

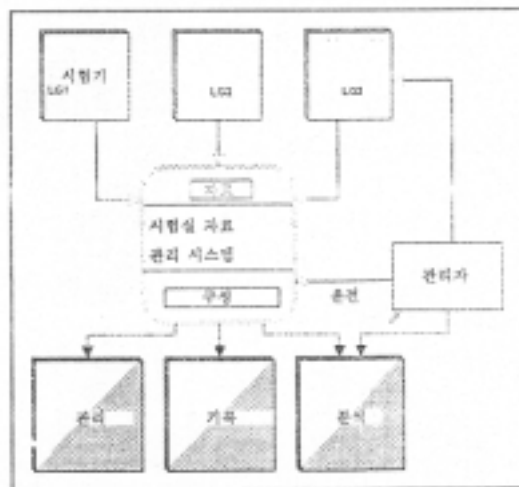
1.

. 가 ,
가 가 .
(simulation) 가
,
가 .
가 , 糸
가 가
. 後 가가
가 .
가 가 가
50 70% 가 가 .
가 .
가
. 가 ,
가 .
가 .
'Expert System'
가 .
. 가 가

가

 $\langle 1 \rangle$

가

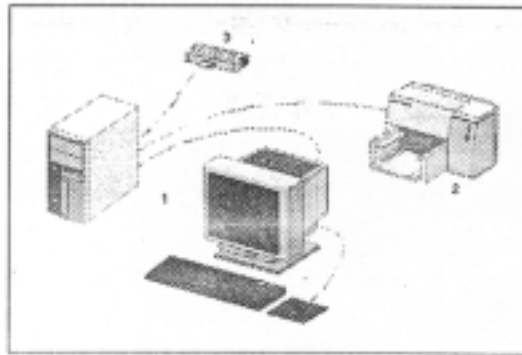
 $\langle 1 \rangle$

評価

2.1 Uster Lab Expert

Uster Lab Expert

< 2> PC(1), (2), (3) Uster Lab
Expert



< 2> Uster Lab Expert

가 . (, , , OE) . , , . () () 가 . , . , . (, 3) . Uster Lab Expert

가 . Uster Tester 3 4, Uster Tensorapid 1 3,

Uster sorter 3 4, Uster Tensojet, Uster AFIS Zweigle D302 . Uster
Lab Expert 가 .

가 .

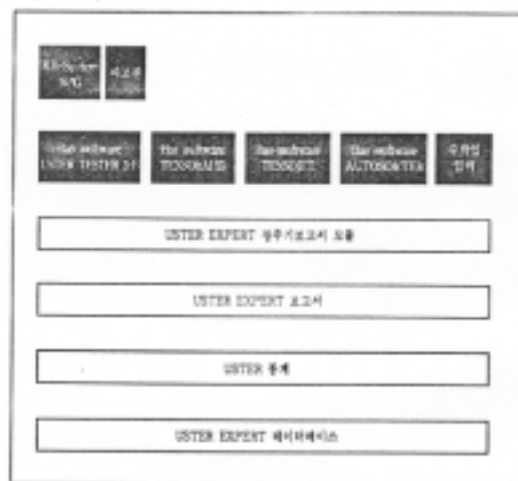
Uster Lab Expert ,

.

가 .

가 . < 3>

Uster Lab Expert .



< 3> Uster Lab Expert

2.2 Uster Tester 4-SX

Uster Lab Expert , ,

, ,

Uster Tester 4-SX ,

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Uster Lab Expert 가

3.

(configuration mode)

3.1

領域

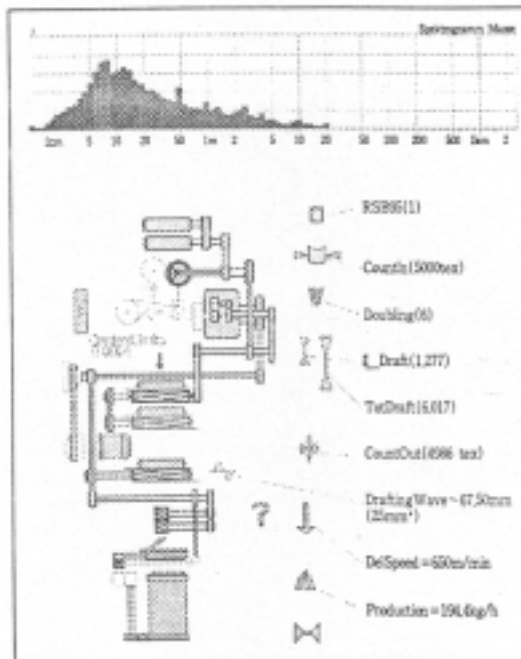
< 4> RSB 951 1 (, 5ktex, 25mm, 3.65) . < 4> 波 .

