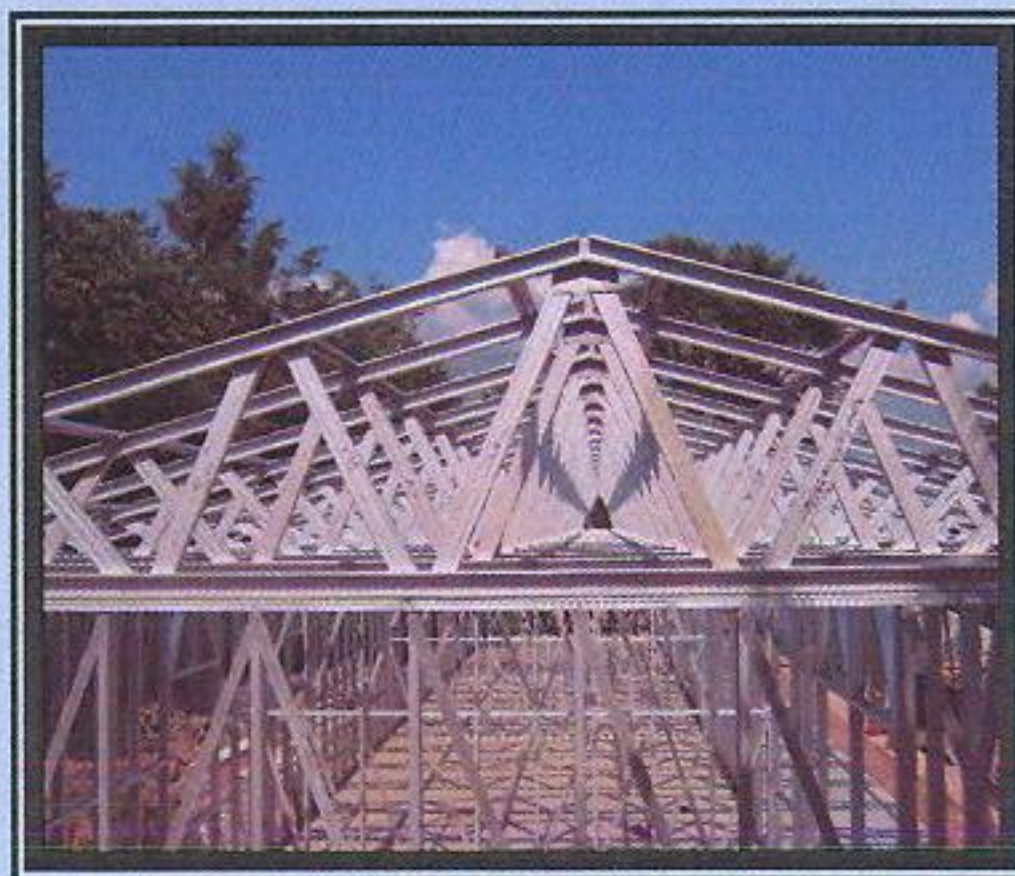


INTRODUCTION:

The earthquake of October 2005 in Pakistan had caused colossal loss of life and property in AJ&K and NWFP. Thousands of Schools, Hospitals, Roads and Bridges were completely destroyed besides human life loss. The Government of Pakistan engaged NESPAK as consultant. NESPAK examined various forms of construction technologies and decided to adopt the light gauge technology for Reconstruction and Rehabilitation work of educational facilities.

LGS has the following advantages:

- Fast Track Construction.
- Thermally efficient.
- Sound Proof.
- Ideal for seismic zones.
- High Strength to weight ratio.
- Reduced Labour Cost.
- Environmental Friendly.
- Can be easily shifted from one place to another.
- Ideal for mountainous and difficult approaches.



