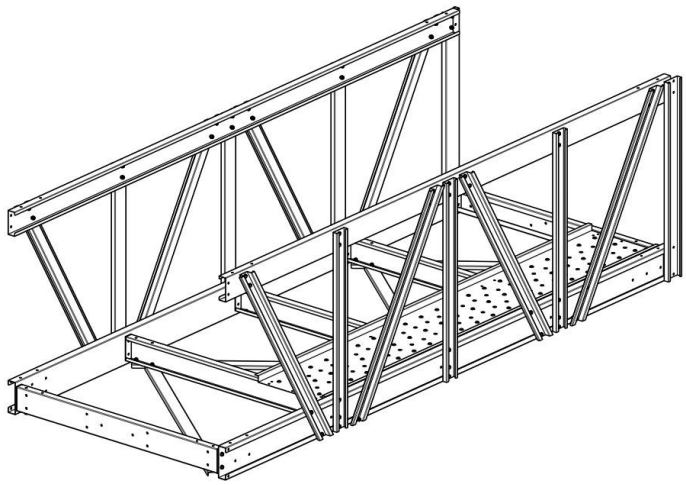
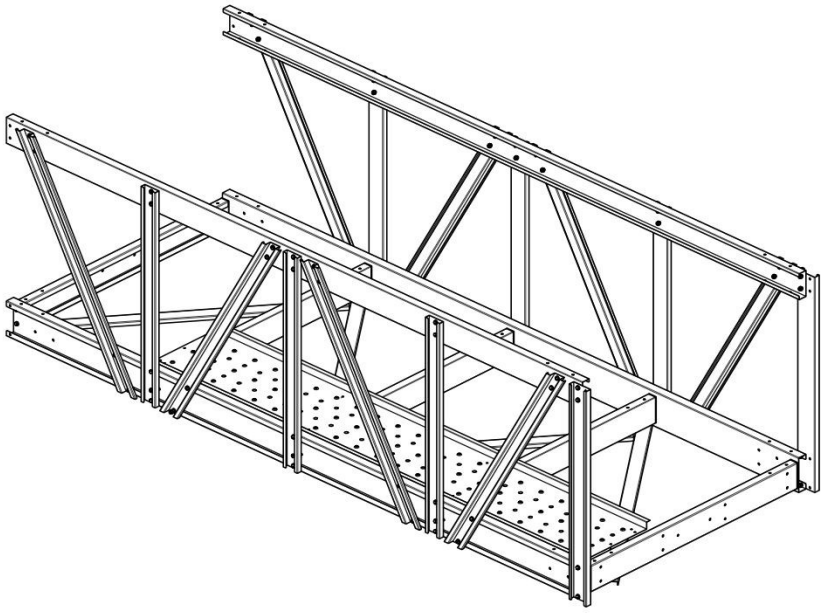
CWL and CWM Walkway Assembly and User Manual





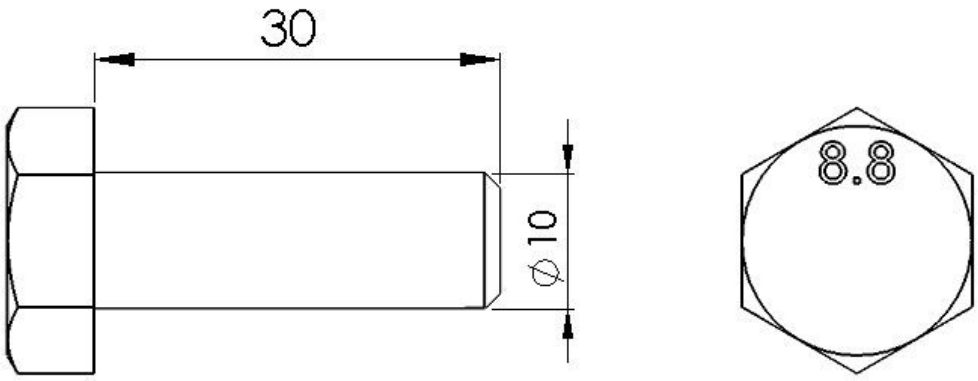
31.07.2018

İçindekiler

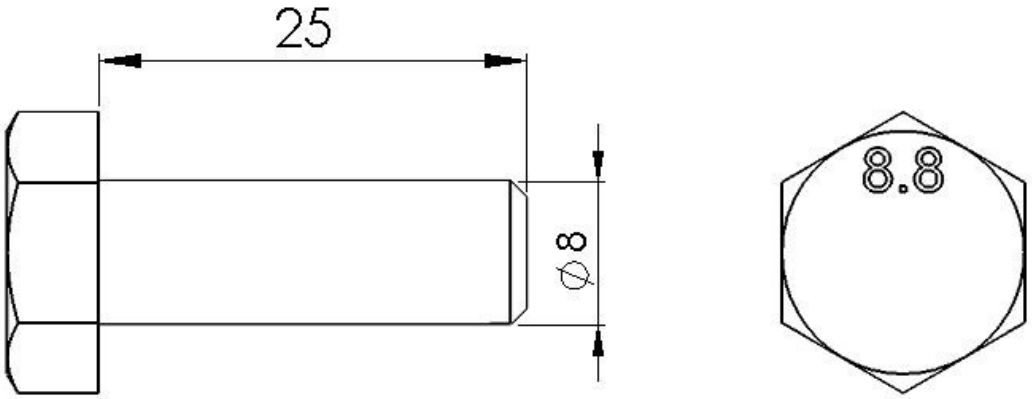
1 – ASSEMBLY CONNECTION PARTS GENERAL INFORMATION

1.1 WALKWAY CONNECTING ELEMENTS

(M10x30) Six Corners Head Bolt (8.8 Kalite)-[TM.602.1.10.30.8.8.0933]

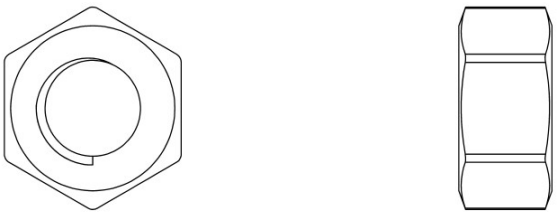


(M8x25) Six Corners Head Bolt(8.8 Kalite)-[TM.602.1.8.25.88.0933]

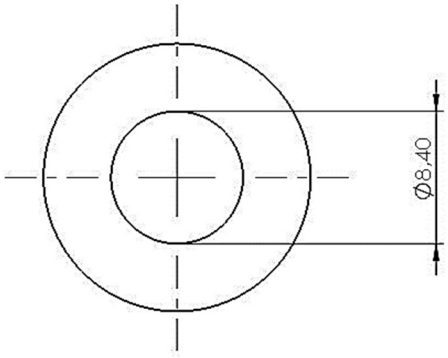


(M8)Six corner nut (8 Kalite)-[TM.602.2.M8.8.0934]

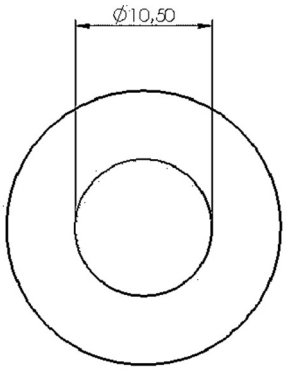
(M10) Six corner nut(8 Kalite)-[TM.602.2.M10.8.0934]



(M8) Pul (8 Kalite) -[TM.602.3.M8.8.125A]



(M10) Pul (8 Kalite) -[TM.602.3.M10.8.125A]



Note: You must use the bolts and nuts sent to you by walking path. Use only the bolts provided by LAMBTON. Changing bolts is strictly prohibited and will void the warranty.

BOLT TIGHTENING TORQUE TABLE

BOLT	BOLT TIGHTENING TORQUE			
	Minimum Tork		Maximum Tork	
M8	15 ft.lb	20 Nm	20 ft.lb	27 Nm
M10	35 ft.lb	47 Nm	42 ft.lb	56 Nm

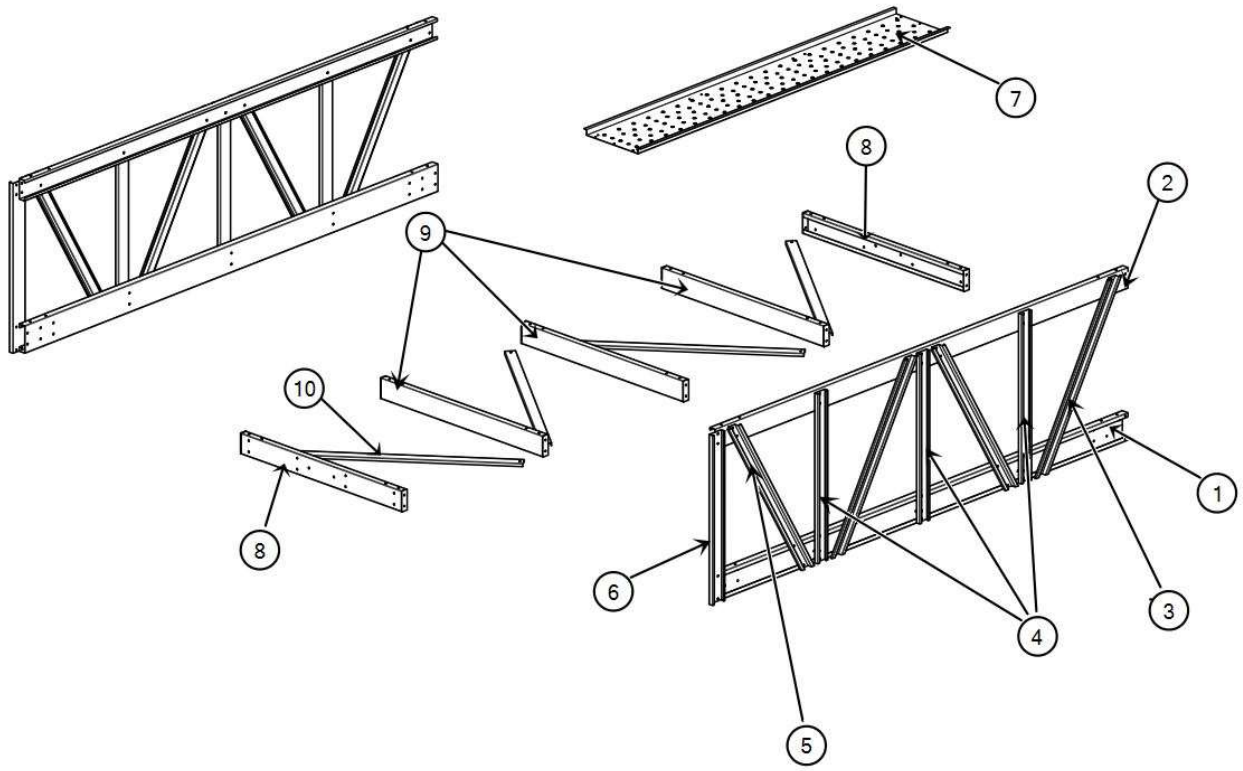
The data in the table has been created in order to guide the user considering normal conditions.

Table data are based on the following basic assumptions:;

- • The bolts are new, not lubricated or coated.
- • The yield strength of the bolt is 90%.
- • Friction coefficient of bolts is taken as 0.2.

1.2 CATWALK PARTS

Shape1.2.1- CATWALK PARTS



Tablo 1.2.1 CATWALK PARTS

Ref NUMBER	DESCRIPTION
1	Walkway Side Wall - Lower Chassis
2	Walkway Side Wall - Upper Chassis
3	Walkway - Catwalk Side Support
4	Walkway Railing
5	Walkway - Intermediate Support Plate
6	Walkway - Coupling Plate
7	Walkway Platform Plate
8	Walk Path - Intermediate Insertion
9	Walkway - Intermediate Compartment
10	Walk Path – Catwalk Intermediate brace

Shape**1.2.1.1** Walkway Side Wall - Lower Chassis

"A" measure	"B" measure
1000 mm	180 mm
2000 mm	180 mm
3000 mm	180 mm
4000 mm	180 mm

Shape**1.2.1.2** Walkway Side Wall - Upper Chassis

"A" measure	"B" measure
1000 mm	150 mm
2000 mm	150 mm
3000 mm	150 mm
4000 mm	150 mm

Shape**1.2.1.3** Walkway - Catwalk Side Support

"A" measure	"B" measure
1380 mm (For Light Type)	107 mm
1417 mm (For Medium Type)	107 mm

Shape**1.2.1.4** Walkway - Intermediate Support Plate

"A" measure	"B" measure
1200 mm (For Light Type)	**100 mm**
1230 mm (For Medium Type)	**100 mm**

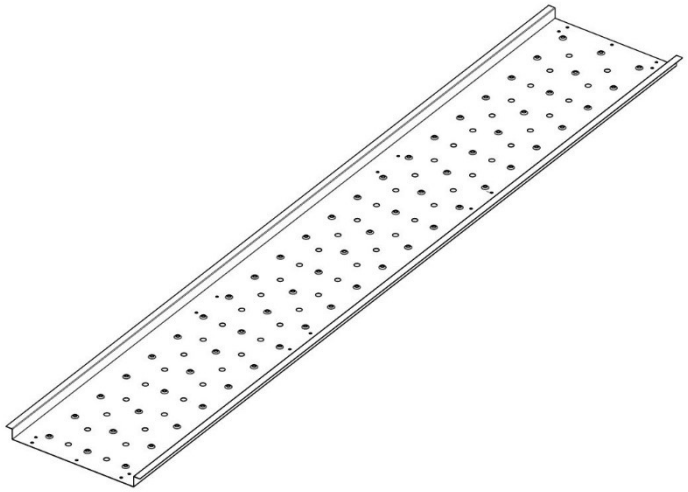
Shape**1.2.1.5** Walkway - Side Wall - Side brace