$$\lambda = 2.7 \times = 2.7 \times 25\text{mm} = 67.15\text{mm} \quad (1)$$

, 2.7

가 “浮遊纖維” . < 4>

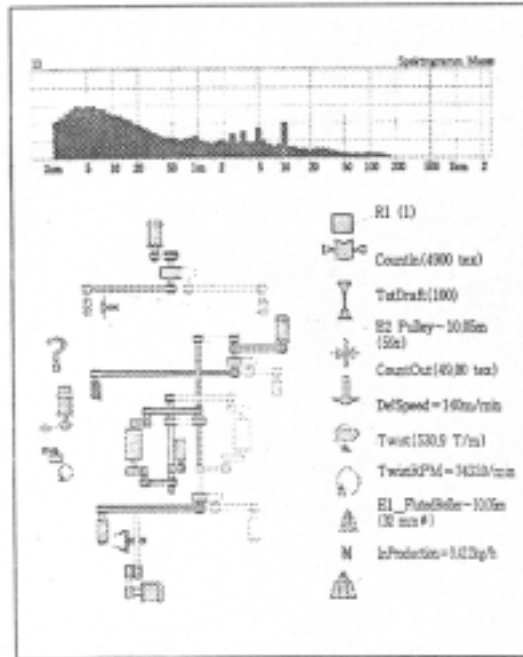
가 67.5mm sine () .



< 4>

3.2 (toothed belt wheel)

< 5> Rieter R1 (, 46tex, 530tpm) (feed cylinder) .



< 5>

9.3 10.7m 가

가

=32mm

$$\lambda = \pi \times d \times V = \pi \times 0.023 \times 100 = 10.05m \quad (2)$$

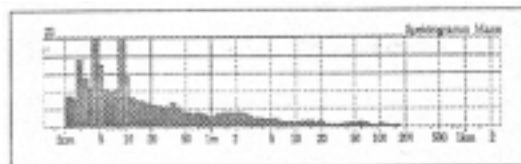
$$N_{\text{feed}} = 110.4 \text{ min}^{-1}$$

$$n_{z59} = \frac{n_{\text{feed}} \times W5 \times 25}{84 \times 59} = \frac{110.4 \times 25 \times 25}{84 \times 59} = 13.92 \text{ min}^{-1} \quad (3)$$

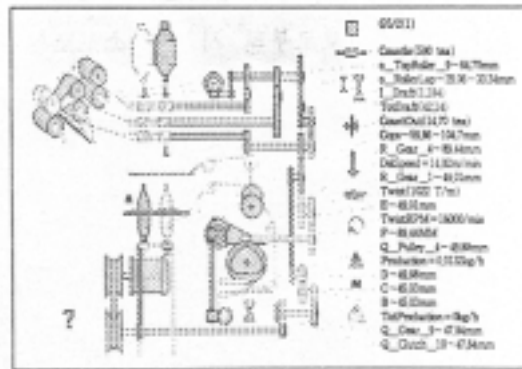
$$\lambda = \frac{V_L}{n_{z59}} = \frac{140m \times \text{min}^{-1}}{13.93 \text{ min}^{-1}} \quad (4)$$

3.3

가 , 가 가 . 가 가 . 가 . V 硬度 . 切 . 波 . < 6> , < 7> (100% , 14.8tex, 1,022t/m, Z). (peak) . 84 110mm . 88.9mm . () . 가 .



< 6>



< 7>

式

$$Es=1-(\text{twist}/\text{m})^2 \times (\text{tex}) \times 3.24 \times 10^{-9} \quad (5)$$

< 5>

,

:

$$T_{\text{tex}(A)}=$$

$$T_{\text{tex}(E)}=$$

$$T_{\text{tex}(A)}=T_{\text{tex}(E)}/V_{\text{ges}}=590\text{tex}/42.14=14\text{tex} \quad (6)$$

$$Es=1-(1,022/\text{m})^2 \times 14(\text{tex}) \times 3.24 \times 10^{-9}=0.953$$

$$Es=4.73\% \quad (7)$$

$$\lambda = \pi \times d \times Es = \pi \times 28.3\text{mm} \times 0.953=84.7\text{mm} \quad (8)$$

$$\lambda /2=42 \quad 55\text{mm}$$

$$\lambda /3=28 \quad 37\text{mm} \quad \text{가} \quad 2 \quad 3 \quad .$$

4.

