EPSON
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Watch Movement Specification and Drawing

STANDARD

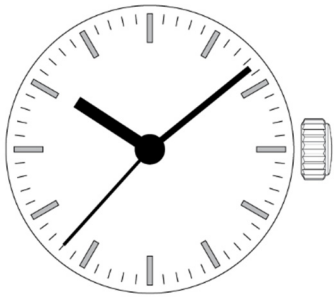
Cal. AL21E

Movement Size

6 3/4 × 8’’’

Casing Diameter

15.3 × 17.8 mm



Height

2.99mm

Battery Life

2 years

Date: 7/Aug./'20

Cal. AL21E

Cal. AL21E	Specifications	Date : 7/Aug./'20
		Rev. : 04

Analog Quartz 6 3/4 × 8''' Standard Series Movement / Three Hands (H/M/S)

1. MOVEMENT DIMENSIONS

Outside diameter	15.30mm(3-9H) × 18.20mm(12-6H)
Casing diameter	15.30mm(3-9H) × 17.80mm(12-6H)
Total height	2.99mm

2. TIME STANDARD

Type of quartz oscillator	Tuning fork
Frequency of quartz oscillator	32,768 Hz
Accuracy	±20 seconds per month (on wrist)
Operating temperature range	−5℃ to +50℃
Regulation device	Nil (Pre-adjusted)

3. INDICATOR / FUNCTIONS

3 Hands	Hour / Minute / Second	
Reset switch		
Setting mechanism	Crown at normal position	: Free
	Crown pulled out 1st click	: Time setting / Reset

4. FEATURES

Jewels	0 Jewels	
Anti-magnetism	Over 1600A/m (Direct current magnetic field)	
Maximum unbalance of hands	Second hand	: 0.06 μN・m
	Minute hand	: 0.6 μN・m
	Hour hand	: 0.5 μN・m

5. BATTERY

Type / Size	Silver oxide battery / φ6.8mm × t 2.6mm
Recommended battery	SR626SW (Maxell, Murata, Seizaiken)
Nominal voltage	1.55 V
Battery life	Approx. 2 years
Driving current consumption	Approx. 1.5 μA
Operation stopping voltage	1.1 V

6. SEPARATED PARTS (Parts code)

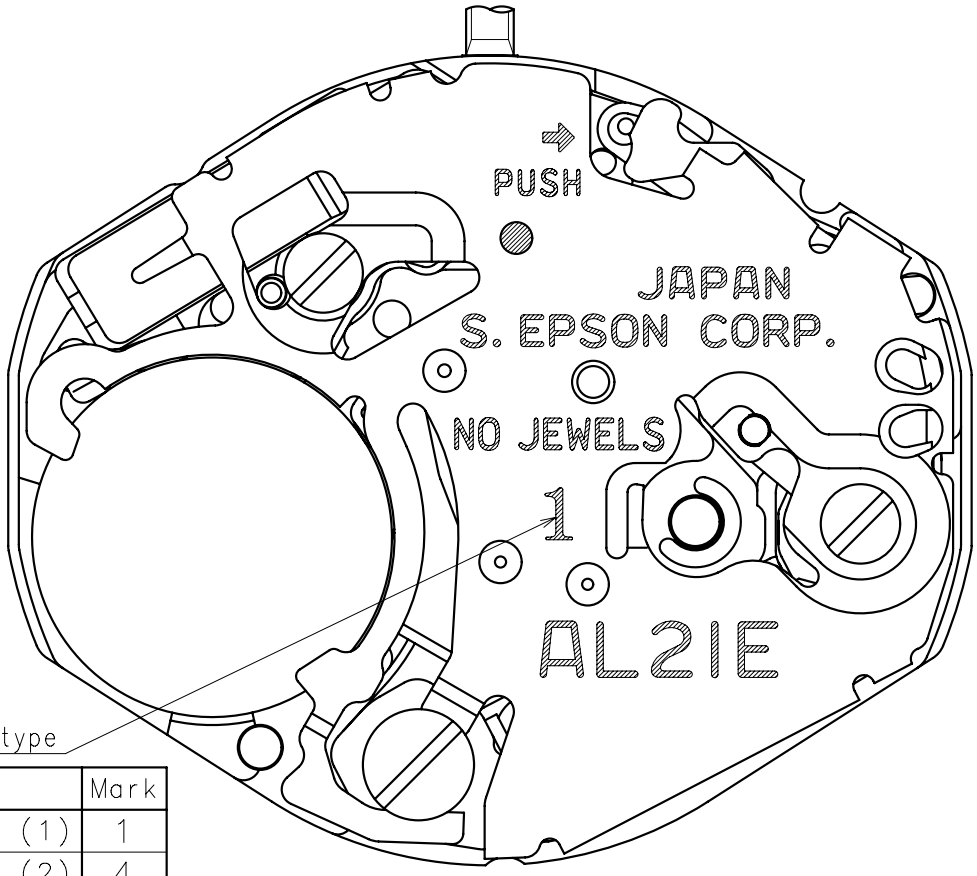
Hand setting stem	0354788	: AL21E1, AL21E2
	0354787	: AL21E4
Battery	SR626SW	

