

SILVERSUN

evo

SILVERSUN EVO GAS POWERED TUBULAR TYPE RADIANT HEATER



SSE 10/15 TRU
SSE 13/20 TRU
SSE 17/25 TRU
SSE 20/30 TRU
SSE 27/40 TRU
SSE 33/50 TRU
SSE 40/60 TRU

SSE 10/15 DT
SSE 13/20 DT
SSE 17/25 DT
SSE 20/30 DT
SSE 27/40 DT
SSE 33/50 DT
SSE 40/60 DT

SSE 10/15 CRU
SSE 13/20 CRU
SSE 17/25 CRU
SSE 20/30 CRU
SSE 27/40 CRU
SSE 33/50 CRU
SSE 40/60 CRU

USER MANUAL



0063

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INTRODUCTION

Silversun radiant heating systems are tubular type radiant heating devices that provide a very economical and effective heating through radiation (as the sun warms us) in large and high ceiling spaces and especially in outdoor environments which are difficult to heat. The systems running with gas fuel and having all kinds of electronic thermostatic control possibilities that offer an extremely economical and at the same time environment friendly solution.

With Silversun heating systems it is possible to provide a very economical and effective heating for general and local heating purposes in outdoor areas like restaurants, patios, gardens, pergolas, shopping malls etc. and in indoor areas like factories, warehouses, aircraft hangars etc.

The burners of Silversun heating systems are manufactured to operate in 2 stages, thus it is possible to generate heat by operating the device at low or high levels depending on the desired temperature. In this way, more comfortable heating can be provided with different options.



PLEASE READ CAREFULLY THE WARNINGS AND INFORMATION INCLUDED IN THIS MANUAL!

⚠ DANGER: IF YOU SMELL GAS

1. TURN OFF THE GAS.
2. EXTINGUISH ANY OPEN FLAME.
3. CALL YOUR AUTHORIZED SERVICE.

⚠ WARNING: IT IS FOR LARGE VOLUMES, HIGH CEILING SPACES AND OUTDOOR AREAS. NOT SUITABLE FOR INDOOR USE AT HOME OR OFFICES.

⚠ WARNING: PLEASE READ CAREFULLY THIS MANUAL THOROUGHLY PRIOR TO SERVICING AND INSTALLATION OF THE PRODUCT. KEEP THIS MANUAL IN A SAFE PLACE FOR FURTHER REFERENCE.

⚠ INSTALLATION AND REPAIRS SHOULD ONLY BE CARRIED OUT BY AUTHORIZED SERVICE PERSONNEL, THE HEATER SHOULD BE INSPECTED BEFORE USE AND CHECKED BY AUTHORIZED SERVICE AT LEAST ONCE A YEAR.

⚠ IMPROPER INSTALLATION, OPERATION or MAINTENANCE CAN RESULT IN SERIOUS INJURY, DEATH or PROPERTY DAMAGE.

⚠ INSTALLATION / MAINTENANCE OF SILVERSON PRODUCTS SHOULD BE DONE BY AUTHORIZED SERVICE PERSONNEL. OTHERWISE, OUR COMPANY SHALL NOT BE HELD RESPONSIBLE FOR ANY INJURIES, DEATH, FIRE, INTOXICATION OR PROPERTY DAMAGE THAT MAY ARISE.

⚠ THIS APPLIANCE MUST BE INSTALLED IN CONFORMANCE WITH THE APPLICABLE LAWS AND LOCAL REGULATIONS. BEFORE INSTALLATION, CHECK IF LOCAL GAS DISTRIBUTION CONDITIONS, PROPERTIES AND PRESSURE OF THE GAS, AS WELL AS APPLIANCE SETTINGS ARE APPROPRIATE.

