

Watch Movement Specification and Drawing

CALENDAR

**Cal. VX32E**

Movement Size

10 1/2'''

Casing Diameter

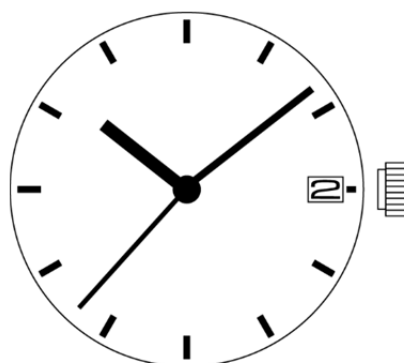
Ø 23.3mm

Height

2.62mm

Battery Life

3 years



Date: 5/Jun./'15

# Cal. VX32E

Items	Rev.	Page
Specifications	03	1
Appearance	04	2
Casing	05	3
Hand fitting	04	4
Hand setting stem	04	5
Dial-01	02	6-01
Dial-02	02	6-02
Dial-03	01	6-03
Dial-04	01	6-04
Dial-11	01	6-11
Dial-12	01	6-12
Dial-14	01	6-14
Dial-15	01	6-15
Dial-16	01	6-16
Dial-17	01	6-17
Dial-18	01	6-18
Dial-19	00	6-19
Dial-20	00	6-20
Casing ring	02	7

**Analog Quartz 10 1/2" Slim Movement / Three hands(H/M/S) with Calendar****1. MOVEMENT DIMENSIONS**

Outside diameter	$\phi 24.00\text{mm} \times 21.30\text{mm}(3\text{-}9\text{H}) \times 21.50\text{mm}(12\text{-}6\text{H})$
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	2.62mm (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						
Calendar	Instant setting device for date calendar						
Reset switch							
Setting mechanism	<table> <tr> <td>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 / Reset</td> </tr> </table>	Crown at normal position	: Free	Crown pulled out 1st click	: Instant date change	Crown pulled out 2nd click	: Time setting / Reset
Crown at normal position	: Free						
Crown pulled out 1st click	: Instant date change						
Crown pulled out 2nd click	: Time setting / Reset						

**4. FEATURES**

Jewels	0 Jewels						
Anti-magnetism	Over 1600A/m (Direct current magnetic field)						
Maximum unbalance of hands	<table> <tr> <td>Hour hand</td> <td>: <math>0.5 \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>Second hand</td> <td>: <math>0.07 \mu\text{N}\cdot\text{m}</math></td> </tr> </table>	Hour hand	: $0.5 \mu\text{N}\cdot\text{m}$	Minute hand	: $0.6 \mu\text{N}\cdot\text{m}$	Second hand	: $0.07 \mu\text{N}\cdot\text{m}$
Hour hand	: $0.5 \mu\text{N}\cdot\text{m}$						
Minute hand	: $0.6 \mu\text{N}\cdot\text{m}$						
Second hand	: $0.07 \mu\text{N}\cdot\text{m}$						

**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

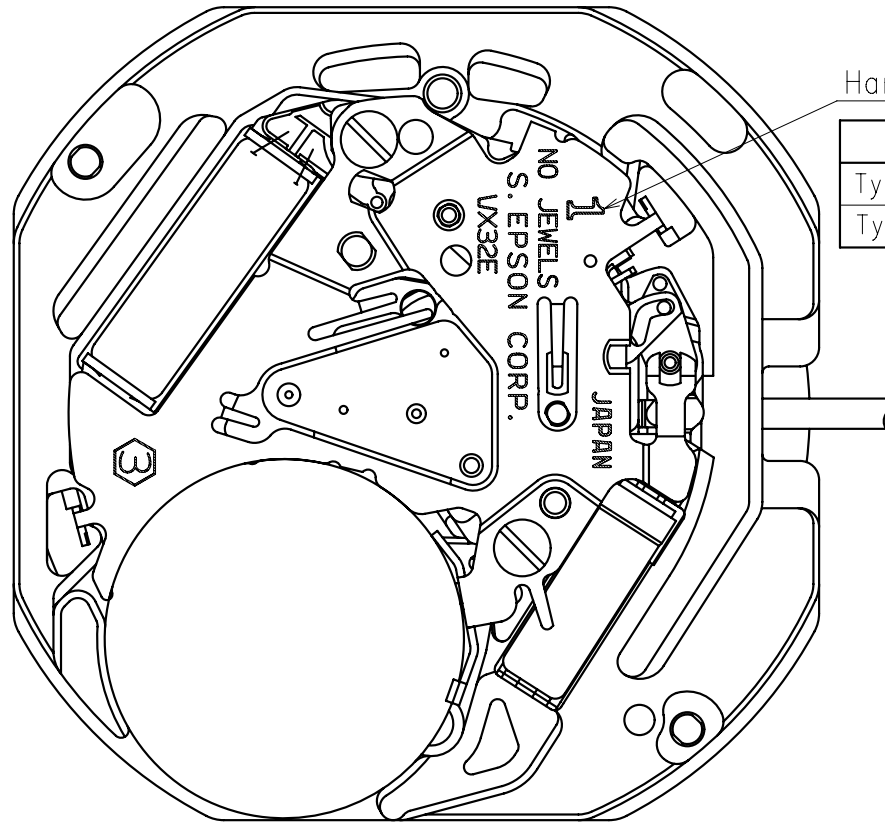
**6. SEPARATED PARTS (Parts code)**

Hand setting stem	0351177 or 0351578
Battery	SR920SW

**7. TEST OF ACCURACY**

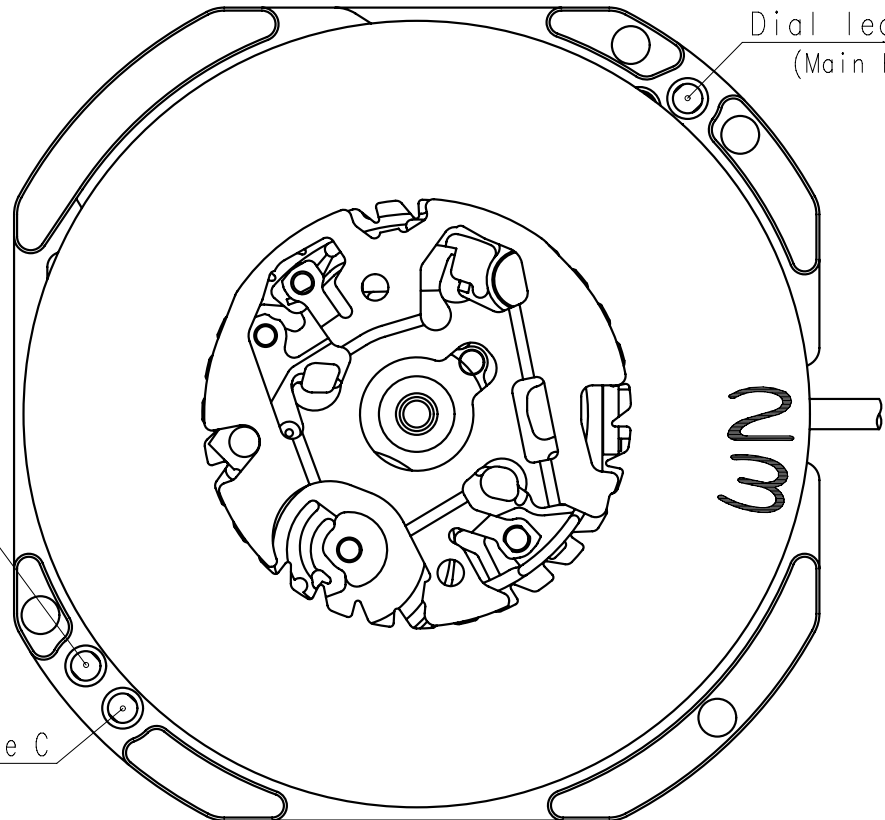
Equipment to be used	SEIKO quartz tester QT-99, Greiner quartz timer-C , Witschi Q-tester 4000
Duration of measurement	10 seconds
Microphone to be used	Electromagnetic detection type

All specifications are subject to change without notice.



Hands type

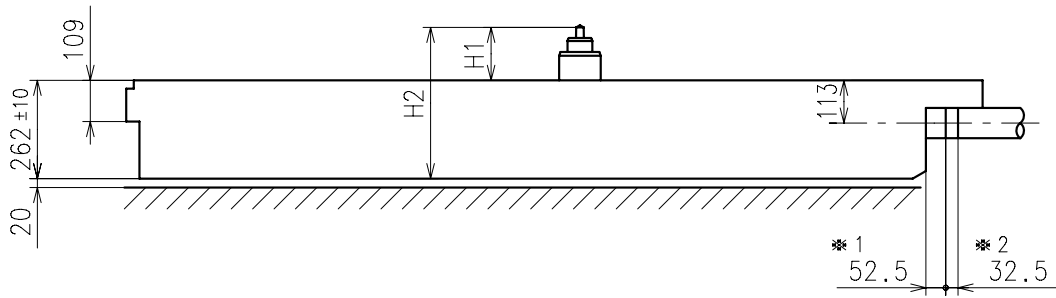
	Mark
Type S (1)	1
Type M (2)	2



Dial leg hole A  
(Main hole)

Dial leg hole B  
(Main hole)

