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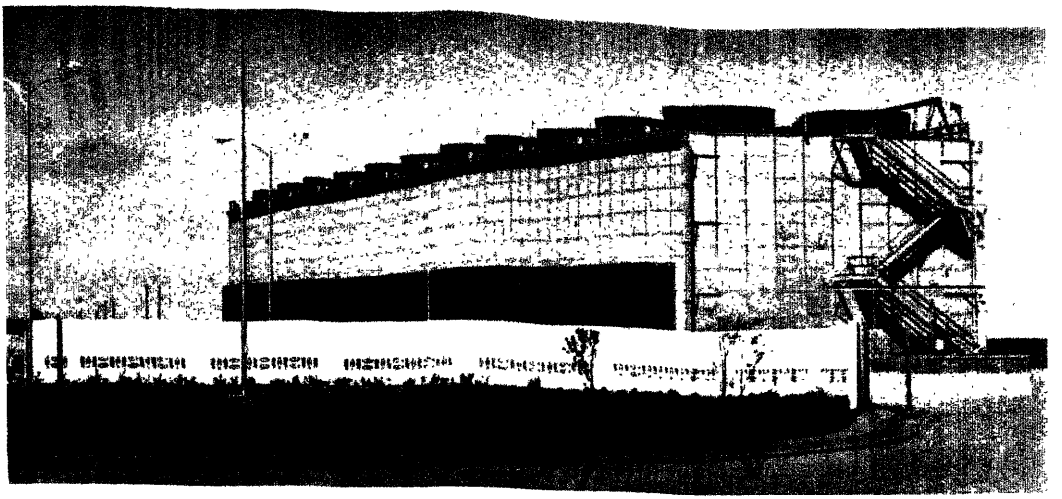
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DOCUMENT DESCRIPTION: Sales Literature

A.I.A. FILE NO. 30-F-3

FLUOR COOLING TOWERS



From heavy industrial installations to light central station air conditioning and refrigeration units, there's a Fluor Cooling Tower to meet your specific needs You'll get more cooling at lower cost, and longer tower life under all operating conditions with Fluor Cooling Towers.

higher cooling tower performance

lower maintenance cost

built-in permanence

etc.

Fluor PRODUCTS COMPANY **COOLING TOWERS**

A division of The FLUOR CORPORATION, Ltd

GENERAL OFFICES: P O Box 1267, SANTA ROSA, CALIFORNIA

Fluor

COOLING TOWERS

GENERAL INFORMATION

Due to their modular construction, most Fluor Industrial Cooling Towers and Central Station Air Conditioning and Refrigeration Towers share the characteristics outlined in the following paragraphs. Whatever your Cooling Tower needs, you have a choice of a Fluor designed and developed counterflow system, or a crossflow system, to meet your exact requirements.

FRAMING

Redwood overdimension posts and bracing are cut to length and drilled at the mill. Joint connectors, stronger than the wood itself, are placed in the assembly at the job site. Designed to transmit load stresses directly to the tower foundation, Fluor's prefabricated construction allows fast dismantling and re-erection, and provides for future expansion of the tower.

SHEATHING

Fluor tower sheathing forms a strong wall designed to withstand both positive and negative wind pressures, and provides a clean, attractive exterior. Sheathing is available in flat and corrugated cement asbestos, and in single wall or double wall ventilated clear all heart redwood panels. Such materials as polyethylene, stainless steel, aluminum, color coated aluminum, and fiberglass polyester sheathing have also been used.

FILLING

Fluor offers three basic types of cooling tower fill, each designed for efficient, long-lived, heavy-duty service. Splash type and film type fillings are fabricated of clear all heart redwood which is noted for its resistance to chemical and biological deterioration. POLY-GRID fill, developed exclusively by Fluor, is fabricated from high impact polystyrene or polyethylene. It is especially applicable to installations where high resistance to corrosion and erosion is essential and space is limited.

COMPONENTS

Air handling components for Fluor Cooling Towers—drift eliminators, partition walls, and wind baffles—are designed for optimum airflow characteristics at minimum pressure drop. Air intake louvers are wide, offset, adjustable, designed for low pressure drop, and can be shut down in bad weather. Only the best quality materials available for Cooling Tower service—Clear Heart and Select Heart Redwood, and treated exterior Plywood Douglas Fir—are used. Access stairs, ladders, safety cages, knee-rails, toeboards and other accessories meet the highest standards of safety codes and requirements.

