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|-------------|--|------------|------------|
| Description | Outdoor-Split Core Current Transformer | Drawn Date | 2012/08/24 |
| Part No.    | <b>CT34 SERIES</b>                     | Sample No. |            |

## CT34 Open-Core Current Transformer

### General description

CT34 open-core current transformer is suitable for current measurement and microcomputer protection of distribution equipments in 10kV AC power system. It is widely used in not only compact fully insulated ring net switch cabinets such as ABB-SafeRing/SafePlus, RM6/SM6, SVS, GA/GE in Germany , FB in France and SS in Korea, but also combined substation and cable take-off boxes because of its small volume, light weight, open feasibility and convenient installment. It is very convenient that the transformer can be directly installed at connected output and input cables.

High quality silicon steel sheet metal slug with very high magnetic permeability as transmit magnetism material are used in the measuring winging of CT34 current transformer, so its core can be divided and the magnetic circuit loss is little. The semicircular ring core and secondary windings are vacuum poured by high quality epoxide resin in the fire retardant plastic casing, which has the characteristic of moisture proof, stable performance and dispensing with maintenance.

The two half cirque of the current transformer encircle the split phase cable tightly and uniformly. It has two configuration formats of single ratio and double ratios and two Installation modes of plastic waistband and stainless steel waistband, and it is applicable to all the 35 mm<sup>2</sup>-400mm<sup>2</sup> and 10kV cables.

The current transformers can be divided several kinds according to the various current ratio, accuracy and rated loads. The specific parameters are showed in the corresponding parameter tables of every type.

| Model  | Primary Current | Rated Burden | Dimensions(mm) | Weight (kg) |
|--------|-----------------|--------------|----------------|-------------|
| CT34-A | 100~600A        | ≤7.5VA       | φ80×φ40×50     | 0.63        |
| CT34-B | 50~300A         | ≤25VA        | φ80×φ40×95     | 1.57        |
| CT34-C | 300~600A        | ≤7.5VA       | φ110×φ50×32    | 0.6         |
| CT34-D | 100~400A        | ≤15VA        | φ110×φ50×52    | 1.4         |
| CT34-E | 50~300A         | ≤25VA        | φ110×φ50×100   | 2.9         |
| CT34-F | 50~600A         | ≤10VA        | φ135×φ75×70    | 3.2         |

All kinds of current transformers of different specifications and parameters can be made according to the client's demands.

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**Technical data**

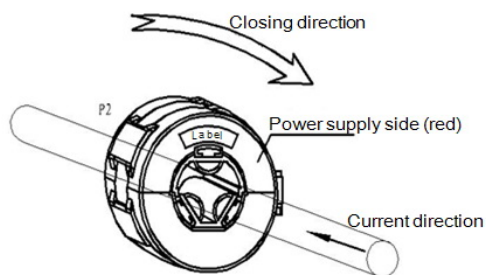
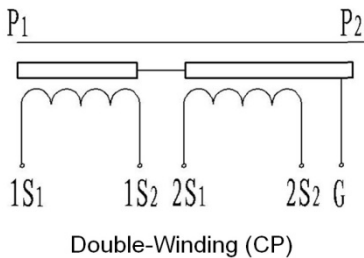
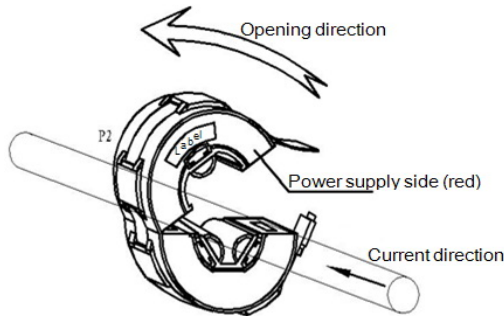
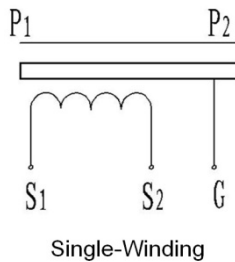
Rated frequency: 50Hz or 60Hz;  
 Rated secondary current: 5A or 1A;  
 Rated short-time thermal current: 40kA, 2s;  
 Rated continuous thermal current: 120%In;  
 Continuous power-frequency voltage 3kV , 1min;  
 standards: IEC 185:1987, GB1208-2006(China), DL/T 725-2000 (China);  
 P2 primary pole, S1 and S2 secondary poles. P2 and S2 are homonymy poles (subtractive polarity).

