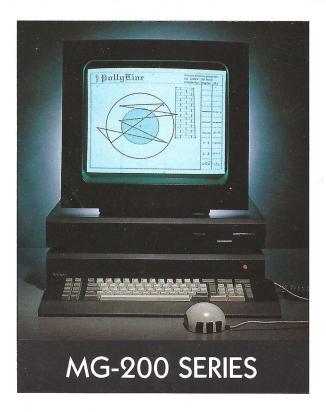


# WHITECHAPEL WORKSTATIONS



The MG-200 is one of the world's finest personal workstations incorporating VLSI technology to provide powerful facilities at a low cost.

The MG-200 satisfies the worldwide demand for workstations facilities providing very high performance graphics with high resolution at the price of a personal computer. The technical

excellence of the MG-1 has been extended into the MG-200 Series.

Application areas include CAD, CAE, VLSI Design, Image Processing, Mapping, Business Graphics, Software Engineering, Solid Modelling, Finite Element Analysis and Electronic Publishing.

### Personal Power

- Fast & responsive.
- Dedicated processing power per user.
- Floating point coprocessor for arithmetic speed.
- Virtual Memory removes restrictions on applications size.

# Superb Graphics

- Fast and efficient graphics.
- Display screen is managed as a series of windows, utilising Whitechapel's own Oriel Window Manager.
- Point-click-see interface using mouse.
- Icons for rapid manœuvrability and visual impact.
- Well-defined programming interface.

# Interworking with other systems

- 42-nix operating system is a superset of Berkeley Unix 4.2 bsd.
- NFS and TCP/IP support are available.
- VLSI implemented Ethernet to IEEE 802.3 standard.
- RS232C & RS423 interfaces.

### Peripheral connection

- Peripheral bus supports standard IBM PC cards.
- Inexpensive connection for standard peripherals.
- Special peripherals eg. MGLP via fast WCW interface.



# TECHNICAL SUMMARY

#### Processor

Second generation 32-bit processor (NS 32332) with 12.5 MHz clock, floating point coprocessor (NS 32081) and memory management unit (NS 32082) providing a demand-paged virtual memory system with 1 Kbyte page size.

#### Memory

Uses 120nS MOS semiconductor DRAM. Dual ported between processor and display using 64-bit wide highway. Minimum of 2 Mbytes memory field upgradeable to a maximum of 12 Mbytes in 2 Mbyte increments, all within the standard enclosure.

### Display

Non-interlaced bit-mapped display system with resolution of  $1024 \times 800$  pixels refreshed from system memory. Display controller uses a paged memory system compatible with the memory management unit, so that program variables can be used as screen buffers. Page tables for four screen maps are held concurrently in Video Mapping RAM with instantaneous switching permitting the use of double buffering techniques for smooth animation. Reverse video available.

Hardware cursor is defined using separate mask and image shapes up to 64 pixels square.

# I/O Processor

A separate 8-bit microprocessor (Motorola 68121) tracks the mouse and controls the shape and position of the cursor image. The I/O processor also provides the keyboard interface.

# Input/Output

Two serial ports are provided working up to 19200 baud. One is to the RS232C standard and one to RS423; either can be used for most serial interface applications.

A general purpose expansion port allows direct access to system bus and DMA service from the on-board controller.

A motherboard with 3 slots for IBM PC compatible expansion boards is available.

UNIX is a trademark of AT&T Bell Laboratories.

The Network File System originates from SUN Microsystems Inc.,
The Instruction Set and Lachman Associates Inc.

### Local Network

An integral Ethernet controller to the ISO 8802.3 standard is a purchase-time option.

# Fixed Disc System

5.25" Winchester technology fixed disc. Choice of capacities from 22 to 125 Mbytes.

# Floppy Disc System

5.25" double-sided, double-density 80 track floppy disc drive. Capacity up to 800 Kbyte on each floppy. Will read and write PC-standard floppy formats.

# Keyboard

Free-standing, fully programmable, lightweight, solid state keyboard. IBM PC layout with 83 keys including numeric pad and function keys.

#### Mouse

A three button mouse is standard.

# **Environmental Properties**

Power input: 250 watts.

Power requirements: 98-125 V AC or 200-250V AC.

#### Cabling

All connecting cables are supplied.

#### Physical Dimensions

Processor Unit:  $495 \text{mm} \times 170 \text{mm} \times 475 \text{mm}$ Screen:  $435 \times 440 \text{mm} \times 395 \text{mm}$ Keyboard:  $495 \text{mm} \times 185 \text{mm} \times 50 \text{mm}$ 

#### Weight

Processor Unit: 17.5 Kg Screen: 13.5 Kg Keyboard: 2.5 Kg Total: 33.5 Kg

