

# Cal. VD57B

$\phi$  29.50 mm

H 4.57 mm

| Item              | Version No. |
|-------------------|-------------|
| Specification - 1 | Version 2   |
| Specification - 2 | Version 1   |
| Appearance        | Version 7   |
| Casing            | Version 8   |
| Hand Fitting      | Version 6   |
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| Dial - 1          | Version 2   |
| Dial - 2          | Version 2   |
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| Assembly Plan - 1 | Version 5   |
| Assembly Plan - 2 | Version 5   |
| Hands             | Version 4   |
|                   |             |

## MOVEMENT SPECIFICATION - 1

### CAL.VD57B 12 3 / 4 Ligne Quartz Movement

#### Three Hands with 3 Eyes / Date ( Minute, Second, 1 / 10 Second Chronograph & Calendar )

#### 1. MOVEMENT DIMENSIONS

- Outside diameter  $\phi$  29.50mm (12H~6H) x 26.00mm (3H~9H)
- Casing diameter  $\phi$  28.80mm (12H~6H)
- Total height 4.57 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 Less than 0.05  $\mu$ N·m ( 5mg·mm )
- Additional function
  - Stopwatch : up to 1 minute in 1/10 second ( 2 seconds per round )
  - 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 3 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

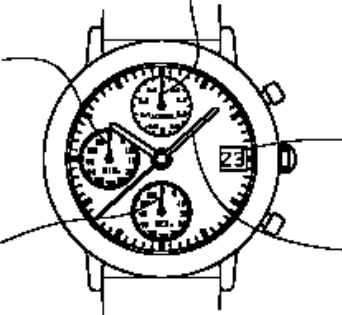
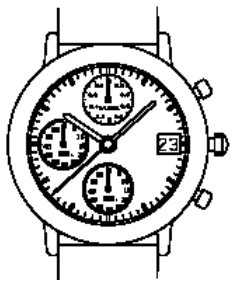
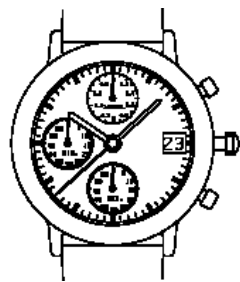
- Equipment to be used SEIKO Quartz Tester QT - 99  
Greiner Quartz Timer - C  
Witschi Q-Tester 4000
- Duration of measurement 10 seconds
- Microphone to be used Electromagnetic detection type

#### 10. ATTACHED PARTS

| Parts Name           | Parts Code                            |
|----------------------|---------------------------------------|
| Hand setting stem    | 0351-1770 (Normal) / 0351-1230 (Long) |
| Silver oxide battery | 3013 - 1410                           |
| Sticker              | 0110 - 3570                           |

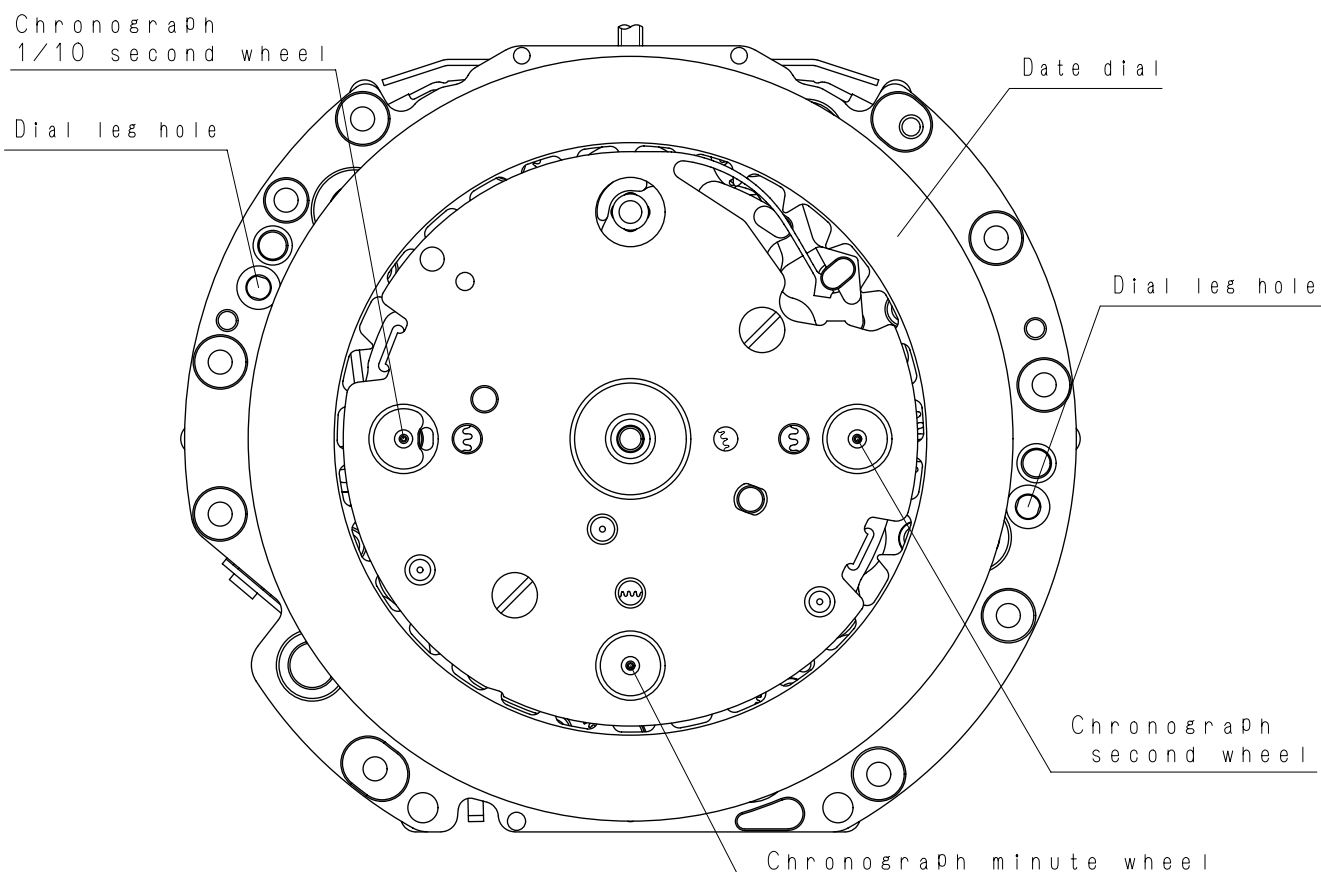
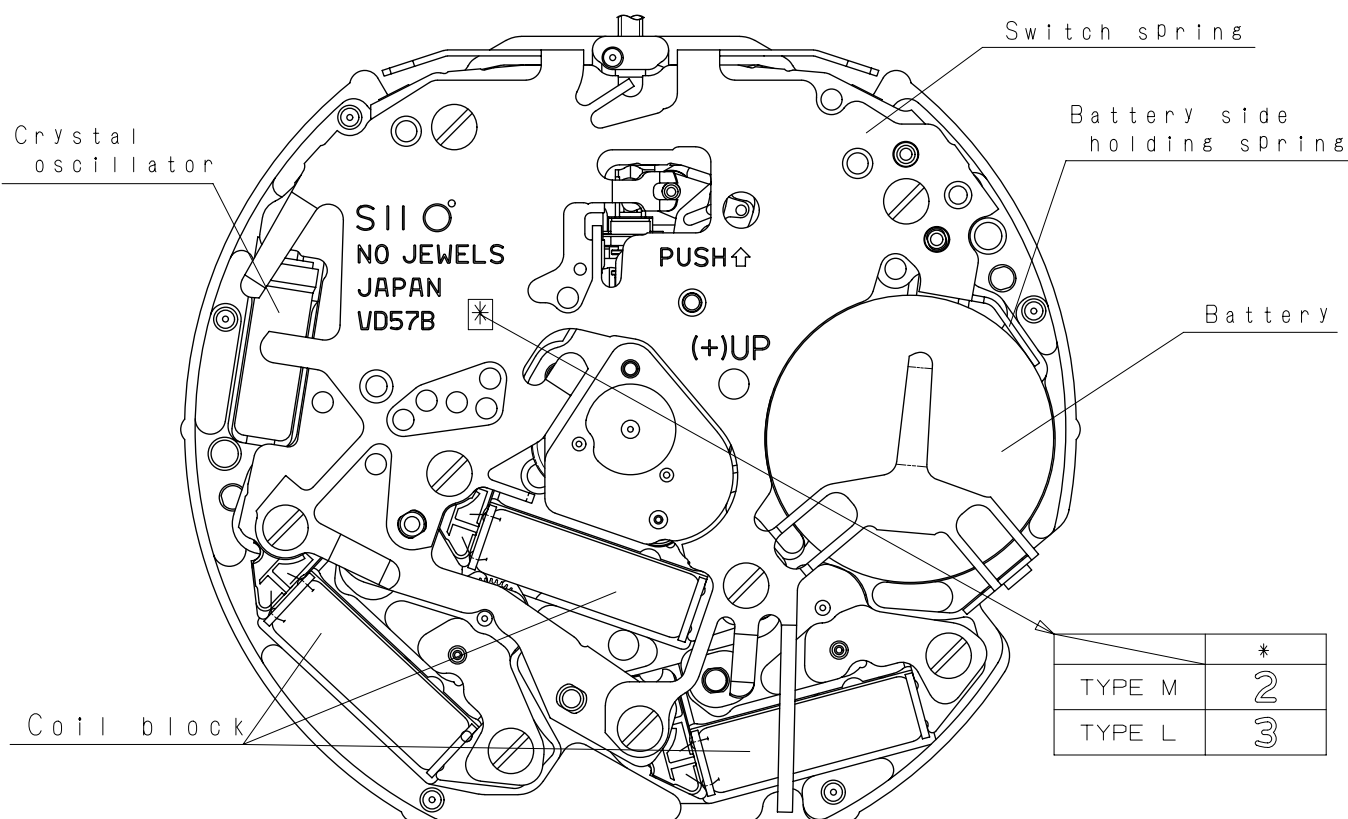
**\* All specifications are subject to change without notice.**