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

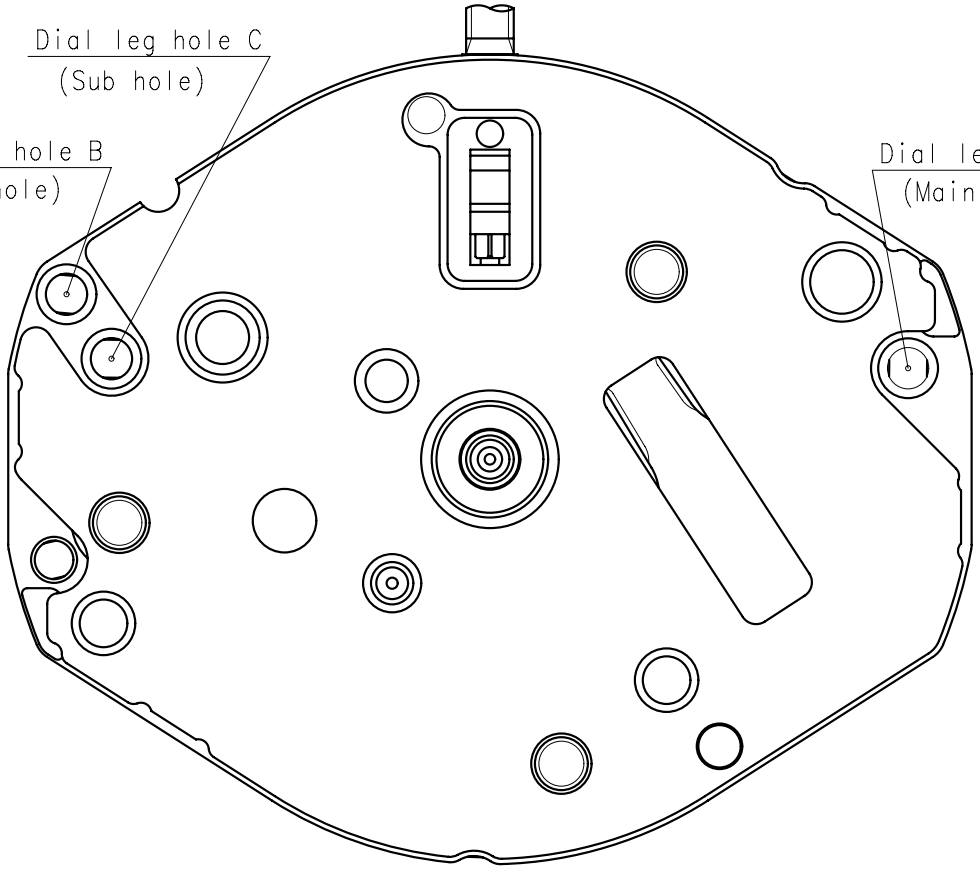
All specifications are subject to change without notice.

