

The world's only one, the best performance ever
High precision gas/vapor adsorption measurement instrument

BELSORP MAX II

Specific surface area : 0.0005m²/g~

Pore size distribution : 0.35~500nm in diameter

A wide variety of gas/vapor adsorption measurement.



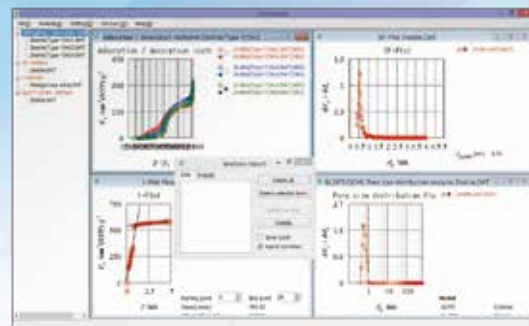
Function

- The highest throughput instrument with simultaneous measurement of up to 4 samples.
- New advanced function "GDO (Gas Dosing Optimization)".
The best suitable measurement conditions are automatically set using saved customer's adsorption isotherm data.
- An advanced system of direct evacuating and intelligent valve control reduces the measurement time significantly.
- High precision vapor adsorption measurement under the strict temperature control.
- High precision measurement by Advanced Free Space Measurement (AFSM™)
- LN₂ automatic supplier and the dedicated heater enable fully automatic seamless process control from pretreatment to measurement.
- The advanced GCMC method is featured, which enables to perform more precise and higher resolution PSD analysis considering the interaction of actual material surface and adsorbate molecules than the conventional NLDFT (approx. calculation) method.
- The measurement process status and the results can be checked from new remote monitoring function using e-mail system.

Measurement Software



Measurement Examples



Applications



Catalyst



Battery materials



Carbon



Medicine



Cosmetics



Cement



Toner



Pigment



Ceramics



Semiconductor materials



Adsorbent



MOFs/PCPs



Specialists in Adsorption

Specifications

Measurement principle	Volumetric method + AFSM™	
Adsorption gas/vapor*	N ₂ , Ar, Kr, CO ₂ , H ₂ , O ₂ , CH ₄ , NH ₃ , other non-corrosive gas H ₂ O, MeOH, EtOH, C ₆ H ₆ , other non-corrosive vapor	
Multi sample measurement	Max 4 ports simultaneously	
Measurement range	Specific surface area: 0.01m ² /g or more (N ₂), 0.0005m ² /g or more (Kr) Pore size distribution: 0.35~500nm in diameter	
Pressure transducer*	133kPa (1000Torr) × 6 units 1.33kPa (10Torr) × 4 units 0.0133kPa (0.1Torr) × 3 units	
Thermostatic air oven	50°C	
Gas port*	2 (Available to add up to 12 ports)	
Vapor port	1	
Vacuum pump	Rotary pump + turbo-molecular pump (Option: Diaphragm pump)	
Pretreatment heater*	50~550°C (4 ports)	
Full automatic measurement heater*	50~450°C (3 ports)	
Water bath*	-10~70°C (4 ports)	
Dimensions, weight	650(W) × 1020(H) × 680(D) mm, 120kg	
Utility	Gas	He, Adsorption gas: 0.1MPa Joint: 1/8" Swagelok connection Valve driving gas: 0.5~0.6MPa Joint: 1/4" one-touch connection
	Power	AC 110V, 50/60Hz, 15A (Main unit including rotary pump) AC 220V, 50/60Hz, 10A (Heater)

※Can be changed according to the specifications.

Pretreatment Instruments

	BELPREP VAC II		BELPREP VAC III	
				
Flow heating process	Option		Option	
Vacuum heating process	✓		✓	
Number of specimens	3		6	
Programmed temperature control	✓		✓	
Auto purge stop function	✓		—	
Exhaust speed auto switching function (For sample scatter prevention)	✓		—	
Dimensions, weight (main unit)	321 (W) × 158 (H) × 363 (D) mm 15 kg		400 (W) × 317 (H) × 383 (D) mm 15 kg	
Utility	Gas	N ₂ 0.1MPa Joint: 1/8" Swagelok		
	Power	AC 100-120 / 240V (50 / 60Hz) 10A (including R.P.)		AC 100-120 / 240V (50 / 60Hz) 10A (including R.P.)

※Specifications and appearance of the products listed are subject to change without notice.

※Products (goods and services) described in the catalog, depending on the destination and application, might be applicable to export regulations, etc. by the "Foreign Exchange and Foreign Trade Control Law".

In response to the review of the Japanese government regarding the export of products (goods and services), permission and approval, and the like, must be obtained according to the regulations.

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