



# Adding **Strength** to **Indian Railways**



Rail Products Division  
**Pennar Industries Limited**  
(ISO 9001:2000 Certified company  
and RDSO, Lucknow & ICF, Chennai approved source)



Pennar Industries Limited is a Rs. 720 crore multi-product, multi-location enterprise manufacturing a wide range of products including cold formed steel profiles, pressed steel components, precision tubes, cold rolled strips and fabricated products of steel. These products are made from diverse raw materials such as stainless steel, corten steel, pre-galvanised/galvalume/pre-colour coated steel, mild steel, structural steel in St-42/52 grades and aluminium.

The company has modern manufacturing facilities including laser cutting, plasma cutting, transfer presses and CNC machines which enables it to make products of very high quality, to stringent specifications required by customers.

Pennar's customers are spread over industrial segments detailed below:

## 1. Railway Products

- a) Profiles for railway wagons and coaches.
- b) Fabrication of side walls, end walls and roofing assemblies for LHB coaches.
- c) Under frame components for coaches and wagons.

## 2. Automobile Products

- a) Panels and profiles for buses and light commercial vehicles.
- b) Bumpers and fenders for heavy commercial vehicles.
- c) Precision tubes for buses
- d) Auto components made of sheet metal.

## 3. Building Products

- a) Primary frames b) Z and C purlins c) Roofing sheet d) Deck plates

## 4. ESP Electrodes

Collecting electrodes and discharge electrodes for Electro Static Precipitators, used for controlling pollution in cement and mineral industries.

## 5. Pressed Steel Components

Pennar has presses of various capacities to produce pressed components for the following sectors: a) Refrigeration b) Air conditioning c) Office furnishing d) General Engineering

## 6. Road Safety Systems

Metal crash barriers including beams and posts for safety on the highways and bridges.

## 7. Fabricated Products

Fabrication of heavy structures for industrial buildings, conveyors, racking systems, boilers and electro static precipitators (ESP).

## 8. Precision Tubes

Precision tubes in round, square and rectangular cross sections to close dimensional tolerances as per ASTM and IS standards for electrical (transformer cooling), construction, furniture and general engineering sectors.

## 9. Cold Rolled Steel Strips

Steel strips are manufactured upto 720mm width and 0.25mm to 5.0mm thickness, both in coil and sheet form. The customers list covers automobile, automotive components, consumer durable goods, bearings, electrical and general engineering industries.



# Cold Roll Formed Profiles and fabricated products for Rail Coaches

## Under Frame Assembly

- Longitudinal Beam
- Stainless Steel Trough Floor Sheets
- Stainless Steel Integrated Trough Floor Assemblies
- Body Bolster
- Head Stock
- Modular Frame
- Lower Spring Beam

## Side Wall Assembly

- Body Pillar
- Door Corner Sheet
- Light Rails / Waist Rails

## Roof

- Cant Rail Assy
- U-Stiffner
- Trough for Roof Mounted A/C

## Shell Assembly

- Partition Frame

## Furnishing

- Hand Rails
- End Construction

## LHB Coaches

- Side Wall Assembly
- Roof Assembly
- End Wall Construction

## DMRC

- Cant Rail
- Sill Side
- Roof Pannel
- Key Stone

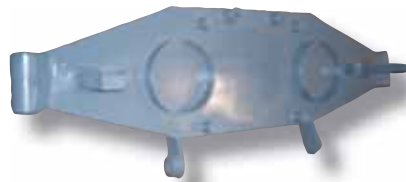
# Fabricated Products for Rail Coaches



Trough for Roof Mounted A/C



Partition Frames



Lower Spring Beam



Front Part and End Part for MRVC Coaches



Body Pillar (Stainless Steel)



Door Corner & SS Hand Rail Assembly



End Construction



Body Bolster



MRVC Head Stock



Integrated Trough Floor Assembly for GS Coaches

# Fabricated Products for LHB Coaches



LHB - Side Wall Assembly



LHB - Side Wall (Inner view)



