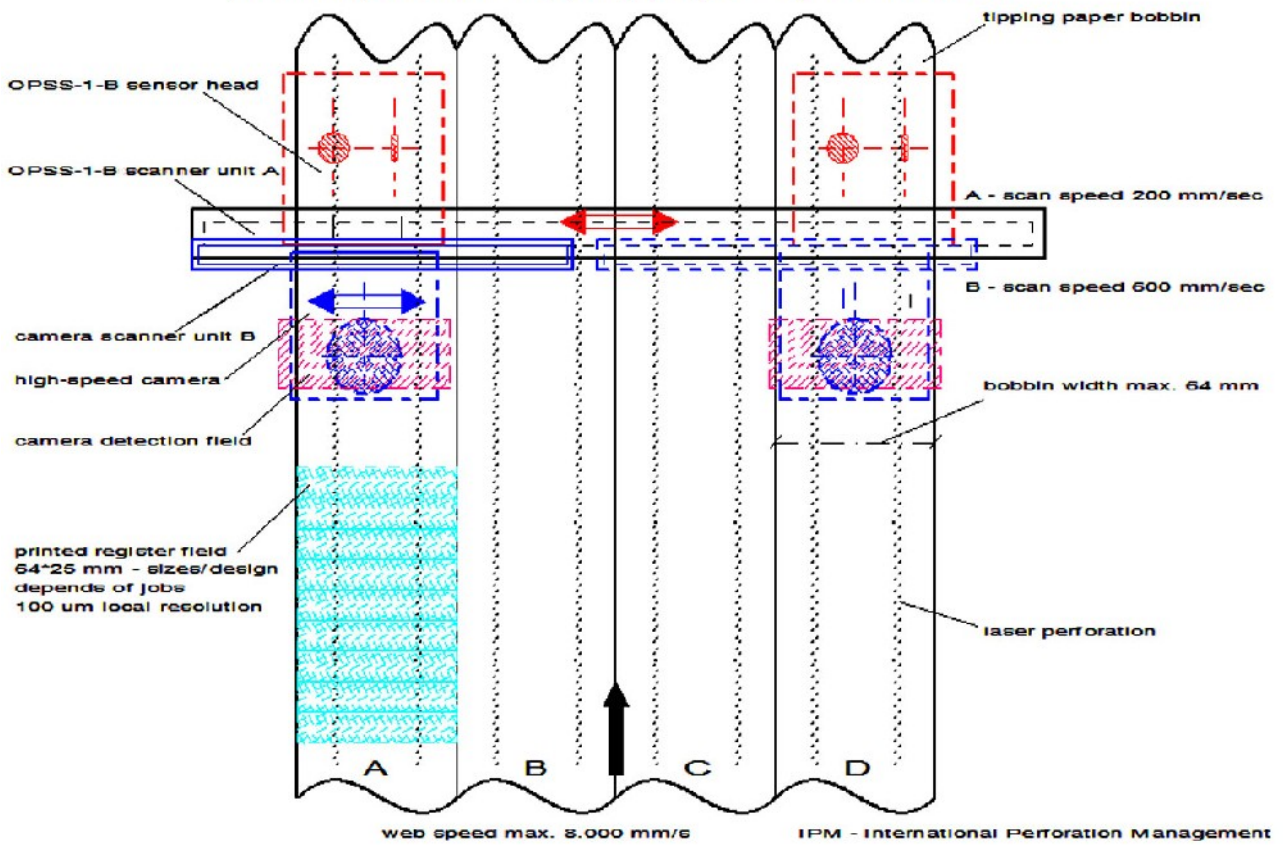
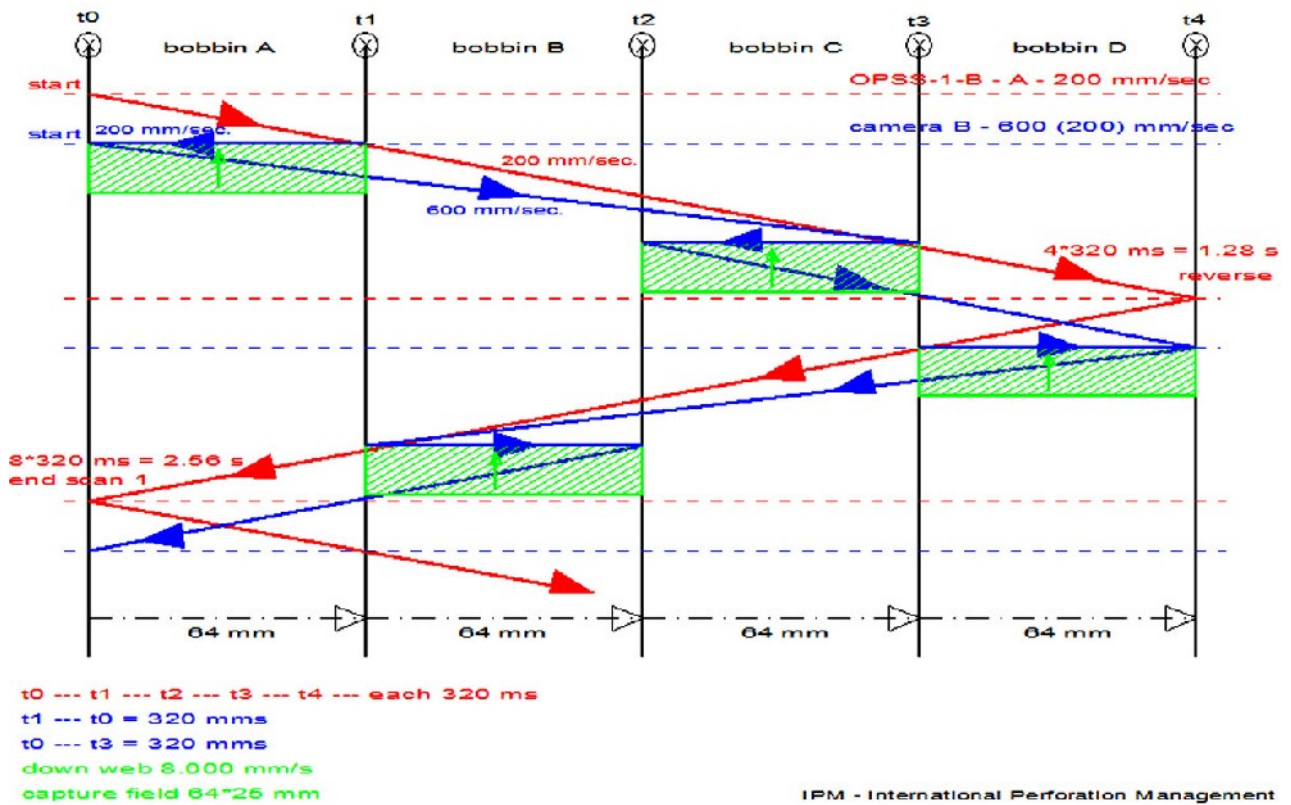


