

Gas Turbine / Turbojet Engine Cutaway Model

User Manual

Educational Model

Intended use

A static cutaway teaching model of a turbojet engine that shows the air intake, compressor, fuel supply, combustion chamber, turbine, nozzle and exhaust in flow order. It does not run.

Intended users

Teachers, instructors and students in engineering, physics and aviation courses. Students should use the model under instructor supervision.

Read this manual completely before first use and keep it with the product. This document provides general operating, care and safety guidance. Where the product is supplied with manufacturer labeling or instructions, those take precedence. For questions, a replacement copy, or a digital copy of this manual, email sales@scimedstore.com.

1. Safety

Safety warnings and cautions

- Supervise students when handling the model.
- Some metal parts and cut edges may be sharp; handle with care.
- Do not insert fingers into the cutaway sections.
- Place on a stable surface; lift with two hands holding the base.
- The model is not a working engine. Do not connect it to fuel, air or power.
- Keep small loose parts away from young children.

2. Package contents

- Cutaway engine model mounted on base with printed schematic and component labels

Check contents on receipt. Report missing or damaged items to sales@scimedstore.com within 48 hours of delivery.

3. Specifications

Configuration	Turbojet with 2-stage axial-flow compressor and single-stage turbine
Construction	Light-weight metal
Base	Demonstration base with printed schematic and labels
Dimensions	17 in long x 6 in high
Weight	Approx. 4-6 kg
Power	None - static display model

4. Unpacking and setup

- 1 Unpack carefully and remove all packing material.
- 2 Check that no parts have loosened during shipping.
- 3 Place the model on a stable table where students can see the cutaway side and schematic.

5. Operation

Classroom demonstration

- 1 Introduce the main sections using the printed schematic on the base.
- 2 Trace the air path from the intake through each compressor stage.
- 3 Point out the fuel supply and the combustion chamber.
- 4 Show the turbine and explain how it drives the compressor through the central shaft.
- 5 Follow the flow to the nozzle and exhaust and explain how thrust is produced.
- 6 Ask students to identify each component and describe what happens to the air at each stage.
- 7 Relate the stages to thermodynamic cycle concepts in your lesson plan.

6. Cleaning and disinfection

- Dust with a soft, dry brush or cloth.
- Wipe metal surfaces with a slightly damp cloth if needed and dry immediately.
- Do not use solvents that could remove paint or labels.

7. Maintenance and storage

- Store in a dry place, covered to keep dust out of the cutaway.
- Check periodically that parts are secure.
- Avoid storing in damp areas that could cause corrosion.

8. Troubleshooting

Problem	Likely cause	What to do
Part feels loose	Fastener loosened during transport	Gently tighten if accessible, or contact the supplier
Labels hard to read	Dust or wear	Clean gently with a dry cloth
Surface corrosion	Damp storage	Clean, dry and store in a dry place

9. Disposal

- Recycle metal parts at a metal recycling point at end of life.
- Dispose of non-metal parts per local rules.

10. Warranty and support

Products are covered by SciMed's standard warranty (12 months from purchase unless a different period is stated on your invoice). Warranty terms: scimedstore.com/pages/warranty.

Support, spare parts and additional copies of this manual: sales@scimedstore.com. Please include your order number and a photo of the product or issue.

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