"A" measure	"B" measure
1382 mm (For Light Type)	**107 mm**
1405 mm (For Medium Type)	**107 mm**

Shape**1.2.1.6** Walkway - Coupling Plate

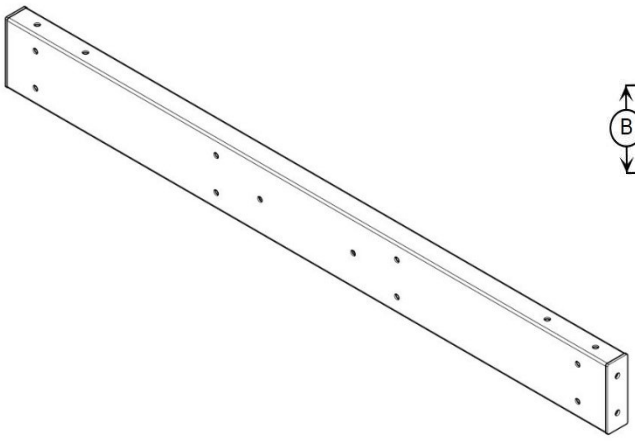
"A" measure	"B" measure
1227 mm (For Light Type)	**120 mm**
1227 mm (For Medium Type)	**120 mm**

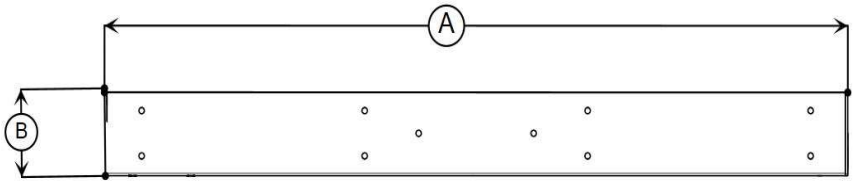
Shape**1.2.1.7** Walkway Platform Plate



"A" measure	**"B" measure**
1000 mm	**525 mm**
2000 mm	**525 mm**
3000 mm	**525 mm**

Shape**1.2.1.8** Walk Path - Intermediate Insertion



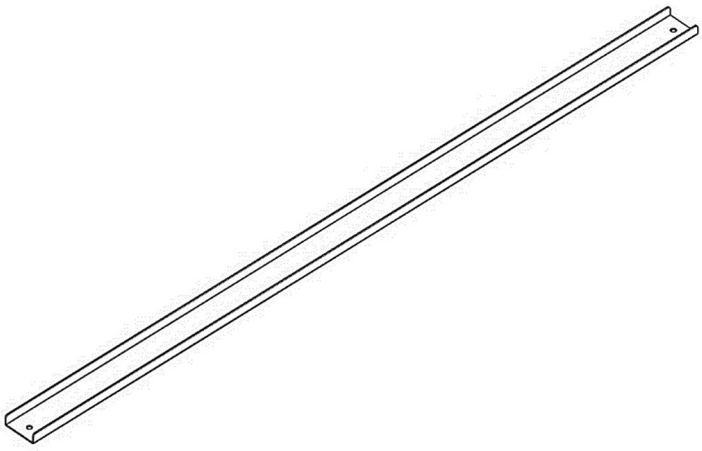


	"A" measure	**"B" measure**
CWL1050	**1000 mm**	**120 mm**
CWL1254	**1200 mm**	**120 mm**
CWL1600	**1500 mm**	**120 mm**
CWM1250	**1200 mm**	**150 mm**
CWM1600	**1500 mm**	**150 mm**
CWM2000	**2000 mm**	**150 mm**

Shape**1.2.1.9** Walkway - Intermediate Compartment

	"A" measure	"B" measure
CWL1050	**1010 mm**	**120 mm**
CWL1254	**1210 mm**	**120 mm**
CWL1600	**1510 mm**	**120 mm**
CWM1250	**1210 mm**	**150 mm**
CWM1600	**1510 mm**	**150 mm**
CWM2000	**2010 mm**	**150 mm**

Shape**1.2.1.10** Walk Path – intermediate brace



	length measure	Width Measure
CWL1050	**1310 mm**	**60 mm**
CWL1254	**1446 mm**	**60 mm**
CWL1600	**1672 mm**	**60 mm**
CWM1250	**1446 mm**	**100 mm**
CWM1600	**1658 mm**	**100 mm**
CWM2000	**1972 mm**	**100 mm**

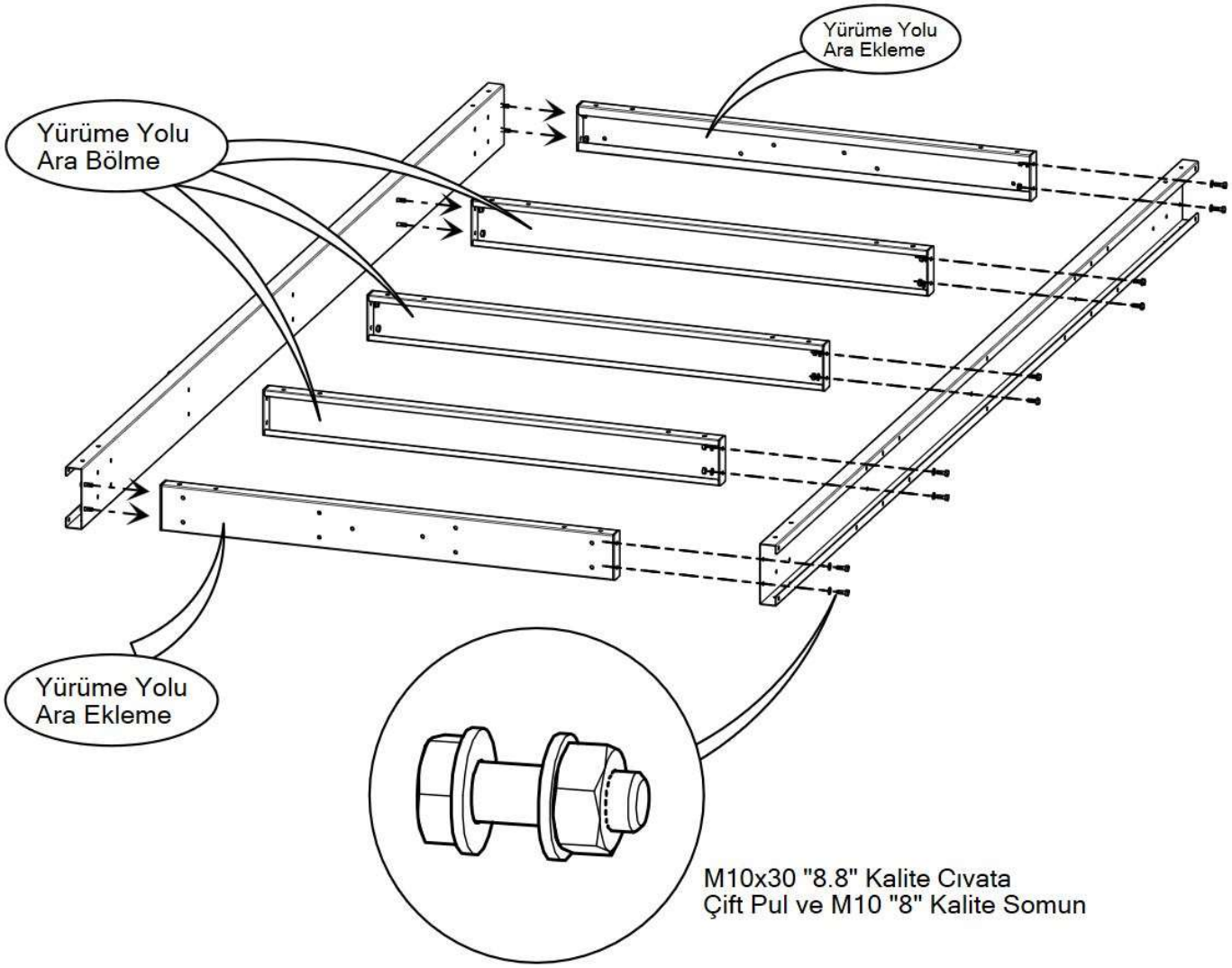
Shape**1.2.1.10** Walkway connection brackets

***** Walkway Subframe Attachment**

***** Walkway Upper Chassis Insertion**

2.1 - WALKING MOUNTING

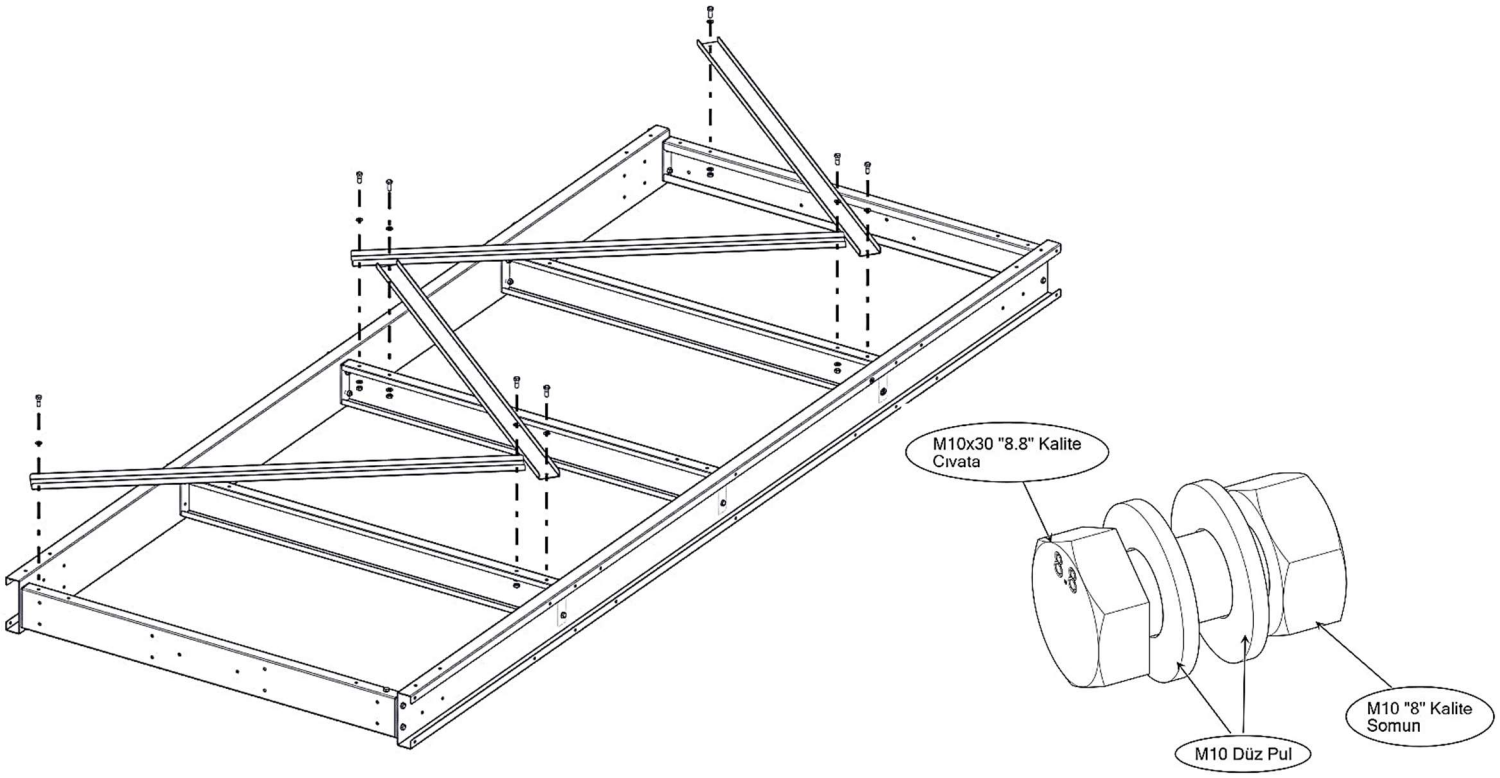
Şekil 2.1.1 Introduction to Walkway Assembly



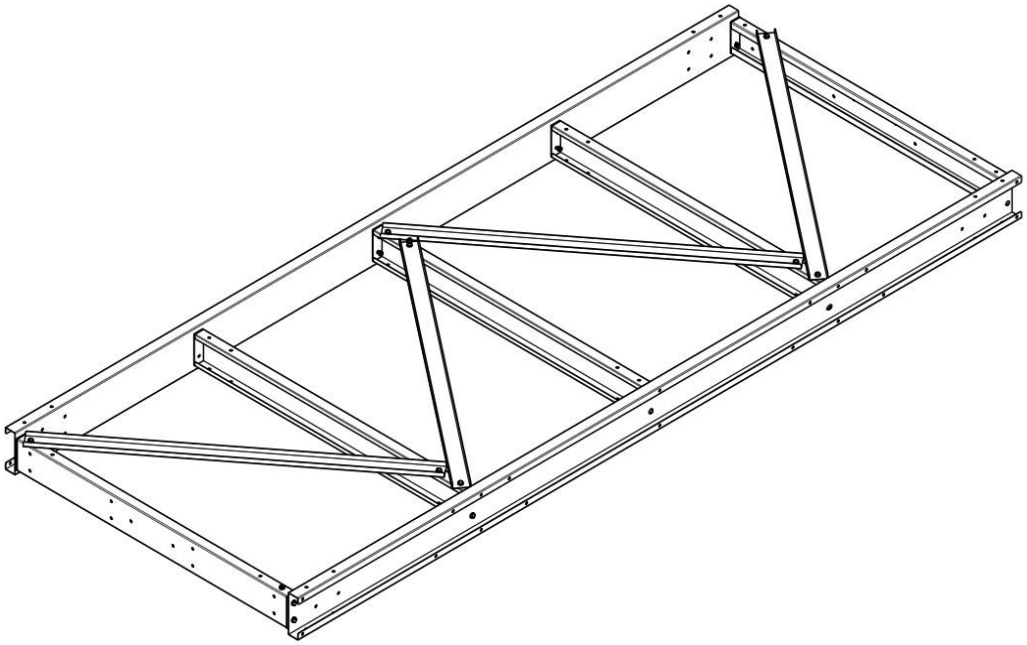
Before starting the installation, make sure that the work area is clean and that your materials are tidy. Please note that occupational accidents are minimized as there is less risk of injury on regular and clean construction sites.

