



SITE ENGINEERING

DOCUMENT NUMBER	REV.
10658174.	D
SHEET	1 OF 4

CRAY-2

M-POD AND S-POD

CHILLED WATER MANIFOLDS

REV.	A	B	C	D			
DATE	03-06-86	04-16-86	03-02-87	10-25-88			
APPROVED	GLS	ML	GLS	GLS			

CHILLED WATER PIPING REQUIREMENTS

The Cray Research, Inc. (CRI) supplied M and S-pods require a customer supplied and installed, chilled water distribution manifold. This manifold is to be installed below the computer room false floor, in proximity to the final position of the installed pods.

As illustrated on sheet 3 of this document the manifold must provide for seven supply connections (three for the M-pod and four the the S-pod) and seven return connections. The connection ports required are standard 1" O.D. hose barbs. Each port must be fitted with a manual ball valve.

Pressure and temperature monitoring devices are required in the supply and return lines. A pressure operated bypass valve is also required to regulate the pressure differential across the supply and return lines. In addition CRI requires that a flow monitoring device be installed in the supply line.

The entire manifold must be insulated to prevent condensation in the underfloor area.

The approximate total volume required to fill the heat exchangers and associated chilled water hosing is 30 gallons (114 L).

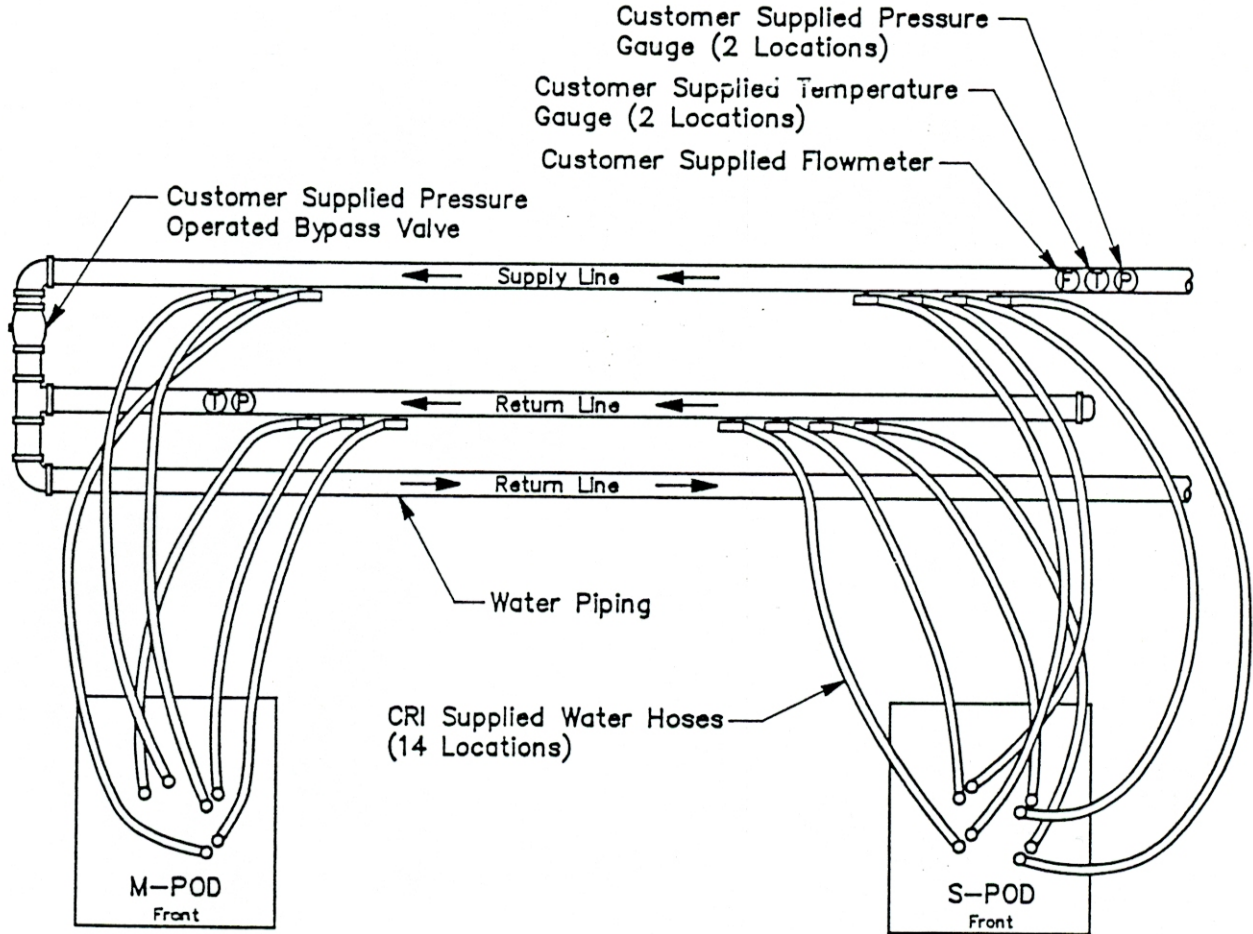
CRI will supply and install the flexible water hoses to connect the chilled water manifold to the heat exchangers.

CHILLED WATER SUPPLY REQUIREMENTS

Installation of a CRAY-2 computer system requires that the facility provide an adequate source of clean chilled water. Refer to the CRI Water Quality Specification (# 10658280).

A chilled water supply of 140 gpm at 50°F (10.0°C) is required. The temperature (measured at the M-pod and S-pod inlet) must not vary more than $\pm 5^\circ\text{F}$ (2.8°C) from the original design/startup temperature. Rate of change must not exceed 5°F (2.8°C) per 15 minute cycle.

The operating pressure of the chilled water system must not exceed 100 PSIG.



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CRAY-2
(TYPICAL MANIFOLD ASSEMBLY)

