

## **Chromosome specimen making 24 Samples Metaphase Harvester**

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Chromosome specimen maker 24-Samples Metaphase Harvester **HANABI-P11 plus** does the processing of cell harvesting from the cultured cell automatically, simplifying a complicated process and producing uniform cells. The main operation of Metaphase Harvester is the constant temperature centrifugal separator structure, a PBS and hypotonic treatment using pre-heated PBS and hypotonic solution that enable fixation processing with cooled fixative solution. The centrifugal separator section is located at the center with 6 sets of centrifugal sections, 4 tubes per set, capable of producing 24 specimens at one time by injecting solutions and exhaust solutions. By using the **HANABI-P11 plus**, a large amount of stable chromosome specimens can be produced enabling cell harvesting.

More flexible protocol can be set because this machine can be added the options like Reagent Sensors, Waste Fluid Tank Sensors, Second Fixative Line, and **HANABI-SPI** (Auto Fixative Mixer).

### **Features and Benefits**

- 24 sample walk-away harvest capability
- Automated sample:
  - Centrifugation, Vortexing, Aspiration, Injection
- Constant temperature centrifugal chamber
- Pre-heated PBS/Hypotonic treatment
- Fixation with cooled fixative solution
- Built-in control panel
- 6 adjustable harvesting protocols
- Low maintenance
- Many options can be added



**HANABI-P11 plus**

EU Model: Attached Microbiological Safety Filter

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**Manufacturer and Distributor**

**Sales Agency**

**ADSTEC**

**ADSTEC Corporation**

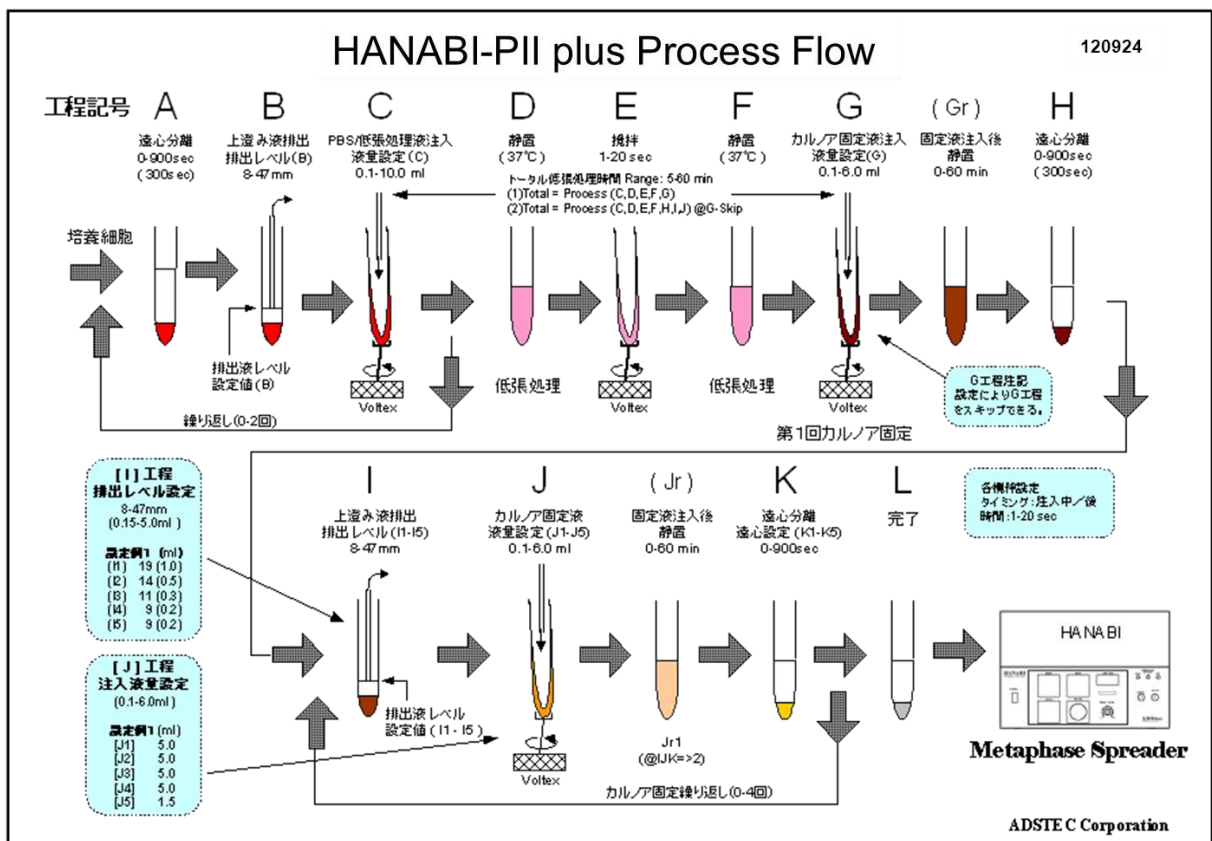
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# HANABI-P11 plus Specifications

The main specifications are as follows.

#	Items	Specifications	Remarks
1	Cetrifugal tube	15 ml	FALCON (Polypropylene)
2	Culture cell suspensions	10 ml (Max.)	Typical 5ml
3	Number of samples	24 samples	4, 8, 12, 16, 20, 24
4	Total processing time	2.0hrs (Approx.)	24 samles, 30min hypotonic
5	Cetrifuge G	320 xg (Approx.)	1200rpm (r = 20 cm), Max. = 1500rpm
6	Injection pumps	2 (0.1ml/rev)	PBS/Hypotonic x1: 0.1ml - 10ml (+/- 3%) Fixative x1: 0.1ml - 6ml (+/- 3%)
7	Aspiration pumps	4	Twin pump x2
8	Hypotonic treatment temperature	37°C	Preheating, Select ON/OFF
9	Centrifuge section temperature	37°C	Air Bath, Select ON/OFF
10	Stirrer (Vortex type) Orbital	6mm	Stirring speed: 0 - 2100rpm
11	Stirring speed select	2	Default: SC1=1500, SC2=2100rpm
12	Protocol Select	6	A, B, C, D, E, F
13	Operating environment	15 - 30°C, 20 - 60%RH	non-condensing
14	Storage temperature	0 - 40°C, 0 - 95%RH	non-condensing, non-icing
15	Atmospheric Pressure	800 - 1114hPa	2000 meters or lower
16	Pollution Degree	2	non-conductive levels
17	Input Voltage	100, 120 VAC	Voltage and 50/60Hz are option of the order
18	Power consumption	800W	
19	Externals size (WxHxD)	850W x 1600H x 750D	Without reagent bottles mount and Safety Filter
20	Weight	300 Kg (Approx.)	
21	Safty Filter (Option)	HEPA + Carbon filter	for EU model
22	Safty Standards	-	

Process flow



Please use the HANABI for the spreading of the chromosomes.