

# Cal. VD54B

$\phi$  29.50 mm

H 3.97 mm

Item	Version No.
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Casing	Version 8
Hand Fitting	Version 5
Hand Setting Stem	Version 6
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Hands	Version 4



## MOVEMENT SPECIFICATION - 1

### CAL.VD54B 12 3 / 4 Ligne Quartz Movement Three Hands with 3 Eyes ( Minute, 1 / 1 Second Chronograph & 24H Indicator )

#### 1. MOVEMENT DIMENSIONS

- Outside diameter  $\phi$  29.50mm (12H-6H) x 26.00mm (3H-9H)
- Casing diameter  $\phi$  28.80mm (12H-6H)
- Total height 3.97 mm

#### 2. TIME STANDARD

- Type of quartz oscillator Tuning fork
- Frequency of quartz oscillator 32,768 H Z
- Accuracy Monthly rate: Less than 20 seconds per month at normal temperature range
- Regulation device Nil
- Regulation hands unbalance
  - Second : Less than 0.07 $\mu$ N·m ( 7mg·mm )
  - Minute : Less than 0.60 $\mu$ N·m ( 60mg·mm )
  - Hour : Less than 0.50 $\mu$ N·m ( 50mg·mm )
- Small hands unbalance
  - Minutes / second : Less than 0.05  $\mu$ N·m ( 5mg·mm )
  - 24 hour indicator : Less than 0.07  $\mu$ N·m ( 7mg·mm )
- Additional function
  - Stopwatch : up to 60 minutes in 1 second split time
  - 24 hour indicator ( synchronized regular hour-hand )

#### 3. BATTERY

- Type Silver oxide battery
- Size  $\phi$  9.5 x t 2.0 ( mm )
- Battery life Approx. 2 years
- Recommended battery SR920SW ( SEIZAIKEN )

#### 4. STEPPING MOTOR

- Number of units 2 pieces
- Type Two pole stepping motor
- Step 180° every second

#### 5. JEWEL

0 jewel

#### 6. ANTIMAGNETISM

( direct current magnetic field )

$\geq$  1600 A / m

#### 7. SHOCK RESISTANCE

On equal level with general quartz movement

#### 8. OPERATING TEMPERATURE RANGE

From - 5 °C to + 50 °C

#### 9. TEST OF ACCURACY

- Equipment to be used SEIKO Quartz Tester QT - 99  
Greiner Quartz Timer - C  
Witschi Q-Tester 4000
- Duration of measurement 10 seconds
- Microphone to be used Electromagnetic detection type

#### 10. ATTACHED PARTS

Parts Name	Parts Code
Hand setting stem	0351 - 1780
Silver oxide battery	3013 - 1410
Sticker	0110 - 3570

**\* All specifications are subject to change without notice.**

# SII Products

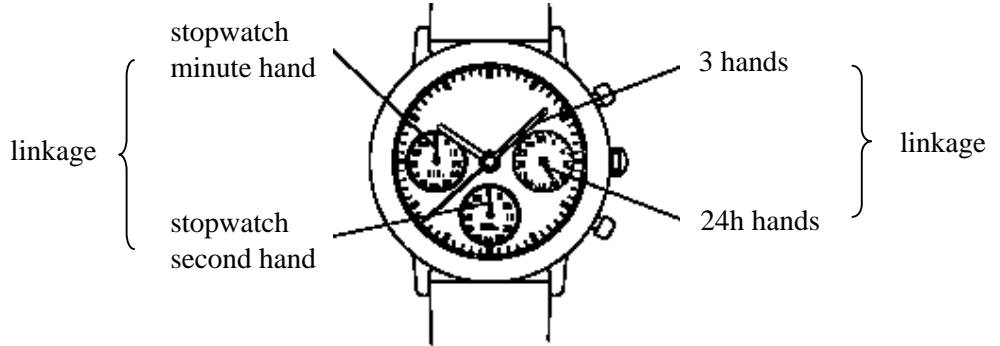
Version: 1

# Movement Specification - 2

## CAL. VD54B

### OPERATION

2 step motors ( 3 hands, 1 / 1 sec. chrono. maximum to 60 minutes )



### Normal position

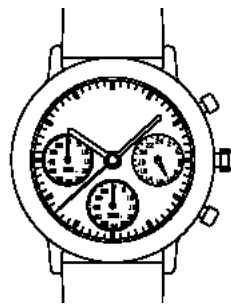


START  
STOP

FREE

SPLIT  
RESET

1st click  
adjusting minute, hour & chrono. hands



ADJUSTING THE  
STOPWATCH SEC. & MIN.  
HAND POSITION  
(COUNTERCLOCKWISE )

TIMING SETTING  
RESET SWITCH  
SECOND SETTING DEVICE

ADJUSTING THE  
STOPWATCH SEC. & MIN.  
HAND POSITION  
(CLOCKWISE )

