

REQUEST FOR EXPRESSION OF INTEREST PROVISION OF A 5 AXIS CNC MACHINE (A101012)

1. INTRODUCTION

ASC is seeking information on replacement workshop equipment and request expressions of interest (EOI) for the supply, install and maintenance of a suitable solution.

2. SCOPE OF WORK

ASC is seeking Expressions of Interests (EOI) for the provision of a Simultaneous 5-Axis Horizontal Travelling Column CNC milling machine to be supplied to either ASC's South Australian or Western Australian site.

The technical requirements are detailed in Appendix A to this EOI.

3. EOI SUBMISSION REQUIREMENTS

All interested companies must submit a detailed description of their capabilities, including:

- The company's trading name, website, ABN, number of employees and annual turnover;
- The company's capacity and capability to provide the scope of work (as detailed in Appendix A – Technical Requirements);
- The details of other projects in which the company supplied similar scope;
- What State/s the company has these capabilities in;
- Any other competitive discriminators the company has that are not covered above; and
- The company's point of contact in respect of the submitted EOI.

In addition to the above, the interested companies are requested to answer the questions in section 4 below.

4. SUPPLIER EVALUATION

4.1 The following **mandatory questions** are designed to inform which suppliers should be brought into the next stage of the procurement process for the CNC Machine. The supplier must answer these questions positively to progress in the process.

- a. Does the supplier have experience in supplying the equipment?
- b. Does the supplier have sufficient technical capability to conduct the installation and maintenance of the equipment
- c. What is the standard warranty terms for the supply of the equipment
- d. What is the estimated lead time from order placement

4.2 The following questions are **non-mandatory** and are designed to inform comparisons between competing suppliers.

- e. Does the supplier have suitable Off-the-Shelf (OTS) equipment that meets the specifications listed above?
- f. Can the supplier supply indicative specifications and drawings of equipment?

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- g. Can the supplier provide local support?
- h. Can the supplier elaborate on their quality control procedures?
- i. Does the supplier have any signature, or other performance advantages compared to other vendors?
- j. Does the supplier have any in-service evidence to support the reliability and or performance of their recommended equipment?

Following review of EOIs, ASC intends to request proposal(s) from the shortlisted companies.

Registrations close 4pm (ACST) Friday 5 May 2023.

All EOI submissions shall be submitted via the Industry Capability Network website.

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Appendix A to EOI A101012

PROVISION OF A CNC MACHINE

Technical Requirements

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1. Introduction

ASC is seeking information on replacement workshop equipment and request expressions of interest (EOI) for the supply, install and maintenance of a Large Horizontal Travelling Column CNC milling machine to be installed and maintained at either ASC North or West.

2. General Requirements

The Vendor shall be able to supply, install and commission a new 5-Axis Horizontal Travelling Column CNC milling machine to relevant Australian Standards.

3. Machine Specifications

- Simultaneous 5-Axis Horizontal Travelling Column CNC milling machine
- Minimum work piece size (X, Y, Z) 4500mm x 5000mm x 4500mm
- Minimum Machine Travels (X, Y, Z) 10,000mm x 3000mm x 1600mm
- Collision detection system
- Inbuilt machine and control system cooling
- Machine 3-Axis positioning accuracy 10µm
- 20T minimum, max work piece weight capacity
- HSK-A100 or similar Spindle
- High Torque Spindle for machining of Steel, Stainless Steel, Inconel, SMO, copper nickel, pre-hardened plate, aluminium, etc.
- Machine ability to measure milling tool spindle axis rotation
- Replaceable milling head
- 60 tool tool-changer minimum
- 25kg minimum tool weight in tool changer
- Provide options for rapid traverse
- High pressure through spindle coolant, provide details on Pressure, Flow Rate Coolant Tank Capacity.
- Coolant spray gun
- Coolant filtration system
- Ventilation to remove coolant misting
- Chip Conveyor



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- Automatic Thermal Compensation
- Tool Measuring Probe
- Part Positioning Probe
- USB and Ethernet connectivity
- Electronic Hand Wheel
- Camera for visibility of machining inside of components
- Centralised automatic lubrication system

4. Tools, Jigs and Fixtures Requirements

- Tool holders, Shrink fit chucks, drill chucks, etc.
- Cutters to suit all operations including, shoulder and edge milling tools, face milling tools, profiling tools, groove milling tools, thread milling tools, solid carbide tools, chamfering tools, tipped and solid carbide drills, reamers, taps etc.
- Range of roughing and finishing boring heads and bars to suit boring of diameters 16mm to 600mm
- Work holding jigs and fixtures, clamps, vices etc.
- Removable & Programmable Rotary Table 1600mm x 1600mm
- Angle plate approx. 3000mm x 1500mm x 1200mm

5. Equipment Support

- Local Maintenance support
- Onsite basic maintenance training
- Preventative maintenance schedules and requirements
- Programming and operator training
- Site Acceptance Testing
- Factory Acceptance Test
- Commissioning
- Documentation to support design and build including cad models, pit details etc. are to be provided.
- Services demand estimates, equipment weights and support details, any overhead crane requirements, pneumatic requirements are to be provided.
- Detailed risk assessment of the equipment to be conducted with ASC

6. Australian Standards

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The equipment shall comply with all relevant standards, codes and WHSE legislations, including but not limited to,

- AS4024 – Safety of Machinery
- AS3000 – Electrical Wiring
- Working at Heights (If Required)
- Confined Spaces (If Required)
- AS 2671 - Hydraulic fluid power - General requirements for systems
- AS 2788 - Pneumatic fluid power - General requirements for systems