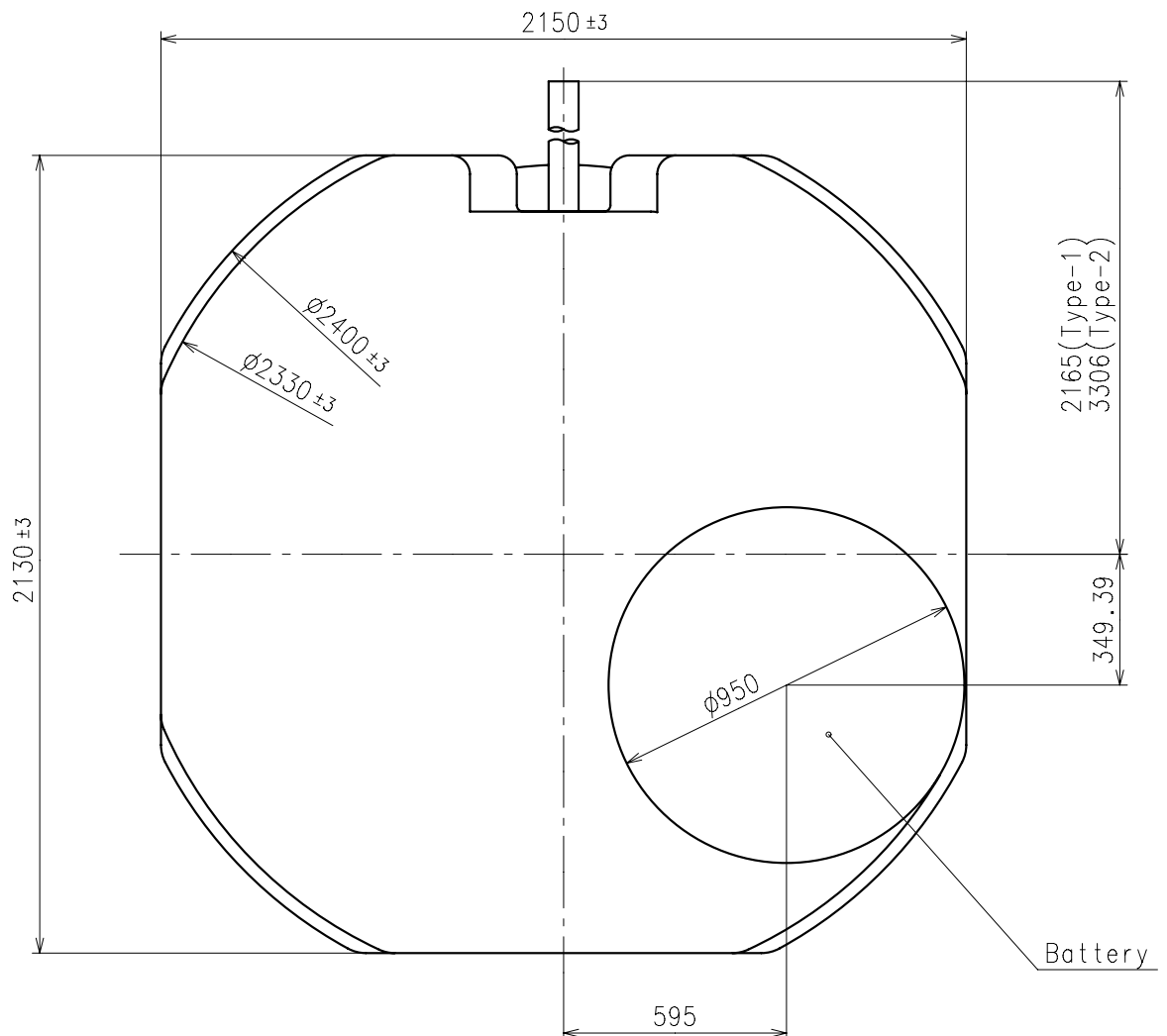
Dial leg hole C  
(Sub hole)



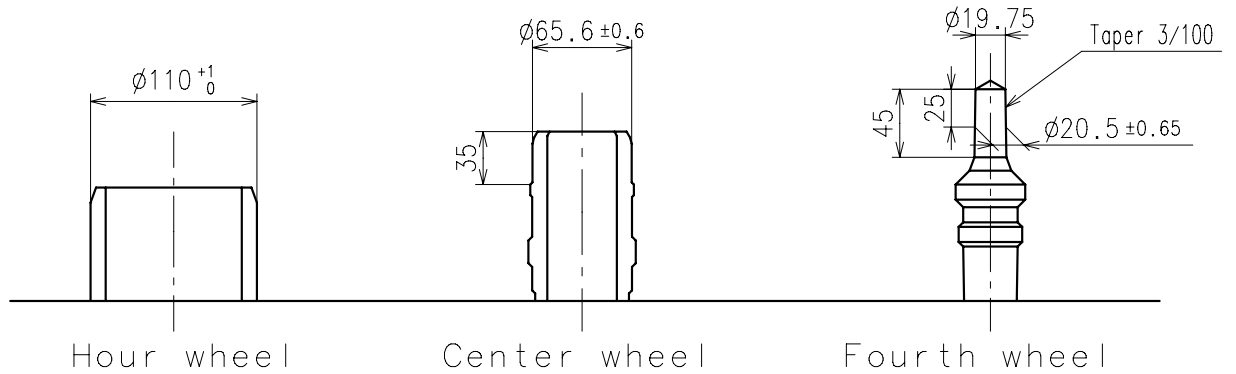
Center post		Type S (1) VX32E1*	Type M (2) VX32E2*
Maximum height from dial support	H1	140	182
Total height including movement	H2	402	444

\*1:First pullout stroke

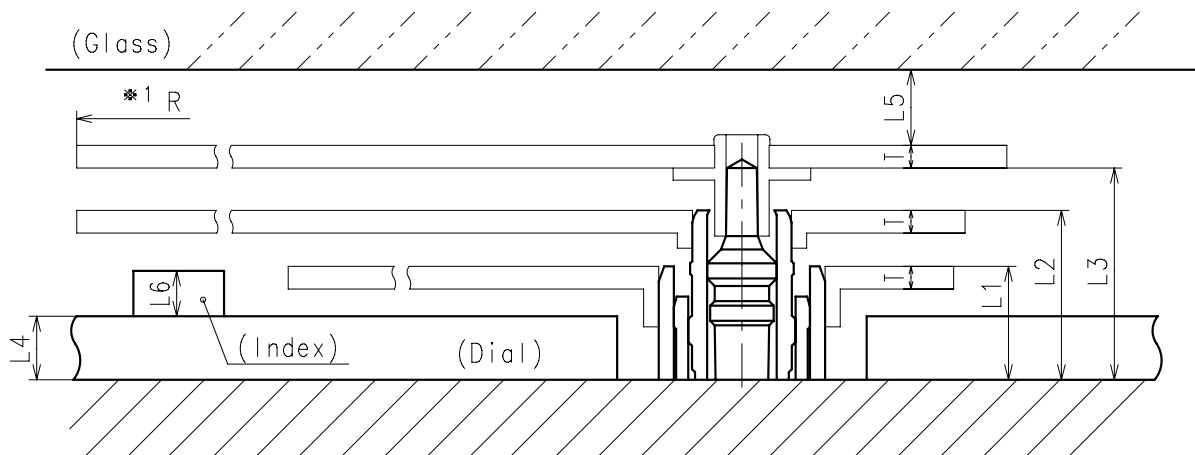
\*2:Second pullout stroke



- \* 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  $\leq 0.07\mu\text{ N}\cdot\text{m}$  ( $7\mu\text{ g}\cdot\text{m}$ )

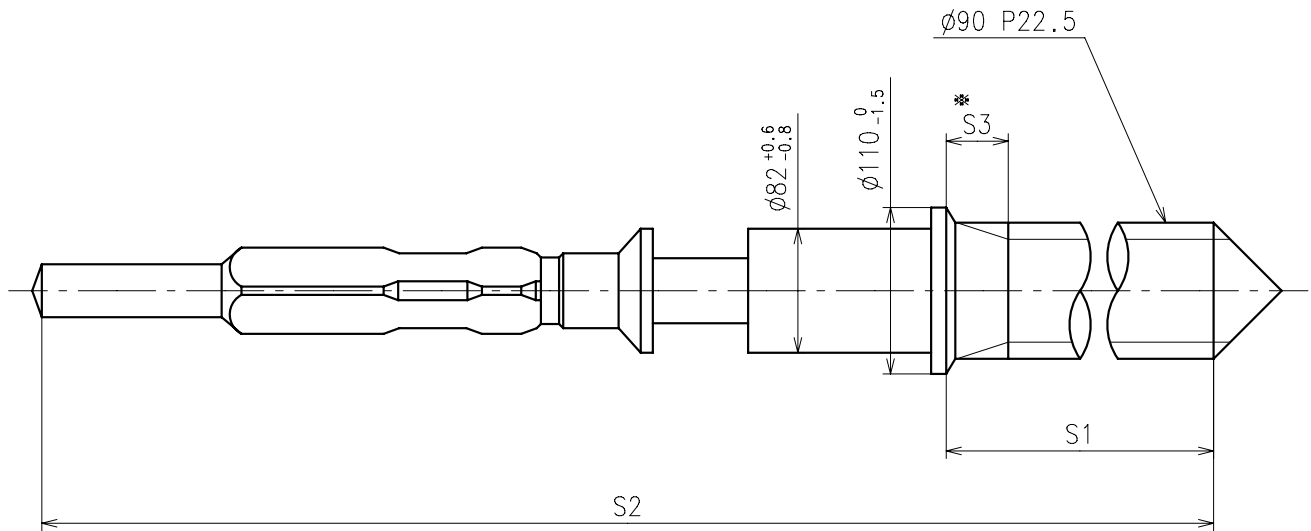


	Parts No.		
	Hour wheel	Center wheel	Fourth wheel
Type S (1) VX32E1*	0271929	0221929	0241929
Type M (2) VX32E2*	0271942	0221904	0241904



	L1	L2	L3	L4	L5	L6	T	*1 R
Type S (1) VX32E1*	75	112	140	40	MIN: 50	MAX: 30	15	MAX: 1250
Type M (2) VX32E2*	105	154	182	40	MIN: 50	MAX: 60	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.

