



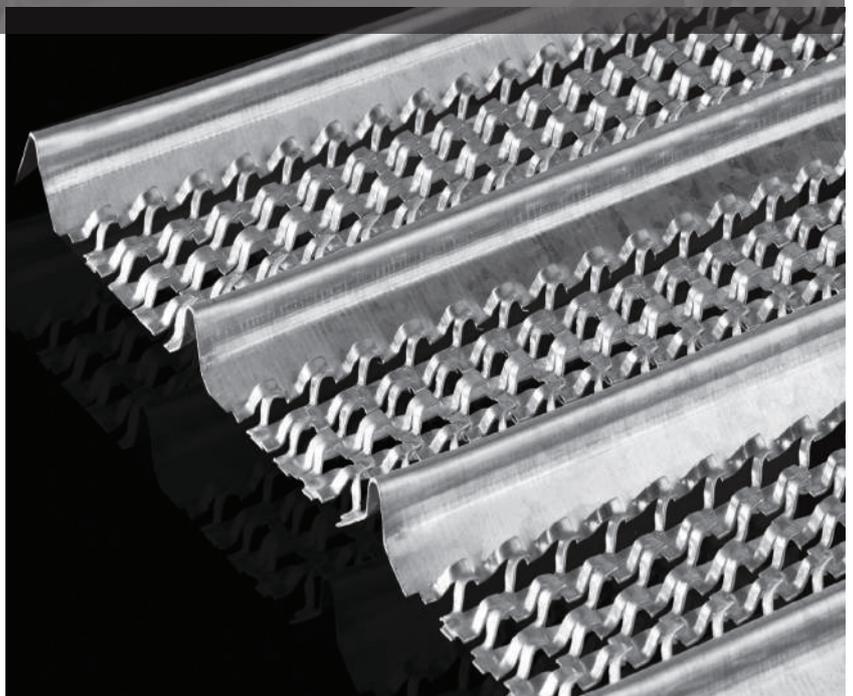
Heavy Rib

TMI Expanded Mesh & Metal Products

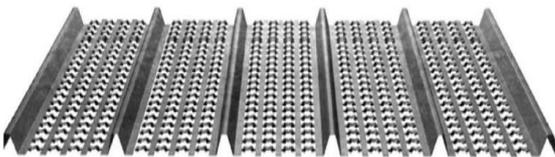
TMI-Heavy Rib is used widely in construction work for joints, stop-end, retaining walls and columns. It creates a strong bond base for successive pours. Heavy Rib is fixed as permanent formwork.

Key Product Features:

- Unique design incorporates mesh and roll-formed ribs to retain poured concrete.
- Versatile, light weight, easy to cut, bend and shape.
- Open mesh design can reduce concrete pressure by up to half, thereby decreasing form work supports considerably.
- Installation is possible in less time than traditional plywood or steel form work.
- Permanent form work. No stripping or preparation of joint surface for bonding to the next pour is required.



Reference	Weight kg/m ²	Rib Depth (D)mm	Width (W) mm	Length (mtr)	Material
HR 3	3.39	21	445	2.2/2.5/3.0	Galvanized Steel
HR 4	4.86	21	445	2.2/2.5/3.0	Galvanized Steel
HR 6	6.34	21	445	2.2/2.5/3.0	Galvanized Steel



Special lengths are available upon request.

Material: Galvanized Steel : BS EN 10346:2009

(formerly BS EN 10142:1991; ASTM A653/A653M)

“ TMI-Heavy Rib is a metal sheet product in expanded form, intended to be used as permanent formwork to concrete. “

The profile of the open mesh form, along with heavy ribs at fixed intervals enables it to hold the concrete firmly and forms an enhanced mechanical key for the second phase of the concrete pour or finishing work.

The mesh opening is designed as angled tabs, which enable the poured concrete to embed firmly within it for producing a mechanical bond. The ribs also adding rigidity to it.



Applications:

The TMI-Heavy Rib is predominantly used in construction joints, but its applications are extended widely to form wall, column, beam, slab soffits, tunnels, bridges, etc... It has also been used successfully for sprayed concrete applications.

