

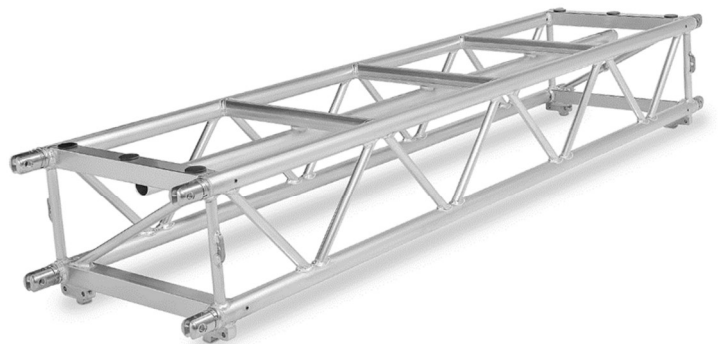
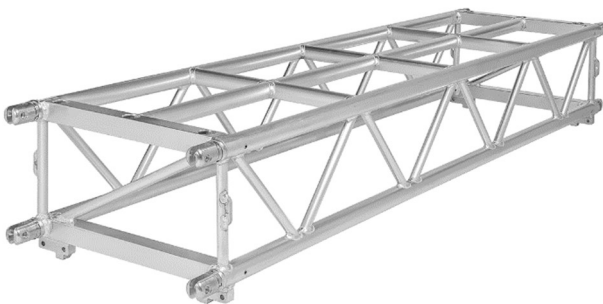


# PROLYTE

S36PRT Truss

User manual

Part 2: Product-specific instructions



Original instructions

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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 by using the e-mail address found on the back cover of the document. All comments and ideas will be carefully considered in the future development of the product or this document.

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## Change history

Issue	Date	Changes
1	July 2023	First issue.

## 1 Introduction

This manual is intended for truss owners, providers and 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 Chapter 1.5.

The S36PRT series can be used for indoor and outdoor structures.

### 1.2 Related information

For more information on the product, see [www.prolyte.com/products/aluminium-truss](http://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 familiarize yourself with the product, its proper use and 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 considered important but not hazard-related.

## 1.4 Terminology

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

Trusses and truss modules are hereinafter referred to by the term “truss”.

## 1.5 Standards

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

## 2 Safety

Before working with the product, see the section *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 *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 considered when people are lifted.

### 3.1 Allowable loading

For load capacity information, see Chapter 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 complete truss				Average dead weight
			Height	Width			A	I <sub>y</sub>	I <sub>z</sub>	I <sub>r</sub>	g
			[mm]	[mm]			[cm <sup>2</sup> ]	[cm <sup>4</sup> ]	[cm <sup>4</sup> ]	[cm <sup>4</sup> ]	[kg/m]
S36PRT	Rectangular	6082 T6	299	560	50x4	25x3	23.12	4445.05	15460.96	-	26.2

Table 1: Geometry

Code	Design values of resistances				
	Main chord	Complete truss			
	N <sub>rd</sub>	M <sub>y,rd</sub>	M <sub>z,rd</sub>	V <sub>z,rd</sub>	V <sub>y,rd</sub>
	[kN]	[kNm]	[kNm]	[kN]	[kN]
S36PRT	68.44	40.93	76.65	35.69	-

Table 2: Design values of resistances

#### 4 Transport, handling and storage

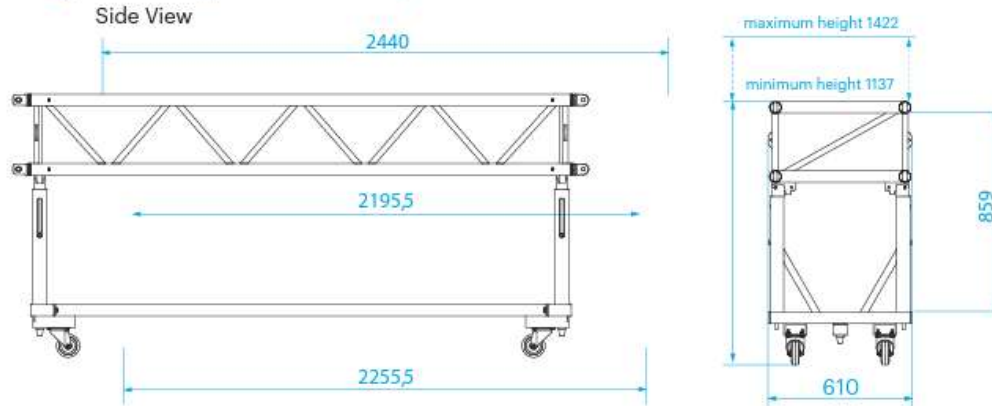
See PROLYTE Trusses User Manual, Part 1: General instructions.

