PROLYTE

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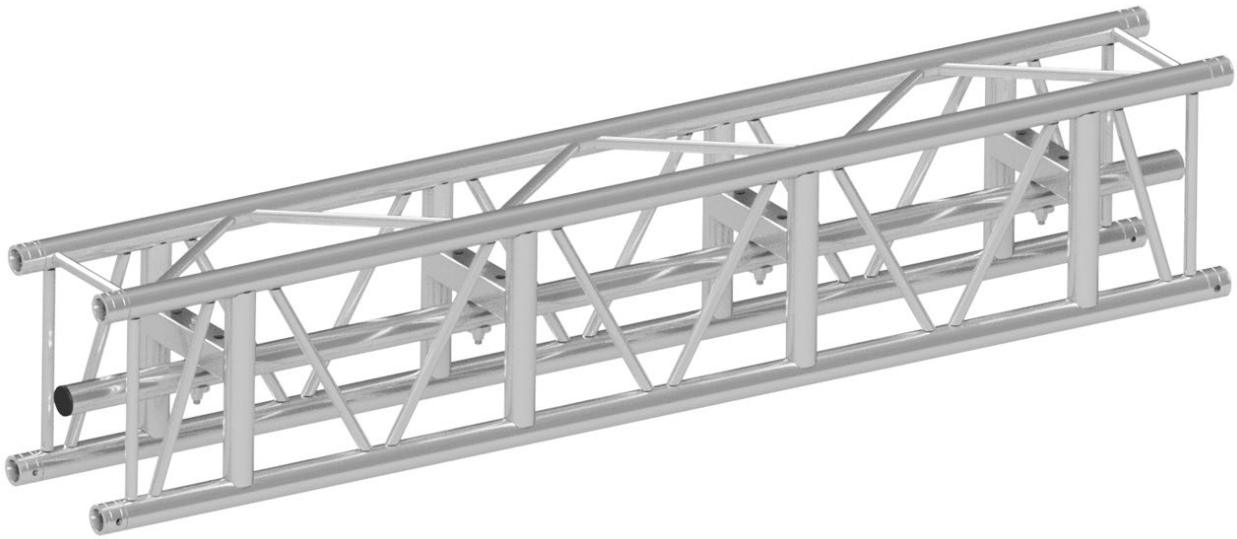
H40R-RMB truss

User manual

Part 2: Product-specific instructions



Original instructions

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We have made every effort to ensure the accuracy of this manual. No liability will be accepted for errors. We reserve the right to change or alter our products or manuals without prior notice.

If you have a warranty claim, malfunction or spare part inquiry, contact your point of sale or the manufacturer.

If you have comments or improvement ideas for this document, please contact us at the e-mail address on the back cover. All comments and ideas will be carefully considered in the future development of the product or this document.

Contents

Change history

Issue	Date	Changes
1	January 2025	First issue.

1 Introduction

This manual is intended for truss owners, providers, skilled riggers and any person who has been trained in working safely with trusses.

This manual is part 2 of the user manual. The user manual consists of the following parts:

- Part 1: General instructions
- Part 2: Product-specific instructions

This manual must be read in conjunction with *Part 1: General instructions* of the user manual.

If there are discrepancies between *Part 1* and *Part 2*, the information given in *Part 2* is the information that applies to the product and overrides the information given in *Part 1*.

This manual assumes that you have been trained, or work under the control of a competent or qualified person who has been trained, in safety and assembly.

1.1 About this product

PROLYTE trusses are structural elements designed to be repeatedly assembled and disassembled to carry loads in temporary or permanent installations. Depending on the application, PROLYTE trusses can be referred to as lifting accessories or construction products. For information on the related standards, see Section 1.5.

1.2 Related information

For more information on the product, see www.prolyte.com/products/aluminium-truss.

1.3 About this manual

Before working with the product, read this manual carefully and pay attention to the information provided. Use this manual to familiarise yourself with the product, its proper use and the safety regulations.

1.3.1 Safety conventions

Indicates a hazardous situation which, if not avoided, will result in death or serious injury. This signal word is limited to the most extreme situations.

Indicates a hazardous situation which, if not avoided, could result in death or serious injury.

Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

Indicates information that is considered important but which is not hazard-related.

1.4 Terminology

See *PROLYTE Trusses User Manual, Part 1: General instructions*.

Trusses and truss modules are referred to by the term "truss" in the following.

1.5 Standards

See *PROLYTE Trusses User Manual, Part 1: General instructions*.

2 Safety

Before working with the product, see the section entitled "*Safety*" in *PROLYTE Trusses User Manual, Part 1: General instructions*. Read the safety information carefully and pay attention to the information provided.

In addition to the safety information provided in *Part 1*, make sure you read the safety information provided in this product-specific user manual.

NOTICE

Read these safety texts carefully before working with the product.

NOTICE

Make sure manuals are available at all times for all users and employees.

3 Limitations of use

Make sure you read the information provided in section entitled "*Limitations of use*" in *PROLYTE Trusses User Manual, Part 1: General instructions*.

