

**Fabrication and Erection Techniques for
Extra-Heavy Steel High-Rise Structure,
Shenzhen Development Center, China***

Synopsis:

was used for girder connections at columns, where the amount of welding work is concentrated in the shop fabrication of steel frames.

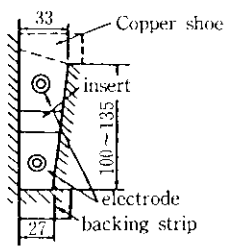
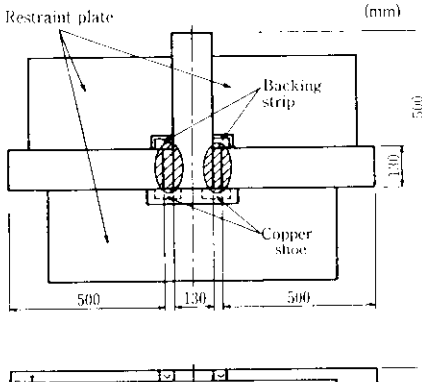
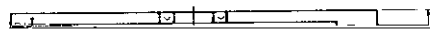
Field welding procedure tests were conducted using

in the Shenzhen Economic Development Zone of the People's Republic of China adjacent to Hong Kong. An outline of the building statistics is given in **Table 1**. The building is large cylindrical high-rise building about 160 m tall and is the highest steel-frame structure in

Figure 1. Outline of the building statistics is shown in Fig. 1. The

behavior and the incidence of internal weld defects structure comprises reinforced concrete load-bearing

Table 2 Standard procedure specification for CES welding of column-girder joint

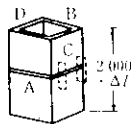
<p>Joint detail (mm)</p>		
<p>Welding condition of both</p>		

fabrication of extra-heavy steel frames is substantially

(mm)

Table 5 Test results of chemical composition and mechanical properties of base metal

Specification	Plate thickness (mm)	Chemical composition (%)						Tension test			Notes
		C	Si	Mn	P	S	Nb	YS (MPa)	TS (MPa)	El (%)	
	100	0.13	0.34	1.26	0.017	0.005	0.012	322	402	26	



A side	○
B side	△
C side	◇
D side	□

Upper flange	○
Lower flange	△
Web	◇

