The Model 1050 is one of a series of XYNETICS fixed horizontal flatbed plotters designed to meet the broad range requirements of OEM suppliers of interactive graphic systems. The extremely high speed and constant high accuracy of the Model 1050 are functions of the patented XYNETICS/Sawyer Principle Linear Motor Drive. Based on the concept of two axis motion, controlled by interaction of magnetic forces, the XYNETICS linear motor eliminates the awkward system of gears, cables and lead screws normally used to carry automated drafting tools. Instead, the XYNETICS plotting head rides on a frictionless air cushion. The flatbed table, slope generator and computer interface are major modules of the Model 1050 system.

Table Features
The flatbed table offers seated position operating convenience, with controls located at the front left corner near the plotting origin. The plotting surface has a vacuum hold down system capable of handling the commonly used graphic arts materials including vellum, mylar, photosensitive films and glass plates, scribe coat and art board.

The plotting area is illuminated by fluorescent lamps for easy visibility of plot progress.

As standard equipment, the table has a compressed air system, vacuum system, plotting head with drive electronics, power interface with required power source cables, and a plotting kit. The addition of a controller makes a complete system for general plotting applications.

Slope Generators
The XYNETICS Slope Generator provides the capability of drawing line segments at any angle from any point of origin. From line segment end-point input information, the slope generator supplies pulse sequencing for both X and Y axes, resulting in the line segment being drawn on the correct slope to the selected end-point. XYNETICS Slope Generators relieve the computer of the requirement to compute and output one mil increment instructions, thus increasing throughput by allowing the computer to process input data and perform calculations while the drafting head is plotting.

Computer Interface Modules
XYNETICS offers a series of computer interface modules. Their major functions include calculation and formatting of output commands to XYNETICS Slope Generators and monitoring positional status of the plotting head.

Interface modules are available for the following computer systems.*

| Customer Computer System | Customer Hardware Required | Software Core Required | XYNETICS Technical Manual |
|-------------------------|**************************|------------------------|--------------------------|
| Nova 800/1200 820/1220  | Nova I/O Slot            | 1 K Memory             | TM-1003, TM-1009, TM-1010|
| POP-11 Series           | PCBA's for interface     | 1 K Memory             | TM-1003, TM-1017, TM-1024|
| HP-2100 A               | HP#12566B interface      | 1 K Memory             | TM-1003, TM-1038         |
| IBM 1130                | SAC I or SAC II access   | 8 K Memory             | TM-1003, TM-1023         |

*Interfaces to other computers quoted on request.

The Model 1050 is also available in a subsystem form of basic components ready to integrate into your interactive graphic system.
MODEL 1050 AUTOMATED DRAFTING SYSTEM

SPECIFICATIONS

**Front View**

**SIDE VIEW**

**Table**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plotting resolution</td>
<td>0.001 inch</td>
</tr>
<tr>
<td>Plotting accuracy</td>
<td>±0.005 inch (over total plotting area at 68°F)</td>
</tr>
<tr>
<td>Plotting repeatability</td>
<td>±0.001 inch (over total plotting area)</td>
</tr>
<tr>
<td>Orthogonality</td>
<td>±0.005 inch (over total plotting area)</td>
</tr>
<tr>
<td>Maximum plotting speed</td>
<td>40 inches per second</td>
</tr>
<tr>
<td>Maximum acceleration</td>
<td>1.0g</td>
</tr>
<tr>
<td>Effective plotting area</td>
<td>33 inches x 46 inches</td>
</tr>
<tr>
<td>Maximum cut sheet size</td>
<td>36 inches x 48 inches</td>
</tr>
<tr>
<td>Maximum roll paper size</td>
<td>36 inches wide</td>
</tr>
<tr>
<td>Controls</td>
<td>Manual/Automatic Plotter and Pen Select Modes</td>
</tr>
<tr>
<td></td>
<td>Vacuum hold-down</td>
</tr>
<tr>
<td></td>
<td>Manual plotting head movement with joy stick</td>
</tr>
<tr>
<td>Dimensions</td>
<td>48.5 inches high x 59 inches wide x 49.5 inches deep (may be disassembled into two or three modules for installation if required by site access)</td>
</tr>
<tr>
<td>Height of plotting surface</td>
<td>37 inches from floor</td>
</tr>
<tr>
<td>Weight</td>
<td>1200 pounds (approx.)</td>
</tr>
</tbody>
</table>

**Site Requirements**

Space: Overall table size plus recommended clearances of 36 inches in front, rear and on both sides.

Electrical: 115 volts ± 10%, single phase, 60 Hz, 12 amps (115 volts, 50 Hz optional)

Heat dissipation: 4000 BTU/hr.

Environment: 60°F to 90°F at 30% to 60% relative humidity

**Accessory and Option Items**

Computer interfaces: As previously specified

Pen kits: WA20A, WA40A, WA44A, WA45A, and WA46A

Two axis position display: TA60A

Roll paper feed systems: TA70A, TA71A and TA72A

Special power requirements

For further information, or assistance in designing your Xynetics Automated Drafting System, call or write:

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