

Watch Movement Specification and Drawing

**MULTI - FUNCTION**

# **Cal. VX3PE**

Movement Size

**10 1/2'''**

Casing Diameter

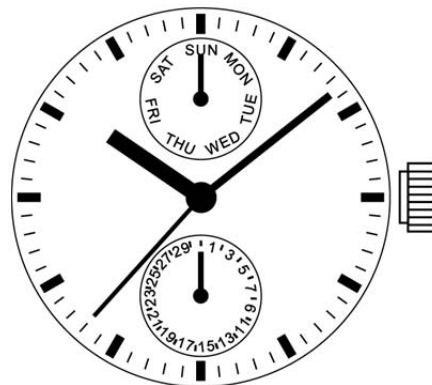
**Ø 23.3mm**

Height

**3.05mm**

Battery Life

**3 years**



Date: 6/Dec./16

# Cal. VX3PE

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**Analog Quartz 10 1/2" Slim Movement / 3 hands (H/M/S) and 2 eyes  
with Day / Date indicators**

**1. MOVEMENT DIMENSIONS**

Outside diameter	$\phi 24.00\text{mm} \times 21.50\text{mm}(3\text{-}9\text{H}) \times 21.65\text{mm}(12\text{-}6\text{H})$
Casing diameter	$\phi 23.30\text{mm} \times 21.30\text{mm}(3\text{-}9\text{H}) \times 21.50\text{mm}(12\text{-}6\text{H})$
Total height	3.05mm (including battery)

**2. TIME STANDARD**

Type of quartz oscillator	Tuning fork
Frequency of quartz oscillator	32,768 Hz
Accuracy	$\pm 20$ seconds per month (on wrist)
Operating temperature range	$-5^{\circ}\text{C}$ to $+50^{\circ}\text{C}$
Regulation device	Nil (Pre-adjusted)

**3. INDICATOR / FUNCTIONS**

3 Hands	Hour / Minute / Second						
2 Small hands	Day (12H) / Date (6H)						
Reset switch							
Setting mechanism	<table style="width: 100%; border: none;"> <tr> <td style="width: 60%;">Crown at normal position</td> <td>: Free</td> </tr> <tr> <td>Crown pulled out 1st click</td> <td>: Instant date change</td> </tr> <tr> <td>Crown pulled out 2nd click</td> <td>: Time setting (Day change) / Reset</td> </tr> </table>	Crown at normal position	: Free	Crown pulled out 1st click	: Instant date change	Crown pulled out 2nd click	: Time setting (Day change) / Reset
Crown at normal position	: Free						
Crown pulled out 1st click	: Instant date change						
Crown pulled out 2nd click	: Time setting (Day change) / Reset						

**4. FEATURES**

Jewels	0 Jewels						
Anti-magnetism	Over 1600A/m (Direct current magnetic field)						
Maximum unbalance of hands	<table style="width: 100%; border: none;"> <tr> <td style="width: 60%;">Second hand</td> <td>: <math>0.07 \mu \text{N}\cdot\text{m}</math></td> </tr> <tr> <td>Minute hand</td> <td>: <math>0.6 \mu \text{N}\cdot\text{m}</math></td> </tr> <tr> <td>Hour hand</td> <td>: <math>0.5 \mu \text{N}\cdot\text{m}</math></td> </tr> </table>	Second hand	: $0.07 \mu \text{N}\cdot\text{m}$	Minute hand	: $0.6 \mu \text{N}\cdot\text{m}$	Hour hand	: $0.5 \mu \text{N}\cdot\text{m}$
Second hand	: $0.07 \mu \text{N}\cdot\text{m}$						
Minute hand	: $0.6 \mu \text{N}\cdot\text{m}$						
Hour hand	: $0.5 \mu \text{N}\cdot\text{m}$						

**5. BATTERY**

Type / Size	Silver oxide battery / $\phi 9.5\text{mm} \times t 2.0\text{mm}$
Recommended battery	SR920SW (Maxell, Sony, Seizaiken)
Nominal voltage	1.55 V
Battery life	Approx. 3 years
Driving current consumption	Approx. $1.6 \mu \text{A}$
Operation stopping voltage	1.1 V

