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### CENTRAL TOOL ROOM, LUDHIANA

Ministry of Micro Small & Medium Enterprises
Government of India

# केन्द्रीय टूल रूम

सुक्ष्म, लघु एवं मध्यम उद्योग मंत्रालय.



जरूरी: निविदाकर्ता निविदा पत्रक को सावधानीपूर्वक पढ़ना चाहिए; निविदा प्रस्तुत करने का मतलब यह है कि निविदाकर्ता ने नियमों और शर्तों को पढ़ा और समझ लिया है ओर सहमत भी है । निविदा दस्तावेजों के सभी पृष्ठों को निविदाकर्ता द्वारा हस्ताक्षर किए जाने चाहिए और ऑनलाइन जमा करनी होगी।

निविदा संख्या: सीटीआर/लुधियाना/1810/मशीनरी/2020-39 दिनांक: 12.05.2020 पर: 02.00 मध्याह्न के बाद

#### <u>भाग- I</u>

### निविदा का निमंत्रण

<b>₭</b> :	महाप्रबंधक
	केन्द्रीय टूल रूम
	ए -5, फोकल प्वाइंट
	लुधियाना -१४१०१०
	भारत
सेवा में :	

- 1.0 संलग्न अनुसूची (भाग- III) में दिए गए विशेष विवरण के अनुसार "3-एक्सिस सीएनसी वर्टिकल मिललिंग मशीन" के लिए मुहरबंद निविदाएं सेंट्रल टूल रूम, लुधियाना, भारत (इसके बाद "टूल रूम और / या क्रेता" कहा जाता है) महाप्रबंधक द्वारा आमंत्रित की जाती हैं। निविदाएं को दिनाक 28.04.2021 तक 02.00 बजे तक प्राप्त की जाएंगी और निविदाधी निविदाओं की उपस्थिति में अगले दिन यानी 29.04.2021 को 03.00 बजे तक खोला जाएगा। देर से प्राप्त निविदाओं को स्वीकार नहीं किया जाएगा। निविदाओं के साथ-साथ ब्याज-मुक्त अग्रिम धन "सेंट्रल टूल रूम लुधियाना" के पक्ष में मांग पत्र / बैंक गारंटी के रूप में 60,000/ (साठ हज़ार रूपये केवल) जमा करवाना जरूरी है | डिमांड ड्राफ्ट या बैंक गारंटी के बिना निविदाएं स्वीकार नहीं की जाएंगी | भाग 3 में उल्लिखित मशीन / उपकरण / वस्तुओं के लिए एन॰एस॰आई॰आई॰ के साथ पंजीकृत निविदाकर्ता निविदा के साथ-साथ पंजीकरण के प्रमाण प्रस्तत करने पर अग्रिम धन और बैंक गारंटी जमा करने से छट प्राप्त है ।
- 2.0 निर्धारित तारीख और समय से पहले निविदाएं केवल <u>www.eprocure.gov.in</u> पोर्टल पर ऑन-लाइन जमा करनी होंगी।
- 3.0 इस निविदा दस्तावेज के सभी पृष्ठ को निविदा के साथ हस्ताक्षरित और जमा करना है ।
- 4.0 ए) निविदाएं दो भागों में जमा की जानी चाहिए। भाग 'ए' में मशीन के तकनीकी विनिर्देश होना चाहिए, जिसे पर्याप्त विवरण में वर्णित किया जाना चाहिए। विस्तृत तकनीकी साहित्य संलग्न होना चाहिए। इसके साथ-साथ संगठनों की एक सूची भी होनी चाहिए जहां भारत में निविदाओं द्वारा समान मशीनों की आपूर्ति की जा रही है। इस भाग 'ए' में कोई कीमत नहीं दी जानी चाहिए। ईमानदार पैसा के लिए डीडी भी सबिमशन के समय, उसी माहौल में अनसुलझा

A-5, Focal Point, Ludhiana - 141010 Tel: (+91)-0161- 2670059 (Ext. 237), 2670058, 2676166, 2673564 Fax: (+91)-0161-2674746.

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होना चाहिए। इस निविदा दस्तावेज के सभी पृष्ठों पर हस्ताक्षर किए जाने और इस भाग 'ए' के साथ जमा किया जाना है।

इस लिफाफा को निम्नानुसार चिह्नित किया जाना चाहिए-

#### भाग 'ए'

निविदा - 3- एक्सिस सीएनसी वर्टिकल मिललिंग मशीन निविदा संख्या : सीटीआर/लुधियाना/1810/मशीनरी/2020-39

देय: 28.04.2021

दिनांक: 12.05.2020 पर : 02.00 मध्याह्न के बाद

बी) निविदा के भाग 'बी' में मशीन के लिए निविदाकार द्वारा उद्धृत कीमतों में होना चाहिए। यह बहुत महत्वपूर्ण है कि निविदा के भाग 'ए' में दी गई मशीन के विवरण के संदर्भ में कीमतें उद्धृत की गई हैं। इस लिफाफा को निम्नानुसार चिह्नित किया जाना चाहिए-

#### भाग 'बी'

निविदा - 3- एक्सिस सीएनसी वर्टिकल मिललिंग मशीन निविदा संख्या : सीटीआर/लुधियाना/1810/मशीनरी/2020-39

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- 5.0 निविदाएं निविदा खोलने की तिथि (नियत तारीख) से 90 दिन की अवधि के लिए स्वीकृति के लिए मान्य होना चाहिए। यह समझा जाता है कि निविदाकारों को निविदा देने की अनुमित उनके भाग में निर्धारित किए जाने की अनुमित दे रही है कि वे अपने निविदाएं जमा करने के बाद वे अपने प्रस्ताव (प्रस्तावों) से नहीं छीनकर नियमों और शर्तों को संशोधित करेंगे. यदि उपकरण निविदा विनिर्देशों से विचलित करता है, तो एक विचलन बयान निविदा के साथ संलग्न होना चाहिए। अगर कोई विचलन नहीं है "शून्य विचलन" पृष्टि निविदा के साथ संलग्न होना चाहिए।
- 6.0 क) यदि आप एक फर्म हैं (यानी यदि आपके पास पार्टनर या पार्टनर से हैं) तो मुख्तारनामा वाले अधिकृत पार्टनर को निविदा के प्रत्येक पृष्ठ पर हस्ताक्षर करना होगा। साझेदारी समझौते की एक प्रति संलग्न होना चाहिए. फर्म के व्यापार से संबंधित किसी भी विवाद को प्रस्तुत करने सिहत, अनुबंध से संबंधित सभी मामलों में फर्म को बाध्य करने के लिए प्राधिकृत करने वाले मुख्तारनामा की एक कॉपी, उसे निविदा के साथ संलग्न किया जाना चाहिए। मूल दस्तावेज दिखाए जाने चाहिए कि अगर और /या आवश्यक हो.
  - ख) यदि आप एक फर्म नहीं हैं, निविदा के साथ निम्नलिखित प्रमाणपत्र संलग्न किया जाए-
    - "मैं यह प्रमाणित करता हूं कि मैं एकमात्र मालिक हूं और मेरे साथ संयुक्त रूप से कोई दूसरा पार्टनर काम नहीं कर रहा है"
  - ग) सीमित कंपनी के मामले में, निविदा दस्तावेज के प्रबंध निदेशक द्वारा हस्ताक्षरित होना चाहिए और निविदा के साथ निम्नलिखित प्रमाण पत्र संलग्न होना चाहिए-
    - "मैं प्रमाणित करता हूं कि मैं और मुझे कंपनी की ओर से सभी दस्तावेजों पर हस्ताक्षर करने के लिए कंपनी के लेख के अनुसार निष्पादित वकील की शक्ति है"