LHB - Carline Assembly



LHB - Roof Assembly



LHB - Coach Assembly

## Facilities



Laser Cutting Machine,  
Amada - Japan make



CNC Plasma Cutting machine,  
MESSER make



600T Press - AIDA, Japan make



CNC Milling, YCM-Taiwan make

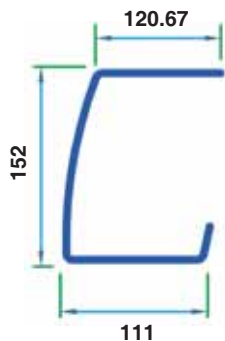


CNC Lathe machine. HAAS - US make



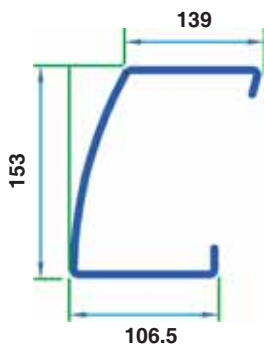
Pennar

### MRVC Cantrail (ICF)



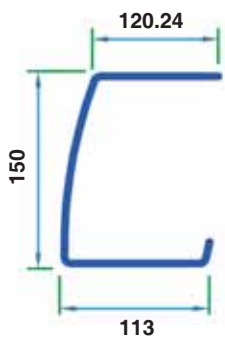
Thickness 5.0mm  
Material 6860mm  
Material IRSM-41

### Regular Cantrail (ICF)



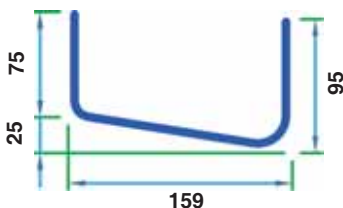
Thickness 3.15mm  
Length 6944mm  
Material IRSM-41

### MRVC Cantrail (ICF)



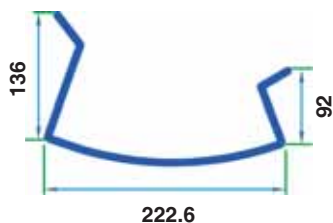
Thickness 4.0 mm  
Length 6860mm  
Material IRSM-41

### Side Sill - DMRC (BEML)



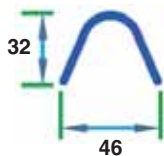
Thickness 4.5mm  
Length 21344mm  
Material SUS 301L - HT

### Cantrail - DMRC (BEML)



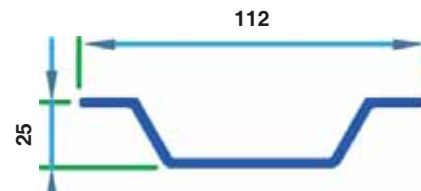
Thickness 2.5mm  
Length 21359mm  
Material SUS 301L - ST

### U Stiffner (ICF)



Thickness 1.6mm  
Length 2305~6944mm  
Material IRSM-41

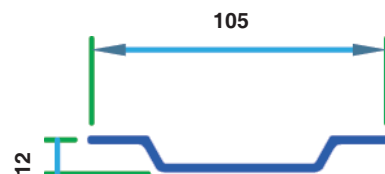
### Waist Rail (ICF)



Thickness 2.0mm  
Length 1554~4162mm  
Material IRSM-41

# Various Cold Roll Formed Profiles used in Rail Coaches

### Light Rail (ICF)



Thickness 2.0mm  
Length 1554~4162mm  
Material IRSM-41

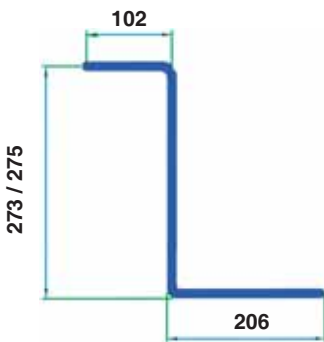
### Key Stone Plate - DMRC (BEML)