**Use condition**

Ambient temperature: -35°C~+55°C,  
 average temperature of day: ≤40°C。  
 Altitude: ≤3000m  
 Air condition: No serious dirtiness in the air.

**Wiring diagrams**

Installation drawings



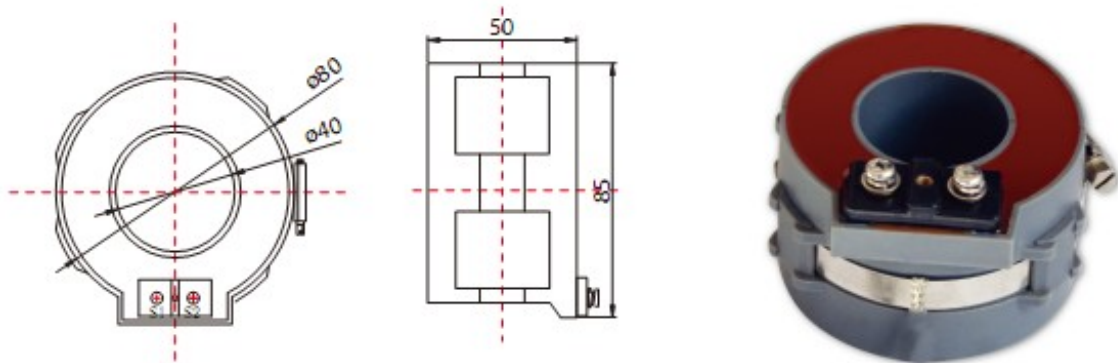
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**CT34-A Open-core Current Transformer**

Rated ratio, Accuracy class and Rated burden following table:

| Type                 | CT34-A1                          |     |      | CT34-A2                          |       |      |
|----------------------|----------------------------------|-----|------|----------------------------------|-------|------|
| Purpose              | Measuring current transformer    |     |      | Protection current transformer   |       |      |
| Ratio<br>$I_1 / I_2$ | Acc. class and rated burden (VA) |     |      | Acc. class and rated burden (VA) |       |      |
|                      | 0.5                              | 1.0 | 3.0  | 10P15                            | 10P10 | 10P5 |
| 100/1                | 0.5                              | 1   | 1.5  |                                  |       | 1.5  |
| 150/1                | 1                                | 1.5 | 2.5  |                                  | 1     | 2.5  |
| 200/1                | 1.5                              | 2.5 | 3.75 | 1                                | 1.5   | 3.75 |
| 300/1                | 2.5                              | 2.5 | 3.75 | 1.5                              | 2.5   | 5    |
| 300/5                | 2.5                              | 5   | 7.5  | 1.5                              | 2.5   | 5    |
| 400/5                | 5                                | 5   | 7.5  | 2.5                              | 3.75  | 7.5  |
| 500/5                | 5                                | 5   | 7.5  | 2.5                              | 3.75  | 7.5  |
| 600/5                | 5                                | 5   | 7.5  | 3.75                             | 5     | 7.5  |

**Outline drawing**



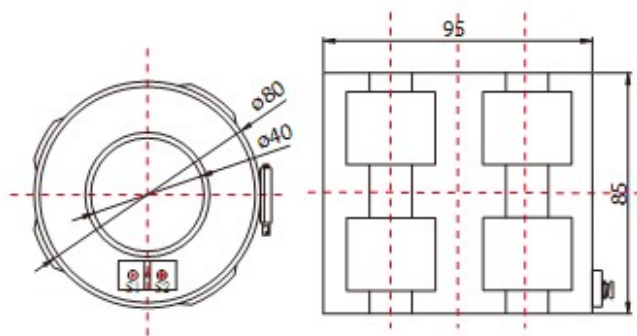
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**CT34-B Open-core Current Transformer**