## Movement Specification - 2

|           | CAL. VD57B                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| OPERATION | <p>3 step motors ( 3 hands with calendar, 1 / 10 sec. chrono. maximum to 60 minutes )</p> <p>Press button A, stopwatch 1/10 sec. hand indicates 1/10 unit of measurement time during stopwatch 1/10 second hand moves for a first minute.</p>                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|           | <p>linkage {</p> <p>stopwatch minute hand</p> <p>stopwatch second hand</p>                                                                                                                                                                                                                                                                                                                                                            |  <p>date</p> <p>3 hands</p> <p>Normal position</p>                                                                                                                                                                                                                                                                                                                                                                                                                   |
|           |                                                                                                                                                                                                                                                                                                                                                                                                                                       |  <p>START<br/>STOP</p> <p>FREE</p> <p>SPLIT<br/>RESET</p>                                                                                                                                                                                                                                                                                                                                                                                                           |
|           | <p>1st click<br/>adjusting calendar<br/>( clockwise )</p>  <p>START<br/>STOP</p> <p>ADJUSTING<br/>CALENDAR</p> <p>SPLIT<br/>RESET</p>                                                                                                                                                                                                              | <p>2nd click<br/>adjusting minute, hour &amp; chrono. hands</p>  <p>ADJUSTING THE<br/>STOPWATCH 1/10 SEC.<br/>HAND POSITION<br/>(CLOCKWISE )</p> <p>TIMING SETTING<br/>RESET SWITCH<br/>SECOND SETTING DEVICE</p> <p>ADJUSTING THE<br/>STOPWATCH SEC. &amp; MIN.<br/>HAND POSITION<br/>(CLOCKWISE )</p> <p>AC FUNCTIONS<br/>( KEEP<br/>BUTTONS<br/>"A" AND "B"<br/>PRESSED AT<br/>THE SAME TIME<br/>FOR 2 SECONDS,<br/>AND THEN,<br/>RELEASE THE<br/>BUTTONS )</p> |
|           | <p>* Stopwatch 1/10 second hand moves for a first minute.</p> <p>* Pull the crown to 2nd click to adjust the stopwatch hand position.</p> <p>* AC functions is available if stopwatch hand position is disorderly.</p> <p>* 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, 1/10 second hand moves 1 circle clockwise )</p> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|           |                                                                                                                                                                                                                                                                                                                                                                                                                                       | Version 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

