Testing of the Device

**SAT TESTS OF THE DEVICE FOR ENVELOPING MACHINE**

The Client will evaluate the level of adequate quality and stability of card enveloping in accordance with the requirements of the technical specification (hereinafter referred to as the “Device”).

**Tests of the enveloping machine as part of SAT 1 (SAT offline test)**

As part of this test, the Client will perform tests within the scope of the technical specification and the contract to confirm the fulfilment of all requirements. The main reason for performing the SAT 1 tests is to confirm the functionality of the equipment in the Online mode. As part of the test, the responsible employees from Client will also fulfil all parts of the deliveries according to the required technical specification and contract, such as the delivery of the operating instructions in the Czech language.

* Performance test for purpose the required of the minimum speed of hourly performance 1,000 envelopes with one ID1 card inside per hour.
  + The test starts by entering all the necessary input material and test data into the equipment.
  + By turning ON the machine (with the start button), the time will start to be measured. In the event of a lack of test material, the test can be shortened to at least 20 minutes of operation and the hourly output can be added. If the test time of 60 minutes is reached, the test is stopped and the number of envelopes on the exit belt (wrapped and weighed) is recorded. Only correctly wrapped envelopes with the required content count towards to the hourly performance.
  + The test can be repeated several times according to the Client's requirements.
* Test for purpose input and output capacity requirements.
  + ID1 format cards – minimal 400 cards
  + A4 format papers – minimal 500 sheets
  + C5 and DL Envelopes input tray for minimal 250 envelopes
  + Attachments in attachment station for size requirements
  + Output tray of wrapped envelopes
  + Reject stacks.
* Print test.
  + Print of cover letter
    - The entire cover letter on clean paper
    - Reprint to pre-printed cover letter
    - Printing of static data
    - Printing variable data
    - Print image information (for example logo or other graphic information)
    - Duplex printing of cover letter
* Print of another sheet with printed data
* Output log (production or batch report) print test
* Checking the possibility of entering static data in online mode
* Checking the entry of variable data
  + - From the envelope machine system
    - From the database
    - Czech diacritics printing control (if is possible to print all Czech letters)
* Test the correct application and fastening of the card to the paper (cover letter)
  + Card position (all card positioning options on the cover letter)
  + Card fixation strength
  + Possibility to separate the card from the cover letter.
  + Checking that the card is not dirty or damaged after tearing it off from the cover letter.
* Test of the folding of the cover letter and possibly other printed information
* Envelope sealing test.
  + Correct insertion and non-damage of inserted products and components
  + Correct sealing of the envelope and checking the strength of the glued joint. After drying the envelope must not be unglued non-destructively.
* Checkweigher test
  + Weighing envelopes and checking the weight specified in the system.
* Test of the transport system and machine guidance
  + The equipment must not damage the processed product, including envelopes, cover letter, cards, and all attachments.
* Test of control systems
  + Removing the card from the folder before sealing the envelope and confirming the correct functionality of the checkweigher, which must detect the missing card.
  + Removing the attachment from the folder before sealing the envelope and confirming the correct functionality of the checkweigher, which must detect the missing attachment.
* Test of other required functionalities
  + Generating an output log (production or batch report)
  + Test of machine safety systems
  + Test the functionality of the emergency stop of the machine by pressing the STOP button during the production.
  + Functionality test of safety contacts for opening parts
  + Device status indication test
  + Setting of the Czech language of the operations system
  + Batch separation test on output tray.
  + Electricity supply failure test Energy. During operation, the circuit breaker of the entire device will be turned off and the entire device will be restarted.
* Test of communication interfaces
  + Test the functionality of inserting production data in online operation.
  + Text editor test for entering variable print data.

**Tests of the enveloping machine as a part of SAT 2 (SAT test in production system)**

As part of this test, the Client can perform the same tests as in SAT 1. The main reason for performing SAT 2 tests is to confirm the functionality after the final connection to the production system. Additionally, compared to the SAT 1 test, it will be tested.

* Test of communication interfaces in online operation
  + Test the functionality of the connection with the production system.
  + Test the functionality of obtaining data from the production system.
  + Test returning data to the production system after batch processing.
* Print test.
  + Printing a cover letter from variable and static data from the production system
* Production test with the real customer product and real data from the production system
  + With the completion of the entire process and the printing of the report of the production batch (Output log).