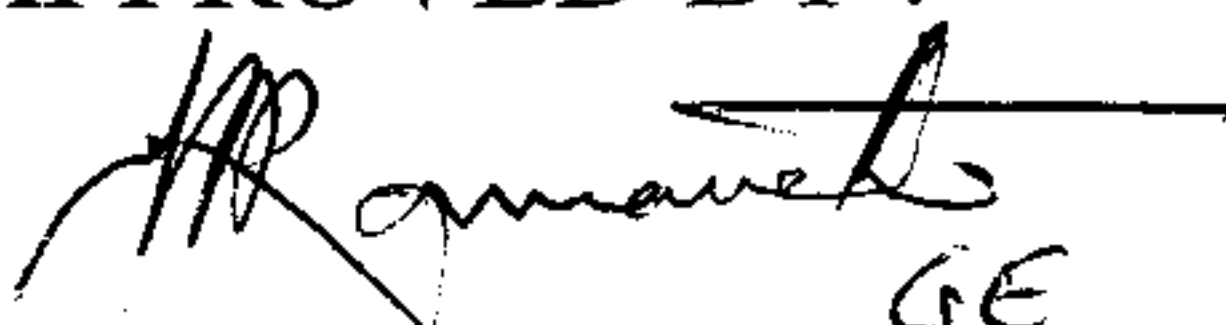
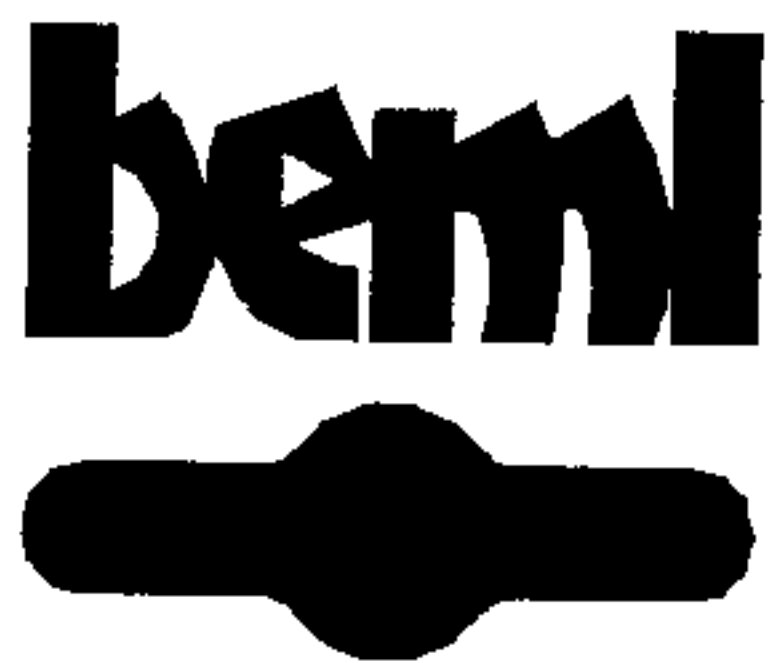
	<b>UNIT STANDARDS</b> EM DIVISION	AMENDMENT NO.: 01
	TITLE : HOLLOW STEEL SECTIONS, SQUARE AND RECTANGULAR	DATE : 2004-06-25
		STD NO.:B1031-36&37
	AMDT. TO INFORMATION SHEET	ISSUE NO.: ---
<p>This document is the property of Bharat Earth Movers Limited, India. It must not be used directly or indirectly in any way detrimental to the interest of Company without written consent of the proprietors.</p>	<p>In the information sheet read clause – 2 a) as follows instead of the existing :</p> <p>2. EQUIVALENT SPECIFICATION :</p> <p>a) GRADE : YST 240 of IS: 4923 latest issuance.</p> <p>---II---</p>	
	(Reason : Revision of Indian Standards)	<div>APPROVED BY :  GE</div>



# UNIT STANDARDS

EM DIVISION

AMENDMENT NO. 02

TITLE :

