Invitation to Tender

Purchase of Injection Moulding Machines

**BIGTP165**

(Please be sure your submitted tender shows this reference number)

(Please make sure that you state this reference on all communications with us)

# Background

CHX Products Limited (CHX) is a leading UK manufacturer of recycled plastic promotional products printed in full colour. The company has come a long way since its origins in 1997. Since we first started, we have made close to half a billion items for thousands of customers in the UK and abroad.

We have a wide range of standard products available in eight colours on a fast 10 day service. Our high-quality products include trolley tokens, badges, keyrings, fridge magnets and flying discs, along with items for the automotive, travel, leisure, conference, stationery and home environments

We are looking to invest in two (2) new state of the art injection moulding machines. We have remained fully operational throughout the pandemic and due to unprecedented increases in our forward order book, we need to increase the yield and output from our injection moulding process. In order to do this, we need to invest in additional injection moulding machines. These newer machines will be better automated, more energy efficient, and capable of processing more material per hour than any of our existing machines.

The purchase of these injection moulding machines is part of a grant funded application process and therefore procurement will be subject to grant approval of the project as a whole. We will compare tenders received on a compliance basis and make an award based on the lowest compliant tender or the tender response that is the most economically advantageous.

# Project Specifications

Project Title: Injection Moulding Machine Investment

Project Reference: BIGTP165

(Please state this on all communications with us)

Please note that CHX Products will supply services /connections for electricity, water and compressed air

## 2 x Injection Moulding machine with the following same key feature set:

Basic machine construction /features:

* The system needs to be designed for industrial use and rated for 3 shift production operation
* Machine length not to exceed 5 metres
* Two platen configuration, fully hydraulic clamping system with a minimum clamping force of 150 tonnes using a direct locking system (not toggle)
* Minimum distance/clearance between tie bars to be 520mm x 520mm with a minimum mould height clearance of 300mm
* Minimum daylight requirement between platens of 950mm
* Minimum ejector stroke of 150mm with a minimum ejector force, forward of 20KN and backward of 8KN
* Plasticising unit to have a capacity of between 350 - 360 grams (PS)
* Barrel to have a minimum requirement of 5 controllable heating zones
* Euromap 67 robot interface required

Technical specification:

|  |  |
| --- | --- |
| **Injection Unit**  Ls/D ratio  Bar Injection pressure  Stroke volume  Shot weight  Injection speed  Injection rate  Working capacity 2)  Screw speed  Plasticizing rate  Installed heating capacity  Adjustable barrel heating zones  Nozzle pressure  **General Data**  Pump motor capacity  Dry cycle time / stroke (EUROMAP 6) 3)  **Dimensions and weights**  Length (excluding vibration pads)  Net weight  Maximum mould weight  Oil reservoir | 20-21  Between 1800-1900  Between 300 to 400 cm3  Between 350-360 grams  Up to 90 mm/s  Between 150-200 cm3/s  Between 700-750  Up to 265 1/min  Between 30-40 g/s  Up to 15.5 kW  5 minimum  Up to 50 kN  20kW minimum  Between 350-400 s / mm  5m maximum  No more than 7 tons  1850 kg  At least 350 dm³ |

Technical Specification Footnotes:

2) Working Capacity classification calculated from max. stroke volume (cm3) x max. injection pressure (bar) divided by 1000.

3) Dry cycle time according to EUROMAP 6: stroke = 70% of horizontal clearance, clamping force = 70%

Safety features:

The machine will be a fully safety guarded system with Emergency Stop circuit and full CE Certification

* Ejector guard
* Perimeter safety laser on operator side
* Enclosure to tool head
* Compliant with UVV UK regs

Operator /System Control:

* Control cabinet with control system hardware and software according to EN 60204
* Connection between the control cabinet and the machine is completely wired
* Network connection - without energy supply to the control cabinet
* Remote connection enabled
* Cooling fan for control cabinet
* Control and monitoring of plastic melt volume including gauging of flow and recording of closing characteristics of the back flow valve.
* Automatic adjustment of
  + cascade opening and closing points
  + switch over point
  + holding pressure
* TFT colour screen
* MC6 system control via machine operation keyboard
* Configurable graphic machine programming via process diagram with system control
* Haptic touch capable
* Capacitive touch design
* Cycle recording
* Cycle time analysis
* Quality /process monitoring in real-time
* Start-up circuit configuration enabling switch over from start-up cycle to full production parameters
* Data logging offering continuous recording and retrospective display of up to key machine events

Power supply:

* TN-C or TN-C-S or TN-S system
* (3 phase grids with separate neutral or neutral together with ground)
* Input Voltage 415 V / 50 Hz with neutral

Machine documentation:

* Machine labelling in English
* Operating manual in English language on CD / DVD and hardcopy

**Quotation to include:**

Delivery CIP to: Bodmin PL31 2BQ

Unloading

Installation, Commissioning & Setting to work

|  |
| --- |
| * Positioning, alignment and fixing of the machine * Function test and dry running of installation * Instruction and handover of machine * User familiarization for our new staff and operational management |
| * Allowances for traveling times, expenses and hotel costs of the delegated service personnel |

**Warranty**

24 month warranty on all components

At least 2 UK based service technicians with ability to remotely diagnose and attend on site as needed

UK based Service Centre

# ITT Timetable

The anticipated timetable for submission of the tender and commission milestones are set out below:

|  |  |
| --- | --- |
| **Activity** | **Date** |
| Date ITT available on Contracts Finder | 20, October 2021 |
| Last date for raising queries | 29, October 2021 |
| Last date for clarifications to queries | 01, November 2021 |
| Deadline to return ITT | 05, November 2021 |
| Evaluation of ITT | By 30, November 2021 |
| Award of Contract | This is subject to successfully obtaining grant funding and will normally be no later than 90 days from contract evaluation |

# Conflicts of Interest

Please provide a statement with regards to a conflict of interest for this procurement through the provision of either:-

A Declaration that to your knowledge there is no conflict of interest between your company and CHX Products Limited that is likely to influence the outcome of this procurement either directly or indirectly through financial, economic or other personal interest which might be perceived to compromise their impartiality and independence in the contexts of this procurement procedure.