Cal. AL21E	Appearance	Date: 7/Apr./'17
		Rev.:12

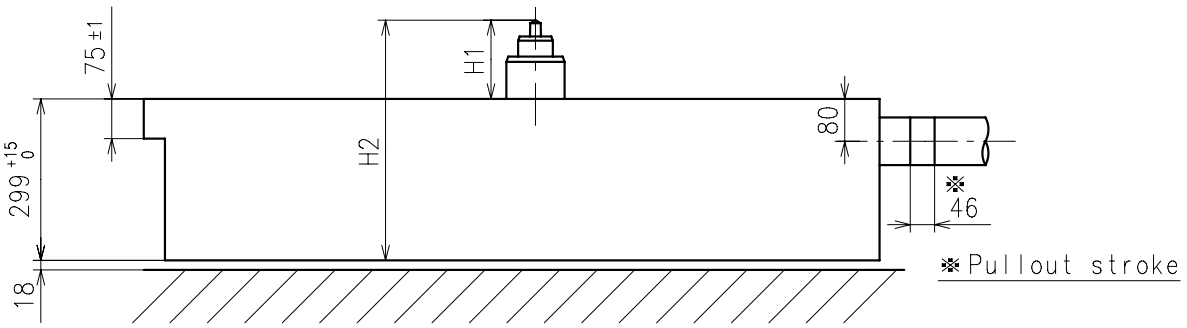


Hands type

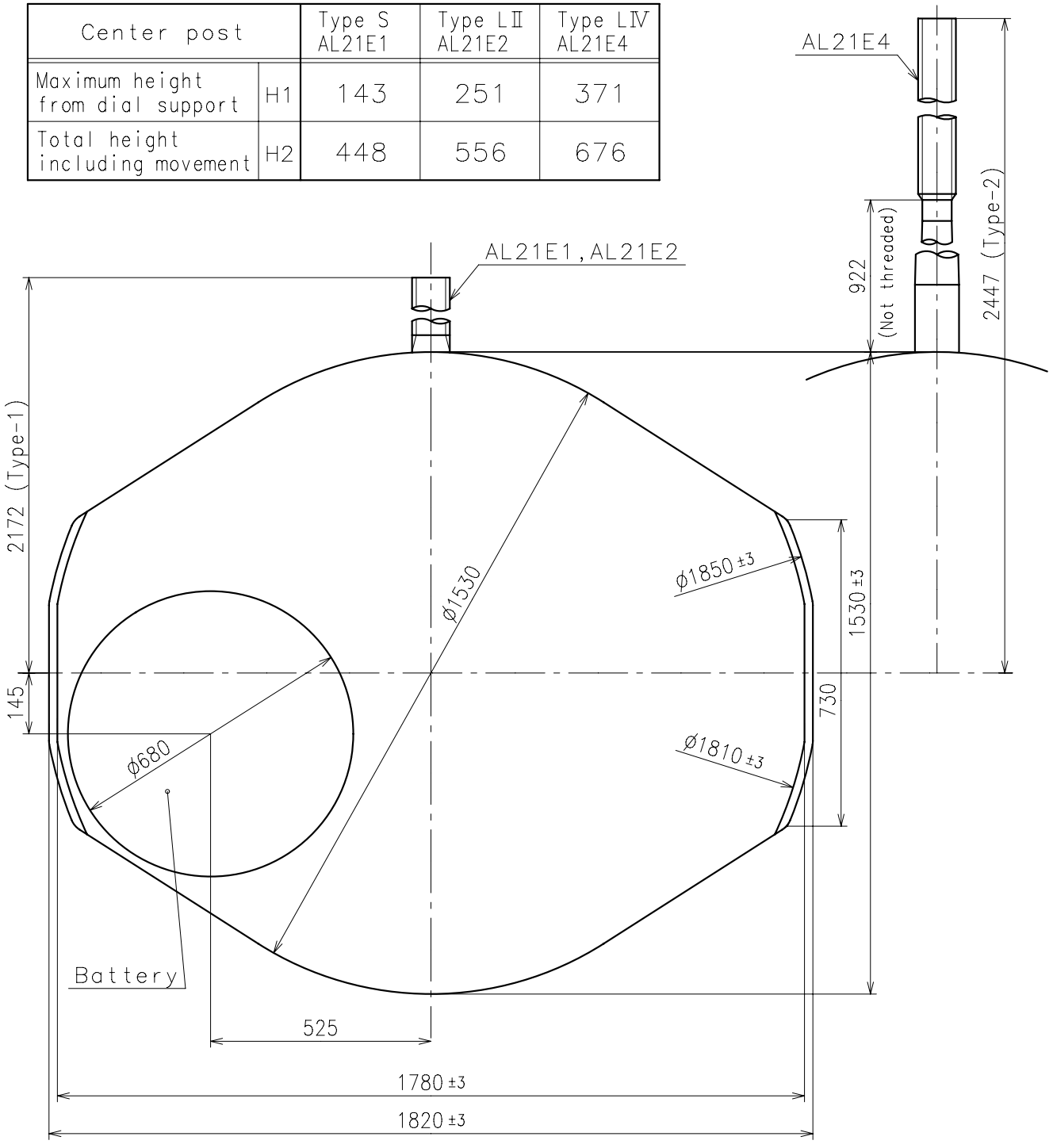
	Mark
Type S (1)	1
Type LII (2)	4
Type LIV	7