AC FUNCTIONS

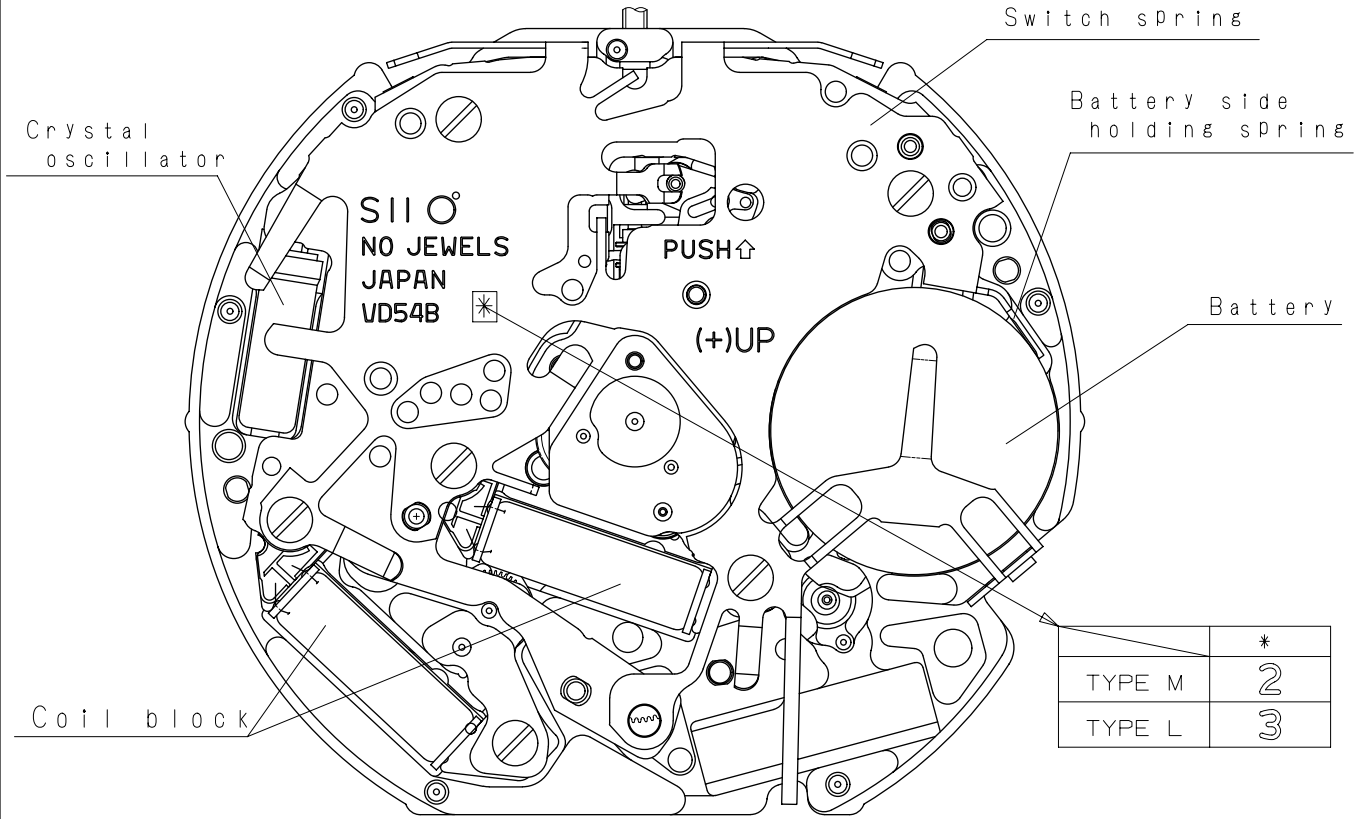
( KEEP BUTTONS  
"A" AND "B"  
PRESSED AT THE  
SAME TIME FOR 2  
SECONDS, AND  
THEN, RELEASE  
THE BUTTONS )

- \* Pull the crown to 1st click to adjust the stopwatch hand position.
- \* AC functions is available if stopwatch hand position is disorderly.
- \* When using AC functions, stopwatch hand moves back and returned to where it was ( second hand moves 1/2 circle counterclockwise and 1/2 circle clockwise )