WATER DISTRIBUTION SYSTEMS

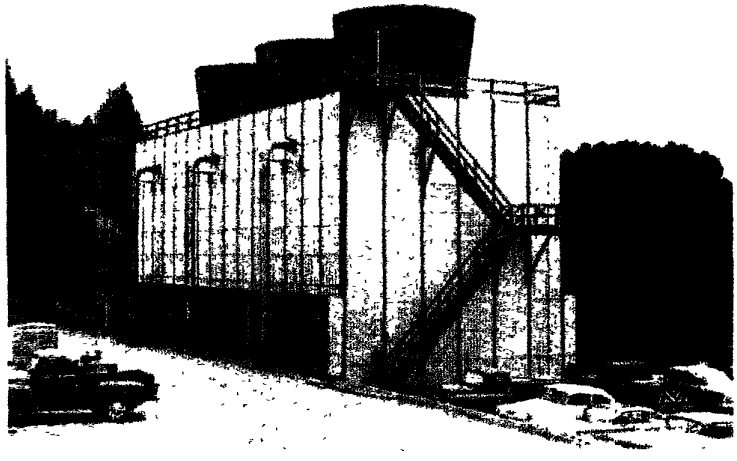
Distribution systems are made of Clear Heart Seasoned Redwood tongue and groove staves. They are completely enclosed for protection from sunlight and minimization of algae formation. Headers and Laterals are supplied with easily accessible cleanout valves. Distribution nozzles are furnished in heavy-duty polypropylene with integrally cast splash valves

FAN STACKS

Fluor Industrial Cooling Towers are equipped with standard 6-foot high parabolic fan stacks. A special 14-foot high Parabolic Venturi stack is available to meet horsepower and evaluation requirements. Series 2 and 3 Cooling Towers are equipped with low profile stacks, and Series 4 Cooling Towers with 4-foot high smooth Venturi type stacks. All Fluor fan stacks are designed for maximum fan operating efficiency as well as maximum structural strength.

FAN ASSEMBLY

Fluor fans were developed mutually by Fluor and Solar Aircraft for maximum efficiency and long life when handling large volumes of saturated air at high velocities. Built to Aircraft specifications, higher than anything else in the cooling tower industry, these fan blades are fabricated of stainless steel or aluminum, and riveted to coated, heavy wall steel tubing. Electric motors, gas engines, and steam turbines may be used as fan drivers, with fan coupled to driver through Thomas flexible couplings.



SERIES F-60

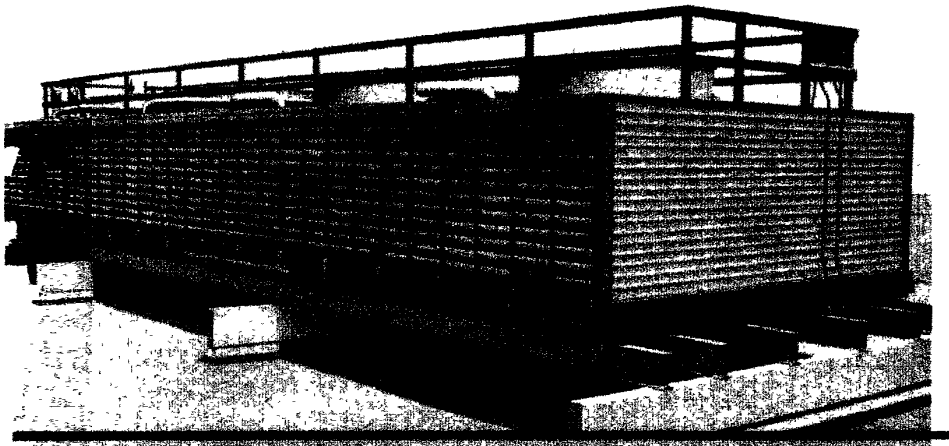
INDUSTRIAL COOLING TOWERS

Fluor Series F-60 Cooling Towers are available to meet any job requirement. Cooling capacity, tower height, fan stack height and type, pumping head, and wind load are all designed to the user's specifications.

Fluor Industrial Cooling Towers are designed to meet heavy-duty cooling tower requirements. Modular design and prefabrication construction provide ease and speed of erection cooling capacity to meet any industrial demand, and fast delivery anywhere in the world.

