

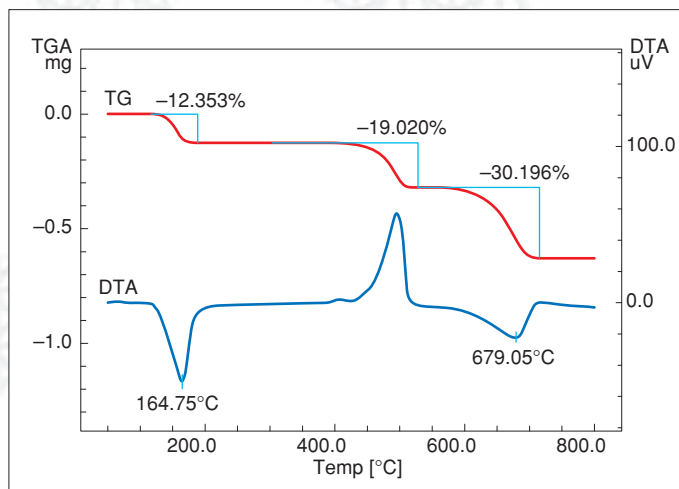
# DTG-60/60H

[ SIMULTANEOUS TG/DTA ]

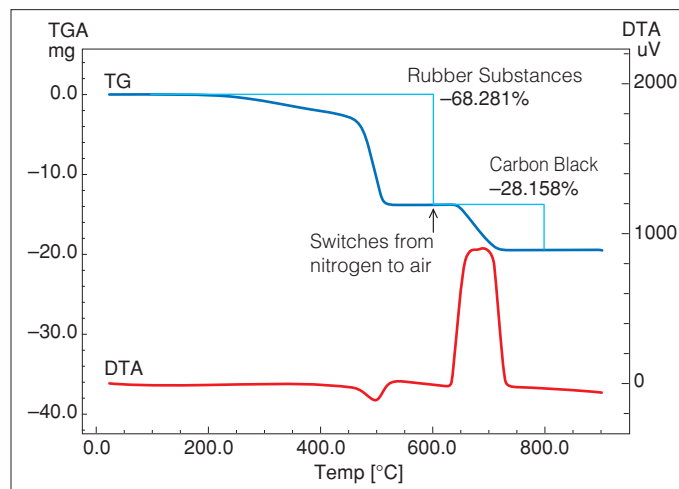


**Simultaneous TG/DTA improves ease of operation, sensitivity and analytical accuracy of conventional standalone systems.**

If flexibility and high performance is needed in various applications, the new DTG-60/60H combines them all: Basic functions required by simultaneous thermogravimetry/differential thermal analysis (TG/DTA) measurements are improved. Atmosphere control is programmable. As in DSC, the TA-60WS provides advanced acquisition, analysis and report functions which ensure comfortable simultaneous measurements.



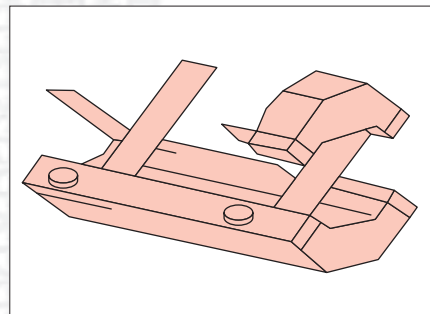
Measurement of CaC<sub>2</sub>O<sub>4</sub>



Measurement of carbon black in SBR

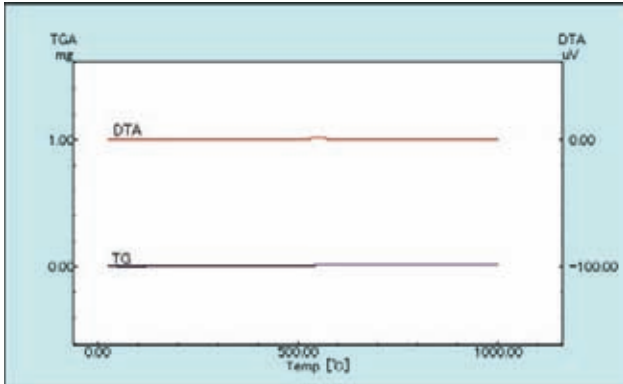
**High sensitivity and high precision of balance is equivalent to dedicated single-function instruments**

Model DTG-60 has a unique balance mechanism (Roberval mechanism) that prevents changes in sensitivity from factors such as thermal expansion and allows high precision thermogravimetric measurements. Furthermore, the fulcrum used for the balance is made from thin alloy metal strips that have tiny thermal coefficients and are crossed to form an "x" shape. This fulcrum (X-shaped fulcrum) is lightweight and has extremely low friction and resistance. Using this fulcrum configuration allows incorporating a highly sensitive balance and is even highly resistant to vibration.