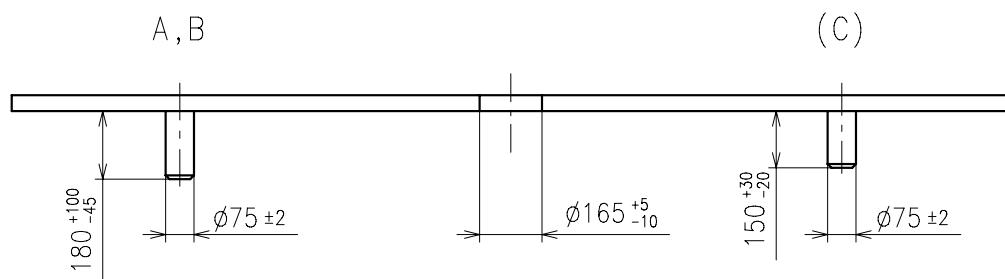
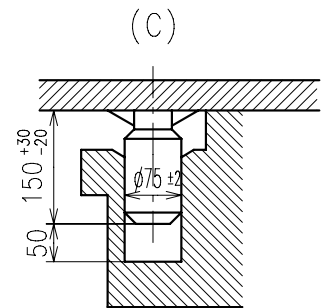
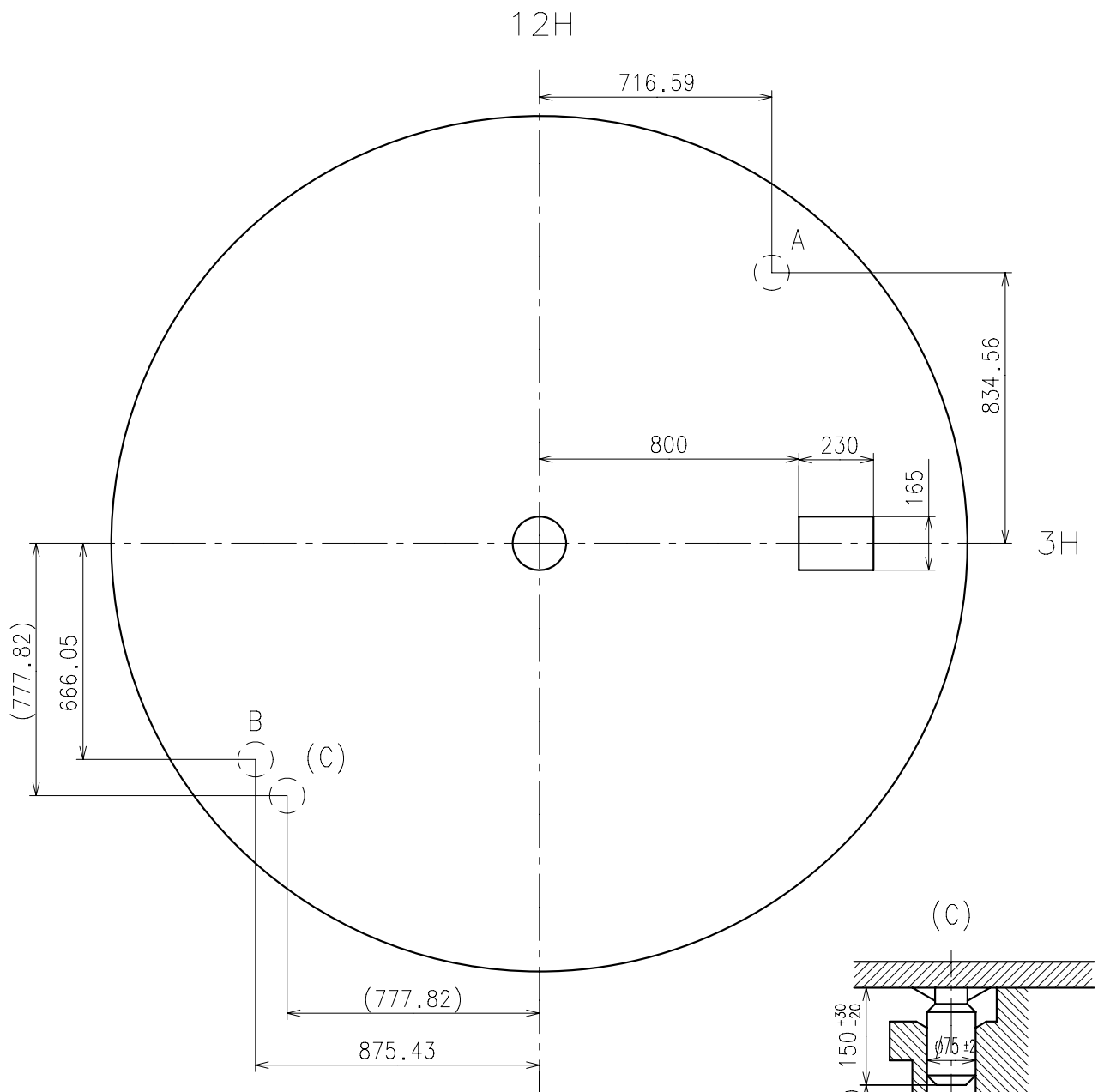


※ Not threaded

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

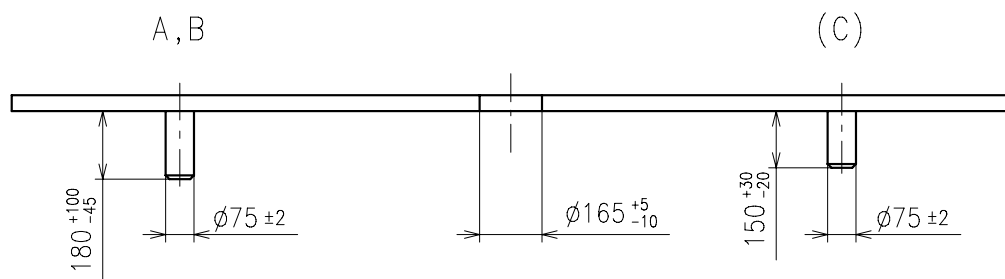
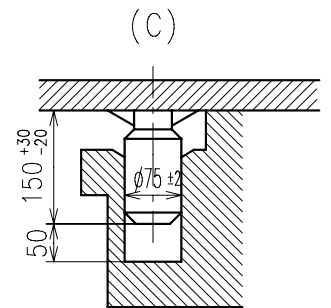
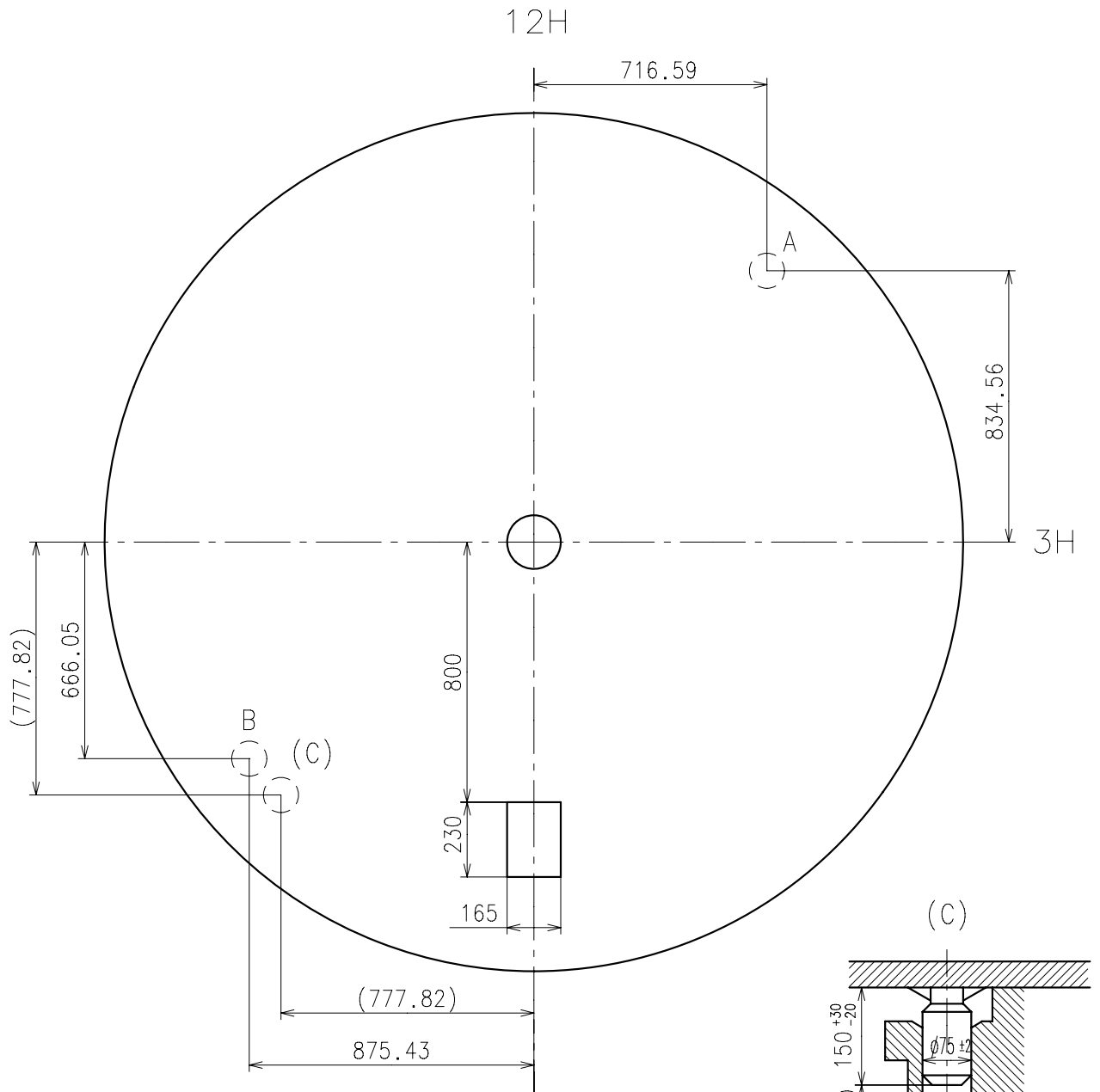
Material : Steel