Rated ratio, Accuracy class and Rated burden following table:

| Type                 | CT34-B1                          |      |      | CT34-B2                          |       |      | CT34-B3                                    |      |       |      |
|----------------------|----------------------------------|------|------|----------------------------------|-------|------|--|------|-------|------|
| Purpose              | Measuring current transformer    |      |      | Protection current transformer   |       |      | Double winding current transformer         |      |       |      |
| Ratio<br>$I_1 / I_2$ | Acc. class and rated burden (VA) |      |      | Acc. class and rated burden (VA) |       |      | Composite acc. class and rated burden (VA) |      |       |      |
|                      | 0.2                              | 0.5  | 1.0  | 10P15                            | 10P10 | 10P5 | 0.5  | 1.0  | 10P10 | 10P5 |
| 50/1                 |                                  |      | 2.5  |                                  | 2.5   | 3.75 |  | 1.5  |       | 1.5  |
| 75/1                 |                                  | 2.5  | 3.75 | 1.5                              | 3.75  | 5    |  | 1.5  |       | 2.5  |
| 100/1                |                                  | 2.5  | 5    | 2.5                              | 5     | 7.5  | 1.5  | 2.5  | 1.5   | 3.75 |
| 150/1                |                                  | 5    | 7.5  | 3.75                             | 7.5   | 10   | 2.5  | 3.75 | 2.5   | 5    |
| 200/1                | 5                                | 10   | 15   | 5                                | 7.5   | 15   | 5  | 5    | 3.75  | 7.5  |
| 50/5                 |                                  |      | 2.5  |                                  |       | 3.75 |  | 1.5  |       | 1.5  |
| 75/5                 |                                  |      | 3.75 | 1.5                              | 3.75  | 5    |  | 2.5  |       | 2.5  |
| 100/5                |                                  | 3.75 | 5    | 2.5                              | 5     | 7.5  | 1.5  | 2.5  |       | 3.75 |
| 150/5                |                                  | 5    | 7.5  | 3.75                             | 7.5   | 10   | 2.5  | 3.75 | 2.5   | 5    |
| 200/5                | 5                                | 10   | 15   | 5                                | 7.5   | 15   | 5  | 7.5  | 3.75  | 7.5  |
| 300/5                | 7.5                              | 15   | 20   | 7.5                              | 10    | 25   | 7.5  | 10   | 5     | 10   |

**Outline drawing**



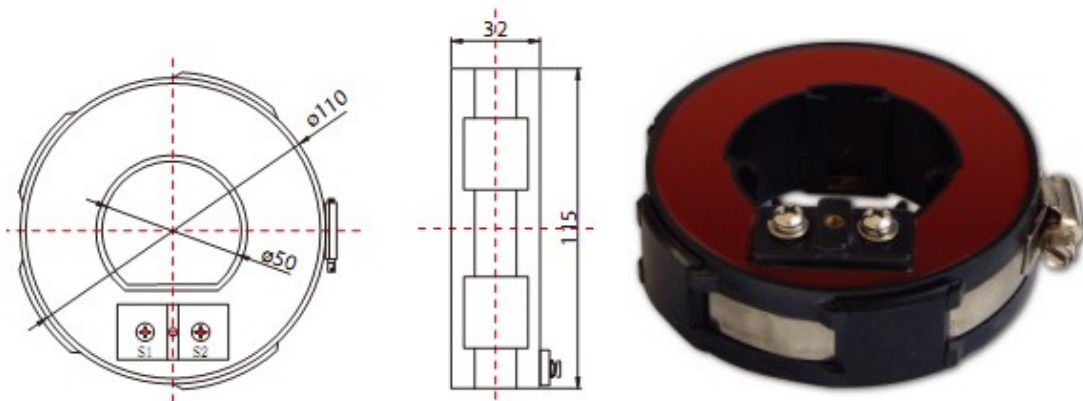
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**CT34-C Open-core Current Transformer**