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- घ) अपेक्षित प्रमाण पत्र के अनुसार प्रति (ए), (बी) या (सी) के ऊपर, वर्तमान आय कर मंजूरी प्रमाण पत्र और डीजीएस के साथ पंजीकरण प्रमाण पत्र।
- 7.0 टूल रूम किसी भी या सभी प्रस्तावों को बिना किसी कारण बताए अस्वीकार करने का अधिकार सुरक्षित रखता है। टूल रूम में किसी भी प्रकार के बिना किसी भी कारण बताए पूरे या आंशिक रूप से किसी भी निविदा को स्वीकार करने का अधिकार सुरक्षित है। सफल निविदाकर्ता को निविदा की स्वीकृति के बारे में अधिसूचित किया जाएगा और जब तक ऐसी सूचना नहीं मिलती है, तब तक निविदाकर्ता (निविदाओं) को कोई भी व्यवस्था नहीं करनी चाहिए या निविदा की स्वीकृति के नोटिस की प्राप्ति के अनुमान में कोई भी खर्च नहीं करना चाहिए।
- 8.0 सीटीआर एक्सटेंशन सेंटर, फ़रीदाबाद, हरियाणा में मशीन का इस्तेमाल और स्थापित किया जाना है।

निविदा की अन्य शर्तें इस प्रकार हैं:

- 1. अनुबंध का मूल विचार और सार का अनुबंध अनुबंधित मशीन / उपकरण / माल / सॉफ्टवेयर की आपूर्ति के लिए निर्धारित समय सारिणी का सख्त पालन होगा "समय अनुबंध का सार है"।
- 2. विफलता और समाप्ति: निविदा को स्वीकार करने पर, यदि निविदाकर्ता निविदा स्वीकार कर लेता है तो अनुबंध में ऐसे डिलीवरी के लिए तय अविध के भीतर मशीन / उपकरण / सामान / सॉफ्टवेयर को देने में विफल रहता है या यदि ठेकेदार किसी भी अनुबंध को अस्वीकृत कर देता है ऐसी अविध की समाप्ति से पहले का समय, क्रेता अपने अन्य अधिकारों के प्रतिकृल प्रभाव के बिना हो सकता है-
- क) ठेकेदार से मुआवजा हुआ नुकसान और जुर्माना के माध्यम से किसी भी मशीन / उपकरण / सामान / सॉफ्टवेयर (करों, कर्तव्यों, माल, इत्यादि के तत्व सिहत) की कीमत के 2% के बराबर राशि प्राप्त करें। जो ठेकेदार संविदा में डिलीवरी के लिए तय अविध के भीतर या विस्तारित अविध के भीतर वितरित करने में असफल रहा है, प्रत्येक माह या एक महीने के कुछ अंश के लिए जिसके लिए ऐसी मशीन / उपकरण / सामान / सॉफ्टवेयर का वितरण बकाया राशि में हो सकता है, जब उसे वितरित किया जाता है उपरोक्त अविध की समाप्ति के बाद अनुबंध मुल्य के अधिकतम 10.0% के अधीन।

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- ख) अनुबंध या इसके एक हिस्से को रद्द करें और यदि ऐसा मशीन / उपकरण / माल / सॉफ़्टवेयर जो कि ऐसा नहीं है या अन्य समान विवरण (जहां मशीन / उपकरण / माल बिल्कुल विवरणों का पालन करते हैं) राय में नहीं हैं ठेकेदार के जोखिम और लागत पर खरीदार [जो अंतिम होगा] आसानी से प्राप्य). हालांकि, फर्म / फर्मीं से निष्पादन गारंटी बांड प्राप्त करने या प्राप्त करने के लिए खरीदार का विवेकाधिकार होगा, जिनके अनुबंध को जोखिम और वित्तीय फर्म / फर्मीं के खर्च पर रखा गया है।
- 3. अप्रत्याशित घटनाः ठेकेदार सुरक्षा जमा को जब्त करने, क्षितिग्रस्त क्षिति या डिफ़ॉल्ट रूप से समाप्त करने के लिए उत्तरदायी नहीं होगा, यदि अनुबंध के तहत उसके दायित्वों को निष्पादित करने में प्रदर्शन या अन्य विफलताओं में देरी की सीमा है, और अप्रत्याशित घटना का नतीजा है। इस खंड "अप्रत्याशित घटना" के प्रयोजन के लिए इसका मतलब है कि एक घटना ठेकेदार के नियंत्रण से परे है और इसमें ठेकेदार की गलती या लापरवाही शामिल नहीं है और निकट भविष्य में नहीं है। इस तरह की घटनाओं में शामिल हो सकते हैं, लेकिन खरीदार के कार्य को अपनी संप्रभू या संविदागत

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क्षमता, युद्ध या क्रांति, आग, बाढ़, महामारी, संगरोध प्रतिबंध और माल ढुलाई प्रतिबंधों में शामिल नहीं किया जा सकता है। यदि किसी बल की स्थिति पैदा हो जाती है, तो ठेकेदार तुरंत ऐसी स्थिति के लिखित में खरीदार को सूचित करेगा और उसके कारण जब तक कि खरीदार द्वारा लिखित रूप में निर्देशित नहीं किया जाता है, ठेकेदार अनुबंध के तहत अपने दायित्वों को यथासंभव व्यावहारिक रूप से जारी रखेगा, और बल माजयरे घटना से रोके नहीं जाने वाले प्रदर्शन के लिए सभी उचित वैकल्पिक माध्यमों की तलाश करेगा।

- 4. किसी भी विवाद या अनुबंध के प्रावधानों के व्याख्याओं या अनुप्रयोगों में होने वाले अंतर को विकास आयुक्त, एमएसएमई मंत्रालय, सरकार के एकमात्र मध्यस्थता के संदर्भ में भेजा जाएगा। भारत या उसके द्वारा नियुक्त किसी भी अन्य व्यक्ति का मध्यस्थ का पुरस्कार अंतिम और दोनों पक्षों पर बाध्यकारी होगा। मध्यस्थता भारतीय मध्यस्थता अधिनियम द्वारा नियंत्रित किया जाएगा किसी भी मुकदमेबाजी के मामले में न्यायिक क्षेत्र लुधियाना होगा
- 5. फर्म निविदाकर्ता / ठेकेदार के संविधान में किसी भी बदलाव के मामले में टूल रूम को सूचित किया जाएगा, बशर्ते इस तरह के बदलाव से अनुबंध के तहत किसी भी दायित्व से फर्म के किसी पूर्व सदस्य / भागीदार को राहत नहीं होगी और बशर्ते कि कोई नया सदस्य / भागीदार न हो फर्म द्वारा स्वीकार किया जाएगा, जब तक वह इस अनुबंध के सभी नियमों और शर्तों का पालन करने से सहमत नहीं हों
- ये निविदा दस्तावेज गैर-हस्तांतरणीय हैं।

सामान्य प्रबंधक के लिए

दिनांक, लुधियाना, 12 अप्रैल, 2021

A-5, Focal Point, Ludhiana - 141010 Tel: (+91)-0161- 2670059 (Ext. 237), 2670058, 2676166, 2673564 Fax: (+91)-0161-2674746.