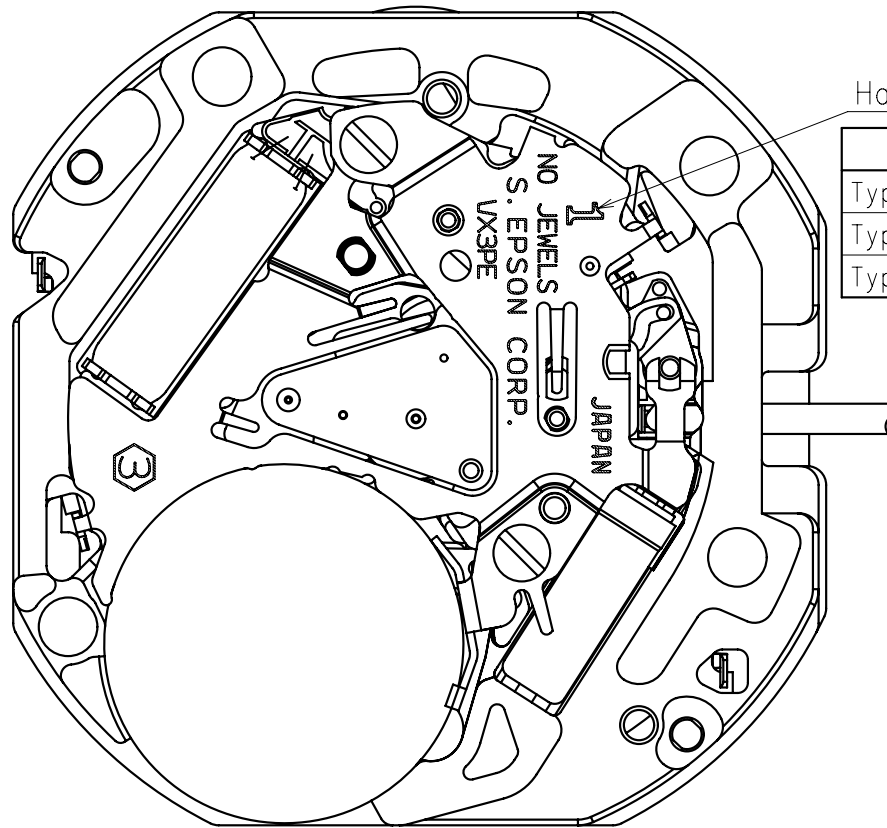
**6. SEPARATED PARTS (Parts code)**

Hand setting stem	0351177 or 0351578
Battery	SR920SW

**7. TEST OF ACCURACY**

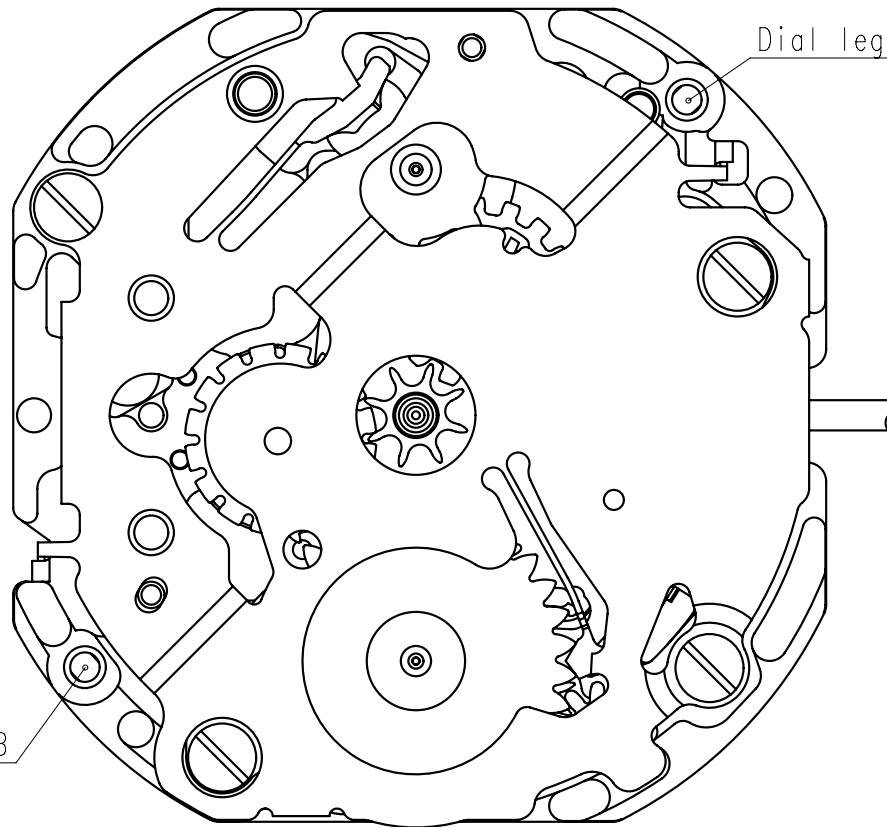
Equipment to be used	SEIKO quartz tester QT-99, Greiner quartz timer-C , Witschi Q-tester 4000
Duration of measurement	10 seconds
Microphone to be used	Electromagnetic detection type

All specifications are subject to change without notice.