Thickness 0.8mm  
Length 21028mm  
Material SUS 301L - ST

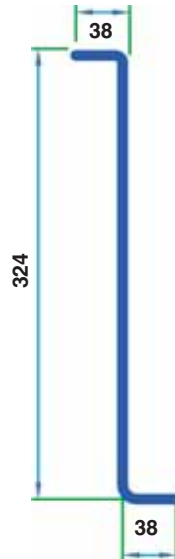


### MRVC Longitudinal Beam (ICF)



Thickness 6.0mm  
Length 9553~10452mm  
Material IRSM-41

### Sole Bar (ICF)



Thickness 5.0mm  
Length 1256~10705mm  
Material IRSM-41

### Roof Panel - DMRC (BEML)



Thickness 0.8mm  
Length 474.5~9746.5mm  
Material SUS 301L - ST

### Roof Panel for LHB



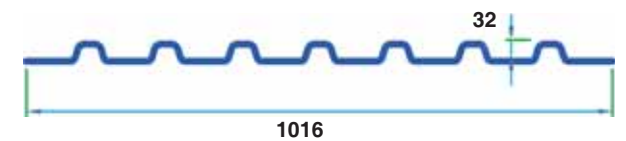
Thickness 1.25 / 1.7mm  
Length 3050~6043mm  
Material AISI 304

### Trough Floor Regular



Thickness 1.7mm  
Length 9600mm  
Material AISI 301 (CK 201)

### MRVC Trough Floor



Thickness 1.7mm  
Length 10380mm  
Material AISI 301 (CK 201)

## Rail Wagons with Cold Roll Formed Profiles



- Profiles with  
IRSM-41 (Corten Steel)  
IRSM-44 (Stainless Steel)
- BOX NLW



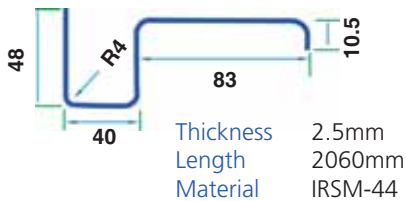
- Profiles with IRSM-44  
(Stainless Steel)
- BOX NHL
  - BOX NR
  - BC NHL



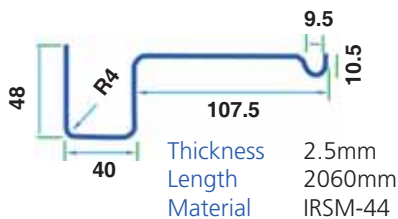


# Cold Roll Formed Profiles for Rail Wagons

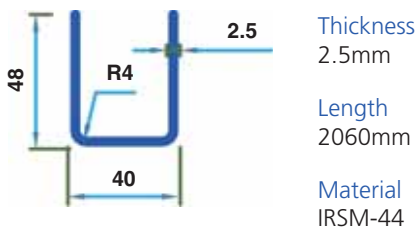
## Door Channel (BCNHL)



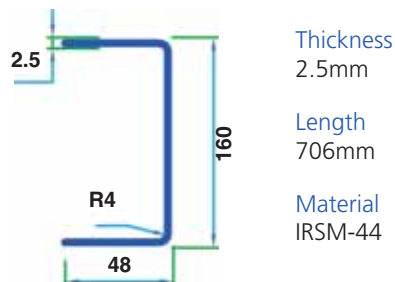
## Door Channel (BCNHL)



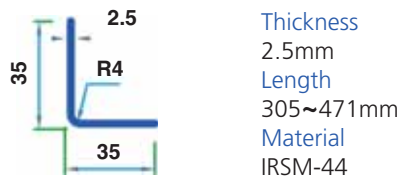
## Door Frame Channel (BCNHL)



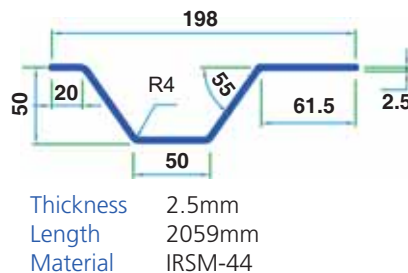
## Door Frame Channel (BCNHL)



## Door Frame Stiffener (BCNHL)



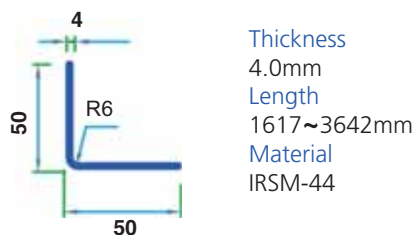
## Side Stanchion (BCNHL)