Hardness : Vickers 600±50

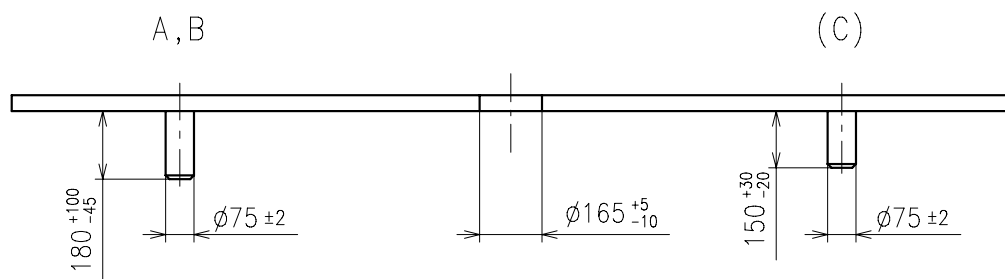
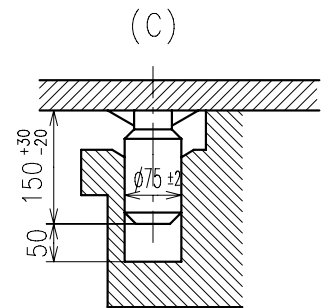
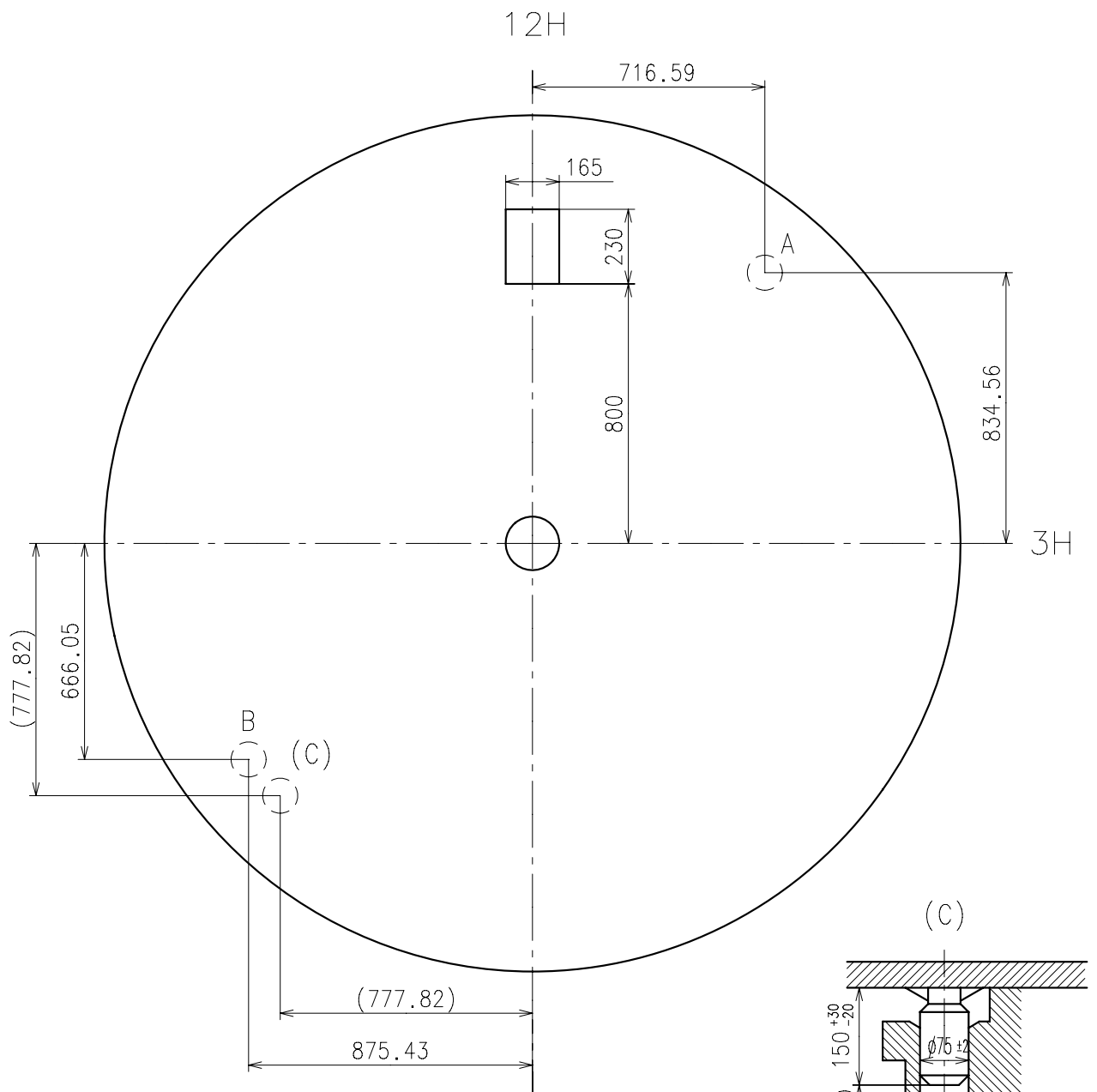


\* Use dial leg A-B or (A-C)

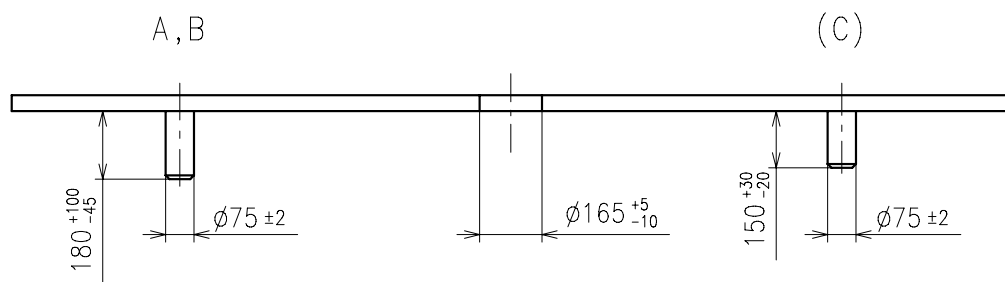
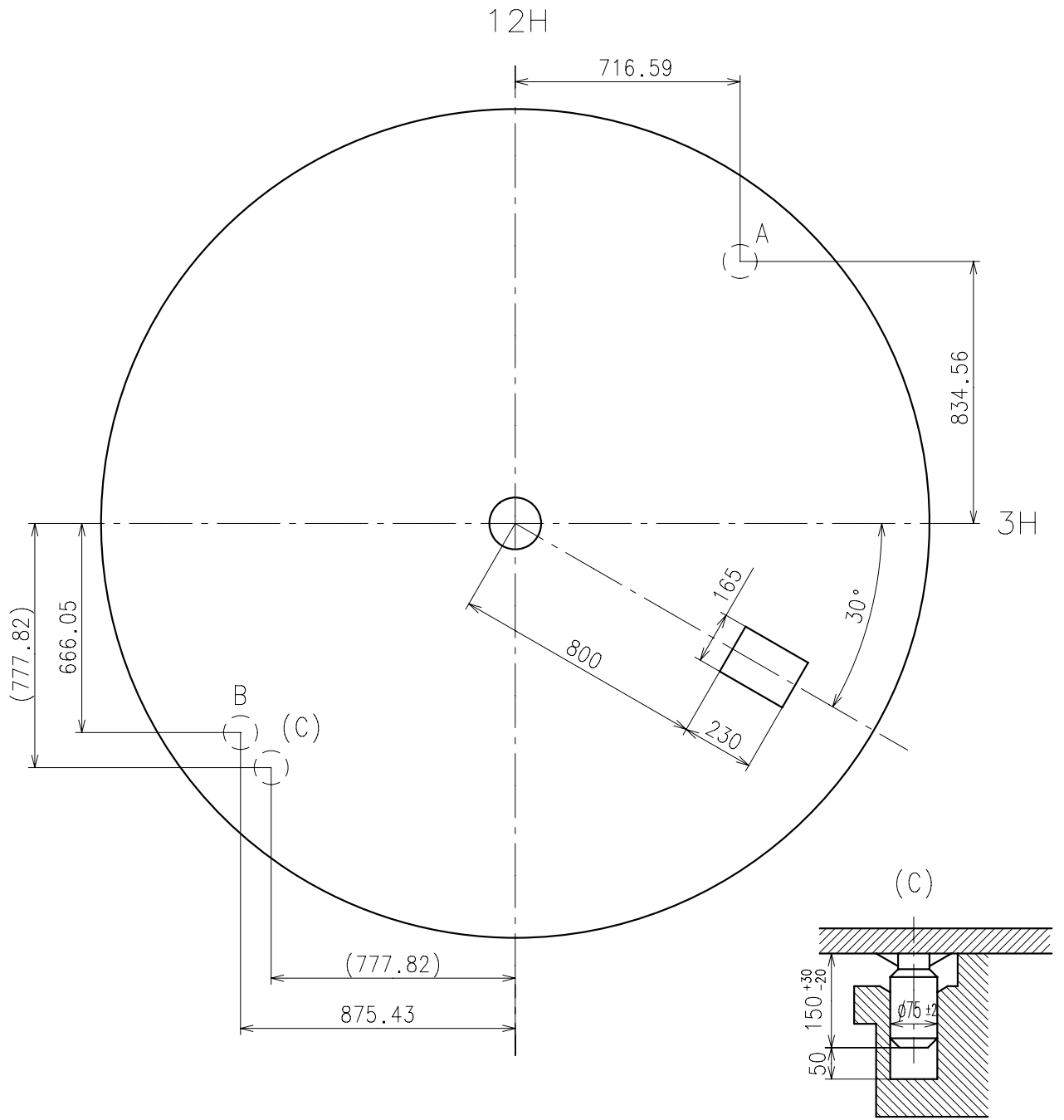