- ⚠️ NATURAL GAS INSTALLATION SHOULD BE CARRIED OUT IN ACCORDANCE WITH THE LAWS AND REGULATIONS OF THE COUNTRY WHERE THE EQUIPMENT WILL BE INSTALLED. OUR COMPANY CANNOT BE HELD RESPONSIBLE FOR ANY LEGAL CASES DUE TO ILLEGAL NATURAL GAS USE.
- ⚠️ WIRING OF THE HEATER SHOULD BE DONE WITH GROUNDING IN COMPLIANCE WITH RELATED REGULATIONS.
- ⚠️ IN CASE OF USING THE DEVICE WITHOUT FLUE, THE REQUIREMENTS REGARDING THE VENTILATION CONDITIONS MUST BE IN CONFORMANCE WITH THE RELATED REGULATIONS OF THE COUNTRY IN WHICH THE APPLIANCE IS USED. VENTILATION EN13410 MUST BE DONE ACCORDING TO TS EN 13410.
- ⚠️ IN CASE OF OUTDOOR INSTALLATION, THE APPLIANCE SHOULD BE PROTECTED FROM RAIN.
- ⚠️ DO NOT INSTALL SILVERSUN PRODUCTS BELOW THE DISTANCES ALLOWED FOR COMBUSTIBLE AND INFLAMMABLE OBJECTS.
- ⚠️ DO NOT STORE PETROLEUM AND DERIVATIVES OR FLAMMABLE VAPORS OR FLUIDS AROUND OR NEARBY SILVERSUN PRODUCTS.
- ⚠️ KIDS AND ADULTS SHOULD BE WARNED AGAINST HIGH SURFACE TEMPERATURES AND SHOULD BE KEPT AWAY FROM THE APPLIANCE TO AVOID BURNS.
- ⚠️ STAY AWAY FROM THE APPLIANCE, DO NOT GET CLOSE TO THE DEVICE, DO NOT HANG GARMENTS OR SIMILAR ITEMS TO THE HEATER TO AVOID THEIR BURNING.
- ⚠️ DO NOT SPRAY FLAMMABLE OR COMBUSTIBLE MATERIALS ON THE APPLIANCE WHEN IT IS OPERATING.
- ⚠️ DO NOT PERFORM MAINTENANCE WITHOUT SHUTTING DOWN THE HEATER, CUTTING OFF THE POWER SUPPLY AND COOLING OF THE APPLIANCE TO ROOM TEMPERATURE.
- ⚠️ CONVERSION TO OTHER GASES MUST BE DONE BY AUTHORISED SERVICE. VIOLATING THIS CONDITION CAN RESULT IN DEATH, INJURY AND MATERIAL DAMAGE .
- ⚠️ IN CASE THE APPLIANCE IS SOLD OR TRANSFERRED TO ANOTHER USER, ENSURE THAT THIS MANUAL IS HANDED OVER TO THE NEW USER.
- ⚠️ FAILING TO FOLLOW THE WARNINGS AND INSTRUCTIONS IN THIS MANUAL CAN RESULT IN INJURIES, DEATH AND PROPERTY DAMAGE. IN SUCH CASE OUR COMPANY SHALL NOT ASSUME ANY RESPONSIBILITY.

SECTION 1: TECHNICAL SPECIFICATIONS

SILVERSUN EVO U TYPE TUBULAR RADIANT WITH SINGLE REFLECTOR

(SSE 10/15 TRU – SSE 13/20 TRU – SSE 17/25 TRU – SSE 20/30 TRU – SSE 27/40 TRU – SSE 33/50 TRU – SSE 40/60 TRU)

Model		SSE 10/15	SSE 13/20	SSE 17/25	SSE 20/30	SSE 27/40	SSE 33/50	SSE 40/60
Power (kW)	Lo	10	13	17	20	27	33	40
	Hi	15	20	25	30	40	50	60
Weight (kg)		45	60	60	75	75	92	100
Overall Length (cm)		378	530	530	683	683	835	988
Min. Mounting Height (m)		2.0	2.25	2.50	2.75	3.0	3.50	4.0
Gas Fuel		Natural gas G20						
Natural Gas Consumption (Nm/h ³)	Lo	1.04	1.35	1.77	2.08	2.81	3.44	4.17
	Hi	1.56	2.08	2.60	3.12	4.17	5.21	6.25
Inlet Pressure (mbar)		20-55						
Manifold Pressure (mbar)	Lo	6.0	6.0	6.0	6.0	6.0	7.0	7.0
	Hi	12.0	12.0	12.0	12.0	12.0	14.0	14.0
Gas Nozzle Diameter (mm)		3.5	3.8	4.2	4.6	5.4	6.0	6.6
Air Plate (mm)		16	19	22	22	25	27	29
Fan Power (W)		60	60	60	60	80	80	80
Gas Connection		1/2" gear						
Power Supply		230 V, Single phase, 1 ampere						
Ignition		Fully Automatic, with Flame Sensor						
Combustion and Radiant Tube		101.6 mm Diameter, Heat Treated Aluminized Steel						
Reflector		NS3H14 Aluminum						
Exhaust Outlet Diameter		101.6 mm						