# Appearance

Cal. VD57B



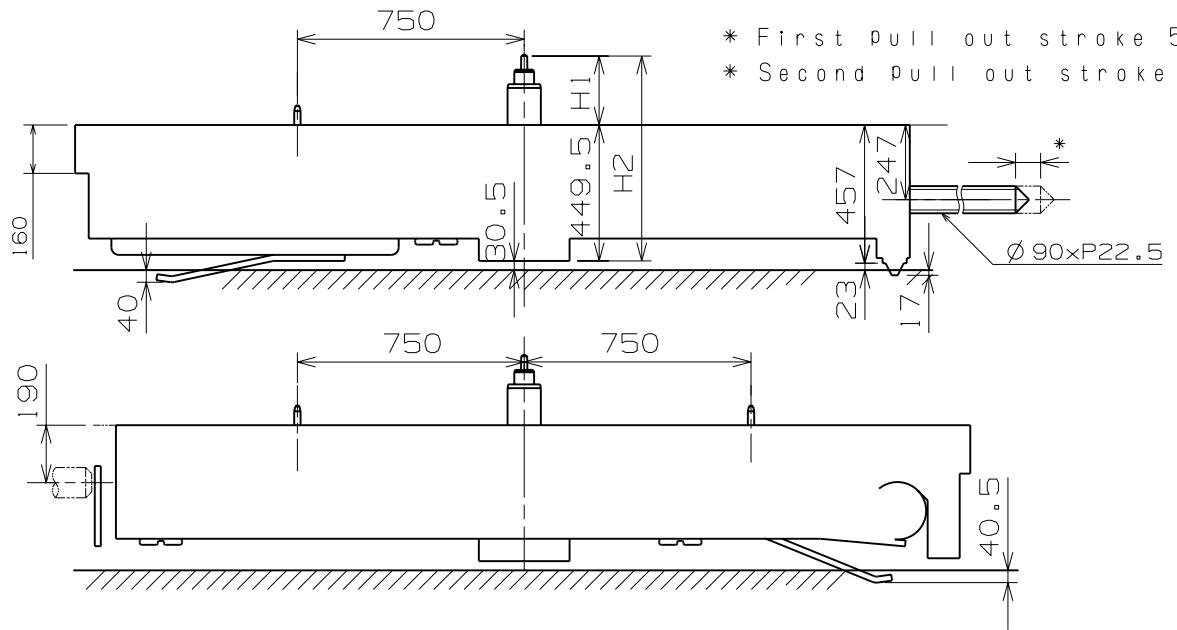
Scale : 4/1

Unit : 1=1/100mm

Version:7

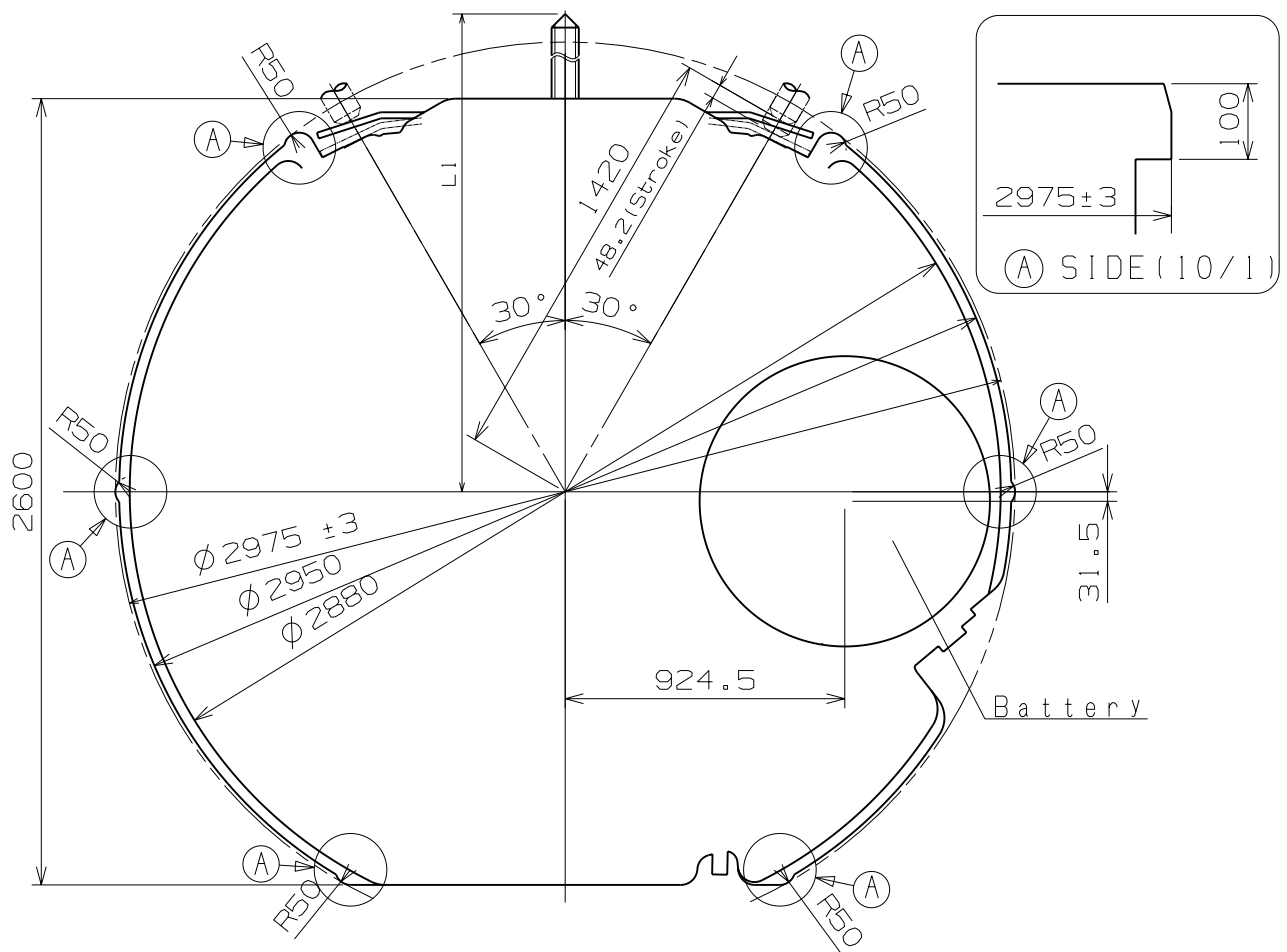
# Casing

Cal. VD57B



| Center Post                            |    | TYPE M | TYPE L |
|----------------------------------------|----|--------|--------|
| Maximum height from main plate surface | H1 | 228    | 273    |
| Total height incl. movement            | H2 | 677.5  | 722.5  |

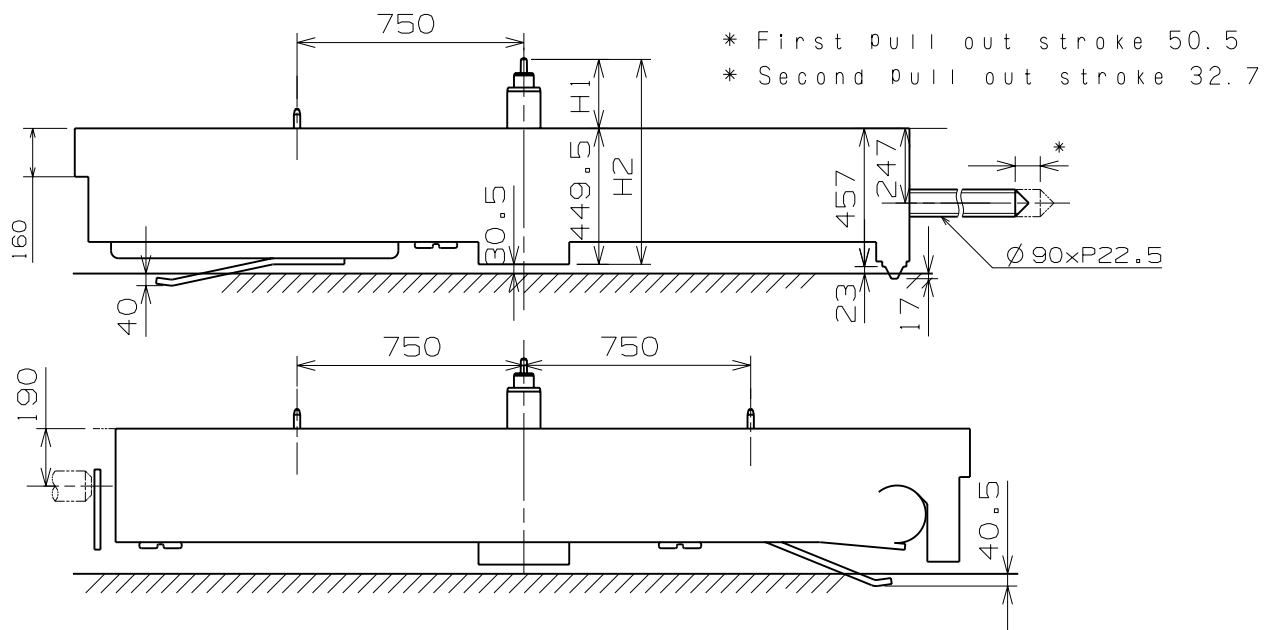
| Hand Setting Stem | TYPE A | TYPE B |
|-------------------|--------|--------|
| L1                | 2285   | 2861   |



