MICROTRAC MRB
PARTICLE CHARACTERIZATION

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High precision gas adsorption measurement instrument

BELSORP MAX G

A new lineup of high-performance, compact, and low-priced models has been added to BELSORP MAX, which is dedicated gas adsorption with one sample port. BELSORP MAX G is a specialized instrument from micro to meso-macro porous / nonporous material evaluation (BET specific surface area / pore-size distribution).

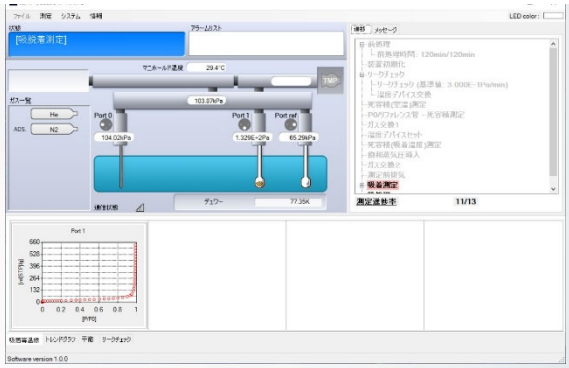
▪FEATURES

- BET and PSD from micro to meso and macropores by gas ads. measurement of N2, Ar
- Low BET specific surface area by Kr gas measurement at 77.4K
- High performance PSD analysis by GCMC・NLDFT in BELMaster Ver.7
- Actual and short time evaluation for each adsorption point by gas dosing optimization function
- He less gas adsorption isotherm and NET adsorption measurement by AFSM2

▪APPRICATION EXAMPLES

Used in various fields such as catalysts, batteries (all-solid-state batteries, fuel cells, etc.), fibers, polymer materials, chemicals, pigments, cosmetics, magnetic powder, separation membranes, filters, toner, cement, ceramics, semiconductor materials, etc.

BELSORP MAX G



Measurement software window

Heater/controller

■Specification

Model	BELSORP MAX G
Measurement principle	Volumetric gas adsorption method + AFSM™
Adsorptive	N_2, Ar, Kr, CO_2, H_2, CH_4, Butane, other non-corrosive gases
Measurement port*	1 port (High accuracy mode)
Specific surface area	0,01 m2/g and above (N_2, Ar) 0,0005 m2/g and above (Kr) depending on sample density
Pore size distribution	0.35 - 500 nm in pore diameter
Pressure transducer*	133 kPa (1000 Torr) ±0.15% of F.S. x 3 units 1,33 kPa (10 Torr) ±0,5% of Readings. x 1 units 0,133 kPa (1 Torr) ±0.2% of Readings. x 1 unit (Select 0.1T or 1T) 0.0133kPa (0.1Torr)±0.25% of Readings. x 1 unit (Select 0.1T or 1T)
Gas port*	2 port (He.Ads)（Ads: 4 port in maximum(option)）
pump*/Vacuum gage	Turbo molecular pump +rotary pump/Cold cathode gauge(OP)
Sample tube*	Standard: approx. 1,8 cm^3 (optional: 5 cm^3)
Dewar vessel	Volume: 2.6 l Holding time: 80 h
Pretreatment heater *	50~450°C
Analysis software BELMaster™7	Adsorption isotherm BET specific surface area I type（ISO9277）BET automatically analysis Langmuir specific surface area BJH, DH, CI, INNES method t-plot, Alpha-s plot HK, SF, CY method NLDFT / GCMC（OP BELSim™） MP method Dubinin-Astakhov method Difference adsorption isotherm Molecular probe Adsorption rate analysis（OP）
Dimensions & weight	320 (W) x 740 (H) x 465 (D) mm, 36 kg (main body)
Customer requirement	Gas: He, adsorption gas: 0.1MPa (G), purity: more than 99.999% Joint: 1/8" Swagelok joint Power: Main body: AC 100-240 V / 850W, 50 / 60 Hz (including vacuum pump) Environment: Temp: 10~35°C, Humidity: 20~80%RH

■Pretreatment unit

	BELPREP VAC II	BELPREP VAC III
		
Flow heating process	Option	Option
Vacuum heating process	✓	✓
Number of specimens	3	6
Maximum heating temperature	430°C	450 °C
Temperature control accuracy	±5°C	±5°C
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 0.1 MPa 1/8" Swagelok	N_2 0.1 MPa 1/8" Swagelok
Power supply	AC 100-120/200-240V (50/60Hz) /10A (including R.P.)	AC 100-120/200-240V (50/60Hz) /12A (including R.P.)

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● Distributor

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