Start the installation from the side wall - lower frame. As shown in Figure 2.1.1, the flat portion of the “C” profiles always faces the inside of the walkways. The intermediate sections are then laid. The intermediate partitions are sent to the site welded at the factory. The section to be considered is to place the Ara Walkway Intermediate Insertion ”parts shown in Figure 2.1.1 into the part to be added. These two parts are shorter in length than the other spacers and have no holes in their middle.

Şekil 2.1.2 Walkway Lower Crosses



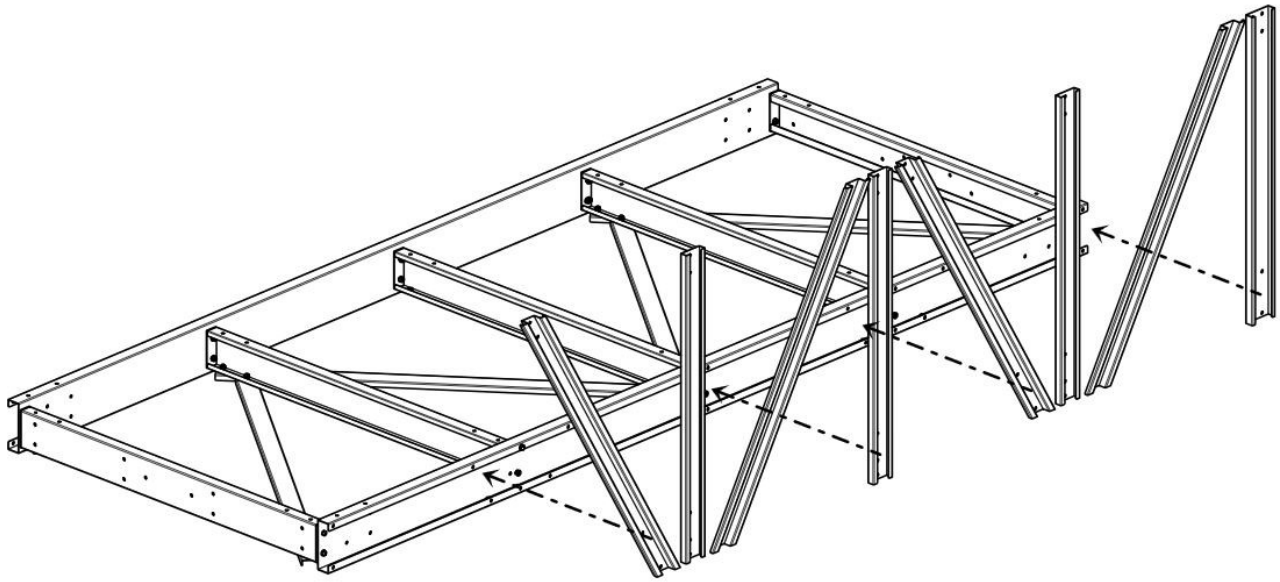
After adding the lower compartments, the installation of the walkway lower diagonals begins. The crosses shown in Figure 2.1.2 are represented as shown in the figure. Used bolts and nuts are shown.



After the installation of the side profiles, bottom partitions and diagonals you will get the shape on the side.

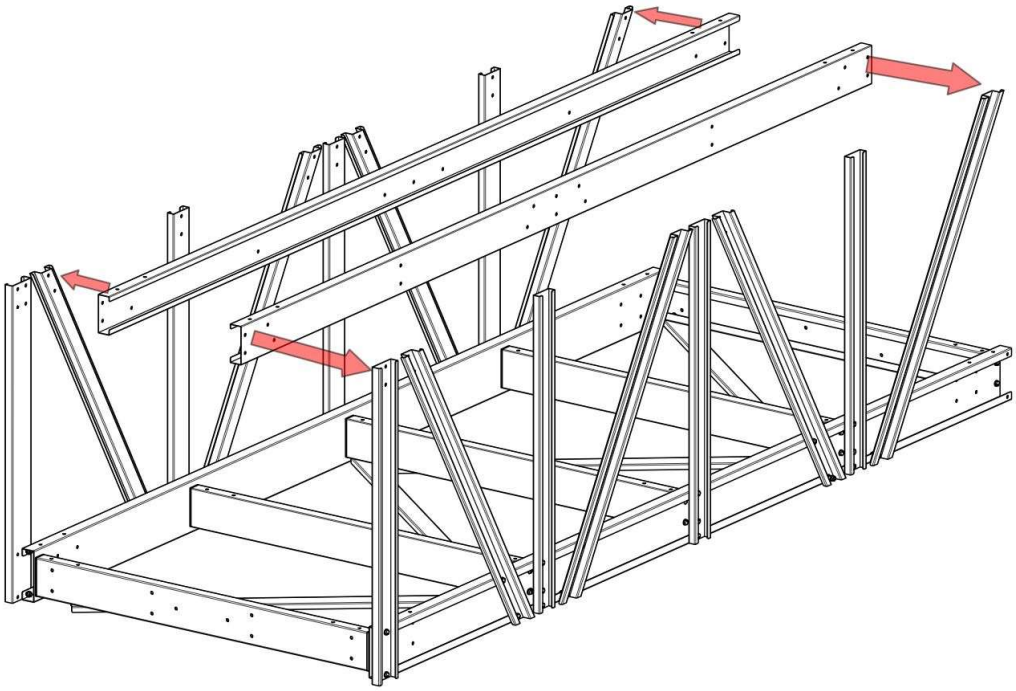
As with all assemblies, observe the bolt torque. If necessary, please contact Lambton

Şekil 2.1.3 Walkway Side Crosses and Intermediate Support Plates Installation

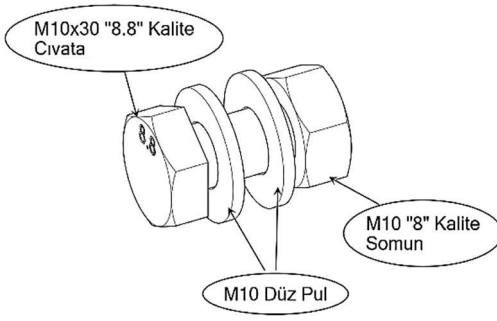


After mounting the diagonals, the assembly formed is reversed and the side diagonals and intermediate supports are mounted. In this section, the recommended mounting method is the first mounting of the junction of the two walkways. The assembly of the side sections is completed by bolting the side crosses and the intermediate supports, following the sequence shown in the figure..

Şekil 2.1.3.1 Walkway Top Chassis Profiles

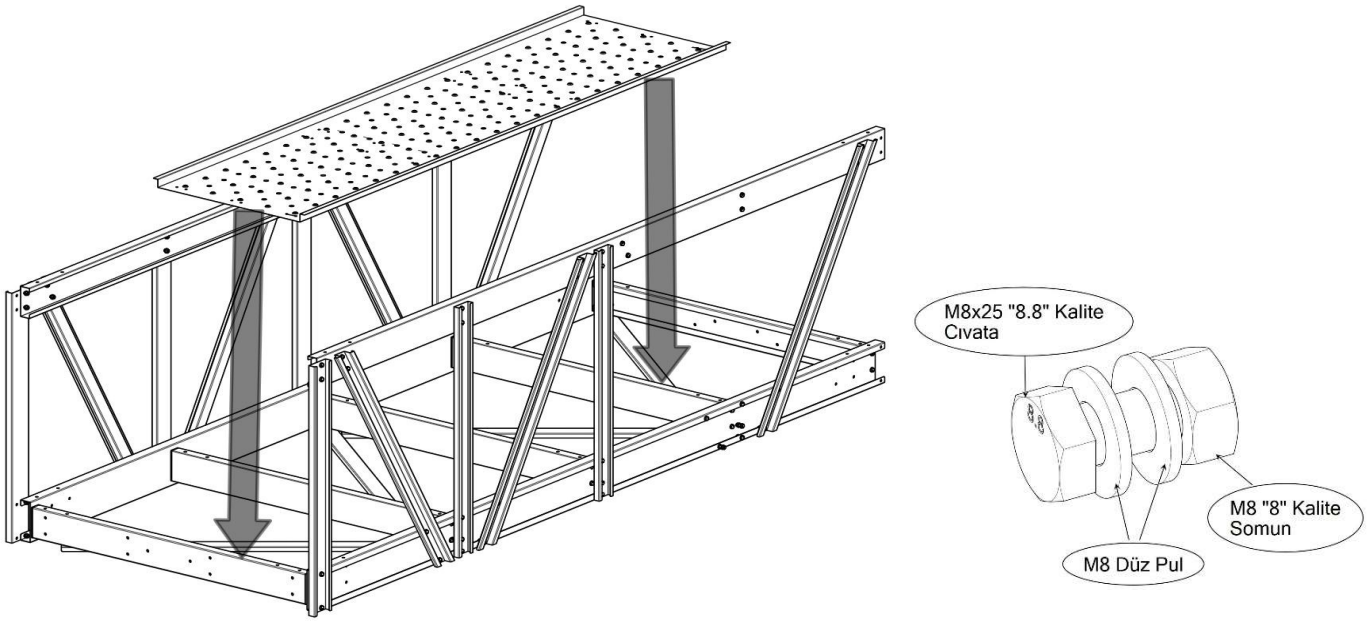


After the side diagonals are mounted, the top frame profiles are assembled by paying attention to their directions as in Figure 2.1.3.1. The bent sections of the upper profiles must be mounted on the inner side and the flat side on the outer side. The type of bolts and nuts to be used are as follows:.



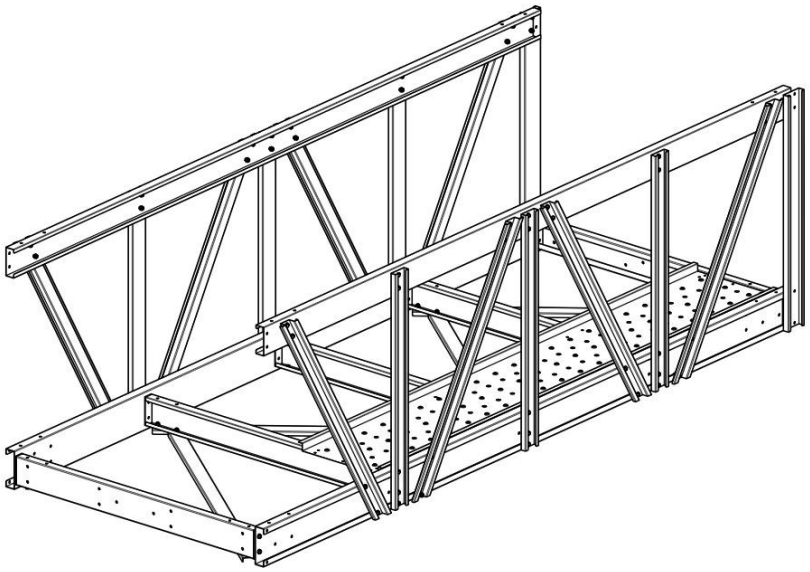
Note: The of the side diagonals and the intermediate support plates is ”V” shaped.

Şekil 2.1.4 Walkway Platform Plate



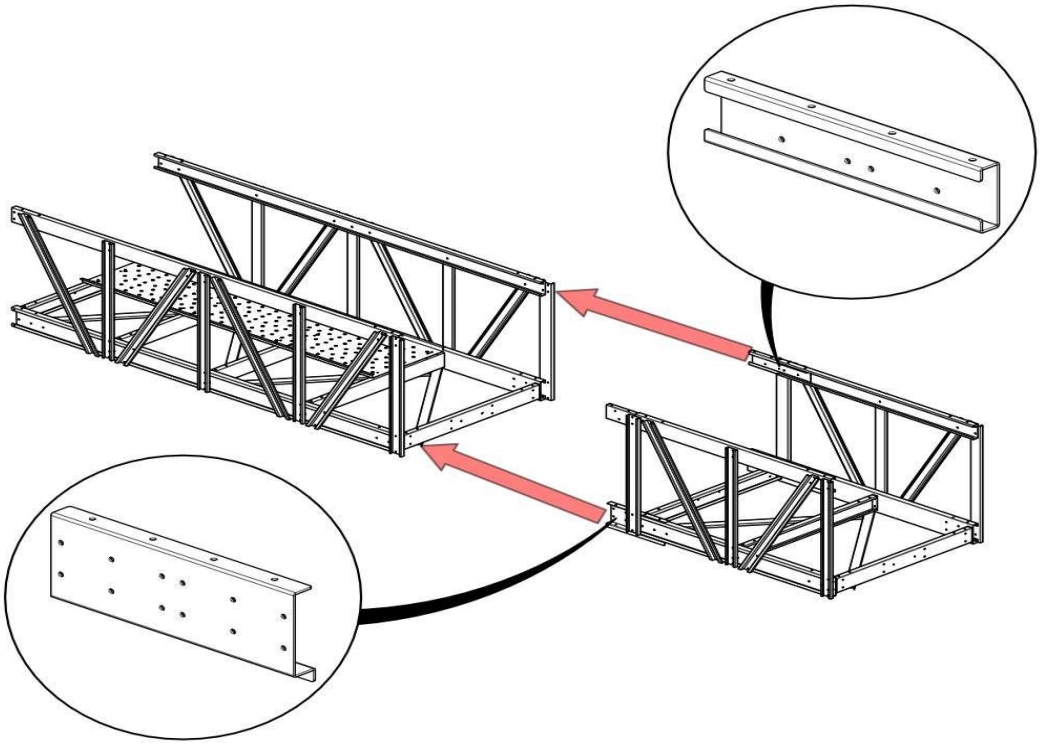
The walkway platform plate is designed to prevent slipping. Made of high strength galvanized steel and bolt and nut connection products. These platforms allow you to move comfortably on the walkways, providing easy access to equipment and crossings. In single and double conveyor walkways, the dimensions and positions of the platform sheet change. Bolts, nuts and washers to be used are shown in the figures above.