SILVERSUN EVO FLAT TYPE TUBULAR RADIANT**(SSE 10/15 DT – SSE 13/20 DT – SSE 17/25 DT – SSE 20/30 DT – SSE 27/40 DT – SSE 33/50 DT – SSE 40/60 DT)**

Model		SSE 10/15	SSE 13/20	SSE 17/25	SSE 20/30	SSE 27/40	SSE 33/50	SSE 40/60
Power (kW)	Lo	10	13	17	20	27	33	40
	Hi	15	20	25	30	40	50	60
Weight (kg)		45	60	60	75	75	92	100
Overall Length (cm)		650	955	955	1260	1260	1565	1870
Min. Mounting Height (m)		2.0	2.25	2.50	2.75	3.0	3.50	4.0
Gas Fuel		Natural gas G20						
Natural Gas Consumption (Nm/h ³)	Lo	1.04	1.35	1.77	2.08	2.81	3.44	4.17
	Hi	1.56	2.08	2.60	3.12	4.17	5.21	6.25
Inlet Pressure (mbar)		20-55						
Manifold Pressure (mbar)	Lo	6.0	6.0	6.0	6.0	6.0	7.0	7.0
	Hi	12.0	12.0	12.0	12.0	12.0	14.0	14.0
Gas Nozzle Diameter (mm)		3.5	3.8	4.2	4.6	5.4	6.0	6.6
Air Plate (mm)		16	19	22	22	25	27	29
Fan Power (W)		60	60	60	60	80	80	80
Gas Connection		1/2" gear						
Power Supply		230 V, Single phase, 1 ampere						
Ignition		Fully Automatic, with Flame Sensor						
Combustion and Radiant Tube		101.6 mm Diameter, Heat Treated Aluminized Steel						
Reflector		NS3H14 Aluminum						
Exhaust Outlet Diameter		101.6 mm						

SILVERSUN EVO U TYPE TUBULAR RADIANT WITH DOUBLE REFLECTOR

(SSE 10/15 CRU– SSE 13/20 CRU– SSE 17/25 CRU– SSE 20/30 CRU– SSE 27/40 CRU– SSE 33/50 CRU– SSE 40/60 CF

Model		SSE 10/15	SSE 13/20	SSE 17/25	SSE 20/30	SSE 27/40	SSE 33/50	SSE 40/60
Power (kW)	Lo	10	13	17	20	27	33	40
	Hi	15	20	25	30	40	50	60
Weight (kg)		45	60	60	75	75	92	100
Overall Length (cm)		378	530	530	683	683	835	988
Min. Mounting Height (m)		2.0	2.25	2.50	2.75	3.0	3.50	4.0
Gas Fuel		Natural gas G20						
Natural Gas Consumption (Nm/h³)	Lo	1.04	1.35	1.77	2.08	2.81	3.44	4.17
	Hi	1.56	2.08	2.60	3.12	4.17	5.21	6.25
Inlet Pressure (mbar)		20-55						
Manifold Pressure (mbar)	Lo	6.0	6.0	6.0	6.0	6.0	7.0	7.0
	Hi	12.0	12.0	12.0	12.0	12.0	14.0	14.0
Gas Nozzle Diameter (mm)		3.5	3.8	4.2	4.6	5.4	6.0	6.6
Air Plate (mm)		16	19	22	22	25	27	29
Fan Power (W)		60	60	60	60	80	80	80
Gas Connection		1/2" gear						
Power Supply		230 V, Single phase, 1 ampere						
Ignition		Fully Automatic, with Flame Sensor						
Combustion and Radiant Tube		101.6 mm Diameter, Heat Treated Aluminized Steel						
Reflector		NS3H14 Aluminum						
Exhaust Outlet Diameter		101.6 mm						