Rated ratio, Accuracy class and Rated burden following table:

| Type                 | CT34-C1                          |      |      | CT34-C2                          |       |      |
|----------------------|----------------------------------|------|------|----------------------------------|-------|------|
| Purpose              | Measuring current transformer    |      |      | Protection current transformer   |       |      |
| Ratio<br>$I_1 / I_2$ | Acc. class and rated burden (VA) |      |      | Acc. class and rated burden (VA) |       |      |
|                      | 0.5                              | 1.0  | 3.0  | 10P15                            | 10P10 | 10P5 |
| 300/1                | 1.5                              | 3.75 | 3.75 |                                  |       | 1.5  |
| 400/1                | 2.5                              | 3.75 | 3.75 |                                  | 1.5   | 2.5  |
| 500/1                | 2.5                              | 3.75 | 5    | 1.0                              | 2.5   | 3.75 |
| 600/1                | 3.75                             | 5    | 5    | 1.5                              | 2.5   | 5    |
| 300/5                | 2.5                              | 3.75 | 3.75 |                                  | 1.25  | 2.5  |
| 400/5                | 3.75                             | 5    | 5    |                                  | 2.5   | 5    |
| 500/5                | 3.75                             | 5    | 7.5  | 2.5                              | 3.75  | 7.5  |
| 600/5                | 5                                | 7.5  | 7.5  | 2.5                              | 3.75  | 7.5  |

**Outline drawing**



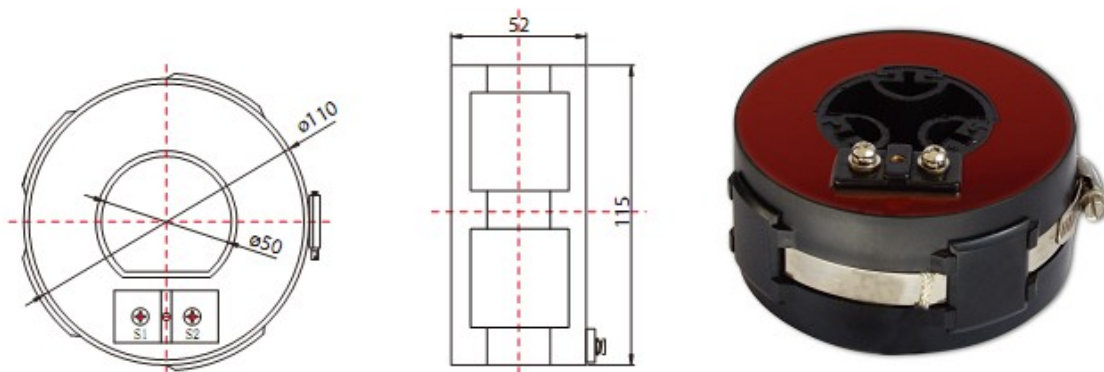
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**CT34-D Open-core Current Transformer**

Rated ratio, Accuracy class and Rated burden following table:

| Type                 | CT34-D1                          |     |      | CT34-D2                          |       |      |
|----------------------|----------------------------------|-----|------|----------------------------------|-------|------|
| Purpose              | Measuring current transformer    |     |      | Protection current transformer   |       |      |
| Ratio<br>$I_1 / I_2$ | Acc. class and rated burden (VA) |     |      | Acc. class and rated burden (VA) |       |      |
|                      | 0.2                              | 0.5 | 1.0  | 10P15                            | 10P10 | 10P5 |
| 100/1                |                                  | 2.5 | 2.5  |                                  | 1.5   | 3.75 |
| 150/1                |                                  | 2.5 | 3.75 | 1.5                              | 2.5   | 5    |
| 200/1                | 2.5                              | 5   | 5    | 2.5                              | 3.75  | 7.5  |
| 300/1                | 3.75                             | 7.5 | 10   | 3.75                             | 5     | 10   |
| 400/1                | 5                                | 10  | 12.5 | 5                                | 7.5   | 15   |
| 50/5                 |                                  |     | 1.5  |                                  |       | 1.5  |
| 75/5                 |                                  |     | 2.5  |                                  | 1.25  | 2.5  |
| 100/5                |                                  |     | 2.5  |                                  | 1.5   | 3.75 |
| 150/5                |                                  | 2.5 | 3.75 | 1.5                              | 2.5   | 5    |
| 200/5                | 2.5                              | 5   | 7.5  | 2.5                              | 3.75  | 7.5  |
| 300/5                | 3.75                             | 7.5 | 10   | 3.75                             | 5     | 10   |
| 400/5                | 5                                | 10  | 15   | 5                                | 7.5   | 15   |

**Outline drawing**



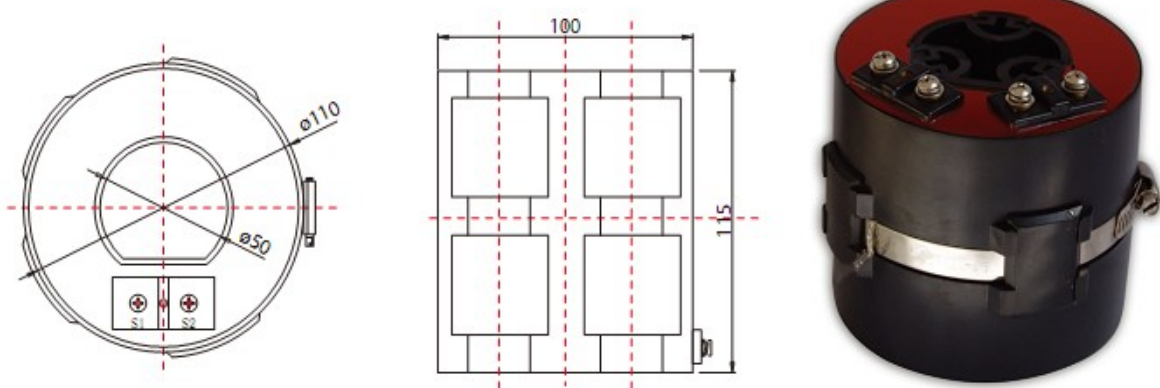
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**CT34-E Open-core Current Transformer**

Rated ratio, Accuracy class and Rated burden following table:

| Type                 | CT34-E1                          |      |      | CT34-E2                          |       |      | CT34-E3                                    |      |       |      |
|----------------------|----------------------------------|------|------|----------------------------------|-------|------|--|------|-------|------|
| Purpose              | Measuring current transformer    |      |      | Protection current transformer   |       |      | Double winding current transformer         |      |       |      |
| Ratio<br>$I_1 / I_2$ | Acc. class and rated burden (VA) |      |      | Acc. class and rated burden (VA) |       |      | Composite acc. class and rated burden (VA) |      |       |      |
|                      | 0.2                              | 0.5  | 1.0  | 10P15                            | 10P10 | 10P5 | 0.5  | 1.0  | 10P10 | 10P5 |
| 50//1                |                                  |      | 2.5  |                                  | 2.5   | 3.75 |  | 1.5  |       | 1.5  |
| 75/1                 |                                  | 2.5  | 3.75 | 1.5                              | 3.75  | 5    |  | 1.5  |       | 2.5  |
| 100/1                |                                  | 2.5  | 5    | 2.5                              | 5     | 7.5  | 1.5  | 2.5  | 1.5   | 3.75 |
| 150/1                |                                  | 5    | 7.5  | 3.75                             | 7.5   | 10   | 2.5  | 3.75 | 2.5   | 5    |
| 200/1                | 5                                | 10   | 15   | 5                                | 7.5   | 15   | 5  | 5    | 3.75  | 7.5  |
| 50/5                 |                                  |      | 2.5  |                                  |       | 3.75 |  | 1.5  |       | 1.5  |
| 75/5                 |                                  |      | 3.75 | 1.5                              | 3.75  | 5    |  | 2.5  | 1.25  | 2.5  |
| 100/5                |                                  | 3.75 | 5    | 2.5                              | 5     | 7.5  | 1.5  | 2.5  | 2.5   | 3.75 |
| 50/5                 |                                  | 5    | 7.5  | 3.75                             | 7.5   | 10   | 2.5  | 3.75 | 2.5   | 5    |
| 200/5                | 5                                | 10   | 15   | 5                                | 7.5   | 15   | 5  | 7.5  | 3.75  | 7.5  |
| 300/5                | 7.5                              | 15   | 20   | 7.5                              | 10    | 25   | 7.5  | 10   | 5     | 10   |