Use suitable cranes to lift the walkways. Do not connect the walkway above the lifting capacity of the cranes. In the following figure you will see an overview of the walkway. Now you will see the walkways add to each other.



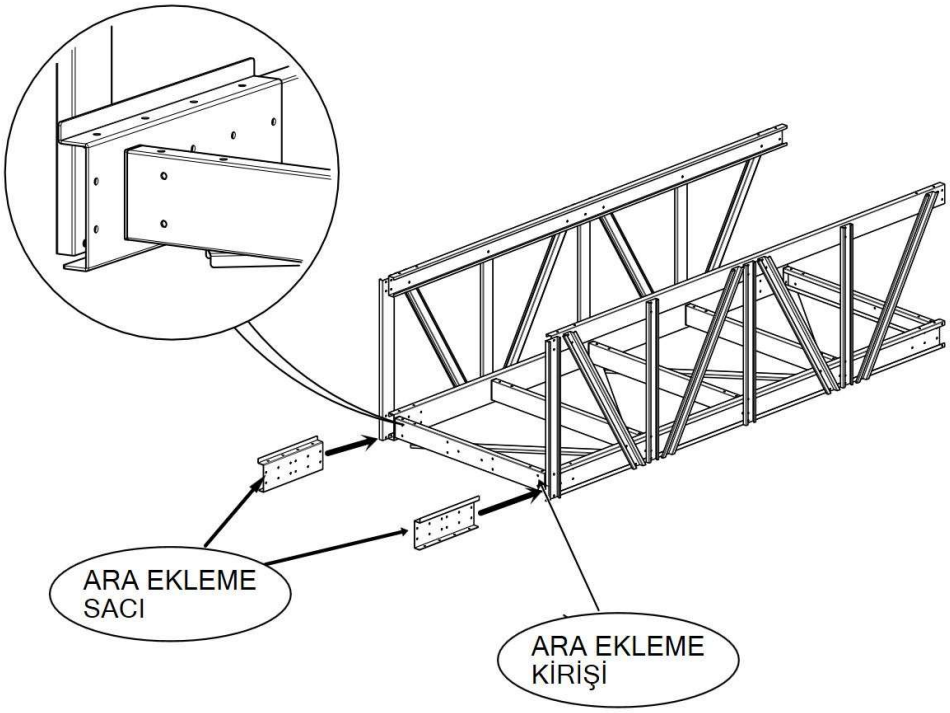
***** Walkway Assembly Overview**

Şekil 2.1.5 Installation of Walkways



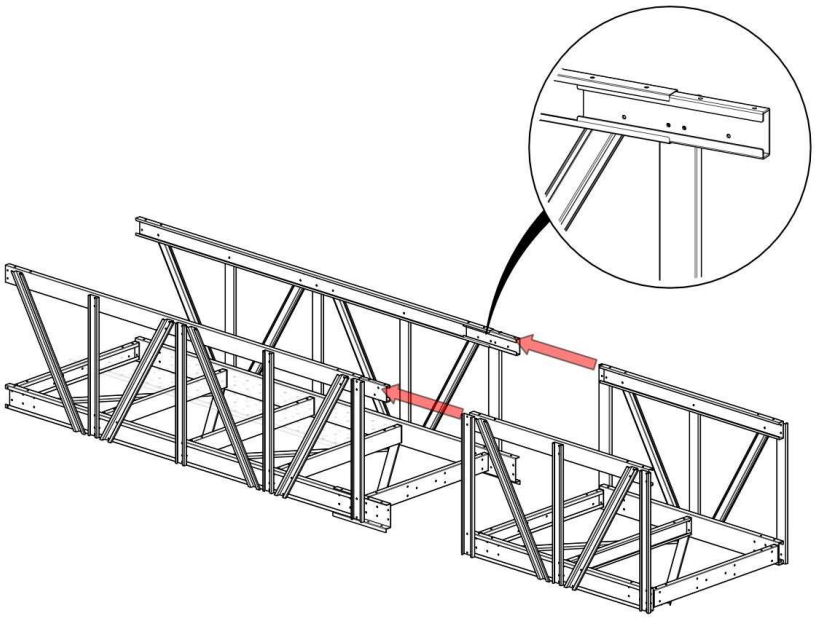
The length of the walkways varies according to the project. The sheets are sent to you in detail to show the length and other specifications of the walkways. The detail pictures show the upper and lower junction pieces. The notched part should always come into the interior of the walkways and the flat parts should face the railing side..

Şekil 2.1.5.1 Walkways Lower Intermediate Insertion Sheet



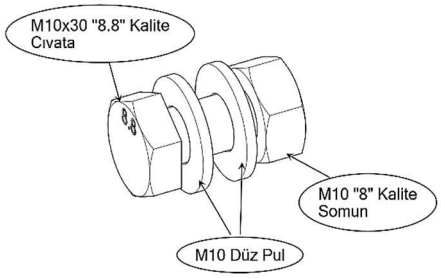
The upper and lower spacers shown in the detailed pictures are used to attach the walking paths to each other. Interconnecting beams are slightly shorter than the other lower sections. As shown in the detail in Figure 2.1.5.1, the intermediate joint plate is mounted between the intermediate joint beam and the walkway..

Şekil 2.1.5.2 Walkways Upper Intermediate Sheet

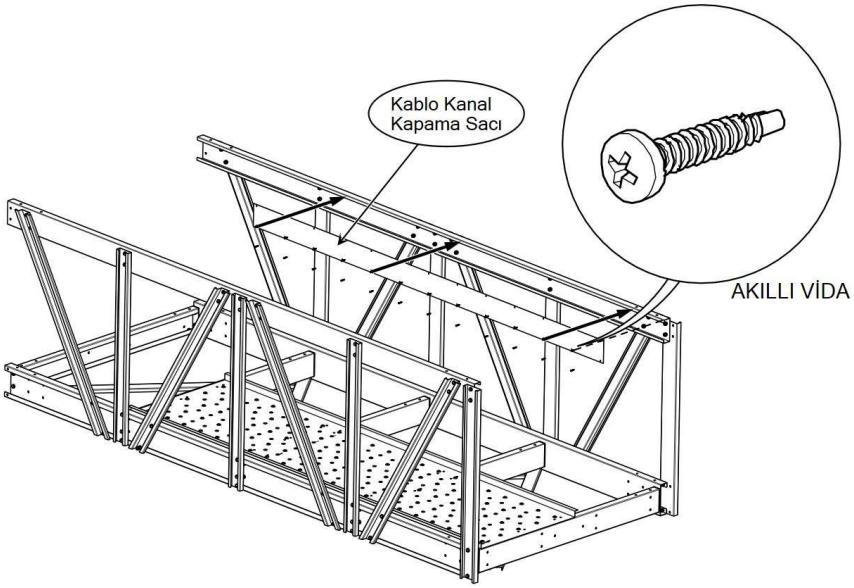


After the walkways have assembled the lower intermediate joints, the upper joints are installed. As shown in Figure 2.1.5.2, the notched part should face inward. After the additional parts on both sides have been assembled, walkways that have been assembled in a separate place are added to each other..

The nut bolt type to be used for joints is shown in the figure below..

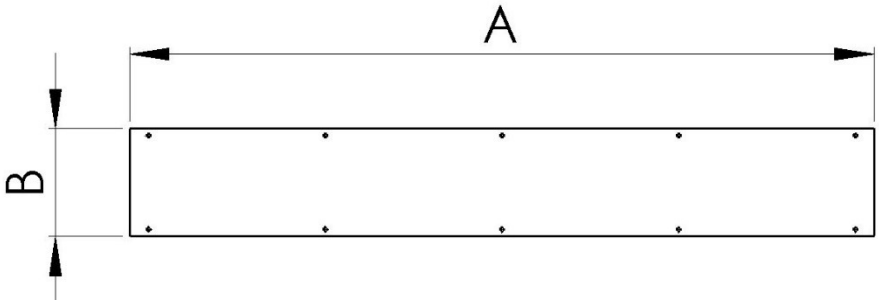


Şekil 2.1.6 Cable Guide Sheet Installation



The cable closure plate is represented on the upper chassis sheet of the walkways through which the cables pass through, as a representation in Figure 2.1.6. The cable closure plate is secured by smart screw as shown in the figure..

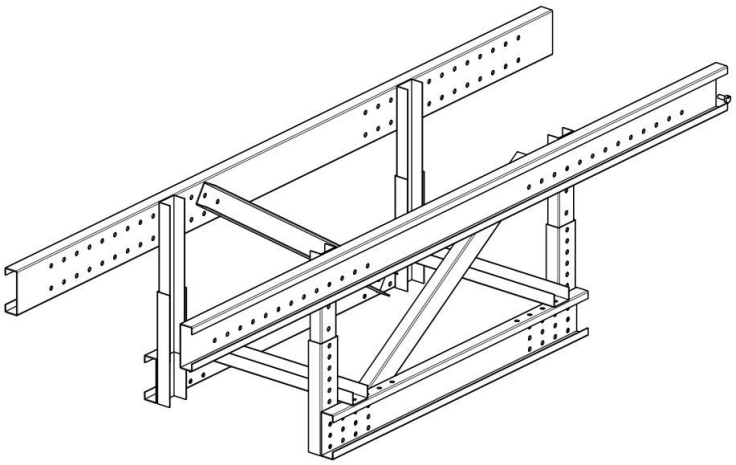
The dimensions of the cable closure sheet are given in the table below..



"A" measure	"B" mesure
1000 mm	144 mm
2000 mm	144 mm
3000 mm	144 mm

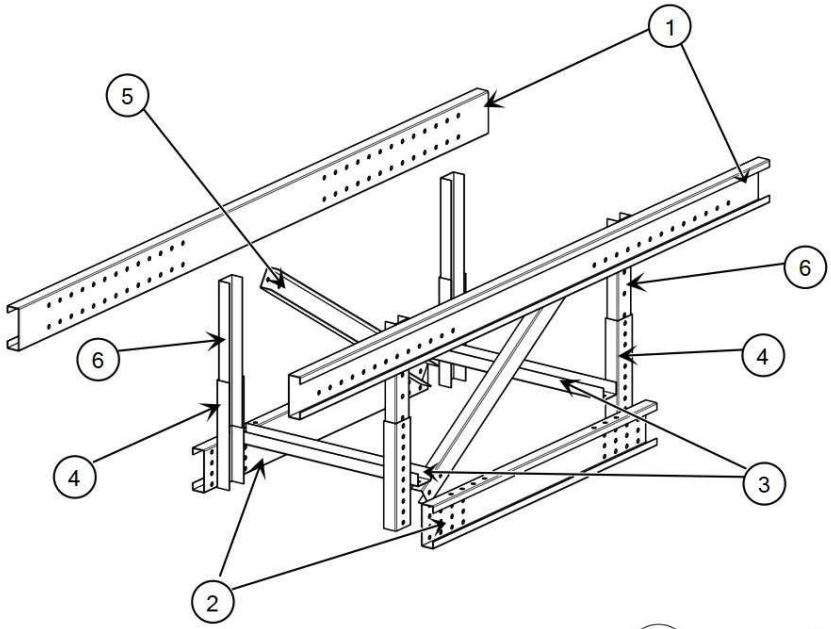
2.2 CATWALK PEAK SUPPORT KIT

Şekil 2.2.1 Catwalk Peak Support Kit

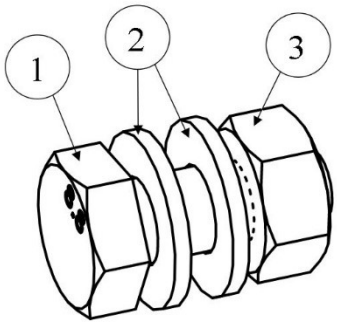


The walkway support kit is mounted on the top of the silo after all floors and roofs of the silo have been installed and secured. The walkway, which is then installed on the ground, is then mounted on the support kit.

