

Cal. VB20B

15.50 mm

[12H --- 6H]

8.45 mm

[3H --- 9H]

H 2.38 mm

Item	Version No.
Specification	Version 1
Appearance	Version 6
Casing	Version 4
Hand Fitting	Version 4
Hand Setting Stem - 1	Version 5
Hand Setting Stem - 2	Version 2
Hand Setting Stem - 3	Version 2
Dial - 1	Version 3
Casing Ring	Version 3
Assembly Plan	Version 2
Hands	Version 2

CAL.VB20B 3 3/4 Ligne Quartz Movement Two Hands

1. MOVEMENT DIMENSIONS

- Outside diameter ϕ 15.55mm (12H~6H) x 8.45 mm (3H~9H)
- Casing diameter ϕ 15.15mm (12H~6H)
- Total height 2.38 mm (including the battery)

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 Minute : Less than 0.15 μ N·m (15.0 mg·mm)
Hour : Less than 0.15 μ N·m (15.0 mg·mm)

3. BATTERY

- Type Silver oxide battery
- Size ϕ 5.8 x t 2.1 (mm)
- Battery life Approx. 3 years
- Recommended battery SR521SW (SEIZAIKEN)

4. STEPPING MOTOR

- Type Two pole stepping motor
- Step 180° every second

5. JEWEL

1 jewel

6. ANTIMAGNETISM

(direct current magnetic field)

≥ 1600 A / m

7. SHOCK RESISTANCE

On equal level with general quartz movement

8. OPERATING TEMPERATURE RANGE

From - 10°C to + 60°C

9. SETTING MECHANISM

- Crown at normal position Free
- Crown pulled out to 1st click Time setting, second setting and reset switch

10. TEST OF ACCURACY

- Equipment to be used Quartz Tester QT - 99
Greiner Quartz Timer - C
Witschi Q-Tester 4000
- Duration of measurement 10 seconds
- Microphone to be used Electromagnetic detection type (DM-1)

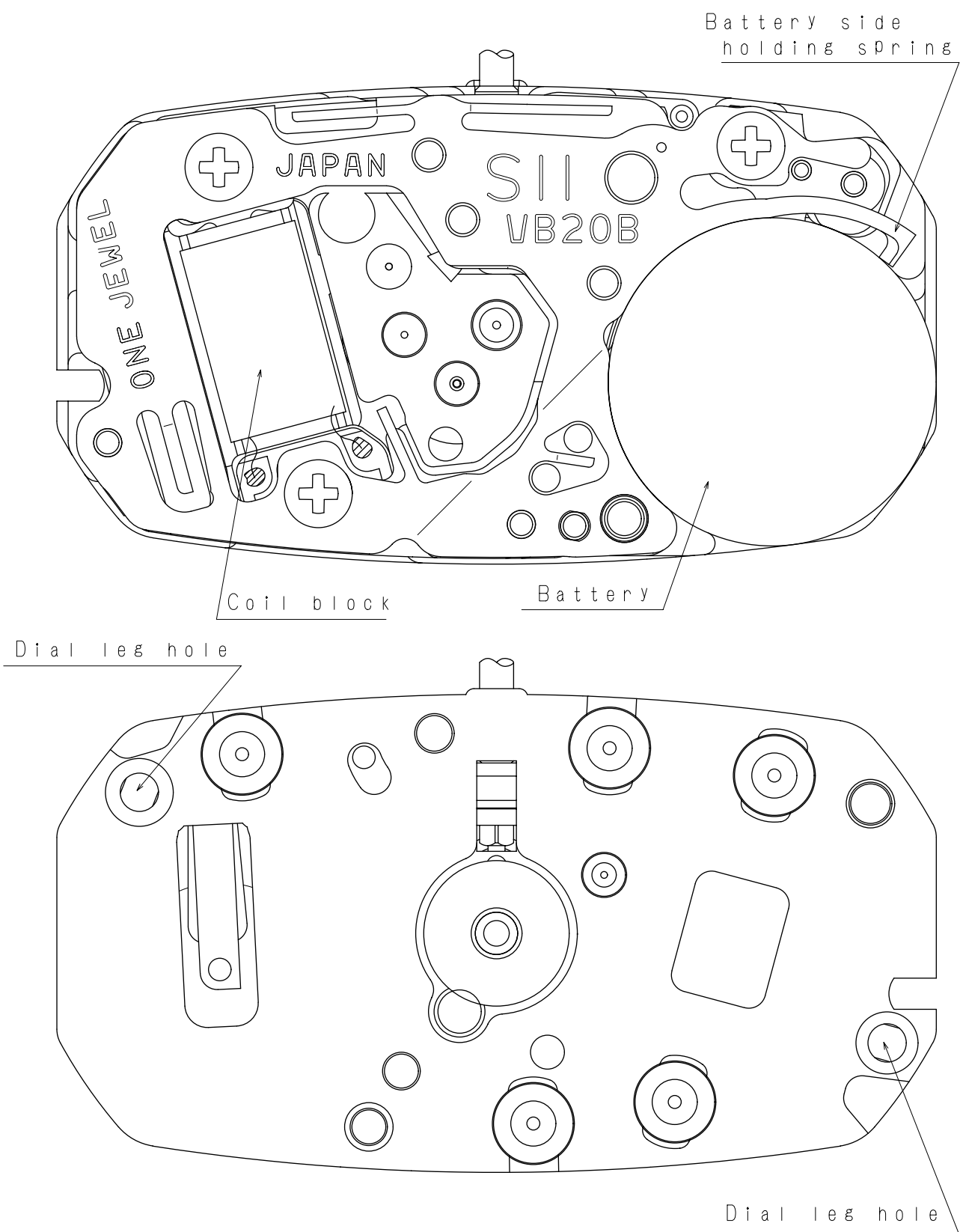
11. ATTACHED PARTS

Parts Name	Parts Code
Silver oxide battery	3016 - 1410
Hand setting stem - 1 (Standard type)	0351 - 2280
Hour wheel	0271 - 2050
Dial washer	0491 - 2020