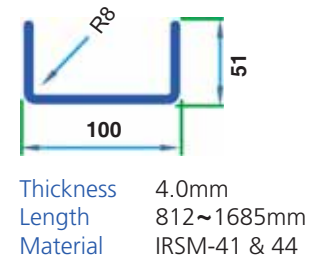
## Door Frame Top (BOX NR)



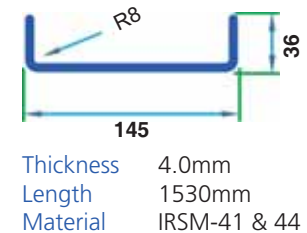
## Side Crib Pressing (Outer & Inner) and End Crib Pressing (BOX NR)



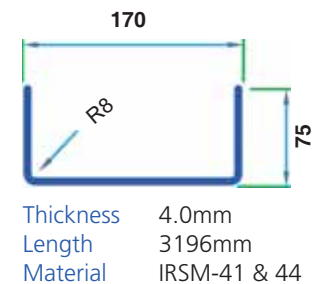
## Stringer (BOX NLW / BOX NHL)



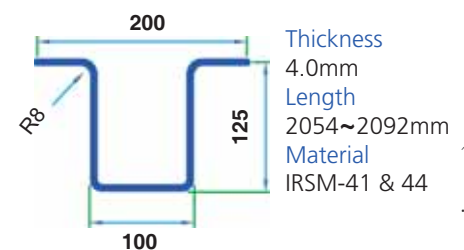
## Door Way Stiffener Cross Bar (BOX NLW / BOX NHL)



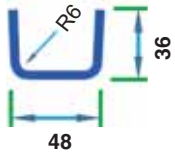
## End Top Coping (BOX NLW / BOX NHL)



## Body End Stanchion (BOX NLW / BOX NHL)

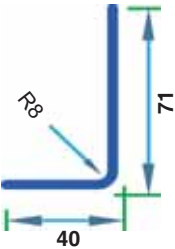


**Door Frame**  
(BOX NLW / BOX NHL)



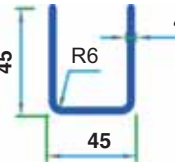
Thickness  
4.0mm  
Length  
672~5145mm  
Material  
IRSM-44

**Side Middle Coping**  
(BOX NLW / BOX NHL)



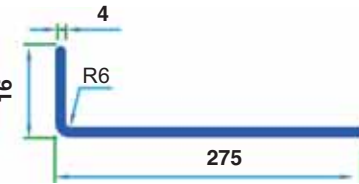
Thickness  
4.0mm  
Length  
1505~1530mm  
Material  
IRSM-41 & 44

**Door Frame Middle Side**  
(BOX NR)



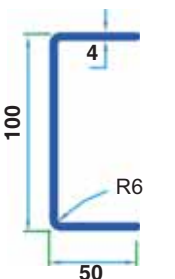
Thickness  
4.0mm  
Length  
729~777mm  
Material  
IRSM-44

**Door Link Bracket Frame**  
(BCNHL)



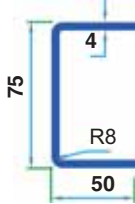
Thickness  
4.0mm  
Length  
1943mm  
Material  
IRSM-44

**Stringer**  
(BCNHL)



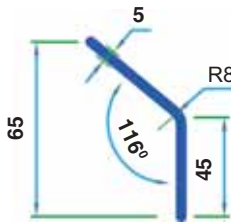
Thickness  
4.0mm  
Length  
1240.5~1425mm  
Material  
IRSM-44

**Longitude of Roof**  
(BCNHL)



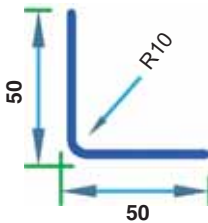
Thickness  
4.0mm  
Length  
10034mm  
Material  
IRSM-44

**Door Frame Bottom**  
(BOX NR)



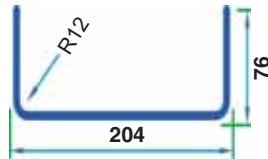
Thickness  
5.0mm  
Length  
1380mm  
Material  
IRSM-44