Scale : 4/1

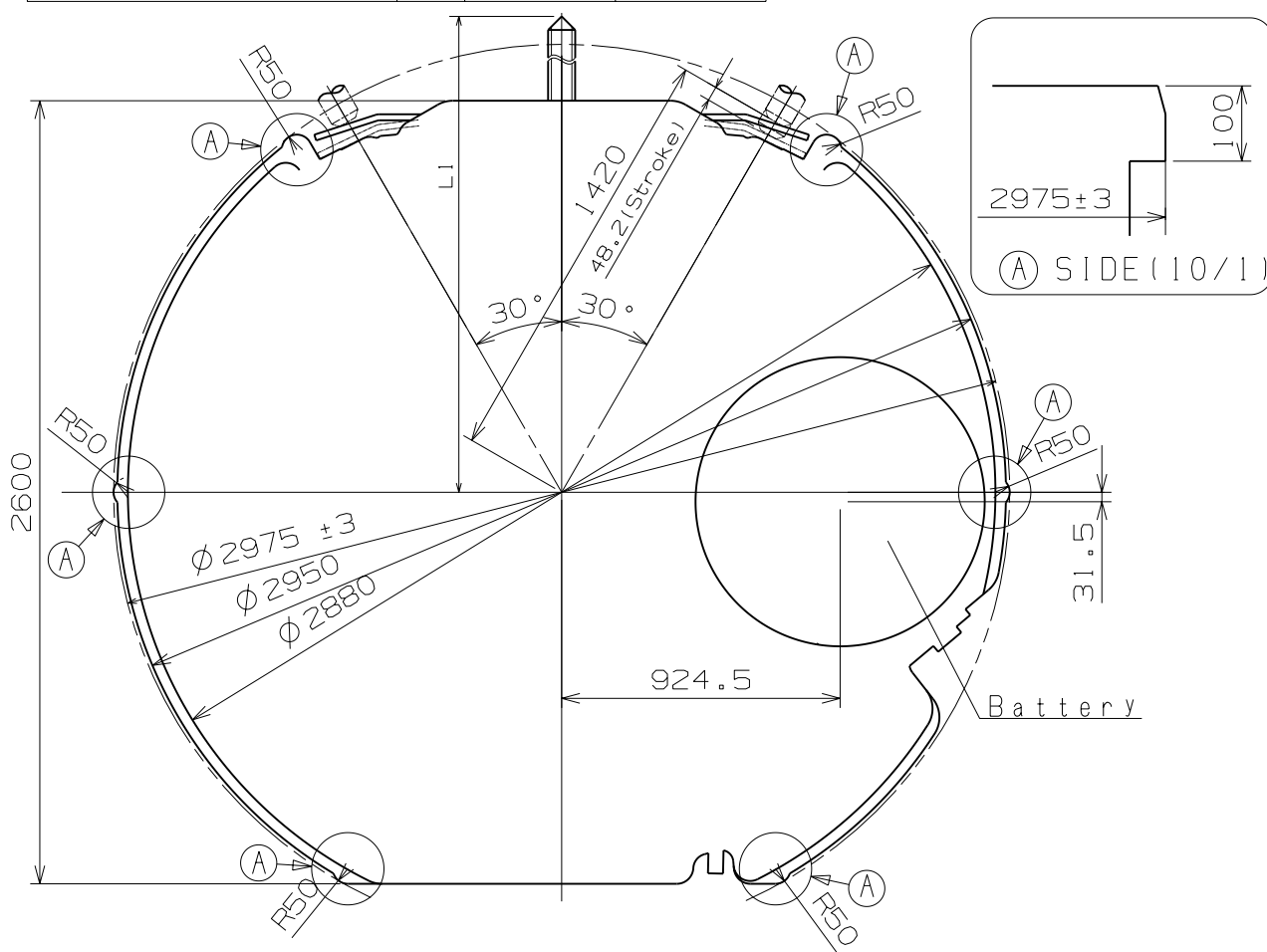
Unit : 1=1/100mm

Version:8



| Center post 中心柱位                                     |    | Type M<br>一般針高 | Type L<br>高針 |
|------------------------------------------------------|----|----------------|--------------|
| Maximum height from main plate surface<br>與機芯平面之最大高度 | H1 | 228            | 273          |
| Total height incl. movement<br>機芯總高度                 | H2 | 677.5          | 722.5        |

| Hand<br>Setting<br>Stem | TYPE A | TYPE B |
|-------------------------|--------|--------|
| L1                      | 2285   | 2861   |



Scale : 4/1

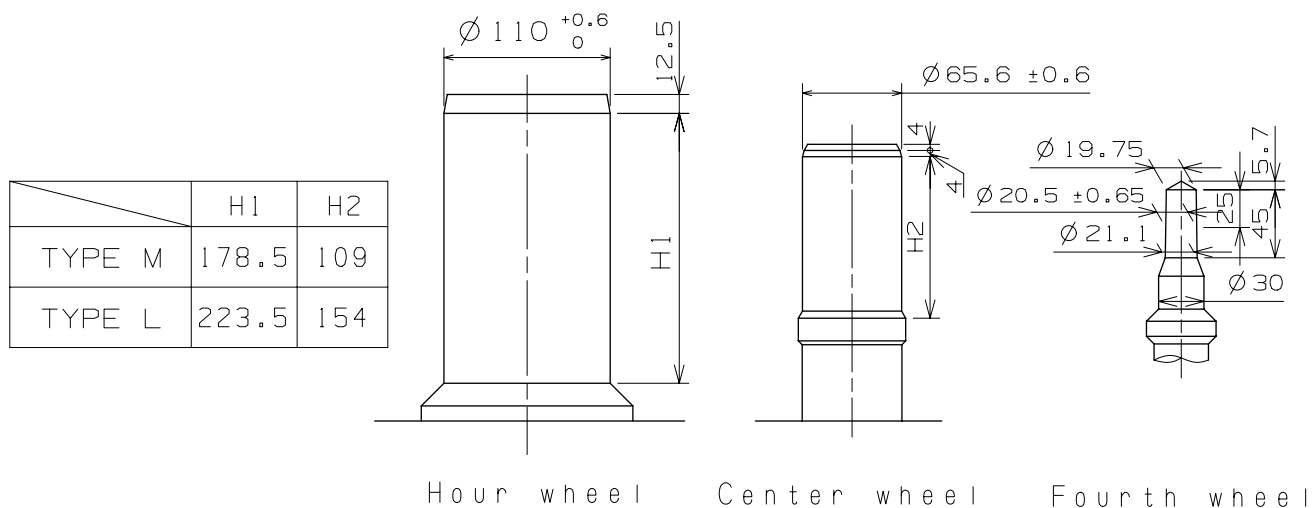
Unit : 1=1/100mm

Version:8

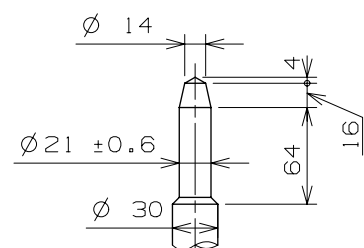
# Hand fitting

Cal. VD57B

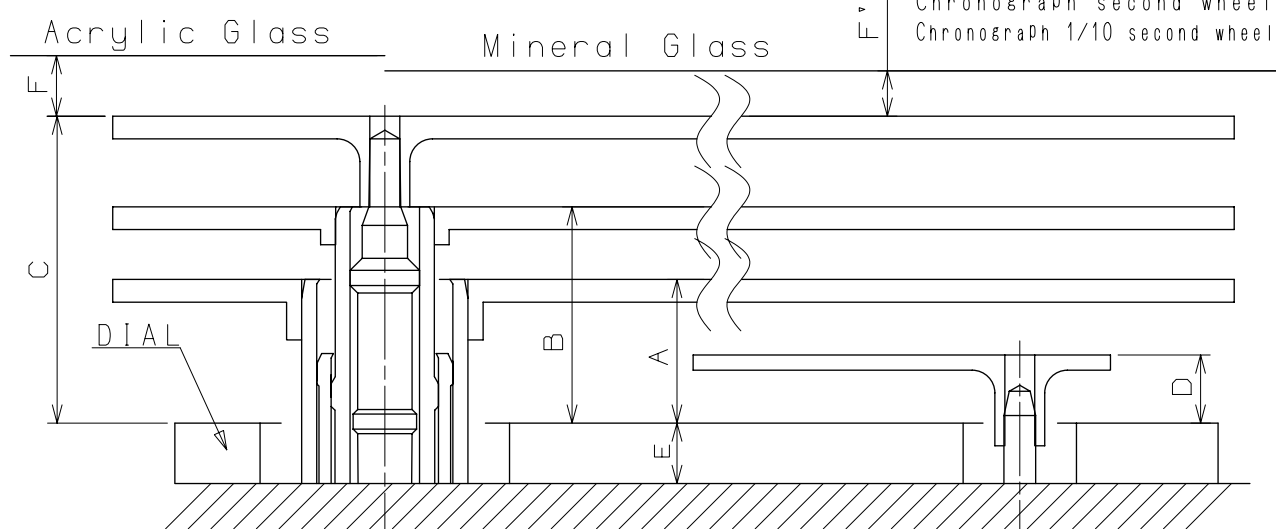
- \*Hour hand unbalance  $\leq 0.5 \mu\text{N} \cdot \text{m}$  (50mg·mm)
- \*Minute hand unbalance  $\leq 0.6 \mu\text{N} \cdot \text{m}$  (60mg·mm)
- \*Second hand unbalance  $\leq 0.07 \mu\text{N} \cdot \text{m}$  (7mg·mm)
- \*Chronograph hand unbalance  $\leq 0.05 \mu\text{N} \cdot \text{m}$  (5mg·mm)



| Part name                     | Part No.  |           |
|-------------------------------|-----------|-----------|
|                               | TYPE M    | TYPE L    |
| Hour wheel                    | 0271 4070 | 0273 0370 |
| Center wheel                  | 0221 1570 | 0221 0780 |
| Fourth wheel                  | 0241 1780 | 0241 4890 |
| Chronograph minute wheel      | 0902 0080 | 0902 0040 |
| Chronograph second wheel      | 0888 0090 | 0888 0110 |
| Chronograph 1/10 second wheel | 0888 0090 | 0888 0110 |



Chronograph minute wheel  
Chronograph second wheel  
Chronograph 1/10 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

