

TENDER

Tender No.
[Tender No.]

Place Date
[Customer company seat] 2013-XX-XX

Our reference
[Our ref1]
[Our ref2]

Reviewed by
XXXXX-XXXXXXXXXX

[Customer company]

Att:

[Customer ref1]

[Customer ref2]

[Customer address]

Sweden

Project - [Ange rubrik]

We refer to the tender inquiry regarding the manufacture of 1 pc. Automated Burr Station for interior burring of main axes. The tender is based on:

Requirements specification: "[Requirements specification]"

Specification of [Manufacturer name] interface: "[Specification of [Manufacturer name] interface]"

Recommended Makers: "[Recommended Makers]"

Technical Directions for Machinery and Production Equipment: "[Technical Directions for Machinery and Production Equipment]"

[Our company name, address]
[Our company telephone, fax, org.no.]

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1 Background

When the main axes are processed in [the Customer's] existing production line, as a result of drilling oil channels burrs arise on the inside of the main axis. These burrs must be burred in an automated process, and in order to perform this we now offer a machine/station/equipment. This equipment is below referred to as the "Burr Station".

An existing burring equipment is in place in [Customer building1], whose control system and integration with an existing robot cell previously has been supplied by us. However, the burring process as a concept is designed by [the Customer's] tool designers, with reference to paragraph 4.1 in "[Requirements specification] issue 2" from the previous project [Previous Project No.].

1.1 Prerequisites

[Our Company] has received a requirements specification with enclosures consisting of • [the Customer's] TFP, • documents describing recommended suppliers, • drawings that illustrate 6 different axis types, and • drilling method, • list for filling in departures from [the Customer's] TFP, • manual describing the use of [Manufacturer name] interface on the machine side*, • template for production of machine card**, and • template for production of spare parts list.

**Machine side refers to the part of the interface that includes equipment attached to the [Manufacturer name] robot supplied by the machine supplier.*

***Machine card refers to a document describing technical performance and general technical conditions.*

As mentioned above, the Burr Station should be integrated with the existing production line and be fully automated to the extent that the [Manufacturer name] robot interface is capable of, referring to the enclosure that was enclosed with the requirements specification: "[Specification of [Manufacturer name] interface]", however only to the extent that we consider necessary for achieving the objectives compiled in the requirements specification.

The process should have a guaranteed cycle time of max 3 minutes according to the requirements specification.

The Burr Station will be equipped with a HMI/ Operator Panel for configuring the number of revolutions, burr spear feeding, process parameters, etc.

The PLC should be able to send so-called "part codes" to the portal robot during operations. This is however limited to those various types of shafts for which drawings are enclosed in the requirements specification.

The software will have Automatic and Manual modes; Semi-automatic will be defined in consultation with the customer in the course of the project.

The Burr Station should be installed and put into operation in [Customer building2] at [the Customer] in [the Customer's company seat].

The automatic system control cabinet and the equipment requires 3-phase 16 amperes and 10 bar compressed air supply.

The Burr Station requires an area of max 3x3 meters (this is to ensure access to the automatic system control cabinet)

The estimated life span of the Burr Station is 15 years in continuous operation.

Preventive maintenance for the mechanical parts is estimated to 4 hours per year for lubrication and inspection of bearings and ball screw at 4 occasions. This in accordance with paragraph 5.1 of [the Customer's] TFP.

The equipment will not be able to operate with the cell door open, neither in manual mode nor with so-called "service keys"

1.2 Project objectives

The Burr Station to be delivered should be integrated with an already existing production line using a Güdel portal robot which fetches and brings details being processed in various production steps.

The process performed by the offered Burr Station should be fully automated.

The equipment must be deployed and ready for production week [week no.] 2013 by the latest.

2 Scope

[Our Partner] will implement a machine to [the Customer], which entails that the following is included in [our Company's] commitment.