SECTION 2: SAFETY DISTANCES

SILVERSUN EVO U TYPE TUBULAR RADIANT WITH SINGLE REFLECTOR

HORIZONTAL APPLICATION									
Model	SSE 10/15	SSE 13/20	SSE 17/25	SSE 20/30	SSE 27/40	SSE 33/50	SSE 40/60		
A	150	150	150	150	150	200	200		
B	750	800	850	850	1000	1200	1500		
C	1500	1600	1700	1700	1700	2000	2500		
D	750	800	850	850	1000	1200	1500		

CROSS APPLICATION									
Model	SSE 10/15	SSE 13/20	SSE 17/25	SSE 20/30	SSE 27/40	SSE 33/50	SSE 40/60		
A	150	150	150	150	150	200	200		
B	150	150	150	150	150	200	200		
C	1500	1600	1700	1700	1700	2000	2500		
D	1000	1050	1100	1300	1500	1800	1500		

NOTE: 1. Dimensions are from the surface of the materials.

2. All dimensions are in millimeters.

SILVERSUN EVO FLAT TYPE TUBULAR RADIANT WITH SINGLE REFLECTOR

SILVERSUN EVO U TYPE TUBULAR RADIANT WITH DOUBLE REFLECTOR

HORIZONTAL APPLICATION

Model	SSE 10/15	SSE 13/20	SSE 17/25	SSE 20/30	SSE 27/40	SSE 33/50	SSE 40/60
A	150	150	150	150	150	200	200
B	750	800	850	850	1000	1200	1500
C	1500	1600	1700	1700	1700	2000	2500
D	750	800	850	850	1000	1200	1500

