

## COSTS

CLIENT:

Royal Transport d.o.o.  
 Glavna 45, 40323 Prelog  
 OIB: 74855856301

PURCHASE QUANTITY: 1 piece

MACHINE CONDITION: NEW

|                                |  |
|--------------------------------|--|
| MACHINE MANUFACTURER:          |  |
| TYPE / MODEL OR FACTORY MARK:: |  |
| TYPE OF MACHINE:               |  |
| YEAR OF MANUFACTURE:           |  |

Machine operation:

The packaging machine makes a bag from flat film by longitudinal welding, fills it and welds the lower and upper ends of the bag. Throw the bags onto the conveyor belt without damaging them. The packaging machine operates continuously, so the welding head picks up the speed of the film during continuous film stripping. Foil welding and longitudinally moving foil are welded and filled with raw material at the same time. After filling, the bags are supported from below and can be shaken by the support unit. The filling is intermittent and synchronized with the welding. The welding head is an integrated type that simultaneously welds, cuts and cools the seam of the bag. The transfer of the foil is an automatic process, monitored by sensors and continuously controlled by the intervention units. The movement of the main components of the machine is planned with a servo motor drive.

| <b>Vertical bag packing machine (a)</b> |   |                  |  |
|---|---|------------------|--|
| NUMBER                                  | TECHNICAL CHARACTERISTICS OF THE MACHINE  | EXISTS<br>YES/NO | WRITE IN THE VALUES OFFERED OR<br>PROOF OF EQUIVALENCE |
|   | Raw materials: loose soil, flower soil mixture, pellets, any bulk material, etc.            |                  |  |
|   | TECHNICAL DETAILS OF THE MACHINE:   |                  |  |
| 1.                                      | Control: Industrial PLC - with Omron and Siemens - data entry on touch screen or equivalent |                  |  |
| 2.                                      | Electronics: Omron, Siemens or equivalent   |                  |  |
| 3.                                      | Control voltage: min 24V  |                  |  |
| 4.                                      | Connection data: max 5 kW - 3x400V  |                  |  |

|     |   |  |  |
|-----|---|--|--|
| 5.  | Pneumatics: Hafner and SMC or equivalent  |  |  |
| 6.  | Air demand: oily and anhydrous compressed air for min. 6 bar / 900 NL / min or equivalent   |  |  |
| 7.  | Operating temperature: max -5 to 60 ° C   |  |  |
| 8.  | PACKAGING CAPACITY:<br>5 liters min 32 pcs / min<br>10 liters min 32 pcs / min<br>20 liters min 28 pcs / min<br>40 liters min 24 pcs / min<br>70 liters min 17 pcs / min<br>120 liters min 10 pcs / min             |  |  |
| 9.  | BASIC DATA BAGS: Bag width: max 700 mm Bag length: max 1300 mm Bag shape: PE bag folded or in the form of a hose Bag thickness: min 50-140 microns  |  |  |
|     | MACHINERY ACCESSORIES:  |  |  |
| 10. | Vertical welding: Hot air welding   |  |  |
| 11. | Heating inserts: min 2 pcs HHP 10x250mm - 800W or equivalent  |  |  |
| 12. | Horizontal welding: Edge for welding  |  |  |
| 13. | Heating inserts: min 4 pcs HHP 10x250mm - 1000W or equivalent   |  |  |
| 14. | Dosage: min Xpack-100V volumetric conveyor dispenser<br>Dosing control with flow cross section and frequency converter with controlled speed setting<br>Doors fitted with drop arrester, synchronized or equivalent |  |  |
| 15. | Bag holder: Servo drive, with integrated shaking and draining   |  |  |
| 16. | Management: Industrial computer - touch screen with 500 variable programs or equivalent   |  |  |
| 17. | Bag pillow: pneumatic or sliding design   |  |  |
| 18. | Bag capacity: min 2.4x0.6m carrying strap   |  |  |

|   |   |  |  |
|---|---|--|--|
| 19.                                     | Sensors: Foil operation sensor, foil tension sensor, side foil operation sensor |  |  |
| 20.                                     | Production of steel and aluminum frame  |  |  |
| 21.                                     | Production of individual machine parts  |  |  |
| 22.                                     | Purchase of commercial machine building units                                   |  |  |
| 23.                                     | Purchase and installation of the required gear units                            |  |  |
| 24.                                     | Construction of pneumatic components  |  |  |
| 25.                                     | Precision Linear Engineering Construction                                       |  |  |
| 26.                                     | Assembly of all machine parts   |  |  |
| <b>Vertical bag packing machine (a)</b> |   |  |  |
| <b>Amount without VAT</b>               |   |  |  |
| <b>VAT 25%</b>                          |   |  |  |
| <b>Amount with VAT</b>                  |   |  |  |

Other requirements for manufacture the machine:

The machine frame must be manufactured on the basis of the completed production documentation. The manufacturer acknowledges that this is a machine to be developed and may be required at any time to modify and remanufacture certain finished parts. The offer must be calculated with at least 2 remanufactures. The Machine Manufacturer must work with the electrical installation company, install the mechanical components on the machine and hand over the “hardware” ready for programming. The assembly of the machine also includes the installation of the pneumatic components.

The price offer must include the purchase of all commercial parts that will be installed on the machine. The detailed description and parts list from the design documentation must be made by the manufacturer.

The manufacturer undertakes to manufacture all parts, that are not commercially available.

The quotation should be a lump sum offer, detailing the technical components build in, however, individual pricing of each component is not expected.

| <b>Control software (b)</b> |  |                      |  |
|-----------------------------|--|----------------------|--|
| <b>NUMBER</b>               | <b>TECHNICAL CHARACTERISTICS OF THE SOFTWARE</b>       | <b>EXISTS YES/NO</b> | <b>WRITE IN THE VALUES OFFERED OR PROOF OF EQUIVALENCE</b> |
| 1.                          | Design, build, and control network connections         |                      |  |
| 2.                          | Configuring Ethercat Network Protocols on Each Device  |                      |  |
| 3.                          | Planning and programming logical connections           |                      |  |
| 4.                          | Device configuration – parameterization                |                      |  |
| 5.                          | Planning and programming cycles and functions          |                      |  |
| 6.                          | Design, implementation and control of reference points |                      |  |
| 7.                          | Coordinate different modules                           |                      |  |
| 8.                          | Structure of program sites                             |                      |  |
| 9.                          | Declaration of variables                               |                      |  |
| 10.                         | Fitting servo controllers to the system                |                      |  |

| <b>Control software (b)</b> |  |
|-----------------------------|--|
| <b>Amount without VAT</b>   |  |
| <b>VAT 25%</b>              |  |
| <b>Amount with VAT</b>      |  |

Other requirements for programming:

The film roll must be checked for both loosening and lateral movement. The product should be replaced automatically, with minimal human intervention, preferably avoiding manual threading. The machine must be equipped with a setpoint transmitter that complies with the marking technology and protection against static charge.

The machine must be equipped with sensors that make it suitable for adaptation to Industry 4.0. The programming must be carried out in such a way that the machine can be delivered with both Omron and Siemens system components if required by the customer. The specialist of the programming company must be involved in the electrical design and be actively involved in the design of the system.

| <b>ALLTOGTEHER (machine + softver) (a+b)</b> |  |
|--|--|
| <b>Amount without VAT</b>                    |  |
| <b>VAT 25%</b>                               |  |
| <b>Amount with VAT</b>                       |  |

Date: \_\_\_\_\_ 2020.

Bidder:

\_\_\_\_\_  
(signature)