

1.

가 .

, , ,

,

.

,

.

,

.

가 가 가 87

가 가 87 가

12 . 가 가 .

.

가

.

.

(Micro Processing Unit :

MPU )

가 .

MPU

가

(host computer)

가 .

가

.

,

“

”

.

## 2. MPU

MPU

가

가

가

.

MPU가

MPU

(mechatronic)

(brush-

up)

Milano

ITMA83

MPU

가

,

가

MPU

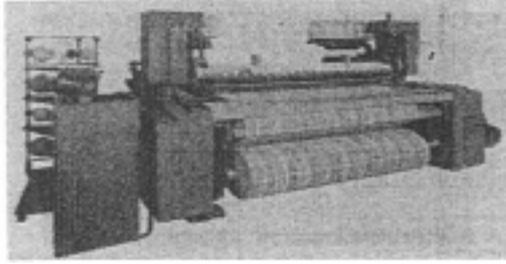
.

MPU

1985 ATME, OTEMAS

가

.



< 1> MPU가

MPU

,

,

, ,

MPU

,

, 가

FA(Factory Automation)

.

가 MPU

< 2>

. < 2>

, ,

2

MPU가

.

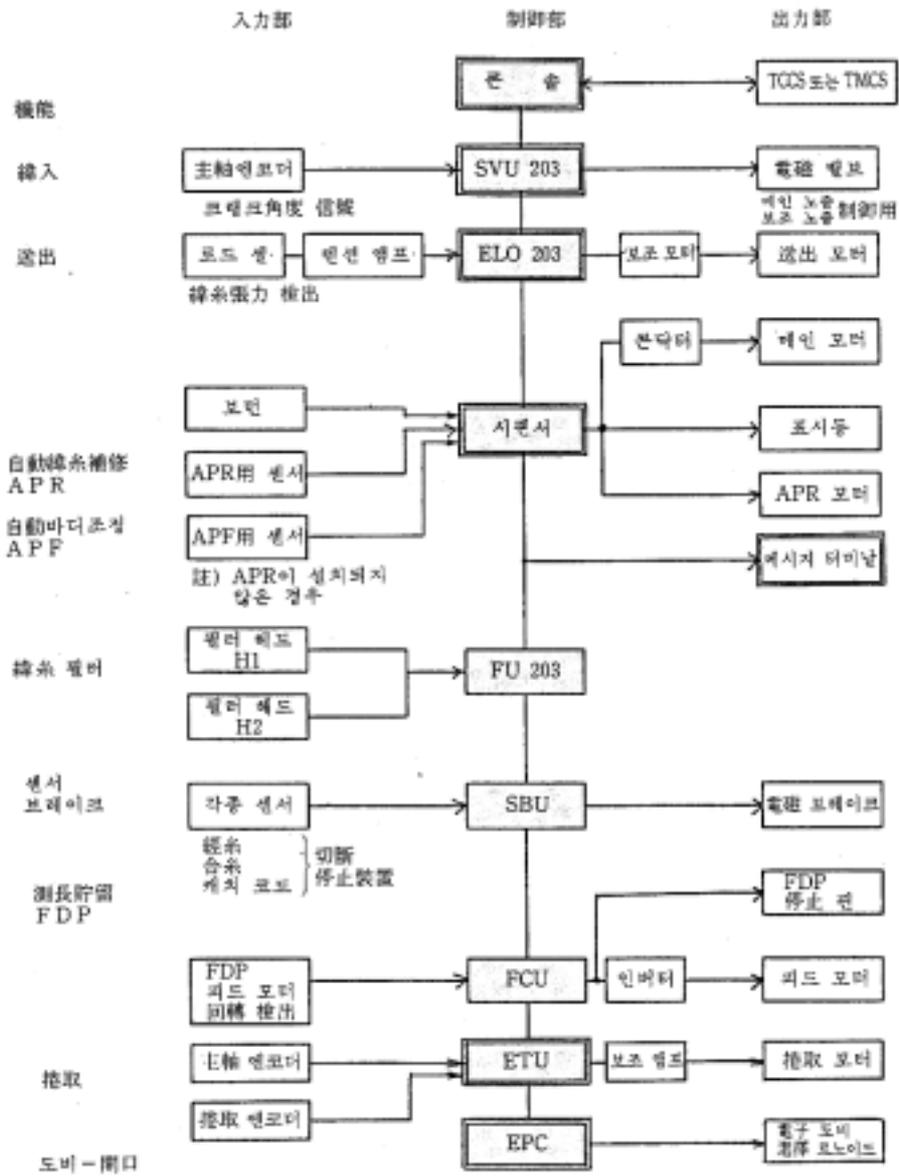
MPU

MPU

.