MATERIALS:

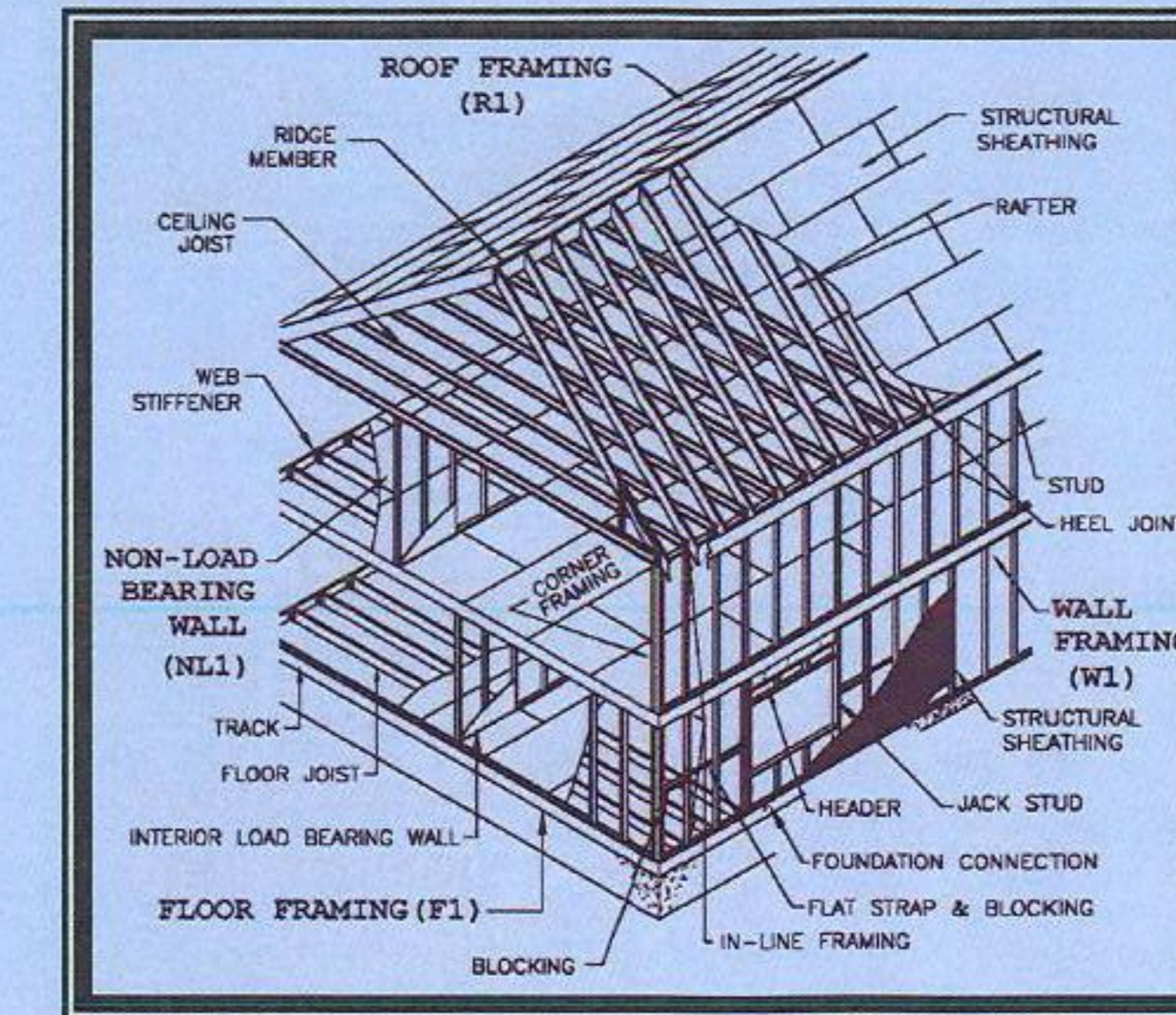
- Foundation— RC Concrete/steel dry foundation.
- Structural Frame - Galvanized Steel.
- Insulation - Glass wool/Mineral wool.
- Wall Cladding - Fiber Cement Board/Glass Reinforced Cement Board.
- Roofing - Corrugated GI sheet.
- Mezzanine Flooring - MDF Board/Fiber Cement Board

TECHNICAL INFORMATION:

- Usual thickness of cold-formed light gauge sheet varies from 18 mils (0.45mm) to 118 mils (3.0mm).
- Codes and standards used for design and construction of are AISI, ASCE, BS, AS/NZ, NASH, NAHB.
- Cold formed steel sheets are galvanized with zinc or alu-zinc coating in variable thicknesses.
- Cold formed steel sheets are available in grades ranging from 33ksi (230 MPa) to 80ksi (550 MPa). Ductility requirements of code/specifications govern the selection of the material grade.
- Various coating requirements for various site conditions have been specified in codes. Usually coating thickness varies from G30(Z90) to G360(Z1100).
For example G30 = 30 oz/ft² or 90 g/m² galvanization.
- For connection purpose various zinc coated clips, self drilling screws, expansion/anchor bolts are used.

Light gauge steel members are commonly used in following shapes:

Section	U-Section	Channel Section	Channel with Lips	Hat Section	Hat with Lips	Sigma Section	Sigma with Lips
Shape							
Use for	Base channel	Vertical studs	Girts	Purlins	Purlins	Connections, Purlins	Connections, Purlins

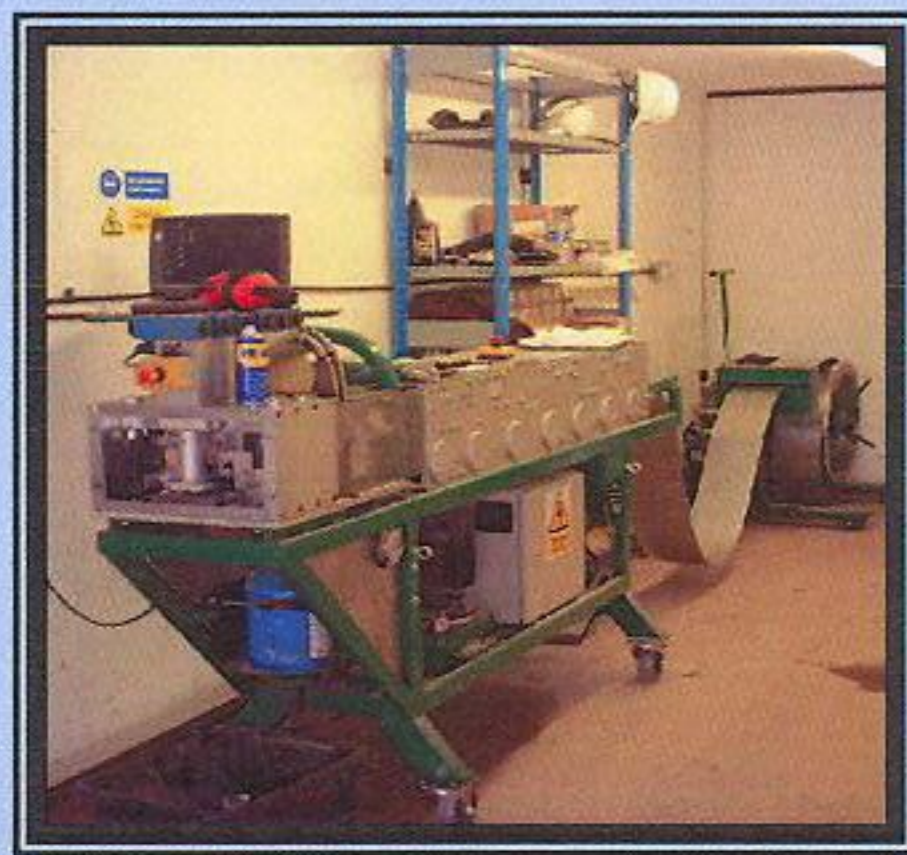
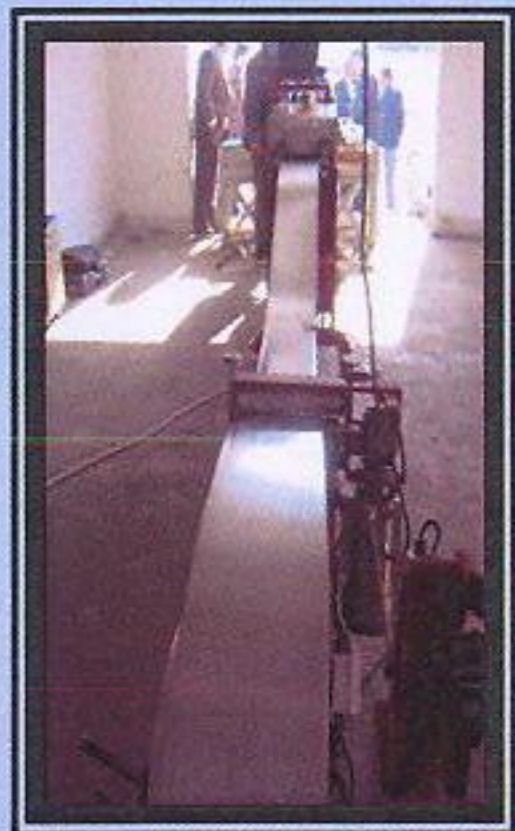


