

# Specific Gravity Analyzer

## UW/UX series

Measures a Variety of Specific Gravity Values with the Immersion Method

### Measures a Variety of Specific Gravity Values with the Immersion Method

Attach the optional SMK-101/102/201 Specific Gravity Measurement Kit to a balance in the UW/UX series, and set the balance to specific gravity measurement mode. You can then use the balance as a specific gravity analyzer, capable of automatically calculating and displaying specific gravity values.

Liquid density can also be measured by using an optional sinker.

Various models of balances are available. Choose the model best suited to the sample amount and required precision in your application. (See pages 24 and 25.)

The large submersible pan makes it easy to measure bulky samples.

For detailed balance specifications, see pages 24 and 25.



UW/UX Series + SMK-101

#### UW/UX Series Balances (large pan type)

Model						Models with built-in calibration weights				
	UX2200H	UX4200H	UX6200H	UX4200S	UX8200S	UW2200H	UW4200H	UW6200H	UW4200S	UW8200S
Capacity	2200 g	4200 g	6200 g	4200 g	8200 g	2200 g	4200 g	6200 g	4200 g	8200 g
Minimum display	0.01 g	0.01 g	0.01 g	0.1 g	0.1 g	0.01 g	0.01 g	0.01 g	0.1 g	0.1 g
Pan size (mm)	Approx. 170x180	Approx. 170x180	Approx. 170x180	Approx. 170x180	Approx. 170x180	Approx. 170x180	Approx. 170x180	Approx. 170x180	Approx. 170x180	Approx. 170x180

#### UW/UX Series Balances (small pan type)

Model								Models with built-in calibration weights						
	UX220H	UX420H	UX620H	UX420S	UX820S	UX820H	UX1020H	UW220H	UW420H	UW620H	UW420S	UW820S	UW820H	UW1020H
Capacity		420 g	620 g	420 g	820 g	820 g	1020 g		420 g	620 g	420 g	820 g	820 g	1020 g
Minimum display		0.001 g	0.001 g	0.01 g	0.01 g	0.001 g	0.001 g		0.001 g	0.001 g	0.01 g	0.01 g	0.001 g	0.001 g
Pan size (mm)		Approx. 108x105	Approx. 108x105	Approx. 108x105	Approx. 108x105	Approx. 108x105	Approx. 108x105		Approx. 108x105	Approx. 108x105	Approx. 108x105	Approx. 108x105	Approx. 108x105	Approx. 108x105
Required power supply		100 VAC 50/60 Hz (AC adaptor) 12 VA max.						100 VAC 50/60 Hz (AC adaptor) 12 VA max.						

#### Specific Gravity Measurement Kit

Model	
	SMK-102 for small pan <sup>*1*3</sup>
	SMK-101 for large pan <sup>*1*2</sup>

#### Optional Accessories


Description
Liquid Density Sinker for SMK-101/102

\*1 The optional liquid density sinker is required for liquid density measurements.

\*2 For UW/UX series large-pan (170 x 180 mm) types. The actual capacity is 100 g smaller than the capacity of the balance.

\*3 For UW/UX series small-pan (108 x 105 mm) types. The actual capacity is 290 g smaller than the capacity of the balance. Cannot be attached to the UW/UX 220H.

Note: See page 50 for external dimensions.

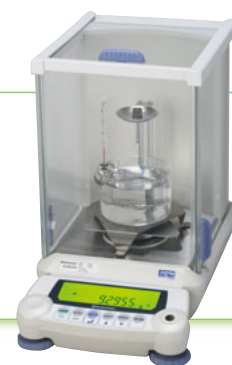
In addition to the above-mentioned, balances with the  mark are equipped with a specific gravity calculation function, so they can be used for specific gravity measurement.

So Simple!

# Introduction to the Specific Gravity Measurement Procedures (AU Series)

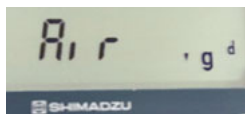
1

Assemble the Specific Gravity Measurement Kit.

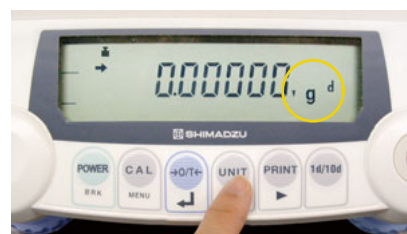


2

Set the balance to specific gravity measurement mode. Then press the UNIT key several times until the display unit changes to "▼d."

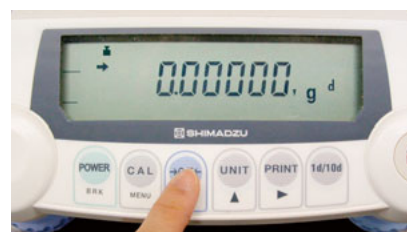


As shown in the photo at left, "Air" will be displayed for a while, and the in-air weight is then measured.



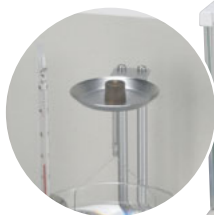
3

Press the O/T key to subtract the tare.



4

Load the solid sample on the in-air pan.



5

When the stability mark is lit, press the CAL key.

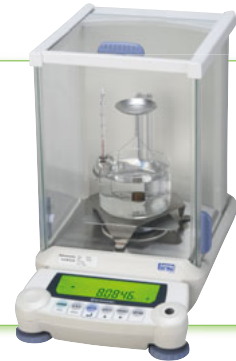
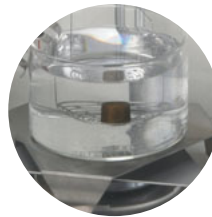


As shown in the photo at left, "wAtEr" will be displayed for a while, and the submerged weight is then measured.



6

Load the solid sample on the submerged pan.



7

When the stability mark is lit, press the CAL key.



8

A "\*" will be displayed in the numerical display, and the specific gravity of the solid sample will be displayed.

To return to in-air measurement, press the CAL key to display "Air" for in-air weight measurement.



#### Sample Data Example

Sample	Specific gravity
Aluminum	2.68±0.1
Brass	8.45±0.4
Copper	8.8 ±0.4

\*Results will differ depending on the shape and surface status of the sample, and the measurement conditions.  
The values in the table are at best reference values, and their precision is not guaranteed.