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

Appearance

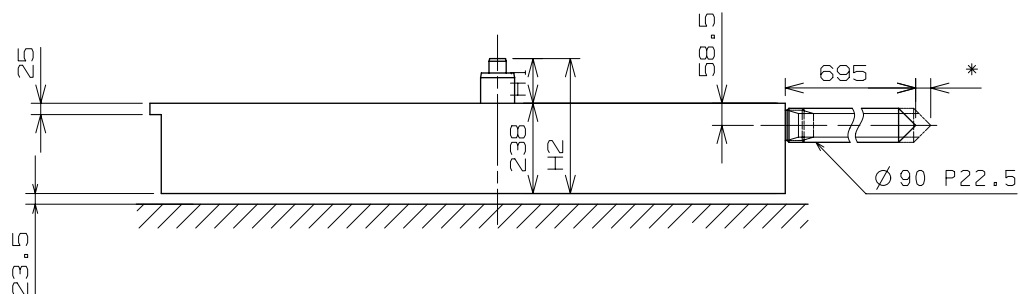
Cal. VB20B



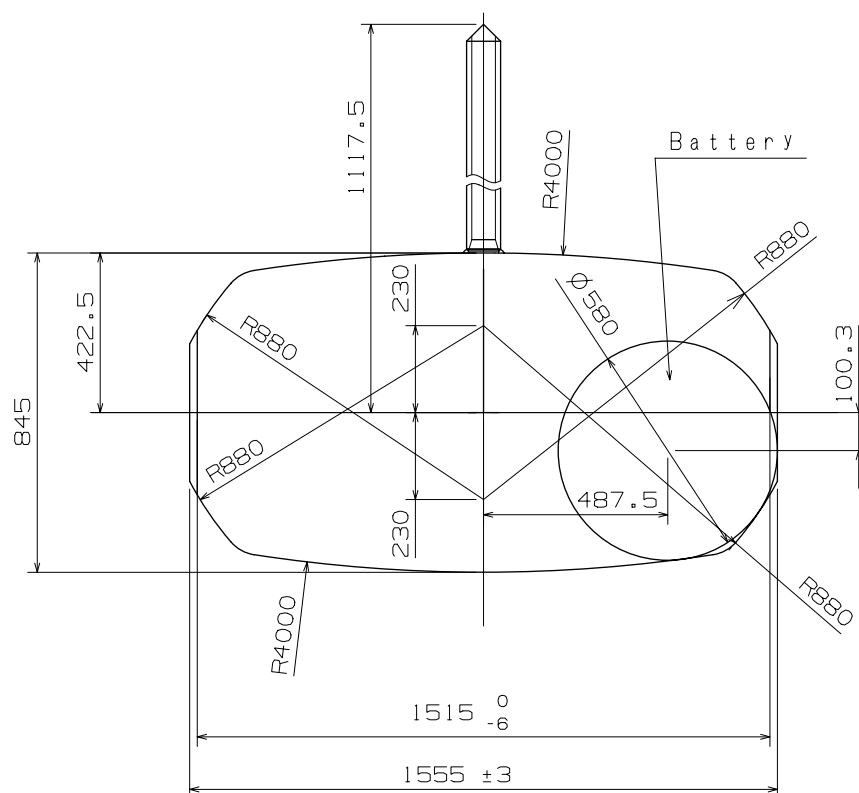
Scale : 10/1
Unit : 1=1/100mm

Version:6

* Pull out stroke 40



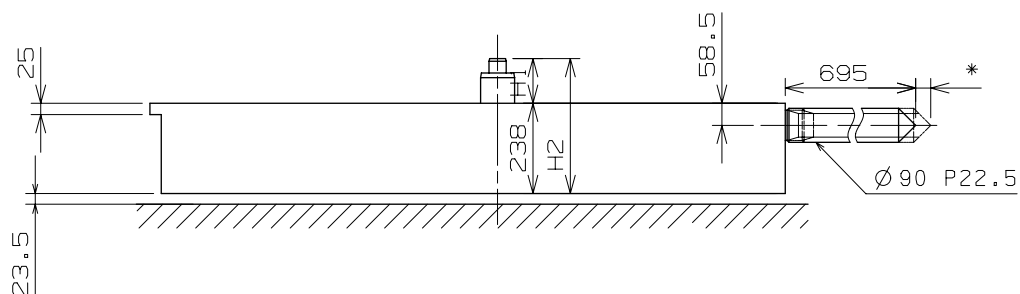
		Battery Side holding spring
Center post		TYPE M
Maximum height from main plate surface	H1	103
Total height incl. movement	H2	341



