

# Cal. VK64A

$\phi$  30.80 mm

H 5.10 mm

| Item              | Version No. |
|-------------------|-------------|
| Specification - 1 | Version 1   |
| Specification - 2 | Version 1   |
| Appearance        | Version 1   |
| Casing            | Version 1   |
| Hand Fitting      | Version 1   |
| Hand Setting Stem | Version 1   |
| Dial              | Version 1   |
| Assembly Plan - 1 | Version 1   |
| Assembly Plan - 2 | Version 1   |
| Hands             | Version 1   |
|                   |             |
|                   |             |
|                   |             |

## CAL. VK64A 13 ½ Ligne Quartz Movement

Two Hands with 1/5 Center Chronograph Second (maximum count for 60 minutes per cycle),  
Small Chronograph Minute, Small 24 Hours Indicator, Date

### 1. MOVEMENT DIMENSIONS

- Outside diameter  $\phi$  30.80mm (12H~6H) x 29.10mm (3H~9H)
- Casing diameter  $\phi$  29.00mm (12H~6H)
- Total height 5.10 mm
- Dimensions of small hands away from center 7.50 mm

### 2. BASIC FUNCTION

- Jewels 0 jewel
- Regulation device Nil
- Accuracy  $\pm 20$  seconds per month at normal temperature range
- Battery life Approx. 3 years
- Operation temperature range From - 5 °C to + 50 °C
- Antimagnetism  $\geq 1600$  A / m
- ( direct current magnetic field )
- Shock resistance On equal level with general quartz movement
- Hands

|                       | Regulation hands unbalance           | The moment of inertia           |
|-----------------------|--------------------------------------|---------------------------------|
| Hour                  | Less than 0.50 $\mu$ N·m ( 50mg·mm ) | -----                           |
| Minute                | Less than 0.60 $\mu$ N·m ( 60mg·mm ) | -----                           |
| 24 hours              | Less than 0.05 $\mu$ N·m ( 5mg·mm )  | -----                           |
| Center chrono. second | Less than 0.20 $\mu$ N·m ( 20mg·mm ) | Less than 400mg·mm <sup>2</sup> |
| Chrono. minute        | Less than 0.05 $\mu$ N·m ( 5mg·mm )  | Less than 30mg·mm <sup>2</sup>  |

### 3. OSCILLATOR

- Type of quartz oscillator Tuning fork
- Frequency of quartz oscillator 32,768 Hz

### 4. BATTERY

- Type Silver oxide battery
- Voltage 1.55 V
- Size  $\phi$  9.5 x t 3.6 ( mm )
- Recommended battery SR936SW ( SEIZAIKEN )

### 5. DIAL FIXED METHOD

Dial legs fitted with holes on the main plate

### 6. 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

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

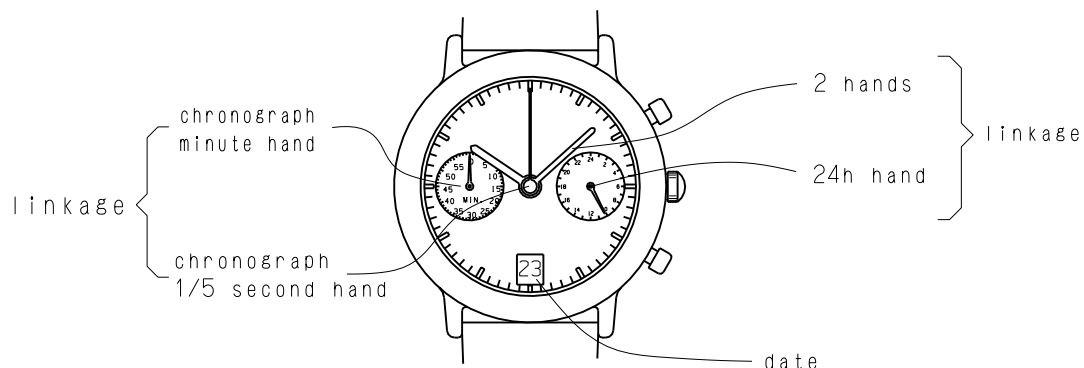
# Movement Specification-2

CAL. VK64A

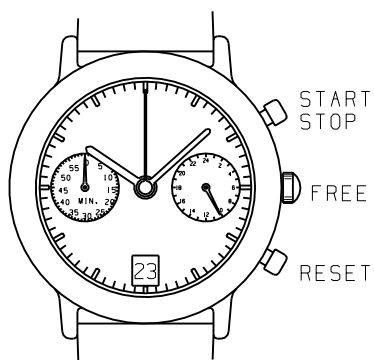
## OPERATION

2 step motors

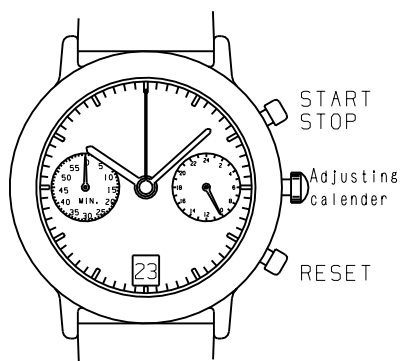
(2 hands with calendar, 1/5sec.chrono.maximum 60 minutes)



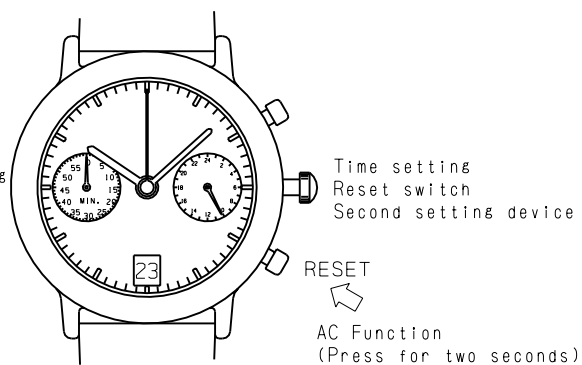
Normal Position



1st click  
adjusting calendar  
(clockwise)