print inspection - tipping paper - quad bobbins

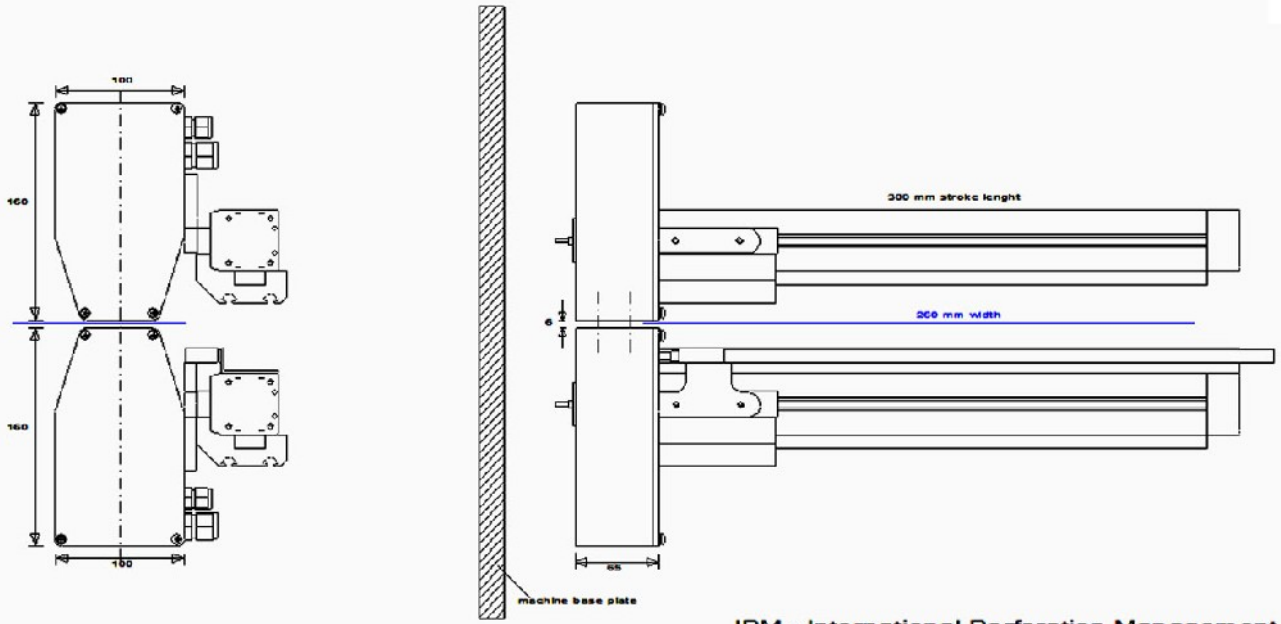


print inspection - tipping paper - quad bobbins

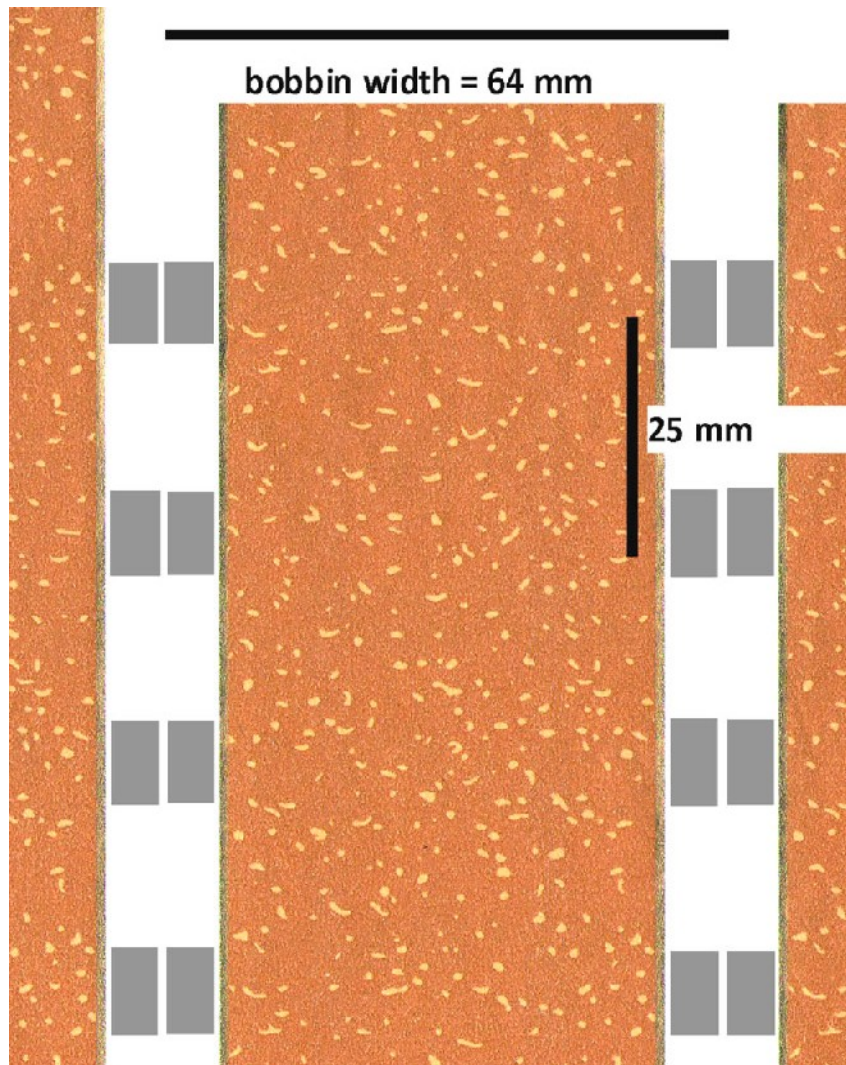


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OPSS-1-B scanner system - plus print inspection



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Print inspection – tipping paper – quad bobbins

Date: 9th December 2010

Patent applied

- tipping paper web speed max. 480 m/min = 8.000 mm/sec.
- printed register field across web : X max. 64 mm
- printed register field down web : Y = 25 mm
- OPSS-1-B scanner speed – e.g. A = 200 mm/sec
- camera scanner speed – e.g. B = 600 mm/sec.
- position accuracy of OPSS-1-B scanner : +/- 50 µm with ASM sensor
- OPSS-1-B scanning stroke approx. 300 mm
- local resolution at printed field = 100 µm
- suggested pixel sensor (double pixel calculation)
- **X = 2*(64 mm/0.1mm) = 1280 pixel**
- **Y = 2*(25 mm/0.1mm) = 640 pixel**

maximal capture rate : cap = speed/Y-field = 8.000mm/sec/25mm = **325 capture/sec.**

inspect with step 1 bobbin A : $(\Delta t_0 \text{ --- } t_1) * \text{cap} = 0.32\text{s} * 325\text{capt/sec.} = 104 \text{ captures while web running}$