Cal. AL21E	Casing	Date:20/Oct./'14
		Rev.:06

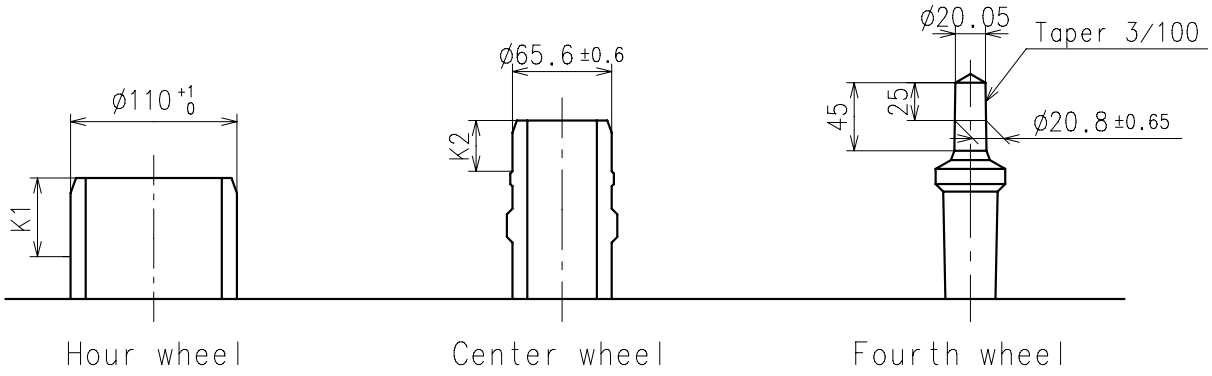


Center post		Type S AL21E1	Type LⅡ AL21E2	Type LⅣ AL21E4
Maximum height from dial support	H1	143	251	371
Total height including movement	H2	448	556	676

