

115-KV SUB-STATIONS



PROJECT NAME	115-KV SUB-STATIONS
LOCATION	JUBAIL INDUSTRIAL AREA, SAUDI ARABIA
CLIENT	ROYAL COMMISSION FOR JUBAIL AND YANBU/MITSUBISHI/ BROWN BOVERI
CONSTRUCTION PERIOD	16 MONTHS



The contract consisted of the turnkey construction of three high-voltage electric sub-stations, on three different sites with electric switchgear supplied by Mitsubishi Electric Corporation and Brown Boveri. These sub-stations formed an early part of the infrastructure for the industrial city of Jubail.

MAC Construction carried out the detailed design of the foundations, structural steel and the precast skin cladding as well as the construction of the full project.

The facility had a unique precast exterior skin which consisted of precast concrete of several sizes ranging from 6 to 25 tons each. All were fabricated in a precast plant in Riyadh to MAC's detailed engineering design and hauled 500 km to Jubail on specially adapted MAC rigs.



The work included:

- Design of all foundations, precast and structural steel members.
- Construction of large waterproofed mat foundation and basement walls below sea water level which necessitated constant de-watering.
- Supply and installation of all structural steel and precast cladding measuring up to 13 metres long and weighing up to 25 tons.
- All architectural finishing works.
- Sitework, which consisted of heavy manholes and transformer pad, as well as an elaborate network of cable duct banks all within a concrete masonry perimeter wall and gates.
- Lighting and air conditioning.
- Roads, fencing and landscaping for the entire site.