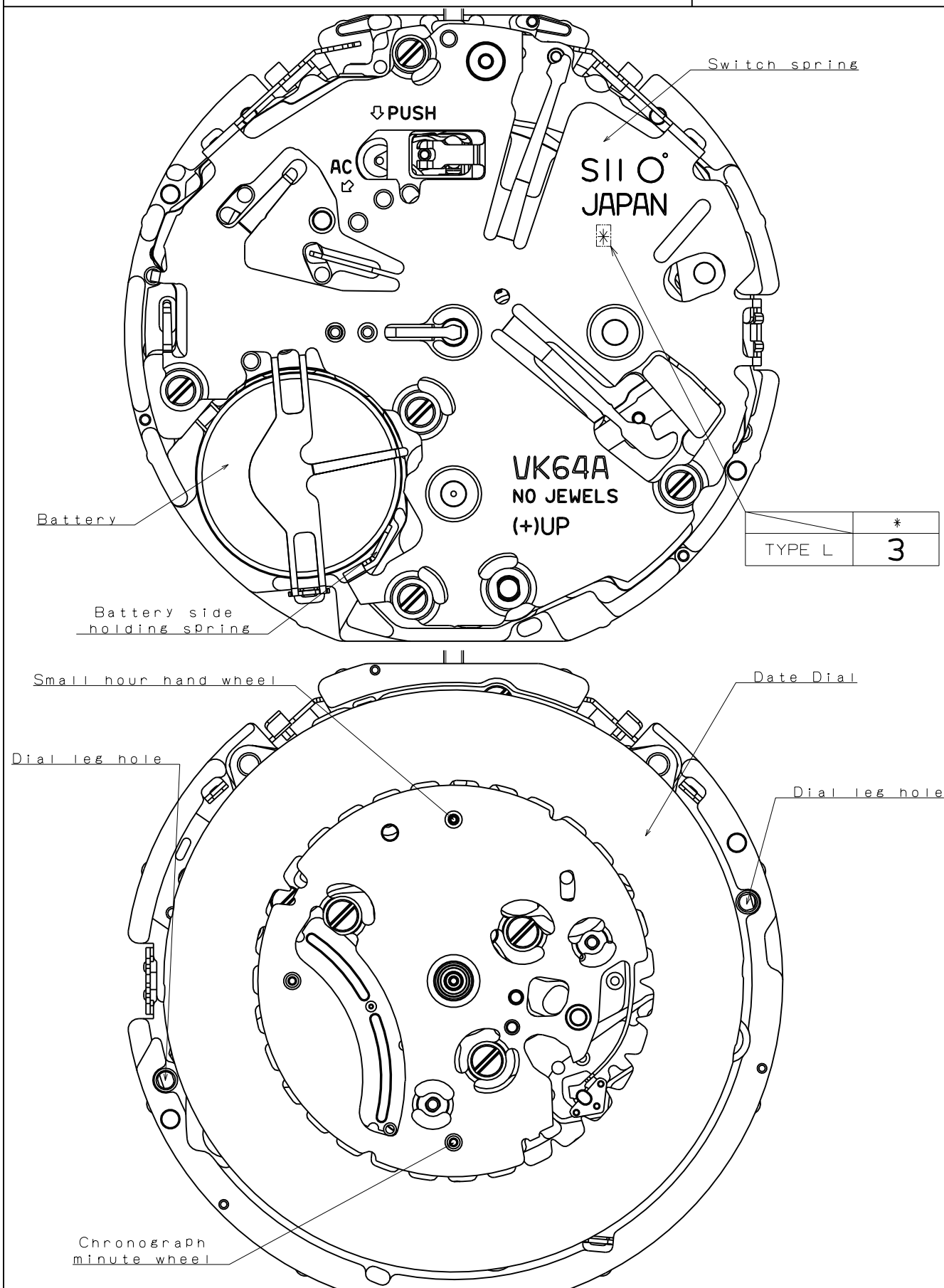


2nd click  
adjusting time



\*If the chronograph hand positions are incorrect, pushing the RESET button will return the hands to their appropriate positions.