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#### भाग- II(ए)

निविदा

सेवा में महाप्रबंधक, केन्द्रीय टूल रूम, ए -5, फोकल प्वाइंट, लुधियाना-१४१०१० (भारत)

श्रीमान.

मैं / हम उस संपूर्ण / आंशिक रूप से निविदा को स्वीकार करने के लिए सहमत हैं, जो सेंट्रल टूल रूम, लुधियाना, भारत, मशीन / उपकरण / सामान, जो कि मेरे द्वारा / हमारे द्वारा उद्धृत कीमतों में संलग्न हैं, निविदा में विस्तृत है। मैं / हम प्रस्ताव को नियत तारीख से 90 दिनों के लिए खोलने के लिए सहमत हैं। मैं / हमने निविदा दस्तावेजों के नियमों और शर्तों को पढ़ा और समझा है, जो निविदा की स्वीकृति पर अनुबंध बन जाएगा और इसके द्वारा शासित होने के लिए सहमत होगा। मैं / हम विशेष रूप से यह काम करते हैं कि मैं / हम अपनी / हमारी पेशकश मे परिवर्तन नहीं करेंगे या इसके नियमों और शर्तों को संशोधित नहीं करेंगे |

			निविदाकर्ता के हस्ताक्षर	
जगह : दिनांक :		नाम पद नाम तथा पता फर्म का	:	
गवाह				
हस्ताक्षर	:			
नाम	:			
पद	:			
फ़र्म का नाम व पता	:			



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# भाग- II (बी)

# निविदा

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व्यावसा	यिक	बाला	क	लिए	प्रदर्शन:-

्निविदाकार को इस दस्तावेज को विशेष रूप से उपयोग करने की आवश्यकता नहीं है लेकिन प्रस्ताव इस प्रारूप में यथासंभव यथाशीघ्र होना चाहिए)

- 1. निविदा संख्या तथा दिनांक
- 2. मद / मशीन की विशेषताओं की पेशकश की गई: -

क्रमांक	विवरण	मात्रा	मूल्यांकन	रकम
		<del> </del>		<u>कुल</u>
<sup>3.</sup> क्रमांक	मानक और आवश्यक सहायव विवरण	मात्रा	मूल्यांकन	रकम
<sup>4.</sup> क्रमांक	वैकल्पिक सहायक उपकरण विवरण	का विवरण मात्रा	कुल मूल्यांकन	  रकम
			कुल	

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5. मुख्य वस्तुओं और आवश्यक सहायक उपकरण की कुल पेशकश मूल्य (2+3): -

	रपग्न		मूल्पाकन
1.	मूल राशि	:	
2.	पेंकिंग खर्चे		
3.	जी॰एस॰टी॰	:	
4.	अग्रेषण शुल्क	:	
5.	माल भाड़ाँ (कृपया परिवहन का भी उल्लेख करें)	:	
6.	पारगमन बीमा	:	
7.	स्थापना शुल्क	:	
8.	कमीशनिंग शुल्क		
9.	प्रशिक्षण शुल्क (कृपया कर्मियों और दिनों की संख्या के लिए स	वतंत्र	
	प्रशिक्षण और भुगतान प्रशिक्षण निर्दिष्ट करें)	:	
10.	कोई अन्य शुल्क (कृपया निर्दिष्ट करें)	:	
	(सीटीआर बोलीदाताओं को लोड करने की स्वतंत्रता पर होगा)	1	
		कुल	

- 11. वितरण अवधि
- 12. वारंटी / गारंटी: -

(कृपया कवर किए गए भागों का विवरण निर्दिष्ट करें और यह उल्लेख करें कि वारंटी मरम्मत के लिए है या प्रातिस्थापन के लिए। प्रतिस्थापन / मरम्मत के लिए परिवहन आदि की जिम्मेदारी भी स्पष्ट रूप से उल्लेख किया जाना चाहिए)

- 13. निरीक्षण विवरण<sub>: -</sub>
- 14. भुगतान की शर्तें: -(हमारी भुगतान शर्तें सफलतापूर्वक स्थापना के ३० दिनों के भीतर हैं कुछ मामलों में विचलन स्वीकार किए जा सकते हैं लेकिन हमारे भुगतान शर्तों को स्वीकार करने वाली पार्टियों को प्राथमिकता दी जाएगी)
- 15. प्रापण को क्रम संख्या नं° के अनुसार लागू किया जाएगा। P-45021/2/2017-B.E.-II, दिनांक 15.06.2017, वाणिज्य एवं उद्योग मंत्रालय, औद्योगिक नीति एवं संवर्धन विभाग, भारत में मेक इन प्राधानिकता के संबंध में।



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#### <u>भाग- III</u>

#### **Technical Specifications of 3-Axis CNC Vertical Milling Machine with Fanuc Control**

#### Required Qty. 01 Nos.

Sr .No	Machine Description		
1	Technical data		
	Work area dimensions :		
1.1	Linear Traverses: Min. 750 mm in X-Axis		
1.1	: Min. 300 mm in Y-Axis		
	: Min. 400 mm in Z-Axis		
	Machine Table:		
1.2	Table size : 900 x 250 mm (Min.)		
1.2	Table Load Capacity: 300 kgs. (min.)		
	Work holding: Min. 3 nos. T-slots, width 14 or 16 mm, Center distance: 63 mm (min.)		
	Machine Spindle & Head Stock:		
1.3	Spindle speed: 6,000 rpm (min.)		
	Balanced Spindle		
1.4	Drive System : Gear Drive / Direct In-Line Drive (Supplier to specify)		
1.5	Spindle Motor – 5 KW continuous (min.) / 7.5 KW (15 minutes)		
1.6	Greased packed		
1.7	Digital controlled AC Spindle Motor drive		
1.8	Spindle with hydraulic / pneumatic operated automatic tool changing and through spindle air		
	blow for cleaning while tool change.		
1.9	Tool adapting support: ISO-40 / SK-40 / BBT-40		
1.10	Power failure detection module		
1.11	Centralized Lubrication System.		
2	Coolant System:		
2.1	Coolant tank and filtering unit		
2.2	Tank capacity 200 ltrs. or more		
2.3	Air Gun for Dry Machining.		
2.4	Adjustable external coolant nozzles		
2.5	First fill of coolant		
3	Axis Drives & Control		
3.1	Digital controlled drive and motors for all axes.		
3.2	LM Guide ways		
3.3	Closed pitch ball screws, supported at both ends, pre-tensioned		
3.4	Rapids X/Y/Z Axes: 10 m/min. (min.)		

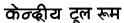
A-5, Focal Point, Ludhiana - 141010 Tel: (+91)-0161- 2670059 (Ext. 237), 2670058, 2676166, 2673564 Fax: (+91)-0161-2674746.

