MODEL 8000-5 BASE HANDLER BASE

Includes:

- Space for up to 5 single tray and/or tray stackers (see options)
  - JEDEC Tray standard.
  - Does not include tray carriages or stackers - must be added to base as needed
- Y axis Gantry
  - Digital linear motor Y axis gantry with optical limit switches
  - 1-micron linear encoder
  - Up to 90” in length, right, left, or both (hand operation)
  - Gantry length optimized for initial application
  - Heavy duty, high quality, dual car ball bearings
- Z Pick Up Car base assembly
  - 1 Z Pick Up Head
  - Z position servo motor, 3” of travel, 0.0012” step size
  - No rotation, see options. +/-90º or full rotation
  - 1 set of pick-up head tooling as needed for specific application
  - Built-in vacuum generator with digital sensor and blow off valve
  - Space for up to 4 Z pick-up heads on Pick Up Car assembly (see options)
- Second Z Pick Up Car base assembly Ready (see options)
- Allows addition of up to 8 Z Pick Up Heads
- Hot and Cold Test Ready (see options)

- 2D/3D Lead/Ball Inspection Ready (see options)
- Built-in flip up keyboard with built-in mouse
- Exatron PC Controller
- Standard Exatron Handler TTL Control Port
  - Standard Exatron & Exatron Plus RS-232 Control Port
  - GPIB control optional
  - 1 spare RS-232 port (minimum)
  - 1 parallel port
  - 1 Ethernet port
  - 2 spare USB ports (minimum)
  - Pentium PC-104 CPU
  - Built into handler frame, 19” rack mount
  - Windows XP Pro operating software
  - DVD-ROM, Hard disk
  - Secondary backup hard drive optional
  - Acronis True Image software on CD Rom
- Complete system backups shipped with system and stored at Exatron
- Computer network support using Microsoft tools
- 17” flat screen with heavy duty side mount arm & tilt
- Exatron smart handler power supply,
  - -Mounted to 19” rack 100 to 240 VAC, 50/60 Hz.

- 3 color light pole
- ESD Safe Plexiglas windows (laser safe windows with laser option)
  -Meets or exceeds all known ESD requirements
  -ESD protection fans or air knives optional, can be added at any time, customer choice, quoted separately
- 2 Emergency Stop / Off switches
  -Cuts power to all motors
  -PC shut off or not, customer choice, field selectable
- Upper frame enclosed with doors, both electrically & mechanically interlocked
- Lower frame enclosed with doors on quick disconnect mount hinges, (door locks optional)
- Internal space for 24" of 19" rack mounted customer electronics
- Welded steel frame; **Smaller Foot Print** (maximum width 54" to 56"))
- Heavy duty wheels with heavy duty vibration isolation leveling feet
- Paint: Stock colors of Royal Blue and Light Beige
- 80 psi, 3 cfm dry, oil free, clean shop air required
- Built-in air regulator with filter and manual on/off air switch, (auto shut off optional)
- Low / No air pressure detection
- Built-in quick disconnect air fitting near test site
- Built-in operator vacuum wand
- Use "CE Mark" design rules and construction methods, (Not Guaranteed)
- Exatron Standard Operating Manual, includes all OEM operating manuals

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TRAY CARRIAGE OR STACKER:

JEDEC Tray Stacker Module **5 STACKERS**

- Holds up to 10" of standard JEDEC trays, (approx. 40 thin trays)
- No mechanical adjustments required to stack thin, thick, and vacuum formed JEDEC trays
  Software adjust for JEDEC tray thickness
- One input stack, one tray carrier car, and one output stack included with each Module
- All servo motor, software adjusted, tray stacking and positioning
- Field retrofit able

Z PICK UP CAR OPTIONS:

One Z Pick Up Head
Standard
Z position servo motor, 3" of travel, 0.0012" step size
Y position digital linear motor with optical home and limit switches
No theta rotation (sold separately)
Built-in vacuum generator with digital sensor and blow off valve
Space for up to 4 Z pick-up heads on car assembly

Three Pick up Head Upgrade

- All Independent Z axis pick up head travel
- Z position servo motor, 3" of travel, 0.0012" step size
- Rotation available as option (see below)
- Added vacuum generators with digital sensors and blow off valves
- Add necessary hardware & software
- Field retrofit able

360º Unrestricted Rotation 4

- Allows full rotation
- Stepper motor controlled
- Spring loaded tip
- Contact Exatron for pick up head tooling options

Add vacuum generators for multiple pickup applications 4

Built-in vacuum generator with digital sensor and blow off valve

- Multi-color vacuum lines
- Intended to be used with dual pick up heads (tooling) per Z axis
- No DUT theta rotation allowed with dual pick up option.

TEST SITE

Teradyne test site docking hardware

HOT TEST

Note: A complete hot/cold test assembly consists of a minimum of four elements: a thermal car assembly, hot and cold heads, and a chiller. In some cases, the hot head and cold head are combined in one unit, but this is not the usual case – please ask for details. Accessories such as air dryers and pre-heat queue plates may be desired as well.

Hot Queue Plate – Single Inline Row

Heated plate for device pre-heat soak

- Fixed location in line with test site
- Mounts to handler between test site and JEDEC tray carriages
- Room temperature to 50°C operation (Higher temps, factory quote)
- Resistive 110 VAC heater(s) (DC heaters optional)
- Single thermocouple mounted in plate
- Standard 1/8" DIN commercial temp controller ± 2% typical control
- Quick-interchange tooling for specific part outline
- Includes one tooling plate for up to 8 devices
- Queue plate can also serve as Golden Part tray if desired

Thermal car assembly (mounts to Y gantry) (for 8 test sockets)

- Second linear motor
- Thermal car assembly
- Dual clamping linear actuators
- Room temperature to 50°C operation (Higher temps, factory quote)
- Electrical control hardware & software
- Necessary additional safety covers
- Heat exchanger ordered separately

Hot-only heat exchanger (resistive type) Up to 8 sockets

- Requires thermal car (TC) assembly
- Room temperature to 50°C operation (Higher temps, factory quote)
- Resistive 110 VAC heater(s) (DC heaters optional)
- TC mounted in exchanger
- 1 size of pusher block tooling
- Over-temp safety thermal switch mounted in head
- Standard 1/8" DIN commercial temp controller ± 1% typical control
- No circulator fluid required
- No additional power supply required

MACHINE VISION

Top Site OCR
Customer's preferred Brand: Cognex In Sight Micro1403
OCR includes recognizing a serial number and pass it to the tester prior to the start of each individual part test
Includes:
- Camera
- Lighting
- Lens
- Mounting hardware/integration
- Software integration through Ethernet
  Read a serial number and after read, pass the information to the tester prior to the start of each individual part test

Bottom Side BGA 3DX25 inspection
Brand: Coherix
Includes:
- Camera
- 25mm field of view
- Lighting
- Lens
- Mounting hardware/integration
- Vision PC
- Software integration through Ethernet
- 1 day factory training at Exatron by Coherix; Includes travel expenses

INTERFACE

GPIB interface (assumes a simple set of commands)