Version : 1



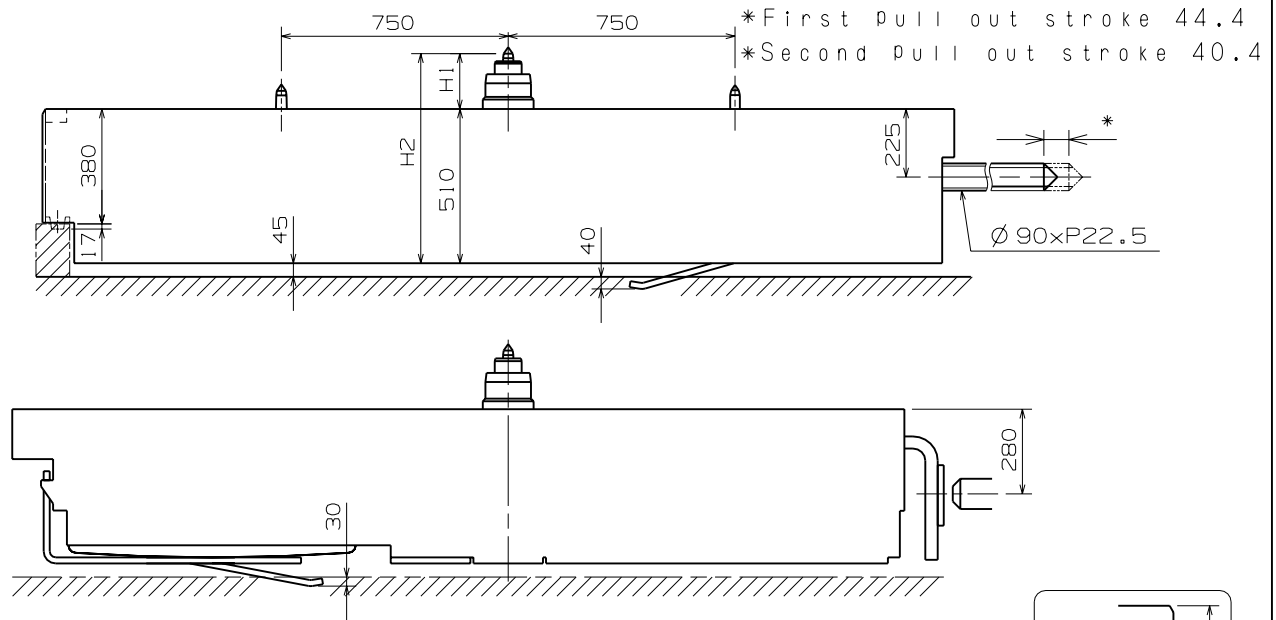
Scale : 4/1

Unit : 1=1/100mm

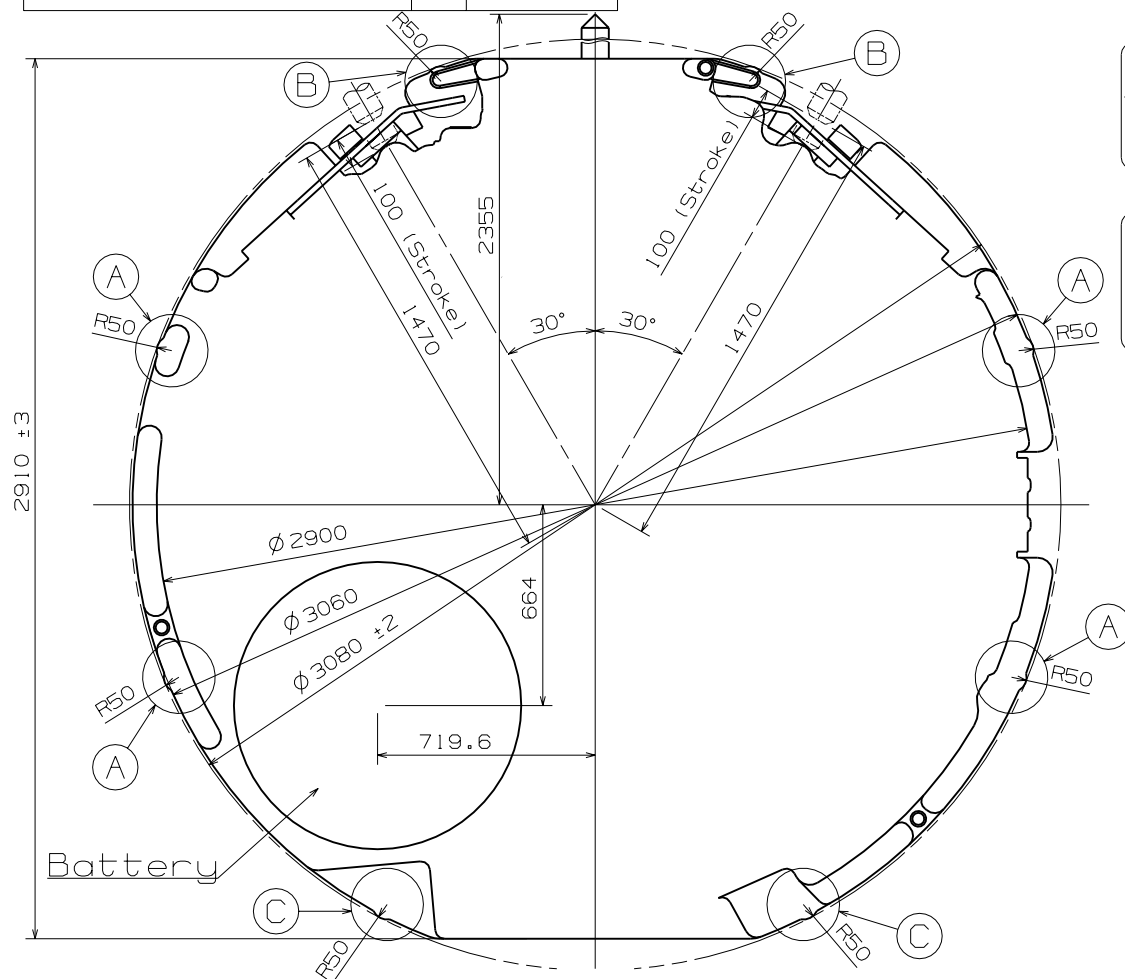
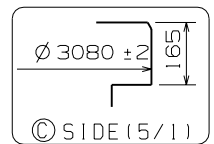
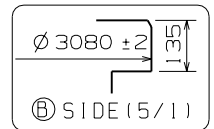
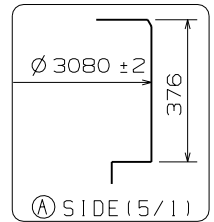
Version : 1

# Casing

Cal. VK64A



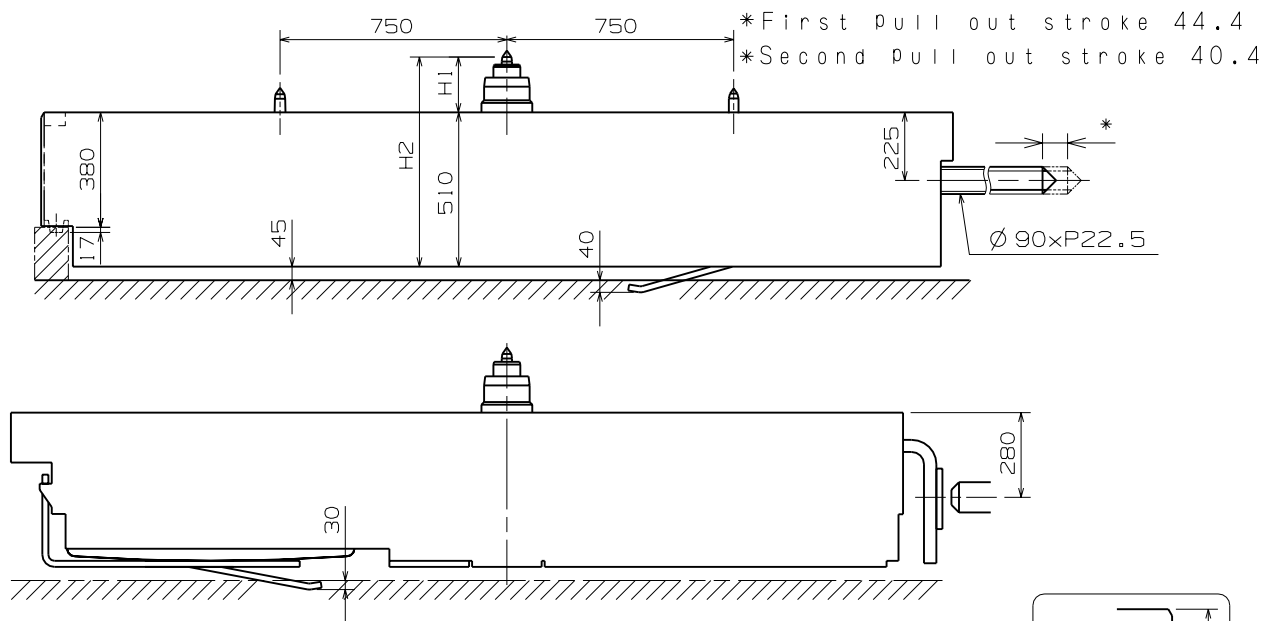
|                                        |    |        |
|----------------------------------------|----|--------|
| Center post                            |    | TYPE L |
| Maximum height from main Plate surface | H1 | 214    |
| Total height incl. movement            | H2 | 724    |