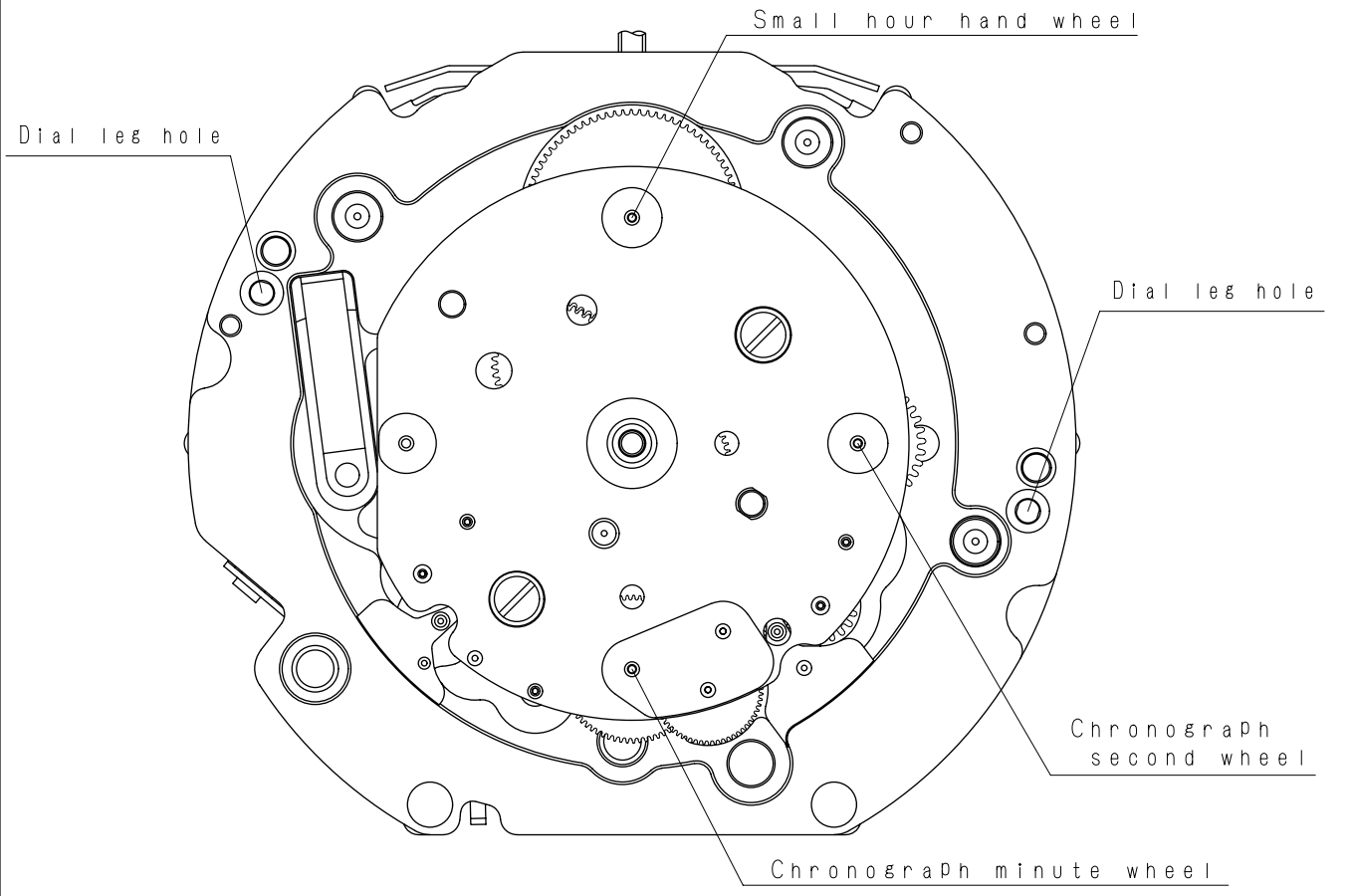
Version 1

# Appearance

Cal. VD54B

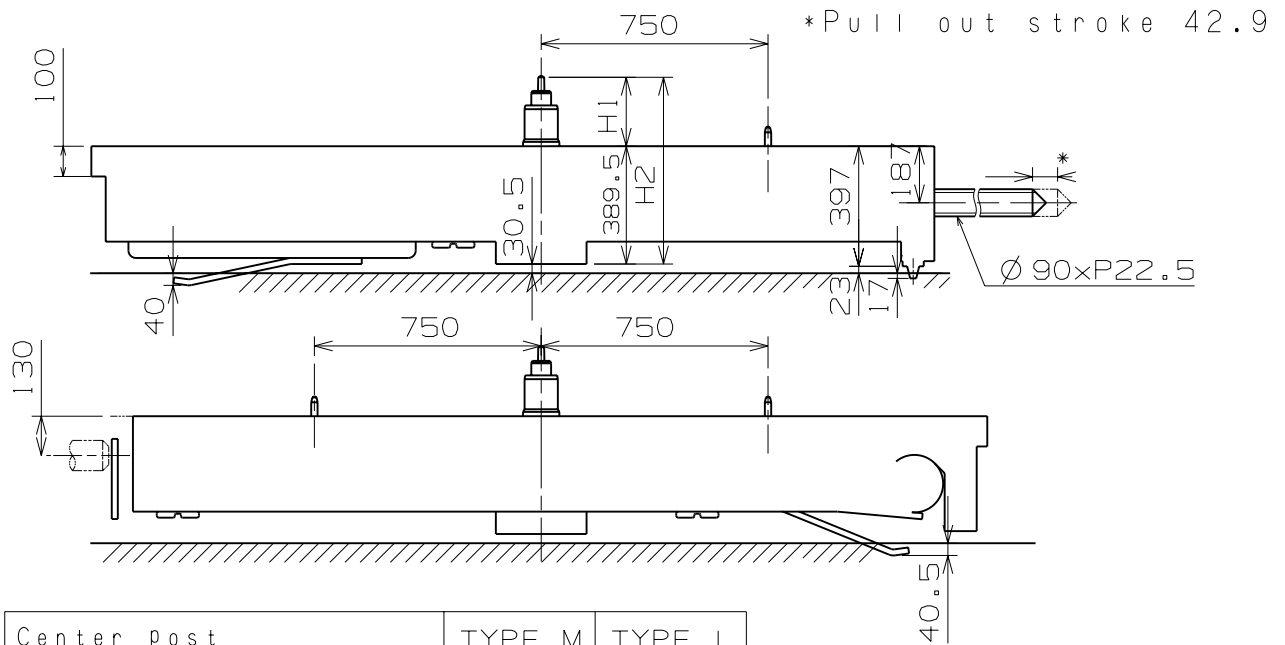


	*
TYPE M	2
TYPE L	3



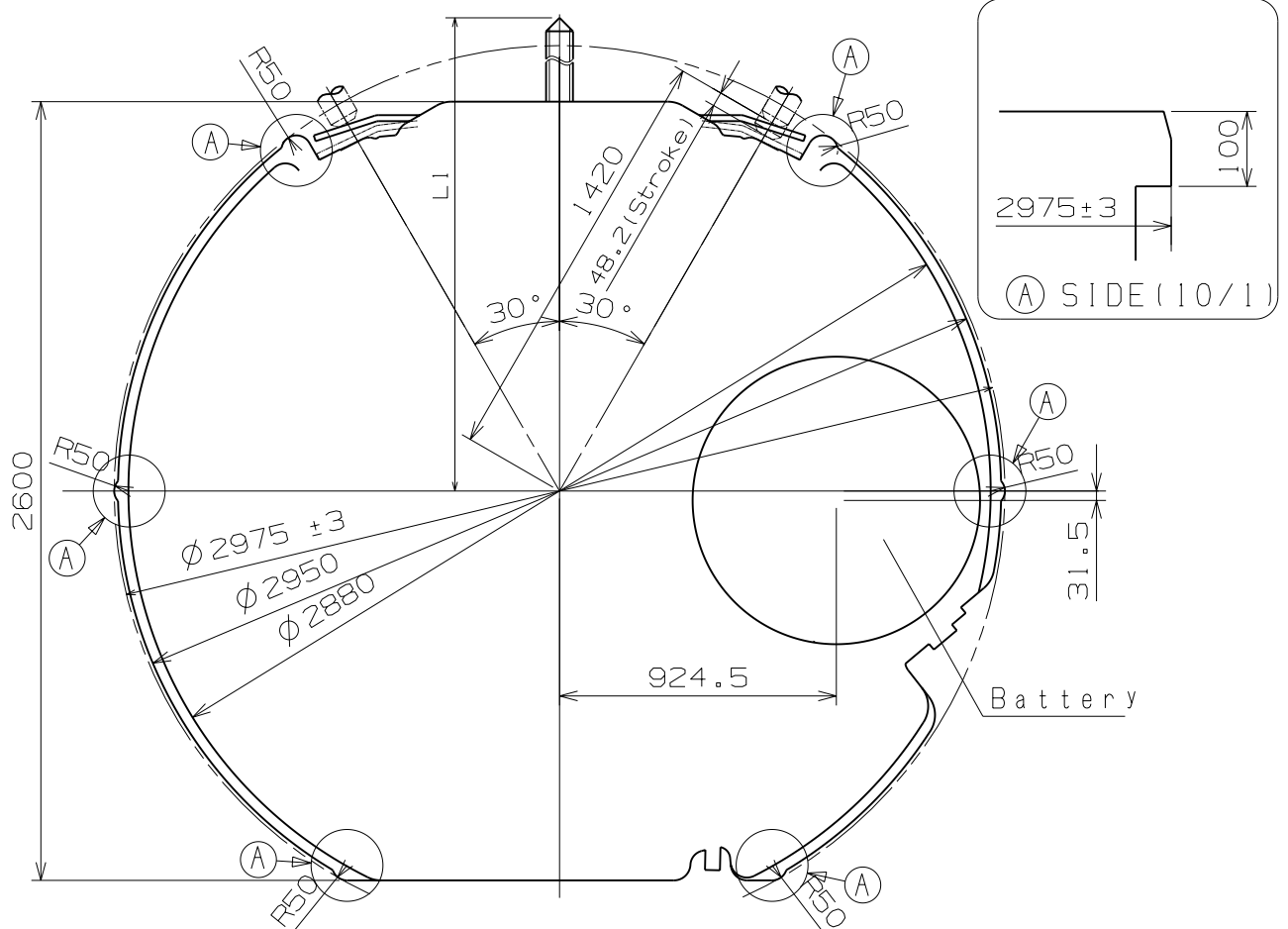
Scale : 4/1  
Unit : 1=1/100mm

Version:7



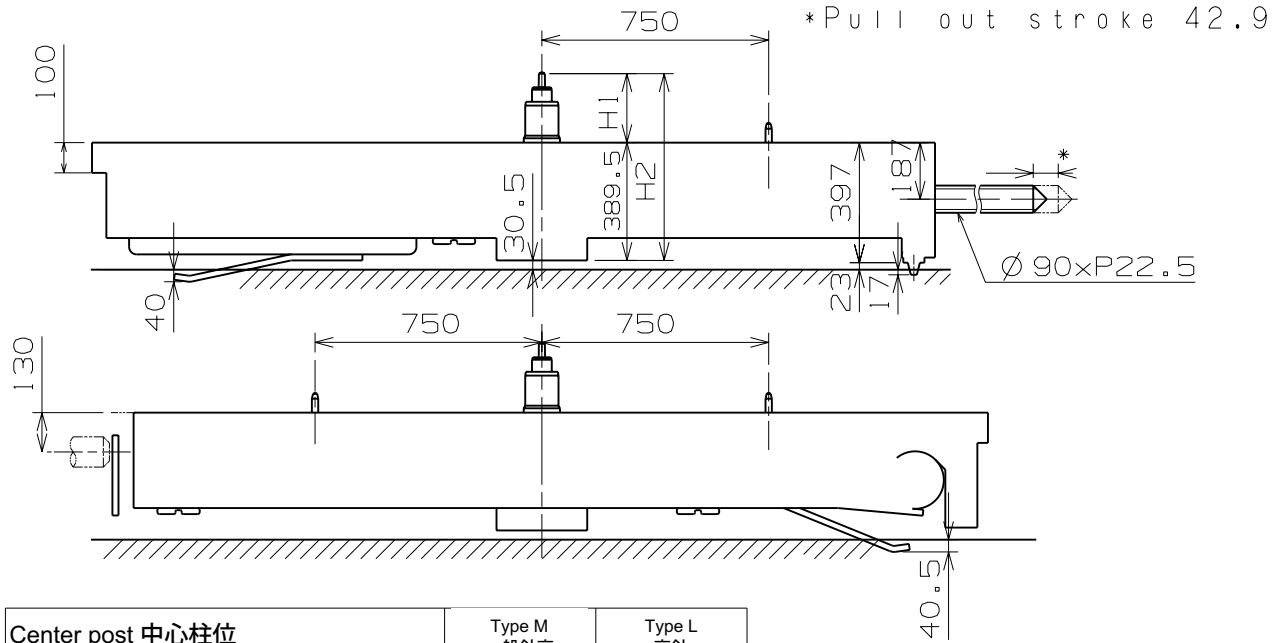
Center Post		TYPE M	TYPE L
Maximum height from main plate surface	H1	228	273