This will permit CHX Products Limited, that in the event of a conflict of interest, appropriate steps are taken to ensure that the evaluation of any submission will be undertaken by an independent and impartial party.

**Exclusion**

CHX Products shall exclude applicants from participation in this procurement procedure where they have established or are otherwise aware that the applicant, to include administrative, management or supervisory staff that have powers of representation, decision or control of the applicants company, has been the subject of a conviction by final judgment of one of the following reasons:-

* + Participation in a criminal organisation
  + Corruption
  + Fraud
  + Terrorist offences or offences linked to terrorist activities
  + Money laundering or terrorist financing
  + Child labour and other forms of trafficking in human beings

# Consortium or sub-contracting

Where a consortium or sub-contracting approach is proposed, all information requested should be given in respect of the proposed prime contractor or consortium leader. Relevant information should also be provided in respect of consortium members or sub-contractors who will play a significant (greater than 25%) role in the delivery of the services under any ensuing Contract.

Third party peripheral elements can be specified alongside the main die casting machine in order to make the manufacturing cell work as a complete system. Any interfaces that we will need in order to run any peripheral elements must also be specified.

If any single third-party element does not exceed 25% of the total cost a consortium or sub-contracting approach will not be needed. Please be sure to cost each individual third-party element separately within tender responses.

The warranty on any third-party elements must be for 24 months

# Tender Application Requirements

Please provide paper and or email copies of your application which should include:

1. Confirmation that you the supplier are able to meet the requirements outlined in the brief above.
2. Have included the Reference requested (BIGTP165) be used with all Tenders
3. Details of who to contact in your company in relation to this tender
4. Total cost of providing the goods/services requested in the format required with a breakdown to include:

# 2 x Injection Moulding Machines

* + Commissioning on both machines with system test and user familiarization
  + 2-year warranty & UK based service engineers

# Delivery to CHX Products PL31 2BQ

# Tender Scoring Criteria

The tender will be scored based on the compliance to the specification set out in section 2 and awarded to the lowest compliant tender OR the most economically advantageous.

# Tender Returns

Tenders may be returned by email or post, or by delivery in person.

Tenders are to be returned by:-

Latest date to be returned: 05, November 2021

Latest time to be returned: 20:00

If submitting by **email,** tenders should be sent electronically to

[Andy.Knight@chxproducts.co.uk](mailto:Andy.Knight@chxproducts.co.uk)

with the following message **clearly noted in the Subject box; ‘**Purchase of Injection Moulding Machines BIGTP165’

Tenderers are advised to request an acknowledgement of receipt when submitting by email.

If submitting by post or in person, the Tender must be enclosed in a sealed envelope, only marked as follows:-

Tender - Strictly Confidential – ‘Purchase of Injection Moulding Machines’

Contract Reference Number: BIGTP165

Addressed to:

Mr Andy Knight

CHX Products Limited

Unit 6

Cooksland Industrial Estate

Bodmin

Cornwall PL31 2BQ

The envelope should not give any indication to the Tenderer’s identity. Marking by the carrier will not disqualify the tender.

If delivery **by hand** please obtain an official Receipt at point of delivery

1. **Clarification**

There will not be any negotiations of any of the substantive terms of the Tender Documents. Only clarification queries will be answered. Any clarification queries arising from the Tender Documents which may have a bearing on the offer should be raised as soon as possible in writing. The deadline for raising queries is 17:00 29 October 2021. All e-mailed queries should be sent to:-

Name: Andy Knight

E-mail: [Andy.Knight@chxproducts.co.uk](mailto:Andy.Knight@chxproducts.co.uk)

No representation by way of explanation or otherwise to persons or corporations tendering or desirous of tendering as to the meaning of the tender, Contract or other Tender Documents or as to any other matter or thing to be done under the proposed contract shall bind us unless such representation is in writing and duly signed by Andy Knight of CHX Products by 05, November 2021. All such correspondence shall be returned with the Tender Documents and shall form part of the Contract.

Tenderers must provide a single point of contact in their organisation for all contact between the Tenderer and CHX Products.

Responses to any queries will be shared through the Contracts Finder website.

**10 Disclaimer**

The issue of this documentation does not commit CHX Products to award any contract pursuant to the bid process or enter into a contractual relationship with any provider of the service. Nothing in the documentation or in any other communications made between CHX Products or its agents and any other party, or any part thereof, shall be taken as constituting a contract, agreement or representation between CHX Products and any other party (save for a formal award of contract made in writing by or on behalf of CHX Products.

Bidders must obtain for themselves, at their own responsibility and expense, all information necessary for the preparation of their tender responses. Information supplied to bidders by CHX Products or any information contained in CHX Products’s publications are supplied only for general guidance in the preparation of the tender response. Bidders must satisfy themselves by their own investigations as to the accuracy of any such information and no responsibility is accepted by CHX Products for any loss or damage of whatever kind and howsoever caused arising from the use by bidders of such information.

Bidders shall be responsible for their own costs and expenses in connection with or arising out of their response. CHX Products reserves the right to vary or change all or any part of the basis of the procedures for the procurement process at any time or not to proceed with the proposed procurement at all.

Cancellation of the procurement process (at any time) under any circumstances will not render CHX Products liable for any costs or expenses incurred by bidders during the procurement process.