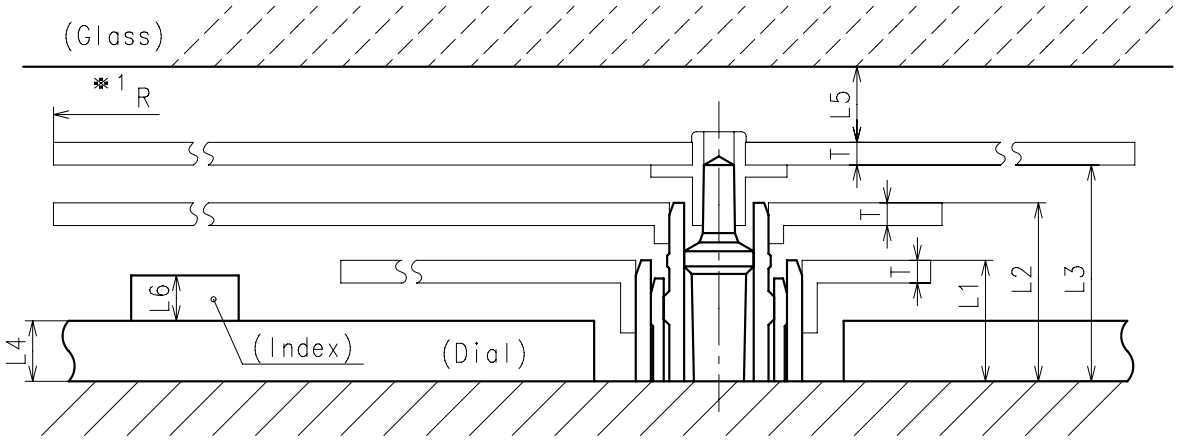


Unit : 1=1/100mm

※ Second hand unbalance ≦ 0.06μ N・m(6μ g・m)
※ Minute hand unbalance ≦ 0.6μ N・m (60μ g・m)
※ Hour hand unbalance ≦ 0.5μ N・m (50μ g・m)



	Parts No.			Dimension	
	Hour wheel	Center wheel	Fourth wheel	K1	K2
Type S AL21E1	0271796	0221797	0241798	52	33.5
Type LⅡ AL21E2	0271797	0221779	0241777	60	33.5
Type LⅣ AL21E4	0271756	0221765	0241756	60	33.5

