otherwise specified by the College. All freight charges are to be clearly stated on the bid form. The College will not be responsible for freight charges not clearly stated as a part of this bid.

Delgado Community College reserves the right to reject any and all bids and to waive any informality.

It shall be distinctly agreed and understood that the price quoted must be a firm price, and not be subject to change at time of the shipment of goods or delivery of services.

2. All items delivered shall be subject to inspection as to grade and/or quality. If any item is inspected and fails to meet the specifications, the delivery already made will be held for the Vendor's disposition or returned to the Vendor via Freight Collect. If the Vendor fails to make satisfactory replacement within a reasonable time as determined by the College, the College reserves the right to cancel the item and to purchase it elsewhere.
3. If item(s) or services bid do not fully comply with specifications, including brand and/or product number, bidder must state in what respect the item(s)/services deviate. Failure to note exceptions on the bid form will not relieve the successful bidder from supplying the actual products or services requested.
4. The College reserves the right to award the above items separately, grouped, or on an all-or-none basis, and to reject any or all bids and to waive any informalities including technicalities in specifications that preclude competition.

5. Any manufacturer's names, trade names, brand names, or catalog numbers used in the specifications are for the purpose of describing and establishing general quality levels. Such references are not intended to be restrictive. Bids will be considered for any brand that meets or exceeds the quality of the specifications listed for any item. Vendor must state the brand/model he or she is bidding on each item.

It shall be the sole responsibility of the Vendor to prove equivalency. Vendor shall submit with the bid all illustrations, descriptive literature, and specifications necessary to determine equivalency. Failure to do so may eliminate your bid from consideration. The decision of the College as to equivalency shall be final.

6. If a vendor wishes to submit an alternate bid in addition to the brand/model requested, he or she may submit one (1) alternate bid. The alternate bid must be a separate submission, must be clearly marked as an alternate, and must include all applicable forms (i.e., jobsite visit). In addition, a separate, signed cover sheet must be submitted with the alternate.
7. Bids must be submitted in a sealed envelope with the bidder's name, license number, if applicable, and the name and number of the bid written on the front of the envelope. Bids received without this information will be disqualified.

In accordance with R.S. 37:2163A, Contractors' License number in the appropriate classification(s) must appear on the bid envelope submitted on all projects in the amount of \$50,000 or more (and \$1.00 or more if hazardous materials are involved).

8. Any questions arising from either the specifications and/or jobsite visit must be addressed in writing and will be answered via an Addendum. All questions must be submitted no later than **June 2, 2020 by 12:00PM CST**. Questions may be emailed to wboesc@dcc.edu or faxed to (504) 762-3089. A final 48-hour period after the issuance of the Addendum will be granted for questions which are directly related only to the answers provided in the Addendum. All addenda must be acknowledged by the bidder with the bid.

No addenda will be issued within a period of seventy-two (72) hours prior to the date set for the receipt of bids except an Addendum, if necessary, postponing the date of receipt of bids or cancelling the request for bids.

9. The above quantities are estimated to be the amounts needed. In the event a greater or lesser quantity is needed, the right is reserved by the College to increase or decrease the amount at the unit price stated in the bid.
10. In the event a greater quantity is needed, the right is reserved by the College to increase the amount, at the unit price stated in the bid, for six (6) months from the date of award.
11. If the Vendor fails to make delivery within a satisfactory time as determined by the College, the College reserves the right to cancel the item and to purchase it elsewhere, charging the increase in price and cost of handling, if any, to the Vendor making the original unsatisfactory or late delivery.
12. Discounts for less than 1% and for less than thirty (30) days will not be considered in making awards.
13. **Bid openings are subject to any in place Executive Order or revised statute as it pertains to the current pandemic.** They shall, whenever any award is considered, furnish specific samples for examination upon request by the College. It shall also be specifically agreed and understood that the decision of the College shall be final.