HOLLOW STEEL SECTIONS, SQUARE  
AND RECTANGULAR

DATE : 2004-06-26

STD NO: B1031-36&37

AMENDMENT SHEET – 1/1

ISSUE NO.: ---

I. In page 1 of 3 clause–3.3, shall be read as follows instead of the existing :

3.3 General requirements relating to the supply of steel hollow sections shall be as per IS: 1387 latest issuance.

II. In page 2 of 3 clause–4.2 shall be read as follows instead of the existing :

## 4.2 MECHANICAL TESTS :

One tensile test shall be carried out for each batch of 500 hollow sections. When tested in accordance with latest issuance of IS: 1608, the tensile properties shall be as follows :

Tensile strength, MPa, min.	:	412
Yield strength, MPa, min.	:	245
Elongation, %, min.	:	21

III. In page 3 of 3 clause–7 and 8 shall be read as follows instead of the existing :

## 7. GEOMETRICAL DATA OF HOLLOW SECTIONS :

Refer Appendix-A (clause-7.1) of latest issuance of IS: 4923 – “Specification for hollow steel sections for structural use”.

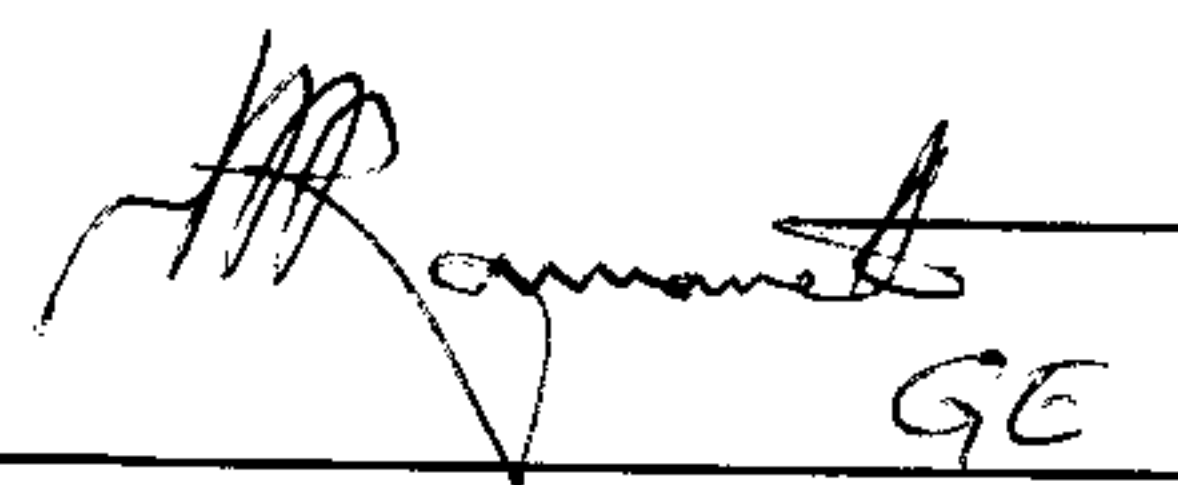
## 8. DIMENSIONAL TOLERANCES :

Dimensional tolerances shall be as per sec.–2 of IS: 4923 latest issuance “Hollow steel sections for structural use”.

---IT---

(Reason : Revision of Indian Standards).

APPROVED BY :

  
GE

411033

TITLE:

HOLLOW STEEL SECTIONS, SQUARE  
AND RECTANGULAR

DATE: 2010-11-16

STD No.: B1031-36 &  
B1031-37

AMENDMENT SHEET - 1/1

ISSUE No. --

In page 3 of 3, Clause 6 'SIZES AND SIZE CODES' include the following sizes:

6. SIZES AND SIZE CODES :

SLNo.	SIZE x W/T	DESIGNATION
B1031-36 (Hollow Square Tube)		
03	40 sq x 5	B103136003
04	100 sq x 7	B103136004
05	127 sq x 10	B103136005
06	60 sq x 6	B103136006
07	30 sq x 2	B103136007
08	15 sq x 1.5	B103136008
09	50.8 sq x 4.83	B103136010
10	50.8 sq x 6.35	B103136011
11	101.6 sq x 12.7	B103136012
12	50.8 sq x 3.68	B103136013
B1031-37 (Hollow Rectangular Tube)		
02	70 x 50 x 3	B103137002
03	38.1 x 25.4 x 3.05	B103137003
04	101.6 x 50.8 x 3.3	B103137004
05	101.6 x 50.8 x 6.35	B103137005
06	152.4 x 50.8 x 6.35	B103137006
07	76.2 x 50.8 x 6.35	B103137007