The TMI-Heavy Rib creates a strong bond base for successive pours. It is fixed as permanent form work. When concrete is poured behind it, the angled tabs of mesh become embedded. This produces a mechanical key for the adjacent pour.

TMI-Heavy Rib provides a high degree of control over the quality of the joint, which is as strong in bond and shear as a well prepared scabbled joint.

For external visible areas, the resulting TMI-Heavy Rib surface is suitable for a rendered or tiled finish.

The surface of retaining walls receiving the infill should have a waterproof coating applied.



Key Benefits:

As concrete pressure is reduced, saving over the supporting system is achieved.

Due to its quality of versatile, light weight & easy to cut, it is adaptable to any practical situation. It can either be placed before or after the concrete reinforcement is fixed. If before, the reinforcement is then installed through holes pierced in the mesh; if afterwards, it can be cut to accommodate the position of bars, thereby saving time and cost.

Due to its usage as permanent formwork in construction joints, it minimizes surface preparation and the risks involved with hand and arm injuries, as well as saving time and cost.

As the progress of the pour can be monitored visually, the risk of voids and honey combing are reduced (i.e., the risk of trapped air and voids within the concrete is reduced).

TMI-Heavy Rib formwork can be installed easily by supervised site labour. Heavy duty shears or abrasives can be used for cutting.

TMI-Heavy Rib is best supported by existing or extra reinforcement bars, thus achieving maximum cost saving. This allows the whole fabrication to be left in place, eliminating most striking operations for the joint, especially in congested areas of joints.

Due to its quality of easy flexibility and ability to form any shape other than the traditional plywood or steel formwork, TMI-Heavy Rib is the ideal material as a standby to form a contingency stop end, in case of an unexpected interruption or delay during a large concrete pour.

TMI-Heavy Rib with the concrete creates an ideal bonding surface for the subsequent pour, for construction joints and stop ends. TMI-Heavy Rib formwork will allow the poured concrete to exude through the open mesh and form nodules to provide a key for the subsequent pour. This avoids the extra cost and time for scabbling of the joint, after the concrete had hardened.

TMI-Heavy Rib is available in various lengths, which allows the contractor to avoid a lap joint end on end sheets. Width remains the same, which is 445mm. In many cases, a single piece will accommodate the width or length of a joint.



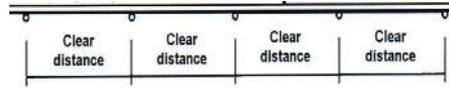
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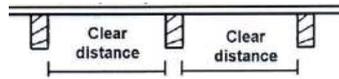
Support Systems:

TMI-Heavy Rib can be used with support systems such as timber, scaffold poles, rebar, etc...

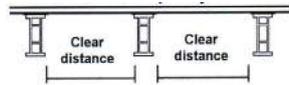
TMI-Heavy Rib supported by rebar or scaffold tubes.



TMI-Heavy Rib supported by timber.



TMI-Heavy Rib supported by aluminium supporters.



Fixing Indications:

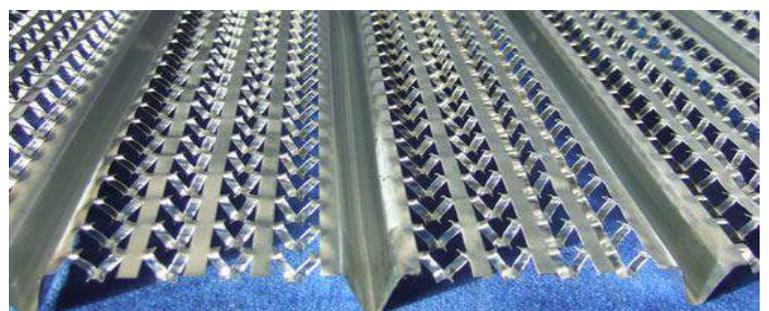
- TMI-Heavy Rib can be installed with the ribs placed either horizontally or vertically.
- The supporting members should always be at right angles to the ribs and the ribs should always point away from the supports.
- TMI-Heavy Rib should be securely attached to the supporting framework of reinforcement by tying wire.
- If timber or aluminium supports are used, TMI-Heavy Rib should be securely attached by nailing.
- TMI-Heavy Rib should be fixed visible, as far as possible, so that during concreting, the vibration and formation of the concrete face suitable for the subsequent pour can be observed.
- TMI-Heavy Rib is used with the ribs horizontally pointing into the concrete to be poured and spanning in the strong direction between vertical supports.
- Adjacent sheets should be overlapped by the outer edge ribs and tied together at about 150 mm intervals in width ways and in the case of length ways, it should overlap by minimum 50 mm with supports.
- Positioning of services, pipe work, rebar, other openings, etc... should be incorporated at the time of fixing of TMI-Heavy Rib.
- Wear appropriate protective equipments during handling of TMI-Heavy Rib.