14. No information will be given out as to opinions concerning the ultimate outcome while consideration of the award is in progress.
15. The college reserves the right to cancel this contract upon thirty (30) days written notice for failure of the Vendor to deliver on time, for delivery of unsatisfactory merchandise, or for any unsatisfactory performance by the Vendor as determined by the College.
16. Successful bidder will furnish written factory instructions for the operation and maintenance of the equipment purchased.
17. Successful bidder will be responsible for the unloading and placing of equipment and/or supplies in the location designated by the College.
18. In case of default by the Vendor, the College reserves the right to purchase any or all items in default on the open market, charging Vendor with any excessive costs. Should such charge(s) be assessed, no subsequent bids of the defaulting Vendor will be considered until the assessed charge(s) have been satisfied.
19. List of distributors: The Vendor signing the bid shall be designated as the Prime Vendor on any contract/agreement resulting from this bid. If additional Vendors are authorized to receive orders for items covered under this proposal, the Vendor must submit, with bid, a list of those additional authorized distributors.
20. Delivery is of the essence and the College reserves the right to award to that Vendor providing the earliest delivery date. The College also reserves the right to reject any Vendor who cannot make delivery within forty-five (45) days from the date of award.
21. Vendors are advised that all hazardous products must be accompanied by a "Hazardous Materials Data Sheet". This sheet must also include suggested antidotes for ingestion and other contact.
22. Items furnished shall be delivered to the College, uncrated, set in place, installed (if requested), and all debris removed by the Vendor.
23. Bidder must be able to provide a project timeline or leadtime if requested by Delgado Community College.

**** End of Special Conditions**

IV. SPECIFICATIONS

All Items must work with main component 1100M CNC Mill or equivalent.

ITEM # 1 – 1100M CNC Mill -- Item # 37752 or equivalent



1100M is a compact 3-axis CNC mill with PathPilot controller for educational institutions. Must be able to cut tough metals and softer materials with the 7500 rpm, 2 hp (1.5 kW) spindle and have capabilities to expand and grow with plug-and-play accessories.:

- Control system must have:
 - Industry-standard G-code programming that works with all major CAM packages
 - Powerful conversational interface for walk-up, shop floor programming
 - Intuitive, integrated probing and tool setting routines
 - Support for 4-axis continuous machining
 - Built-in Dropbox support for seamlessly transferring programs from your CAM workstation
- Must also Include or equivalent:
 - PathPilot Controller – Item # 38245
 - 1100M Machine Owners Kit – Item # 38937
 - Cable kit
 - Factory inspection and certification report
 - Installation tools
 - Operator manual

Requirements

- Installation:
 - 1500 lb (680 kg) capacity lifting apparatus
- Power:
 - Primary Power: 230 Vac, 50/60 Hz, single-phase
 - Required Circuit Amperage: 20 A
- Space:
 - Minimum Depth: 56 in. (1.4 m)
 - Minimum Height: 92 in. (2.4 m)
 - Minimum Width: 69 in. (1.8 m)

Specifications

Travels	<ul style="list-style-type: none">• X-Axis: 18 in. (457 mm)• Y-Axis: 11 in. (279 mm)
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	<ul style="list-style-type: none"> • Z-Axis: 16.25 in. (412 mm)
Spindle	<ul style="list-style-type: none"> • Spindle Power: 2 hp (1.5 kW) • Maximum Speed: 7500 rpm • Transmission: Poly-V belt • Spindle Taper: R8 • Thread Machining: Tension/compression, thread mill
Feed Rate	<ul style="list-style-type: none"> • X-Axis and Y-Axis: 110 in./min (2.7 m/min) • Z-Axis: 90 in./min (2.2 m/min)
Dimensions	<ul style="list-style-type: none"> • Table Size: 34 in. x 9.50 in. (864 mm x 241 mm) • Table Slots: 5/8 in. (15.9 mm); three slots • Spindle Nose to Table Max. Clearance: 17 in. (432 mm) • Spindle Centerline to Machine Column: 11 in. (279 mm) • Typical System Footprint: 69 in. x 56 in. (1.8 m x 1.4 m) • Overall System Height: 92 in. (2.4 m) • Typical System Weight: 1600 lb (726 kg)
Controller	<ul style="list-style-type: none"> • PathPilot

ITEM # 2 – 1100M Enclosure Kit - Item # 37549 or equivalent



Must allow complete view of operations and restrict access during machine operation to keep chips and coolant inside.

- Powdercoated
- Four large, impact-resistant, polycarbonate windows for complete view of operations
- Sliding doors mounted on linear rails for easy access
- Flood light Kit - Two integrated, 50 W floodlights that illuminate the machine's work envelope, floodlight kit must work with proposed unit & stand
- Must work with the main component, 1100M, 1100M Stand

Specifications

Width	69 in. (1.8 m)
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Depth	56 in. (1.4 m)
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ITEM # 3 – Manual Oil Pump - Item # 38953 or equivalent



A manual oil pump must work with main component, 1100M

ITEM # 4 – 1100M Stand - Item # 39129 or equivalent



A heavy-duty stand to hold the 1100M and the PathPilot controller with a coolant tank and chip basket.