**3.**

< 2> ZA203



< 2> ZA203

가. (console)

ZA203

, (sequencer), SVU, ELO, EPC

MPU

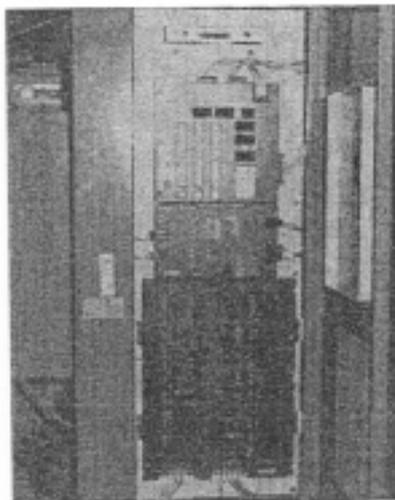
가

가

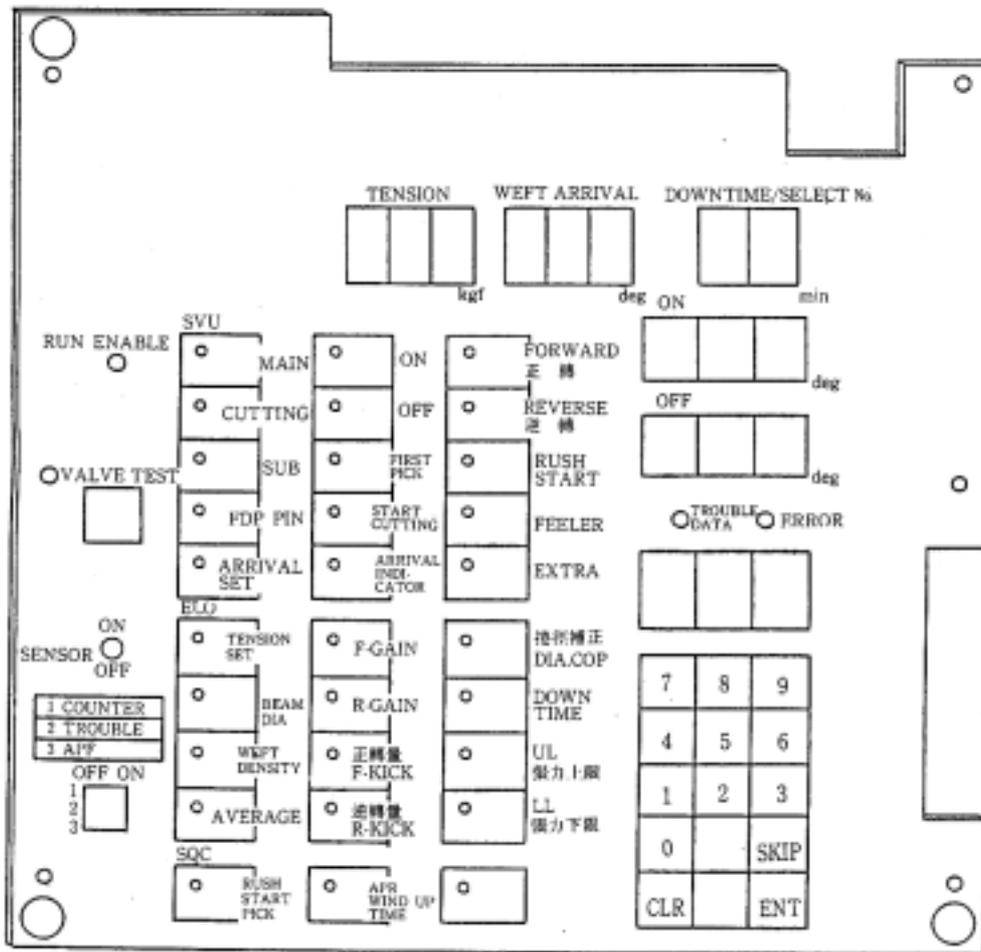
가

가 . < 3>

(box)



< 3.a>



< 3.b> ZA203

(sequencer)

(relay)

IC(logic IC)

가

MPU

가

가

가

가

가

2msec

1msec

가

(PROM

(hard)

(

, SVU(Solenoid Valve Unit)

SVU

(encoder :

)

( 2 ° )

, SVU

MPU

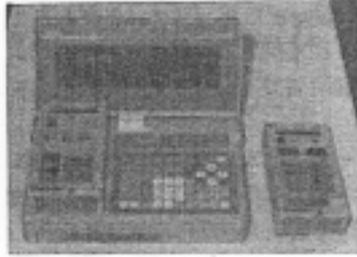
(torque)