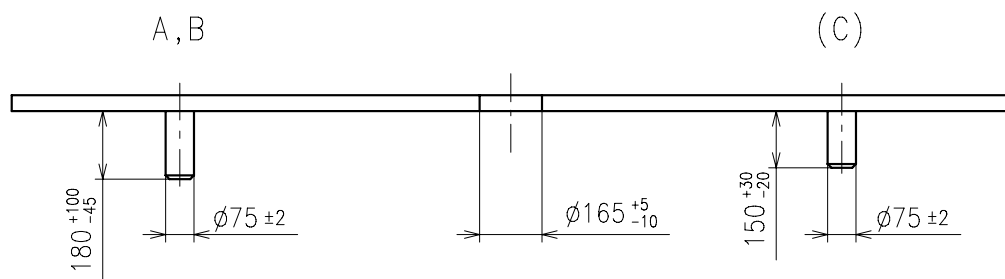
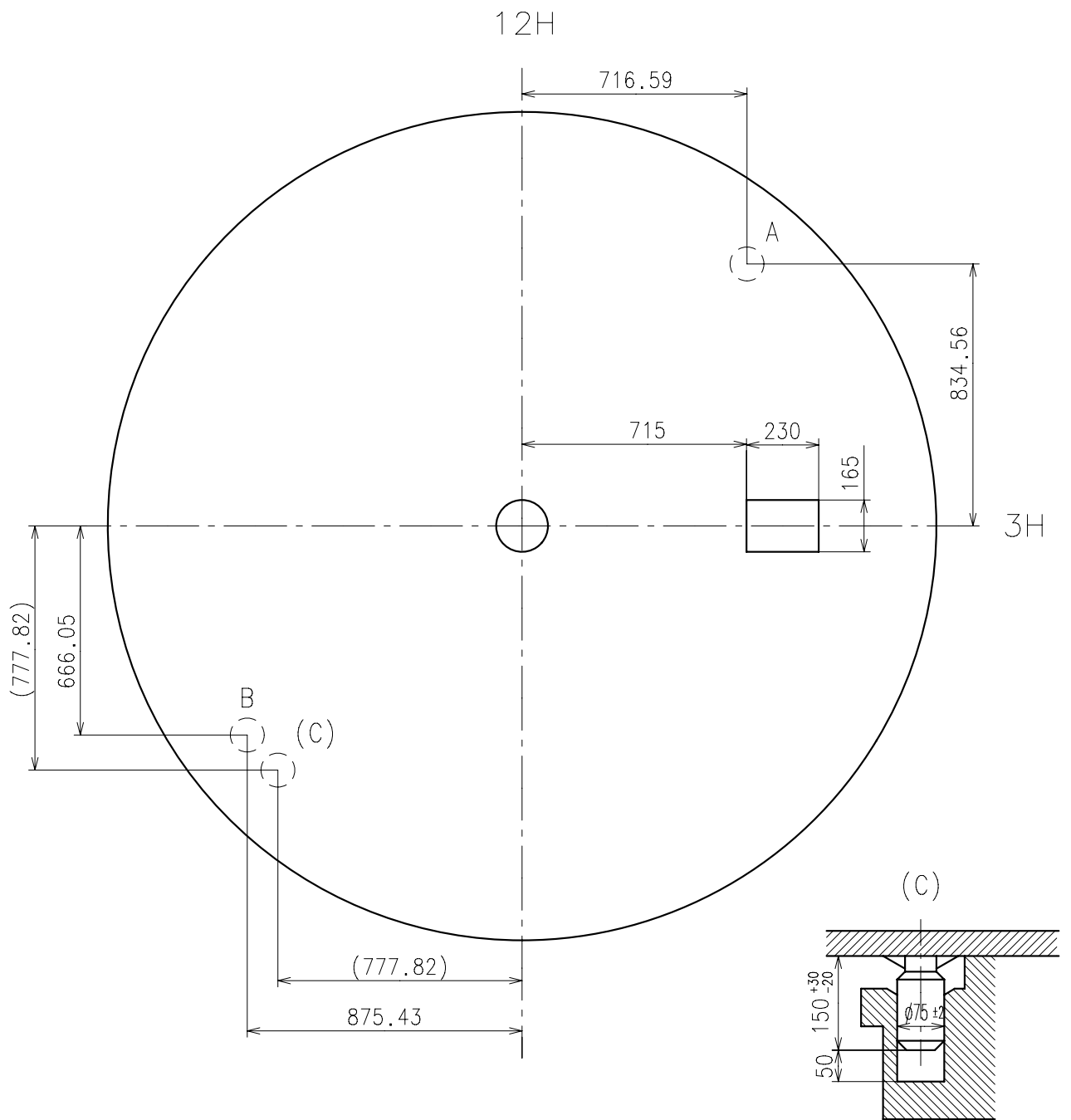
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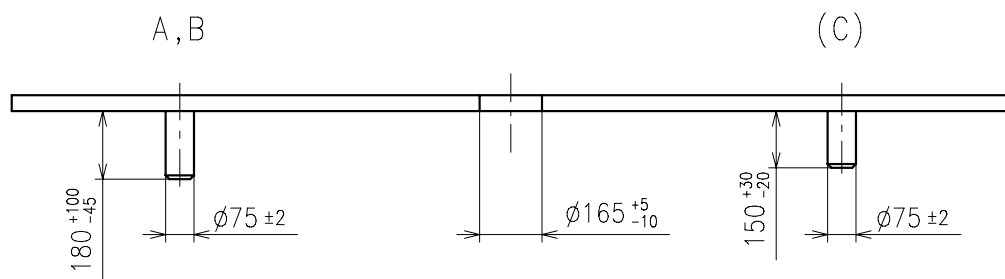
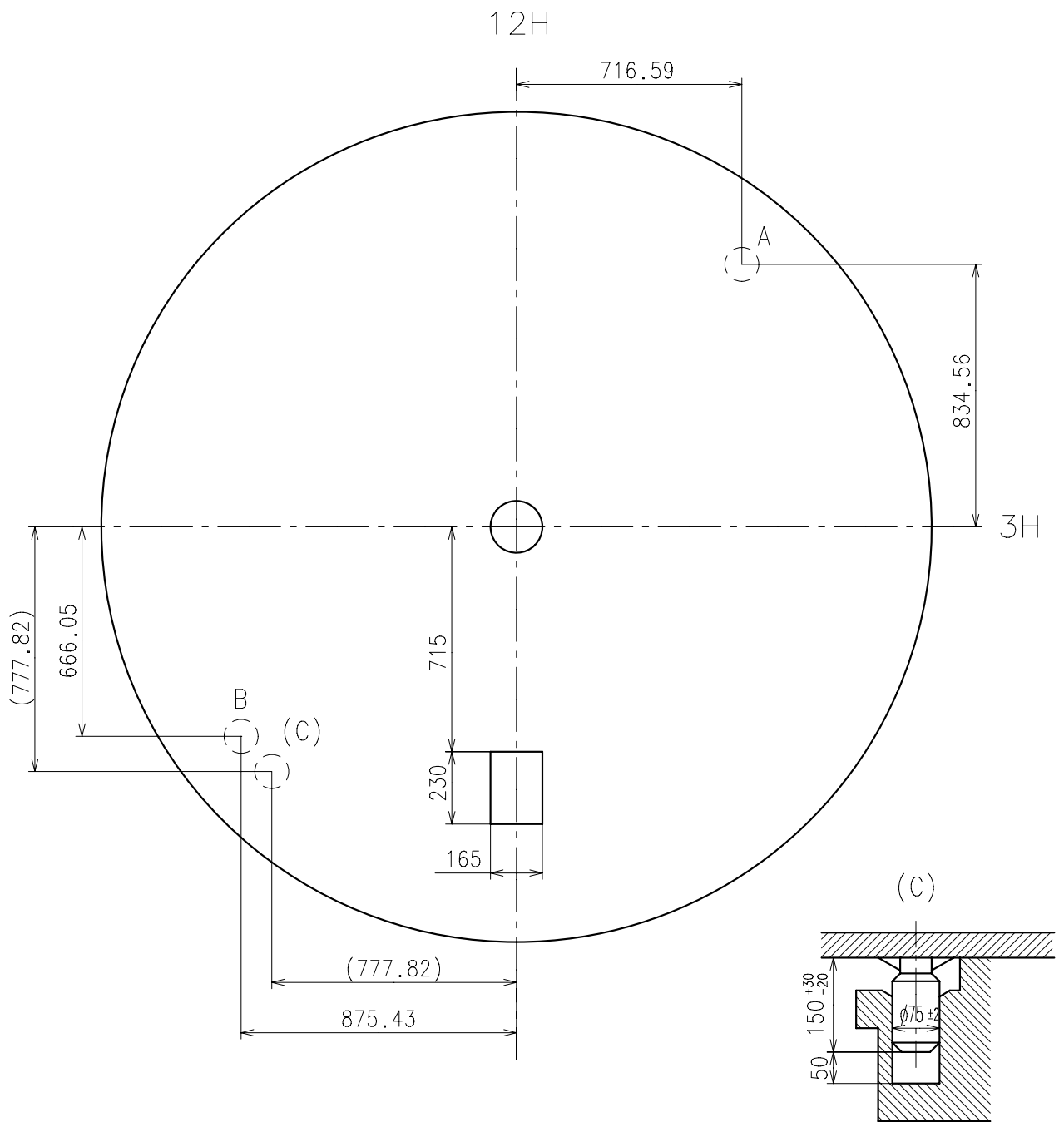
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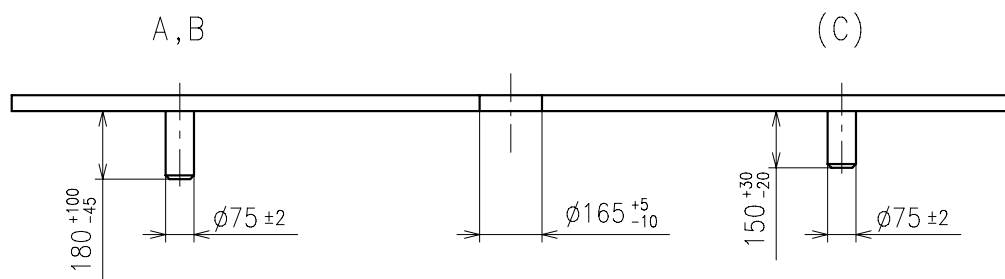
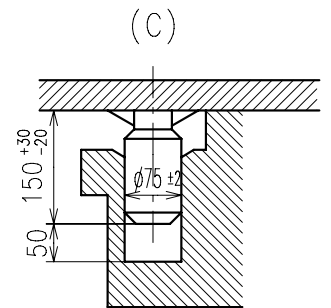
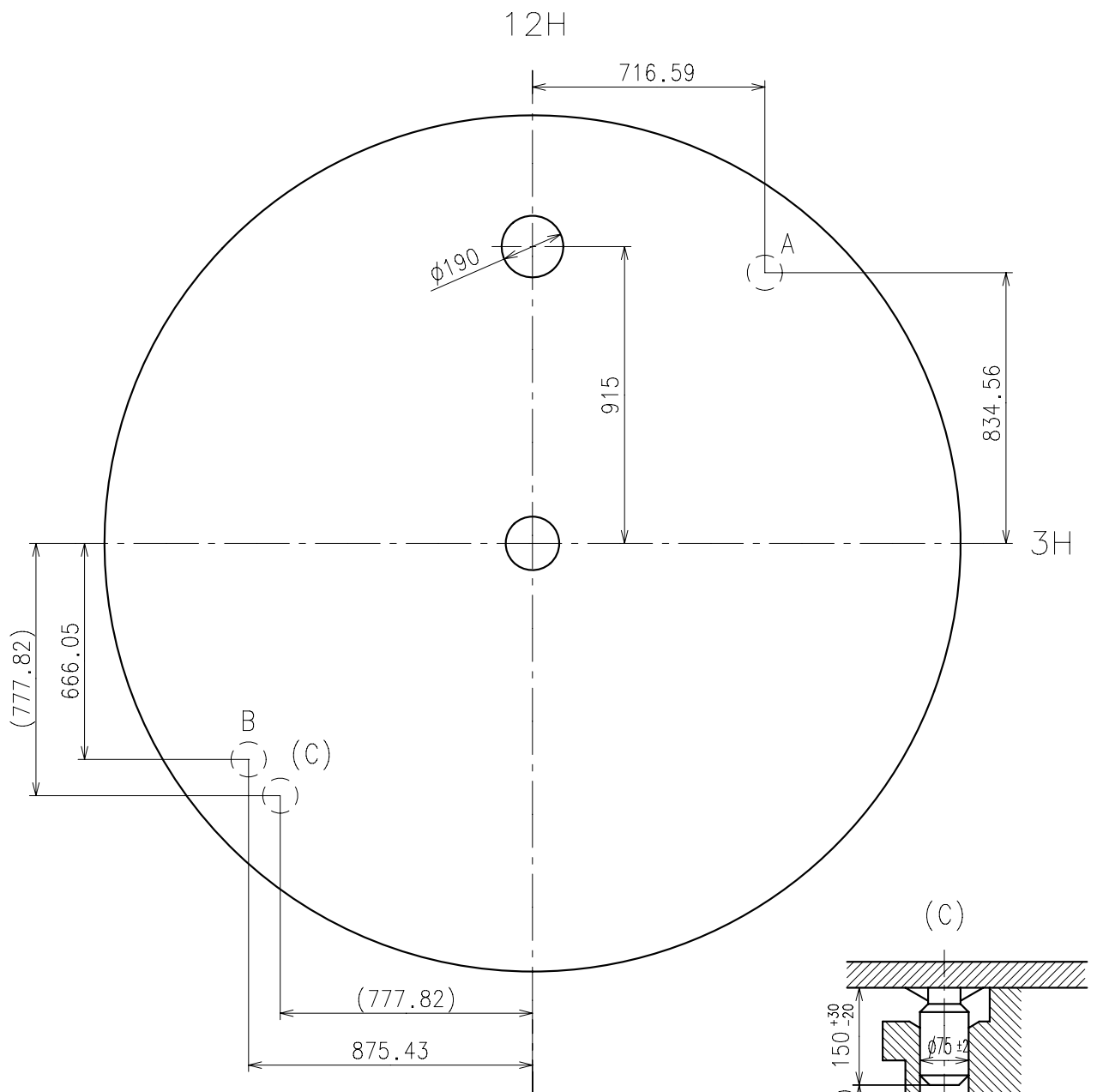
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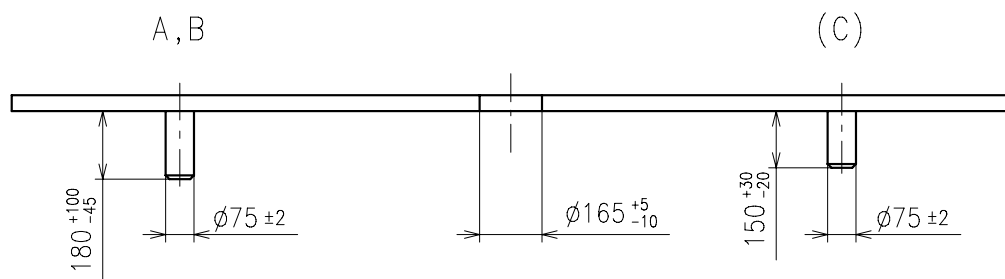
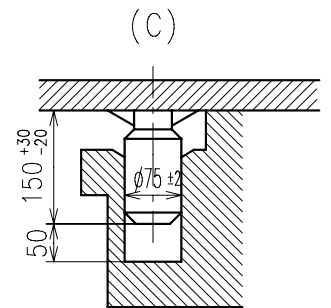
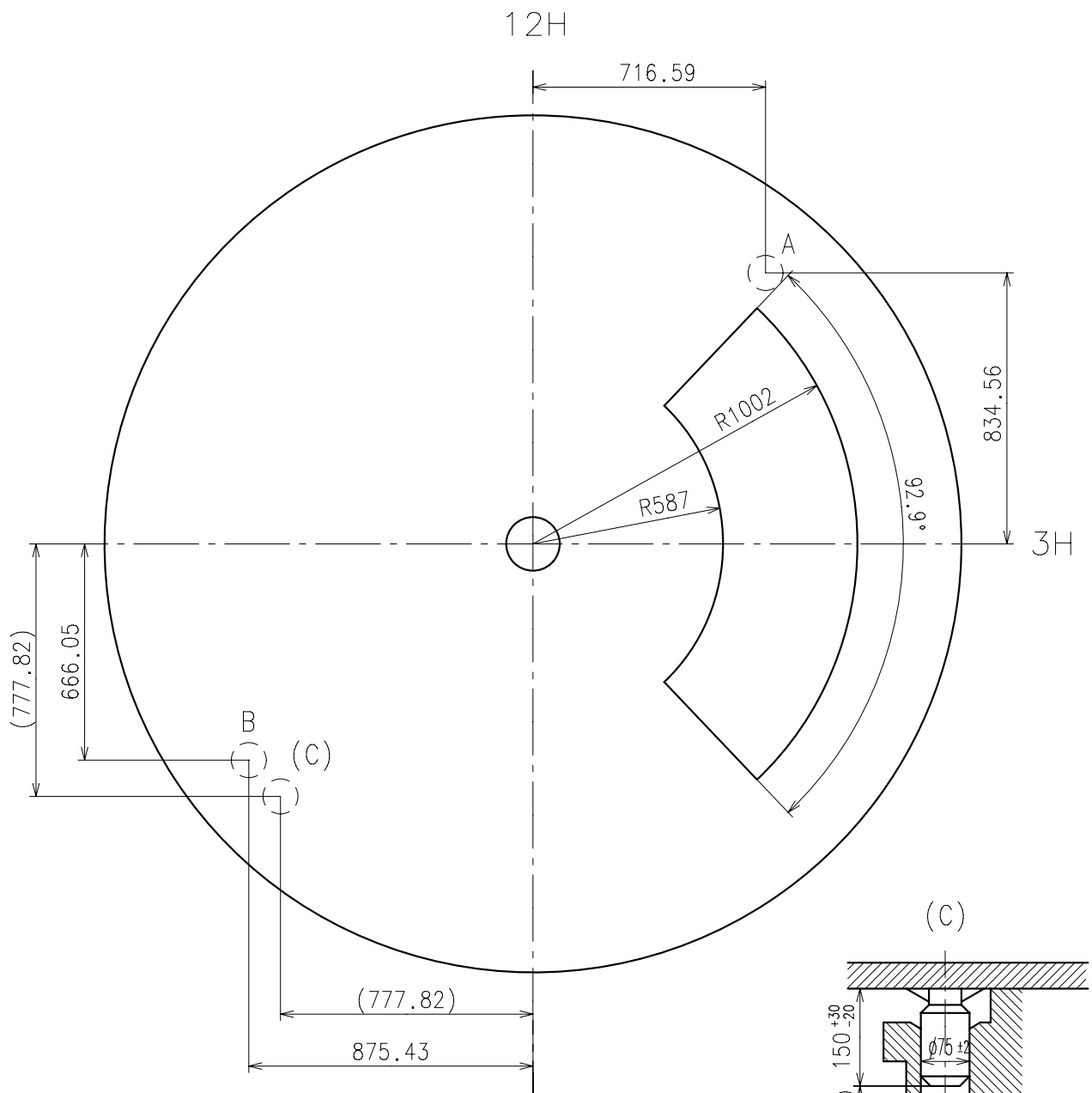