Fluor

COOLING TOWERS

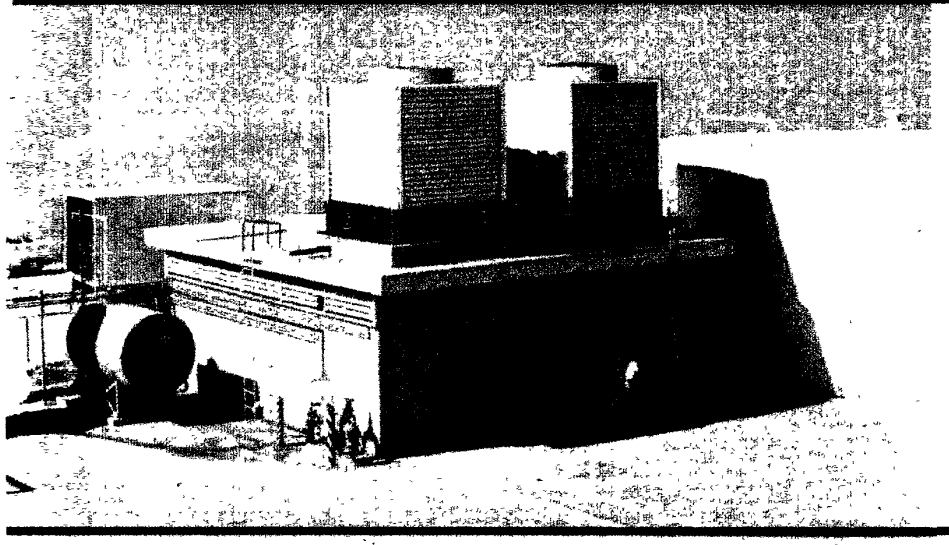


SERIES 2 CROSSFLOW TOWERS

PHYSICAL DIMENSIONS

Maximum height to top of fan stack is eight feet, regardless of cooling capacity. Standard single cell installations range from 60 to 300 Tons capacity. Combinations of standard cells may be used to meet greater cooling needs.

Fluor offers the Series 2 Crossflow Induced Draft Cooling Tower to meet extremely low profile requirements. All Series 2 Tower components meet the highest specifications of Fluor Cooling Tower design criteria. They are ideal for all industrial and commercial installations requiring small to medium cooling capacities.



SERIES 3 COUNTERFLOW TOWERS

PHYSICAL DIMENSIONS

Tower Frame Height: 10′ and 12′

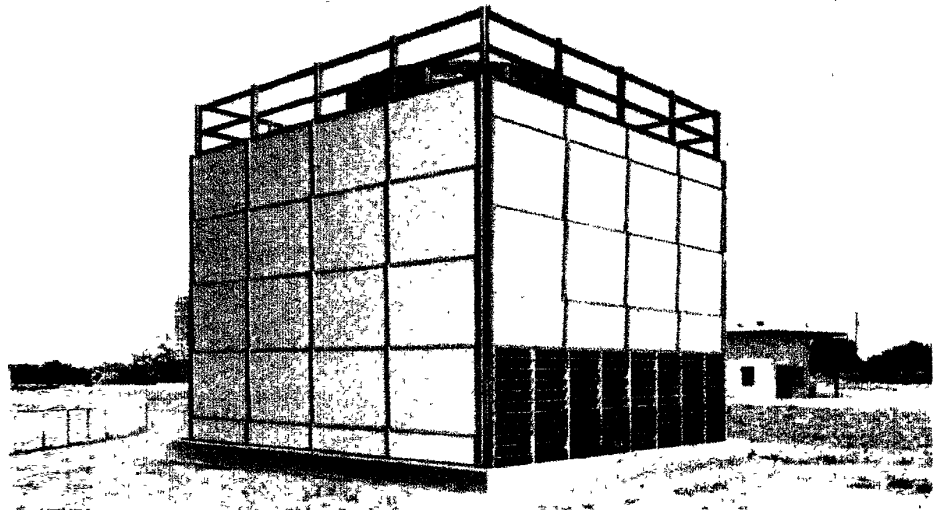
Tower Size. 8′ x 8′ to 20′ x 20′ Single Fan Cells

Cooling Capacity. 60 to 600 Tons

Wind Load: 30 lbs. per sq. ft. (normal loading, positive and negative)

Multiple cell combinations available to meet customer requirements.

The Series 3 Cooling Tower is designed for central station air conditioning and refrigeration. Architecturally, it offers a low profile with no orientation limitations, and a pleasing design which may eliminate the need for decorative enclosures.



SERIES 4 COUNTERFLOW TOWERS

PHYSICAL DIMENSIONS

Tower Frame Height 18′

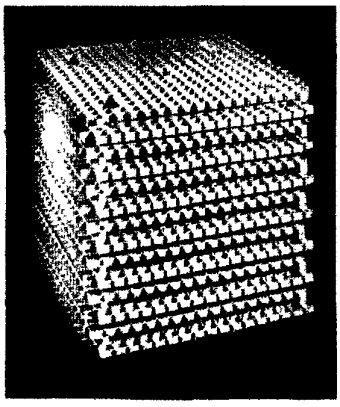
Tower Size- 12′ x 12′ to 24′ x 24′ Single Fan Cells

Cooling Capacity: Up to 900 Tons

Wind Load: 30 lbs per sq ft (normal loading, positive and negative)

Multiple cell combinations available to meet customer requirements.