FUTURE :

Because of the fast track technology, superior thermal insulation and being environmental friendly, this technology can solve the severe housing shortage in our country in months. Mega low cost housing schemes can be launched successfully in LGS technology.

NESPAK is all set to put LGS technology in extensive use in the country in Housing industry, Industrial Building, Educational Institutions and Medical facilities etc.

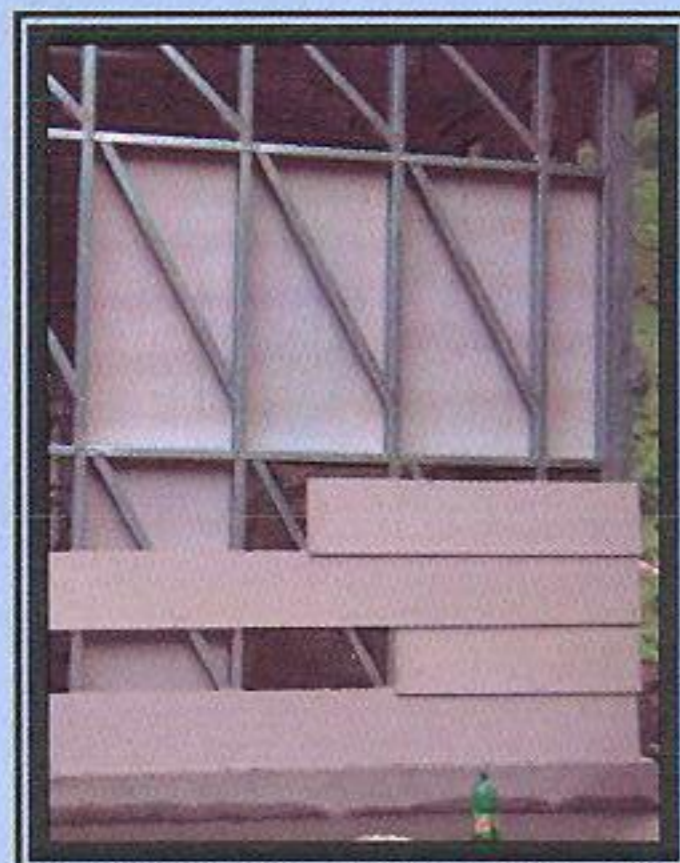
LGS is the future of Construction Industry in Pakistan.