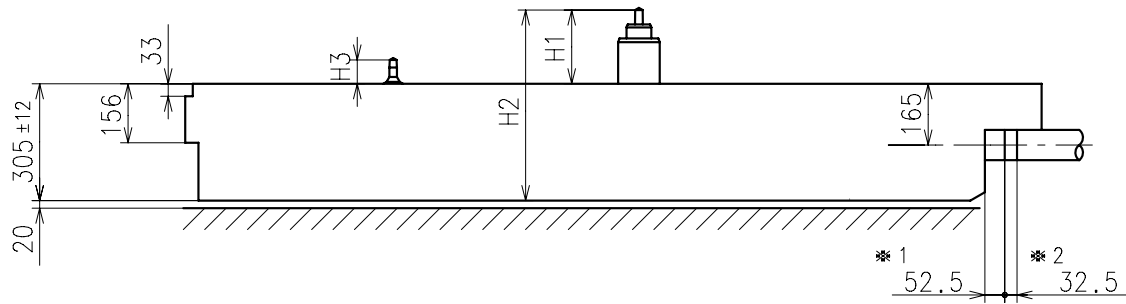
Hands type

	Mark
Type S (1)	1
Type L (3)	3
Type LL(4)	4



Dial leg hole A

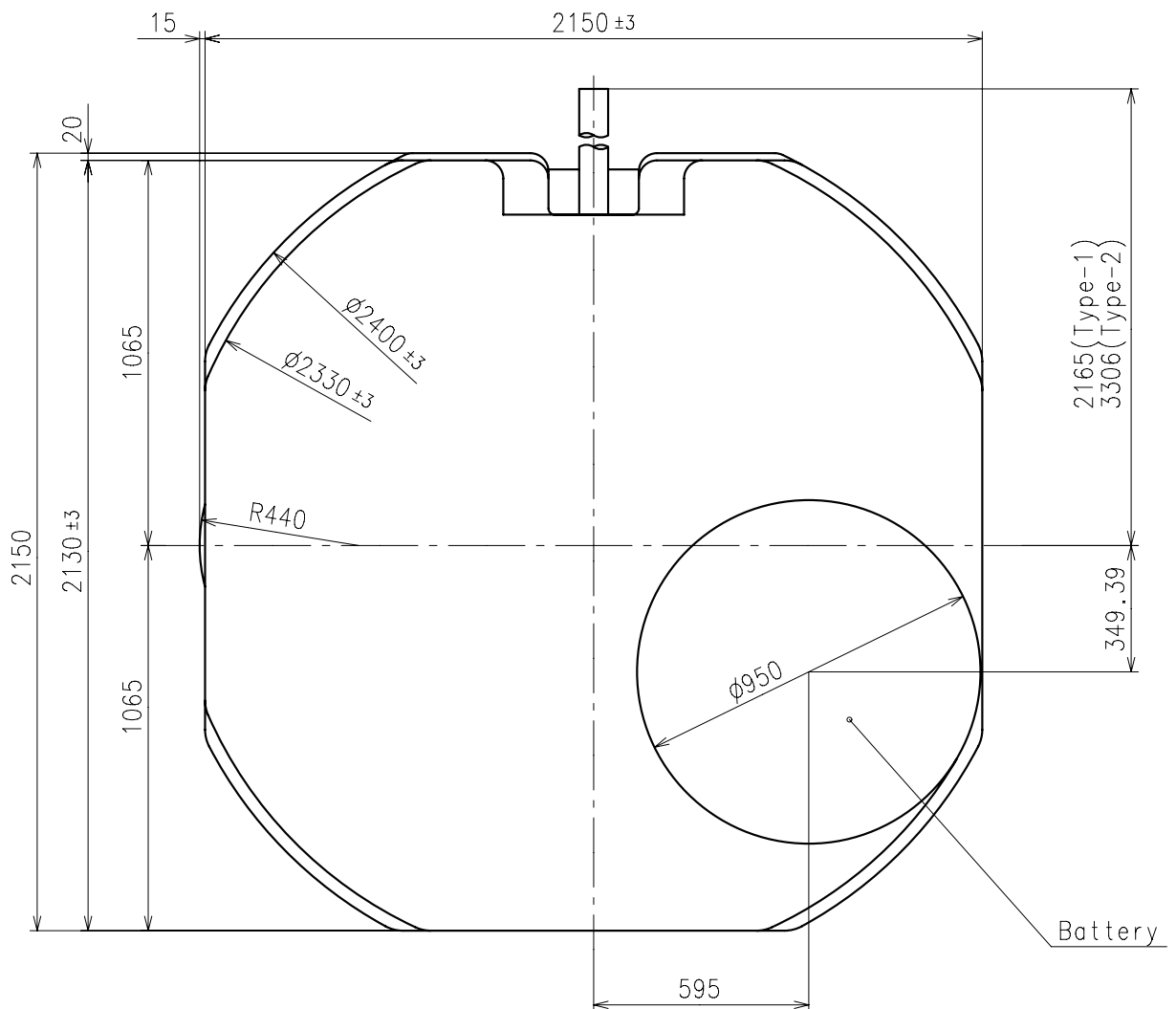
Dial leg hole B



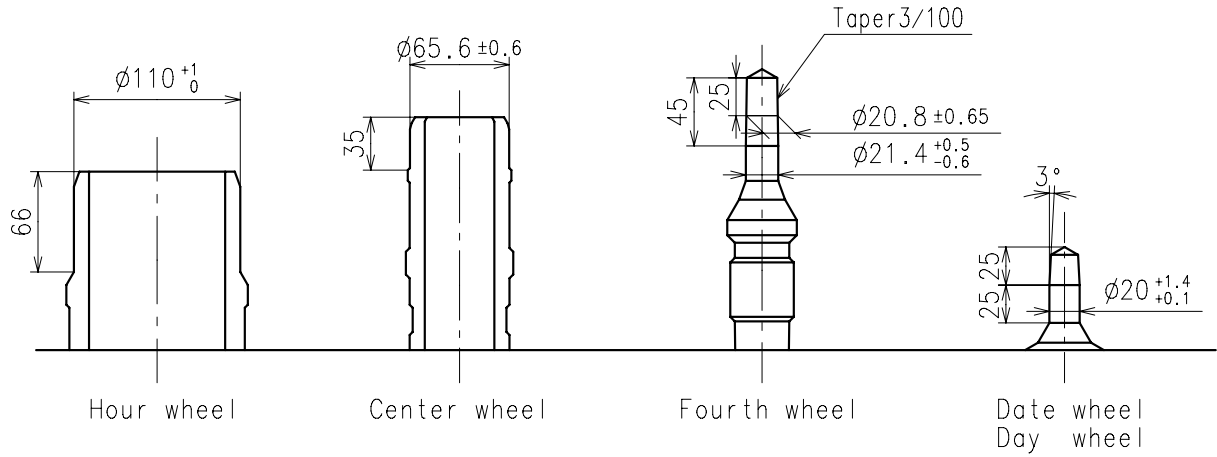
Center post		Type S (1) VX3PE1	Type L (3) VX3PE2	Type LL (4) VX3PE3
Maximum height from dial support	H1	180	242	262
Total height including movement	H2	485	547	567
Maximum height from dial support	H3	63	111	63