Total height incl. movement	H2	617.5	662.5

Hand Setting Stem	TYPE A	TYPE B
L1	2365	2874



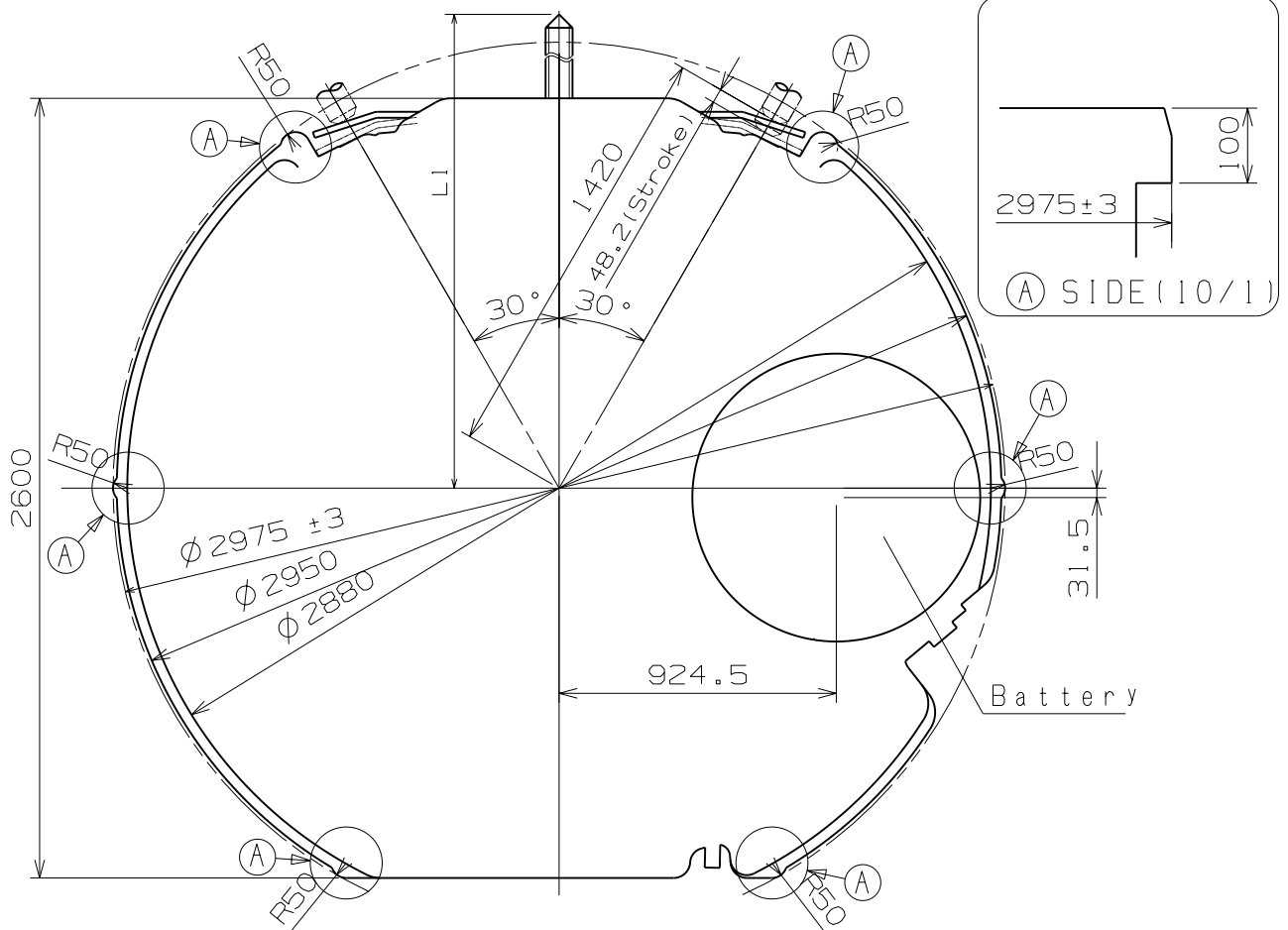
Scale : 4/1  
Unit : 1=1/100mm

Version:8



Center post 中心柱位		Type M 一般針高	Type L 高針
Maximum height from main plate surface 與機芯平面之最大高度	H1	228	273
Total height incl. movement 機芯總高度	H2	617.5	662.5