#### 5 Identification

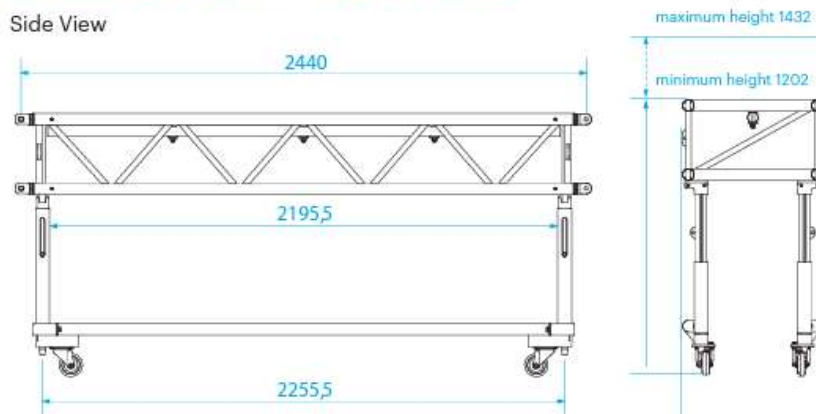
See PROLYTE Trusses User Manual, Part 1: General instructions.

## 6 Technical specifications

PreRigTruss Fixed type - S36PRF + Dolly - S36PRD2



PreRigTruss Flexible type - S36PRA + WingDolly - S36PRD1



### Technical Specifications - PreRigTruss

Types	Pre rig
Alloy	EN AW 6082 T6
Main Chords	50 x 4 mm
Diagonal Members	25 x 3 mm
Coupling System	Rotatable Pin/fork

Structural data can be found at [www.prolyte.com](http://www.prolyte.com)

CODE	DESCRIPTION	WEIGHT
S36PRF-L122	PreRigTruss, fixed, length 4ft	28 kg
S36PRF-L244	PreRigTruss, fixed, length 8ft	36 kg
S36PRF-L305	PreRigTruss, fixed, length 10ft	43 kg
S36PRA-L122	PreRigTruss, flexible, length 4ft	23 kg
S36PRA-L244	PreRigTruss, flexible, length 8ft	35 kg
S36PRA-L305	PreRigTruss, flexible, length 10ft	42 kg
S36PRD1-L122	Dolly for S36PR truss, wing type, length 4ft	12.5 kg
S36PRD1-L244	Dolly for S36PR truss, wing type, length 8ft	13.5 kg
S36PRD1-L305	Dolly for S36PR truss, wing type, length 10ft	14.5 kg
S36PRD2-L122	Dolly for S36PR truss, length 4ft	34 kg
S36PRD2-L244	Dolly for S36PR truss, length 8ft	38 kg
S36PRD2-L305	Dolly for S36PR truss, length 10ft	40 kg
S36PRA-T-122	extra tube for PRT 2 4ft incl bolts and nuts	2.4 kg
S36PRA-T-244	extra tube for PRT 2 8ft incl bolts and nuts	4 kg
S36PRA-T-305	extra tube for PRT 2 10ft incl bolts and nuts	4.9 kg
	pins to connect trusses (4 per type needed)	
ACC-LP-16	LOCKING PIN FOR CCS6-HINGE	
CCS7-705	SPIGOT R-SPRING, CCS 700	
ACC-LP-10	Removable pin with clip for legs dollies	

## 7 Load capacity

In addition to the information and instructions provided in *PROLYTE Trusses User Manual, Part 1: General instructions*, the truss loads shall 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.

