

Corrosiveness to Silver of Aviation Turbine Fuels or Engine Fuels

ASTM D7667 - ASTM D7671 - IP 227 - ASTM D4814 - IP 611



| Item | Unit | TC16 |
|---------------------|--|---------------------------------|
| P/N 230V/50-60Hz | | 31T0671 |
| P/N 115V/60Hz | | 31T0861 |
| Power | [kW] | 1.5 |
| Range | °C °F | Ambient .. 250 Ambient ..482 |
| Reading | | °C or °F |
| Setting | [°] | 0.1 |
| Stability ± | [°C] | 0.02 |
| Heating | [kw] | 1.4 |
| Bath volume | [L] | 16 |
| Bath opening | [mm] | 6 x ø51 mm (nine optional) |
| Bath depth | [mm] | 220 |
| Length | [mm] | 480 |
| Width | [mm] | 295 |
| Height | [mm] | 480 |
| Materials | Used inside bath: stainless steel 304, brass | |
| CE | Conforms to CE regulation | |

- ⊕ **Stainless steel bath**
- ⊕ **Cooling coil**
- ⊕ **Bath drain**
- ⊕ **Easy to operate**
- ⊕ **Position for six test tubes (nine optional)**

General

The test methods specify the determination of the corrosive tendencies towards silver of aviation turbine fuel, automotive spark-ignition engine oils or automotive gasoline. The result is classified as an integer in the range 0 to 4. The bath offers place for six test positions. The temperature range is from ambient +5°C to 250°C. Optional is a cover with nine openings to test nine samples (P/N 03T2313)

The bath can also be used for copper corrosion tests, please see our specification sheet for ASTM D130 and related methods.

Accuracy

The insulation of the bath and electronic design result in a very stable working temperature of $\pm 0.02^\circ\text{C}$. The set point can be set in steps of 0.1° in the range of 0°C up to 250°C ($-148..482^\circ\text{F}$). The accuracy on the display is displayed in 0.1°C . However the controller has an internal accuracy of 0.01°C .

Temperature readout

Standard available in °C, on request in °F.

Pump

When not used for silver corrosion tests, the pump can be used to circulate the bath content to an external application.


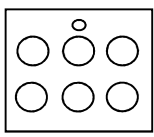

Safety



The bath conforms to CE regulation. It is further equipped with a mechanical resettable safety thermostat.


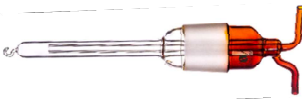

Alternative set-up

TC40 bath with a cover for 18 positions (P/N 03T2313).

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| Table 1: Apparatus P/N 31T0671 or P/N 31T0861 standard consists of: | | | |
|---|---|----------|--|
| P/N | Picture | Quantity | Description |
| 00T0671 |  | 1 | TC16 circulator bath, 230V/50-60Hz |
| 00T0861 | | | TC16 circulator bath, 115V/60Hz |
| 13T8000 |  | 1 | Top lid with six ø51 mm openings and a thermometer opening |
| 14T0101 |  | 6 | Lid and mounting hook (six pieces standard included) |

| Table 2: Optional cover for corrosion bath | | | |
|--|---|--------------------|--|
| P/N | Picture | Suggested quantity | Description |
| 03T2311 |  | 1 | Top lid with nine ø51 mm openings. Please separately order 3 * P/N 14T0101 additionally. |
| 14T0101 |  | 3 | Lid and mounting hook for P/N 03T2311 |
| 07T0080 | | 1 | Float/level detector |

| Table 3: Accessories for corrosion tests | | |
|--|---|---|
| P/N | Picture | Description |
| 31T0300 |  | Test tube for IP 227 (amber glass). |
| 31T0301 |  | Cold-finger condenser for IP 227 (amber + transparent glass). |
| 31T0302 |  | Glass cradle for IP 227. |