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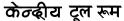
3.5	Machining feed range in 3-Axis simultaneously resulting feed rate: 10 m/min. (Min.)
4	Accuracy
4.1	Positional accuracy for full stroke in each axis 0.010 mm or less
4.2	Repeatability: 0.007 mm or less
4.3	Run out: 0.003 mm or less at nose
4.4	Run out on test bar: 0.010 mm or less (Test Bar Length = 200 mm)
4.5	Straightness: 0.010 mm or less for full stroke
4.6	Perpendicularity: 0.010 mm or less for full stroke
5	CNC Control Unit features:
5.1	Controller: Fanuc FS Oi MF or Latest version of Fanuc control
5.2	64 bit processor
5.3	3-axes simultaneous controllable
5.4	Spindle functions S, incl. Spindle Operation.
5.5	Faster data procession rate and block processing suitable for high speed milling application. (1000 blocks/sec)
5.6	Programming syntax as per DIN:66025/ISO/EIA or additional manufacturer own syntax.
5.7	Least increment 0.001 mm with decimal input.
5.8	Feed functions f, G-code & M-code
5.9	Tool functions T, Tool length and cutter dia compensation G-code
5.10	I/O interface Ethernet with ISO/EIA auto-discrimination.
5.11	Rigid tapping/synchronized tapping function
5.12	Measuring cycles for touch probe
5.13	Standard cycles as per ISO std.
5.14	USB Port for communication
5.15	Part program storage Min 500 MB on Hard disk and Ethernet interface
5.16	Display of alarm and message
5.17	Over travel control
5.18	Emergency stop on control panel and remote control
5.19	Stored pitch error compensation
5.20	Backlash compensation for cutting traverse
5.21	Backlash compensation for rapid traverse
5.22	Friction compensation control
5.23	Electronic Thermal Compensation
5.24	Feed forward control
5.25	Suitable LCD color monitor with soft keys.
5.26	Swiveling Panel with in-built keyboard, monitor & operating knobs.
5.27	Feed control potentiometer 10%. Increments from $0-150\%$ .
5.28	Spindle speed control potentiometer 10% Increments from 50 – 150%.
5.29	Emergency brake knob

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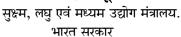
5.31 Spindle load display (KW) 5.32 AC control for PLC and drive control cabinet, self-diagnostic function (optional) 5.33 Blunt tool message 6 Accessories 6.1 Chip conveyor. 6.2 Fully enclosed splash guard with slide windows. 6.3 Fully encapsulated housing with safety type window. 6.4 Automatic Tool Magazine for min. 30 tools and Changer with safety – guard. 6.5 Max tool weight 5 Kg (min). Preferably ARM Type 6.6 Max tool dia 80 mm random access. Max Tool Length 250 mm 6.7 Leveling pads 6.8 Door safety interlock 6.9 Remote Jig Handle 6.10 Work-piece washing gun 6.11 Software controlled central lubrication system 6.12 Run hour meter 6.13 Data Logger / Auto Utilization Mechanism 6.14 Mimic Display 6.15 Optical / Auto measuring cycle 6.16 Machine Colour: Apple Green  Tooling Set Face milling cutter, dia 80 mm, 01 no. Inserts for dia. 80 mm Face milling Cutter 20 nos. Face milling Adopter for dia 100 mm face milling cutter – 01 no. Face milling Adopter for dia 50 mm face milling cutter – 01 no. Face milling Adopter for dia 50 mm face milling cutter – 01 no. Indexable Inserts Milling Cutter, Dia 16 mm – 01 no. Inserts for dia. 16 mm Indexable inserts cutter – 10 Nos. Indexable inserts Milling Cutter, Dia 10 mm – 01 no. Inserts for dia. 10 mm Indexable inserts cutter – 10 Nos. Suitable collet chuck – 01 Set Drill chuck with key – 01 Set Mechanical Vice, 150 mm – 01 No.	5.30	Machine hour reading		
S.33   Blunt tool message	5.31	Spindle load display (KW)		
S.33   Blunt tool message	5.32	AC control for PLC and drive control cabinet, self-diagnostic function (optional)		
6.1 Chip conveyor. 6.2 Fully enclosed splash guard with slide windows. 6.3 Fully encapsulated housing with safety type window. 6.4 Automatic Tool Magazine for min. 30 tools and Changer with safety – guard. 6.5 Max tool weight 5 Kg (min). Preferably ARM Type 6.6 Max tool dia 80 mm random access. Max Tool Length 250 mm 6.7 Leveling pads 6.8 Door safety interlock 6.9 Remote Jig Handle 6.10 Work-piece washing gun 6.11 Software controlled central lubrication system 6.12 Run hour meter 6.13 Data Logger / Auto Utilization Mechanism 6.14 Mimic Display 6.15 Optical / Auto measuring cycle 6.16 Machine Colour: Apple Green  Tooling Set Face milling cutter, dia 80 mm, 01 no. Inserts for dia. 80 mm Face milling cutter 20 nos. Face milling Adopter for dia 80 mm face milling cutter – 01 no. Face milling Adopter for dia 63 mm face milling cutter – 01 no. Indexable Inserts Milling Cutter, Dia 16 mm – 01 no. Indexable Inserts Milling Cutter, Dia 16 mm – 01 no. Inserts for dia. 16 mm Indexable inserts cutter – 10 Nos. Suitable collet chuck – 01 Set Drill chuck with key – 01 Set	5.33			
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6.3 Fully encapsulated housing with safety type window. 6.4 Automatic Tool Magazine for min. 30 tools and Changer with safety – guard. 6.5 Max tool weight 5 Kg (min). Preferably ARM Type 6.6 Max tool dia 80 mm random access. Max Tool Length 250 mm 6.7 Leveling pads 6.8 Door safety interlock 6.9 Remote Jig Handle 6.10 Work-piece washing gun 6.11 Software controlled central lubrication system 6.12 Run hour meter 6.13 Data Logger / Auto Utilization Mechanism 6.14 Mimic Display 6.15 Optical / Auto measuring cycle 6.16 Machine Colour: Apple Green  Tooling Set Face milling cutter, dia 80 mm, 01 no. Inserts for dia. 80 mm Face milling Cutter 20 nos. Face milling Adopter for dia 100 mm face milling cutter – 01 no. Face milling Adopter for dia 63 mm face milling cutter – 01 no. Indexable Inserts Milling Cutter, Dia 16 mm – 01 no. Inserts for dia. 16 mm Indexable inserts cutter – 10 Nos. Suitable collet chuck – 01 Set Drill chuck with key – 01 Set	6.1	Chip conveyor.		
6.4 Automatic Tool Magazine for min. 30 tools and Changer with safety – guard. 6.5 Max tool weight 5 Kg (min). Preferably ARM Type 6.6 Max tool dia 80 mm random access. Max Tool Length 250 mm 6.7 Leveling pads 6.8 Door safety interlock 6.9 Remote Jig Handle 6.10 Work-piece washing gun 6.11 Software controlled central lubrication system 6.12 Run hour meter 6.13 Data Logger / Auto Utilization Mechanism 6.14 Mimic Display 6.15 Optical / Auto measuring cycle 6.16 Machine Colour: Apple Green  Tooling Set Face milling cutter, dia 80 mm, 01 no. Inserts for dia. 80 mm Face milling Cutter 20 nos. Face milling Adopter for dia 100 mm face milling cutter – 01 no. Face milling Adopter for dia 63 mm face milling cutter – 01 no. Face milling Adopter for dia 50 mm face milling cutter – 01 no. Indexable Inserts Milling Cutter, Dia 16 mm – 01 no. Inserts for dia. 16 mm Indexable inserts cutter – 10 Nos. Indexable inserts Milling Cutter, Dia 10 mm – 01 no. Inserts for dia. 10 mm Indexable inserts cutter – 10 Nos. Suitable collet chuck – 01 Set Drill chuck with key – 01 Set	6.2	Fully enclosed splash guard with slide windows.		
6.5 Max tool weight 5 Kg (min). Preferably ARM Type 6.6 Max tool dia 80 mm random access. Max Tool Length 250 mm 6.7 Leveling pads 6.8 Door safety interlock 6.9 Remote Jig Handle 6.10 Work-piece washing gun 6.11 Software controlled central lubrication system 6.12 Run hour meter 6.13 Data Logger / Auto Utilization Mechanism 6.14 Mimic Display 6.15 Optical / Auto measuring cycle 6.16 Machine Colour: Apple Green  Tooling Set Face milling cutter, dia 80 mm, 01 no. Inserts for dia. 80 mm Face milling Cutter 20 nos. Face milling Adopter for dia 100 mm face milling cutter – 01 no. Face milling Adopter for dia 80 mm face milling cutter – 01 no. Face milling Adopter for dia 50 mm face milling cutter – 01 no. Indexable Inserts Milling Cutter, Dia 16 mm – 01 no. Inserts for dia. 16 mm Indexable inserts cutter – 10 Nos. Indexable inserts Milling Cutter, Dia 10 mm – 01 no. Inserts for dia. 10 mm Indexable inserts cutter – 10 Nos. Suitable collet chuck – 01 Set Drill chuck with key – 01 Set	6.3	Fully encapsulated housing with safety type window.		
6.6 Max tool dia 80 mm random access. Max Tool Length 250 mm  6.7 Leveling pads  6.8 Door safety interlock  6.9 Remote Jig Handle  6.10 Work-piece washing gun  6.11 Software controlled central lubrication system  6.12 Run hour meter  6.13 Data Logger / Auto Utilization Mechanism  6.14 Mimic Display  6.15 Optical / Auto measuring cycle  6.16 Machine Colour: Apple Green  Tooling Set  Face milling cutter, dia 80 mm, 01 no.  Inserts for dia. 80 mm Face milling Cutter 20 nos.  Face milling Adopter for dia 100 mm face milling cutter – 01 no.  Face milling Adopter for dia 63 mm face milling cutter – 01 no.  Face milling Adopter for dia 50 mm face milling cutter – 01 no.  Indexable Inserts Milling Cutter, Dia 16 mm – 01 no.  Inserts for dia. 16 mm Indexable inserts cutter – 10 Nos.  Indexable inserts Milling Cutter, Dia 10 mm – 01 no.  Inserts for dia. 10 mm Indexable inserts cutter – 10 Nos.  Suitable collet chuck – 01 Set  Drill chuck with key – 01 Set	6.4	Automatic Tool Magazine for min. 30 tools and Changer with safety – guard.		
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6.15 Optical / Auto measuring cycle  6.16 Machine Colour: Apple Green  Tooling Set  Face milling cutter, dia 80 mm, 01 no.  Inserts for dia. 80 mm Face milling Cutter 20 nos.  Face milling Adopter for dia 100 mm face milling cutter – 01 no.  Face milling Adopter for dia 80 mm face milling cutter – 01 no.  Face milling Adopter for dia 63 mm face milling cutter – 01 no.  Face milling Adopter for dia 50 mm face milling cutter – 01 no.  Indexable Inserts Milling Cutter, Dia 16 mm – 01 no.  Inserts for dia. 16 mm Indexable inserts cutter – 10 Nos.  Indexable inserts Milling Cutter, Dia 10 mm – 01 no.  Inserts for dia. 10 mm Indexable inserts cutter – 10 Nos.  Suitable collet chuck – 01 Set  Drill chuck with key – 01 Set	6.13	Data Logger / Auto Utilization Mechanism		
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Drill chuck with key – 01 Set		Inserts for dia. 10 mm Indexable inserts cutter – 10 Nos.		
·		Suitable collet chuck – 01 Set		
Mechanical Vice, 150 mm – 01 No.		Drill chuck with key – 01 Set		
		Mechanical Vice, 150 mm – 01 No.		
Hydraulic Vice, 150 mm – 01 No.		Hydraulic Vice, 150 mm – 01 No.		
Magnetic Dial Stand – 01 No.		Magnetic Dial Stand – 01 No.		
Edge Finder (Mechanical) – 01 no.		Edge Finder (Mechanical) – 01 no.		