Unit : 1=1/100mm

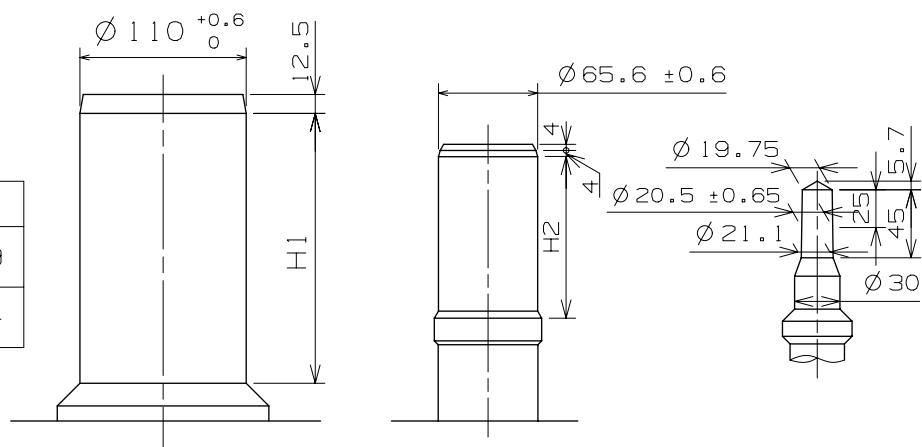
Version:6

# Hand fitting

Cal. VD57B

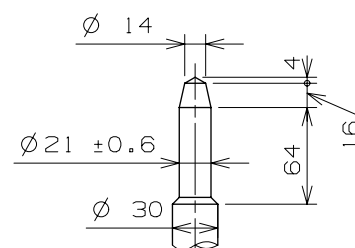
- \*Hour hand unbalance  $\leq 0.5 \mu\text{N} \cdot \text{m}$  (50mg·mm)
- \*Minute hand unbalance  $\leq 0.6 \mu\text{N} \cdot \text{m}$  (60mg·mm)
- \*Second hand unbalance  $\leq 0.07 \mu\text{N} \cdot \text{m}$  (7mg·mm)
- \*Chronograph hand unbalance  $\leq 0.05 \mu\text{N} \cdot \text{m}$  (5mg·mm)

|             | H1    | H2  |
|-------------|-------|-----|
| TYPE M 一般針高 | 178.5 | 109 |
| TYPE L 高針   | 223.5 | 154 |

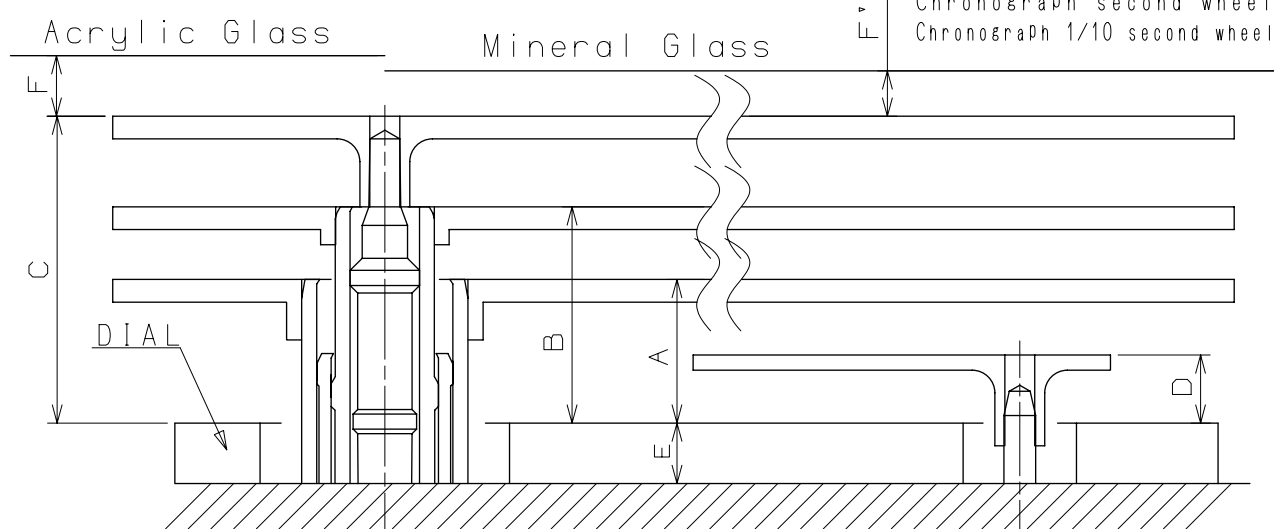


Hour wheel      Center wheel      Fourth wheel

| Part name                              | Part No.    |           |
|----------------------------------------|-------------|-----------|
|                                        | TYPE M 一般針高 | TYPE L 高針 |
| Hour wheel 時針輪                         | 0271 4070   | 0273 0370 |
| Center wheel 分針輪                       | 0221 1570   | 0221 0780 |
| Fourth wheel 秒針輪                       | 0241 1780   | 0241 4890 |
| Chronograph minute wheel 計時分輪          | 0902 0080   | 0902 0040 |
| Chronograph second wheel 計時秒輪          | 0888 0090   | 0888 0110 |
| Chronograph 1/10 second wheel 計時1/10秒輪 | 0888 0090   | 0888 0110 |



Chronograph minute wheel  
Chronograph second wheel  
Chronograph 1/10 second wheel

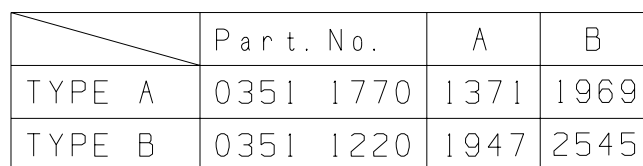


|             | A  | B   | C   | D  | E  | F  | F' |
|-------------|----|-----|-----|----|----|----|----|
| TYPE M 一般針高 | 95 | 143 | 203 | 45 | 40 | 50 | 40 |
| TYPE L 高針   | 95 | 143 | 203 | 45 | 85 | 50 | 40 |

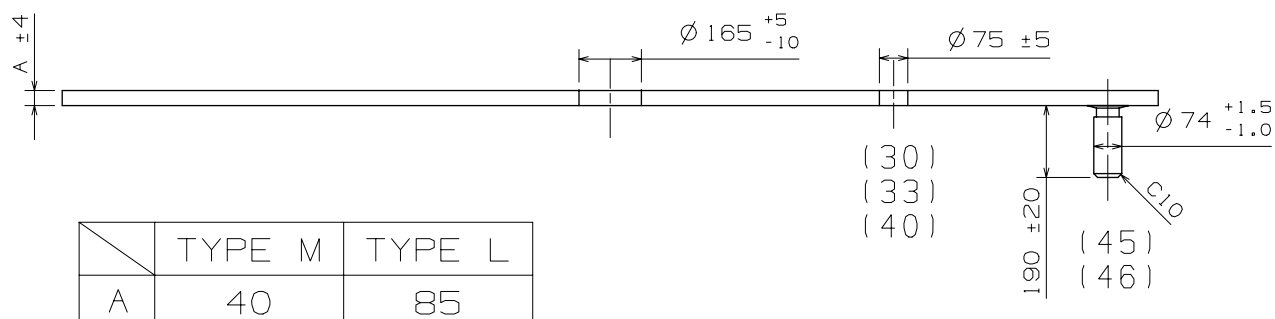
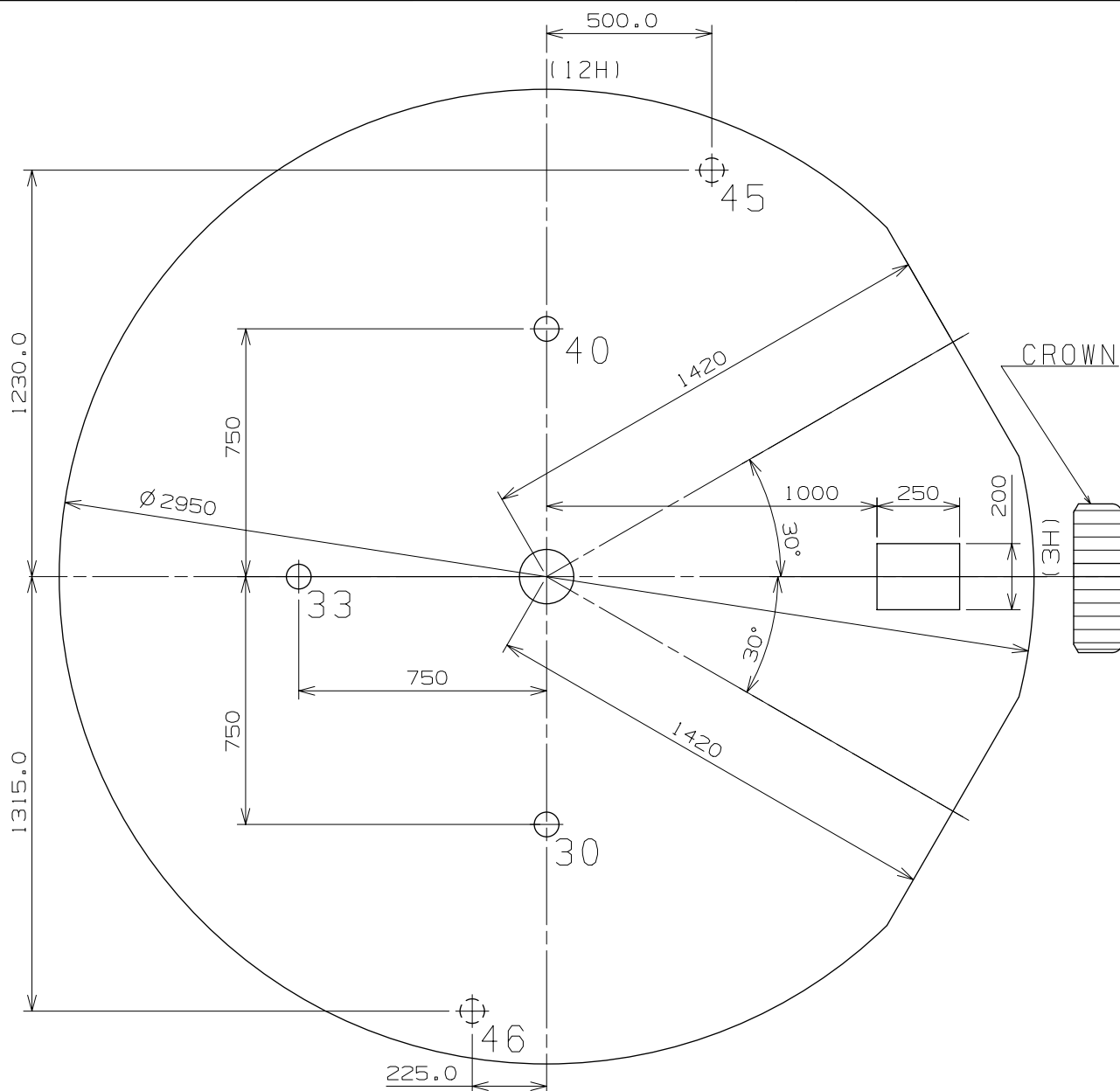
Scale : 20/1