**Crib Angle & Floor End Angle**  
(BOX NLW / BOX NHL)



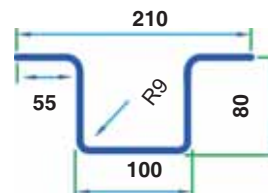
Thickness  
5.0mm  
Length  
808~3020mm  
Material  
IRSM-44

**Side Sill**  
(BOX NLW / BOX NHL)



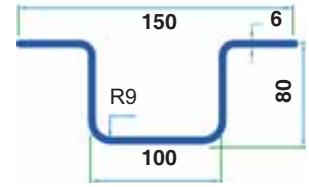
Thickness  
6.0mm  
Length  
9784~10034mm  
Material  
IRSM-44

**End Stanchion - Bottom / Middle**  
(BCNHL)



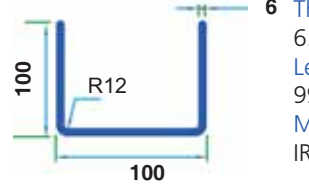
Thickness  
6.0mm  
Length  
874~1201mm  
Material  
IRSM-44

**End Coping Pressing**  
(BCNHL)



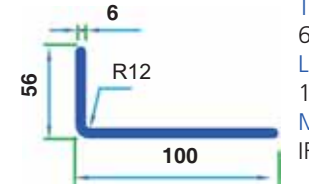
Thickness  
6.0mm  
Length  
860~3450mm  
Material  
IRSM-44

**Side / End Top Coping**  
(BOX NR)



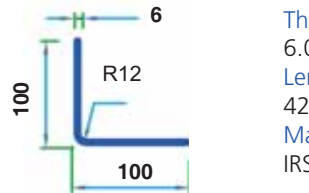
Thickness  
6.0mm  
Length  
9990~2960mm  
Material  
IRSM-44

**Side Top Coping**  
(BCNHL)



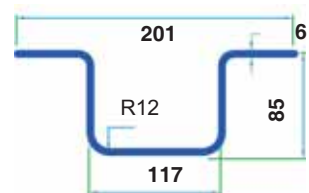
Thickness  
6.0mm  
Length  
10034mm  
Material  
IRSM-44

**Corner Roof Carline**  
(BCNHL)



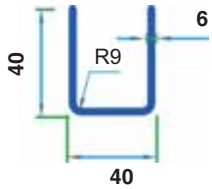
Thickness  
6.0mm  
Length  
4236mm  
Material  
IRSM-44

**Side Middle Coping (Centre / End Wall Middle Coping)**  
(BOX NR)



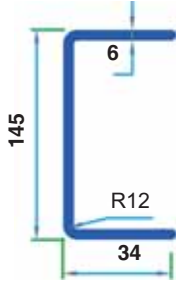
Thickness  
6.0mm  
Length  
713~2960mm  
Material  
IRSM-44

**Door Top Sill**  
(BCNHL)



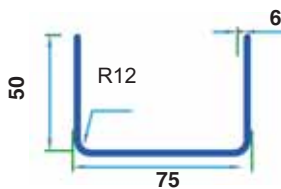
Thickness  
6.0mm  
Length  
1487mm  
Material  
IRSM-44

**Door Way Cross Bar Pressing**  
(BOX NR)



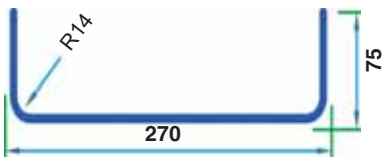
Thickness  
6mm  
Length  
1544mm  
Material  
IRSM-44

**Cross Member at Door (End)**  
(BCNHL)



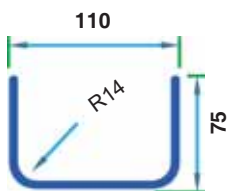
Thickness  
6.0mm  
Length  
1052~  
2032mm  
Material  
IRSM-44

**Centre Sill - Middle**  
(BOX NLW)



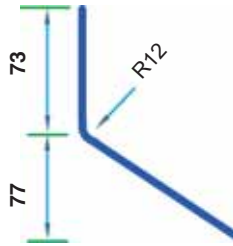
Thickness 7.0mm  
Length 5724mm  
Material IRSM-41

