Mask Aligner

	Mask Aligner LA810	Mask Aligner LA410	Mask Aligner BA100／BA160
Exposure method	1 : 1 (original image size) Contact and Proximity method	1 : 1 (original image size) Contact and Proximity method	1 : 1 (original image size) Contact and Proximity method
Mask	□ 9 inch max. * selectable	□ 5 inch max. * selectable	□ 5 inch / 7 inch max. * selectable
Sample	8 inch max. * size adjustable by changing holder	4 inch max. * size adjustable by changing holder	4 inch / 6 inch max. * size adjustable by changing holder
Lamp house	Super-high pressure mercury lamp 500W Integrator lens method	Super-high pressure mercury lamp 250W Integrator lens method	Super-high pressure mercury lamp 250W Collimator lens method / Integrator lens method
Effective exposure range	Φ210mm or over	Φ100mm	Φ80mm / Φ160mm
Dominant wavelength	λ = 365, 405, 436 nm	λ = 365, 405, 436 nm	λ = 365, 405, 436 nm
UV light intensity	12mW/cm^2 (at 365 nm)	35mW/cm^2 (at 365 nm)	6mW/cm^2 (at 365 nm)
Exposure uniformity	Within ±5%	Within ±5%	Within ±5%
Microscope	Dual CCD microscope, monitor observation Sight sphere 1.6 (wipe 0.8) mm x 1.2mm	Dual CCD microscope, monitor observation Sight sphere 1.6 (wipe 0.8) mm x 1.2mm	Dual CCD microscope, monitor observation (two lines up/down) Sight sphere 1.6 (wipe 0.8) mm x 1.2mm
Alignment	Observe mask and sample simultaneously	Observe mask and sample simultaneously	Observe mask and sample simultaneously Video alignment by freeze-wipe image process
Alignment stage	XY axis with fine and coarse adjusting knob Θaxis fine and coarse adjusting knob Z axis air operated + with fine adjusting knob Level adjusting by spherical sliding (vacuum fixing) Z axis height measurement, 1 μm resolution (option)	XY axis with fine and coarse adjusting knob Θaxis fine and coarse adjusting knob Z axis manual by screw + with fine adjusting knob Level adjusting by spherical sliding (vacuum fixing) Z axis height measurement, 1 μm resolution (option)	XY axis with fine and coarse adjusting knob Θaxis fine adjusting knob Z axis air operated + with fine adjusting knob Level adjusting by changing angles with 3 screws Z axis height measurement, 1 μm resolution (option)
Sample exchange	Mask holder sliding in front and behind + Hinge mechanism	Hinge mechanism	Mask holder sliding in front and behind + Hinge mechanism
Exterior dimensions & weight	1800(H) x 1200(W) x 900(D) mm approx., 350kg or less	700(H) x 460(W) x 540(D) mm approx., 100kg or less	BA100 870(H) x 700(W) x 600(D) mm approx, 160kg or less BA160 950(H) x 830(W) x 700(D) mm approx, 200kg or less
Utilities	Power source AC 100V, 15A or less Vacuum 600mmHg or over Dry air Nitrogen 0.5MPa or over	Power source AC 100V, 10A or less Vacuum 600mmHg or over	Power source AC 100V, 15A or less Vacuum 600mmHg or over Dry air or Nitrogen 0.5MPa or over

Micro Contact Printer

	MP200
Printing method	Pressure control contact printing by rise of Z axis on sample stage Max 200N
Stamp	□ 9 inch max. * selectable
Sample	Φ8 inch max. * size adjustable by changing holder
Microscope	Dual CCD microscope, monitor observation Objective lens 5x, 10x, 20x (changeover by revolver)
Alignment	Auto/manual observe stamp and surface of sample simultaneously
Alignment stage	UVW axis (XYθ axis) motor drive Level adjusting by spherical-sliding and changing angles with 3 screws XYZ axis resolution 0.1 μm
Transfer process	Z axis motor driven, resolution 0.1 μm
Sample exchange	Sliding stamp holder in front and behind + attaching and removing retractable
Control	Auto combination of distance and pressure by programming recipe
Exterior dimensions & weight	Main body 700(H) x 600(W) x 720(D) mm approx., 300kg or less Control device is a separate installation
Utilities	Power source AC 100V, 15A or less Vacuum 600mmHg or over

Simple Mask Fabrication Equipment

	MM605
<Lens Section>	
Reduction	0.2 times the rate times
Imaging dimensions	59.4 x 59.4 mm
Field size	297 x 297 mm
Image distance	1195.5 mm
Distance btw images	1455.5 mm
F number	5.487 (Image) 27.317 (Material)
Resolution (λ =550mm)	3.017 μm (Image) 15.024 μm (Material)
Light intensity	95.19%
TV dist	- 0.0263%
<Lighting Section>	
Fluorescent lamp	15W x 5
Light adjustment	possible
Light intensity	max 1215Lx~min. 749Lx
Light distribution	1.004%
<Exposure timer>	99.9 Sec(0.1 Sec)
<Power source>	100V 3A 50/60Hz
<Dimensions>	610 x 610 x 1975 mm
<Weight>	80kg approx