\*1:First pullout stroke

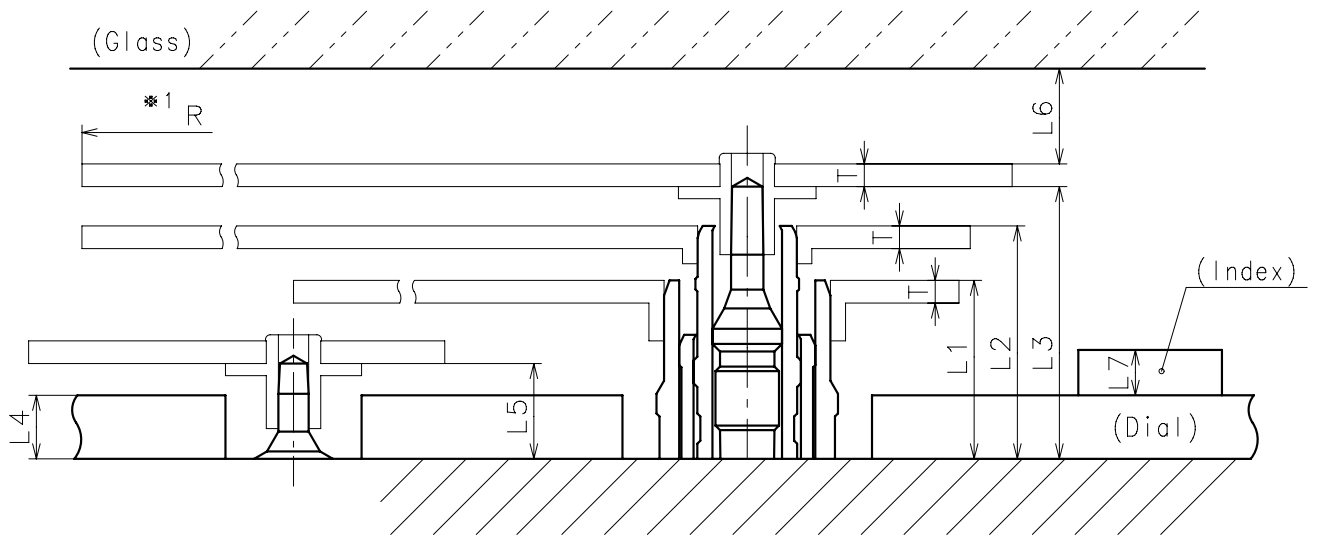
\*2:Second pullout stroke



- ※ Hour hand unbalance  $\leq 0.5\mu \text{ N} \cdot \text{m}$  ( $50\mu \text{ g} \cdot \text{m}$ )
- ※ Minute hand unbalance  $\leq 0.6\mu \text{ N} \cdot \text{m}$  ( $60\mu \text{ g} \cdot \text{m}$ )
- ※ Second hand unbalance  $\leq 0.07\mu \text{ N} \cdot \text{m}$  ( $7\mu \text{ g} \cdot \text{m}$ )