가

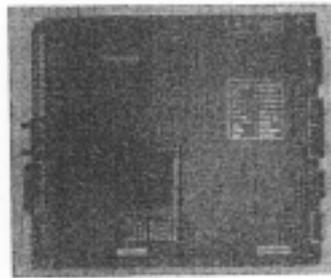
SVU

(digital)

(FDP)



< 4> PROM Writer

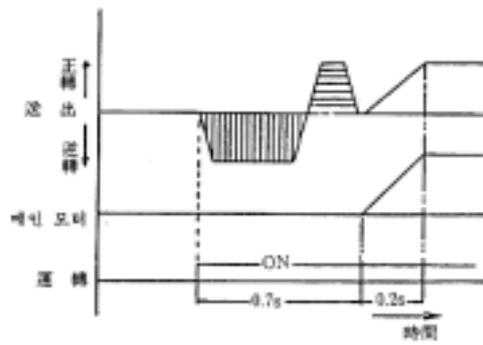
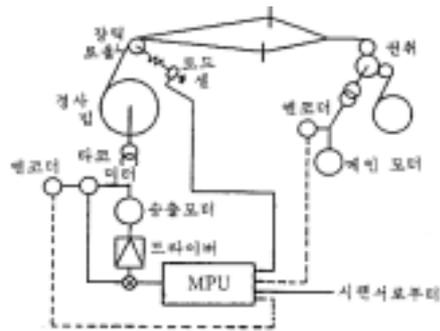


< 5> SVU Unit

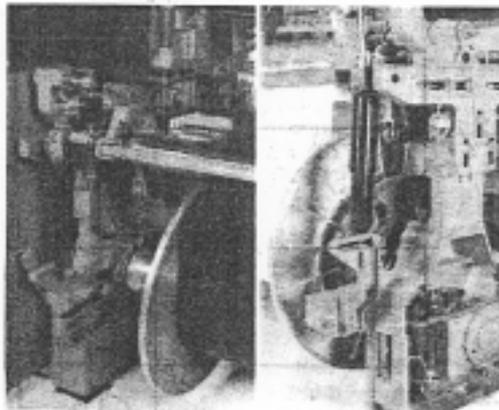
. , ELO(Electronic Let off)  
ELO  
 , (stop mark)  
 .  
(tension roller) (load cell)  
MPU PID . 가  
 ,  
(warp beam)  
가 .  
ELO ,  
(cloth fell) ,

(APF),

가



< 6 >



< 7 >

,

. < 6>

(kick back)

, < 7>

,

.

, APF(Automatic Pick Finder)

가

MPU

, ELO, SVU, FDP

가

가

. < 8>

가

APF

, APR(Automatic Pick Remover)

APF

(feeler)

(feeler head) H1

APR

SVU, ELO, FDP

MPU

PROM

,

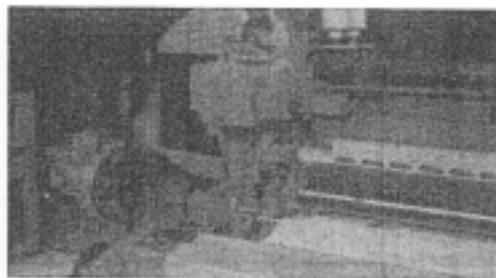
70~80%

. APF< 9>

가

No	運轉操作	크랭크 角	바디位置	緯糸의 狀態
1	不良緯糸 檢出 緯入 停止 自動			
2	不良緯糸 바디칭 自動			
3	機械 停止 自動			
4	自動 逆轉 (180°逆轉) 自動			
5	不良緯糸 除去 手動			
6	逆轉 逆轉보던 (260°逆轉) 手動			
7	織機 始動 運轉 보던 手動			

< 8> ZA203



< 9>

(Free Drum Pooling)

가

(solenoid)

MPU

가

. 2 , 4 , APR

1

2~3 (pick) 가

가

가 ,

가

가

MPU

, EPC(Eletronic Pattern Controller)

