Anton Paar

GUM

Gum Content Tester

Determining the evaporation residue of fuels at the highest safety level

What is gum and how to measure it

Gum is a nonvolatile residue left after the evaporation of aircraft fuels, motor gasoline, and other volatile distillates. The amount of gum present reflects the condition of the fuel and is an indicator of contamination.

The measuring principle is based on ASTM D381 and IP 540. To determine the gum content a measured quantity of fuel is evaporated under controlled conditions of temperature and flow of air or steam. The resulting residue is weighed afterwards.

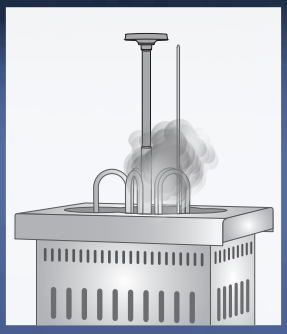
Convenient multifunctional head for quick operation

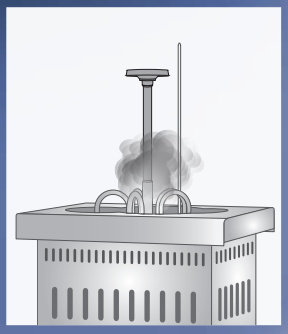
The multifunctional head was designed for the safe and simultaneous positioning of all five pre-adjusted jet tubes. After one turn only, all tubes are in their resting, pre-heating, or working position. No manual handling and assembling of the hot parts are required.

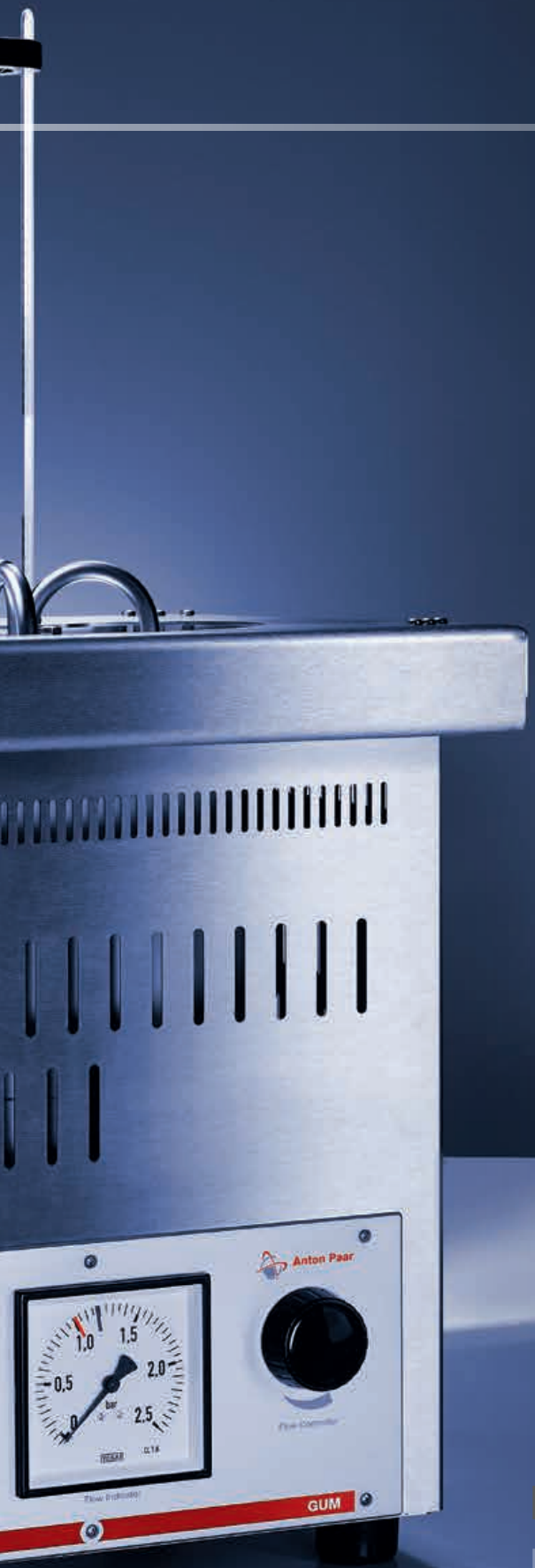
The multifunctional head also enables the user to save about ten minutes of valuable time with each measurement, which results in a saving of several tens of thousands of euros/dollars per year.

Typical steps to prepare the instrument:

- Pre-heating at approx. +160 °C, no hand necessary here
- No gloves are necessary, no hot steam here; lowering with one single turn
- Testing







Two device versions for more flexibility

The relevant standards ASTM D381 and IP 540 cover two different methods which differ in both the sample temperature and the flow medium. Depending on the sample that needs to be analyzed, either the air method or the steam method has to be applied.

We offer two different versions of GUM. One is the air version and the other is the air/steam version. The main difference is the working temperature, which is much higher for the air/steam version due to a built-in superheater. Thus, the temperature range of the air/steam version ensures stable temperatures up to 260 °C.

Safe operation due to several features

Thanks to its small footprint of 40 cm by 40 cm GUM easily fits into a fume hood in order to safely manage vapors which can be highly flammable or combustible, and hazardous when inhaled.

Various safety features ensure very safe operation:

- Efficient draining system AWAS (Advanced Water Absorbing System) to remove condensed water
- Multifunctional head
- Heating protection shield
- Automatic overheating protection

Specifications	Air version	Air/steam version
Application range	Ambient to 246 °C	Ambient to 260 °C
Pressurized air supply	2 bar to 4 bar, cleaned and oil-free; min. 300 L/min	
Steam supply		Inlet temperature: approx. 140 °C Pressure: approx. 3 bar to 4 bar Flow rate: 8 kg/h (water steam)
Power supply	230 V, 50 Hz/60 Hz, 2000 W 115 V, 50 Hz/60 Hz, 1750 W	230 V, 50 Hz/60 Hz, 3100 W
Dimensions	400 mm x 400 mm x 720 mm (W x D x H)	
Weight	44 kg	

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