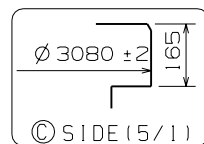
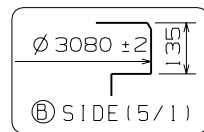
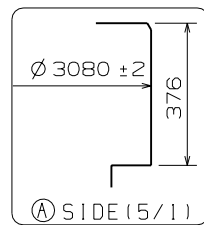
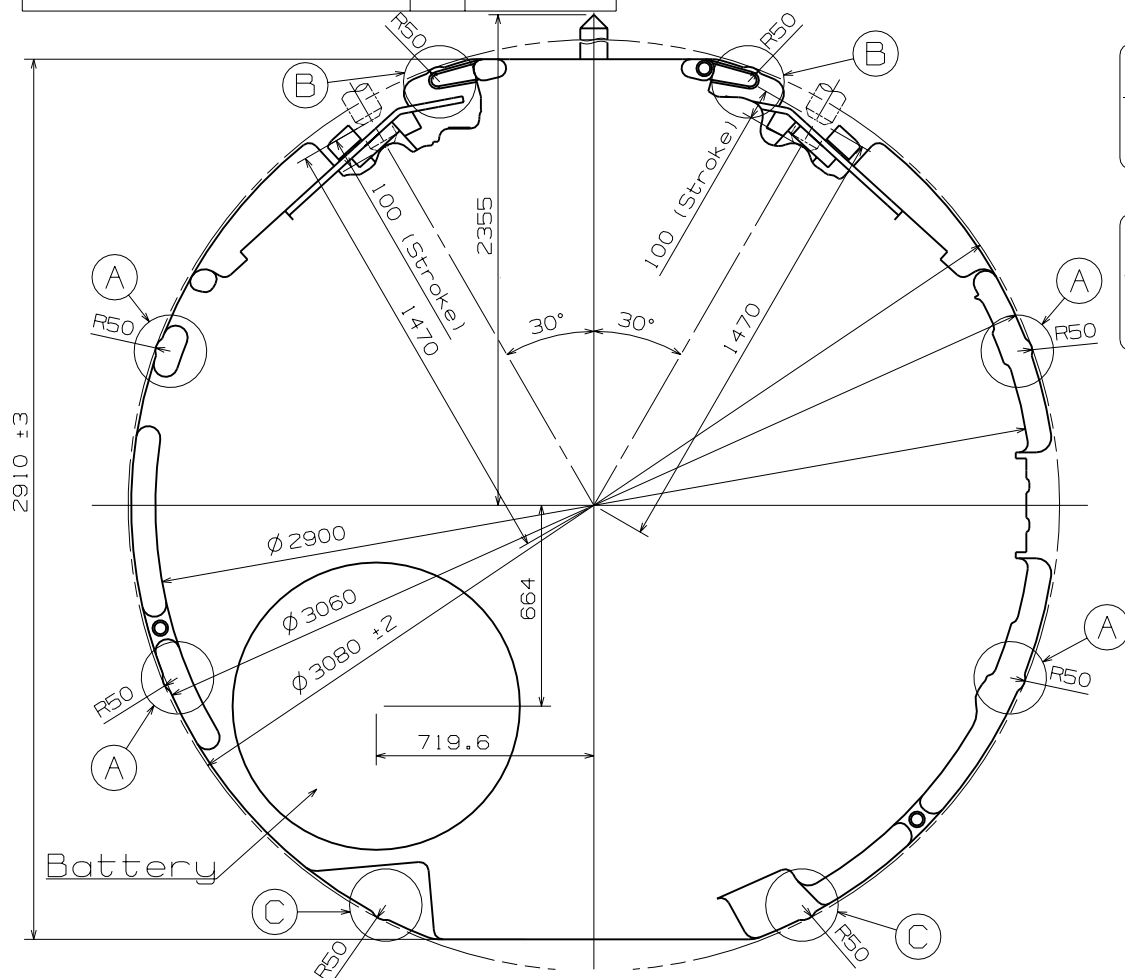
Scale : 4/1

Unit : 1=1/100mm

Version : 1



| Center post 中心柱位                                     |    | Type L<br>高針 |
|------------------------------------------------------|----|--------------|
| Maximum height from main plate surface<br>與機芯平面之最大高度 | H1 | 214          |
| Total height incl. movement<br>機芯總高度                 | H2 | 724          |



Scale : 4/1

Unit : 1 = 1/100mm

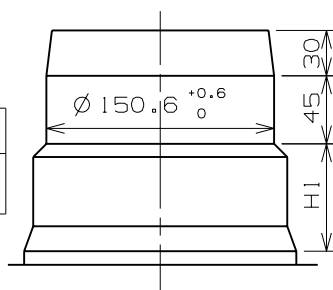
Version : 1

# Hand Fitting

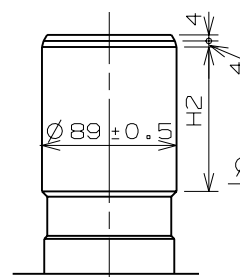
Cal. VK64A

- \*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)
- \*Small hour hand unbalance  $\leq 0.05\mu\text{N}\cdot\text{m}$  (5mg·mm)
- \*Chronograph 1/5 second hand unbalance  $\leq 0.20\mu\text{N}\cdot\text{m}$  (20mg·mm)
- \*Chronograph minute hand unbalance  $\leq 0.05\mu\text{N}\cdot\text{m}$  (5mg·mm)

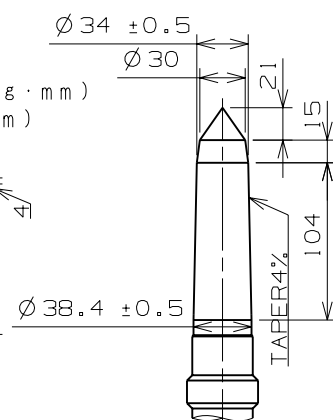
|        | H1 | H2    | H3 |
|--------|----|-------|----|
| TYPE L | 91 | 122.5 | 80 |



Hour wheel

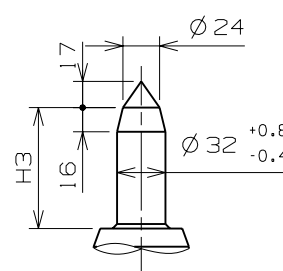


Center wheel

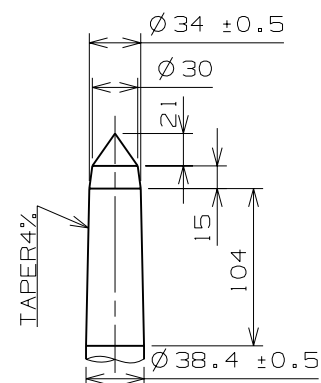


Chronograph 1/5 second wheel

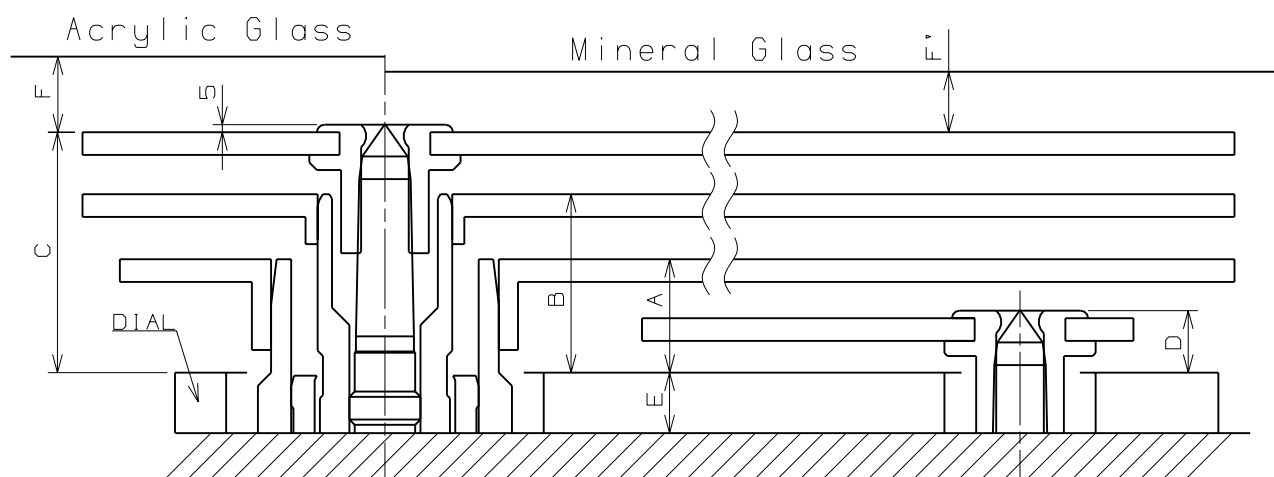
| Parts name                   | Parts No. |
|------------------------------|-----------|
|                              | TYPE L    |
| Hour wheel                   | 0273 0410 |
| Center wheel                 | 0221 0910 |
| Small hour hand wheel        | 0157 0120 |
| Chronograph minute wheel     | 0740 0020 |
| Chronograph 1/5 second wheel | 0888 0180 |



Small hour hand wheel



Chronograph minute wheel



|        | A  | B   | C   | D  | E  | F  | F' |
|--------|----|-----|-----|----|----|----|----|
| TYPE L | 95 | 145 | 190 | 41 | 40 | 50 | 40 |

\*Do not reuse the chronograph hands once detached.  
Please change and use new hands.