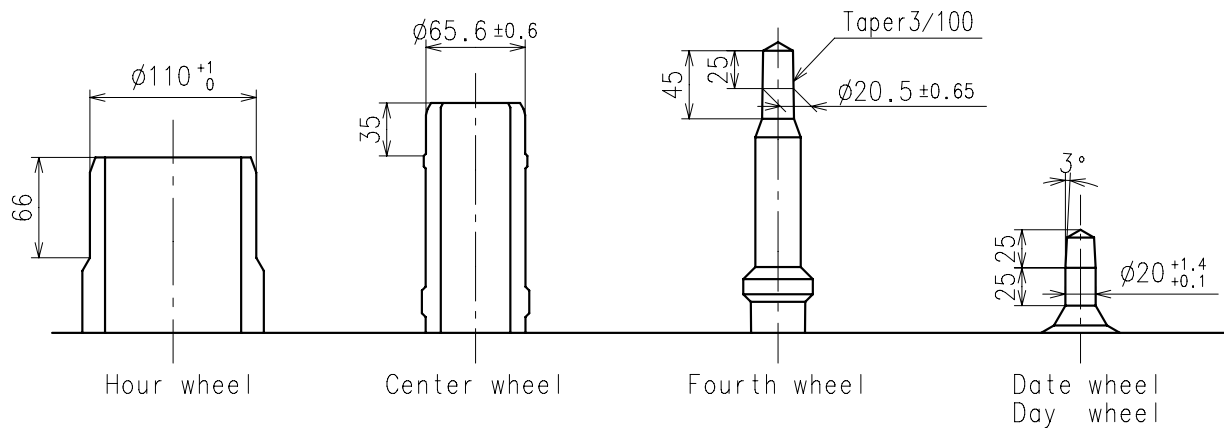
	Parts No.				
	Hour wheel	Center wheel	Fourth wheel	Date wheel	Day wheel
Type S (1) VX3PE1	0271563	0221575	0241528	0970538	1002546
Type L (3) VX3PE2	0271949	0221588	0241559	0970502	1002547



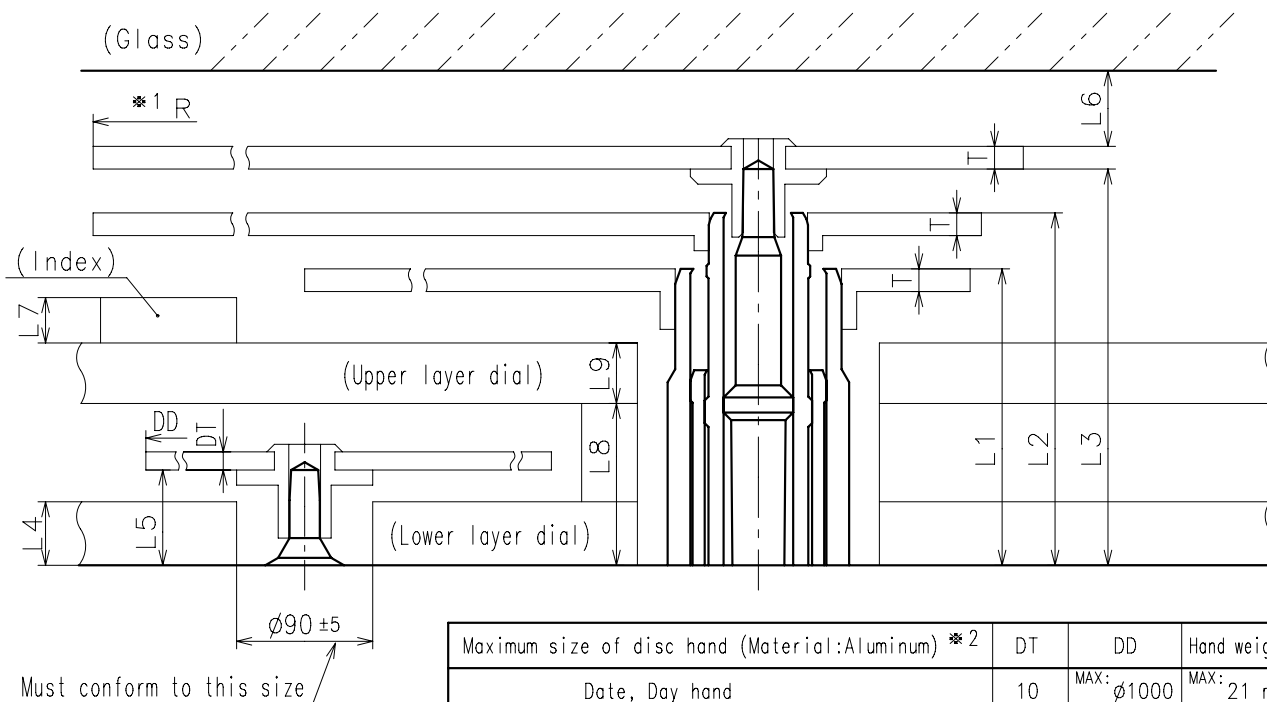
	L1	L2	L3	L4	L5	L6	L7	T	*1 R
Type S (1) VX3PE1	118	154	180	40	63	MIN: 50	MAX: 30	15	MAX: 1250
Type L (3) VX3PE2	171	214	242	90	111	MIN: 50	MAX: 30	15	MAX: 1250

※ 1: It is the size taken into consideration for hands attachment.  
Please observe some standard value specified in unbalance when using long hands.