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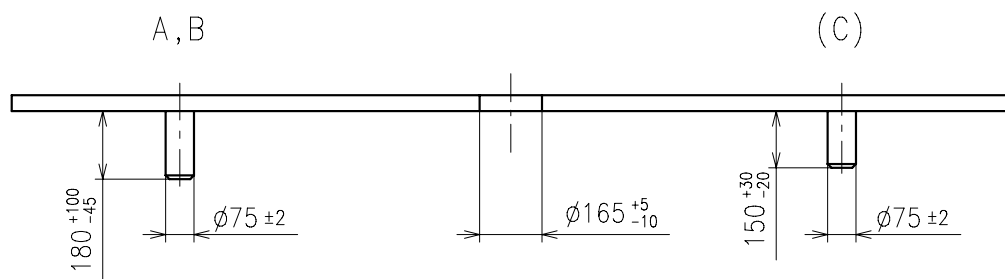
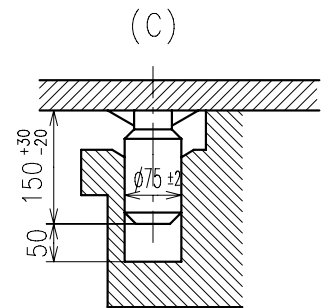
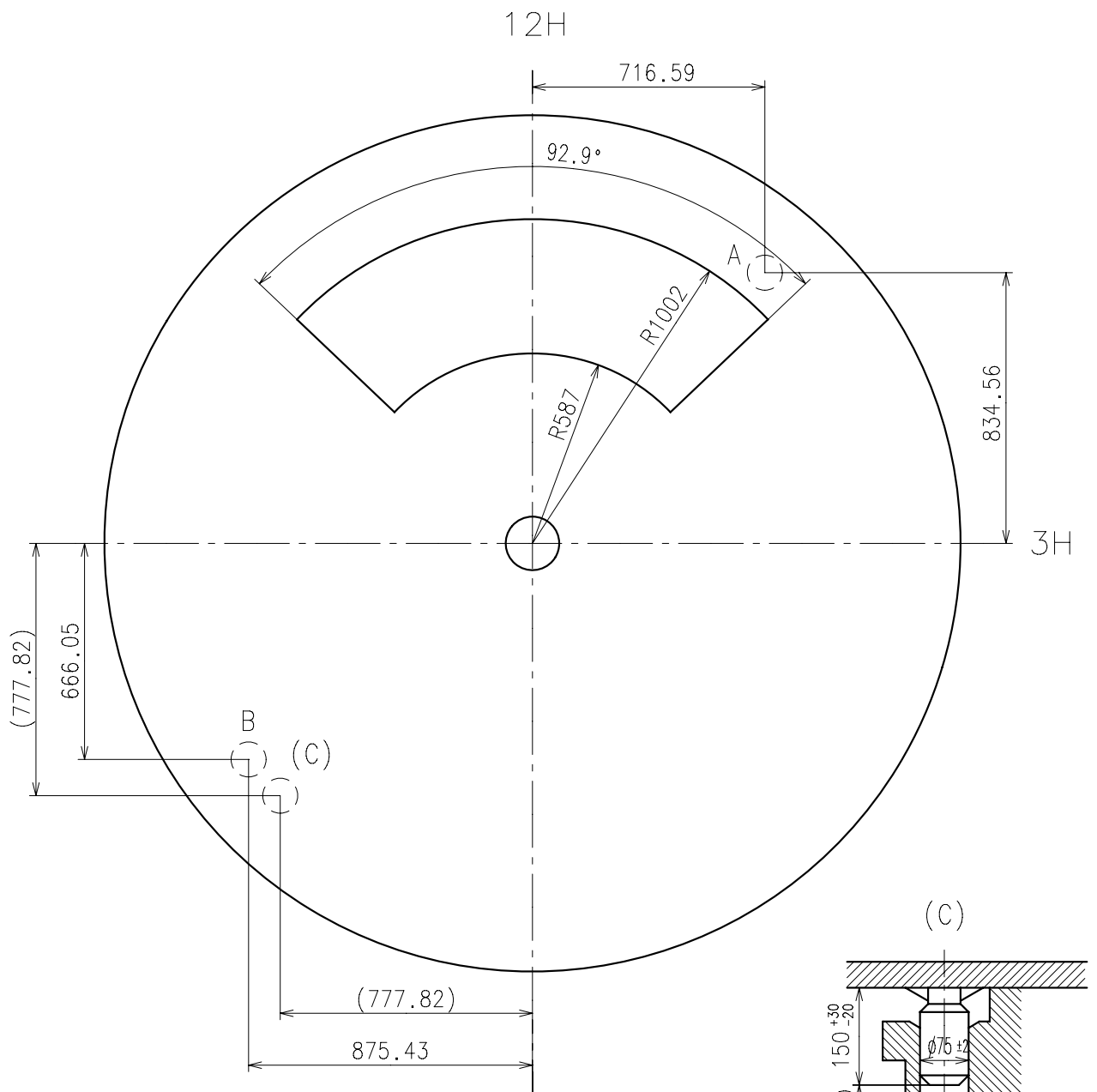