2.1 Our commitment includes:

- Design of electrical and mechanical details that make up what, in the tender, we call the Burr Station.
- Project management (technical and administrative)
- Assembly of electrical and mechanical concepts that make up what, in the tender, we call the Burr Station.
- FAT at manufacturer selected by [our Company] (according to plan this is located to [the Customer's company seat])
- Operations implementation at a manufacturer selected by [our Partner] (according to plan this is located to [the Customer's company seat])
- Final assembly on spot at [the Customer] in building [Customer building2].
- Operations implementation on spot [the Customer] in building [Customer building 2].
- Risk analysis and CE-marking of mechanical concepts as well as safety devices.
- CE-marking of electrical cabinets.
- Functional tests and test protocols referring to the requirements specification.
- Training of operators, 8 hours divided into 2 occasions of 4 hours each.
- Procurement of inclusive components, both electrical and mechanical.
- Documentation.
- Programming of PLC, HMI screen, as well as parameterization of servo operation drive and frequency transducer.
- SAT

2.2 Our commitment includes not:

- Mechanical fastening of the Burr Station, including cage, in the floor.
- "Charging gate" on the portal robot if deemed necessary in the course of the project.
- Wiring of power supply up to the electrical cabinet.
- Bringing forward compressed air supply.
- Configuration or programming of [Manufacturer name] interface on the "robot side", neither hardware nor software.

- The cost of meetings of any kind with [Manufacturer name] mentioned in the requirements specification.

2.3 Requirements

The equipment must be CE-marked and must comply with the requirements of the machinery directive and the low voltage directive, as well as the EMC directive. See also paragraph 1.1.

2.4 Validation/Inspection

Within a reasonable time frame, the customer ([the Customer]) will be able to approve the functionality of the machine before delivery on site at our premises, Though some features will not be possible to test out until the Burr Station is put into operation at [the Customer], like communication with the [Manufacturer name] interface and security features in the cage.

All documentation provided by [our Company] is reviewed and approved before shipping to You.

2.5 Delivery scope

We deliver one machine for burring of main axes, above named Burr Station, and documentation as given below:

Documentation supplied as follows:

Document	CD	Hard copies	Digital format	
			Software	Version
Mechanical drawings	<input checked="" type="checkbox"/>	3	Catia/Autocad /Inventor	XXXX
Protocol		3	MS Word	Office 2000
Spare parts list		3	Excel	
Machine card		1	MS Word	
Circuit diagrams		3	EPLAN	

2.6 Interface

See paragraph 2.7 below.

2.7 Design

[Our Company] refers to the existing burr equipment in [Customer building1] and to the commitment that the Burr Station will be implemented in accordance with the enclosed manufacturing schedule, mechanical drawings and associated subordinate drawings.

2.8 Customer's commitments

In order to pursue a project rationally, it is at all times necessary to have access to the information we need in terms of, for example, dimensional drawings, process data, premises, product changes, component specifications, etc.

- [The Customer] provides and pays for bringing forward necessary media, such as e.g. air and electricity, to points indicated by [our Company]
- Preparation of premises where the Burr Station shall be installed
- Participation throughout the project, e.g. in meetings, but not least during FAT and SAT
- We presume that all the information for a proper conduct of the work is available to us when work commences, This will be settled at a start-up meeting.
- We require that You provide binding information bases according to the timetable which jointly will be drawn up in connection with the project start. The timetable shall be designed so, that all necessary

information is available when each operation is carried out, and that the project can be carried through in a logical sequence uninterruptedly.

2.9 Deviation from requirements specification

(Paragraph 2,) We accept no responsibility for the actual burring process since this was originally designed by the customer, more specifically "[the Customer's] verktygskonstruktörer" ([the Customer's] tool designers), with reference to paragraph 4.1 in "[Requirements specification] issue 2" from the previous project [Previous Project No.]. We will just automate an existing concept.

3 Time and delivery plan

The following is a rough timetable for development of the current machine.

A more detailed timetable will be drawn up two working weeks after a written order is placed, and then jointly by [the Customer] and [our Company].

3.1 Delivery time

4 Project management

In order for the organization to be able to deal with any unforeseeable events, [our Company] may also present a supplement in the form of a well-chosen substitute, boasting a high technical level, for key individuals in the Organization.

All named persons in the [our Company] organization may, by their CV, be accounted for at the customer's request.