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	<b>Note</b> : Cutting tool inserts should be of coated cemented carbide grades from reputed suppliers such as Mitsubishi/Sandvik/Kennametal/Seco/Kyocera/Hitachi/Iscar/Sumitomo
	Standard Maintenance Tool Kit:
	6-19 mm Drop Forged Combination Spanners (Set 14), 1 Set
6.18	1.5-10 mm Allen Key Set (Set of 9), 1 Set
	1/16"-3/8" Allen Key Set (Set of 10), 1 Set
	Tri-Line Driver (Set 6), 1 Set
6.19	First Fill of Coolant
6.20	Voltage Stabilizer, Capacity 20 kVA, 1 no.
6.21	Ultra Isolation Transformer, Capacity 20 kVA - 1 no.
6.22	Panel Exhaust / Cooler for CNC Control Panel, 1 No.
6.23	Air Dryer if required
7	Installation & Commissioning
7.1	The complete installation and commissioning must be carried out by the supplier at the final destination/premises including unloading and placement. A final accuracy test according to NAS-Standard Test part to be conducted and verified by CMM-Metrology Test Record OR equivalent specimen test chart. Certificate of acceptance is to be signed by customer and supplier.
8	Training – To be provided at final destination place
8.1	Operator training – 5 days.
8.2	Programming course - 5 days
8.3	Maintenance course mechanical, electrical and electronics - 2 days.

#### **NOTES:**

- 1. Machine make and model no. to be specifically mentioned.
- 2. Supplier to confirm each specification. Deviations from specified specifications, if any, should be mentioned separately.
- 3. Warranty of the machine to be declared.
- 4. 2 set of Machine manuals (Operation and maintenance), spare parts catalogue, machine test charts, calibration certificate in English language, shall be required with the machines.
- 5. PDI will be carried out at the supplier's works by our representative(s) for conformity to the machine specifications, accuracy and proving out of tooled up components, on receipt of inspection call from the supplier. Supplier must inform the PDI schedule at least 10 days in advance. Supplier shall send details pre-inspection report including geometric accuracy report along with test charts, prior to PDI call.
- 6. Supplier to furnish the details of customers where same machine has been supplied. The machines should presently be in good running condition. Provide satisfactory running reports from all such customers.
- 7. The supplied machine should be complete in all respects in ready-to-operate condition.

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सुक्ष्म, लघु एवं मध्यम उद्योग मंत्रालय. भारत सरकार



- 8. Supplier should be OEM (Original Equipment Manufacturer) or authorized supplier.
- 9. Machine are to delivered at our Extension Center, Faridabad
- 10. The supplier shall be required to submit a performance bank guarantee of value equal to 10% of the order value, for the warranty period.