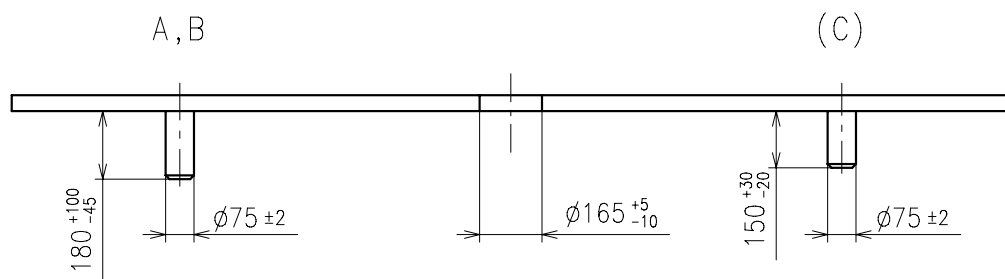
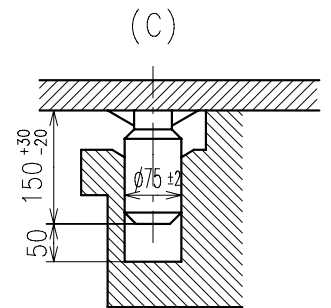
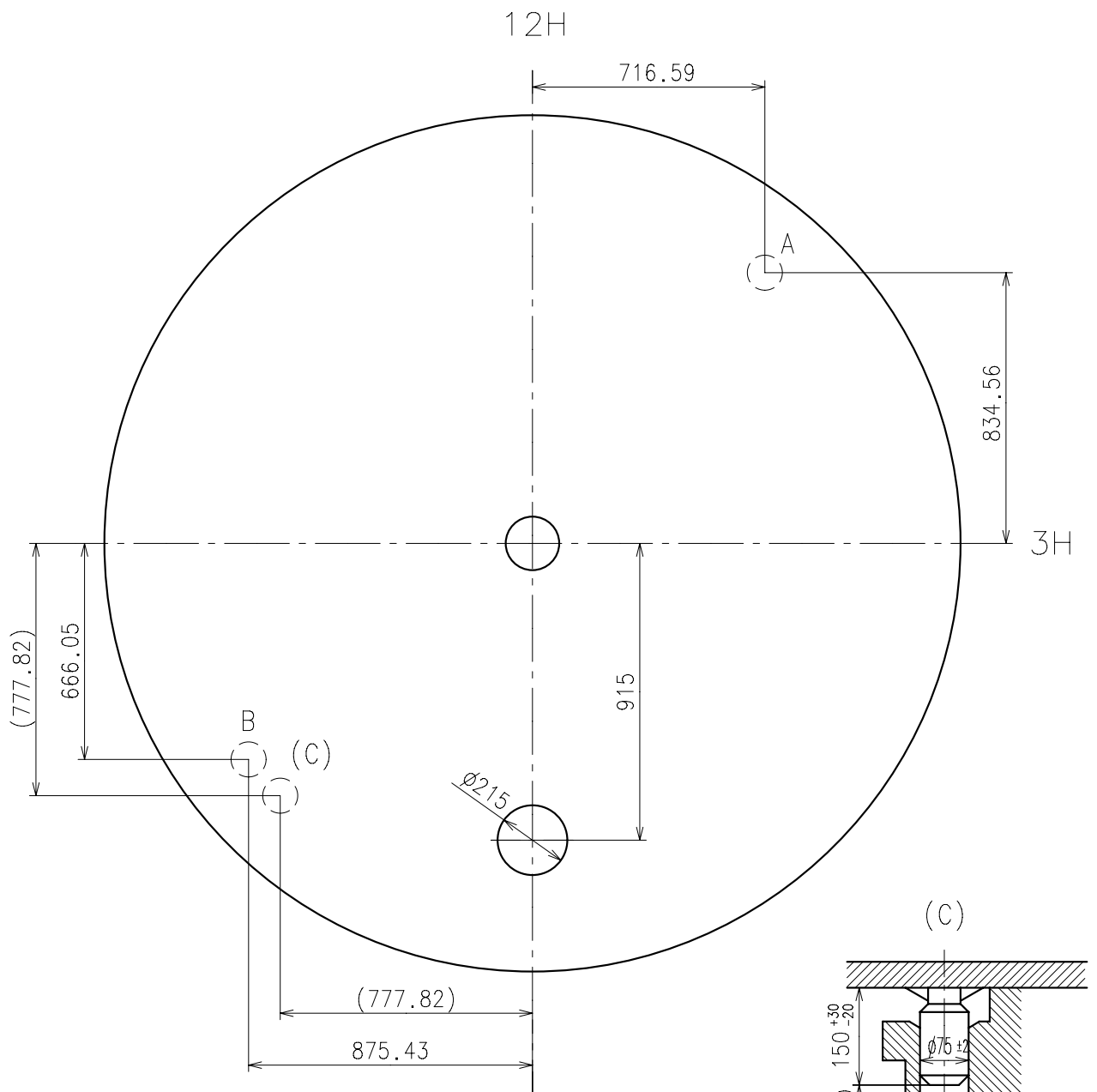