inspect with step 2 bobbin C : $(\Delta t_3 \text{ --- } t_2) * \text{cap} = 0.32\text{s} * 325\text{capt/sec.} = 104 \text{ captures while web running}$

inspect with step 3 bobbin D : $(\Delta t_3 \text{ --- } t_4) * \text{cap} = 0.32\text{s} * 325\text{capt/sec.} = 104 \text{ captures while web running}$

inspect with step 4 bobbin B : $(\Delta t_1 \text{ --- } t_2) * \text{cap} = 0.32\text{s} * 325\text{capt/sec.} = 104 \text{ captures while web running}$

$(\Delta t_0 \text{ --- } t_1) = (\Delta t_1 \text{ --- } t_2) = (\Delta t_2 \text{ --- } t_3) = (\Delta t_3 \text{ --- } t_4)$

full OPSS-1-B scan: $2 * (\sum t_1, t_2, t_3, t_4) = 1280 * 2 = 2560\text{ms} = 2.56 \text{ sec.}$

by (2.56 sec.*8 m/sec) 20.5m printed tipping paper

\sum captures: (step1+step2+step3+step4) = 4*104 captures = 404 captures

Continuous inspect length by bobbin A, B, C, D: speed*inspecting = 8.000mm/sec*0.32sec = 2.6m

Continuous inspected printed length: 2.6m with 104 captures, each with 25 mm single printed fields

更多信息请联系

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