### I. SCOPE OF WORK:

Pennsylvania Correctional Industries, a Bureau of the Pennsylvania Department of Corrections has an established furniture factory within the confines of SCI-Rockview located at 1 Rockview Place Bellefonte, Pennsylvania 16823. This scope of work is to cover a 4' x 8' CNC needed in the milling department of the plant that will be utilized for the cutting of component parts and engraving sign substrates.

### II. ISSUIING OFFICER

Questions regarding the technical aspect of this bid should be directed to Nathan Rhodes - 814-355-4874 - <u>narhodes@pa.gov</u>.

Questions regarding the bidding or contracting procedures should be directed towards Christina Zambotti – 717-728-5307 – <u>czambotti@pa.gov</u>.

## III. CONTRACT REQUIREMENTS

The equipment shall conform to the requested specifications, and shall be new, free of defects, and of good quality. All equipment shall be provided complete including freight to the Bellefonte, Pennsylvania Plant site located at 1 Rockview Place, Bellefonte PA, 16823.

The Plant has one loading dock with one garage door 12'W X 9'H The awarded vendor shall provide all rigging or other services as required to off load, spot and secure the equipment in the milling department.

Awarded vendor to also provide equipment startup, testing and training for PCI staff for up to 15 persons (40 hours total).

The supplier agrees that the warranty for equipment shall come into effect from the date of the equipment acceptance or the date of acceptable use if there is no acceptance testing period. Lead timing of 14-18 weeks.

## FREE REMOTE DIAGNOSTICS:

Supplier agrees to provide Remote Diagnostic Services free to the original purchaser for as long as they own the machine.

## LIFETIME PHONE SUPPORT:

Supplier agrees to provide Telephone Support Services for machine & parts troubleshooting free to the original purchaser for as long as they own the machine.

Pricing should be bid as FOB destination.

Anderson America Spectrum-M 48 CNC

**REQUIRED FEATURES** 

- Moving gantry (stationary table) type machine equipped with 1 (one) 12 HP 4-pole air-cooled router spindle, with grease lubricated ceramic bearings, a 6-Position Static Automatic Tool Changing System, with tool length touch probe, and 1 (one) 2 HP, multiple spindle boring unit with 6 independently selectable spindles for vertical boring. The spindle motor shall be powered by an electronic AC inverter drive system with dynamic spindle braking. Full Torque is achieved at 9,000 RPM & Full HP is achieved at 12,000 RPM.
- 2. The Static Tool Changer Pick Up Station, with **Steel Tool Holder Clips**.
- 3. The bridge & vertical supports are **monolithic one-piece construction** for maximum stiffness and accuracy.
- 4. The X & Y axes are constructed of massive, heavy duty welded steel construction with multiple reinforcements to increase strength and absorb vibration. Z-axis spindle carriage shall be a specially designed Meehanite casting for high strength and inherent vibration dampening characteristics with a pneumatic counterbalance system for smooth and accurate operation.
- 5. Hardened and precision linear guide way systems with recirculating roller linear bearings shall be provided for all primary movements in the X, Y & Z axes. Hardened and precision ball screws with anti-backlash ball nuts shall be provided for all primary movements of the Y & Z axis. The X-Axis shall be a dual drive, dual support, 2-channel system, using twin industrial grade, induction hardened, helical racks & pinions.
- The vacuum table shall be made of torsion resistant cast steel, covered with a 30mm thick phenolic grid table top
- 7. **THREE (3) pneumatically controlled Pop-up pins** shall be included for sheet location and for Nested Based Manufacturing.
- 8. The table shall be configured with **ONE (1) vacuum zone**, which is automatically mcode controlled. The vacuum zones are equipped with an electronic safety barrier & low vacuum sensor.
- 9. Centrally located grease fittings shall be utilized for X, Y, & Z Axis and profiled linear guide ways.
- 10. All guides shall be protected from dust and other contaminates by **double sealed wipers.**
- 11. The operator control panel shall be mounted on a control arm, in front of the machine, and has a **Handheld Pendant** with separate Feed Rate and Rapid Rate Override for easy access by the operator.
- 12. A dust collection hood with automatic damper system shall be provided for the router spindle & for the drilling block.
- 13. State-of-the-art closed loop **FANUC AC digital servo motors** shall be utilized on X, Y & Z axis.
- 14. The FANUC Electronics and controls systems shall be placed into a covered & sealed electronics cabinet that is conveniently located at the back of the machine base.