Unit : 1=1/100mm

Version:6



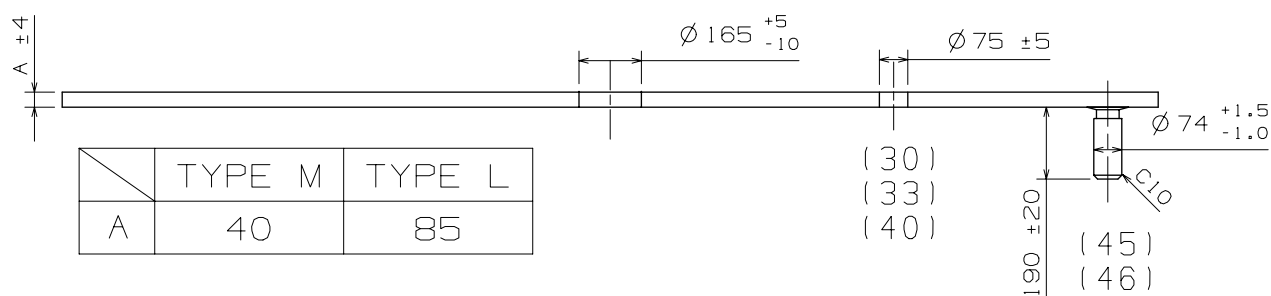
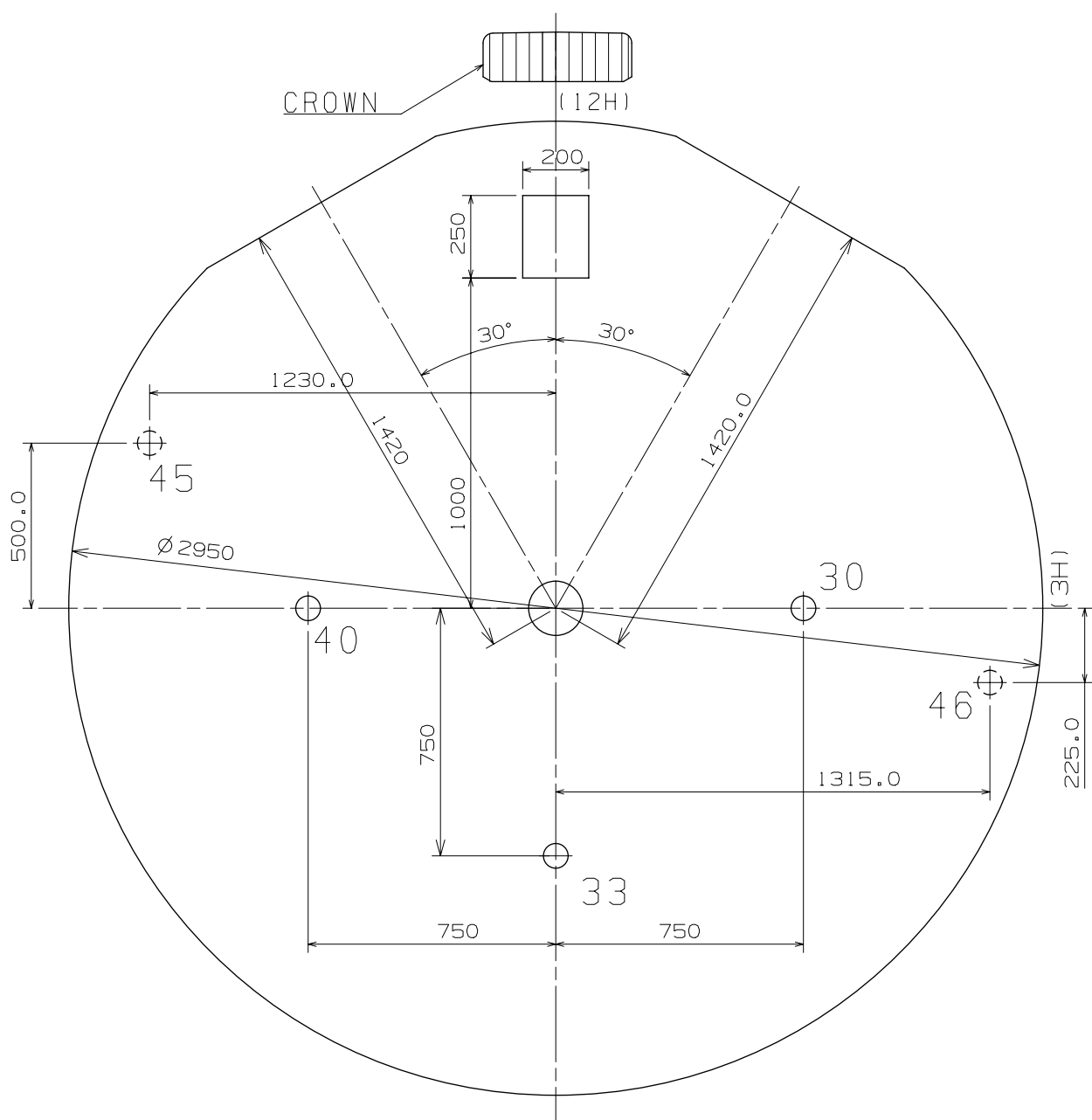
Unit : 1 = 1/100mm