HORIZONTAL APPLICATION

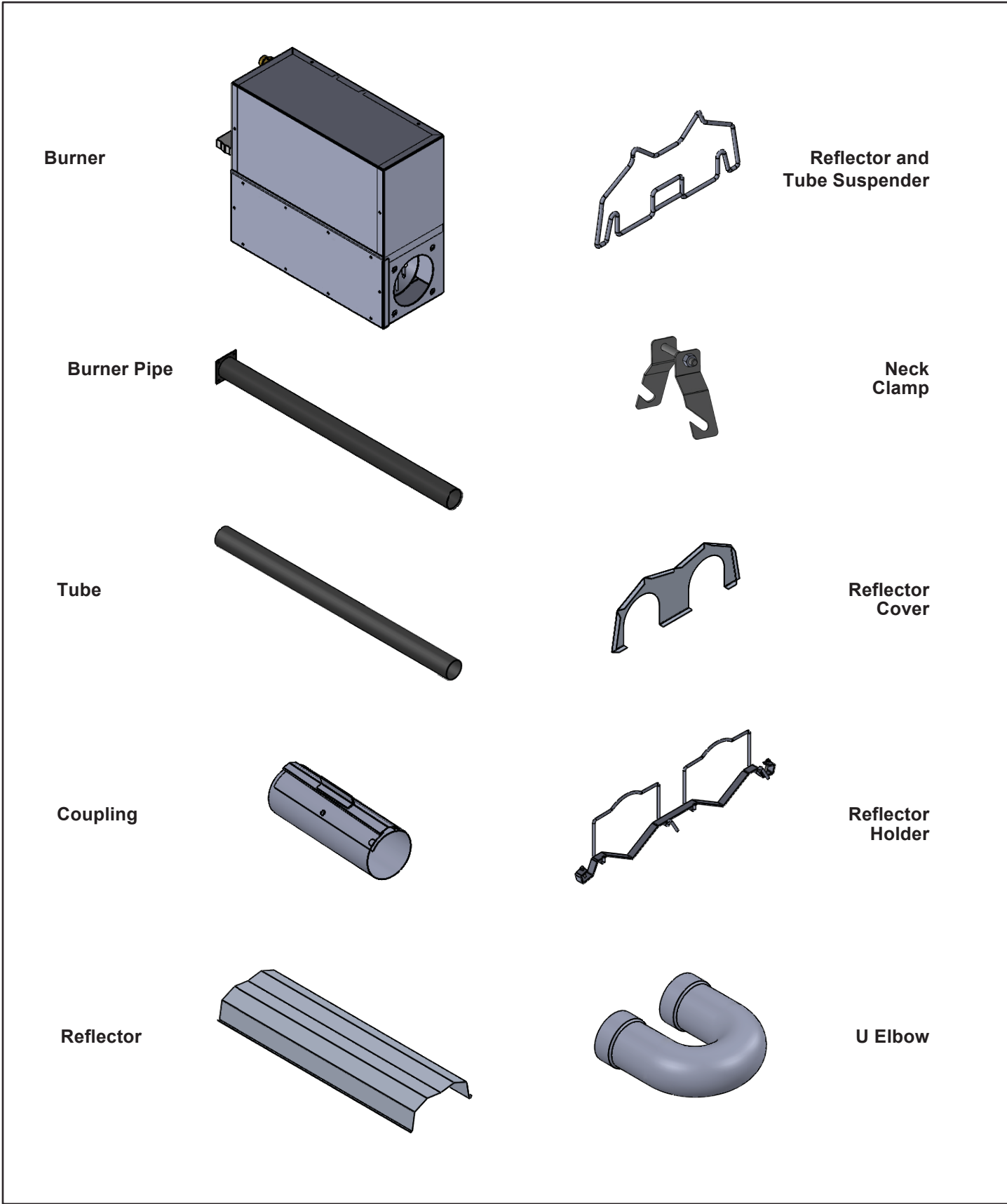
Model	SSE 10/15	SSE 13/20	SSE 17/25	SSE 20/30	SSE 27/40	SSE 33/50	SSE 40/60
A	150	150	150	150	150	200	200
B	750	800	850	850	1000	1200	1500
C	1500	1600	1700	1700	1700	2000	2500
D	750	800	850	850	1000	1200	1500

NOTE: 1. Dimensions are from the surface of the materials.
2. All dimensions are in millimeters.

SECTION 3: MAIN EQUIPMENT

SILVERSUN EVO U TYPE TUBULAR RADIANT WITH SINGLE REFLECTOR

(SSE 10/15 TRU – SSE 13/20 TRU – SSE 17/25 TRU – SSE 20/30 TRU – SSE 27/40 TRU – SSE 33/50 TRU – SSE 40/60 TRU)