PROLYTE trusses described in this manual are not specifically designed for lifting people. Adequate load reduction and safety precautions according to local legislation must be taken into consideration when people are lifted.

3.1 Allowable loading

For load capacity information, see Section 7.

3.2 Structural data

All our trusses are calculated according to the Eurocode 9 (DIN-EN 1999) standard. Eurocodes are standards based on Load and Resistance Factor Design (LRFD).

⚠ WARNING

The structural data provided before January 2016 was based on the German DIN 4113 standard. As this standard had a different safety principle, the structural values cannot be compared.

NOTICE

TÜV certificates issued after February 2015 are all based on Eurocode 9.

Code	Type	Material	Geometry								
			Dimensions centre to centre		Main chord [mm]	Diagonals [mm]	Cross-section of complete truss				Average dead weight
			Height	Width			A	I_y	I_z	I_T	g
			[mm]	[mm]			[cm^2]	[cm^4]	[cm^4]	[cm^4]	[kg/m]
H40R-RMB	Rectangular	6082 T6	339	239	48x3	20x2	16.96	4179.54	902.85	170	10.5

Table 1: Geometry

Code	Design values of resistances				
	Main chord	Complete truss			
	$N_{,rd}$	$M_{y,rd}$	$M_{z,rd}$	$V_{z,rd}$	$Vy_{,rd}$
	[kN]	[kNm]	[kNm]	[kN]	[kN]
H40R-RMB	50.22	34.05	-	21.83	-

Table 2: Design values of resistances

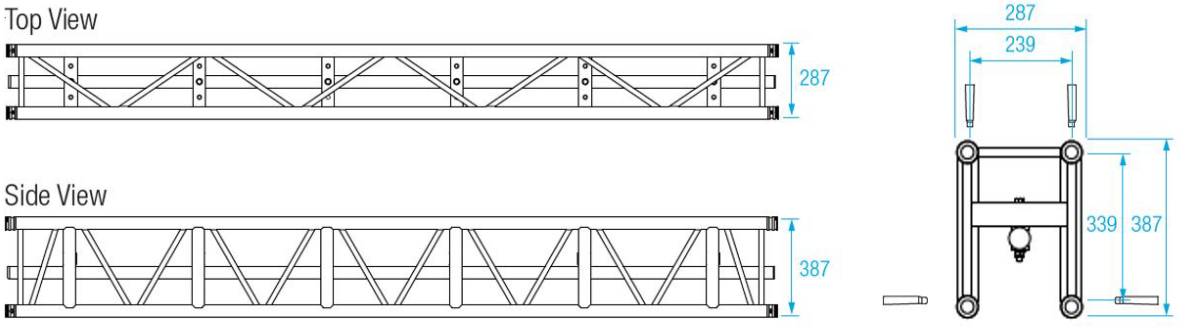
4 Transport, handling and storage

See *PROLYTE Trusses User Manual, Part 1: General instructions*.

5 Identification

See *PROLYTE Trusses User Manual, Part 1: General instructions*.

6 Technical specifications



Technical specifications - H40R-RMB series

Types	Rectangular (R)
Alloy	EN AW 6082 T6
Main chords	48x3 mm
Diagonal members	20x2 mm
Coupling system	CCS6

H40R-RMB series - standard available lengths and codes

Metres	Feet	Code
1.00	3.28	H40R-L100-RMB
1.50	4.92	H40R-L150-RMB
2,00	6.56	H40R-L200-RMB
2,50	8.2	H40R-L250-RMB
3.00	9.84	H40R-L300-RMB
4.00	13.12	H40R-L400-RMB

7 Load capacity

In addition to the information and instructions provided in *PROLYTE Trusses User Manual, Part 1: General instructions*, the truss loads must never exceed the values stated in the load tables below.

As per Eurocode 9, all values provided are calculated based on a safety factor of 1.1 on the material and 1.5 on the load.