Simplified UV Nanoimprint Equipment

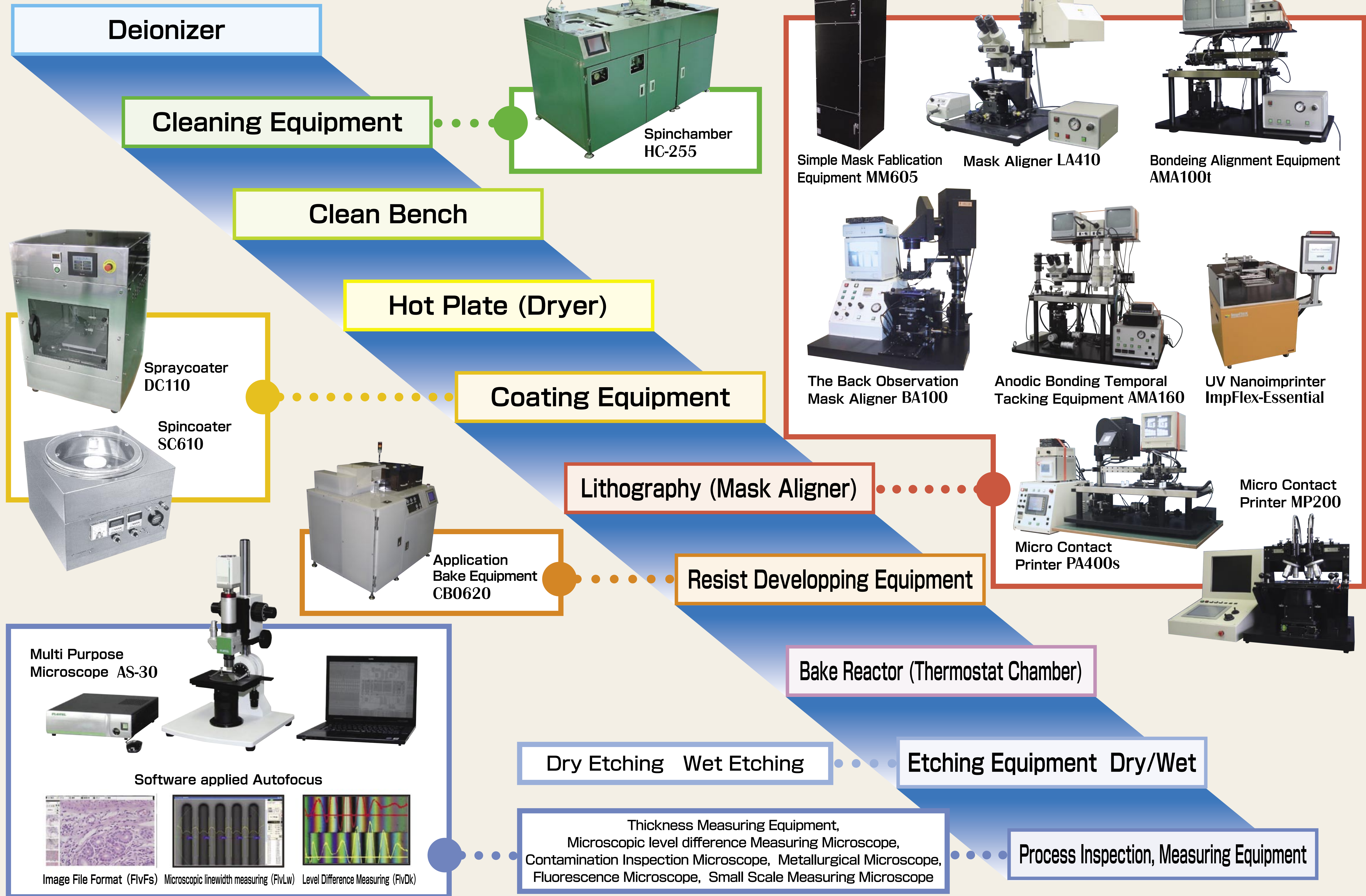
	ImpFlex Essential
Imprint method	Pressure control imprinting by SOFT stage Max 400N
Mold	□ 10, 40, 90mm quartz (Ni option) * selectable
Sample	Φ4, 6 inch Silicon wafer * size adjustable by changing holder
Imprint sequence	Step & Repeat
XY axis stage	Manual sliding
UV light source	UV-LED □100mm 14mW/cm^2 (at 375~380nm)
Sample exchange	Sliding stamp holder in front and behind + attaching and removing retractable
Control	Auto combination of distance and pressure by programming receipe
Alignment microscope	option
Bubble elimination gas supply	option
Exterior dimensions & weight	1300(H) x 1150(W) x 850(D) mm, 200kg or less
Utility	Power source AC 100V, 20A (gas supply optionally selectable) Clean dry air 0.5MPa 10lit/min. or over and ventillation

Photolithography Equipment

Φ8 inch max Mask Aligner

LA810

Nanometric Technology Inc.


Photolithography Process
Deionizer
Cleaning Equipment
Spinchamber HC-255
Clean Bench
Hot Plate (Dryer)
Spraycoater DC110
Spincoater SC610
Coating Equipment
Lithography (Mask Aligner)
Simple Mask Fablication Equipment MM605
Mask Aligner LA410
Bondeing Alignment Equipment AMA100t
The Back Observation Mask Aligner BA100
Anodic Bonding Temporal Tacking Equipment AMA160
UV Nanoimprinter ImpFlex-Essential
Micro Contact Printer PA400s
Micro Contact Printer MP200
Application Bake Equipment CB0620
Resist Developping Equipment
Bake Reactor (Thermostat Chamber)
Dry Etching Wet Etching
Etching Equipment Dry/Wet
Multi Purpose Microscope AS-30
Software applied Autofocus
Image File Format (FlvFs)
Microscopic linewidth measuring (FlvLw)
Level Difference Measuring (FlvDk)
Thickness Measuring Equipment,
Microscopic level difference Measuring Microscope,
Contamination Inspection Microscope, Metallurgical Microscope,
Fluorescence Microscope, Small Scale Measuring Microscope
Process Inspection, Measuring Equipment