**Outline drawing**



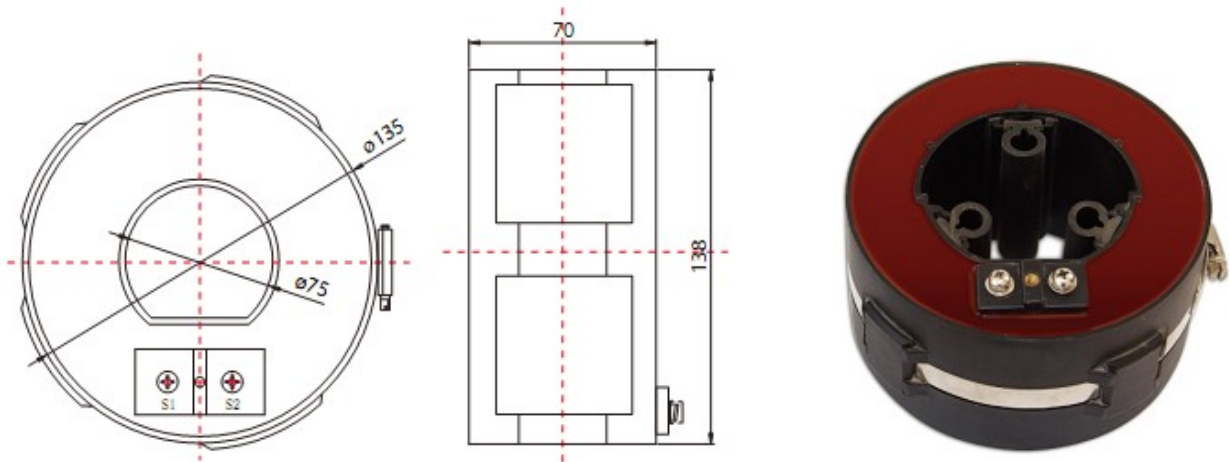
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**CT34-F Open-core Current Transformer**

Rated ratio, Accuracy class and Rated burden following table:

| Type                 | CT34-F2                          |     |     | CT34-F3                          |       |      | CT34-F3                                    |     |       |      |
|----------------------|----------------------------------|-----|-----|----------------------------------|-------|------|--|-----|-------|------|
| Purpose              | Measuring current transformer    |     |     | Protection current transformer   |       |      | Double winding current transformer         |     |       |      |
| Ratio<br>$I_1 / I_2$ | Acc. class and rated burden (VA) |     |     | Acc. class and rated burden (VA) |       |      | Composite acc. class and rated burden (VA) |     |       |      |
|                      | 0.2                              | 0.5 | 1.0 | 10P15                            | 10P10 | 10P5 | 0.5  | 1.0 | 10P10 | 10P5 |
| 50/5                 |                                  |     | 1.5 |                                  | 1.25  | 2.5  |  |     |       | 1.0  |
| 100/5                |                                  | 2.5 |     | 1.25                             | 2.0   |      | 2.5  |     |       | 2.0  |
| 200/5                |                                  | 5   |     | 3.75                             | 5     |      | 2.5  | 5   | 2.0   | 3.75 |
| 300/5                |                                  | 7.5 |     | 5                                | 7.5   |      | 3.75                                       | 5   | 2.5   | 5    |
| 400/5                | 2.5                              | 10  |     | 10                               | 7.5   |      | 5  | 7.5 | 2.5   | 5    |
| 500/5                | 5                                | 10  |     | 15                               | 10    |      | 7.5  | 10  | 3.75  | 7.5  |
| 600/5                | 5                                | 10  |     | 15                               | 10    |      | 7.5  | 10  | 3.75  | 7.5  |