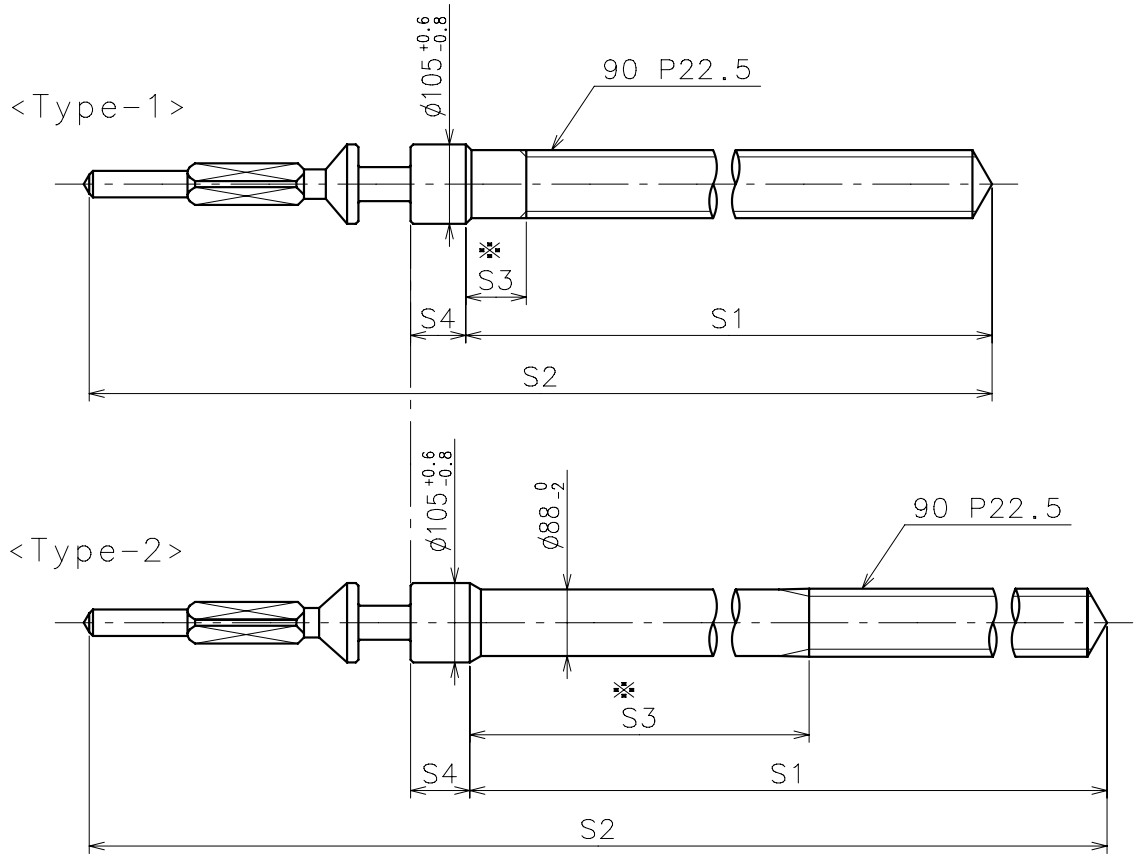


	L1	L2	L3	L4	L5	L6	T	※1 R
Type S AL21E1	80	118	143	40	MIN: 50	MAX: 30	15	MAX: 1250
Type LⅡ AL21E2	185	226	251	MAX: 150	MIN: 50	MAX: 30	15	MAX: 1250
Type LⅣ AL21E4	297	343	371	MAX: 250	MIN: 50	MAX: 45	15	MAX: 1250