Şekil 2.2.2 Walkway Support Kit Parts

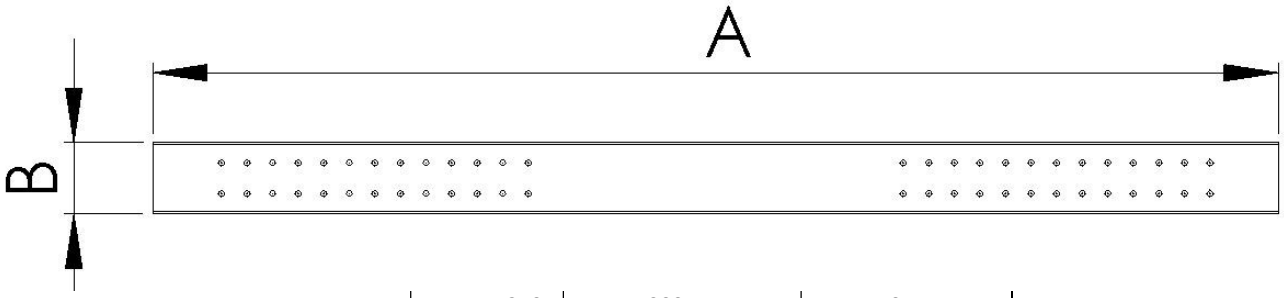


Ref No	Part Description
1	upper support c channel
2	Lower support c channel
3	crossmember
4	Lower adjustable upright
5	X bracing
6	Upper adjustable upright



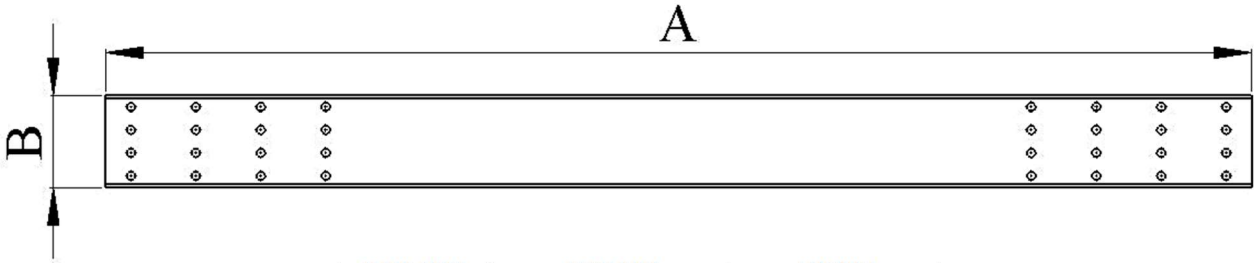
Ref No	Part Description
1	M10x25 “8.8” Kalite Cıvata
2	M10 Düz Pul
3	M10 “8” Kalite Somun

UPPER SUPPORT “C” CHANNEL



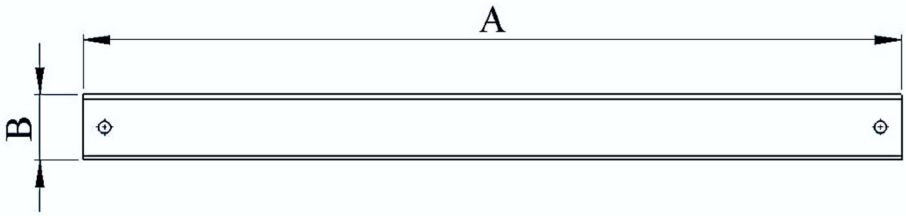
AYDM1250	1900 mm	140 mm
AYDM1600	2200 mm	140 mm
AYDL2000	2600 mm	140 mm

Şekil 2.2.2.2 LOWER SUPPORT C CHANNEL



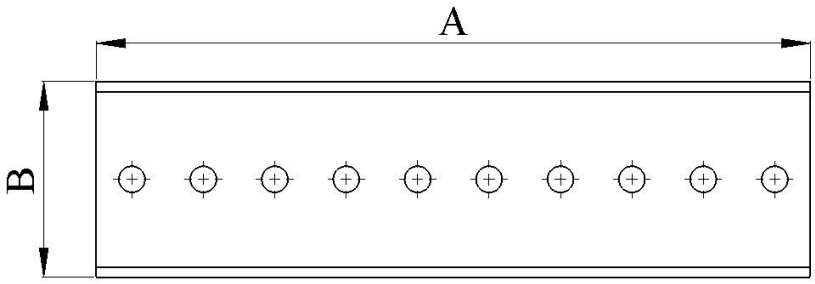
AYDL1600	1500 mm	120 mm
AYDM1250	1500 mm	120 mm
AYDM1600	1500 mm	120 mm
AYDL2000	1500 mm	120 mm

Şekil 2.2.2.3 CROSSMEMBER



	“A” Ölçüsü	“ Ölçüsü
AYDL1250	300 mm	67 mm
AYDL1600	300 mm	67 mm
AYDM1250	300 mm	82 mm
AYDM1600	300 mm	82 mm
AYDL2000	300 mm	82 mm

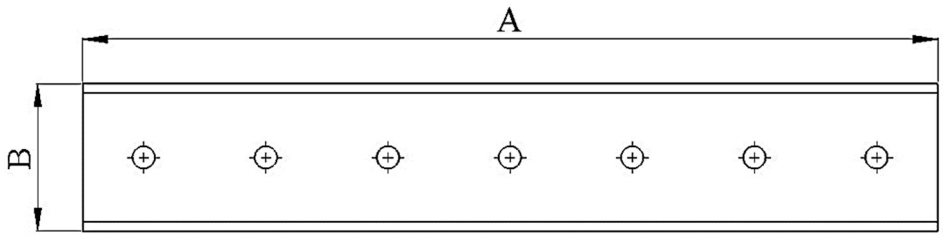
Şekil 2.2.2.4 LOWER ADJUSTABLE UPRIGHT



Şekil 2.2.2.5 X-BRACING

AYDL2000	1377 mm	70 mm

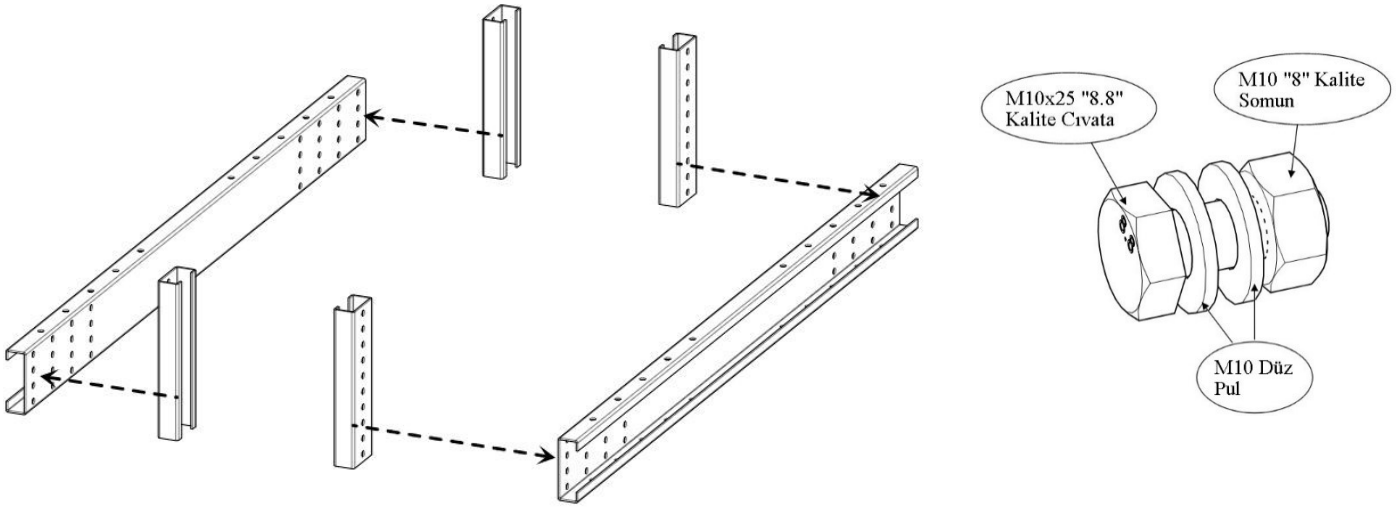
Şekil 2.2.2.6 UPPER ADJUSTABLE UPRIGHT



AYDL2000	750 mm	60 mm

Şekil 2.3.2 PEAK SUPPORT INSTALATION

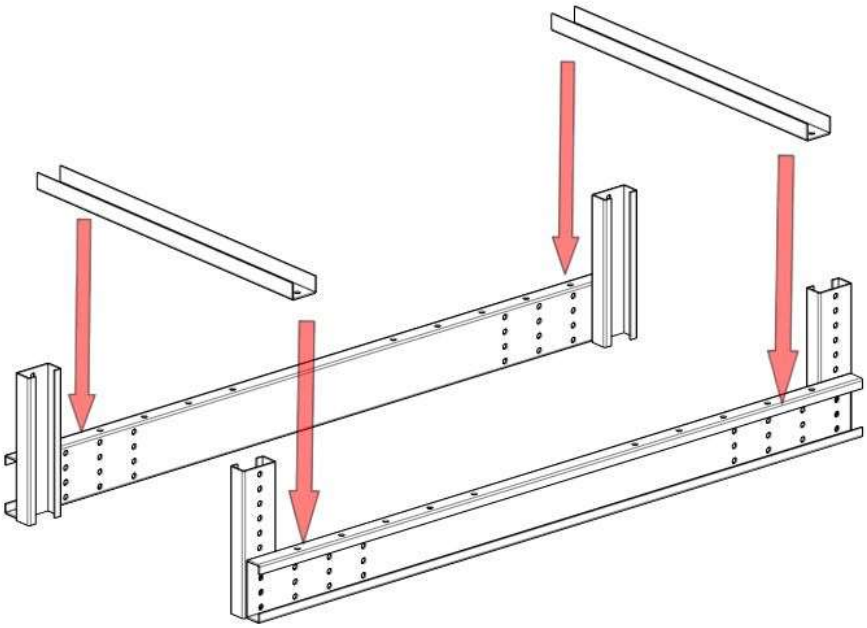
Şekil 2.3.2.1 LOWER SECTION ASSEMBLY



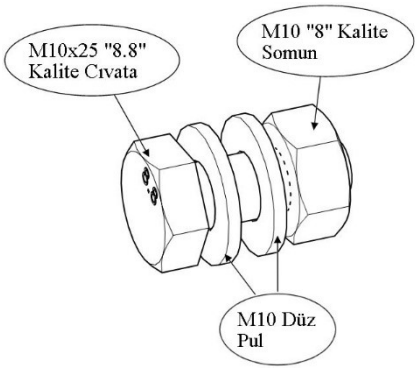
The installation of the walkway support kit starts with the installation of the lower section. You will find detailed pictures of these parts on the previous pages. The nut and bolt to be used are M10x25 “8.8” quality bolt, M10 double washer and M10 “8” quality nut..

	Size measure	Width Measure
AYDL1250	420 mm	60 mm
AYDL1600	420 mm	60 mm
AYDM1250	420 mm	72 mm
AYDM1600	420 mm	72 mm
AYDL2000	420 mm	72 mm

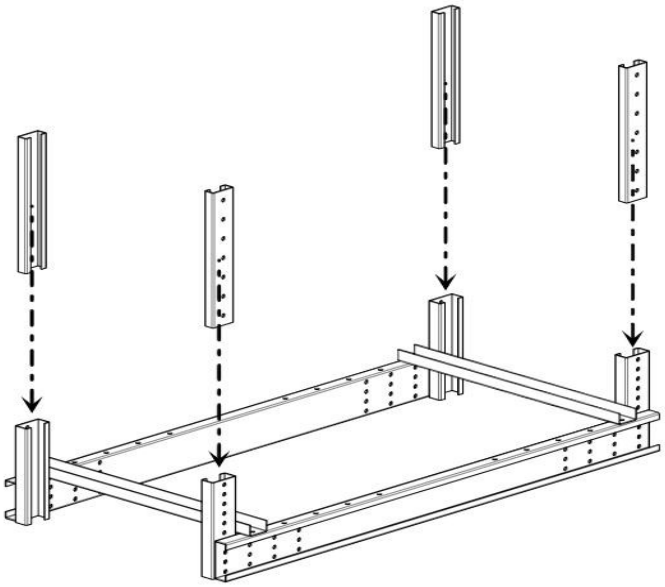
Şekil 2.3.2.2 CROSSMEMBERS



Attach the crossmembers as shown in Figure 2.3.2.2..



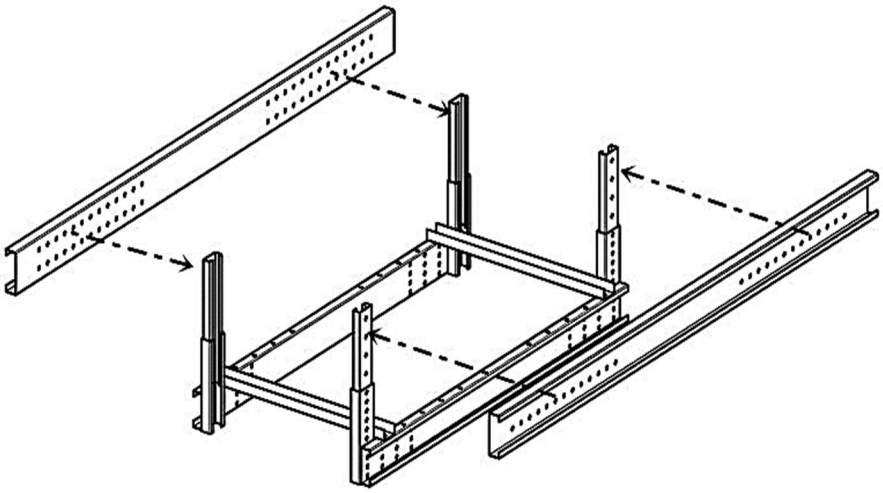
Şekil 2.3.2.3 UPPER UPRIGHT



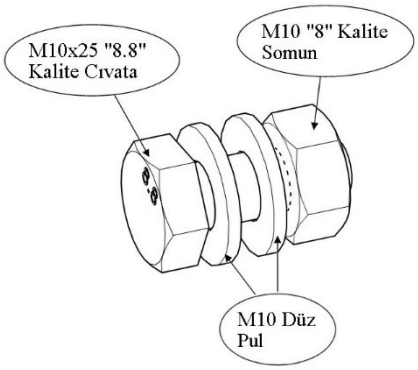
Attach as shown

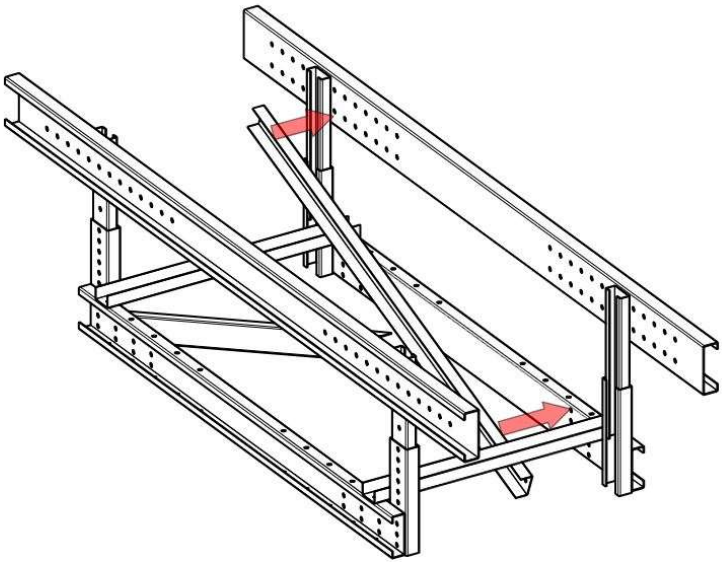
The upper and lower uprights make an adjustable connection.