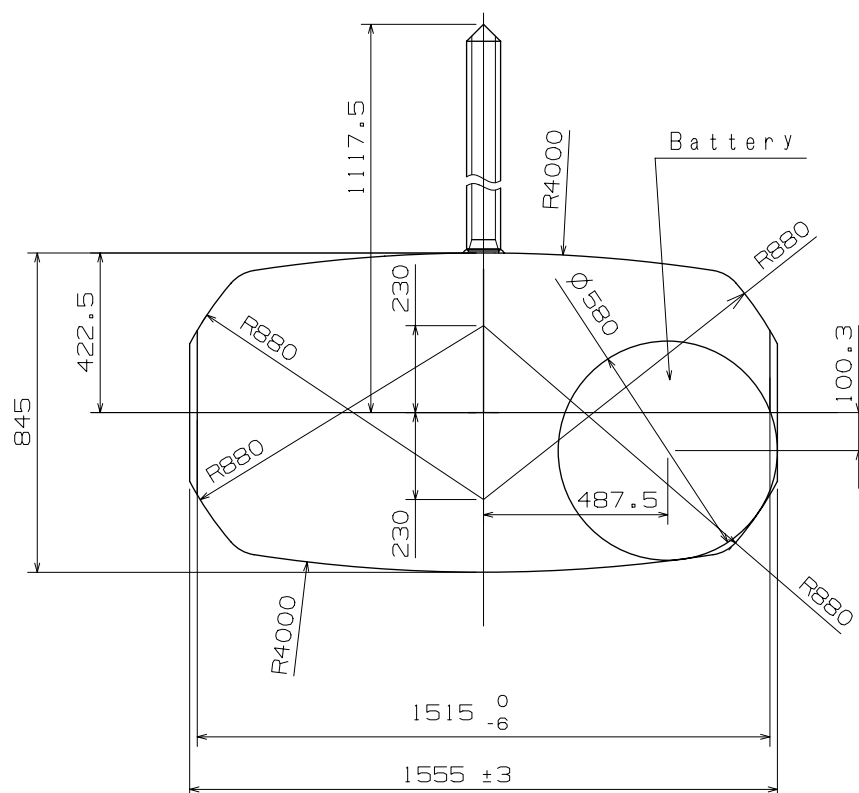
Scale : 5/1
Unit : 1=1/100mm

Version:4

* Pull out stroke 40



		Battery Side holding spring
Center post 中心柱位		TYPE M 一般針高
Maximum height from main plate surface. 與機芯平面之最大高度	H1	103
Total height incl. movement. 機芯總高度	H2	341



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

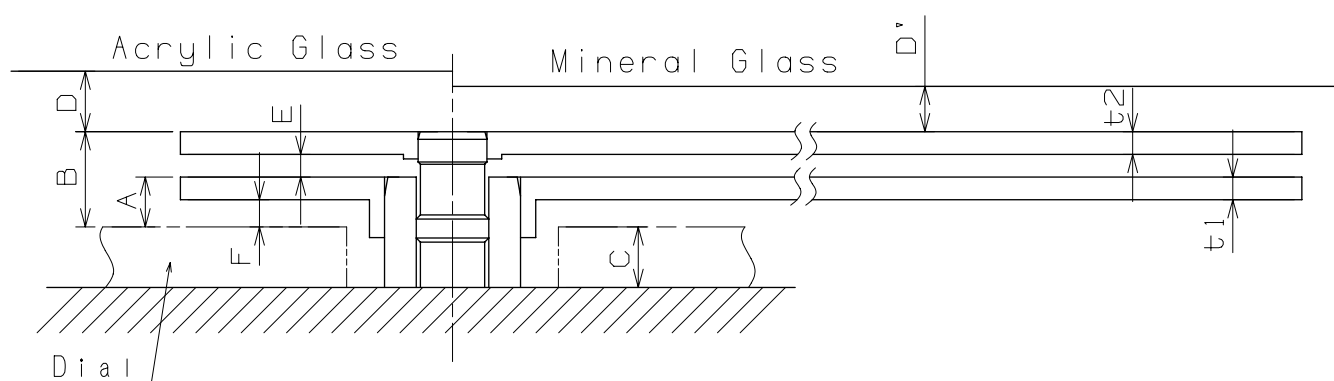
Version:4

*Hour hand unbalance $\leq 0.15\mu\text{N}\cdot\text{m}(15\text{mg}\cdot\text{mm})$

*Minute hand unbalance $\leq 0.15\mu\text{N}\cdot\text{m}(15\text{mg}\cdot\text{mm})$



	Part. No.		Dimension	
	Hour wheel	Center wheel	H1	H2
TYPE M	0271 2050	0270 2050	61	15



	A	B	C	D	D'	E	F	t1	t2
TYPE M	33	63	40	50	40	15	18	15	15

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

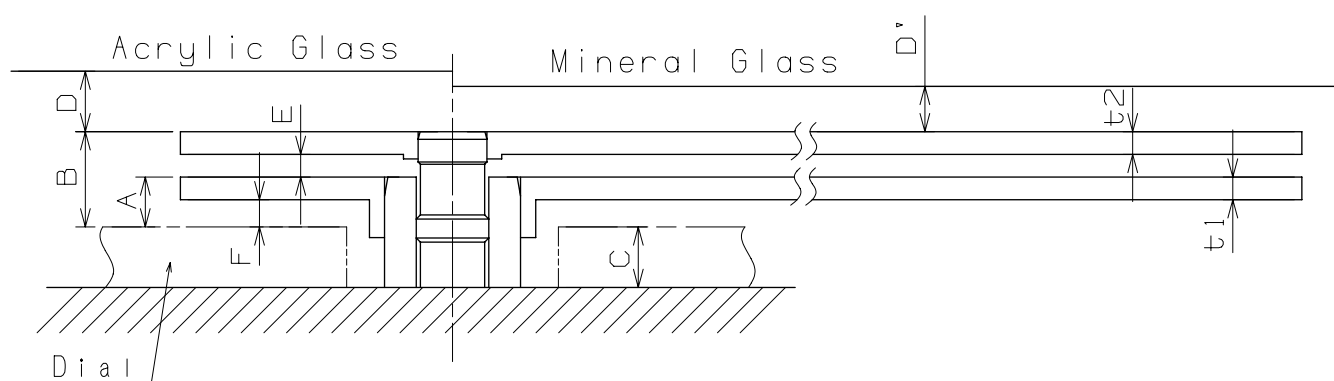
Version:4

*Hour hand unbalance $\leq 0.15\mu\text{N}\cdot\text{m}$ (15mg·mm)