MPU

MPU

6,999

EPC

MPU

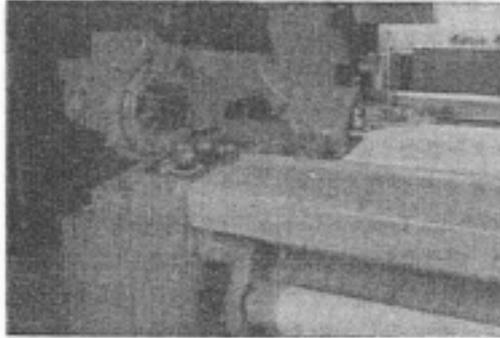
FDP

EFC

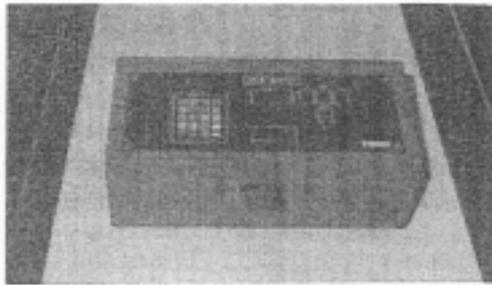
, 2 , 4

가

< 10>.



< 10>



< 11> EPC Writer

가

EPC

MPU

가

가

MPU

, ETU(Electronic Take up)

(encoder)

0.1 /in

30~250 /in

. EPC

2 , 4

4.

가 ,

(pilot lamp)

(illust monitor)

가

LED(Light-Emitting Diode)

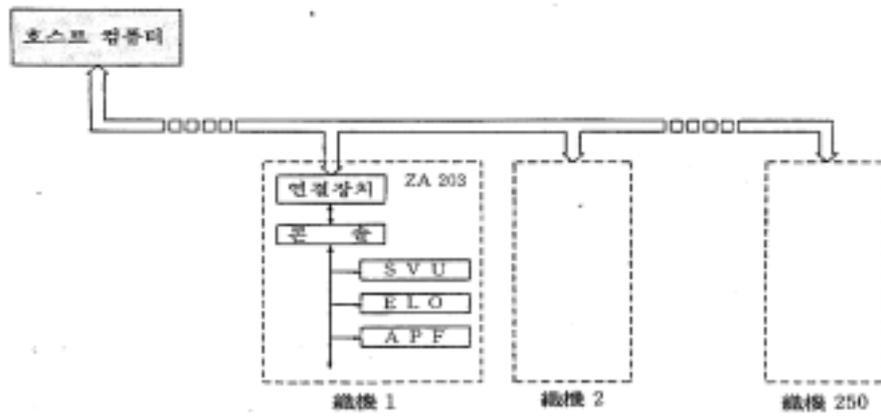
, 가 , , ,

MPU가

60

가 가

2 MPU ,



< 12> TCCS

5.

가

FA

MPU

1985

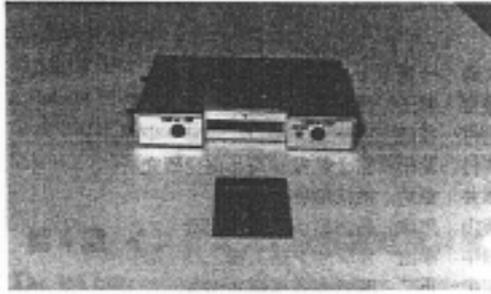
ATME

1 , 1 가

TCCS(Tsudakoma Computer

Control System)가

가 가



< 13> TMCS

< 1>

記號	英 文 名	國 文 名
ELO	Electronic Let Off	電動送出
MLO	Mechanical Let Off	機械式 送出
SVU	Electronic Filling Insertion Control (with Solenoid Valve Unit)	線入 電子制御 (솔레노이드 밸브 부착)
MVU	Mechanical Valve Unit	기계식 밸브
ZCM	Jet Cam Shedding	젯캠
ECS	Exclusive Cam Shedding	專用積極당機
RDP	Rotary Drum Pooling	回轉드럼貯留
SDP	Stationary Drum Pooling	固定드럼貯留
FDP	Electronic Filling Motion (with Free Drum Pooling)	電動드럼貯留
ETU	Electronic Take Up	電動捲取
ZT	Jet Tucker	
AGS	Auto Gap Stopper(for Let Off)	
APF	Automatic Pick Finder	自動마디조정
APR	Automatic Defect Pick Remover	自動線糸補修
AFR	Automatic Filling Breakage Repair	自動給糸補修
EPC	Electronic Pattern Control	電子 線糸選擇 指令
AJC	Auto Jet Controller	線入 自動制御
TMCS	Tsudakoma Memory Card System	메모리 카드 시스템
MT	Message Terminal	메시지 터미널
TCCS	Tsudakoma Computer Control System	集中制御 管理시스템

(interface)

Card System)

TMCS(Tsudakoma Memory

(Memory Card

Read Writer)

가

가

400

1

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13>

TMCS

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## 6. MPU

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MPU

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가

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가

가

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가

10

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MPU

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(element)

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가

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가

AI

가

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MPU

4

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FA

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7.

가

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