

MODEL 1050 AUTOMATED DRAFTING SYSTEM



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 XY-NETICS/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
PDP-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.

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SPECIFICATIONS

FRONT VIEW

SIDE VIEW



TABLE

Plotting resolution	0.001 inch	
Plotting accuracy	. ±0.005 inch (over total plotting area at 68°F)	
Plotting repeatability	, ±0.001 inch (over total plotting area)	
Orthogonality	. ±0.005 inch (over total plotting area)	
Maximum plotting speed	40 inches per second	
Maximum acceleration	1.0g	
Effective plotting area	33 inches x 45 inches	
Maximum cut sheet size	36 inches x 48 inches	
Maximum roll paper size	36 inches wide	
Controls	Manual/Automatic Plotter and Pen Select Modes Vacuum holddown Manual plotting head movement with joy stick	
Dimensions	48.5 inches high x 59 inches wide x 49.5 inches deep (may be dis- assembled into two or three modules for installation if required by site access)	
Height of plotting surface	37 inches from floor	
Weight	1200 pounds (approx.)	

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

FIRST IN LINEAR MOTORS



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

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