UT3 , , ,

Uster Lab Expert

(picture element)

. Uster Tester 4-SX

(Toennissen)

(single-lock)

交叉

().

. Uster Lab Expert Uster Tester 4-SX

“Filament”

(CV_m%=0) 가

< 8>

OE

< 9, 10>

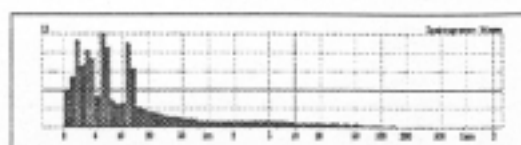
(5

; 1/4)

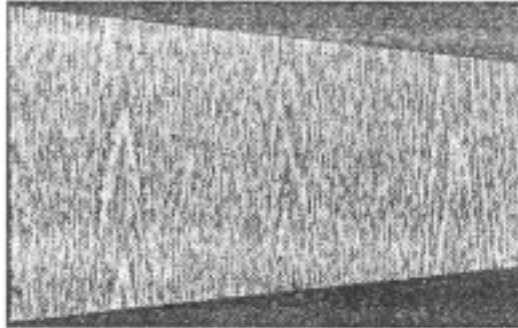
, <

11> 3.3

(moir)



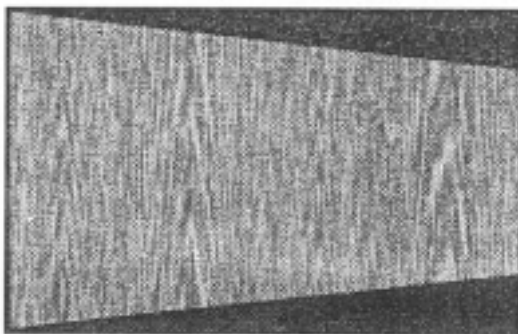
< 8> OE



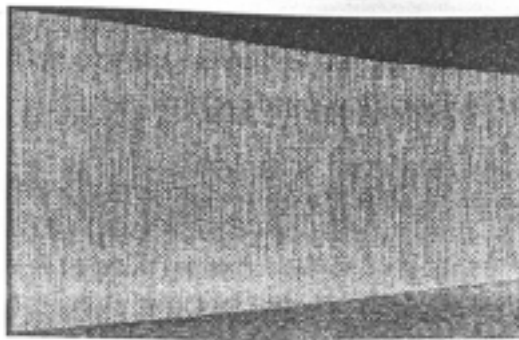
< 9> 가 OE



< 10>



< 11>



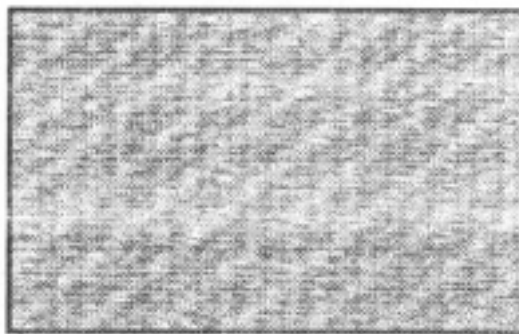
< 12>

< 13>

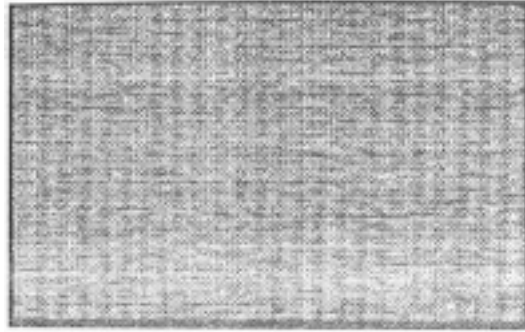
. 가 1

(stripe)

가



< 13>



< 14>

5.

가가 가

.

가

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Uster Lab Expert

가

, 가

. 가

“Yarnboard”

,

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Uster Tester 4-SX

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