SECTION 4: MOUNTING OF U TYPE WITH SINGLE

REFLECTOR 4.1: MATERIAL LIST

SILVERSON EVO U TYPE TUBULAR RADIANT WITH SINGLE REFLECTOR

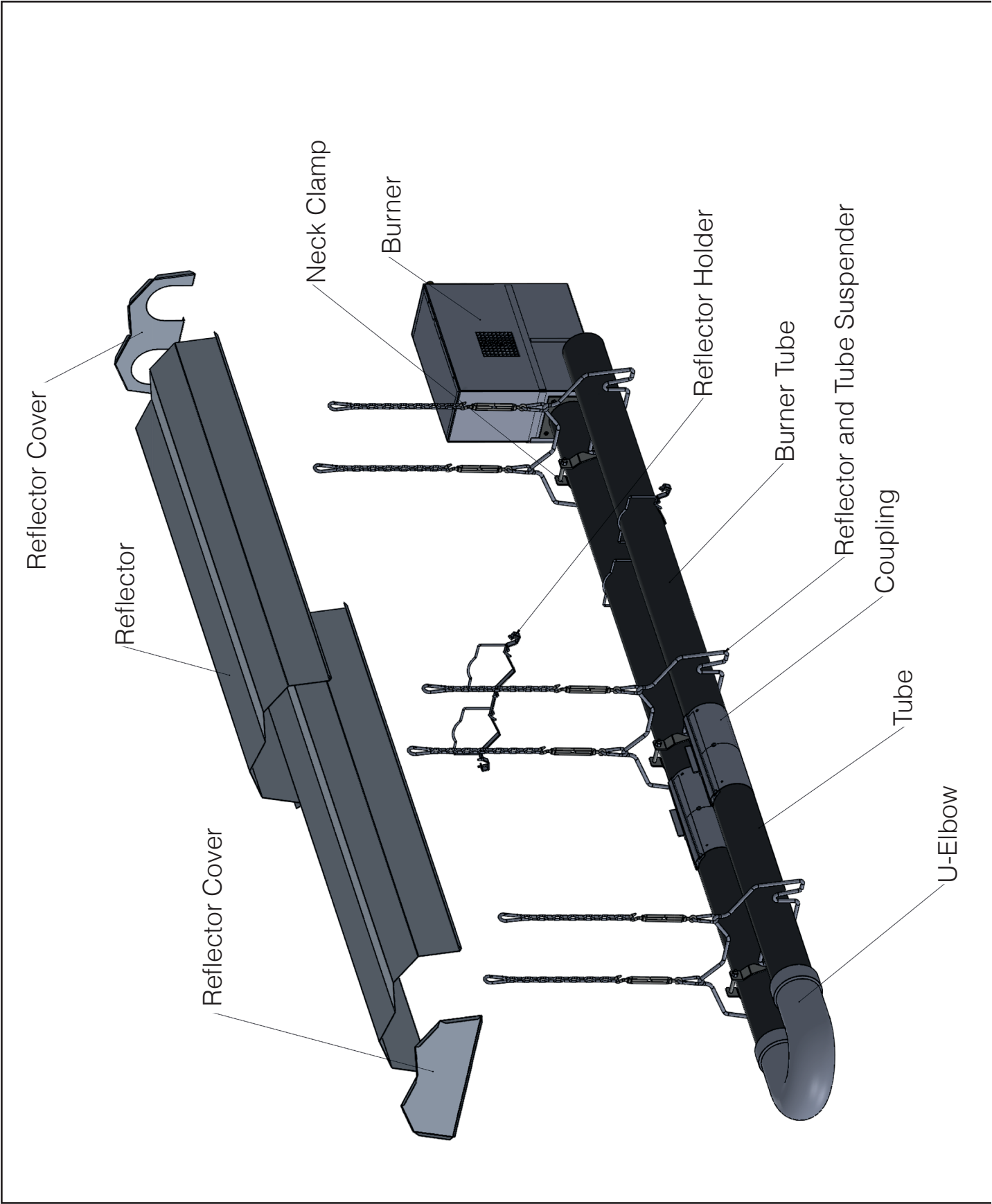
(SSE 10/15 TRU – SSE 13/20 TRU – SSE 17/25 TRU – SSE 20/30 TRU – SSE 27/40 TRU – SSE 33/50 TRU – SSE 40/60 TRU)

STOCK CODE	EXPLANATION	SSE 10/15	SSE 13/20	SSE 17/25	SSE 20/30	SSE 27/40	SSE 33/50	SSE 40/60
SSE 10/15	Silversun Evo Burner 10/15 Kw	1						
SSE 13/20	Silversun Evo Burner 13/20 Kw		1					
SSE 17/25	Silversun Evo Burner 17/25 Kw			1				
SSE 20/30	Silversun Evo Burner 20/30 Kw				1			
SSE 27/40	Silversun Evo Burner 27/40 Kw					1		
SSE 33/50	Silversun Evo Burner 33/50 Kw						1	
SSE 40/60	Silversun Evo Burner 40/60 Kw							1
26.059	Combustion Pipe, 100 x 3000	1	1	1	1	1	1	1
91409408	Tube, 100 x 3005	1	2	2	3	3	4	5
1329600	Coupling	2	2	2	2	2	4	4
26.056	Reflector, Aluminum 2550 mm	2	2	2	3	3	4	4
26.080	Reflector Cover	2	2	2	2	2	2	2
26.075	Tube and Reflector Suspender	2	3	3	4	4	5	5
26.079	Tube Fixing Clamp Assembly	2	3	3	4	4	5	5
26.081	Reflector Holder Assembly	1	2	2	2	2	4	4
20.349	Narrow “U” Elbow	1	1	1	1	1	1	1