*Minute hand unbalance $\leq 0.15\mu\text{N}\cdot\text{m}$ (15mg·mm)



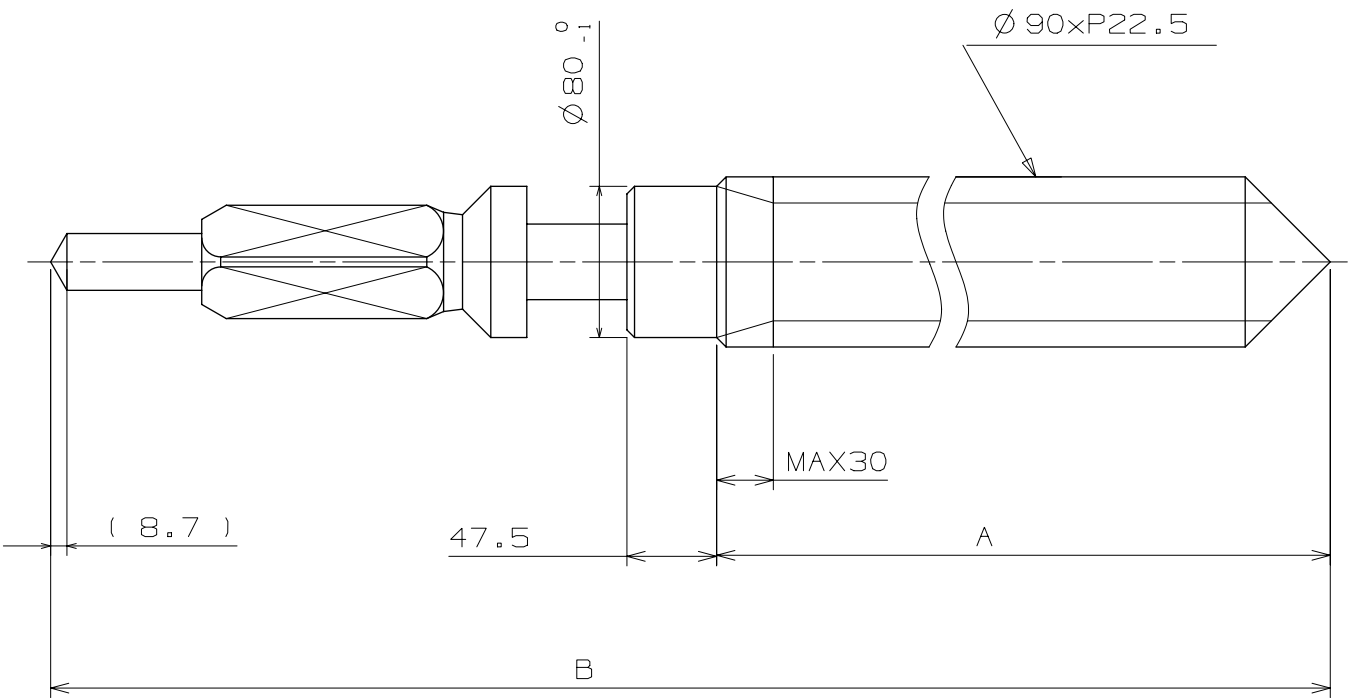
	Part. No.		Dimension	
	Hour wheel 時針輪	Center wheel 分針輪	H1	H2
TYPE M 一般針高	0271 2050	0270 2050	61	15