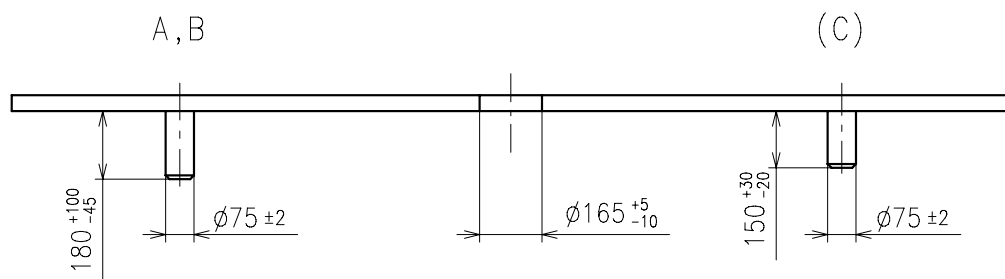
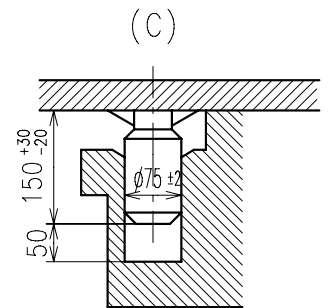
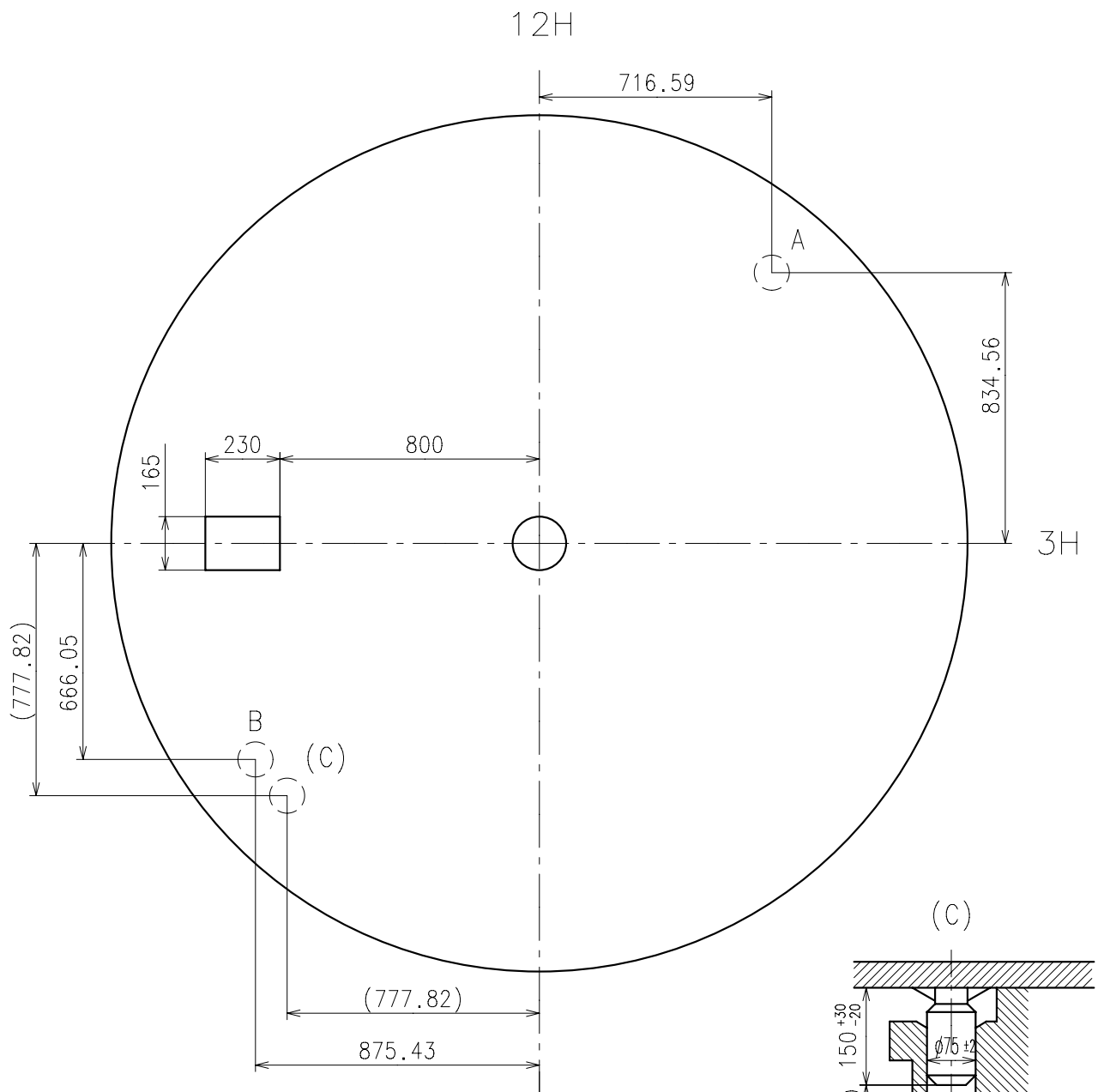
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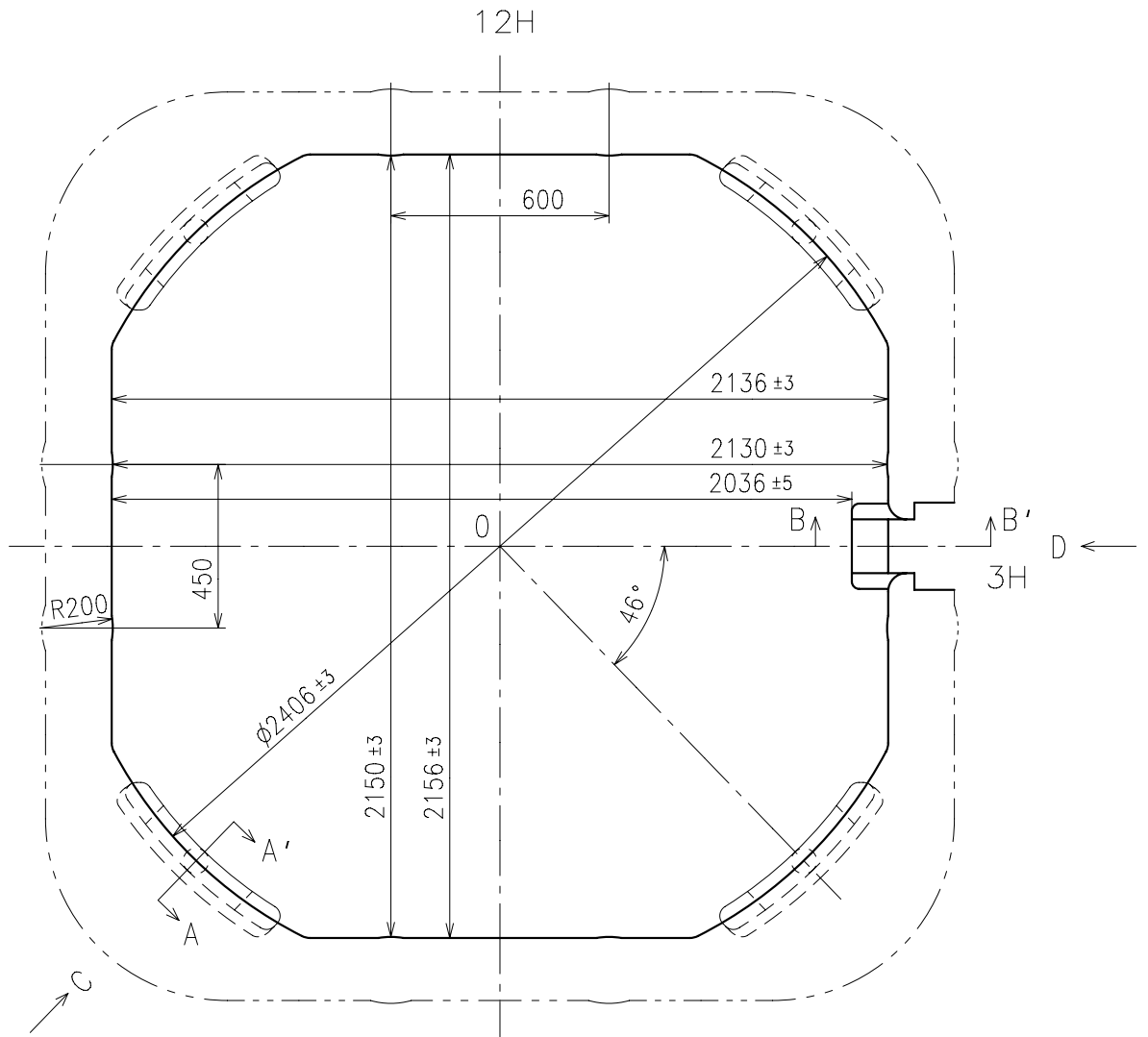
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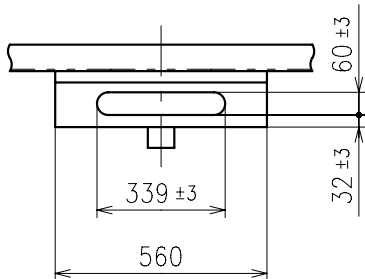
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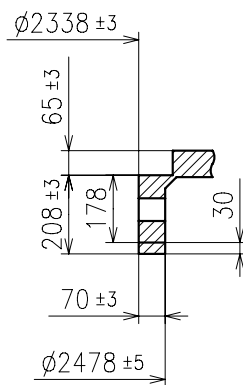
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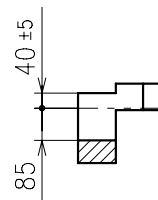
C view



A-A' section



B-B' section



D view