Şekil 2.3.2.4 UPPER MOUNTING CHANNEL



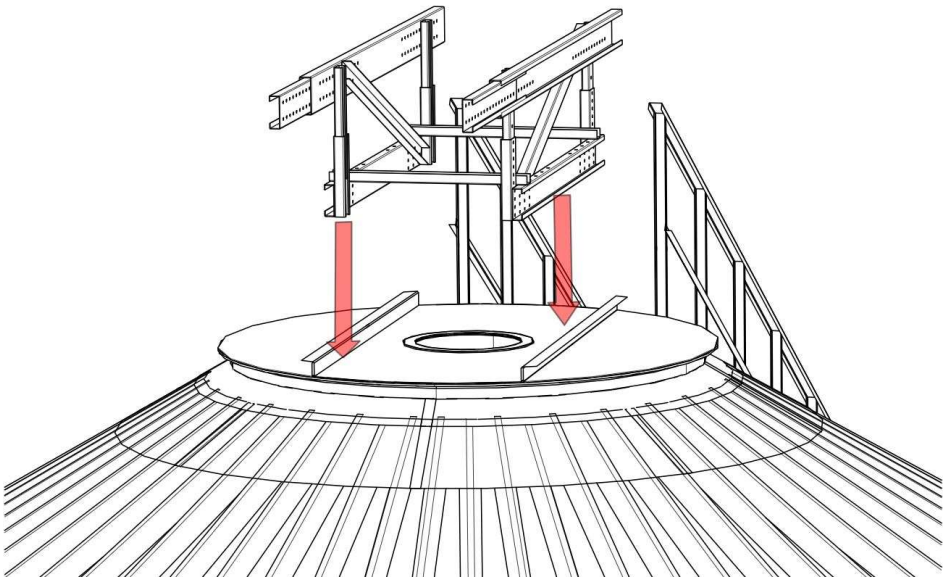
Finally, bolt the upper mounting channels to the upper adjustable uprights as shown in Figure 2.3.2.4. Then the assembly is completed by simply bolting the intermediate diagonals, upper and lower mounting channels as shown in the picture below..



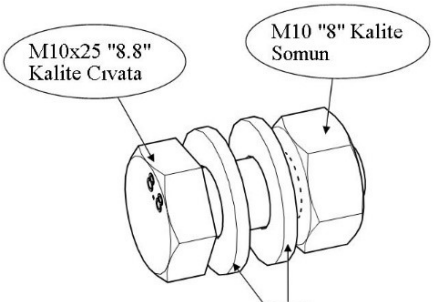


******* Observe the tightening torque.**

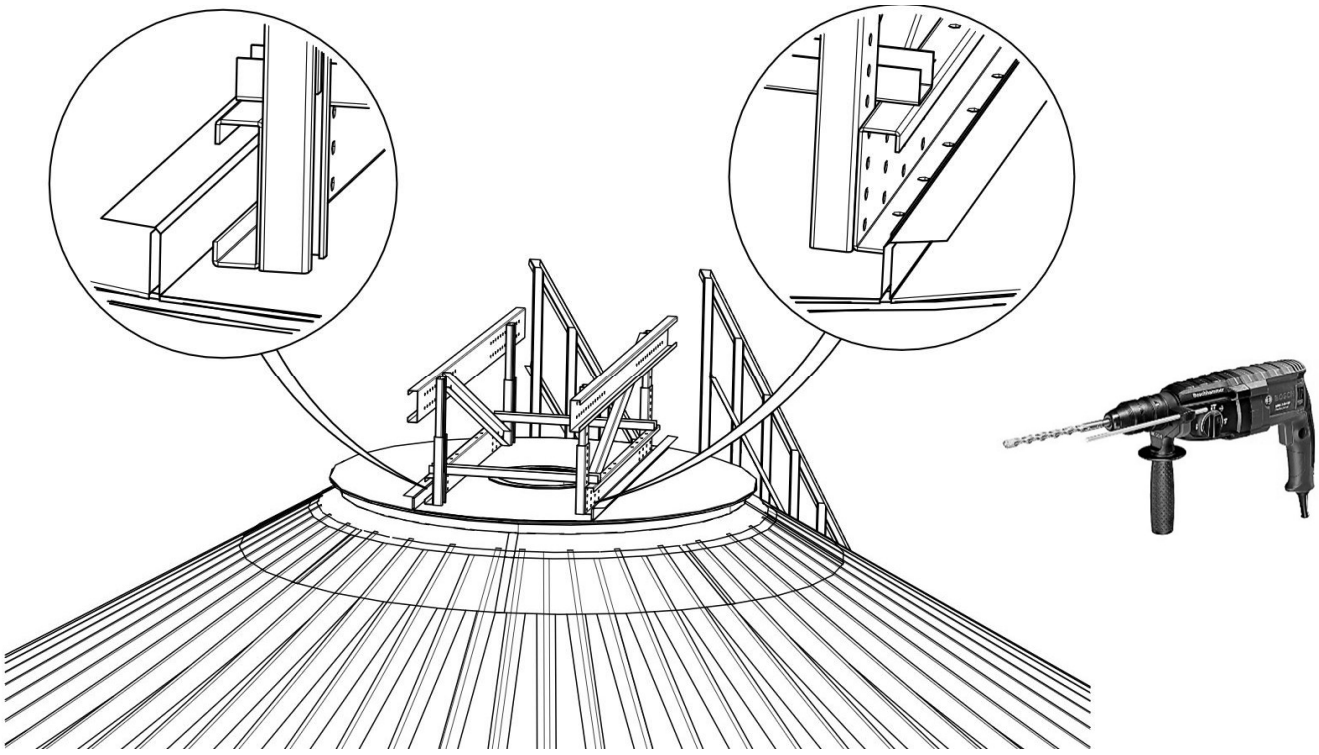
Şekil 2.3.2.5 Peak Support and Silo Connection



The catwalk peak support kit and silo combination are shown as a representation in Figure 2.3.2.5. The catwalk peak support kit, which was previously installed on the ground, is left to the roof of the silo with the help of a crane. Support kit joins from silo roof.

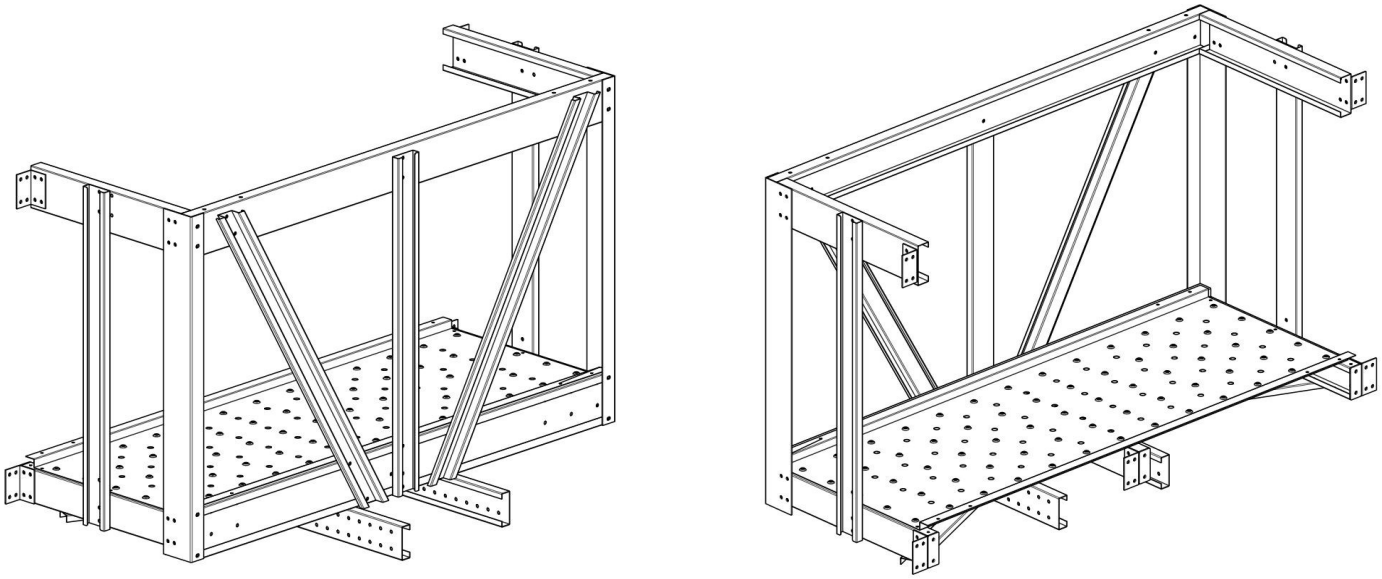


Şekil 2.3.2.6 Peak Support and Silo Connection

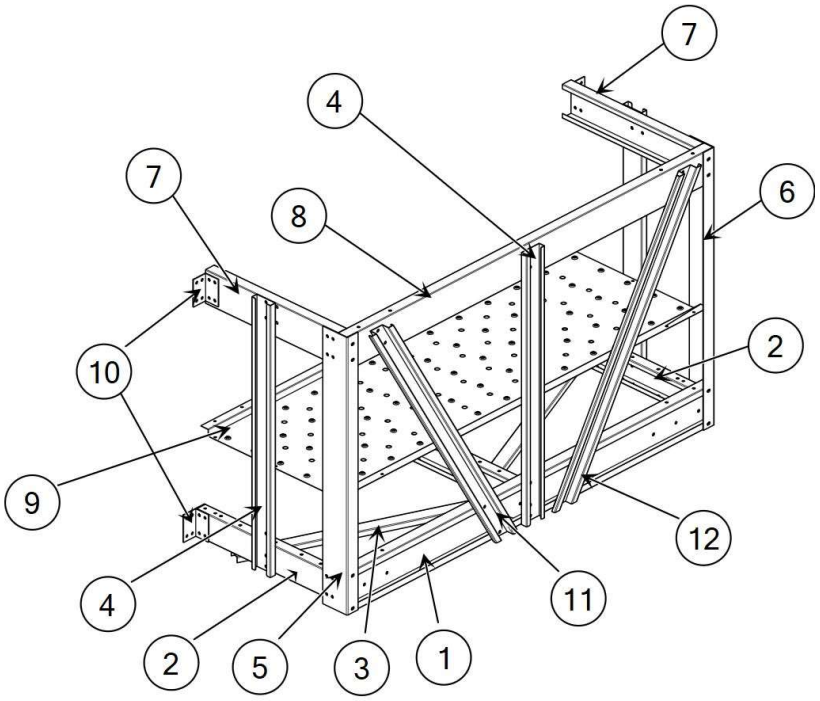


Catwalk peak support kit and silo connection angle and connection bolt locations are shown in Figure 2.3.2.6 as a representative. The support kit is drilled through the holes in the lower beam (see detail picture) and assembled with the bolt and nut shown to you..