|   | TYPE M | TYPE L |
|---|--------|--------|
| A | 40     | 85     |

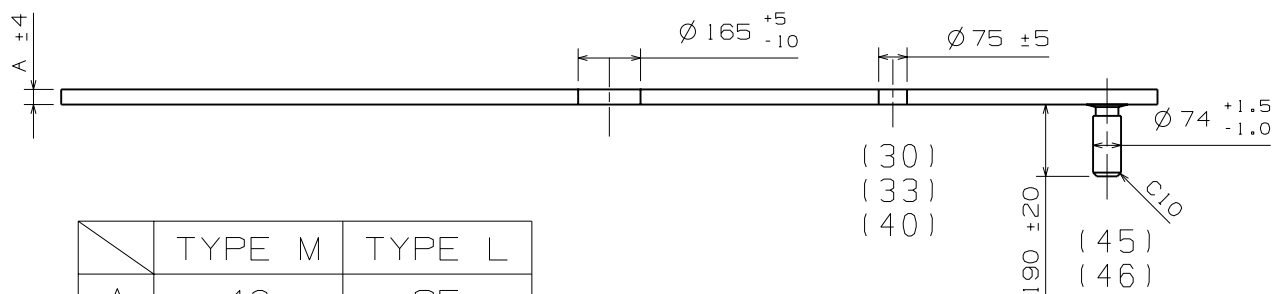
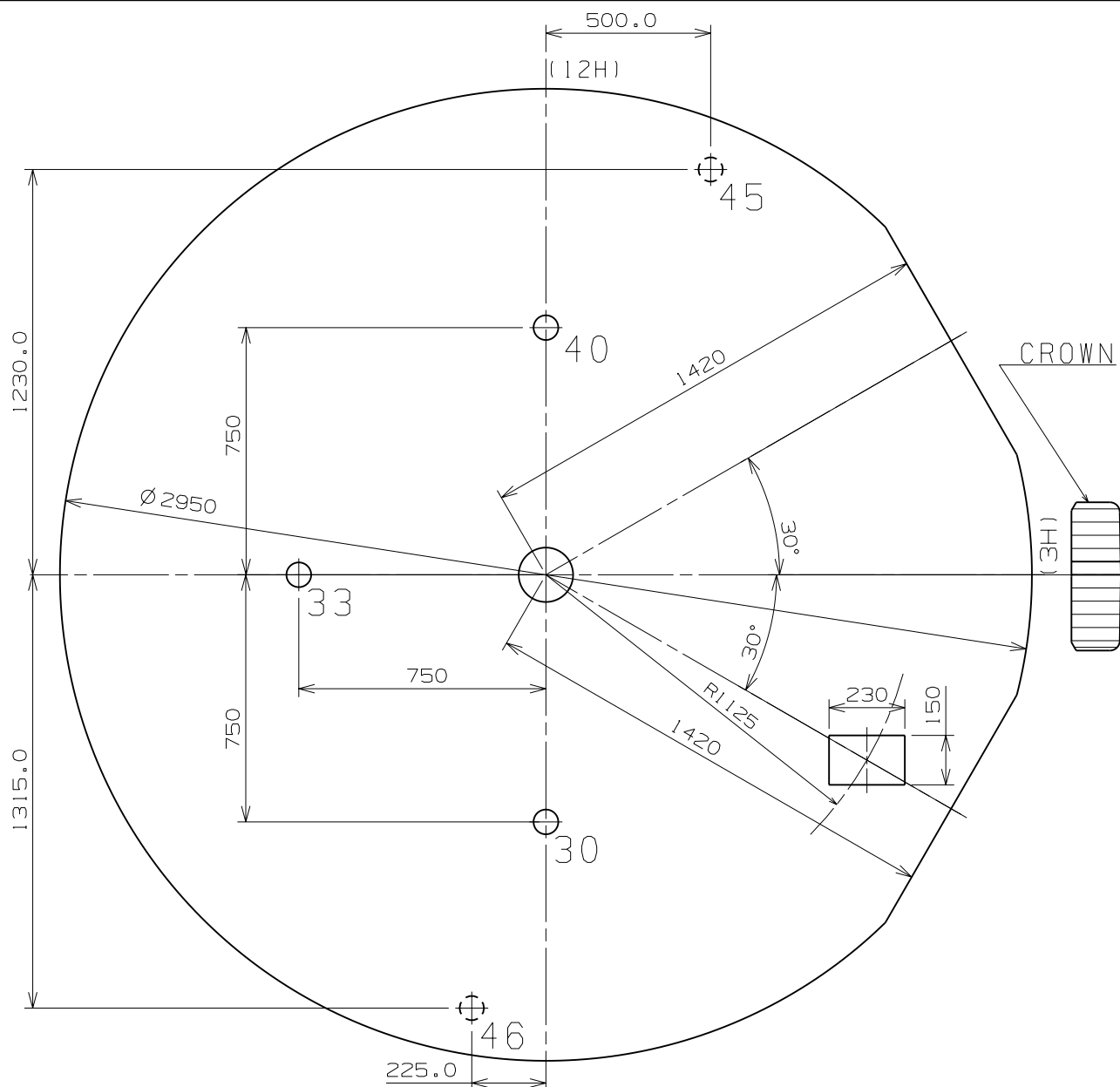
Scale : 5/1  
Unit : 1=1/100mm