Hand Setting Stem	TYPE A	TYPE B
L1	2365	2874



Scale : 4/1  
Unit : 1=1/100mm

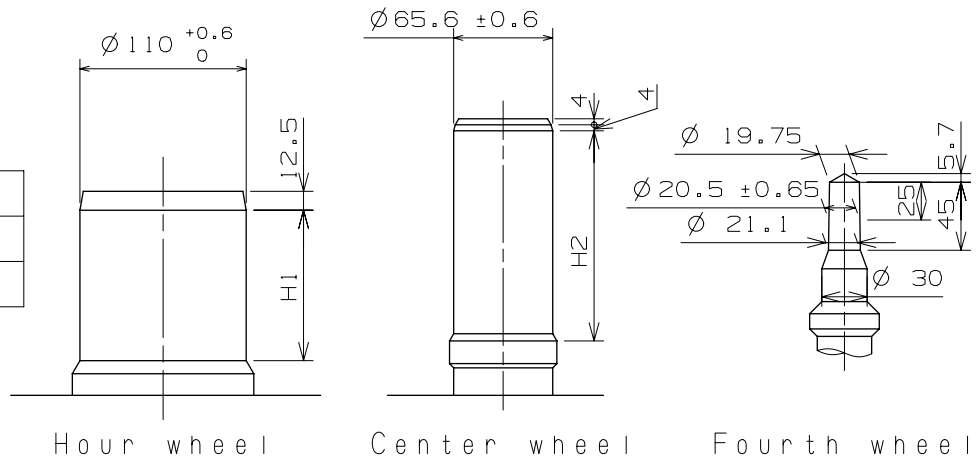
Version : 8

# Hand fitting

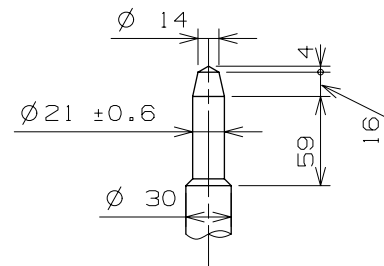
Cal. VD54B

- \*Hour hand unbalance  $\leq 0.5 \mu\text{N}\cdot\text{m}$  (50mg·mm)
- \*Minute hand unbalance  $\leq 0.6 \mu\text{N}\cdot\text{m}$  (60mg·mm)
- \*Second hand unbalance  $\leq 0.07 \mu\text{N}\cdot\text{m}$  (7mg·mm)
- \*Chronograph hand unbalance  $\leq 0.05 \mu\text{N}\cdot\text{m}$  (5mg·mm)
- \*Small Hour hand unbalance  $\leq 0.07 \mu\text{N}\cdot\text{m}$  (7mg·mm)

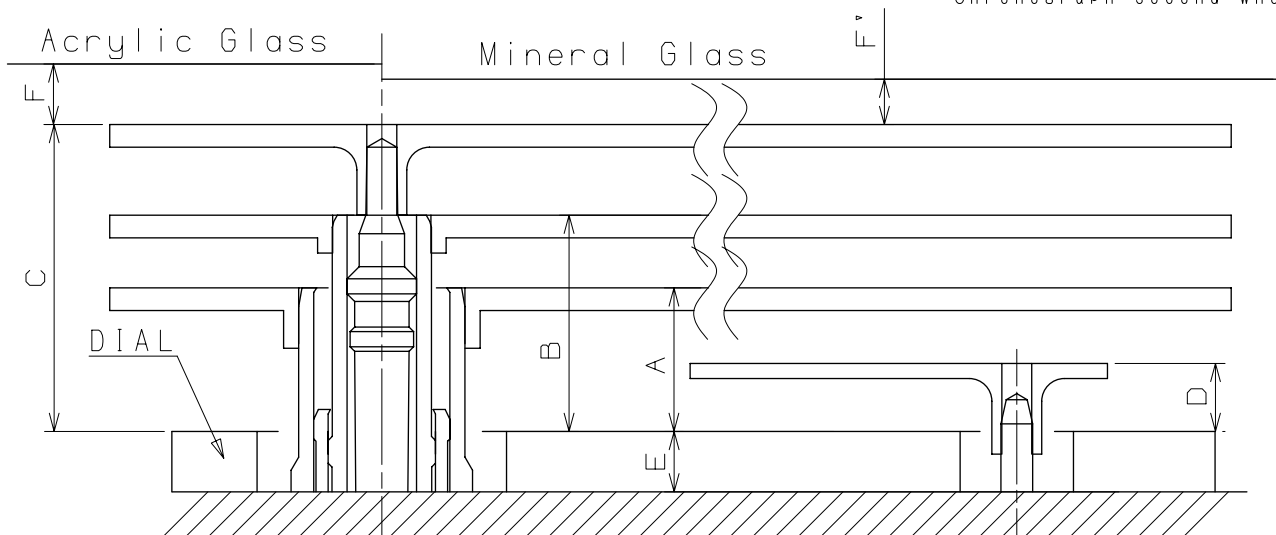
	H1	H2
TYPE M	99.5	141
TYPE L	144.5	186



Part name	Part No.	
	TYPE M	TYPE L
Hour wheel	0271 4060	0273 0360
Center wheel	0221 1560	0221 0770
Fourth wheel	0241 1770	0241 4800
Small hour hand wheel	0157 0110	0150 0350
Chronograph minute wheel	0902 0070	0902 0030
Chronograph second wheel	0888 0080	0888 0100