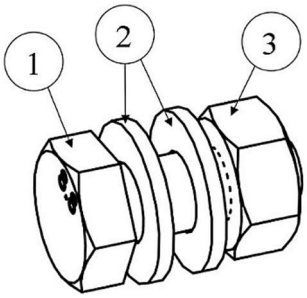
2.4 WALKING BALCONY



2.4.1 WALKING BALCONY PARTS



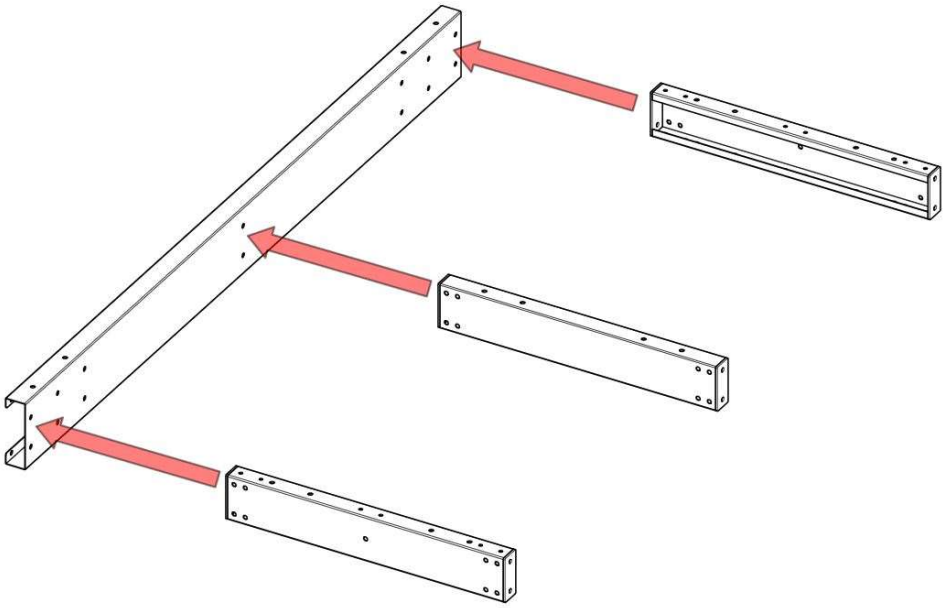
Ref No	Part Description
1	Balcony Side Wall - Bottom Channel
2	Balcony Lower Outer Partition
3	Balcony Intermediate Cross
4	Balcony Side Wall Intermediate Support Plate
5	Balcony Outer Corner Connecting Plate (Left)
6	Balcony Outer Corner Connecting Plate (Right)
7	Balcony Upper Side Wall
8	Balcony Top Chassis
9	Balcony Platform Sheet
10	Balcony Connection Sheet
11	Balcony Side Wall - Cross Side Support
12	Balcony Side Wall - Side Cross Right

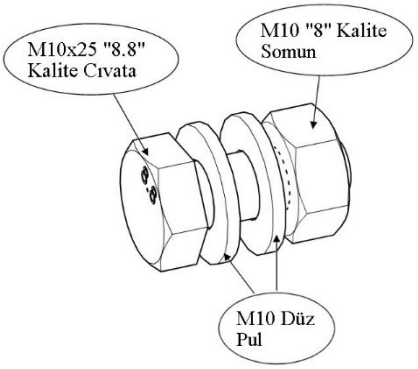


Ref No	Part Description
1	M10x25 “8.8” Kalite Cıvata
2	M10 Düz Pul
3	M10 “8” Kalite Somun

2.4.2 WALKING BALCONY MOUNTING

Şekil 2.4.2.1 Walkway Balcony Bottom

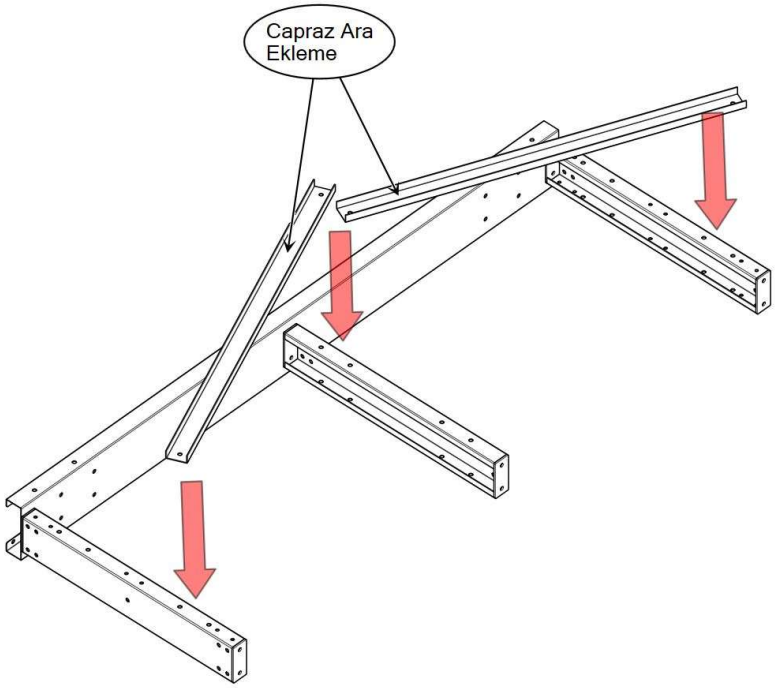




Bağlantı Elemanları

The walkway balcony starts primarily from the bottom, as in the assembly of walkways. As shown in Figure 2.4.2.1, the factory-welded bottom sections are assembled to the subframe with the fasteners shown. As shown in the figure, the flat portions of the lower chambers should always be installed in the outward direction. The bent parts should face inward.

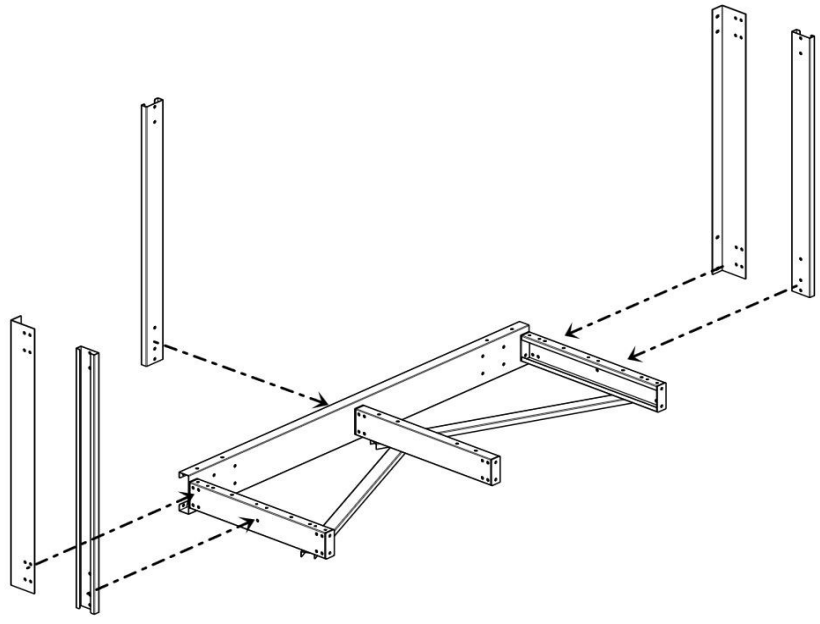
Şekil 2.4.2.2 Walkway Balcony Crossover



After the bottom part compartments are assembled, the installation of the transverse splicing plates is proceeded as shown in Figure 2.4.2.2. Intermediate diagonals can be assembled with simple angles to each other..

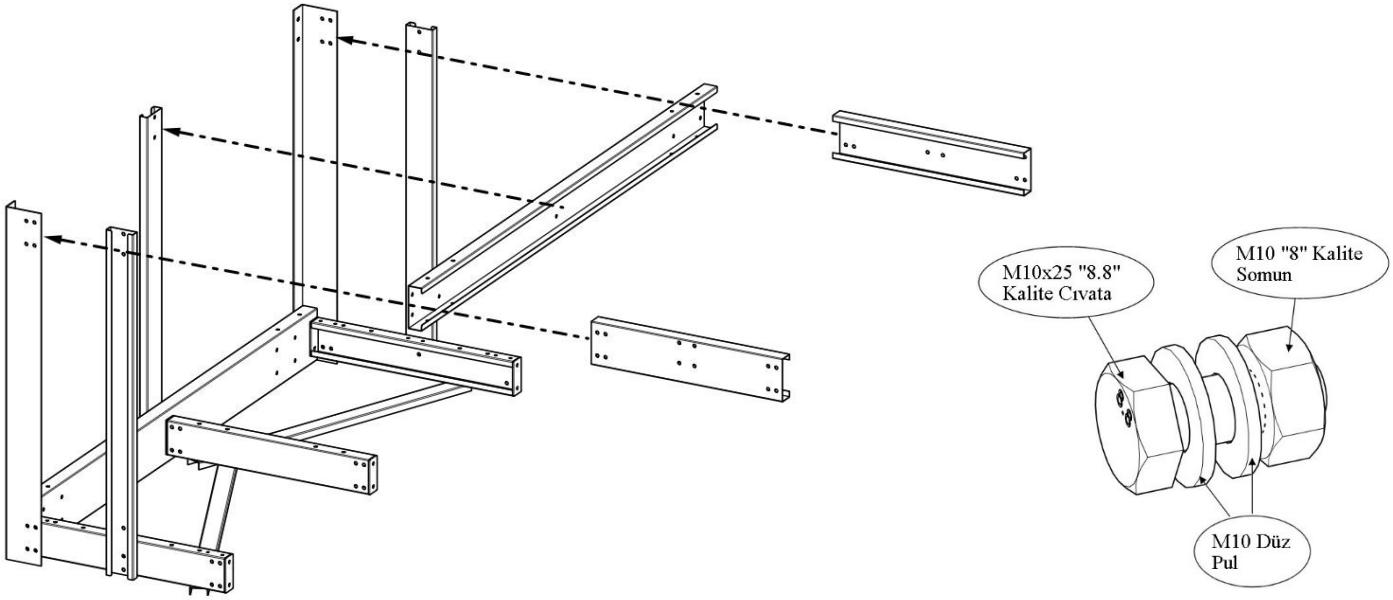
The connection elements to be used are the same as those used in the sub-rings. Observe the tightening torque.

Şekil 2.4.2.3 Walkway Balcony Corner Connection and Vertical Support Plates



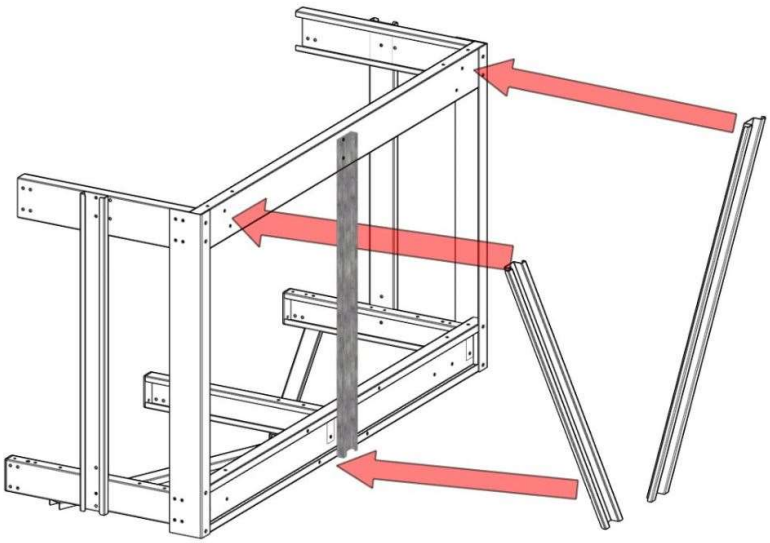
After the installation of the diagonals, the mounting of the corner connection plates and the vertical support plates shown in Figure 2.4.2.3 is proceeded. Other vertical parts, except for corner connecting sheets, are symmetrical (identical).

Şekil 2.4.2.4 Walkway Balcony Top Chassis and Side Wall Installation



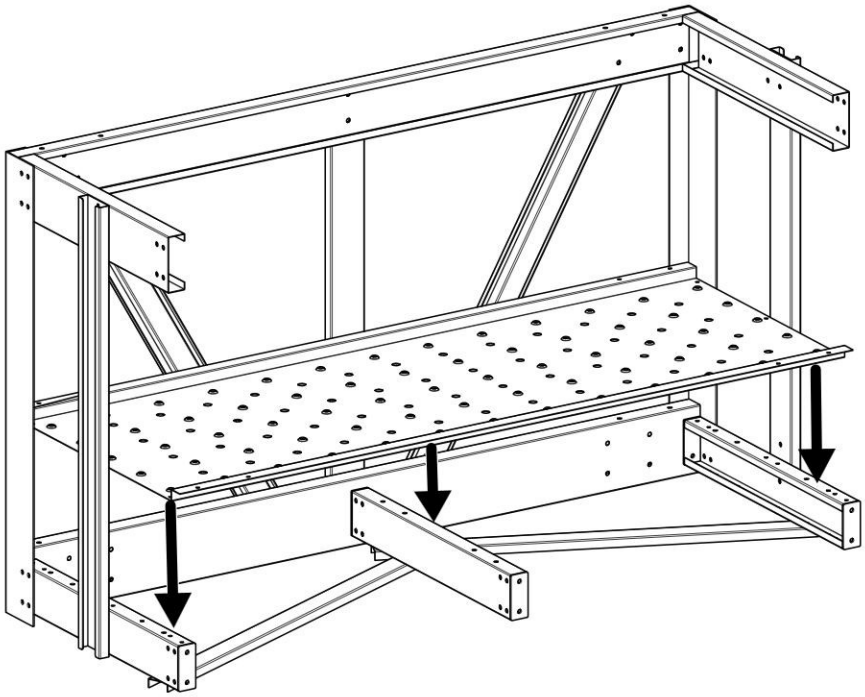
After the mounting of the uprights and corner sheets, the installation of the upper chassis and side walls is started. As shown in Figure 2.4.2.4, the upper frame is assembled to the corner connecting sheets and from the middle to vertical support sheets, and the side walls to both the corner connecting sheets and the vertical support sheets are completed by using the bolts, nuts and washers shown in the figure..

Şekil 2.4.2.5 Walkway Balcony Cross Side Supports



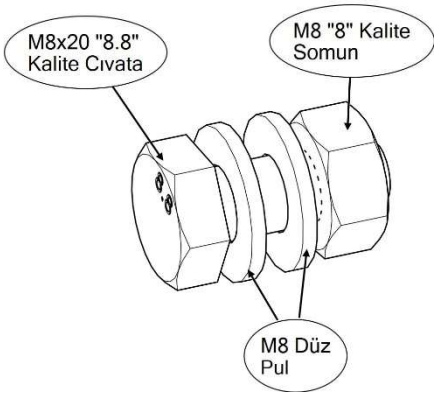
After the installation of the above parts, the cross-side supports shown in Figure 2.4.2.5 are assembled. These diagonals begin to be mounted from the side of the middle support sheet shown in dark color and correspond to the holes above. If the holes do not match, you are installing the wrong part in the wrong place. Replace your parts.