SECTION 4.1.1: MOUNTING DIAGRAM

SILVERSUN EVO U TYPE TUBULAR RADIANT WITH SINGLE REFLECTOR

(SSE 10/15 TRU – SSE 13/20 TRU – SSE 17/25 TRU – SSE 20/30 TRU – SSE 27/40 TRU – SSE 33/50 TRU – SSE 40/60 TRU)

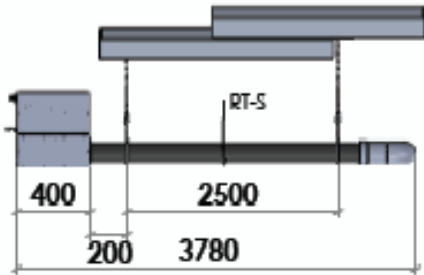


SECTION 4.1.2: MOUNTING EXPANSION

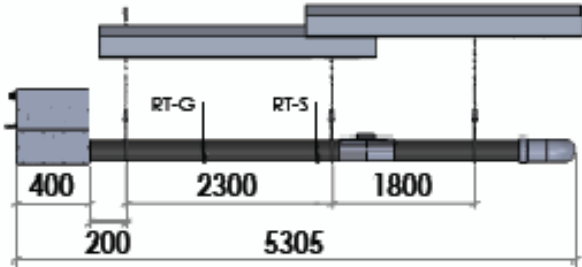
SILVERSUN EVO U TYPE TUBULAR RADIANT WITH SINGLE REFLECTOR

(SSE 10/15 TRU – SSE 13/20 TRU – SSE 17/25 TRU-SSE 20/30 TRU)

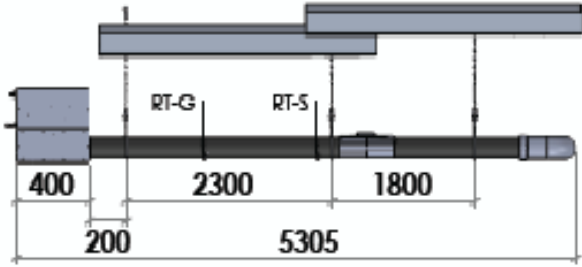
SSE
10/15
TRU



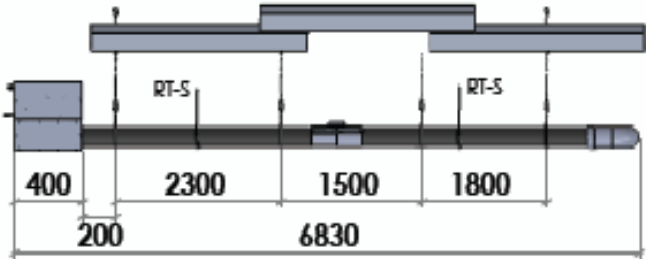
SSE
13/20
TRU



SSE
17/25
TRU

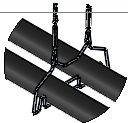


SSE
20/30
TRU



RT-S : Reflector holder is tight.

RT-G : Reflector holder is loose.