- \* Hour hand unbalance  $\leq 0.5\mu N \cdot m$  ( $50\mu g \cdot m$ )
- \* Minute hand unbalance  $\leq 0.6\mu N \cdot m$  ( $60\mu g \cdot m$ )
- \* Second hand unbalance  $\leq 0.07\mu N \cdot m$  ( $7\mu g \cdot m$ )



	Parts No.				
	Hour wheel	Center wheel	Fourth wheel	Date wheel	Day wheel
Type LL(4) VX3PE3	0271566	0221587	0241529	0970538	1002546

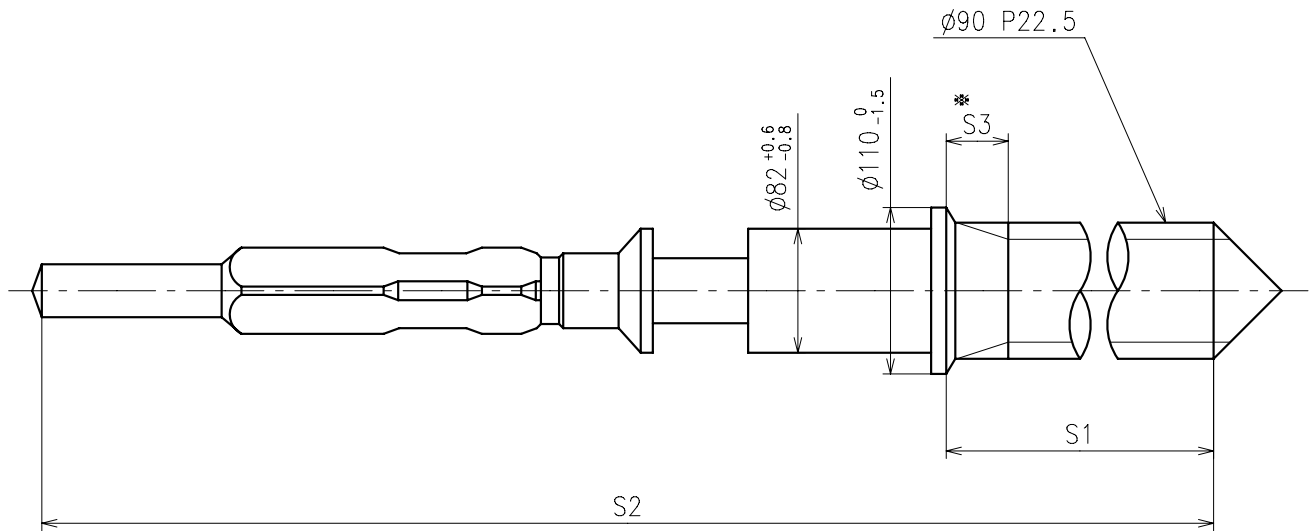


Maximum size of disc hand (Material:Aluminum) *2	DT	DD	Hand weight
Date, Day hand	10	MAX: $\phi 1000$	MAX: 21 mg

\*2:When a different material is used, it is necessary to follow the hand weight.

	L1	L2	L3	L4	L5	L6	L7	L8	L9	T	*1 R
Type LL(4) VX3PE3	196	233	262	40	63	MIN: 50	MAX: 30	107	40	15	MAX: 1250

\*1:It is the size taken into consideration for hands attachment.  
Please observe some standard value specified in unbalance when using long hands.