Details of Formwork:

TMI-Heavy Rib form work can be installed with the ribs placed horizontally or vertically. Support members should always be at right angles to the ribs and the ribs should always point away from the supports. Fastening to the timber support shall be done by nailing.

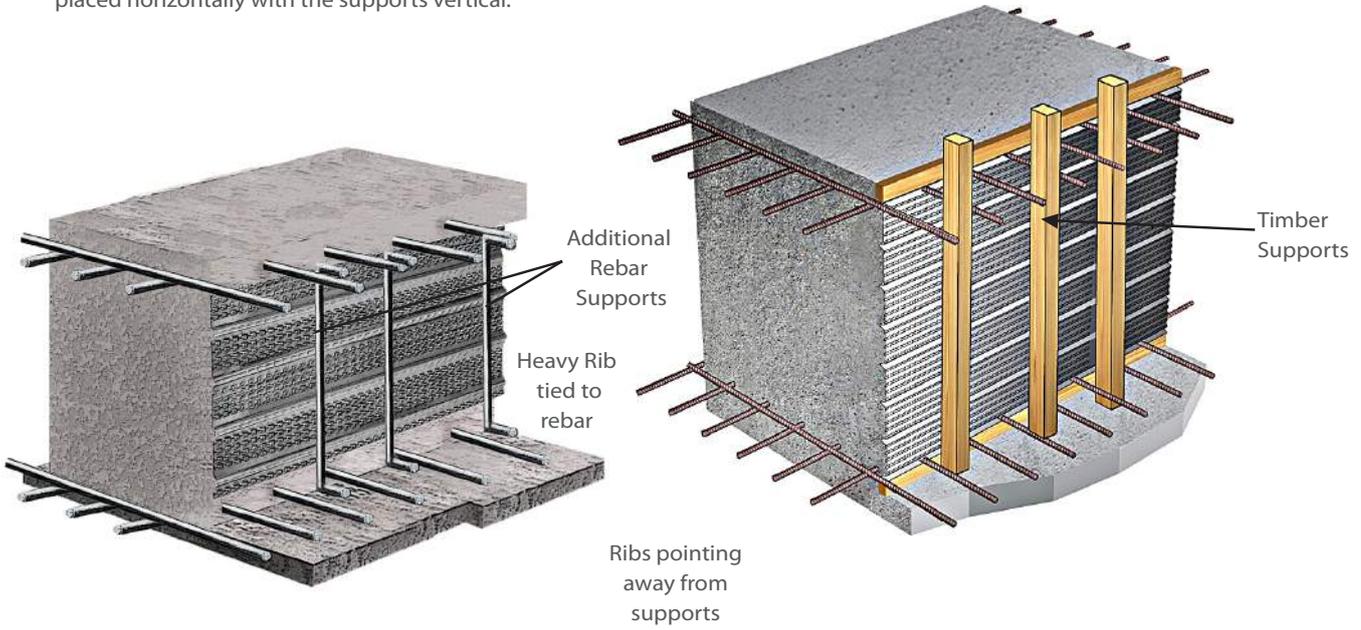
To reduce or eliminate the stripping of supports, suitably formed rebar can be used. Fastening to the steel and rebar support can be by wire tying.