- Must have a coolant tank that holds up to 12 gal of coolant and is easily refillable
- Be able to track coolant use with a fill level gauge
- Be able to level the machine with the stand's adjustable feet
- Move the stand using common pallet jacks
- Must Include a 1100M Chip Tray – Item # 37545 or equivalent
- Chip basket that holds up to 50lbs of chips

ITEM # 5 – Flood Coolant Kit, 1/8hp - Item # 38881 or equivalent



A flood coolant kit must keep the cutting zone clear by flushing chips and swarf from the cutting zone and keeping the tools cool and lubricated.

- Stainless-steel adjustable coolant manifold
- Three independently adjustable nozzles
- Chip-tolerant coolant pump
- Drop-in installation
- Must work with the main component, 1100M Mill and include necessary fittings and hose.

Specifications

Motor Power	1/8 hp (90 W)
Voltage	Dual, 115 Vac / 230 Vac
Pump Output	8.5 gal/min (32 L/min)

ITEM # 6 – Lifting Bar Kit - Item # 31446 or equivalent



A Lifting Bar Kit for safe and balanced lifting with a hoist or other overhead method.

- 3/8 in. (9.5 mm) thick steel lifting bar
- G80-rated, high-strength chain
- High-strength shackles rated for a minimum weight of 1 t (900 kg)
- Must work with the main component, 1100M Mill and include necessary chain, clevises, lifting eye, and T-slot anchors.

Requirements

- 2 t (1800 kg) engine hoist or similar lifting apparatus

ITEM # 7 – Controller Arm - Item # 38791 or equivalent



An adjustable swing arm that keeps the machine’s controls within easy reach. Must be able to mount the controller arm directly to the machine stand to support the PathPilot controller’s monitor, keyboard, mouse, and jog shuttle.

- Must work with the main component, 1100M Mill and include necessary mounting post, support bracket, swing arm, and any LCD monitor with a standard VESA 100 mm mounting plate.

ITEM # 8 – 1100M Automatic Tool Changer (ATC) - Item # 38400 or equivalent



An Automatic Tool Changer for the 1100M is a 12 pocket, umbrella-style automatic tool changer.

- Must include 1100M Power Drawbar Kit – Item # 39116 or equivalent

ITEM # 9 – DURKUT DK-9000B Coolant – 1 Gal. - Item # 37289 or equivalent



A coolant fluid bottle that contains 1 gal (3.8L) of premixed, non-diluted machining, low-odor fluid for metalworking applications.

- Suitable for all metal
- Ideal for milling, turning, grinding, sawing, broaching, and tapping applications
- Nontoxic and nonhazardous: contains no chlorine, silicones, or sulfur
- Designed to replace flooded coolants: no need for a recirculating coolant syst applied using mist systems and other minimum-quantity lubrication (MQL) equipment

Specifications

Recommended Usage	About 8 oz (235 mL) per 8 hours of use
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ITEM #10 – TTS CNC Operator’s Set with Tool Assistant Set - Item # 32284 or equivalent



A complete CNC kit that includes an operator’s set with tool assistant set. Must include:

- PN 31820 - TTS-3/8" Set Screw Tool Holder (2)
- PN 31821 - TTS-1/2" Set Screw Tool Holder (2)
- PN 31829 - TTS-ER20 Collet Holder (6)
- PN 30112 - ER20 Collet – 1/8" (2)
- PN 30120 - ER20 Collet – 1/4" (2)
- PN 30128 - ER20 Collet – 3/8" (2)
- PN 30598 - ER20 Collet - 1/2" (2)
- PN 31825 - TTS-JT1
- PN 31826 - TTS-JT2 (2)
- PN 30102 - JT1 Drill Chuck 1/4"
- PN 30244 - JT2 Drill Chuck 3/8" (2)
- PN 30151 - 30mm Wrench for TTS-ER20 Nut
- PN 30106 - 22mm Wrench for TTS-ER20
- PN 31713 - Compact Granite Surface Plate with Integrated Locating Hole
- PN 31273 - Anti-seize Grease
- PN 30302 - TTS Tool Tray
- PN 31988 - Tormach Tool Assistant Set with 8" Digital Height Gauge - includes USB interface cable with touch trigger
- 3/16" Allen Wrench

ITEM #11 – 5" CNC Vise (Uses 31789 Key) - ITEM # 31759 or equivalent



A 5" compact CNC Vise must be able to secure stock and work material and prevent the movable jaw from lifting as you're tightening it. The keyed stationary jaw provides a rigid backstop. The interchangeable jaw plates can be mounted in inside or outside jaw positions, and use the bridge clamp for side-by-side, compact mounting of multiple vises.