	A	B	C	D	D'	E	F	t1	t2
TYPE M 一般針高	33	63	40	50	40	15	18	15	15

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

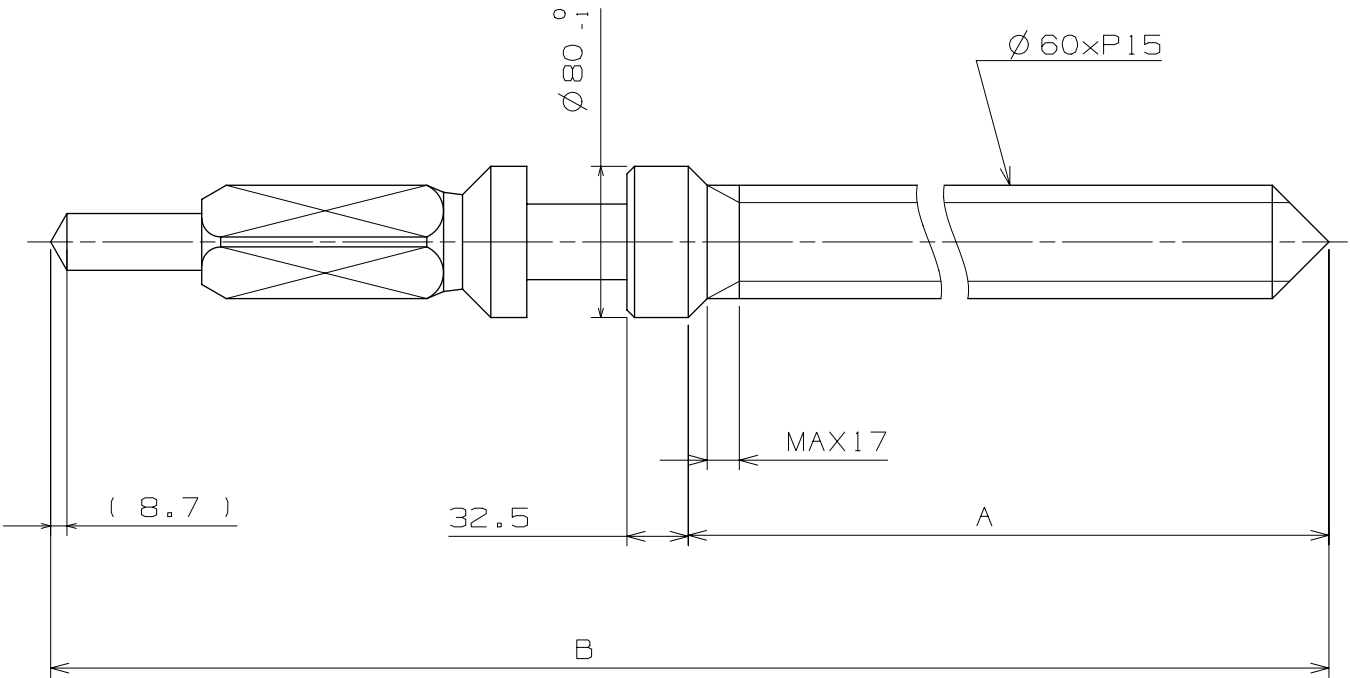
Version:4



	Part. No.	A	B
TYPE A	0351 2280	690	1042.5

Scale : 25/1