Scale : 20/1

Unit : 1=1/100mm

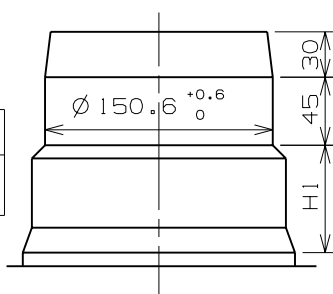
Version : 1

# Hand Fitting

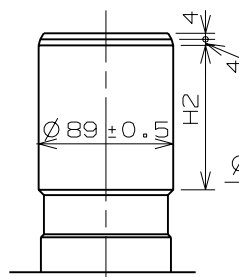
Cal. VK64A

- \*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)
- \*Small hour hand unbalance  $\leq 0.05\mu\text{N}\cdot\text{m}$  (5mg·mm)
- \*Chronograph 1/5 second hand unbalance  $\leq 0.20\mu\text{N}\cdot\text{m}$  (20mg·mm)
- \*Chronograph minute hand unbalance  $\leq 0.05\mu\text{N}\cdot\text{m}$  (5mg·mm)

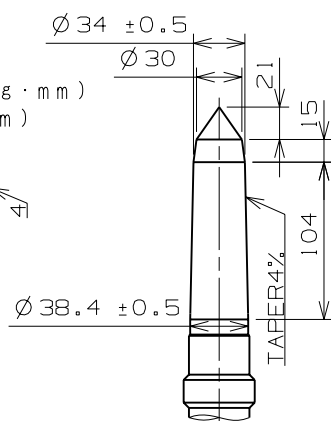
|              | H1 | H2    | H3 |
|--------------|----|-------|----|
| Type L<br>高針 | 91 | 122.5 | 80 |



Hour wheel

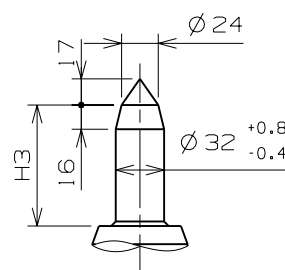


Center wheel

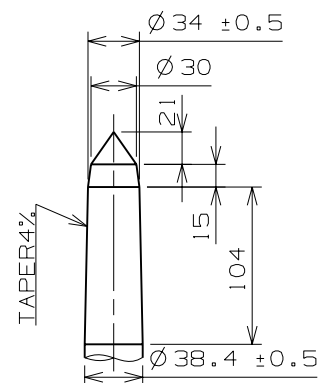


Chronograph  
1/5second wheel

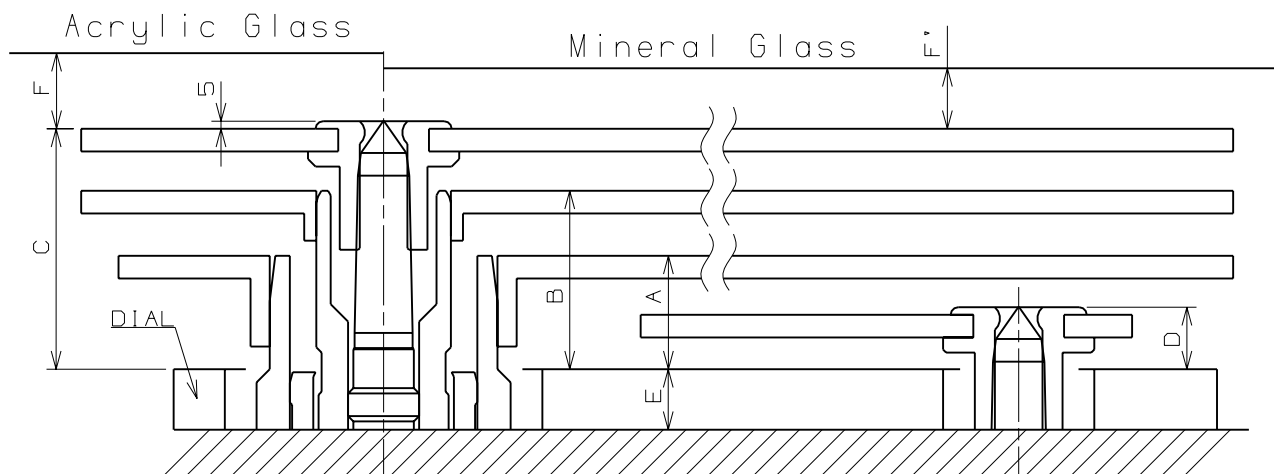
| Parts name                          | Parts No. |
|-------------------------------------|-----------|
|                                     | Type L 高針 |
| Hour wheel 時針輪                      | 0273 0410 |
| Center wheel 分針輪                    | 0221 0910 |
| Small hour hand wheel 小時針輪          | 0157 0120 |
| Chronograph minute wheel 計時分針輪      | 0740 0020 |
| Chronograph 1/5 sec. wheel 1/5計時秒針輪 | 0888 0180 |