E-mail: <a href="mailto:info@ctrludhiana.com">info@ctrludhiana.com</a>; <a href="mailto:visitus">purchase@ctrludhiana.com</a>; <a href="mailto:visitus">visitus</a> at: <a href="mailto:www.ctrludhiana.com">www.ctrludhiana.com</a>; <a href="mailto:visitus">visitus</a> at: <a href="mailto:www.ctrludhiana.com">www.ctrludhiana.com</a>;

# COMMISSION REPORTED TO A STATE OF STATE

# CENTRAL TOOL ROOM, LUDHIANA

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# केन्द्रीय टूल रूम

सुक्ष्म, लघु एवं मध्यम उद्योग मंत्रालय. भारत सरकार



#### <u>भाग- IV</u>

# विशेष स्थितिः

- 1. खरीदार के कर्मचारियों का प्रशिक्षण निविदाकर्ता की जिम्मेदारी है।
- 2. वितरण अनुसूची: खरीद आदेश की शर्तों के अनुसार
- 3. सीटीआर तक पहुंचने के लिए अपेक्षित समय के साथ-साथ भविष्य में स्पेयर पार्ट्स की उपलब्धता की स्थिति के साथ ब्रेक डाउन / सपोर्ट के मामले में सेवा अभियंता की उपलब्धता की स्थिति स्पष्ट रूप से बताई जानी चाहिए।
- 4. अगर हिन्दी की निविदा में कुछ त्रुटि है तो आप हमारी अँग्रेजी निविदा का संधर्भ ले<sub>।</sub>

	-	निविदाकर्ता के हस्ताक्षर
जगह : दिनांक :	नाम पद नाम तथा पता फर्म की	:
गवाह		

हस्ताक्षर : नाम : पद :

फर्म की

नाम तथा पता

 $E-mail: \ \underline{info@ctrludhiana.com} \ ; \ \underline{purchase@ctrludhiana.com} \ ; \ Visit \ us \ at: \ \underline{www.ctrludhiana.com}$ 

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# केन्द्रीय टूल रूम

सुक्ष्म, लघु एवं मध्यम उद्योग मंत्रालय. भारत सरकार



IMPORTANT: TENDERERS SHOULD READ THE TENDER PAPERS CAREFULLY; SUBMISSION OF TENDER SHALL MEAN THAT THE TENDERER HAS READ AND UNDERSTOOD ALL THE TERMS AND CONDITIONS OF THE TENDER AND AGREES AND BINDS HIMSELF/THEMSELVES TO THE SAME. ALL PAGES OF THE TENDER DOCUMENTS SHOULD BE SIGNED BY THE TENDERER(S) AND RETURNED WITH THE TENDER.

TENDER NO: CTR/LDH/1810/Mach/2020-39 DATED: 12.05.2020 DUE ON : 28.04.2021 AT: 02:00 p.m.

	$\underline{\mathbf{PART}} - \underline{\mathbf{I}}$
	INVITATION OF TENDER
From:	The General Manager. Central Tool Room A-5, Focal Point Ludhiana-141 010
То :	India.
1.0	Tender for "3-Axis CNC Vertical Milling Machine" as per specifications attached in Schedule (Part-III) are invited by the General Manager, Central Tool Room, Ludhiana, India (hereinafter called the "Tool Room and/or the Purchaser"). The tenders shall be received up to 02.00 p.m. on 28.04.2021 and shall be opened in the presence of intending tenderers at 3:00 p.m. on the next day i.e. 29.04.2021. Tenders received late will not be accepted. Tenders should be accompanied by interest free Earnest Money of an amount of Rs. 60,000/- (Rupees Sixty Thousand Only) in the form of Demand Draft / Bank Guarantee in favour of "Central Tool Room Ludhiana" payable at Ludhiana. Tenders without Earnest Money or bank guarantee in lieu thereof will not be accepted. Tenderers registered with NSIC for machine/equipment/goods mentioned in Part-III are exempted from depositing Earnest Money and Security Deposit on submission of proof of registration, along with the tender.
2.0	Tenders must be submitted only on on-line on www.eprocure.gov.in portal before the stipulated date and time.
3.0	All pages of this tender document are to be signed and submitted with tender.

A-5, Focal Point, Ludhiana - 141010 Tel: (+91)-0161- 2670059 (Ext. 237), 2670058, 2676166, 2673564 Fax: (+91)-0161-2674746.



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# केन्द्रीय दूल रूम

सुक्ष्म, लघु एवं मध्यम उद्योग मंत्रालय. भारत सरकार



4.0 a) The tenders should be submitted in two parts. Part 'A' should contain the technical specifications of the machine, which should be described in sufficient details. Detailed technical literature should be enclosed. It should also be accompanied by a list of organizations where similar machines have been supplied by the tenders in India. No price should be indicated in this Part 'A'. COPY OF DD FOR EARNEST MONEY SHOULD ALSO BE UPLOADED PART A. All pages of this tender document are to be signed and uploaded with this part 'A'. This envelop should be marked as follows-

PART 'A'

Tender for : 3-Axis CNC Vertical Milling Machine

b) Part 'B' of the tender should contain the prices quoted by the Tenderer for the machine. It is very important that the prices are quoted with reference to the description of the machine offered in Part 'A' of the tender.

This envelop should be marked as follows-

PART 'B'

Tender for : 3-Axis CNC Vertical Milling Machine

- 5.0 The tenders should be valid for acceptance for a period of 90 days from the date of tender opening (due date). It is understood the tenderers are being permitted to tender in consideration of the stipulation on their part that after submitting their tenders they will not resile from their offer(s) or modify the terms and conditions thereof. If the equipment tendered deviates from tender specifications, a deviation statement should be enclosed with the tender. If there is no deviation "Nil Deviation" confirmation should be enclosed with the tender.
- a) If you are a firm (i.e. if you have a Partner or partner(s), the authorized partner holding the Power of Attorney must sign each page of tender. A copy of the partnership agreement should be enclosed. A copy of the Power of Attorney duly executed in his favour authorizing him to bind the firm in all matters pertaining to the contract, including the submission of any dispute relating to business of the firm to arbitration, should be attached to the tender. Original documents are to be shown if and/or when required.
  - b) If you are not a firm, the following certificate is to be attached to the tender:
    - "I certify that I am the sole proprietor and there are no other partner doing business jointly with me."
  - c) In case of the limited company, tender documents should be signed by the managing director and the following certificate should be attached to the tender:



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# केन्द्रीय टूल रूम

सुक्ष्म, लघु एवं मध्यम उद्योग मंत्रालय. भारत सरकार



"I certify that I am the managing director and I hold the power of attorney executed in accordance with the Articles of Association of the Company to sign all the documents on behalf of the company."

- d) THE REQUISITE CERTIFICATE AS PER (a), (b) OR (c) ABOVE, CURRENT INCOME TAX CLEARANCE CERTIFICATE AND CERTIFICATE OF REGISTRATION WITH NSIC, IF APPLICABLE, ARE TO BE ENCLOSED WITH PART "A" OF THE TENDER.
- 7.0 The Tool Room reserves the right to reject any or all offers without assigning any reason whatsoever. The Tool Room also reserves the right to accept any tender in whole or in part without assigning any reason whatsoever. The successful tenderer shall be notified of the acceptance of the tender and till such intimation is received, tenderer(s) should not make any arrangement or incur any expenditure in anticipation of the receipt of notice of acceptance of the tender.

#### 8.0 Machine to be used and installed at CTR Extension Centre, Faridabad

Other conditions of the Tender are:

- i) The basic consideration and the essence of the contract shall be strict adherence to the stipulated time schedule for the supply of contracted machine/equipment/goods/software i.e. "Time is the Essence of Contract".
- ii) Failure and Termination: On acceptance of tender, if the tenderer whose tender is accepted fails to deliver the machine within the period fixed for such delivery in the contract or as extended, or if the contractor repudiates the contract at any time before the expiry of such period, the purchaser may, without prejudice to their other rights
  - a) Recover from the Contractor Liquidated Damages and by way of penalty a sum equivalent to 2% of the price of any machines /equipments/goods/software (including element of taxes, duties, freights, etc) which the Contractor have failed to deliver within the period fixed for delivery in the contract or as extended, for each month or part of a month for which the delivery of such machine/equipment/goods/software may be in arrears when deliver thereof is accepted after expiry of the aforesaid period subject to maximum of 10.0% of the contract value.