Unit : 1=1/100mm

Version:5

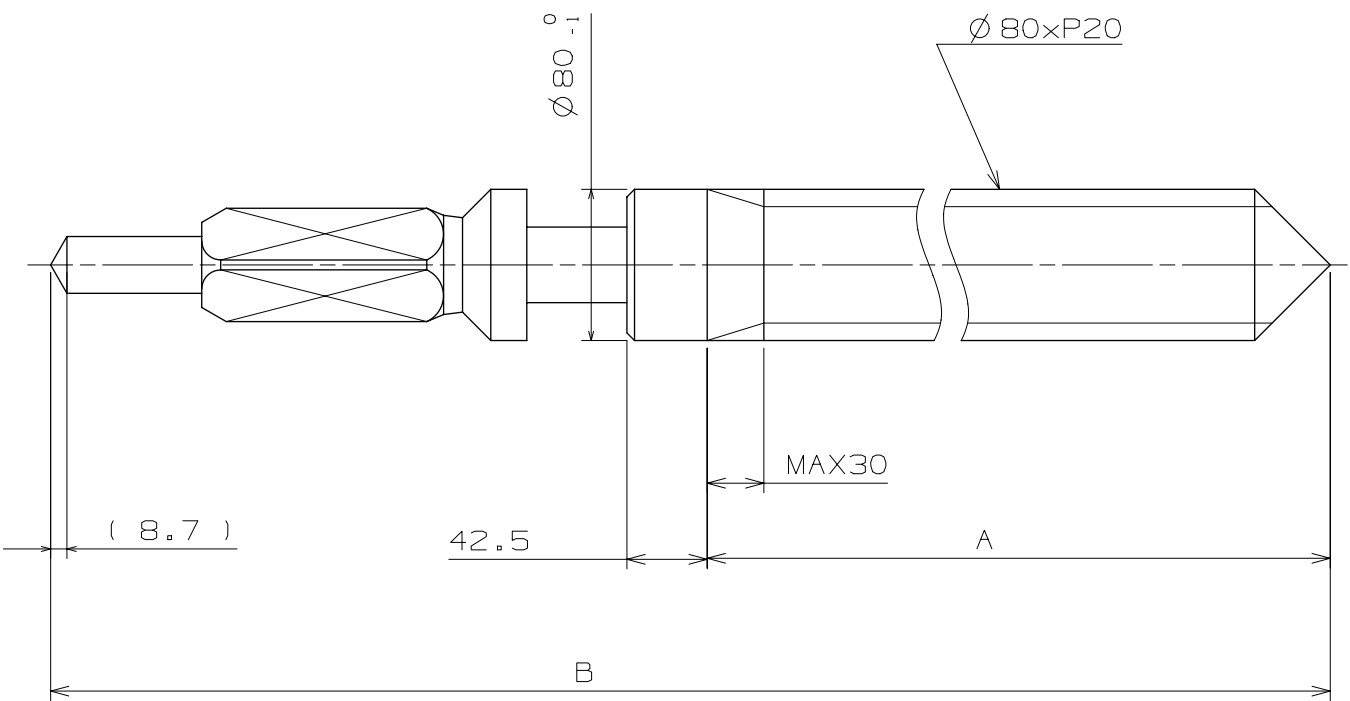


	Part. No.	A	B
TYPE A	0351 2070	670	1007.5

Scale : 25/1

Unit : 1=1/100mm

Version:2

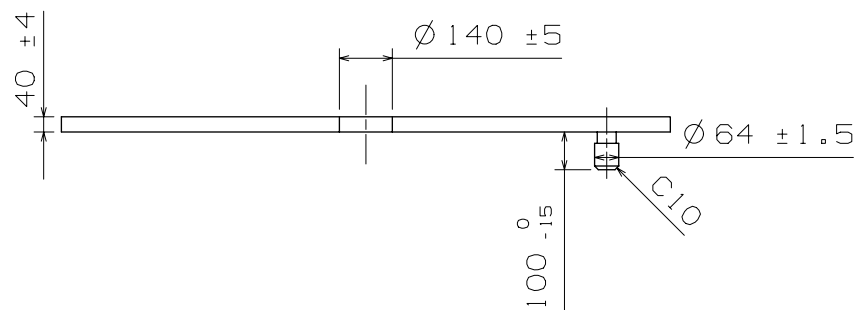
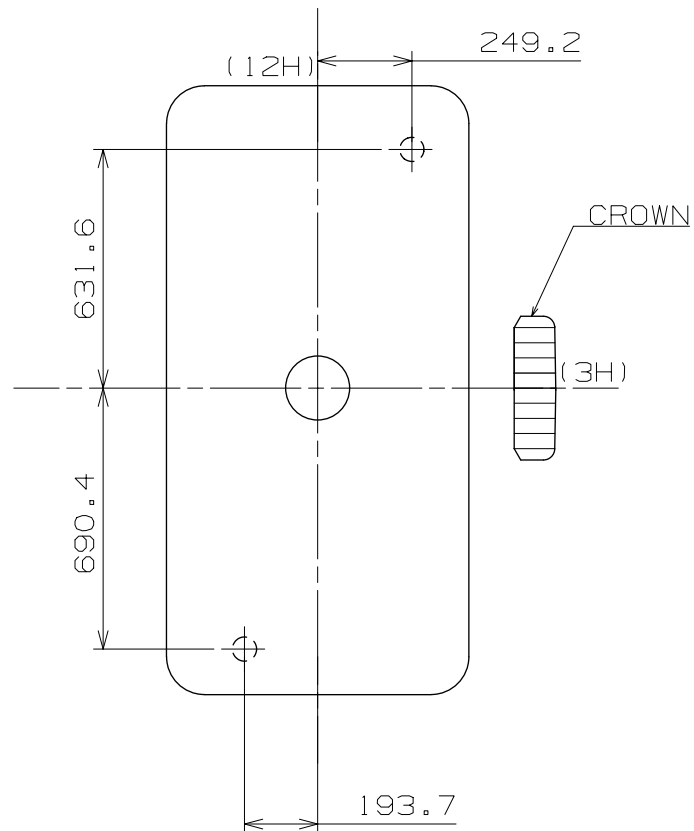