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

Unit : 1=1/100mm

Cal. AL21E	Hand setting stem	Date:27/Dec./'16 Rev.:07



※ Not threaded

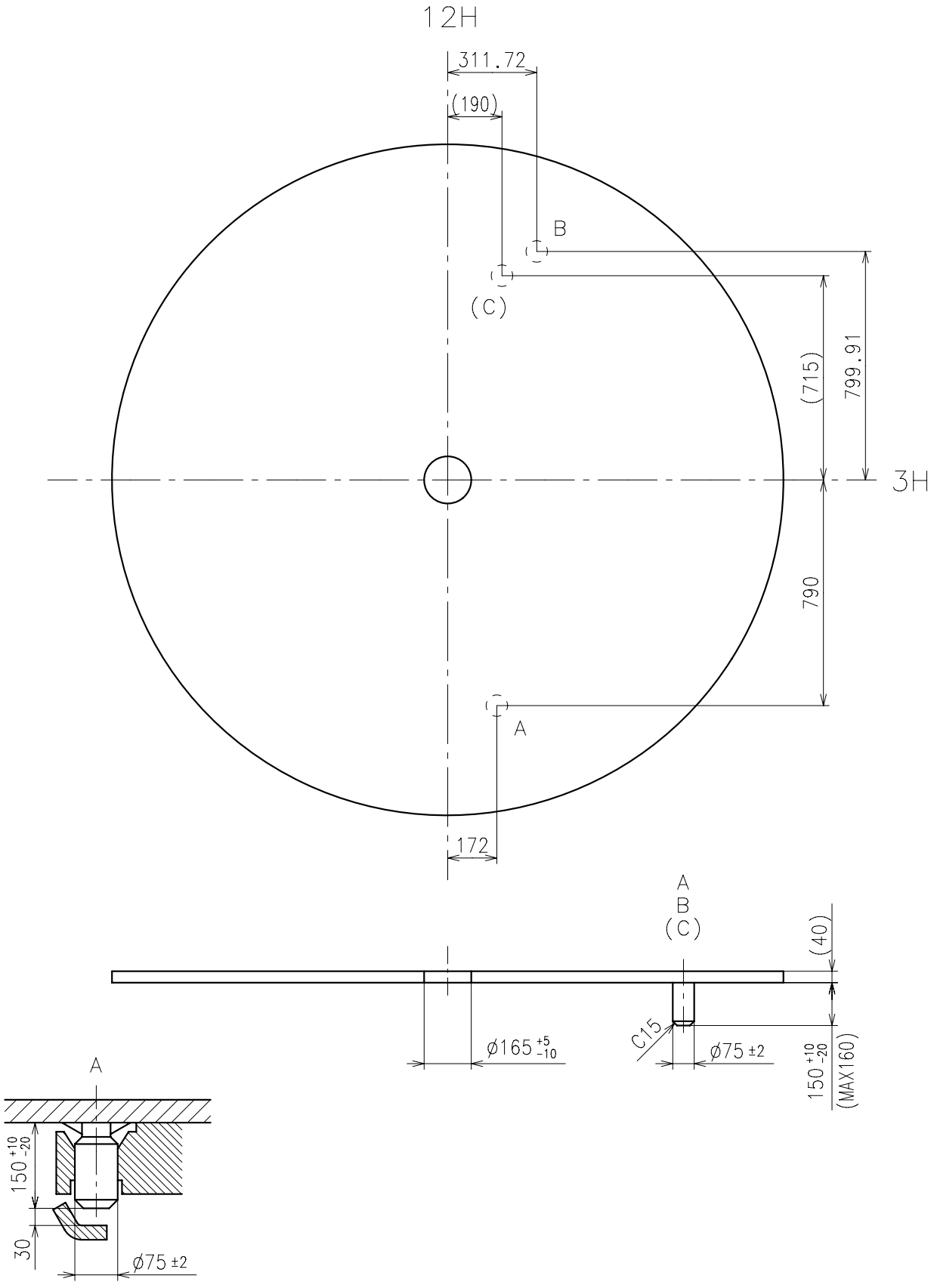
	Part No.	S1	S2	※ S3	S4
Type-1 (Standard)	0354788	1473	1971	80	73
Type-2	0354787	1743	2246	887	78