Small hour hand wheel  
Chronograph minute wheel  
Chronograph second wheel



	A	B	C	D	E	F	F'
TYPE M	95	143	203	45	40	50	40
TYPE L	95	143	203	45	85	50	40

Scale : 20/1

Version : 5

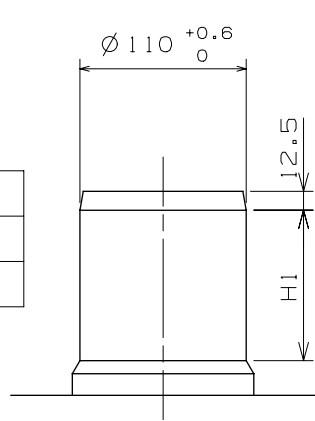
Unit : 1=1/100mm

# Hand fitting

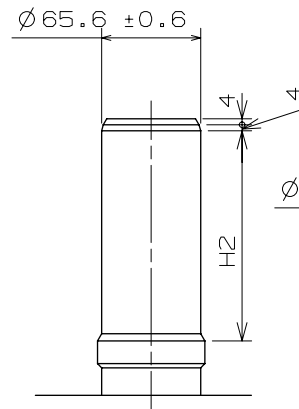
Cal. VD54B

- \*Hour hand unbalance  $\leq 0.5 \mu\text{N}\cdot\text{m}$  (50mg·mm)
- \*Minute hand unbalance  $\leq 0.6 \mu\text{N}\cdot\text{m}$  (60mg·mm)
- \*Second hand unbalance  $\leq 0.07 \mu\text{N}\cdot\text{m}$  (7mg·mm)
- \*Chronograph hand unbalance  $\leq 0.05 \mu\text{N}\cdot\text{m}$  (5mg·mm)
- \*Small Hour hand unbalance  $\leq 0.07 \mu\text{N}\cdot\text{m}$  (7mg·mm)

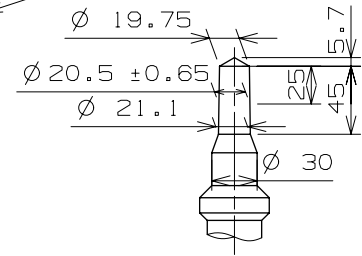
	H1	H2
TYPE M 一般針高	99.5	141
TYPE L 高針	144.5	186



Hour wheel

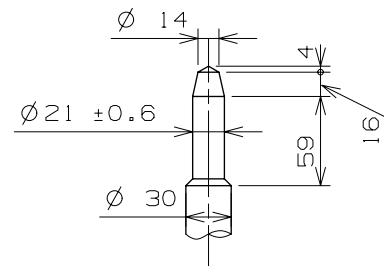


Center wheel

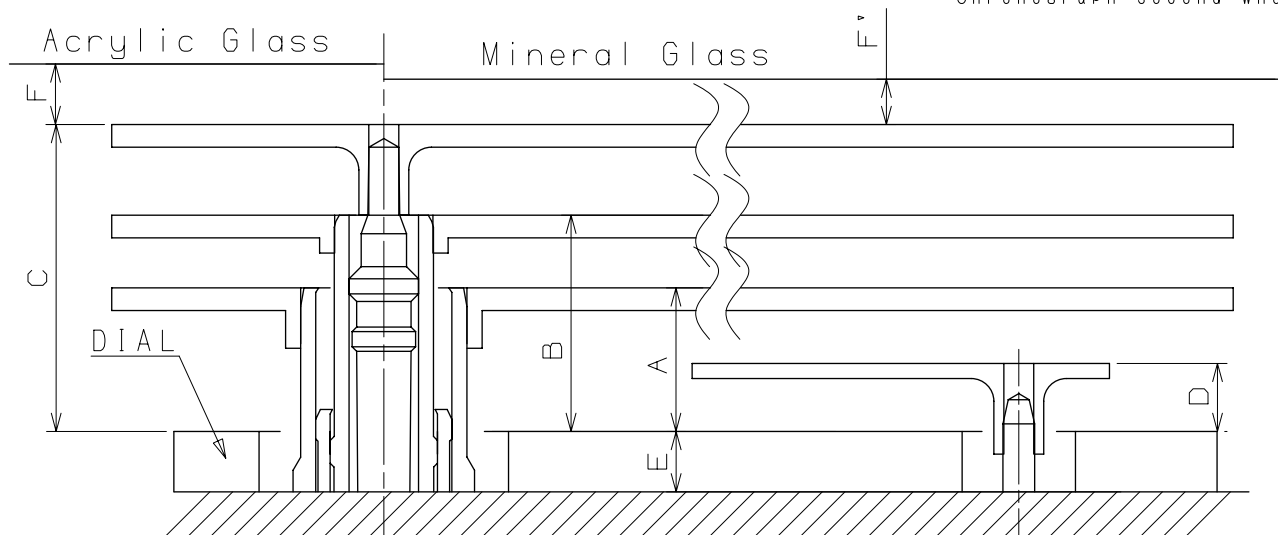


Fourth wheel

Part name	Part No.	
	TYPE M 一般針高	TYPE L 高針
Hour wheel 時針輪	0271 4060	0273 0360
Center wheel 分針輪	0221 1560	0221 0770
Fourth wheel 秒針輪	0241 1770	0241 4800
Small hour hand wheel 小時針輪	0157 0110	0150 0350
Chronograph minute wheel 計時分輪	0902 0070	0902 0030
Chronograph second wheel 計時秒輪	0888 0080	0888 0100