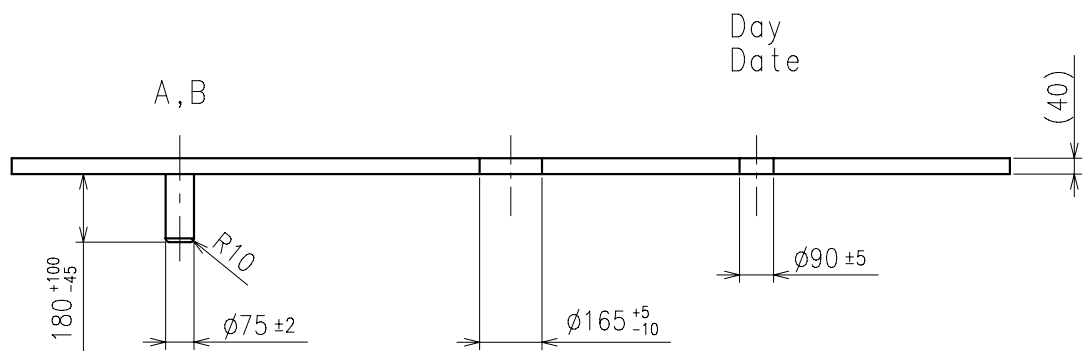
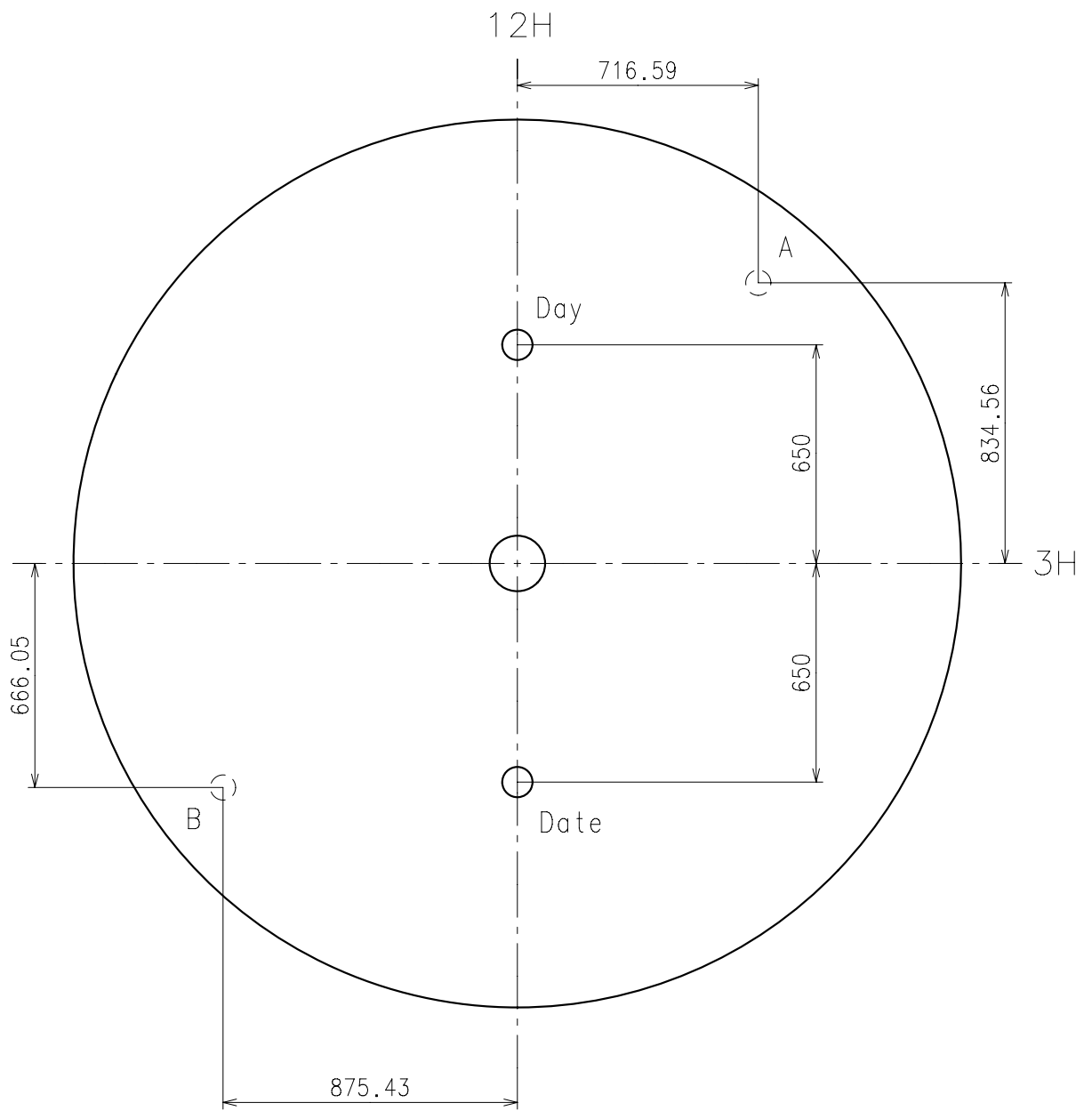