### S36 PRT- Allowable Loading

SPAN		Uniformly Distributed Load		DEFLECTION		MAXIMUM ALLOWABLE POINT LOADS												WEIGHT	
						Centre Point Load		DEFLECTION		Single Load Third Points Load per Point		Single Load Fourth Points Load per Point		Single Load Fifth Points Load per Point					
m	ft	kg/m	lbs/ft	mm	inch	kgs	lbs	mm	inch	kgs	lbs	kgs	lbs	kgs	lbs	kgs	lbs		
4	13.1	1200.6	807.8	13	0.5	2436.5	5377.3	11	0.4	1827.3	4033.0	1218.2	2688.6	1015.2	2240.5	96.7	213.0		
5	16.4	770.2	518.3	21	0.8	1925.6	4249.8	17	0.7	1444.2	3187.3	962.8	2124.9	802.3	1770.7	122.9	270.7		
6	19.7	526.9	354.5	30	1.2	1580.6	3488.5	24	1.0	1185.5	2616.4	790.3	1744.2	658.6	1453.5	149.1	328.4		
7	23.0	380.1	255.8	41	1.6	1330.5	2936.4	33	1.3	997.9	2202.3	665.3	1468.2	554.4	1223.5	175.3	386.1		
8	26.2	284.9	191.7	53	2.1	1139.6	2515.2	44	1.7	854.7	1886.4	569.8	1257.6	474.8	1048.0	201.5	443.8		
9	29.5	219.6	147.8	67	2.7	988.3	2181.1	55	2.2	741.2	1635.8	494.1	1090.5	411.8	908.8	227.7	501.5		
10	32.8	172.9	116.3	83	3.3	864.5	1908.1	69	2.7	648.4	1431.0	432.3	954.0	360.2	795.0	253.9	559.3		
11	36.1	138.4	93.1	101	4.0	760.9	1679.4	84	3.3	570.7	1259.5	380.5	839.7	317.1	699.7	280.1	617.0		
12	39.4	112.1	75.4	120	4.7	672.4	1484.0	101	4.0	504.3	1113.0	336.2	742.0	280.2	618.3	306.3	674.7		
13	42.6	91.6	61.6	141	5.5	595.5	1314.3	119	4.7	446.6	985.7	297.8	657.1	248.1	547.6	332.5	732.4		
14	45.9	75.4	50.7	163	6.4	527.7	1164.6	139	5.5	395.8	873.5	263.9	582.3	219.9	485.3	358.7	790.1		
15	49.2	62.3	41.9	187	7.4	467.2	1031.1	161	6.3	350.4	773.3	233.6	515.6	194.7	429.6	384.9	847.8		
16	52.5	51.6	34.7	213	8.4	412.6	910.6	185	7.3	309.5	683.0	206.3	455.3	171.9	379.4	411.1	905.5		
17	55.8	42.7	28.7	241	9.5	362.9	801.0	211	8.3	272.2	600.7	181.5	400.5	151.2	333.7	437.3	963.2		
18	59.0	35.3	23.7	270	10.6	317.3	700.2	239	9.4	238.0	525.2	158.6	350.1	132.2	291.8	463.5	1020.9		
19	62.3	29.0	19.5	301	11.8	275.1	607.1	269	10.6	206.3	455.3	137.5	303.5	114.6	253.0	489.7	1078.6		
20	65.6	23.6	15.9	333	13.1	235.8	520.4	302	11.9	176.8	390.3	117.9	260.2	98.2	216.8	515.9	1136.3		

1 inch = 25,4 mm | 1m = 3.28 ft | 1 lbs = 0,453 kg

WHEN DOLLIES ARE NOT MOUNTED ON THE TRUSS THE LOADING COULD BE INCREASED WITH 12 KG PER METER

- Tüv certification only valid for loading table above.
- 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.

## 8 Approved accessories

For a complete overview of approved accessories, see our brochures or [www.prolYTE.com](http://www.prolYTE.com).



By using excessive force when tightening accessories such as lamp hooks or cell clamps, you may cause damage to the truss chords.



 **CAUTION**

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