Şekil 2.4.2.6 Walkway Balcony Platform Plate

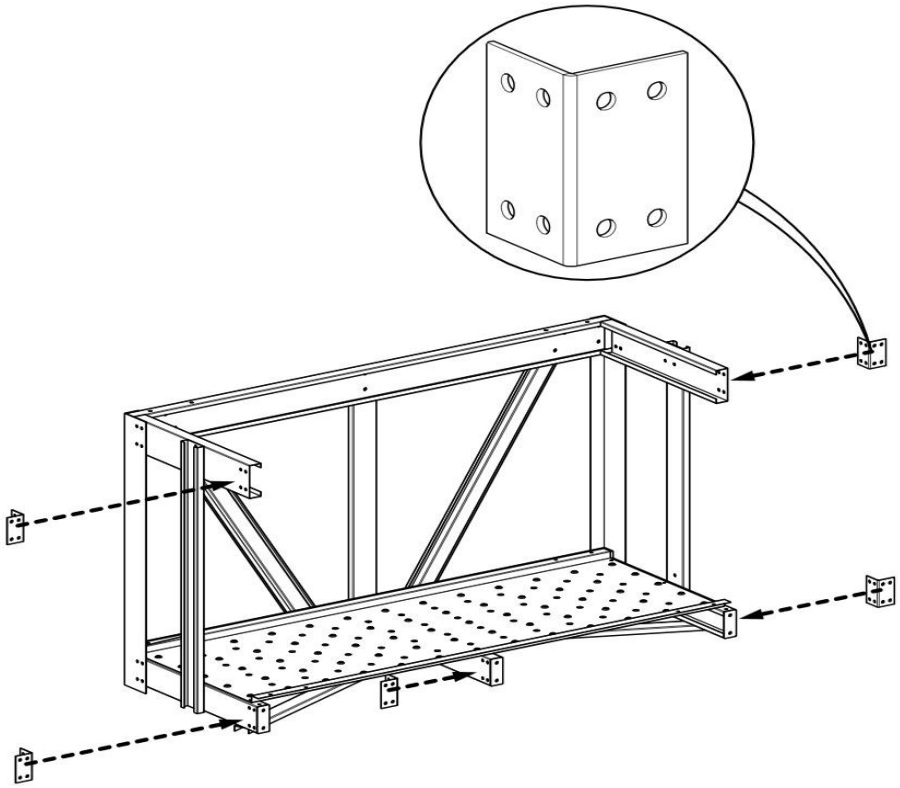


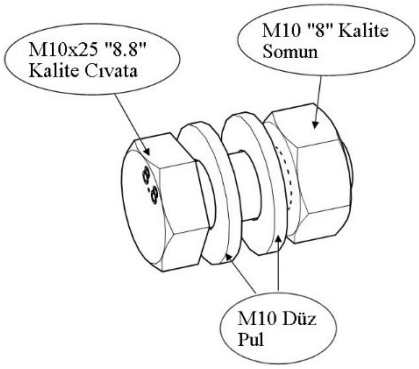
The mounting of the platform sheet is shown in Figure 2.4.2.6. Installation is completed by bolting the platform plate to the lower partitions and lower chassis sheet as shown in the figure..

The fasteners to be used in the platform sheet differ. Use the fasteners shown in the figure below. Observe the tightening torque.



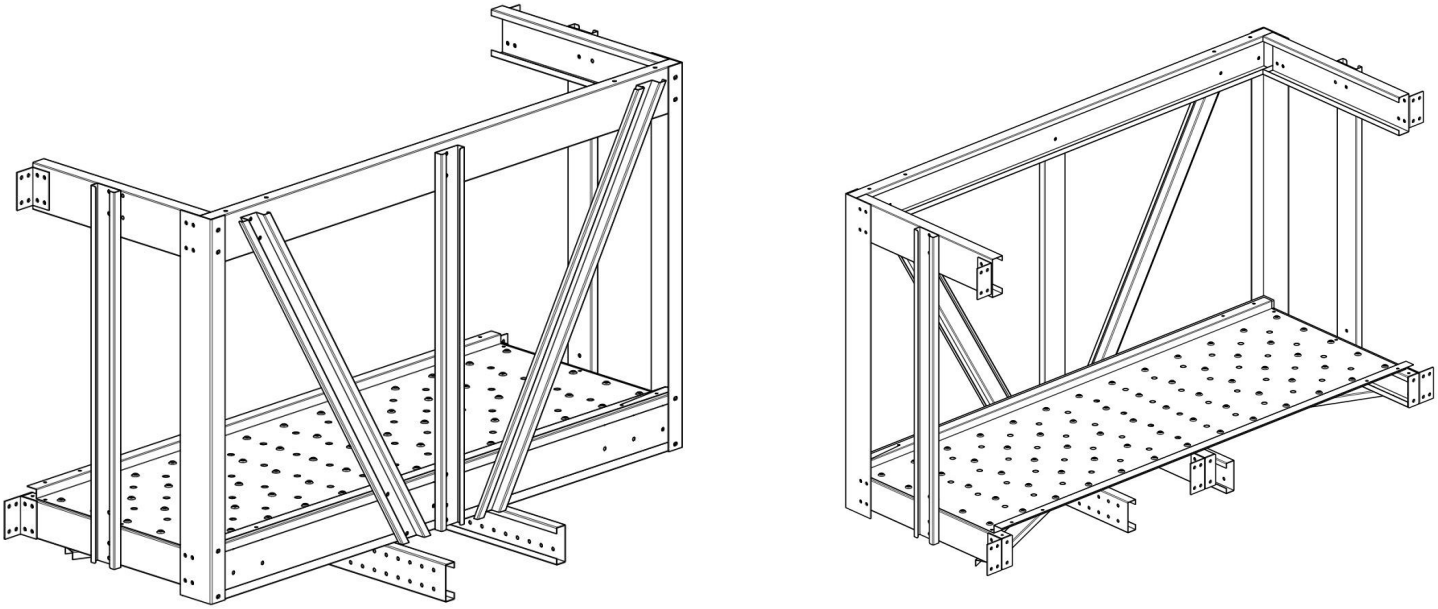
Platform Fittings **Şekil 2.4.2.7 Walkway Balcony Connection Sheets**





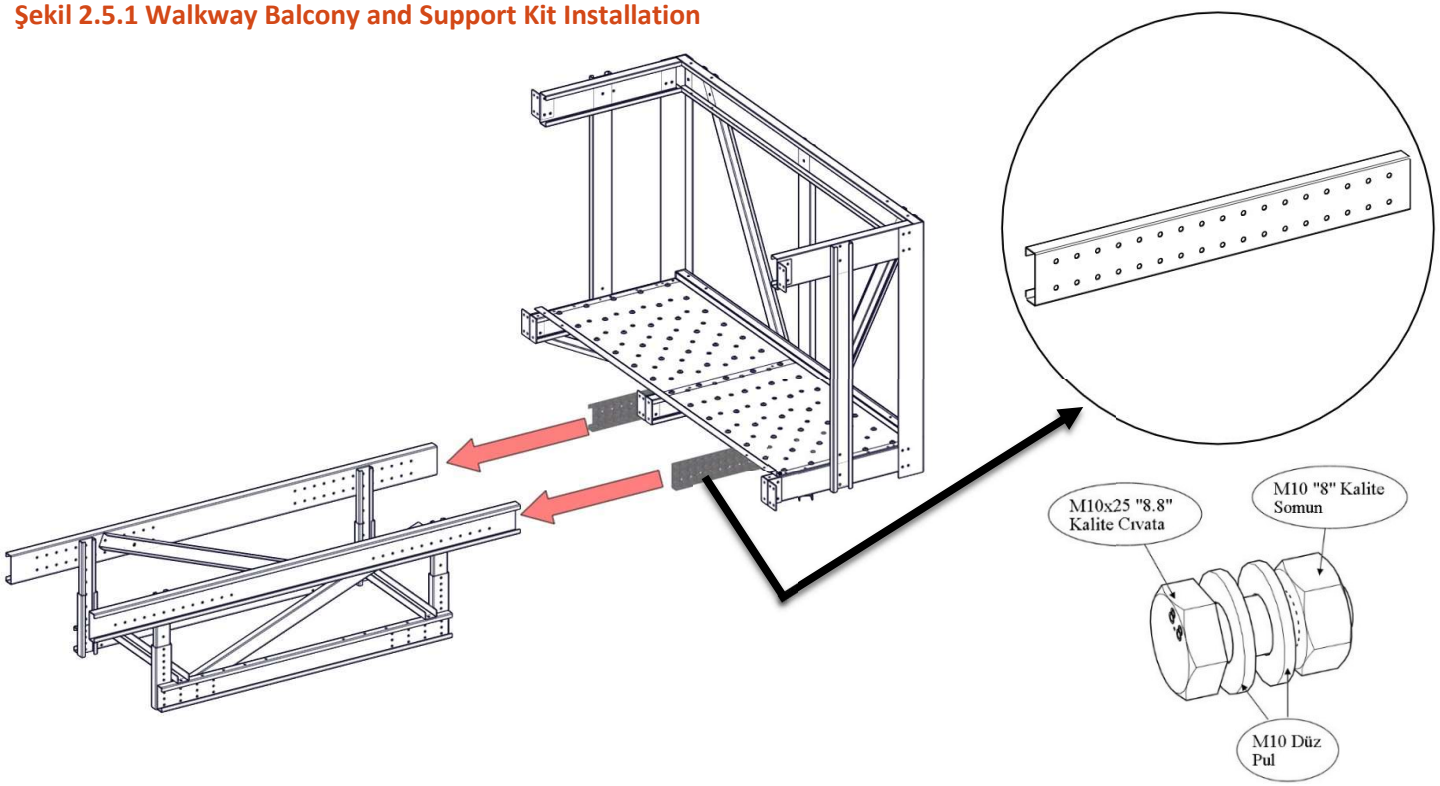
The walkway connection parts are assembled as shown in the figure and where they are shown. These parts connect the balcony to the walkway. Mounting of the connection parts to the walkway is completed by drilling the parts coming to the walkway.

Şekil 2.4.2.8 Walkway Balcony General Assembly View



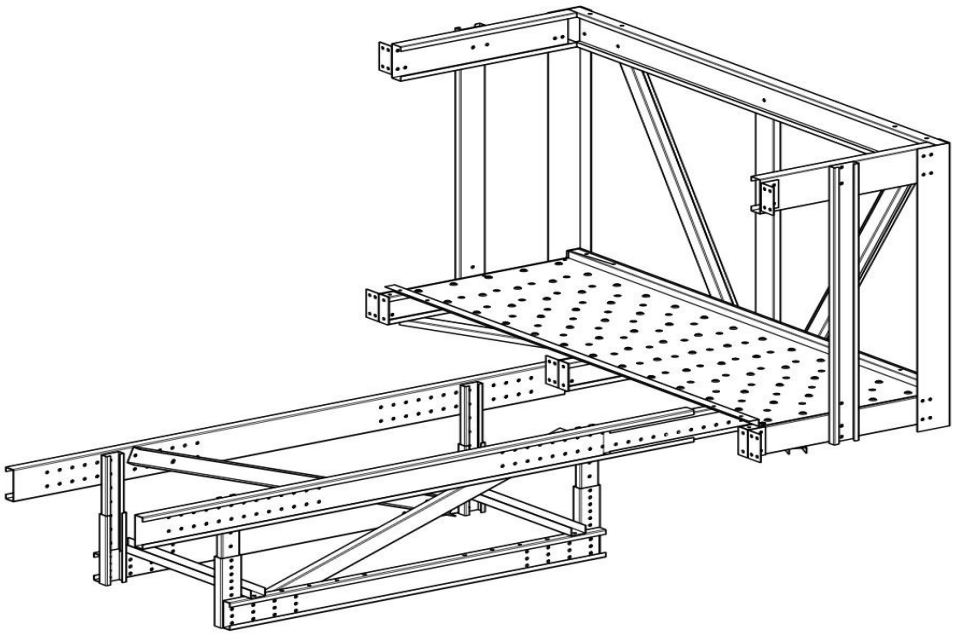
2.5 SUPPORT KIT AND BALCONY COMBINATION

Şekil 2.5.1 Walkway Balcony and Support Kit Installation



The mounting of the walkway support kit and balcony is done with the lower support sheet shown in dark in Figure 2.5.2. By means of this part, assembly of the walkway support kit upper frame is completed. Fasteners to be used are shown.

Şekil 2.5.2 Walkway Balcony and Support Kit Installation General View



GENERAL FEATURES OF WALKING WAYS

Supporting range, maximum carrying capacity (kg / m) are the most important points to be considered when designing the walkways. You can find the necessary information in the table below..

CATWALK TABLE							
Catwalk Type		***Width*** (mm)	***Height*** (mm)	***Maximum Free Span*** (m)	***Maximum Load Capacity*** (kg/m)	***Wind Speed*** (km/h)	***Snow Load*** (kg/m²)
Light-duty	CWL-1050	1050	1100	12	150	145	195
	CWL-1250	1250	1100	12	150	145	195
	CWL-1600	1600	1100	12	150	145	195
Medium-duty	CWM-1250	1250	1100	12	250	145	195
	CWM-1600	1600	1100	12	250	145	195
	CWM-2000	2000	1100	12	250	145	195
Heavy-duty	CWH-1600	1600	1600	21	360	145	195
	CWH-2000	2000	1600	21	360	145	195
	CWH-2300	2300	1600	21	360	145	195
Note: All catwalks including safe and code compliant EN ISO 14122-1, 14122-2, 14122-3, 14122-4 standards.							