Small hour hand wheel  
Chronograph minute wheel  
Chronograph second wheel



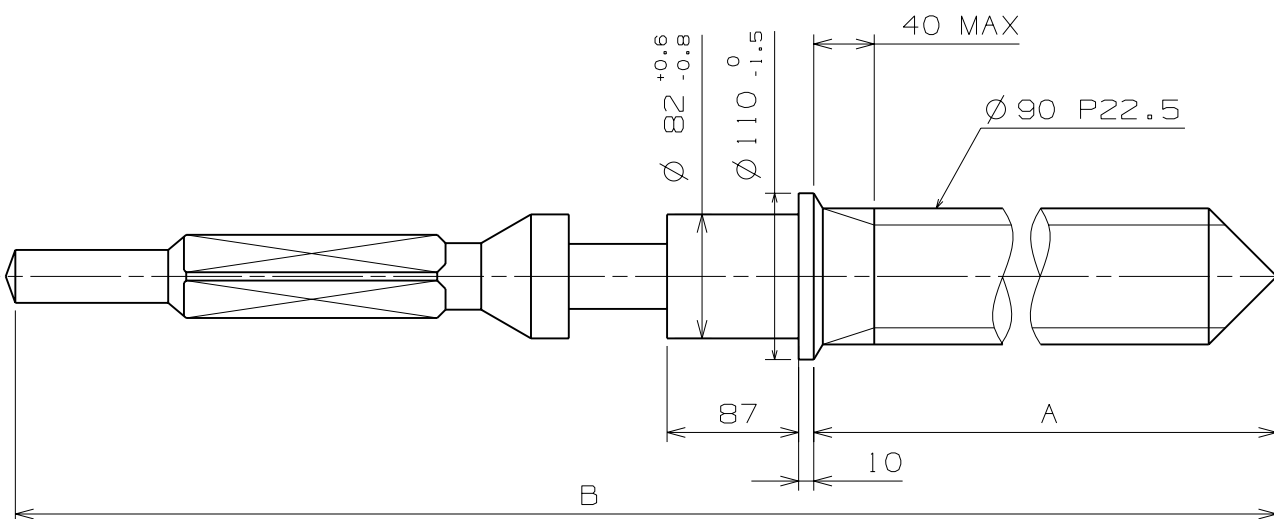
	A	B	C	D	E	F	F'
TYPE M 一般針高	95	143	203	45	40	50	40
TYPE L 高針	95	143	203	45	85	50	40

Scale : 20/1

Unit : 1=1/100mm

Version : 5





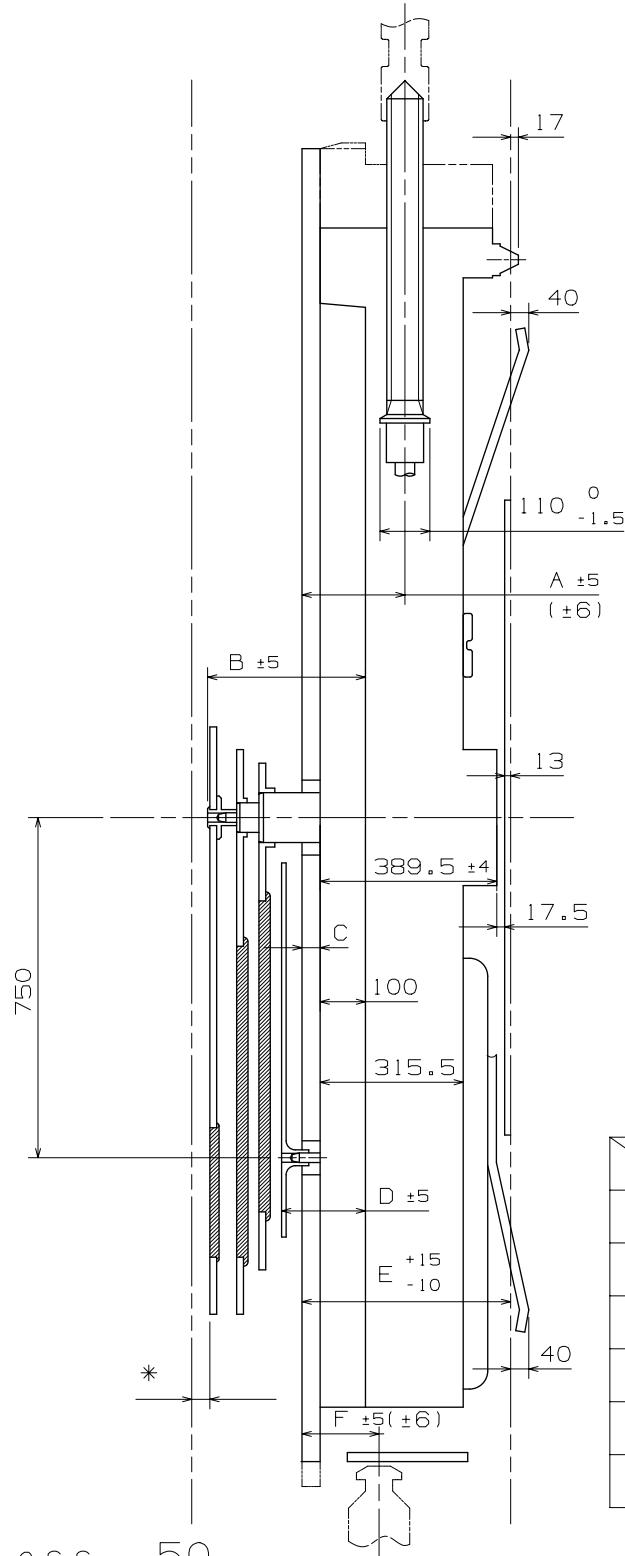
	Part. No.	A	B
TYPE A	0351 1780	1508	2036
TYPE B	0351 1240	2017	2545

Scale : 20/1

Unit : 1=1/100mm

Version:6



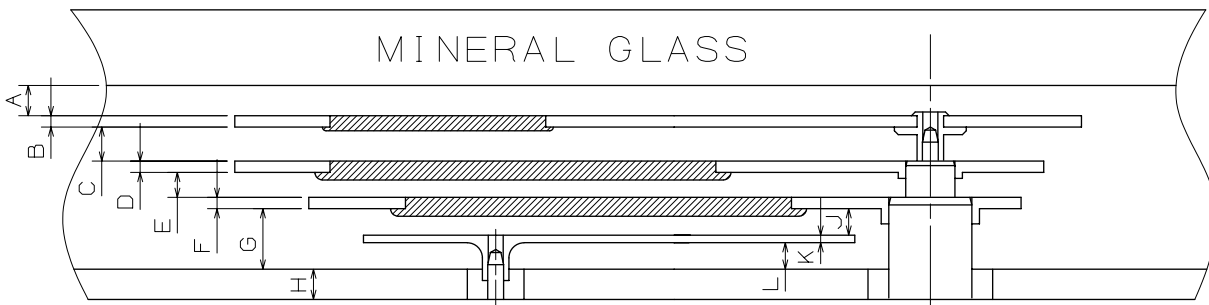
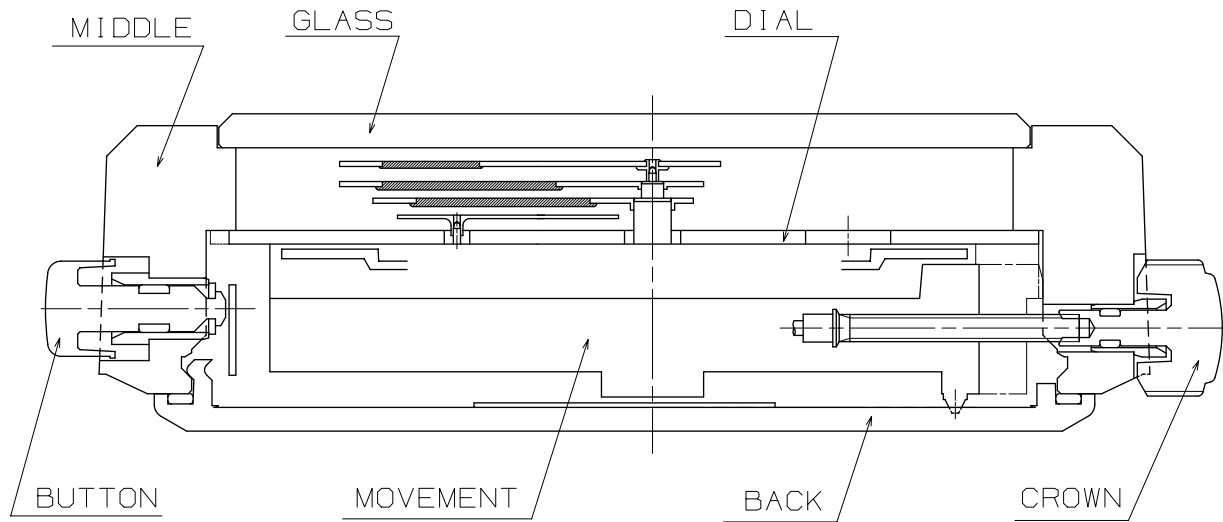