OR

b) Cancel the contract or a portion thereof and, if so desired and purchase the machine/equipment/goods/software not so delivered or others of a similar description (where machine/equipment/goods exactly complying with particulars are not, in the opinion of the Purchaser [which shall be final] readily procurable) at the risk and cost of the Contractor. It



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shall, however, be the discretion of the Purchaser to obtain or not, the Performance Guarantee Bond from the firm/firms on whom the contract is placed at the risk and expense of the defaulting firm/firms.

- iii) Force Majeure: The Contractor shall not be liable to forfeiture of security deposit, liquidated damages or termination for default, if and to the extent the delay in performance or other failures to perform its obligations under the contract is the result of an event of Force Majeure. For the purpose of this clause "Force Majeure" means an event beyond the control of the Contractor and not involving the Contractor's fault or negligence and not foreseeable. Such events may include, but are not restricted to, acts of the Purchaser either in its sovereign or contractual capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions and freight embargoes. If a Force Majeure situation arises, the Contractor shall promptly notify the Purchaser in writing of such condition and the cause thereof. Unless otherwise directed by the Purchaser in writing, the Contractor shall continue to perform its obligations under the contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.
- Any dispute or difference arising in interpretations or applications of provisions of the Contract shall be referred to the sole arbitration of Development Commissioner, Ministry of MSME, Govt. of India or any other person appointed by him. The award of the arbitrator shall be final and binding on both the parties. Arbitration shall be governed by Indian Arbitration Act. In case of any litigation the jurisdiction shall be Ludhiana
- v) In case of any change in the constitution of firm tenderer/contractor shall notify the same to the Tool Room provided that such change shall not relieve any former member/partner of the firm from any liability under the contract and provided that no new member/partner shall be accepted by the firm unless he agrees to abide by all the terms and conditions of this contract.
- vi) These tender documents are non-transferable.

For GENERAL MANAGER

Dated, Ludhiana, 12th April, 2021



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#### PART - II (a)

#### **TENDER**

To The General Manager, Central Tool Room, A-5, Focal Point, Ludhiana-141010. (India)

Dear Sir,

I/We agree, on acceptance of the tender in whole or in part, to supply to Central Tool Room, Ludhiana, India, the machine/equipment/goods and accessories, detailed in the Tender enclosed herewith at prices quoted by me/us therein. I/We agree to hold the offer open for 90 days from the due date. I/We have read and understood the terms and conditions of the Tender Documents which shall become Contract on acceptance of tender, and agree to be governed by the same. I/We specifically undertake that I/We will not resile from my/our offer or modify the terms and conditions thereof.

		Sign	nature of the Tenderer
Place : Date :		Designation	: :
WITNESS			
Signature Name	: _		<u>.</u>
Designation Name & Address Of the firm.	: _		<u>.</u>

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#### Part-II (b)

#### **Tender**

#### Performa for commercial bid :-

Tender No. & Date

(Tenderer need not use this document exclusively but the offer should be in this format to the extent possible)

2. Particulars of item/machine offered:
Sr. No. Particulars Qty. Rate Amount

Total

3. Particulars of Standard and Essential Accessories and Spares:
Sr. No. Particulars Qty. Rate Amount

4. Particulars of optional Accessories & Spares:-

Sr. No. Particulars Qty. Rate Amount

Total \_\_\_\_\_

Total

A-5, Focal Point, Ludhiana - 141010 Tel: (+91)-0161- 2670059 (Ext. 237), 2670058, 2676166, 2673564 Fax: (+91)-0161-2674746.



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5. Total Offer Price of Main items and Essential Accessories (2+3): -

<u>An</u>	<u>nount</u>	<u>Rate</u>	
1.	Basic Amount	:	
2.	Packing charges	:	
3.	GST	:	
4.	Forwarding charges	:	
5.	Freight (pl. mention mode of Transport also)	:	
6.	Transit Insurance	:	
7.	Installation charges	:	
8.	Commissioning charges	:	
9.	Training charges (Pl. specify free training and paid		
	Training for no. of personnel and days separately)	:	
10.	Any other charges (Pl. specify)	:	
,	be at liberty to load the bidders & overheads etc. in are not indicated explicitly)		
11	Daliyary pariad	Total	

- 11. Delivery period
- 12. Warranty/Guarantee: -

(Pl. specify the details of parts not covered and mention whether the warranty is for replacement or for repair. Responsibility for transportation etc. for replacement/repair should also be clearly mentioned)

- 13. Inspection Details: -
- 14. Payment terms: -

(Our payment terms are within 30 days after receiving of material. Deviations can be accepted in certain cases. But parties accepting our payment terms shall be preferred)

15. The procurement would be further governed as per order no. P-45021/2/2017-B.E.-II, dated 15.06.2017 issued by Ministry of Commerce and Industry, Department of Industrial Policy and Promotion with regard to preference to Make in India.



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#### PART - III

#### Technical Specifications of 3-Axis CNC Vertical Milling Machine with Fanuc Control

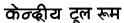
# Required Qty. 01 Nos.

Sr .No	Machine Description		
1	Technical data		
	Work area dimensions :		
1.1	Linear Traverses: Min. 750 mm in X-Axis		
1.1	: Min. 300 mm in Y-Axis		
	: Min. 400 mm in Z-Axis		
	Machine Table:		
1.2	Table size : 900 x 250 mm (min.)		
1.2	Table Load Capacity: 300 kgs. (min.)		
	Work holding: Min. 3 nos. T-slots, width 14 or16 mm, Center distance: 63 mm (min.)		
	Machine Spindle & Head Stock:		
1.3	Spindle speed: 6,000 rpm (min.)		
	Balanced Spindle		
1.4	Drive System : Gear Drive / Direct In-Line Drive (Supplier to specify)		
1.5	Spindle Motor – 5 KW continuous (min.) / 7.5 KW (15 minutes)		
1.6	Greased packed		
1.7	Digital controlled AC Spindle Motor drive		
1.8	Spindle with hydraulic / pneumatic operated automatic tool changing and through spindle air		
	blow for cleaning while tool change.		
1.9	Tool adapting support: ISO-40 / SK-40 / BBT-40		
1.10	Power failure detection module		
1.11	Centralized Lubrication System.		
2	Coolant System:		
2.1	Coolant tank and filtering unit		
2.2	Tank capacity 200 ltrs. or more		
2.3	Air Gun for Dry Machining.		
2.4	Adjustable external coolant nozzles		
2.5	First fill of coolant		
3	Axis Drives & Control		
3.1	Digital controlled drive and motors for all axes.		
3.2	LM Guide ways		
3.3	Closed pitch ball screws, supported at both ends, pre-tensioned		
3.4	Rapids X/Y/Z Axes: 10 m/min. (min.)		

