**TECHNICAL SPECIFICATION OF THE DEVICE**

**Computer to High-Security Plate/Film (CTP)**

**and relating Plate Processor for Wet Offset Plates processing**

The subject of this contract is the acquisition of Device to produce offset, nyloprint printing plates and high-resolution films according to the technical specifications below, while the technical specifications listed here can be met by delivery in the following variants:

* 1x CTP (hybrid device) + 1x developing machine, including all other related accessories and equipment
* 2x CTP (dry / wet system) + 1x developing machine, including all other related accessories and equipment

**Required technical specification of the Device:**

Intended use of the device:

* **exposure of nyloprint printing plates (minimal resolution 10,160 dpi)**

types of printing plates:

* nyloprint (polychablon) plates for Intaglio 2,3 mm thick (e.g. Nyloprint Digital WS230SD)
* nyloprint printing plates for letterset 0,73mm thick (e.g. Nyloprint Digital WS73D)
* printing plates for flexographic printing

**- exposure of offset printing plates (minimal resolution 10,160 dpi)**

types of printing plates:

* print plates for dry-waterless offset (e.g. Toray Waterless)

**- exposure and development of offset printing plates (minimal resolution 10,160 dpi)**

types of printing plates:

* printing plates for wet offset

- **exposure of DITR or LADF 0175 films (minimal resolution 10,160 dpi)**

The device must allow exposure with an accurate register of printing plates (e.g. registration system for fixing boards or cutout system according to the following table).

Tab.1 - Specifications of formats, thicknesses and registers

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Printing machine** | **Format (mm)** | **Technology** | **Thickness (mm)** | **Automatic cutout registration system** |
| **Printing plates** | GTO B3 | 510 x 400 | AL plates | 0,15 | BACHER |
| KBA B2 | 743 x 557 | AL plates | 0,30 | BACHER |
| KBA B2 | 743 x 557 | NYLOPRINT | 0,73 |  |
| KBA B1 | 1060 x 795 | AL plates | 0,30 | BACHER |
| KBA B1 | 1060 x 795 | NYLOPRINT | 0,73 |  |
| Web offset print | 510 x 650 | NYLOPRINT | 0,73 |  |
| Simultan II | 760 x 648 | NYLOPRINT | 0,73 |  |
| Intaglio Color 8 | 750 x 617 | NYLOPRINT | 2,30 |  |
|  |  |  |  |  |  |
| **Film** | for NYLOPRINT | 1060 x 820 | negative / slide transparency |  |  |
| screen printing | max 700 x 500 | slide transparency |  |  |
| screen printed plastic cards | max 330 x 450 | slide transparency |  |  |
| stamping | max 800 x 570 | slide transparency |  |  |

***Required technical parameters of the device:***

Resolution: 10160 dpi and higher

Thickness of offset plates: 0,15 mm and 0,28-0,30 mm

Thickness of nyloprint plates: 0,73 mm and 2,3 mm

DITR or LADF films: 0175 (minimal resolution 10160 dpi)

Point size: max. 5μm

Repeatability: max. ± 0.01 mm

Accuracy: max. ± 0.02 mm

Machine dimensions and weight: see below in the specification or drawing documentation

Input data: 1-bit TIFF format

Basic functionalities or construction elements for the processing of offset printing plates:

* Automatic loading of printing plates with at least three trays, including the possibility of manual loading with an accurate register, if necessary;
* Automatic cutout of Bacher standard printing plate registers according to Tab. 1 Specification of formats, thicknesses and registers;
* Development machine with in-line connection to the CTP, including the connection module (with the possibility of removing the plate or film after coming out from CTP).
  + Internal sensor system for measuring the developing bath with the possibility to select automatic regeneration of the developing bath based on the measured values;
  + Ecological operation with a long life of the developing bath (minimum 3 months) adapted to small load operation;
  + Connection and mutual communication of the machine with CTP, (readiness for operation and operating states (e.g. state of the developing bath);
* Printing plates delivery
* Other necessary auxiliary devices for the operation of the CTP and the developing machine.

***Additional requirements for the Device and its delivery:***

* only high-quality parts, components and components manufactured at a high global level must be used in the Devicef;
* labels on the device and its control in Czech language or international symbols, eventually in English;
* with respect to the limited dimensions of the transport way, the Device must be delivered or adapted to such a condition that it can be moved to the place of installation (4th floor). The transport route is shown in Annex No. 6b of the Tender Documentation, including the necessary photo documentation. The supplier will have the opportunity to become acquainted with the transport way before submitting the tender, see point 15 in the tender documentation;
* the load capacity of the floor at the installation site is 300 kg/m2, while locally it is possible to exceed the given floor load capacity up to 500 kg/m2, however, to meet this condition, a static assessment according to the tender documentation will be decisive;
* during the delivery and installation of the Device, the supplier is obliged to ensure the distribution of forces in the supports of the Device corresponding to the above-determined floor load capacity of the installation site. In the event that any technical solution will be necessary to ensure this condition (e.g. by supporting the Device, load distribution elements, grate or load distribution frame), the supplier shall propose such a solution, including its technical specification, and include it in its tender.

Part 2

**Quantity of consumables for commissioning and verification of the quality and serviceability of the Device**

|  |  |  |  |
| --- | --- | --- | --- |
| **item** | | **Minimal amount for testing** |  |
| Al plate 1060 x 795mm, thickness 0,3mm for KBA B1 | | 100 |  |
| Al plate 743 x 557mm, thickness 0,3mm for KBA B2 | | 100 |  |
| Al plate 510 x 400mm, thickness 0,15mm for GTO | | 50 |  |
| NYLOPRINT 760 x 648mm, thickness 0,73mm for SIMULTAN | 50 | |  |
| NYLOPRINT 750 x 617mm, thickness 2,30mm for INTAGLIO | | 50 |  |
| Plate for dry-waterless offset (Toray) 743 x 557mm, thickness 0,3mm pro KBA B2 | | 50 |  |
| **TOTAL:** | **400** | |  |