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Accessories

| Table 3: Accessories for corrosion tests | | |
|--|---|--|
| P/N | Picture | Description |
| 31T0303 |  | Silver strip (1 piece) 99.9% purity. (12.5 x 3 x 18 mm width x thick x length). |
| 31T0304 |  | Silver strip standard (color code standard ASTM D3241 or IP 323). |
| 31T0009 |  | Sanding paper silicon carbide P240 grade. |
| 31T0000 |  | Multistrip vise, holds up to four strips while polishing. |
| 25T0928BW |  | ASTM thermometer similar to 34C with blue filling (low-hazardous to ship). Temp. range +25°C-105°C:0.2°C. Supplied with works certificate. |
| 31T0005 |  | Silicon carbide powder 105 µm (1 kg). |
| 31T0008 |  | Vented stopper made from silicon rubber for test tube (09T0010). 25 pieces. Width from 24 (top) to 18 (bottom) mm. Length 30 mm. Hole of 4 mm. Temperature resistant from -60 to +180°C. |
| 14T0100 |  | Pressure vessel for silver strip corrosion test with o-ring. Cylinder is supplied with works certificate. |
| 09T0010 |  | Test tube (25 x 150 mm). |
| 14T0102 |  | Test tube holder. |

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Accessories

| Table 3: Accessories for corrosion tests | | |
|--|---|---|
| P/N | Picture | Description |
| 09T0011 |  | Flat viewing test tube. |
| 24T0385 |  | O-ring for test cylinder (P/N 14T0100). |
| 31T0011 |  | Scouring pad 400 grit box with 20 pads. |
| 31T0306 |  | Waterproof aluminium oxide cloth sanding sheet. |
| 31T0307 |  | Thin silver strip (one piece) for ASTM D7667. |
| 31T0305 |  | Silver strip centering device (SSCD) for ASTM D7667. |
| 31T0309 |  | Cable tie (2 mm x 208 mm). |
| 31T0308 |  | PTFE cradle holder to suspense silver strip for ASTM D7671 or IP 611. |
| 25T2154 |  | Thermometer holder, 425 x 10 mm. |

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Accessories


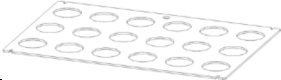

Table 4: Suggested quantity of accessories per method

| P/N | Description | IP 227 | ASTM D4814-12 Annex A (obsolete) | ASTM D7667 | | ASTM D7671 | | IP 611 |
|------------|--------------------------------------|--------|----------------------------------|-------------|-------------|-------------|-------------|--------|
| | | | | Procedure A | Procedure B | Procedure A | Procedure B | |
| 31T0300 | Amber glass test tube IP227 | 6 | | | | | | |
| 31T0301 | Cold-finger condensor IP 227 | 6 | | | | | | |
| 31T0302 | Glass cradle IP 227 | 6 | | | | | | |
| 31T0303 | Silver strip (1 piece) | 10 | 10 | | | 10 | 10 | 10 |
| 31T0304 | Silver strip standard | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 31T0000 | Multistrip vise | 1 | 1 | | | 1 | 1 | 1 |
| 31T0005 | Silicon carbide powder | 1 | 1 | | | 1 | 1 | 1 |
| 25T0928 BW | Thermometer similar to ASTM 34C | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 25T2154 | Thermometer holder | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 31T0009 | Sanding paper P240 | 20 | 20 | | | 20 | 20 | 20 |
| 14T0100 | Test cylinder | | 6 | 6 | | 6 | | 6 |
| 09T0010 | Test tube 25 x 150 mm | | 20 | 20 | 20 | 20 | 20 | 20 |
| 09T0011 | Flat glass viewing testtube | | 6 | | | 6 | 6 | 6 |
| 14T0102 | Test tube holder | | | | 6 | | 6 | |
| 31T0305 | SSCD | | | 6 | 6 | | | |
| 31T0011 | Scouring pad 400 grit | | | 1 | 1 | | | |
| 31T0307 | Thin silver strip | | | 20 | 20 | | | |
| 31T0306 | Waterproof oxide sanding sheets | | | 20 | 20 | | | |
| 31T0008 | Vented cork for test tube | | | | | | 1 | |
| 24T0385 | O-ring for test vessel (P/N 14T0100) | | 6 | 6 | | 6 | | 6 |
| 31T0308 | PTFE cradle holder | | | | | 6 | | 6 |
| 31T0309 | Cable tie | | | | | | 10 | |

Silver

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Accessories

| Table 5: Alternative setup offering 18 positions (instead of 6) | | | |
|---|---|----------|---|
| P/N | Picture | Quantity | Description |
| 00T0681 |  | 1 | TC40 230V/50-60Hz |
| 00T0851 | | | TC40 115V/60Hz |
| 03T2313 |  | 1 | Cover with 18 * ø 51 mm openings |
| 14T0101 |  | 18 | Lid + mounting hook; number of pieces to be ordered separately, depending on number of test cylinder used |

silver