	Part. No.	A	B
TYPE A	0351 2080	690	1037.5

Scale : 25/1

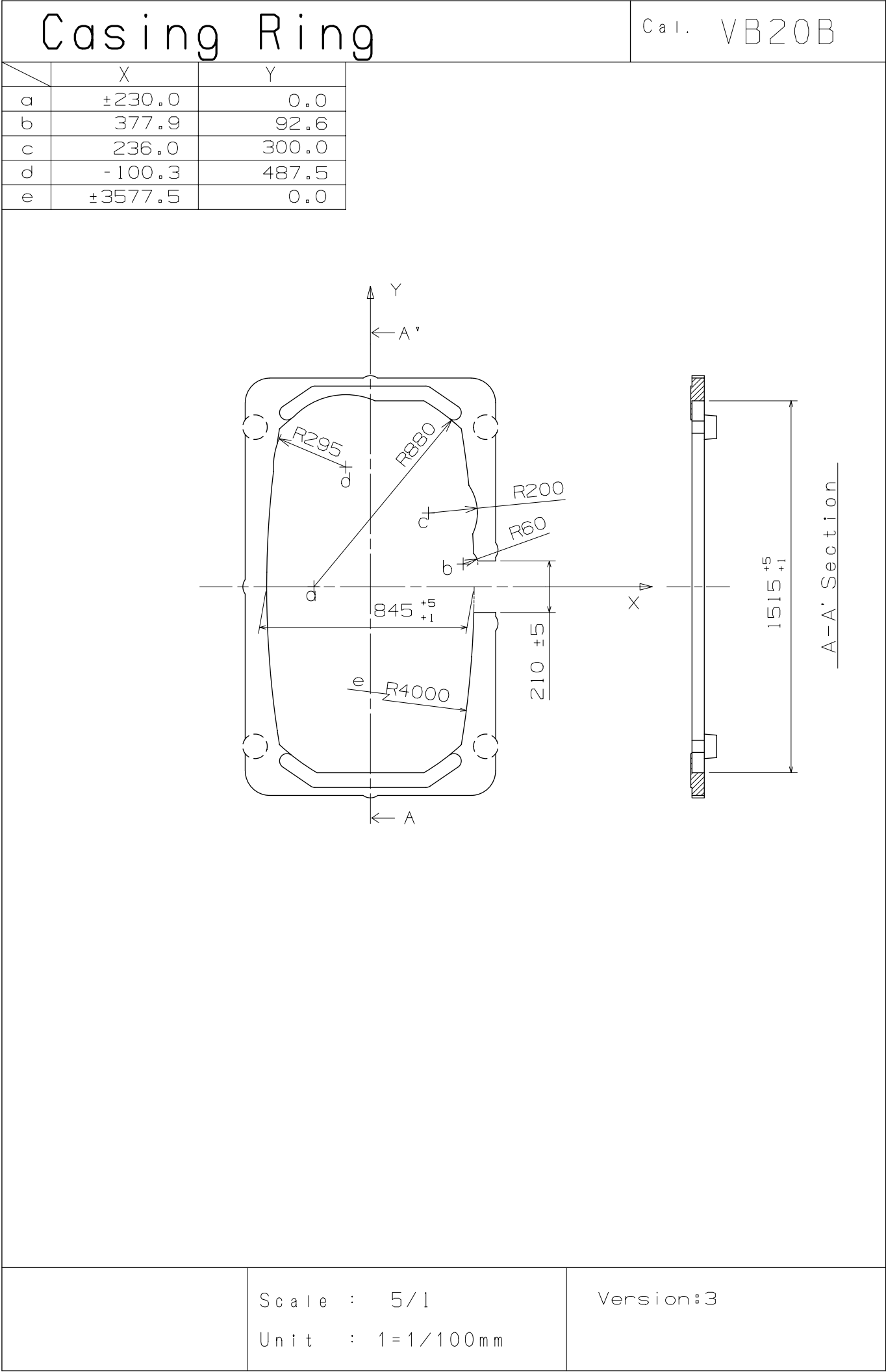
Unit : 1=1/100mm

Version:2



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

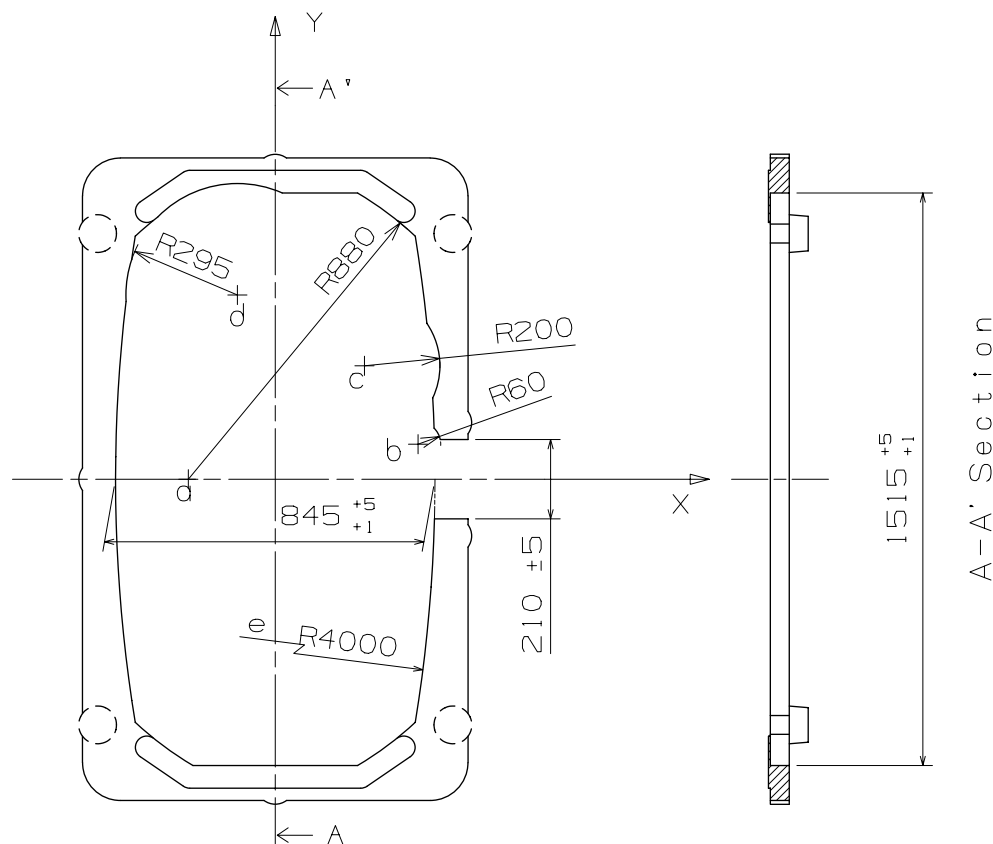
Version:3



Casing Ring

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	X	Y
a	±230.0	0.0
b	377.9	92.6
c	236.0	300.0
d	-100.3	487.5
e	±3577.5	0.0