4.1 Organization

[the Customer]

Business Manager and finance: [Customer ref1]

Project management and engineering: [Customer ref2]

[our Company]

Business Manager and overall: [Our ref1]

Project Management: [Our ref2]

Purchase and follow-up: [Our ref2]

Mechanics: [Our ref3]

Assembly manager/ fitter: [Our ref2]

Automation (electric/programming): [Our ref2]/ [Our ref4]

4.2 Decision points

All governing decisions must be established by the project start.

4.3 Control Group work

Every 14 days the Control Group involving critically relevant bodies shall meet and reconcile the progress of the project.

4.4 Change management

Changes and additions shall, where appropriate, be governed by special written agreements.

When changing, the relevant adjustment needs of documents mentioned in the contract/ business deal shall be taken into account.

Changes can influence both the price and the delivery time, and technical specifications.

4.5 Location

The project management is made from [our Company's] enterprise in [the Customer's company seat].

The machine will be manufactured, assembled, and test-run incl. FAT by a selected subcontractor in [the Customer's company seat].

The intention is that, in the subcontractor's workshop/premises, each detail/module shall be completed in order then to be assembled into a complete machine.

If [the Customer] requires, [our Company] can arrange a meeting occasion with a selected subcontractor.

5 Price

5.1 Our price

<Type e.g.: work is carried out at the price: XXX.XXX SEK excl. VAT.>

For waiting time and downtime not caused by us, we will charge extra as shown in the price categories below.

Any alteration or additional work shall be agreed in writing and will be charged extra according to the following category rates. Verbal agreements do not apply.

<u>Category</u>	<u>Rate</u>
Mechanics	850 SEK/h excl. VAT
Programming	750 SEK/h excl. VAT
Electric	750 SEK/h excl. VAT
Assembly	650 SEK/h excl. VAT
Manufacturing (mechanics/electrical)	650 SEK/h excl. VAT

The hourly labour rates refer to an 8-hour workday Monday through Friday 6.00 a.m.-8.00 p.m.

Overtime > 8 hours per day Monday through Friday 6.00 a.m.-8.00 p.m. = hourly rate + 30%

Overtime > 8 hours per day Monday through Friday 6.00 a.m.-8.00 p.m., and all work carried out on Saturdays, Sundays, and holidays = hourly rate + 60%

Travels, hotels, subsistence, and other expenses are not included in the above hourly rates.

5.1.1 Option – Spare parts on delivery

<u>Denomination</u>	<u>Ca. Price</u>
Compressed air cylinder Fixture rotation	5000 SEK
Compressed air cylinder Shaft attachment	5000 SEK
3-phase motor Spindle operation	2000 SEK
Servo motor Spindle position	7500 SEK
Hose couplings	500 SEK
Valve packages	3500 SEK

5.2 Current account

5.3 Budget

6 Payment

6.1 Payment plan

<E.g. 30% upon order and 60% upon delivery to You, and 10% upon final acceptance, but no later than 15 workdays after completed installation. >

6.2 Payment terms

30 days net; after the due date, a default interest of X% per calendar month (or part of that) will be charged.

7 Commitment concluded/ [our Company] accomplished assignment

<e.g. [our Company's] commitment is completed and approved after.....>

A test specification, towards which the equipment shall be approved, shall jointly be drawn up in connection with the order.

A take-over certificate, showing the date on which the equipment has been taken over, is drawn up, founding the basis of payment and warranty commitment.

8 Other terms

Delivery terms according to XXXX

For the commitment we refer to the following documents which apply in the following order:

1. *This tender, XXXXX:X and its enclosures*
2. *Your requirements specification*
3. *XXX, XXX, IT-services, etc.*
4. *.....*
5. *.....*

9 Damages limitation

[Our Company's] total liability comprises direct damages, and is limited to 120 times the basic amount, maximized by the order amount of the original order for the project.

10 Tender validity

For the tender to be valid, the requirements and test specifications must be signed by both parties.

The tender is valid until XXXX-XX-XX

We reserve the right of any intermediary sale.

11 Warranty

Our warranty commitment is one year after Your takeover.

12 Enclosures

- XXXXXXXX
- XXXXXXXX

13 Conclusion

We hope that the above information is sufficient for taking Your position and decision. We are of course at Your disposal should You desire complementary additions.

Kind regards
[Our Company]

«Name/Title»

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