-- oOo --

APPROVED BY:

*[Signature]*  
GE





# UNIT STANDARDS

KGF COMPLEX - B

TITLE: HOLLOW STEEL SECTIONS , SQUARE  
AND RECTANGULAR ( B1031-36 & 37)

PAGE NO.01 OF 01

DATE : 1992-09-11

INFORMATION SHEET 01

## IMPORTANT NOTE:

1. INFORMATION IN THIS SHALL BE FOR INTERNAL USE ONLY.
2. REMOVE THIS PAGE BEFORE ISSUE TO THE SUPPLIER.

## ADDITIONAL INFORMATION.

### 1. COLOUR CODING :

Colour coding shall be GRAY-BLACK-YELLOW.  
For further details, refer Company Standard  
PR1002-C.

### 2. EQUIVALENT SPECIFICATIONS :

- a) GRADE - YST 25 OF IS:4923-1968.
- b) GRADE - STKR 41 OF JIS G3466-1982

### 3. SPECIFICATIONS REPLACED :

GRADE - STKR 41 OF KES 07.158- 1971

4. After ensuring that material is supplied in corrosion-free condition, suitable corrosion preventive coating shall be applied in case the material is stocked outdoor for longer period.

### 5. APPLICATION :

B1031-36

Falling Object Protective Structure for cabins

B1031-37

Roll-over Protective Structure for cabins

---00---



# UNIT STANDARDS

KGF COMPLEX - B

TITLE: HOLLOW STEEL SECTIONS, SQUARE AND RECTANGULAR

B1031-36 &

B1031-37

PAGE NO. 1 OF 3

DATE: 1992-09-11

## 0. GENERAL :

This 7-digit specification is meant for hollow square and rectangular steel sections used for structures such as cabins. As the material is typical for hollow square tubes and hollow rectangular tubes, a separate 5-digit material specification does not exist.

1. SCOPE : This specification covers the chemical composition, mechanical properties, recommended sizes, tests needed for acceptance, supply conditions, designations for different sizes and marking, applicable to Hollow Square and Rectangular Tubes.

## 2. MANUFACTURE :

The hollow section shall be manufactured by hot finished welding process.

## 3. SUPPLY CONDITION :

3.1 The tubes shall be supplied in straight lengths of 4 to 6 metres and the hollow section shall not deviate from straightness by more than  $1/600^{\text{th}}$  of any length measured at the centre of that length.

3.2 The inner and outer surfaces shall be suitably coated with rust preventive oil to Company Standard C6001-10 and the ends shall be plugged with plastic caps.

3.3 General requirements relating to the supply of steel hollow sections shall be as per IS:1387-1967.

## 4. REQUIREMENTS :

### 4.1 CHEMICAL COMPOSITION :

The chemical composition of steel used shall conform to the following :

ELEMENT	WEIGHT % (Max.)
Carbon	0.25
Phosphorus	0.04
Sulphur	0.04

PREPARED BY: CSD/  
METALLURGICAL  
COMMITTEE  
92/09/11

ISSUE NO:

REPLACEMENT FOR:

REF:

APPROVED BY:

ALTERED BY:

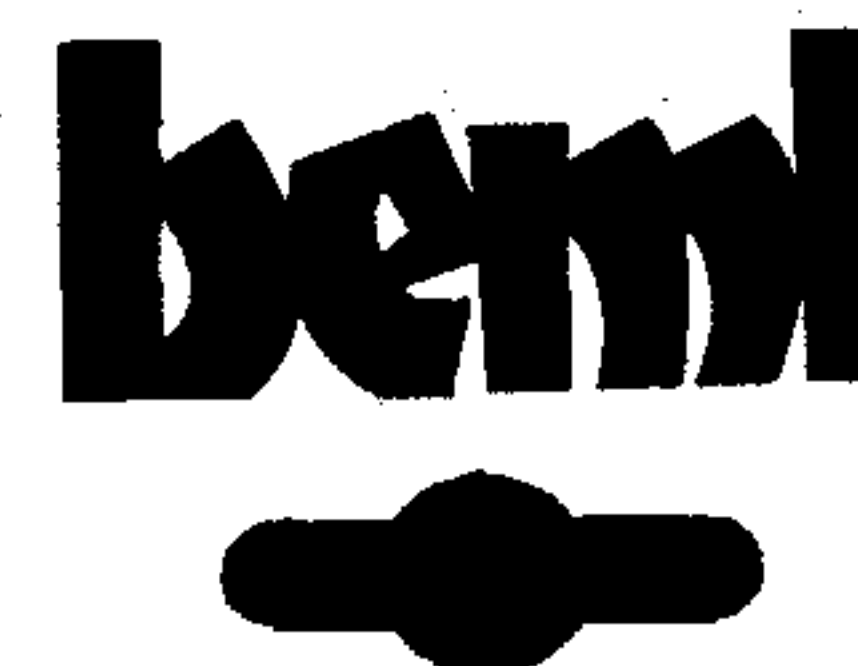
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## UNIT STANDARDS

### KGF COMPLEX - B

**TITLE: HOLLOW STEEL SECTIONS, SQUARE AND RECTANGULAR**



#### 4.2 MECHANICAL TESTS :

One tensile test shall be carried out for each batch of 500 hollow sections. When tested in accordance with IS:1894-1962, the tensile properties shall be as follows :

Tensile Strength, MPa, Min. : 412  
Yield strength, MPa, Min. : 245  
Elongation, % , Min. : 21

#### 4.3 RETEST :

Should any one of the test pieces first selected fail to pass the test specified under clause 4.2, two further samples have to be selected for testing in respect of each failure. If the test pieces from both of these additional samples pass, the material shall be deemed to comply with the requirements of that particular test. Should the test pieces from either of these additional samples fail, the material represented by the test samples shall be liable for rejection.

5. DESIGNATION :

A low carbon structural steel tube for structural application shall be designated by a 10-digit code as per Company Std DS1016-C.

**B1031-36 (Hollow Square Tube)**

B1031 36 001

```
|      |      |
|      |      |-- Size code for square tube
|      |      |Size 76.2 and W/T 5.40
|      |----- Shape/process code (Sq.Tube)
|----- Material group code for
Steel Tubes of 412 MPa strength
```

**B1031-37 (Hollow Rectangular Tube)**

B1031 37 001

```
| | | | Size code for rect. tube  
| | | | Size 60 x 30 and W/T 3.20  
| | | | Shape/process code (Rect.Tube)  
|----- Material group code for  
Steel Tubes of 412 MPa strength
```

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# UNIT STANDARDS

KGF COMPLEX - B

B1031-36 &  
B1031-37

TITLE: HOLLOW STEEL SECTIONS, SQUARE  
AND RECTANGULAR

PAGE NO. <sup>3</sup> OF 3

DATE: 1992-09-11

## 6. SIZES AND SIZE CODES :

SLNO.	SIZE X W/T	DESIGNATION
<u>B1031-36 (Hollow Square Tube)</u>		
01	76.2 sq X 5.40	B103136001
02	76.2 sq X 6.35	B103136002
<u>B1031-37 (Hollow Rectangular Tube)</u>		
01	60.0 X 30.0 X 3.2	B103137001

## 7. GEOMETRICAL DATA OF HOLLOW SECTIONS :

Refer Appendix-A (Clause 6.1) of IS:4923-1968-  
"Specification for hollow Mild Sections for  
Structural Use".

## 8. DIMENSIONAL TOLERANCES :

Dimensional tolerances shall be as per Section  
II-"Specific requirements for hot formed  
sections" of IS:4923-1968.

## 9. TEST CERTIFICATE :

Each consignment shall be accompanied by a  
certificate issued by the supplier that the  
material conforms to the required specifi-  
cation. However, BEML reserves the right to  
inspect the material when received at its end  
and its inspection will be final.

## 10. MARKING :

Each consignment shall be suitably marked to  
identify the supplier, the material and size.

## 11. PACKING :

When bundled for transport, these sections  
shall be secured together by rope or soft  
wire.

---00---