- Constructed with 80,000 psi (550,000 kPa) ductile cast iron
- Compatible with industry-standard jaw plates
- M8 holes on bottom for anchoring
- Precision ground on four sides
- Concealed lead screw

- Sealed bearings and adjustable thrust washer
- Smooth, chrome-finished handle
- Machined slots for vise keys
- Must work with the main component, 1100M Mill and include necessary clamp kit (with bridge clamp), and factory inspection and certification report

Specifications

Maximum Inside Jaw Opening	4 in. (101.6 mm)
Maximum Outside Jaw Opening	12 in. (304.8 mm)
Jaw Width	5 in. (127 mm)
Jaw Depth	1.5 in. (38.1 mm)
Overall Length	12 in. (305 mm)
Bed Height	2.5 in. (63.5 mm)

ITEM #12 – 2pc Vise Alignment Keys with screws for 4" & 5" CNC Vise – Item # 31789 or equivalent



- Includes M6 Screws

ITEM #13 – Electronic Tool Setter - Item # 31875 or equivalent



An electronic tool setter that quickly and accurately measure tools and job setups. It must set the work offset's Z position and make corrections for thermal variance and check for broken tooling.

- Polished carbide touch plate
- Sealed contacts
- LED indicator light when triggered
- Armored cable

- Plug-and-play integration with PathPilot controller
- Must work with the main component, 1100M Mill and include necessary 3 mm hex installation wrench, M4 socket head cap screws (two), 25 mm long, protective storage case with fitted foam lining, and factory inspection and certification report

Specifications

Sensing Logic	Normally open
2 σ Repeatability	≤ 0.002 mm
Maximum Over-Travel In +Z	+ 5.0 mm
Parallelism Between Working Plane and Bottom Surface	≤ 0.01 mm

ITEM #14 – Metric Ball Replacement Tip for Haimer Zero Master/3D Sensor - Item # 31993 or equivalent



4mm Ball Replacement Tip for Haimer Zero Master/ 3D Sensor
 25mm stylus length, 4mm ball diameter
 (Mfg. PN 80.362.00)

ITEM #15 – Digitizing Probe Kit - Item # 31858 or equivalent



A 3D digitizing touch probe kit that enables fast, reliable, and accurate setups, and point finding. Must be compatible with the Renishaw M4 stylus family, and has sealed contacts which provide maintenance-free operation and dependability.

- 3D touch trigger probe
- Integrated TTS toolholder geometry (not compatible with automatic tool changers)
- LED indicator light when triggered
- Plug-and-play integration
- Must work with the main component, 1100M Mill and include necessary PathPilot Controller, Ceramic stylus with ruby ball tip, fluid-resistant interface cable, 2mm pin wrench, 3mm hex wrench, 6mm wrench, protective storage case with fitted foam lining, and factory inspection and certification report

Specifications

Sensing Logic	Normally open
Probe Tip	<ul style="list-style-type: none"> • Length: 40 mm • Tip Diameter: 3 mm • Compatible with Renishaw M4 stylus family
2 σ Repeatability	≤ 0.002 mm
Maximum Over-Travel In +Z	+ 5.0 mm
Maximum Angular Displacement	$\pm 12^\circ$

ITEM #16 – Fogbuster Coolant Kit, 230 Vac for 1100M - Item # 38396 or equivalent



A coolant kit that reduces coolant consumption and airborne particulates. Must have a minimum-quantity lubrication (MQL) system that uses a low-pressure, high-volume air blast to clear chips from the cutting zone and keeps your tools cool and lubricated.

- Magnetic mount for easy installation and adjustment
- Precision needle valve at the nozzle adjusts coolant flow for a variety of conditions
- Instant airflow operation through M-code command in PathPilot
- Transparent reservoir for monitoring coolant levels
- Must work with the main component, 1100M Mill and include necessary mounting bracket (stainless steel), nozzle, pneumatic lines, pressure regulator, and solenoid valve (pre-assembled)

Requirements

- 0.5 gal (1.9 L) MQL-safe coolant (not for use with pure water, alcohols, or other solvents)
- 20 psi to 120 psi (140 kPa to 840 kPa) compressed air source

Specifications

Input Voltage	230 Vac
Capacity	0.5 gal (1.9 L)

ITEM #17 – Machine Way Oil (1 Gallon) - Item # 31386 or equivalent



One gal (3.8L) of non-corrosive machine way oil that is specifically formulated to eliminate stick-slip in machine tool applications. It must provide smooth movement under heavy loads by providing excellent metal wetting and surface adhesion, resist mixing with coolants and metalworking fluids, and prevent rust and surface oxidation of slideways and ball screws. ISO Viscosity Grade 68.