Small hour  
hand wheel



Chronograph  
minute wheel



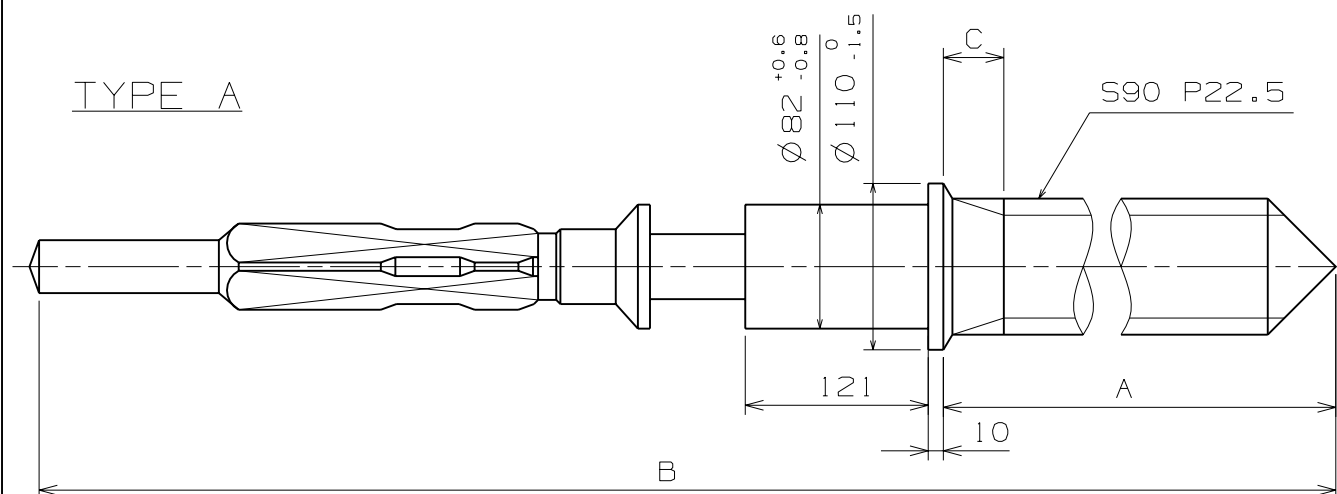
|           | A  | B   | C   | D  | E  | F  | F' |
|-----------|----|-----|-----|----|----|----|----|
| Type L 高針 | 95 | 145 | 190 | 41 | 40 | 50 | 40 |

\*Do not reuse the chronograph hands once detached.  
Please change and use new hands.

Scale : 20/1

Unit : 1=1/100mm

Version : 1

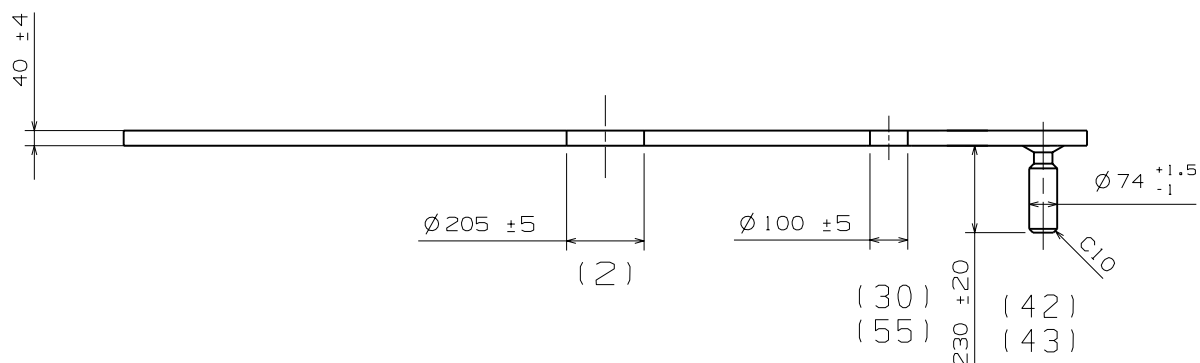
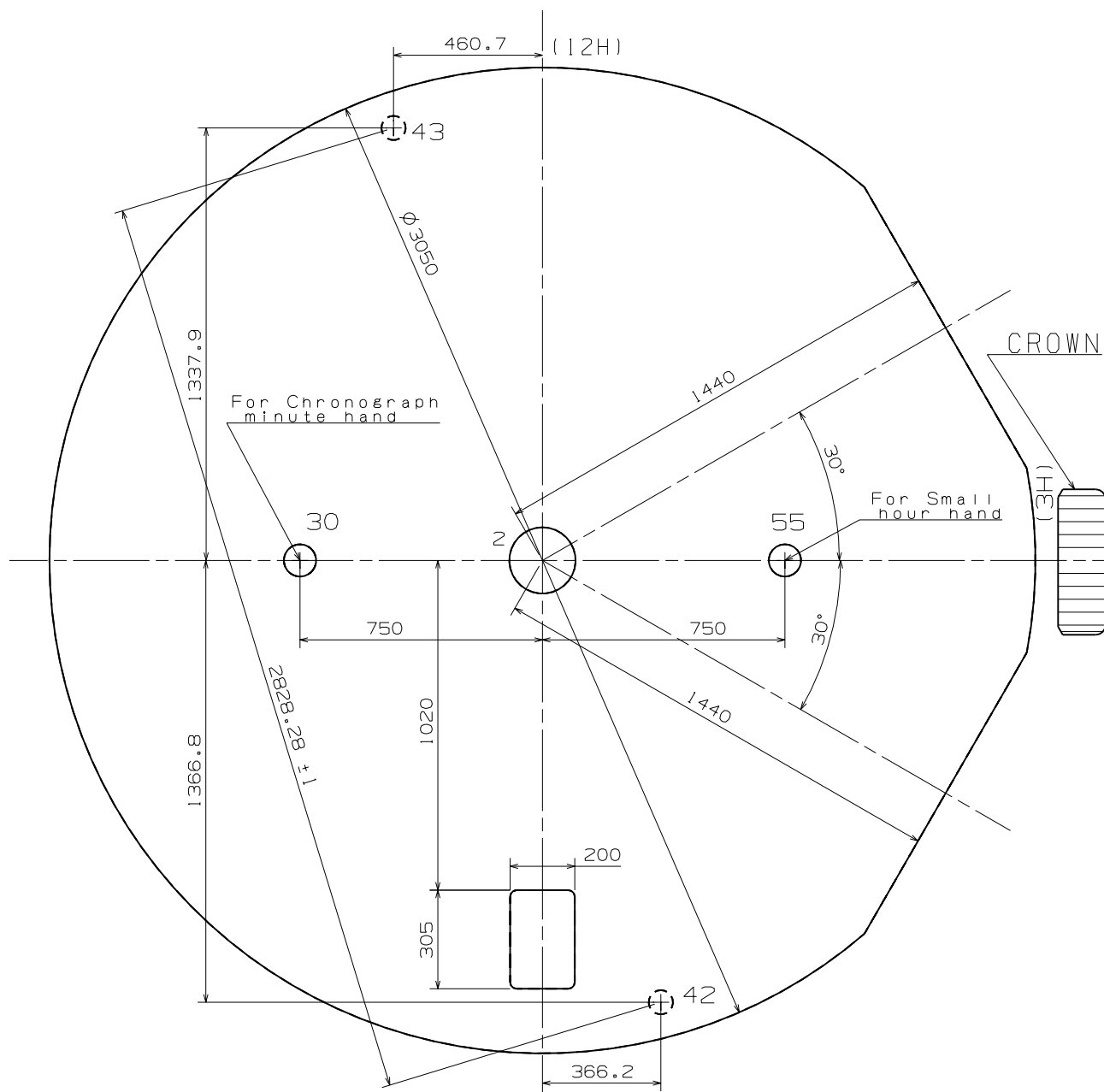


|        | Part. No. | A    | B    | C     |
|--------|-----------|------|------|-------|
| TYPE A | 0351 1770 | 1401 | 1999 | 40MAX |