The Series 4 Tower is a custom-designed unit for heavy-duty air conditioning and refrigeration service. Efficient design and low profile combine to offer unsurpassed performance with no orientation limitations.



FLUOR POLY-GRID for HIGHEST COOLING TOWER PERFORMANCE

Fluor's patented Poly-Grid cooling tower fill provides more cooling per cubic foot than any other fill available. A film type fill made of high impact polystyrene or linear polyethylene, Poly-Grid fill is eight times lighter than conventional wood fill. Fluor Poly-Grid gets the greatest amount of cooling from new installations. Fluor Poly-Grid offers outstanding operating performance, costs less to install, and reduces fill maintenance costs substantially.

COOLING TOWER REBUILDING AND REPAIR

Fluor maintains complete facilities for repairing, rebuilding, and modernizing all types and makes of water cooling towers. Over 40 years of experience with all types of cooling systems, a nationwide service organization, prefabricated tower systems, and skilled personnel combine to solve quickly and economically any cooling tower repair problem.

DATA REQUIRED FOR BID

1. Type of service.
2. Water circulation rate in U.S.G.P.M.
3. Inlet water temperature.
4. Outlet water temperature.
5. Wet bulb temperature.
6. Type and quantity of water contamination, if any
7. Wind loading (Normal design 30 lbs./sq. ft.).
8. Power source and characteristics.
9. Type of fan drive desired.
10. Location and size of adjacent structures.
11. Type of collecting basin: redwood, steel or concrete.
12. Accessory equipment desired.

EXPERIENCE . SERVICE . AVAILABILITY

For over 40 years Fluor has pioneered in the production of cooling devices. In 1939 a complete, commercial sized test tower installation was set up to allow full scale research in cooling tower development and improvement. Since that time, Fluor engineers have compiled an enviable list of "first" and "exclusives" in cooling tower design and application.

For your convenience, Fluor Cooling Towers and Engineering Services are available through exclusive representatives in all major domestic and world market areas. For immediate service, look for your local Fluor representative in the Yellow Pages.

Fluor PRODUCTS COMPANY **COOLING TOWERS**

A division of The FLUOR CORPORATION Ltd

FOUNDER MEMBER C T I COOLING TOWER INSTITUTE

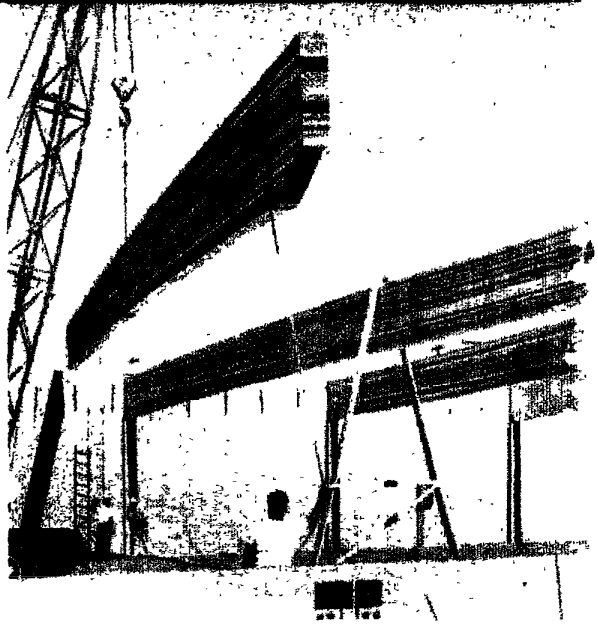
FIND Fluor FAST IN THE YELLOW PAGES

GENERAL OFFICES P. O. Box 1267, SANTA ROSA, CALIFORNIA

FOR INDUSTRIAL ARCHITECTS AND PLANT ENGINEERS:

Fluor Also Manufactures a Line of Laminated Wood Roof Structures

For your new plant or addition, Fluor-Summerbell Wood Roof Structures offer a unique combination of engineering and architectural advantages. They are economical—low in unit cost, reduce the number of splices needed for large spans, eliminate the need for bearing walls, and go up fast and with small erection crews. They are extremely fire-resistant, and retain their strength and shape for prolonged periods of severe heat exposure. And Fluor-Summerbell Wood Roof Structures are form-functional. Glued Laminated Wood Arches, Beams, Bowstring Trusses, and Lamella Roof Systems are available in a number of imaginative, versatile shapes and sizes to suit most industrial and commercial building requirements.



LITHO IN U.S.A.