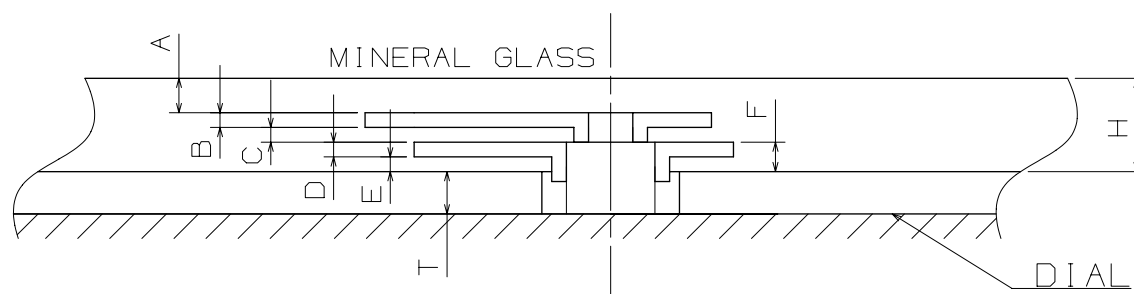
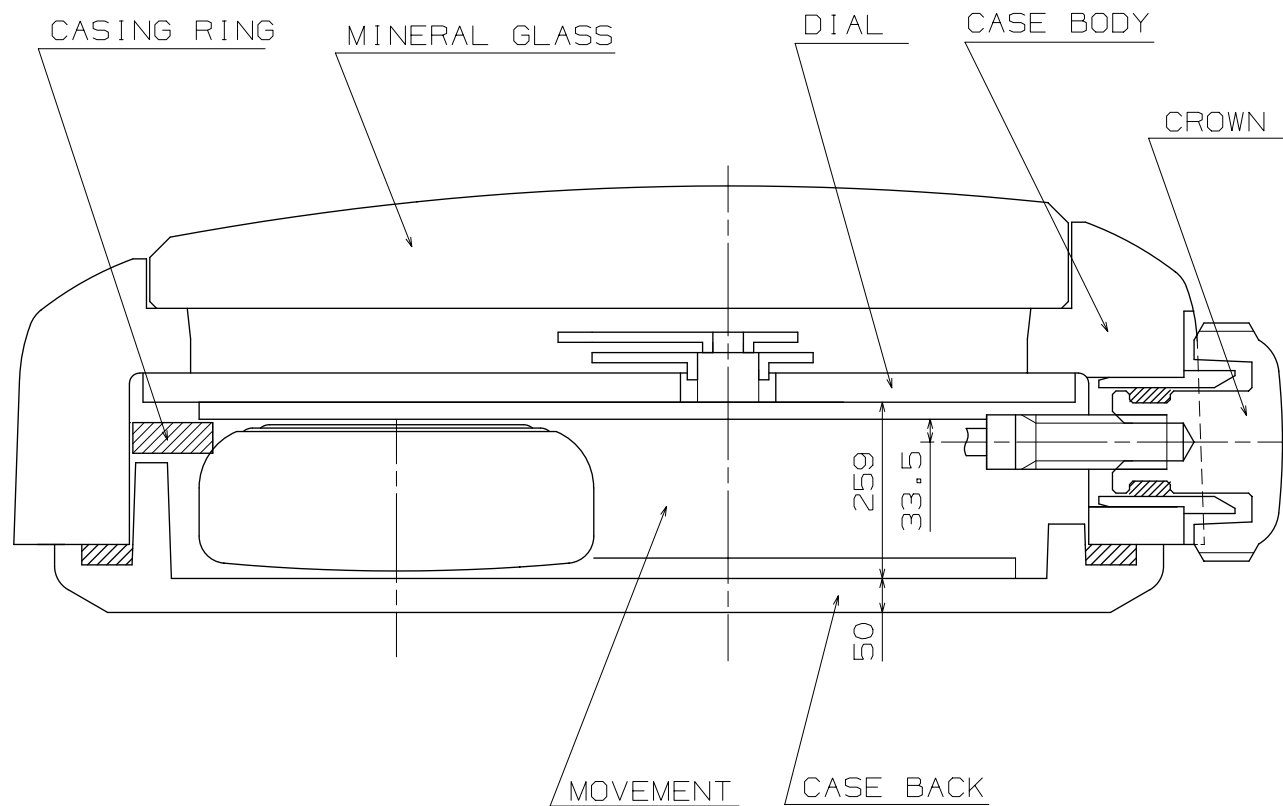


Scale : 5/1
Unit : 1=1/100mm

Version:3

Assembly Plan

Cal. VB20B

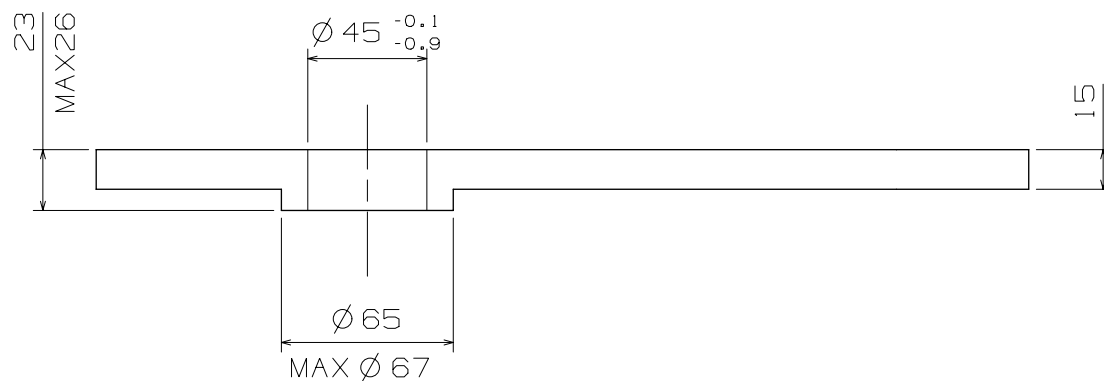


	A	B	C	D	E	F	H	T
TYPE M	40	15	15	15	18	33	103	40

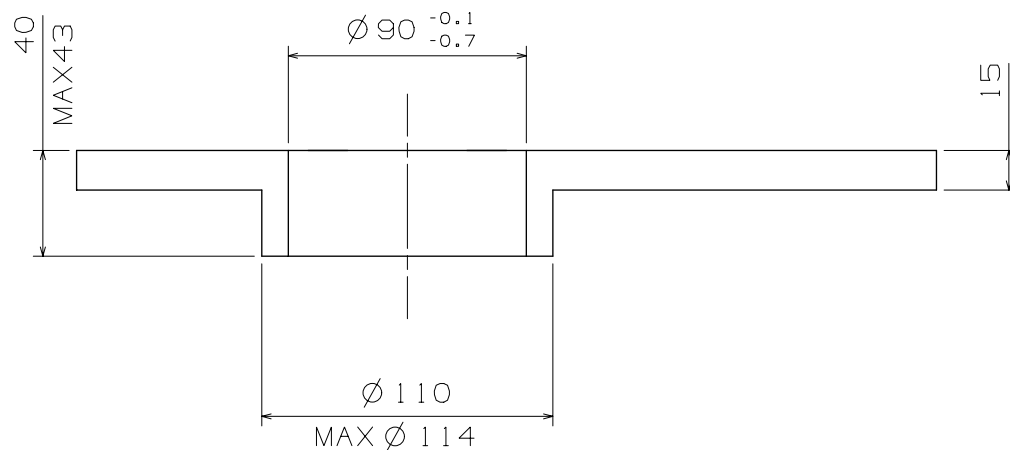
Scale : $\neq$
Unit : 1=1/100mm

Version:2

MINUTE



HOUR



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

Version: 2