

## Specification of the extrusion line

### **Overall requests:**

Production of 1 piece single-screw modular machine with a diameter of 25 mm / 19 mm (1 inch / 0,75 inch) and a complete line for extrusion of medical tubes made of Polyethylene and Polyurethane: 1 piece 5-channel air pressure control device, 1 piece cooling tank with 10 feet length, 1 piece 4-axis laser for measurement ID, OD and wall thickness, 1 piece of puller/cutter and 1 piece of belt conveyor.

In the scope below:

1. Description of the realization of the device, the concept used and the critical components used (extruder, laser system).
2. Complete documentation including electronic versions of drawings, diagrams.
3. Source code with comments (PLC, HMI ...).
4. Supplying a set of recommended spare parts including their list.
5. A list of preventive maintenance requirements.

### **Requirements for the supply company:**

1. The equipment must comply with the laws, standards, and regulations applicable to machinery operated in the Czech Republic (technical, safety, etc.).
2. The machine must be capable of operation in an controlled environment of the class of ISO 14644 Class 8 without being a source of particulates and / or microbial contamination.
3. The machine must not release lubricants and other operating fluids.
4. The machine must not contaminate the manufactured product.
5. The machine noise level must be below 85Db.
6. Monitoring production, good and bad pieces, number and type of errors using the measuring system and sorting them.
7. Ethernet interface for programming and eventual data capture for the measurement system.

### **Requirements on the device:**

The tubings produced by the extrusion line must meet the following requirements:

1. Tolerance ID, OD, and wall thickness.
2. No surface defects.