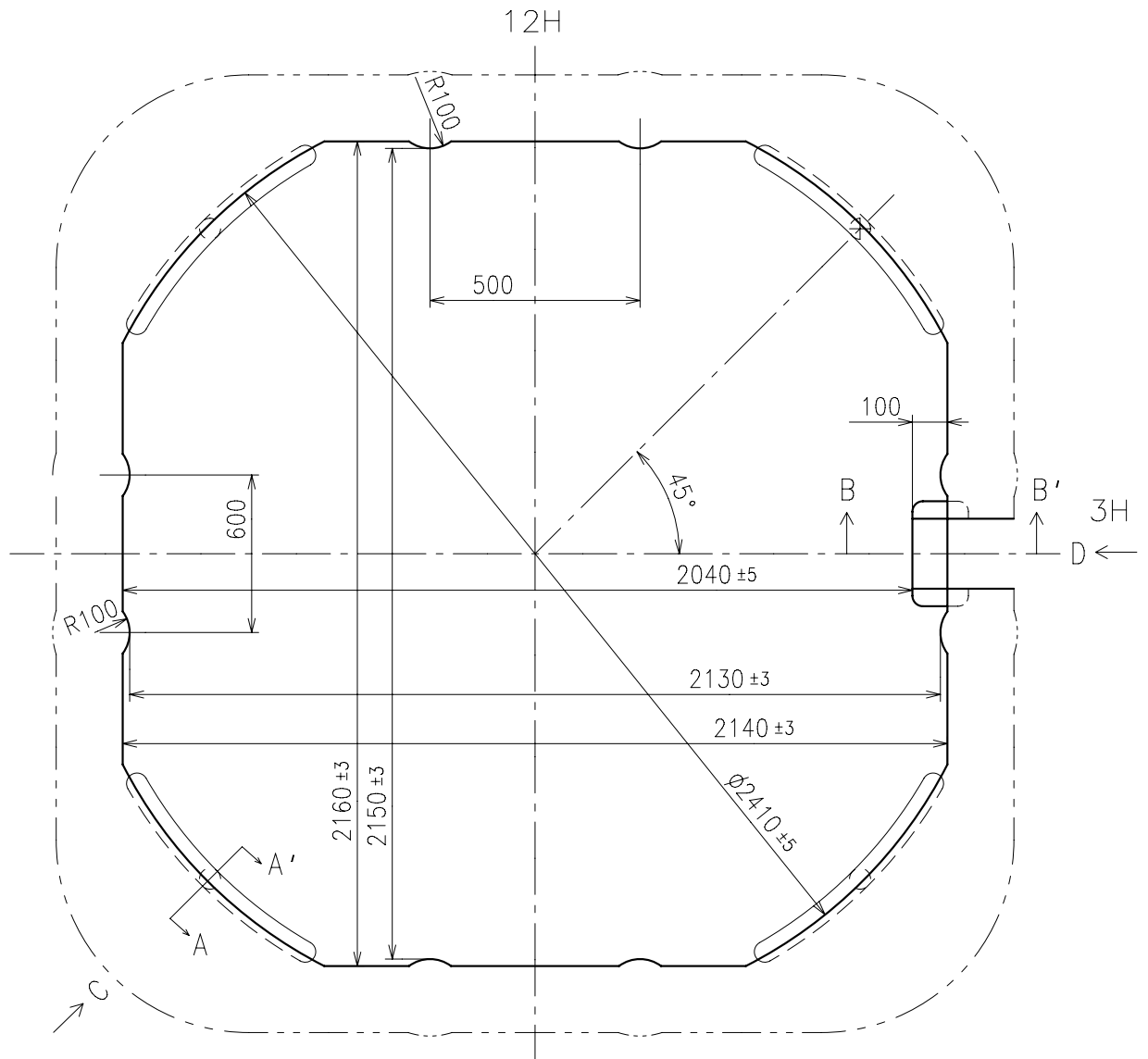
※ Not threaded

	Part No.	S1	S2	※ S3
Type-1 (Standard)	0351177	1366	1964	60
Type-2	0351578	2507	3105	650

Material : Steel

Hardness : Vickers 600±50



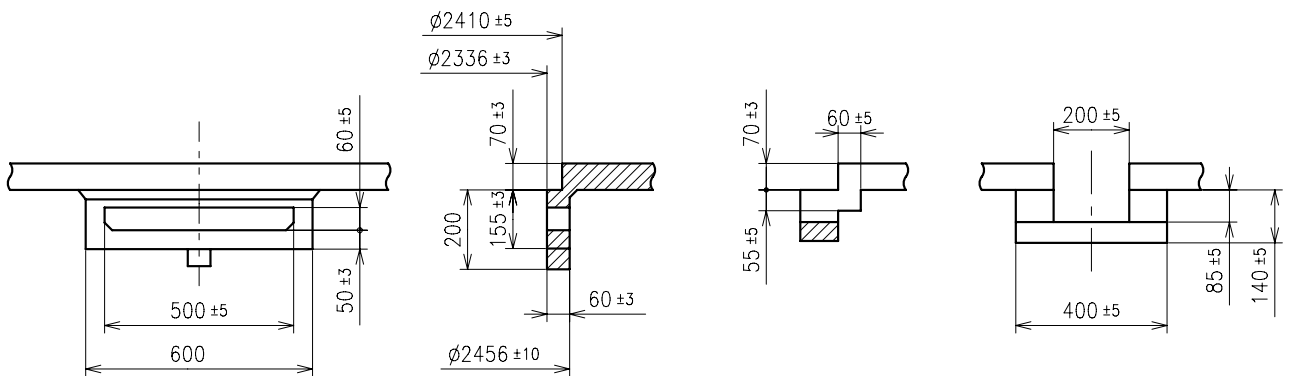


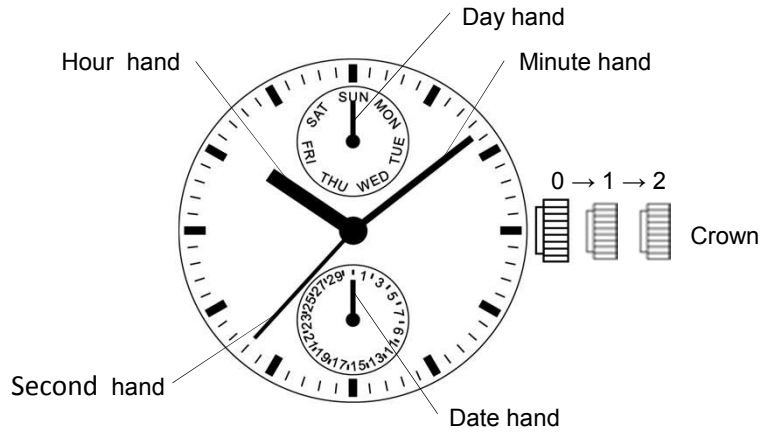
C view

A-A' section

B-B' section

D view





		Crown position		
		0 click	1st click	2nd click
Crown	Free		Turn counterclockwise for date change	Time setting (Day change)