Construction Joints:

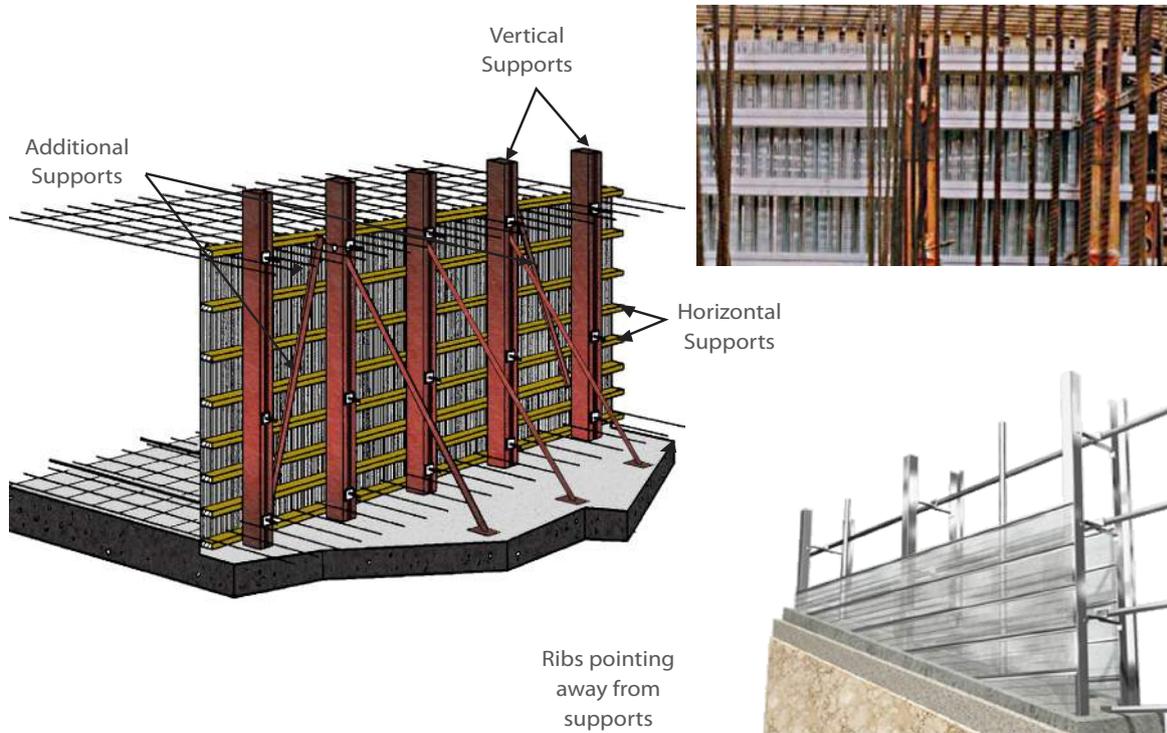
Slab Joints and Stop Ends

In a slab construction joint or stop end, TMI-Heavy Rib will generally be placed horizontally with the supports vertical.



Deep Construction Joints

TMI-Heavy Rib will generally be placed vertically.



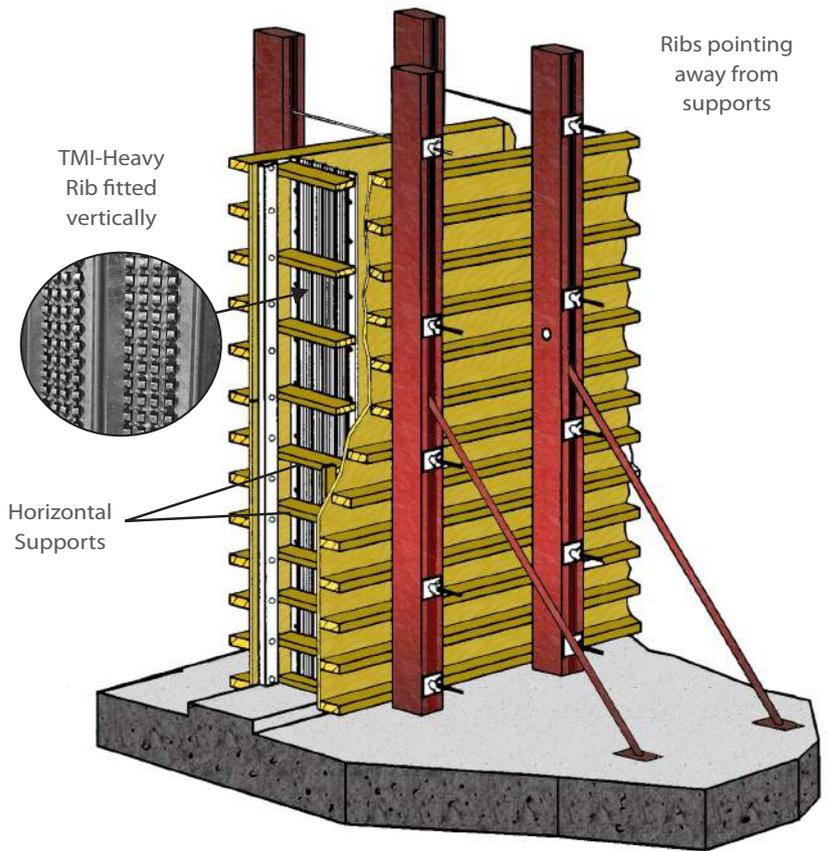
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Construction Joints to Walls:

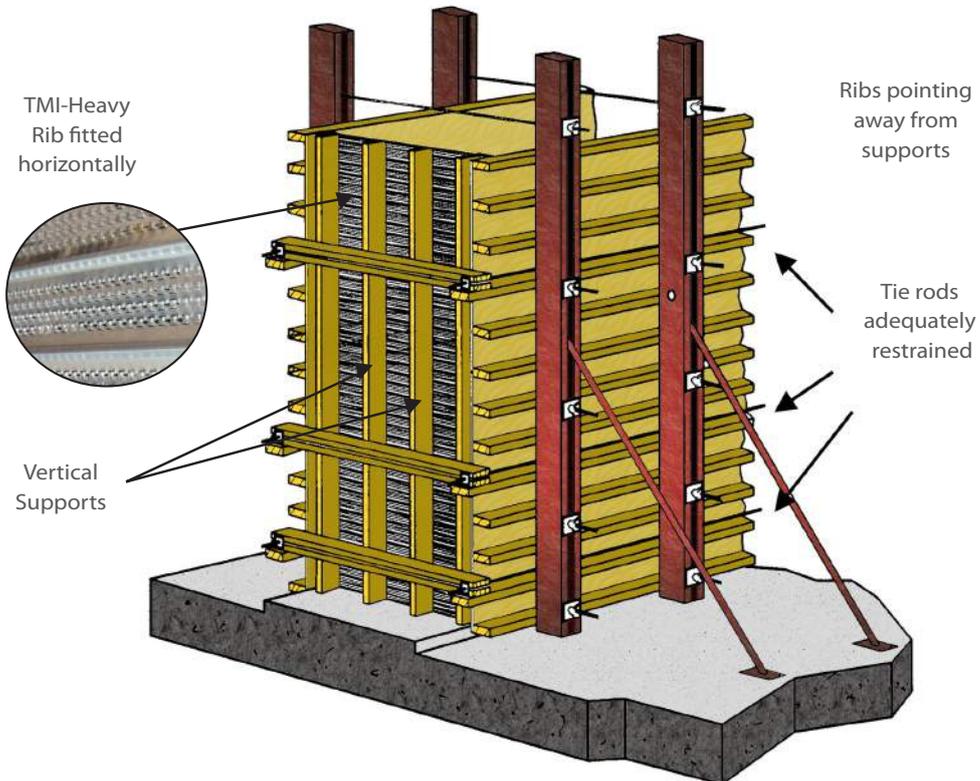
Vertical joints in thin walls

In stop end to thin walls (less than 900mm thick), TMI-Heavy Rib will generally be placed vertically, with the supports fitted horizontally.



Vertical joints in thick walls

In stop end to thick walls over 900mm, TMI-Heavy Rib will generally be placed horizontally, with the supports fitted vertically.