Cold Roll forming Machine



Basic components



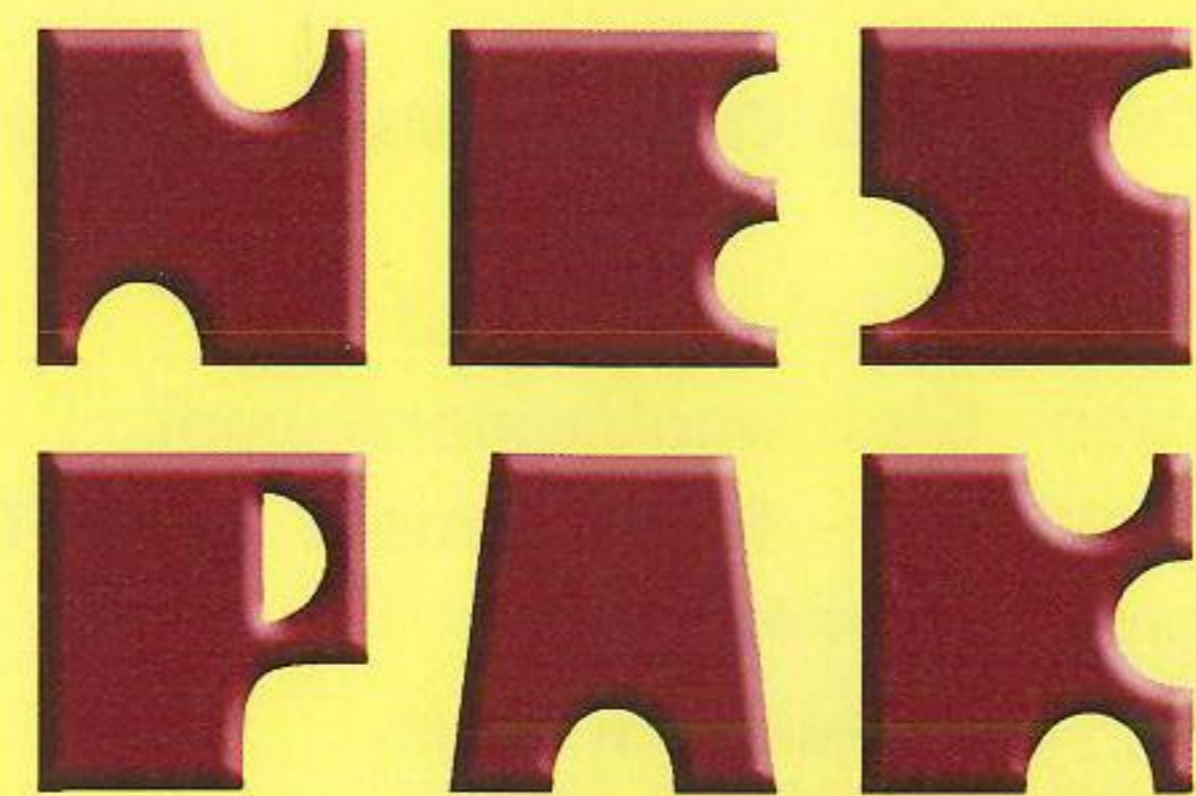
Installation of Fiber cement board and insulation after erection of steel structure



Self drilling screws



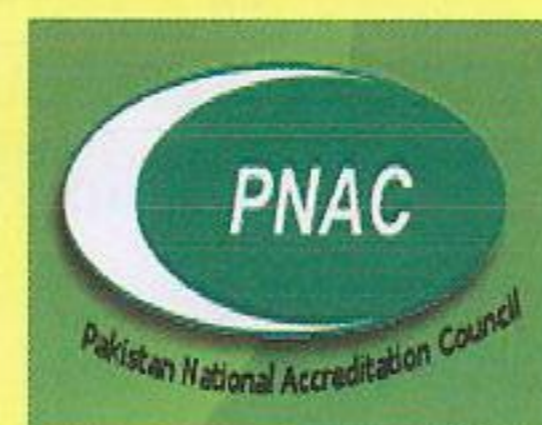
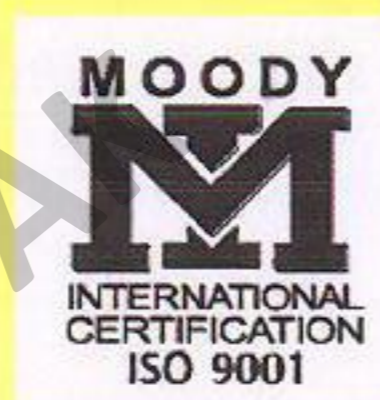
Completed steel structure



NATIONAL ENGINEERING SERVICES PAKISTAN (Pvt) Limited

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NATIONAL ENGINEERING SERVICES PAKISTAN (Pvt) Limited

PRE-ENGINEERED LIGHT GAUGE COLD FORMED GALVANIZED STEEL STRUCTURE