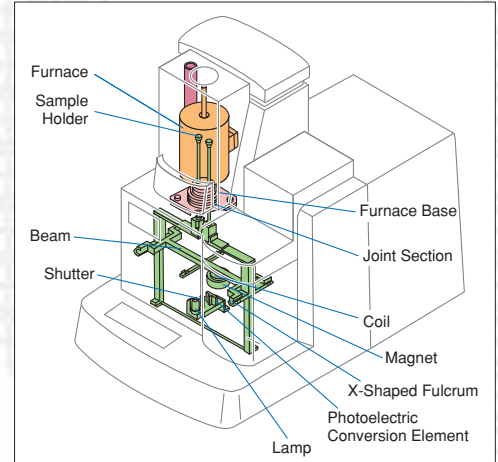


X-Shaped Fulcrum

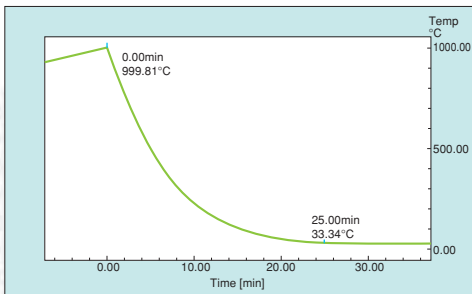
## Improved baseline stability



DTG-60/60H provides a true DTA setup. The sample and the reference position are located at the ends of the balance beam. This differential balance system minimizes baseline drifts caused by buoyancy or convection during the heating process, ensuring a stable baseline even at high temperatures.



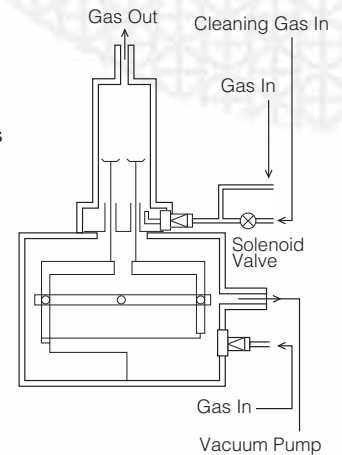
## High sample throughput



The built-in cooling fan and the low-mass furnace allow very efficient cooling times. After the completion of the measurement, the cooling starts automatically and stops when the furnace has reached a preset temperature. Now the next analysis can be started. Cyclic and cooling runs are under full instrument control.

## Fully controlled atmosphere for various applications

During TG/DTA measurements, qualitative and quantitative analysis, examination of reaction mechanisms and evaluation of heat resistance are performed by studying various reactions and interactions between a sample and special atmospheres. The unique channel structure of the DTG-60/60H offers the solution for these applications. While an inert gas purges the balance, reactive gases are directly connected to the reaction pan. In combination with the FC-60A the measurement is fully software controlled.



## High sensitivity DTA detectors



The DTA detector of DTG-60/60H is well balanced between contradictory factors "sensitivity" and "resolution". Since symmetrical arrangement of two detectors in the furnace provides excellent temperature distribution, even very small DTA signals such as noise and drift are well matched. Using the convenient plug-in method, the DTA detector can be quickly replaced.

### DTG-60 / DTG-60H Specifications

Balance principle	Parallel guide differential top pan type
Temperature range	DTG-60: Ambient to 1100°C DTG-60H: Ambient to 1500°C
Measurable range (TG)	± 500mg
Measurable range (DTA)	± 1000 µV
Readability (TG)	0.001 mg
Sample quantity	1 g max. in gross weight
Atmosphere	Air and inert gas
Dimensions and weight	W: 367 x D: 650 x H: 453 (mm), 35kg
Power supply	DTG-60 AC 100V, 120V, 230V 1300VA 50/60Hz DTG-60H 1500VA