H40R-RMB - Allowable loading

		MAXIMUM ALLOWABLE POINT LOADS														
		Uniformly distributed load				Centre point load				Single load third points Loads per point		Single load fourth points Loads per point		Single load fifth points Loads per point		
SPAN		UDL		DEFLECTION		CPL		DEFLECTION		TPL		QPL		FPL		SPAN
m	ft	kg/m	lbs/ft	mm	inch	kg	lbs	mm	inch	kg	lbs	kg	lbs	kg	lbs	Total weight
3	9.8	960.9	646.6	7	0.3	2133.7	4709.1	6	0.2	1441.4	3181.2	960.9	2120.8	720.7	1590.6	11.0
4	13.1	718.4	483.4	13	0.5	1708.9	3771.6	10	0.4	1179.7	2603.6	957.9	2114.0	718.4	1585.5	22.0
5	16.4	572.9	385.5	20	0.8	1431.1	3158.4	16	0.6	974.7	2151.2	795.8	1756.4	622.8	1374.5	33.0
6	19.7	475.9	320.2	29	1.1	1228.3	2710.9	23	0.9	847.9	1871.2	672.4	1484.0	526.7	1162.5	44.0
7	23.0	361.4	243.2	40	1.6	1073.4	2369.1	32	1.3	748.8	1652.5	580.7	1281.5	458.6	1012.2	55.0
8	26.2	274.5	184.7	52	2.0	950.9	2098.7	41	1.6	669.0	1476.6	509.6	1124.7	405.1	894.1	66.0
9	29.5	215.0	144.7	65	2.6	851.3	1878.9	52	2.0	603.4	1331.6	452.8	999.4	361.9	798.7	77.0
10	32.8	172.4	116.0	81	3.2	768.6	1696.3	65	2.6	548.2	1209.9	406.3	896.7	326.1	719.8	88.0
11	36.1	140.9	94.8	98	3.9	698.6	1541.7	78	3.1	501.1	1105.9	367.4	810.8	296.0	653.3	99.0
12	39.4	116.9	78.7	116	4.6	638.4	1408.9	93	3.7	460.3	1015.9	334.2	737.6	270.2	596.3	110.0
13	42.6	98.3	66.1	137	5.4	585.9	1293.2	109	4.3	424.5	937.0	305.6	674.4	247.8	546.9	121.0
14	45.9	83.5	56.2	158	6.2	539.8	1191.3	127	5.0	392.9	867.1	280.6	619.2	228.1	503.5	132.0
15	49.2	71.5	48.1	182	7.2	498.7	1100.6	146	5.7	364.6	804.6	258.4	570.4	210.7	464.9	143.0
16	52.5	61.7	41.5	207	8.1	461.8	1019.3	166	6.5	339.1	748.3	238.7	526.8	195.0	430.4	154.0
17	55.8	53.6	36.1	234	9.2	428.5	945.6	187	7.4	315.9	697.2	220.9	487.5	180.9	399.2	165.0
18	59,0	46.9	31.5	262	10.3	398.1	878.6	210	8.3	294.7	650.4	204.8	452.0	168.1	370.9	176.0
19	62.3	41.1	27.7	292	11.5	370.2	817.1	233	9.2	275.2	607.4	190.1	419.5	156.3	345.0	187.0
20	65.6	36.2	24.4	323	12.7	344.6	760.4	259	10.2	257.2	567.6	176.6	389.7	145.5	321.1	198.0

1 inch = 25.4 mm | 1 m = 3.28 ft | 1 lbs = 0.453 kg

- Loading figures are only valid for static loads.
- Loading figures are only valid for single spans with supports at both ends.
- All static systems, other than single spans, need an individual structural calculation. Please contact a structural engineer or Prolyte for assistance.
- Loading figures are calculated according to and in full compliance with European standards (Eurocode).
- The self-weight of the trusses is already taken into account.
- Loading figures are only valid for the cross sectional orientation of the truss as shown by the icon in the loading table.
- The interaction between bending moment and shear force at the connection point is already taken into account.
- Truss spans can be assembled from different truss lengths.
- Read the manual before assembling, using and loading the truss.

H40R-RMB Allowable loading on the middle bam

		Maximum allowable load			
		Uniformly distributed load			
SPAN		UDL		DEFLECTION	
m	ft	kg/m	lbs/ft	mm	inch
3	9.8	500.0	336.4	4	0.2
4	13.1	500.0	336.4	9	0.4
5	16.4	500.0	336.4	18	0.7
6	19.7	475.9	320.2	29	1.1
7	23.0	361.4	243.2	40	1.6
8	26.2	274.5	184.7	52	2.0
9	29.5	215.0	144.7	65	2.6
10	32.8	172.4	116.0	81	3.2
11	36.1	140.9	94.8	98	3.9
12	39.4	116.9	78.7	116	4.6
13	42.6	91.9	61.8	137	5.4
14	45.9	71.6	48.2	158	6.2
15	49.2	56.3	37.9	182	7.2
16	52.5	44.6	30.0	207	8.1
17	55.8	35.5	23.9	234	9.2
18	59.0	28.3	19.0	262	10.3
19	62.3	22.5	15.1	292	11.5
20	65.6	17.9	12.0	323	12.7

8 Approved accessories

For a complete overview of approved accessories, see our brochures or www.prolyte.com.

WARNING

The truss chords can be damaged by using excessive force when tightening accessories such as lamp hooks or cell clamps.

CAUTION

Pay special attention when using lamp hooks or cell clamps. Their inside radius may not meet the tube to which they need to be attached. This can lead to severe damage.

NOTICE

You should never allow accessories to damage other products.

9 Coatings and surface treatments

See *PROLYTE Trusses User Manual, Part 1: General instructions*.

10 Slinging methods

See *PROLYTE Trusses User Manual, Part 1: General instructions*.

11 Assembly and disassembly

See *PROLYTE Trusses User Manual, Part 1: General instructions*.

12 Maintenance

See *PROLYTE Trusses User Manual, Part 1: General instructions*.

13 Inspection

See *PROLYTE Trusses User Manual, Part 1: General instructions*.

14 Discard criteria

See *PROLYTE Trusses User Manual, Part 1: General instructions*.

15 Warranty

See *PROLYTE Trusses User Manual, Part 1: General instructions*.

16 Certificates

The TÜV certificates for this product are available at:

https://www.prolyte.com/support/certificates/certificates-download

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