# Mobile Rollforming Machines

*In this Twentyfirst series of articles on Rollforming we will discuss about Mobile Rollforming Machines. With the increasing building activities all over the world and especially in the advanced countries the latest trend is to go for the increased usage and development of mobile roll forming machines.*

The usual practice is to form the sections on machines housed in the factories. But it has been experienced that producing sections right at the building site itself is found to be more economical and faster. If the material rollformed is pre-painted strip, by rollforming at the consumer/usage end itself the surface damage caused during transportation and handling is avoided. Especially during the transportation of long sections such as wide width prepained roofing sheets this is so. Also the raw material in the coil form is much more compact than once the sections are formed out of them.

That means transporting finished sections over long distances is much more costlier than transporting the raw material in coil form. Coils can be shipped at substantial freight savings over flat sheets with far less potential for damage in transit. Coils tie up very little floor space unlike flat sheets which require shelving and are difficult to access, handle and process. Usage of mobile rollforming machines has revolutionised the whole process of rollforming and has given a great impetus to the development of large number of rollformed sections especially in the advanced countries.

Traditional Rollforming Machines have several rollstands along with entry-guide system and straigntener and drive system mounted on a heavy base. The decoiler unit where the raw material coil is mounted will have a seperate fabricated stand. Whereas mobile rollforming machines are designed in such a way that they are light weight. They will have the decoiler directly supported above the machine stands and integral with the machine base. As they are moved to different locations and building sites where availability of three phase power is difficult single phse powered motors are used. The machine will have an inbuilt cut-off system.

Because they have to be mounted on truck chasis the machine design is made light weight. The mobile rollforming machines could also be placed inside 20 feet containers and could be transported to the building sites.Actually in the USA patented lightweight designs have been developed which are energy efficient. In the USA for producing rainwater roofing gutter sections there are about more than 3000 mobile rollforming machines in use and these figures are increasing day by day.

But in India there are hardly a few mobile rollforming machines in use. There are a few mobile rollforming machines for producing roofing sheets in use and of late for mobile arch building sytems (self supported arch/curved structure without trusses) Mobile rollforming machines are used by one building contractor in the state of Gujarat as far as we know so far.

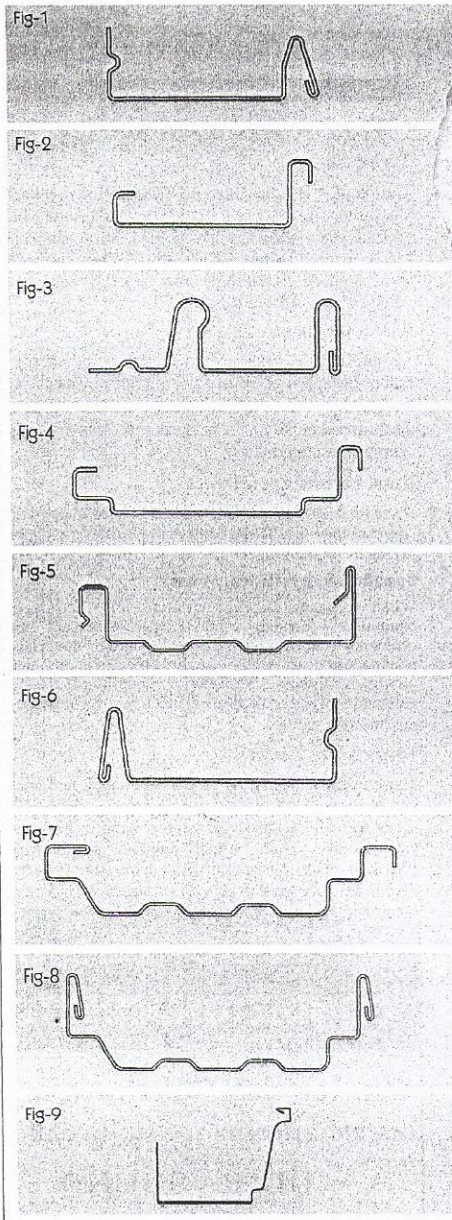
With the increased usage of rollformed sections (tile shaped roofing sheets, rainwater gutter sections, panel sections) for the residential buildings as in the case of advanced countries the requirement of mobile rollforming machines is going to increase in India in the years to come. Right now roofing sections are being used mainly for the construction of factory buildings, ware houses etc. Metal roofing is environmentally sound, it will not deplete forests and metal is a recyclable material.

One of the widely used rollformed section for residential buildings which are produced on mobile rollforming machines in the advanced countries is the rain gutter sections. Traditionally rainwater gutter sections are formed from sheet metal (usually galvanised steel) using press brakes.

Here their lengths are restricted to the size of the press brake (usually 8 feet) of sheet metal.. The most common problem associated with these gutters is leaks occuring at the joints. Using custom profiled and elegant looking continuous rollformed sections which have consistency in dimensions, straightness and without any joints there is a drastic improvement in building activity. Further, with the availability of pre-painted strips which are long lasting there is a further advantage.

Fig. 1 to 9 are some of the sections that are usually rollformed on mobile rollforming machines. Fig . 9 is the Gutter section made on a mobile rollforming machine supplied by Sedvik Industries, Bangalore and which has been exported to Malaysia a few years back. The machine was specially designed to produce pre-painted heavier and wider type (7 " size) rain water gutter sections because of the heavy rainfall conditions prevailing in Malaysia compared to the other advanced countries.

The usual sizes prevelant in the advanced countries is 5" and 6" sizes. With the increased standardisation of sections used in the building industries and dwelling houses and the requirement of rapid construction deadline there is going to be a very great need for mobile rollforming machines in the years ahead in India.

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