**Body Side Top Coping**  
(BOX NLW / BOX NHL)



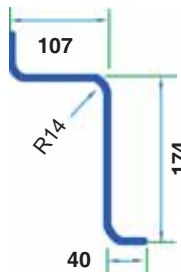
Thickness  
7.0mm  
Length  
9792~  
10042mm  
Material  
IRSM-41 & 44

**Sole Bar Stiffner**  
(BCNHL)



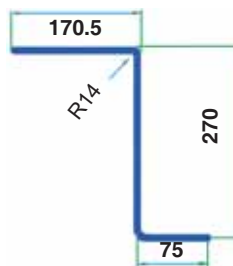
Thickness  
7.0mm  
Length  
10034mm  
Material  
IRSM-44

**Sole Bar**  
(BCNHL)



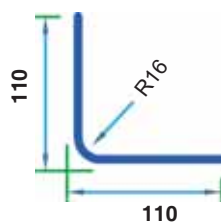
Thickness  
7.0mm  
Length  
10034mm  
Material  
IRSM-44

**Centre Sill - Middle**  
(BOX NHL)



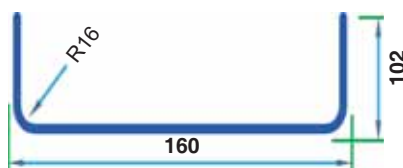
Thickness  
7.0mm  
Length  
6190mm  
Material  
IRSM-44

**Corner Stanchion**  
(BOX NLW / BOX NHL)



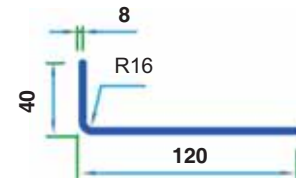
Thickness  
8.0mm  
Length  
2084 ~  
2122mm  
Material  
IRSM-41&44

**Body Side Stanchion**  
(Southern Railway - Trichy)



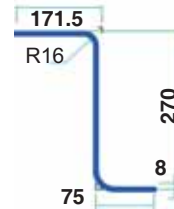
Thickness 8.0mm  
Length 2232mm  
Material IRSM-44

**Cover Plate**  
(BOX NR)



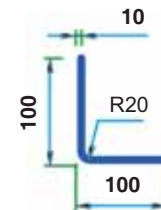
Thickness  
8.0mm  
Length  
88mm  
Material  
IRSM-44

**Centre Sill**  
(BCNHL)



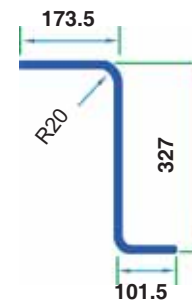
Thickness  
8.0mm  
Length  
4839mm  
Material  
IRSM-44

**Corner Stanchion**  
(BOX NR)



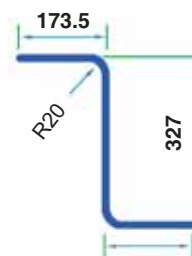
Thickness  
10.0mm  
Length  
2277mm  
Material  
IRSM-44

**End Centre Sill**  
(BCNHL)



Thickness  
10.0mm  
Length  
2707.5mm  
Material  
IRSM-44

**Centre Centre Sill**  
(BOX NHL)



Thickness  
10.0mm  
Length  
10034mm  
Material  
IRSM-44

173.5

## Manufacturing Units



Patancheru (Andhra Pradesh)



Isnapur (Andhra Pradesh)



Tarapur (Maharashtra)



Chennai (Tamil Nadu)



**Pennar**

## PENNAR INDUSTRIES LIMITED

(ISO 9001:2000 Certified company  
and RDSO, Lucknow & ICF, Chennai approved source)

A leading manufacturer & supplier of  
'Cold Roll Formed Profiles  
Railway Coach & Wagon Products  
Metal Crash Barriers (Road Restraint Systems)  
Pressed Steel Components  
Precision Tubes &  
Cold Rolled Steel Strips'

### REGISTERED OFFICE

3rd Floor, Saptagiri Towers, Begumpet,  
Hyderabad - 500 016, India.  
Phone: +91 40 27766781, Fax: +91 40 27768056  
Website: [www.pennarindia.com](http://www.pennarindia.com)

### CORPORATE OFFICE & WORKS

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