Scale : 20/1

Unit : 1=1/100mm

Version : 1

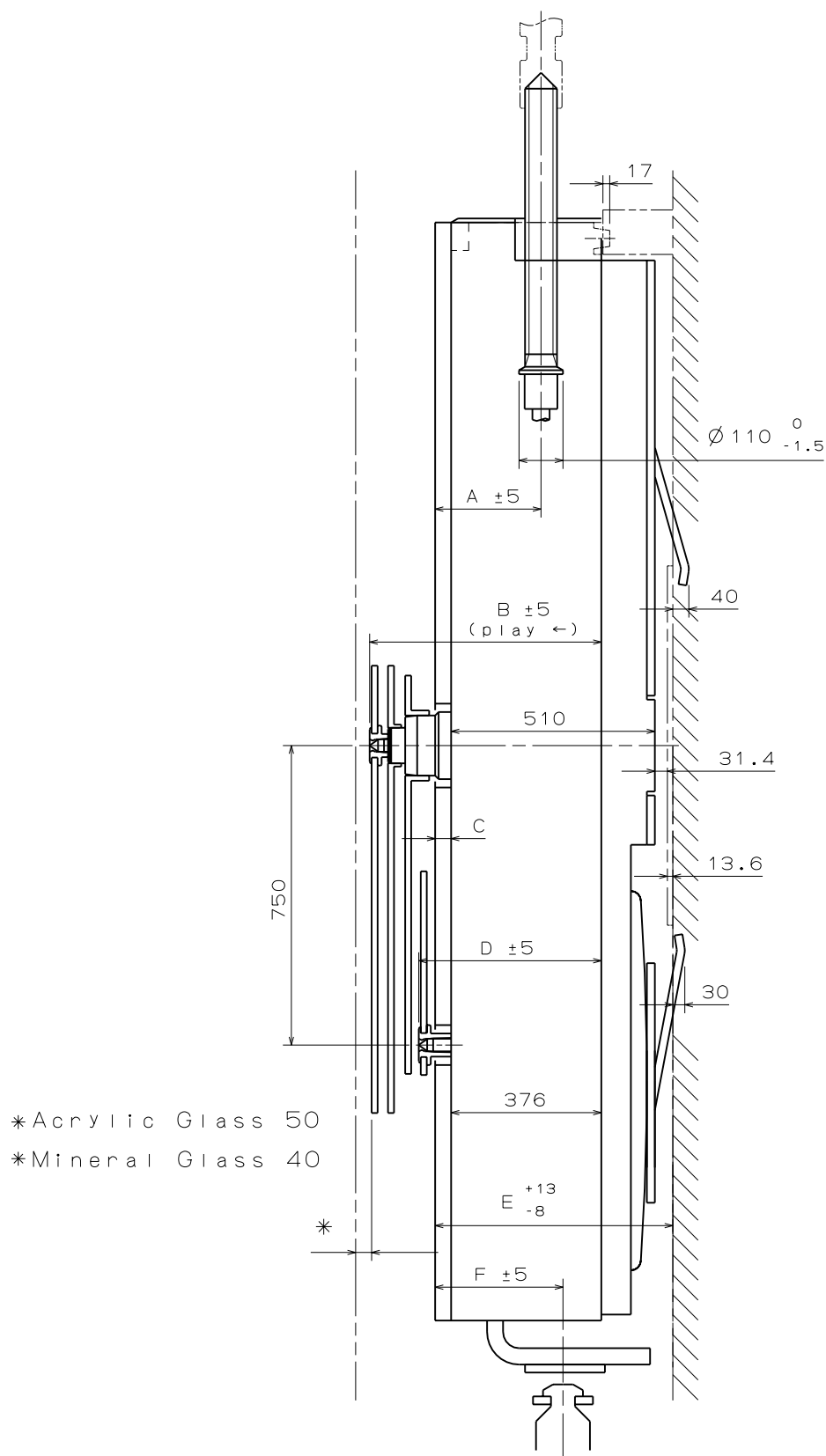


The tolerance of 2# hole position should be under 5 (Standard is 42#-43#)

Scale : 5/1

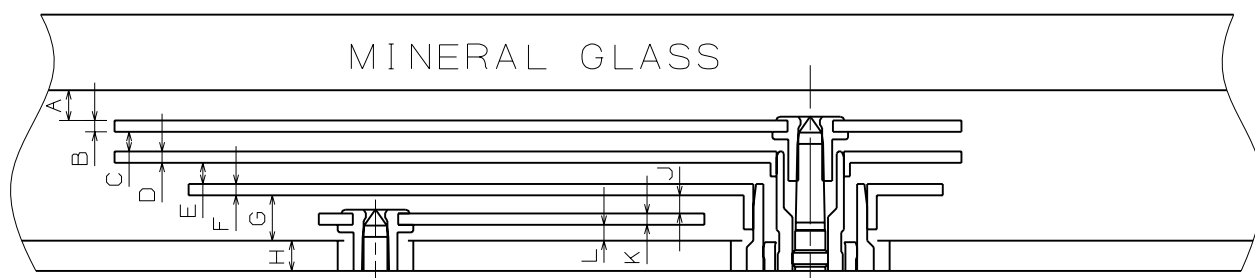
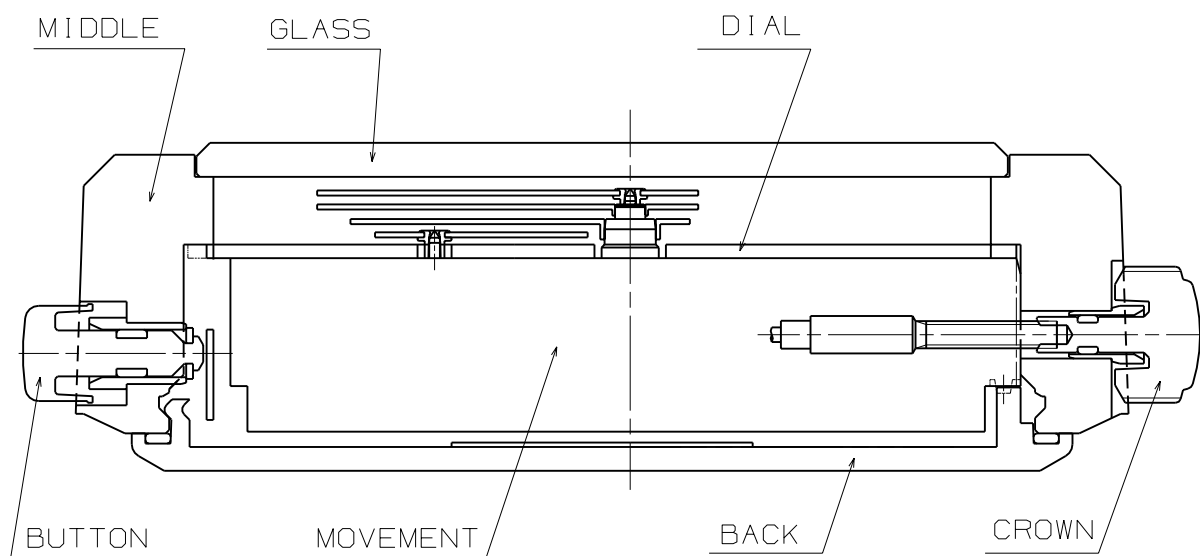
Unit : 1 = 1/100 mm

