

# ROLL FORMING

## “BUS BODY SECTIONS”

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In the eight series of continuing articles on Roll Forming we will discuss about the rollformed sections used in various types of bus bodies. Traditionally, bus-body sections in India were used to be press braked. The recent trend is to go for rollforming of these sections.

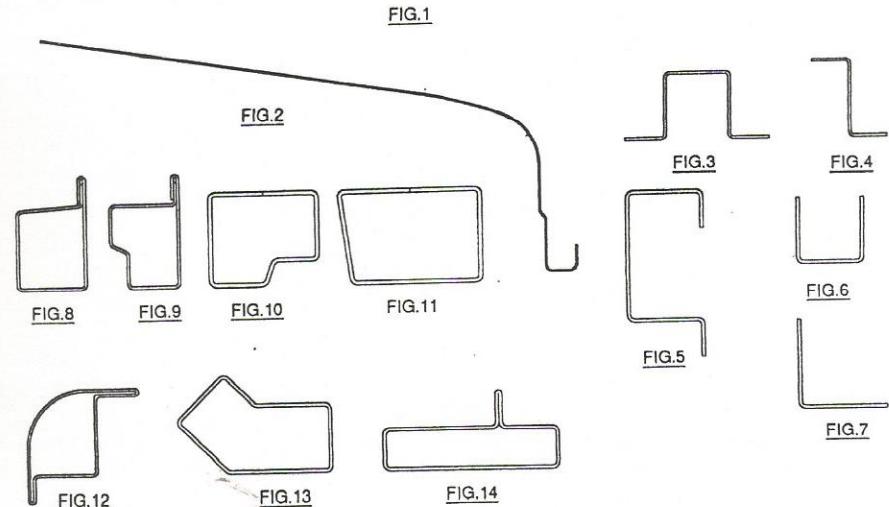
Most of the State Road Transport Organisations in India build their own bus bodies for their buses they operate excepting their own luxury coaches. They make the required sections in the age old press braking method with their own standards.

The dimensions of the section differ only a few millimeters in depth and widths. If these sections could be standardized to a few sizes all these could be produced in economic quantities by rollforming process which is cost saving.

With advent of aesthetically looking High Tech Buses with imported designs a few years back and because of the necessity of using about ten-meter long sections mainly for side panels and roofing sections rollforming has received a big impetus.

As press braking is normally done upto 3 meter length sections and the bus bodies are about ten meter long the sections which used to be previously press braked and welded together are also getting converted to rollformed sections. In the case of rollforming there is length limitation for sections.

The limitation is only transportability of sections. With the improved National Highways coming up in big way(Golden Quadrilateral) and also other super fast highways connecting important cities in India with the required feeder



routes the requirement of efficient luxury as well as semi-luxury coaches are bound to increases in the coming years.

Fashionable tour coaches with stylish outlook and streamlined bodies are going to be more in demand. More comfortable coaches with better safety standards are going to be in demand in future. Lightweight fuel-efficient monocoque construction buses are being developed all over the world.

There are also developments taking place to bring out lightweight shuttle buses, which are electric, driven and pollution free. It has been strongly been felt by various government and non-government organisations that we have to give increased attention to efficient public transport system instead of personal vehicles. Singapore is the best example in this respect. In the 3 to Fig. 14 could be used.

figures shown Fig.1 is the typical side panel section and Fig.2 is that of Roofing section. These are the exterior sections. For the interior body-skeleton section shown in Fig.3 to Fig.14 could be used.

Out of these, predominantly different sizes and thickness of Hat Sections as shown in Fig.3 are used. Channel sections as in Fig.6 Z sections as in Fig.4, Angle sections as in Fig.7 and G sections as in Fig.5 are the important sections used.

The sections shown in Fig.8 to Fig.14 are used as major body-load-bearing members. There are several other variations of sections used for different types and models of bus-bodies. The main emphasis in future is going to be high strength to weight ratio rollformed sections, which will lead to increased fuel efficiency.

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