	TYPE M	TYPE L
A	227	272
B	343	388
C	40	85
D	185	230
E	460	505
F	170	215

\* Acrylic Glass 50  
\* Mineral Glass 40

Scale : ≠  
Unit : 1=1/100mm

Version:5

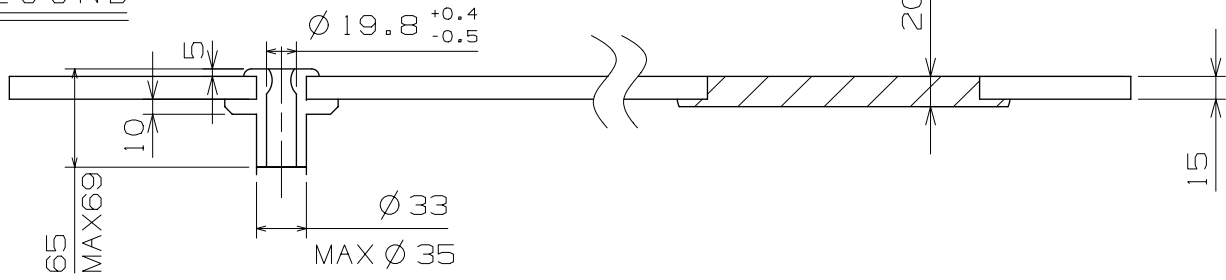


	TYPE M	TYPE L
A	40	40
B	15	15
C	45	45
D	15	15
E	33	33
F	15	15
G	80	80
H	40	85
J	35	35
K	10	10
L	35	35

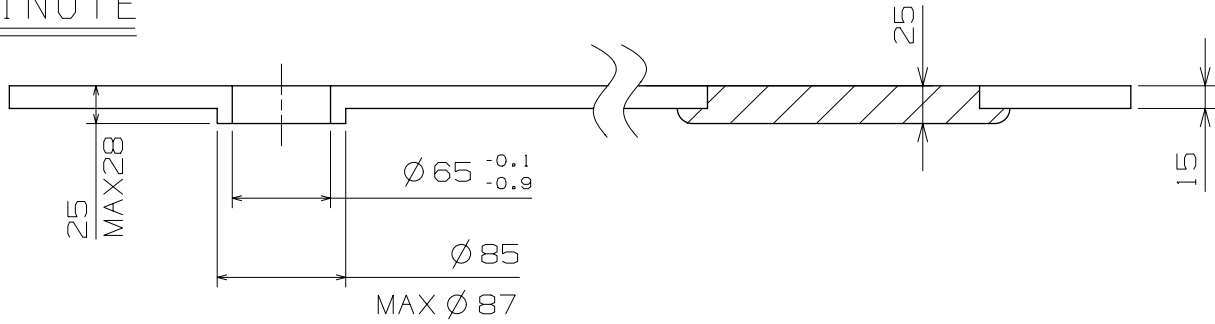
Scale :  $\neq$   
Unit : 1=1/100mm

Version:5

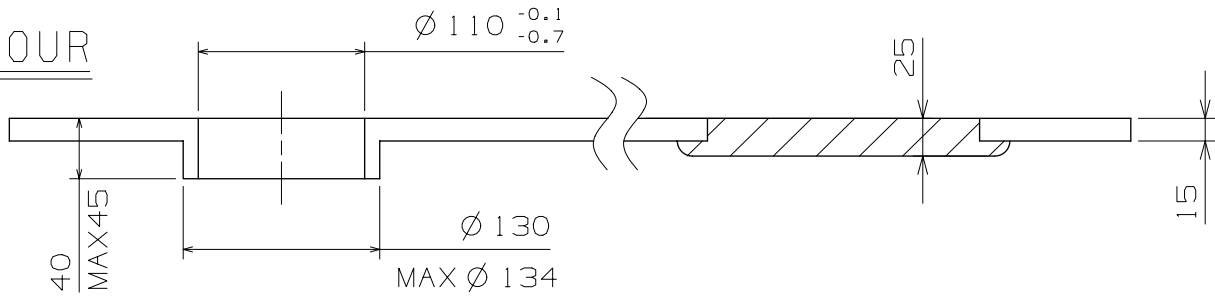
SECOND



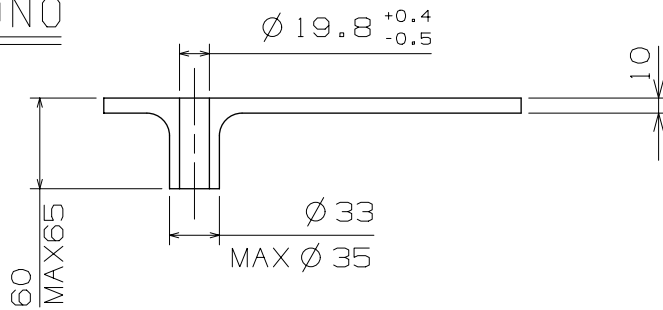
MINUTE



HOUR



CHRONO



Scale : 20/1

Unit : 1=1/100mm

Version:4