Version: 1



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

Version : 1

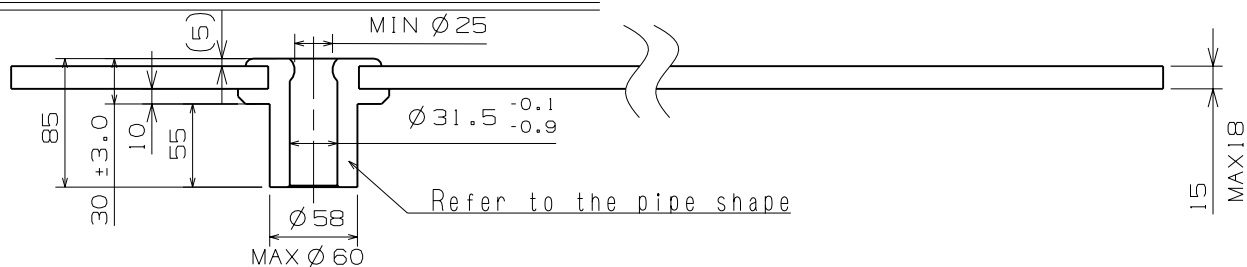


|   | TYPE L |
|---|--------|
| A | 40     |
| B | 15     |
| C | 30     |
| D | 15     |
| E | 35     |
| F | 15     |
| G | 80     |
| H | 40     |
| J | 44     |
| K | 15     |
| L | 21     |

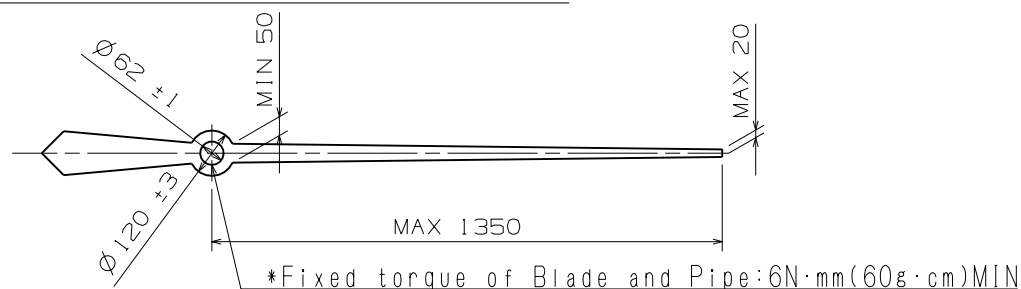
Scale :  $\neq$   
Unit : 1=1/100mm

Version : 1

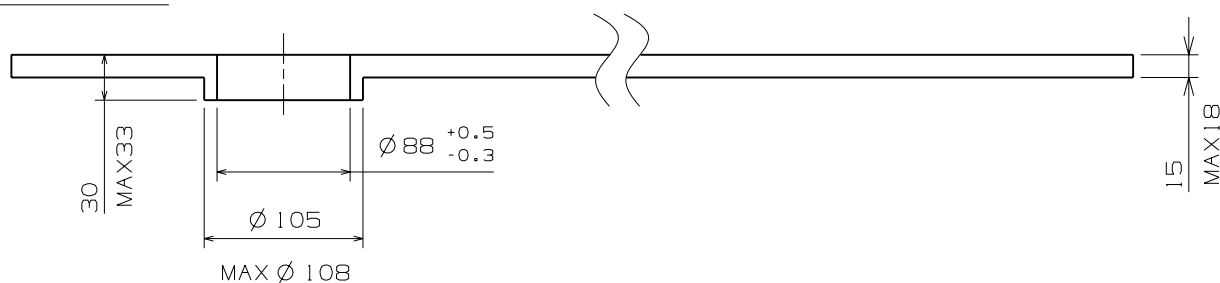
## CHRONOGRAPH 1/5SECOND



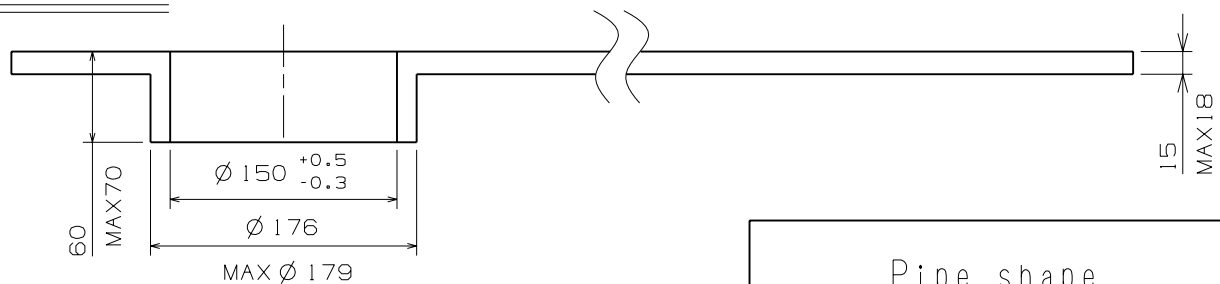
Recommended shape (Straight hand) SCALE: 5/1



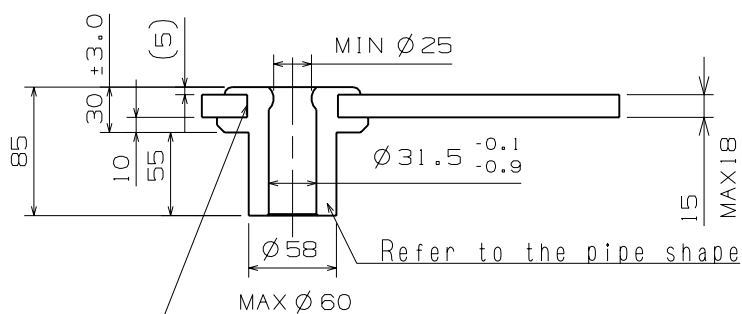
## MINUTE



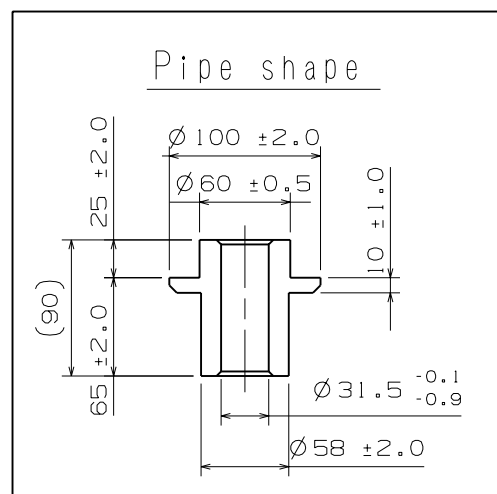
## HR



## SMALL HOUR CHRONOGRAPH MINUTE



\*Fixed torque of Blade and Pipe: 6N·mm (60g·cm) MIN



Material : Bs  
Scale : 20/1  
Unit : 1 = 1/100mm

Version : 1