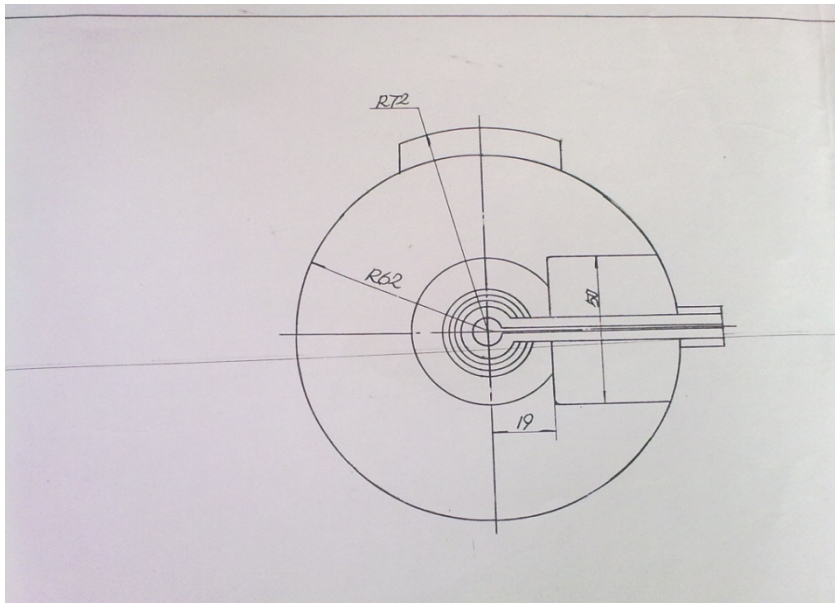
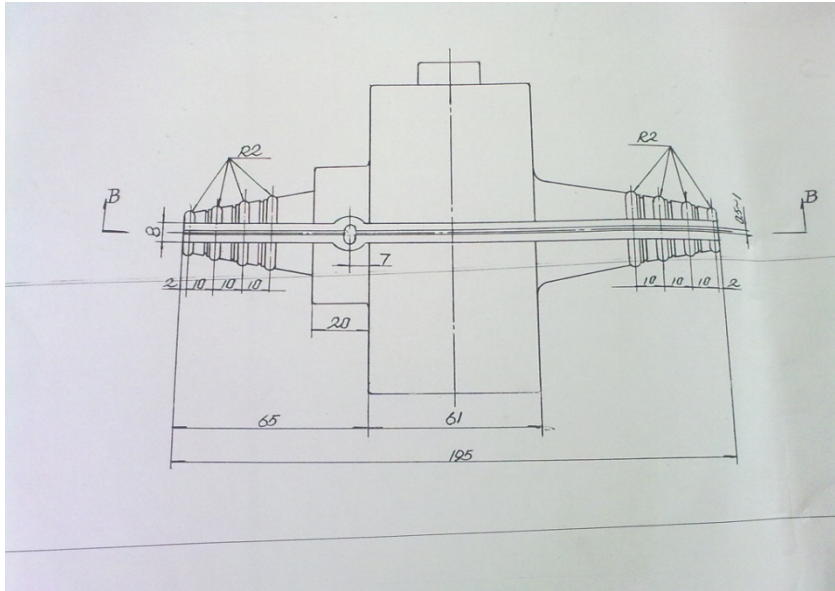
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**UV Resistant Mask**



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