**Control Features** 

# FANUC OiM-F+ Controller System with Windows 10 PC Front End User Interface

- With "FAST CORNER FUNCTION", and the following features:
  - 1. Series 0*i*-MODEL F+, with nano-resolution performance.
  - 2. High-capacity, nonvolatile internal memory
  - 3. network-ready 100-MBit Ethernet interface
  - 4. AlphaCAM Core CAD/Cam software

## **TECHNICAL SPECIFICATIONS:**

- 1. Table size 2500 mm x 1300 mm (98.5" x 51")
- 2. Pop-Up Positioning Pins 3 60mm pins
- 3. Vacuum Zones per Table 1 (one)
- 4. Axis stroke X axis: 2635 mm (103.74")
- 5. Y axis: 1600 mm (63")
- 6. Z axis: 200 mm (8")
- 7. Maximum Feed Rate X-axis: 60 meters/min (2,360"/min)
- 8. Y-axis: 60 meters/min (2,360"/min)
- 9. Z-axis: 20 meters/min (787"/min)
- 10. Maximum Rapid Traverse All-axis: 84.85 meters/min (3,341"/min)
- 11. Spindle **#1** Router Spindle Spindle **#2** Line Boring Unit
- 12. Spindle type Anderson Air Cooled Spindle type: Line Boring Unit
- 13. Motor power 12 HP (S6): 10 HP (S1) Motor Power: 2 HP
- 14. Spindle speed (RPM) 1000-21000 Spindle speed: 4,500 rpm
- 15. No. of changeable tools 6 Vertical Drills: 6 x 1
- 16. Spindle nose HSK63F taper Drill Shank Dia: 10 mm
- 17. HSK 63F tool holders 6 sets (Holder & Locknut)
- 18. Aggregate Torque Ring SHALL BE INCLUDED (for compact aggregates only)
- 19. Collet Sizes Included (2) 1/2", (2) 3/8" (1) 1/4" & (1) 3/4" (total # of collets: 6)
- 20. (Router Spindle and Drill Head both fully cover the entire working table)

# 21. Tool holders and collets, with base mounted tool set-up stand, shall be included

- 22. Vacuum hold down system Dekker pump model VMX0453KA1:
- 23. Power (per pump) 25HP
- 24. Flow (per pump) 420 cfm
- 25. Total Pressure 29" Hg
- 26. Machine footprint Floor area 115" x 162"
- 27. Height 98.5"

## **ELECTRICAL INFORMATION:**

Voltage: 208V, 240V, or 480V - 3 Phase / 60 cycles – (Multi-Tap Transformer shall be Included)

## INSTALLATION

Installation and assembly of machine shall be in a "ready-to-run" state.

## IV. CONTRACTOR REQUIREMENTS

- ✓ The Plant has one loading dock with one garage door 12'W X 9'H
- ✓ The awarded vendor shall provide all rigging or other services as required to off load, spot and secure the equipment in the milling department.
- ✓ Pursuant to Executive Order 2021-06, Worker Protection and Investment (October 21, 2021), the Commonwealth is responsible for ensuring that every Pennsylvania worker has a safe and healthy work environment and the protections afforded them through labor laws. To that end, contractors and grantees of the Commonwealth must certify that they follow all applicable Pennsylvania state labor and workforce safety laws. Such certification shall be made through the Worker Protections and Investment Certification Form (BOP-2201) and the completed form must be submitted with the bid, proposal or quote.
- ✓ Delivery Truck must leave the institution empty
- ✓ Security Clearance Information for all vendors.
- ✓ All vendors or their subcontractors, who utilize regular delivery transportation, will have to submit clearance checks through the Original Vendor, for all drivers (regardless if delivery is inside or outside the fence). Common carriers will not be required to render clearance checks, however are subject to search and escort procedures. ALL CARRIERS reporting to the outside warehouse must secure their vehicles (windows closed and doors Locked) sign in at the warehouse and wait for further directions / instructions from the Correctional Staff.
- ✓ All products must meet security requirements of the DOC. The Department of Corrections reserves the right to allow companies to adapt their packaging to meet the DOC's security requirements before an award is generated. Product approval may be made contingent upon packaging changes. If, after award, DOC determines that a product poses a security threat, DOC will either cancel the award of that product upon written notification to the contractor detailing the nature of the security threat or allow the contractor to replace the product with a compliant product at the same price.

### V. BID AWARD

It shall be understood and agreed that any quantities listed in the solicitation are estimated only and may be increased or decreased in accordance with the actual requirements of the Department of Corrections.

Unless otherwise indicated, the unit price must include all labor, materials, equipment, tools, insurance, delivery fees and all items necessary for the completion of the project. In cases of discrepancies in prices, the unit price will be binding unless the unit price is obviously in error and the extended price is obviously correct, in which case the erroneous unit price will be corrected.

### VI. BID Results

Bids will be opened on the date and time specified in the invitation for bid. Bid tabulations will be posted on the day after the bid opening, on the Department of General Services' eMarketplace website <u>http://www.emarketplace.state.pa.us/</u>). Tabulations are for information only and do not constitute actual award or

execution of a contract. The results of the apparent bidders and all bids are under review until final award of the purchase order.