Version:2



Scale : 5/1  
Unit : 1 = 1/100 mm

Version: 2

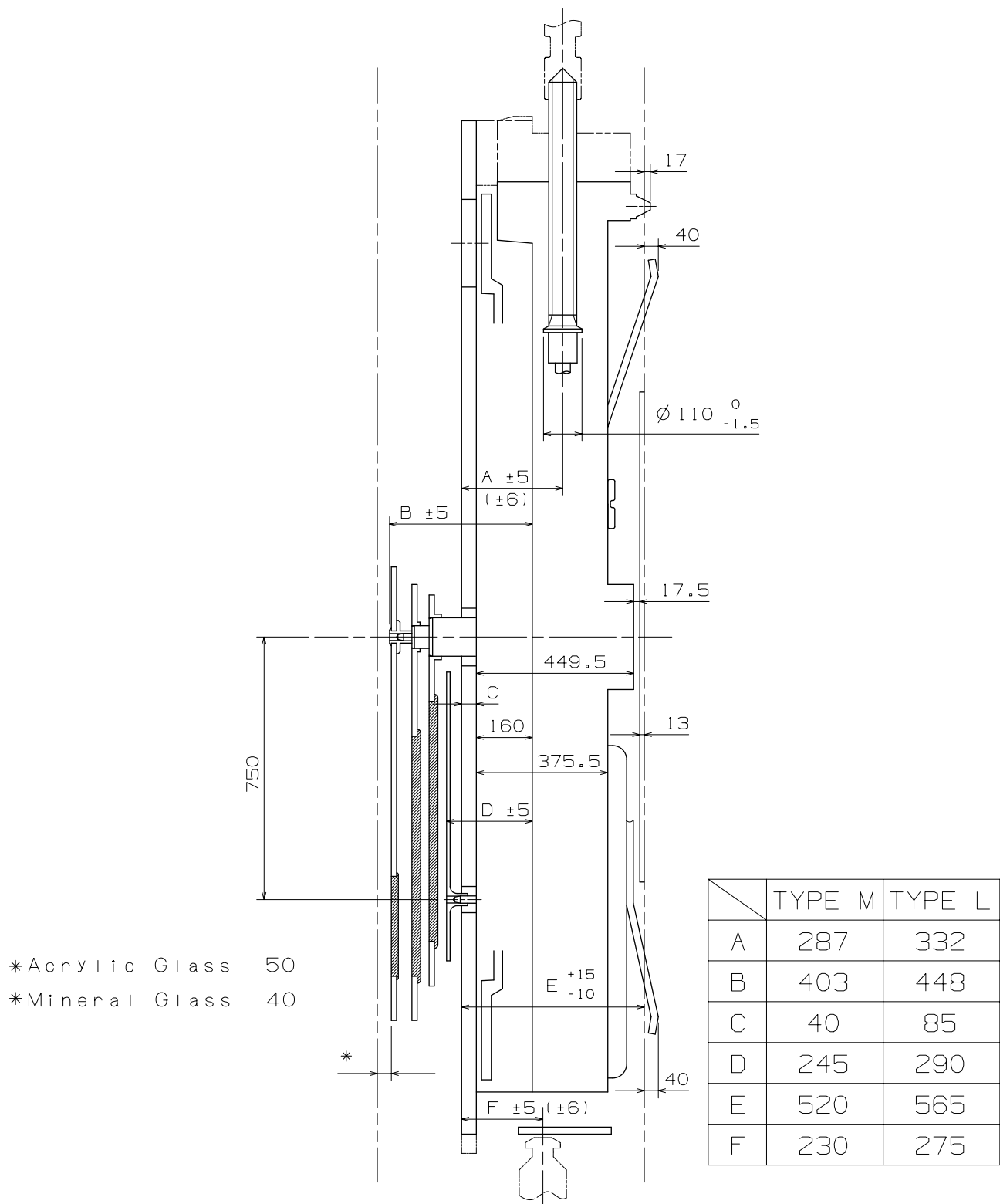


|   | TYPE M | TYPE L |
|---|--------|--------|
| A | 40     | 85     |

Scale : 5/1

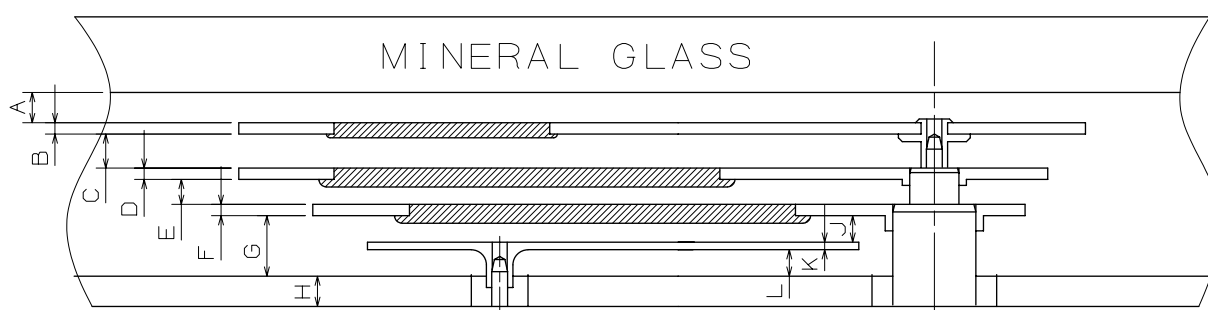
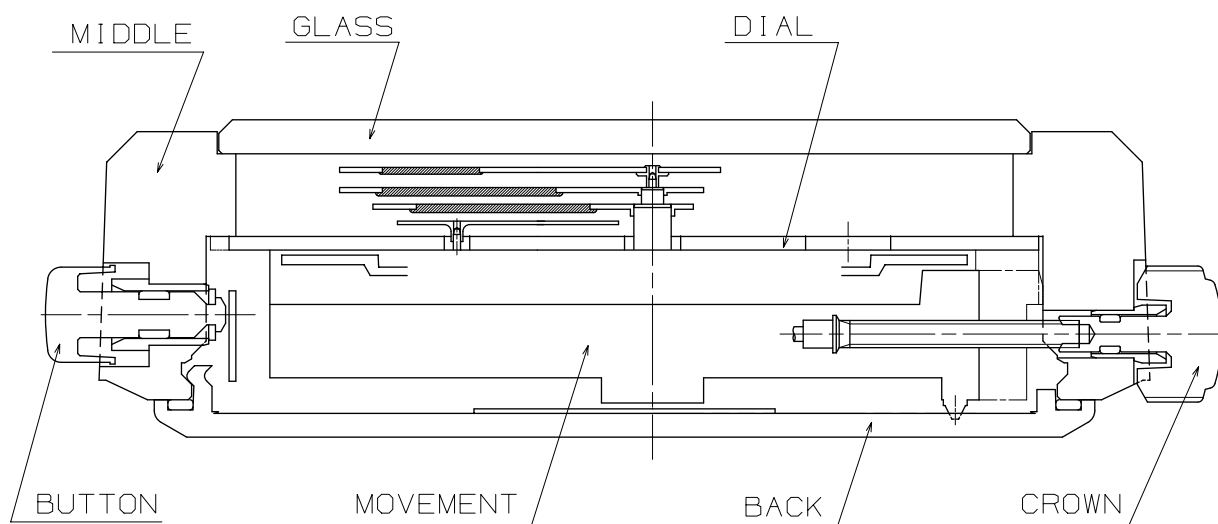
Unit : 1=1/100mm

Version:1



Scale :  $\neq$   
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     |

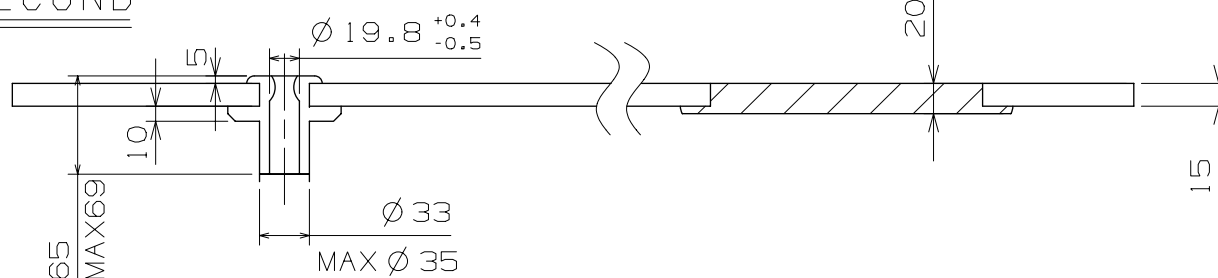
Scale :  $\neq$   
Unit : 1=1/100mm

Version:5

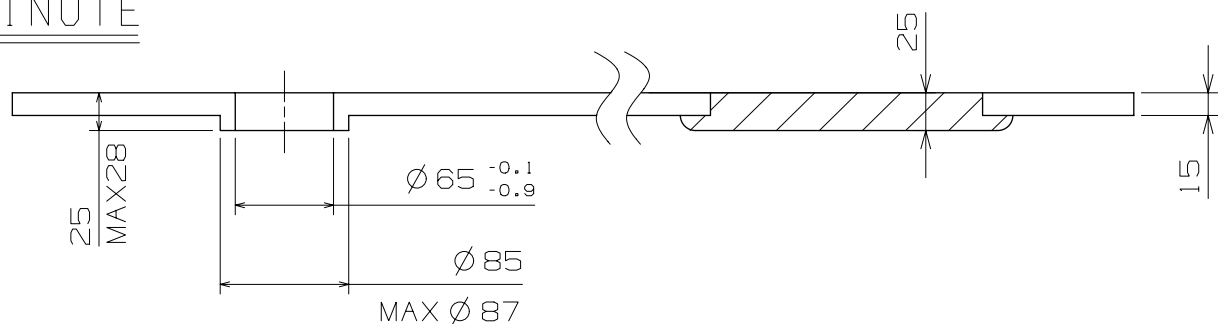
# Hands

Cal. VD57B

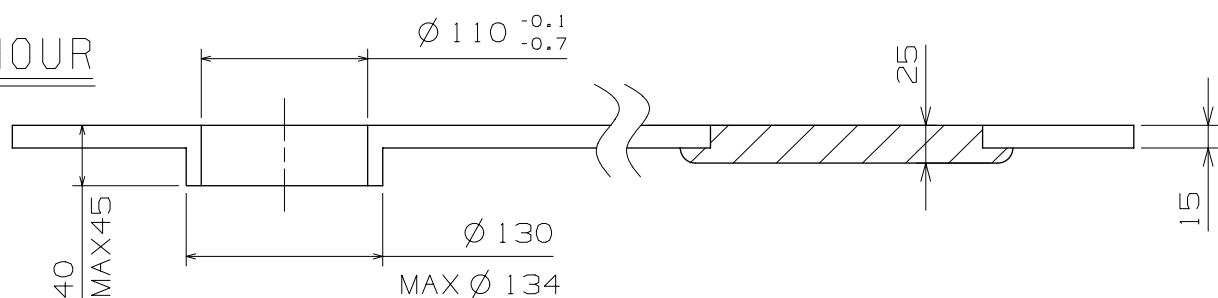
## SECOND



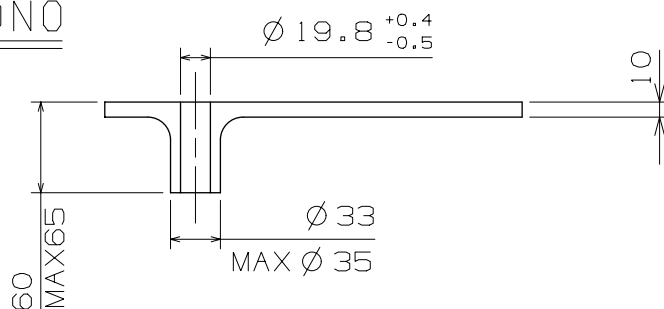
## MINUTE



## HOUR



## CHRONO



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

Version:4