ITEM #18 – End Mill Kit for Steel #1 - Item # 37441 or equivalent



Must include an 18 Piece Carbide End Mill Kit which includes Square, Ball and .030" Radius Carbide End Mills with TiAlN Coating for Steel machining.

4 FL REG SQUARE CARB EM TiAlN

Qty	Size	PN
2	1/8 x 1/8 x 1/2 x 1-1/2	PN 37431
2	3/16 x 3/16 x 5/8 x 2	PN 37433
2	1/4 x 1/4 x 3/4 x 2-1/2	PN 37434

2	5/16 x 5/16 x 13/16 x 2-1/2	PN 37436
2	3/8 x 3/8 x 1 x 2-1/2	PN 37437
2	3/8 x 3/8 x 1 x 2-1/2 x R.030	PN 37438
1	1/2 x 1/2 x 1 x 3	PN 37439
1	1/2 x 1/2 x 1 x 3 x R.030	PN 37440

2 FL REG BALL CARB EM TiAIN

Qty	Size	PN
2	1/8 x 1/8 x 1/2 x 1-1/2	PN 37432

4 FL REG BALL CARB EM TiAIN

Qty	Size	PN
2	1/4 x 1/4 x 3/4 x 2-1/2	PN 37435

ITEM #19 – End Mill Kit for Aluminum #1 - Item # 37377 or equivalent



Must include a 14 Piece Carbide End Mill Kit which includes Square, Ball and .030" Radius Carbide End Mills with Bright Finish for Aluminum machining.

2 FL REG BALL CARB EM

Qty	Size
2	1/8 x 1/8 x 3/8 x 1-1/2
2	1/4 x 1/4 x 3/4 x 2-1/2

3 FL REG SQUARE CARB EM

Qty	Size
2	1/8 x 1/8 x 3/8 x 1-1/2
2	1/4 x 1/4 x 3/4 x 2-1/2
2	3/8 x 3/8 x 1 x 2-1/2
2	3/8 x 3/8 x 1 x 2-1/2 x R.030
1	1/2 x 1/2 x 1-1/4 x 3
1	1/2 x 1/2 x 1-1/4 x 3 x R.030

ITEM #20 Jog Shuttle Controller - Item # 30616 or equivalent



A Jog shuttle controller that maximizes productivity with a hand wheel that combines control of feed and positioning on all 4 axes (X, Y, Z, and A).

- 4-axis selection buttons that toggle between X,Y, Z, and A axes
- Step increment button that cycles through sizes of 0.0001 in., 0.001 in., 0.01 in., and 0.1 in. (0.0025 mm, 0.01 mm, 0.1 mm, and 1.0 mm)
- Precise, incremental jogging with the inner wheel: each click moves the selected step increment
- Smooth, continuous jogging with the outer wheel:
 - Easily cycle from a slow crawl to fast rapid
 - When released, feed automatically defaults back to zero motion
- 5 ft (1.5 m) cord with USB 2.0 connector

ITEM #21 – Waterproof Mini Keyboard - Item # 38437 or equivalent



A compact, industrial use and easy to clean, molded silicone keyboard that is fully sealed and resists water, coolants, dirt, chips, and debris.

- Rigid back panel
- Resistance rating of IP65
- 6 ft (1.83 m) USB cord

ITEM #22 – Waterproof Mouse - Item # 38722 or equivalent



An optical, industrial use and easy to clean, molded silicone mouse that is fully sealed and resists water, coolants, dirt, chips, and debris.

- Standard left and right buttons with scrolling module
- Resistance rating of IP65
- 6 ft (1.83 m) USB cord

ITEM # 23 – Touch Screen Kit 17" (TD) - Item # 35575-DISC or equivalent



A 17" touch screen kit that you can operate PathPilot through this LCD resistive touch screen even while wearing gloves. Must be able to be mounted on any flat cart or directly on the optional Machine Arm (not included). Easily start, pause, and stop programs, change feeds and speeds, and create conversational programs.

- Must come with Assorted mounting hardware, Desktop stand, VESA mounting plate for optional Machine arm (not included), installation instructions and Cables:
 - 10 ft (3 m) power supply
 - 10 ft (3 m) USB extension
 - 15 ft (4.5 m) SVGA

Specifications

Display Resolution	1280 x 1040
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Size	17 in. (430 mm)
Connectivity	DVI, HDMI, and VGA
Resistive Technology	Analog 5-wire

ITEM #24 – Shipping/Freight/Handling

- All shipping/freight/delivery charges necessary for the procurement and delivery of the above listed items to the location noted in the bid are to be included. Charges after the fact are not allowable.

END OF BID DOCUMENTS