Material : Steel

Hardness : Vickers 530±50

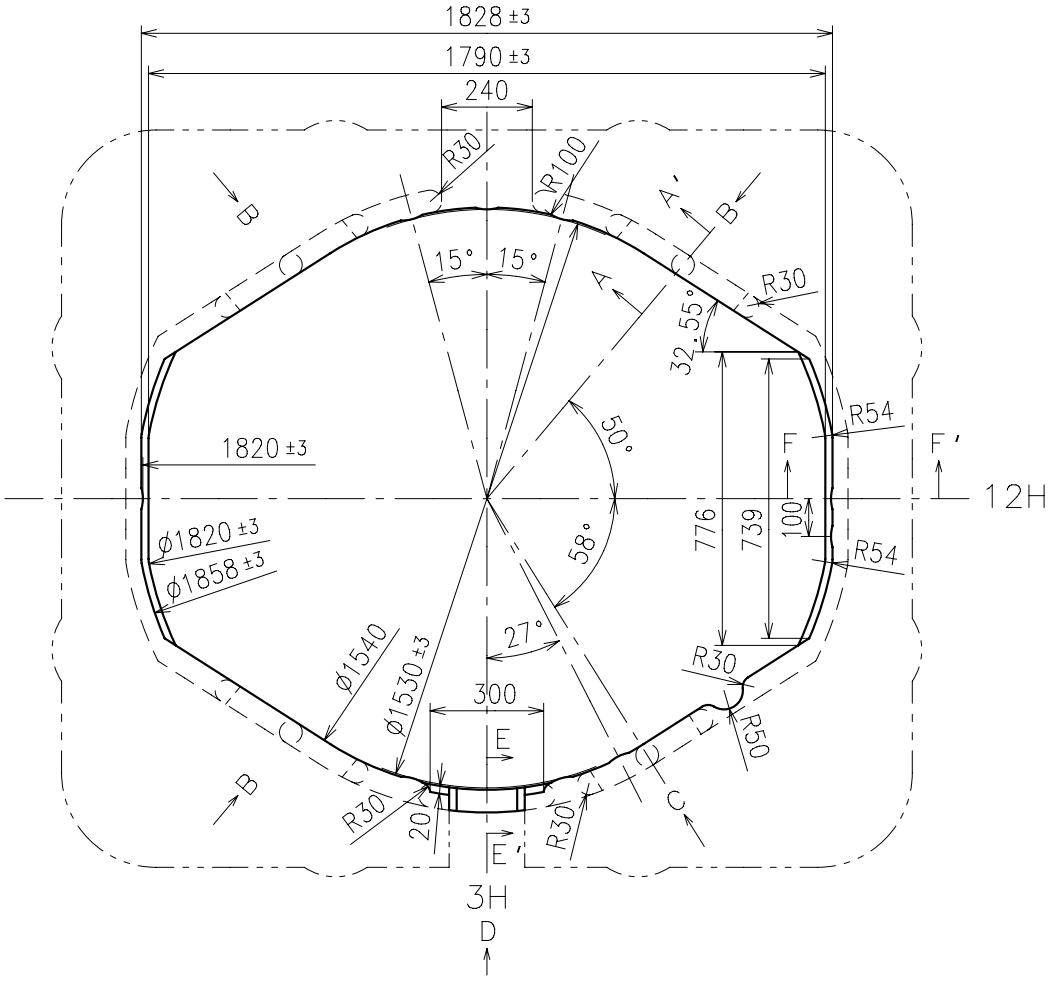
Unit : 1=1/100mm

Cal. AL21E	Dial	Date:20/Oct./'14
		Rev.:03

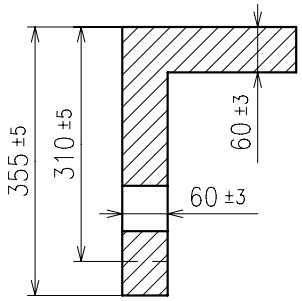


Use dial leg A-B(Main) or A-C(Sub)

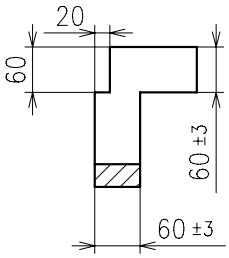
Cal. AL21E	Casing ring	Date:20/Oct./'14
		Rev.:02



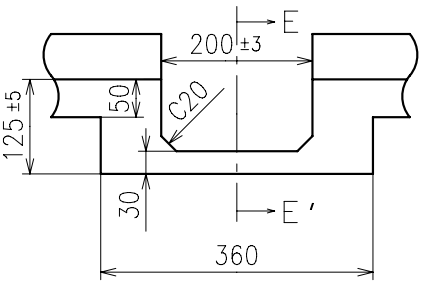
A-A' section



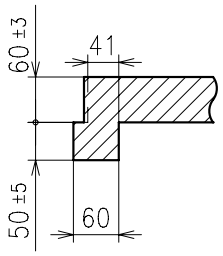
E-E' section



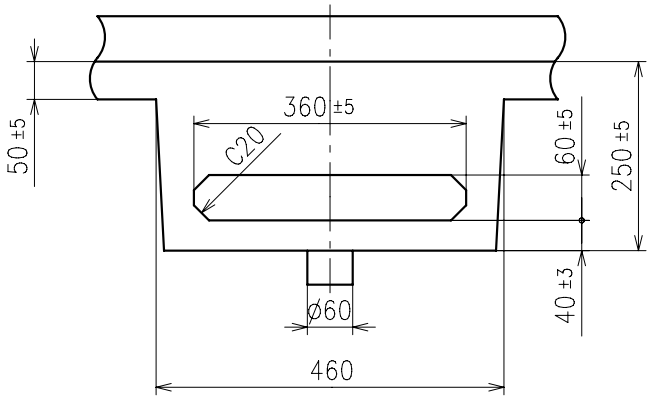
D view



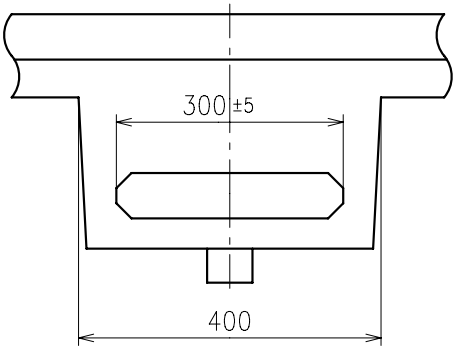
F-F' section



B view



C view



Unit : 1=1/100mm