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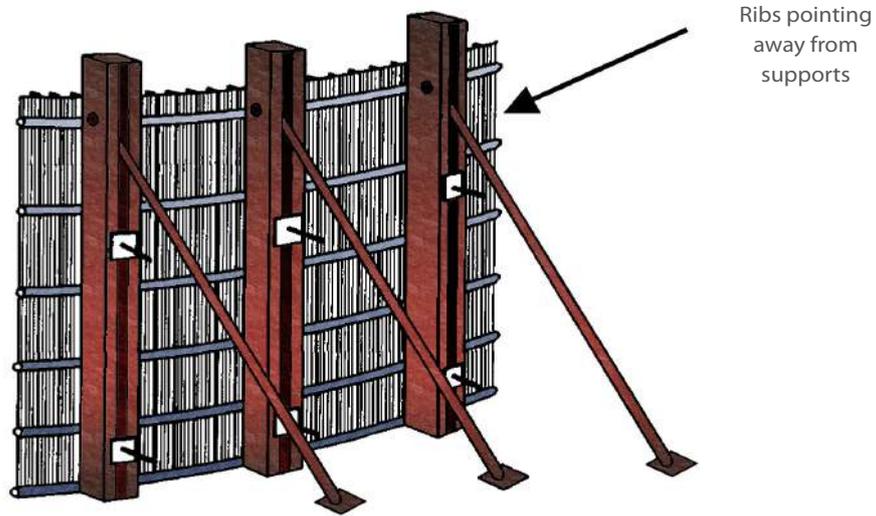
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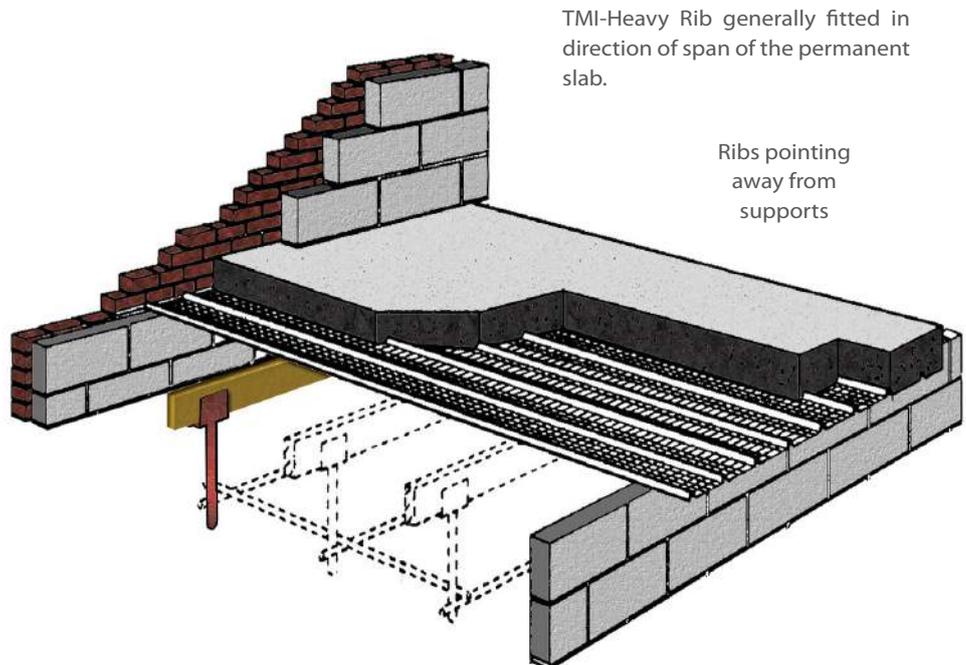
Curved Formwork:

TMI-Heavy Rib is very flexible to accommodate a curved structure. The below figure shows TMI-Heavy Rib placed vertically and is radiused easily. It can be wired to radiused supports.



Soffit Formwork:

When used as permanent soffit formwork to a slab, TMI-Heavy Rib has to be provided with sufficient support to allow the wet concrete to set by itself. Where access to the underside of a slab is restricted, such as on duct covers and low suspended slabs, the use of TMI-Heavy Rib can be considered as an economic solution. TMI-Heavy Rib formwork will remain intact for the lifetime of the structure into which it is cast, and it will be fully protected by plastering.



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