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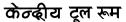
3.5	Machining feed range in 3-Axis simultaneously resulting feed rate: 10 m/min. (Min.)		
4	Accuracy		
4.1	Positional accuracy for full stroke in each axis 0.010 mm or less		
4.2	Repeatability: 0.007 mm or less		
4.3	Run out: 0.003 mm or less at nose		
4.4	Run out on test bar: 0.010 mm or less (Test Bar Length = 200 mm)		
4.5	Straightness: 0.010 mm or less for full stroke		
4.6	Perpendicularity: 0.010 mm or less for full stroke		
5	CNC Control Unit features:		
5.1	Controller: Fanuc FS Oi MF or Latest version of Fanuc control		
5.2	64 bit processor		
5.3	3-axes simultaneous controllable		
5.4	Spindle functions S, incl. Spindle Operation.		
5.5	Faster data procession rate and block processing suitable for high speed milling application. (1000 blocks/sec)		
5.6	Programming syntax as per DIN:66025/ISO/EIA or additional manufacturer own syntax.		
5.7	Least increment 0.001 mm with decimal input.		
5.8	Feed functions f, G-code & M-code		
5.9	Tool functions T, Tool length and cutter dia compensation G-code		
5.10	I/O interface Ethernet with ISO/EIA auto-discrimination.		
5.11	Rigid tapping/synchronized tapping function		
5.12	Measuring cycles for touch probe		
5.13	Standard cycles as per ISO std.		
5.14	USB Port for communication		
5.15	Part program storage Min 500 MB on Hard disk and Ethernet interface		
5.16	Display of alarm and message		
5.17	Over travel control		
5.18	Emergency stop on control panel and remote control		
5.19	Stored pitch error compensation		
5.20	Backlash compensation for cutting traverse		
5.21	Backlash compensation for rapid traverse		
5.22	Friction compensation control		
5.23	Electronic Thermal Compensation		
5.24	Feed forward control		
5.25	Suitable LCD color monitor with soft keys.		
5.26	Swiveling Panel with in-built keyboard, monitor & operating knobs.		
5.27	Feed control potentiometer 10%. Increments from 0 – 150%.		
5.28	Spindle speed control potentiometer 10% Increments from 50 – 150%.		
5.29	Emergency brake knob		

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5.30	Machine hour reading		
5.31	Spindle load display (KW)		
5.32	AC control for PLC and drive control cabinet, self-diagnostic function (optional)		
5.33	Blunt tool message		
6	Accessories		
6.1	Chip conveyor.		
6.2	Fully enclosed splash guard with slide windows.		
6.3	Fully encapsulated housing with safety type window.		
6.4	Automatic Tool Magazine for min. 30 tools and Changer with safety – guard.		
6.5	Max tool weight 5 Kg (min). Preferably ARM Type		
6.6	Max tool dia 80 mm random access. Max Tool Length 250 mm		
6.7	Leveling pads		
6.8	Door safety interlock		
6.9	Remote Jig Handle		
6.10	Work-piece washing gun		
6.11	Software controlled central lubrication system		
6.12	Run hour meter		
6.13	Data Logger / Auto Utilization Mechanism		
6.14	Mimic Display		
6.15	Optical / Auto measuring cycle		
6.16	Machine Colour: Apple Green		
	Tooling Set		
	Face milling cutter, dia 80 mm, 01 no.		
	Inserts for dia. 80 mm Face milling Cutter 20 nos.		
	Face milling Adopter for dia 100 mm face milling cutter – 01 no.		
	Face milling Adopter for dia 80 mm face milling cutter – 01 no.		
	Face milling Adopter for dia 63 mm face milling cutter – 01 no.		
	Face milling Adopter for dia 50 mm face milling cutter – 01 no.		
	Indexable Inserts Milling Cutter, Dia 16 mm – 01 no.		
6.17	Inserts for dia. 16 mm Indexable inserts cutter – 10 Nos.		
	Indexable inserts Milling Cutter, Dia 10 mm – 01 no.		
	Inserts for dia. 10 mm Indexable inserts cutter – 10 Nos.		
	Suitable collet chuck – 01 Set		
	Drill chuck with key – 01 Set		
	Mechanical Vice, 150 mm – 01 No.		
	Hydraulic Vice, 150 mm – 01 No.		
	Magnetic Dial Stand – 01 No.		
	Edge Finder (Mechanical) – 01 no.		

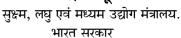
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	<b>Note</b> : Cutting tool inserts should be of coated cemented carbide grades from reputed suppliers such as Mitsubishi/Sandvik/Kennametal/Seco/Kyocera/Hitachi/Iscar/Sumitomo		
	Standard Maintenance Tool Kit:		
6.18	6-19 mm Drop Forged Combination Spanners (Set 14), 1 Set		
	1.5-10 mm Allen Key Set (Set of 9), 1 Set		
	1/16"-3/8" Allen Key Set (Set of 10), 1 Set		
	Tri-Line Driver (Set 6), 1 Set		
6.19	First Fill of Coolant		
6.20	Voltage Stabilizer, Capacity 20 kVA, 1 no.		
6.21	Ultra Isolation Transformer, Capacity 20 kVA - 1 no.		
6.22	Panel Exhaust / Cooler for CNC Control Panel, 1 No.		
6.23	Air Dryer if required		
7	Installation & Commissioning		
7.1	The complete installation and commissioning must be carried out by the supplier at the final destination/premises including unloading and placement. A final accuracy test according to NAS-Standard Test part to be conducted and verified by CMM-Metrology Test Record OR equivalent specimen test chart. Certificate of acceptance is to be signed by customer and supplier.		
8	Training – To be provided at final destination place		
8.1	Operator training – 5 days.		
8.2	Programming course - 5 days		
8.3	Maintenance course mechanical, electrical and electronics - 2 days.		

#### **NOTES:**

- 11. Machine make and model no. to be specifically mentioned.
- 12. Supplier to confirm each specification. Deviations from specified specifications, if any, should be mentioned separately.
- 13. Warranty of the machine to be declared.
- 14. 2 set of Machine manuals (Operation and maintenance), spare parts catalogue, machine test charts, calibration certificate in English language, shall be required with the machines.
- 15. PDI will be carried out at the supplier's works by our representative(s) for conformity to the machine specifications, accuracy and proving out of tooled up components, on receipt of inspection call from the supplier. Supplier must inform the PDI schedule at least 10 days in advance. Supplier shall send details pre-inspection report including geometric accuracy report along with test charts, prior to PDI call.
- 16. Supplier to furnish the details of customers where same machine has been supplied. The machines should presently be in good running condition. Provide satisfactory running reports from all such customers.
- 17. The supplied machine should be complete in all respects in ready-to-operate condition.

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- 18. Supplier should be OEM (Original Equipment Manufacturer) or authorized supplier.
- 19. Machine are to delivered at our Extension Center, Faridabad
- 20. The supplier shall be required to submit a performance bank guarantee of value equal to 10% of the order value, for the warranty period.

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#### $\underline{PART-IV}$

#### **SPECIAL CONDITIONS:**

1.	Training of Purchaser	aser's staff is tenderer's responsibility.		
2.	Delivery Schedule:	As per the terms of purchase order.		
3.	Position of availability of Service Engineer in case of break down / support, along with expected time to reach CTR and position of availability of spare parts in future should clearly be stated			
		_	Signature of the Tenderer	
Place:		Name	:	
Date: _		Designation	:	
		Name & Address of the firm	:	
WITN	<u>NESS</u>			
Signati Name Design		: : :		
	& Address of the firm	:		