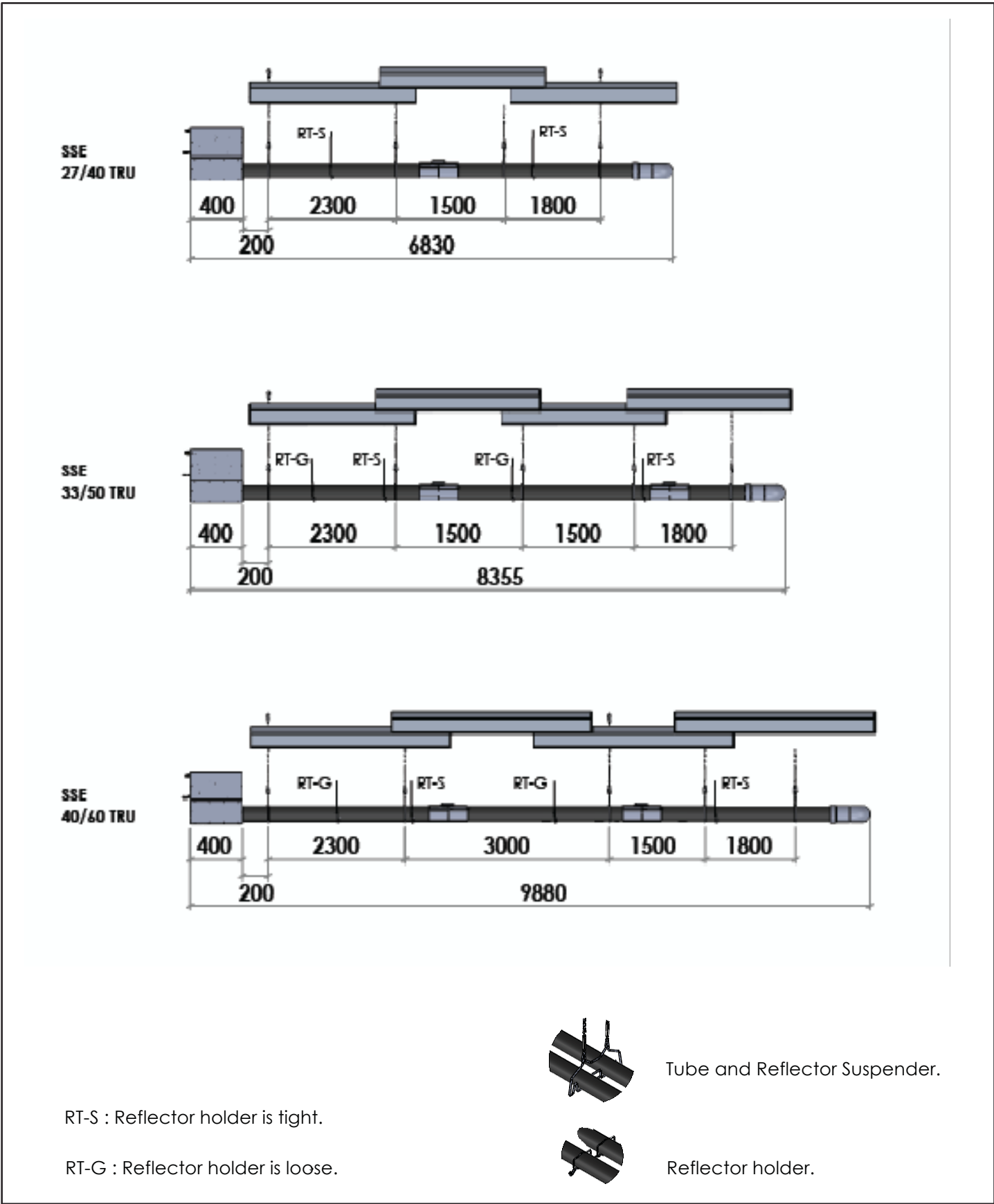
Tube and Reflector Suspender.



Reflector holder.

MOUNTING EXPANSION

SILVERSUN EVO U TYPE TUBULAR RADIANT WITH SINGLE REFLECTOR (SSE 27/40 TRU – SSE 33/50 TRU – SSE 40/60 TRU)



SECTION 5: MOUNTING STEPS FOR U TYPE WITH SINGLE REFLECTOR

1. STEP: SUSPENDER MOUNTING

Suspenders should not be hung on gas and electricity tubes.

The system should be mounted in a place that is accessible for service. (The bottom of the burner and fan should be suitable for the placement of manlift, crane, scaffold, etc.)

The first suspender should be placed in a way not to exceed 200 mm distance from the burner.

Suspender lengths should not be less than 300 mm.

CAUTION: The components to be used on each suspender must be strong enough to take 40 kg. Failure in suspending can cause death, injury and material damage.

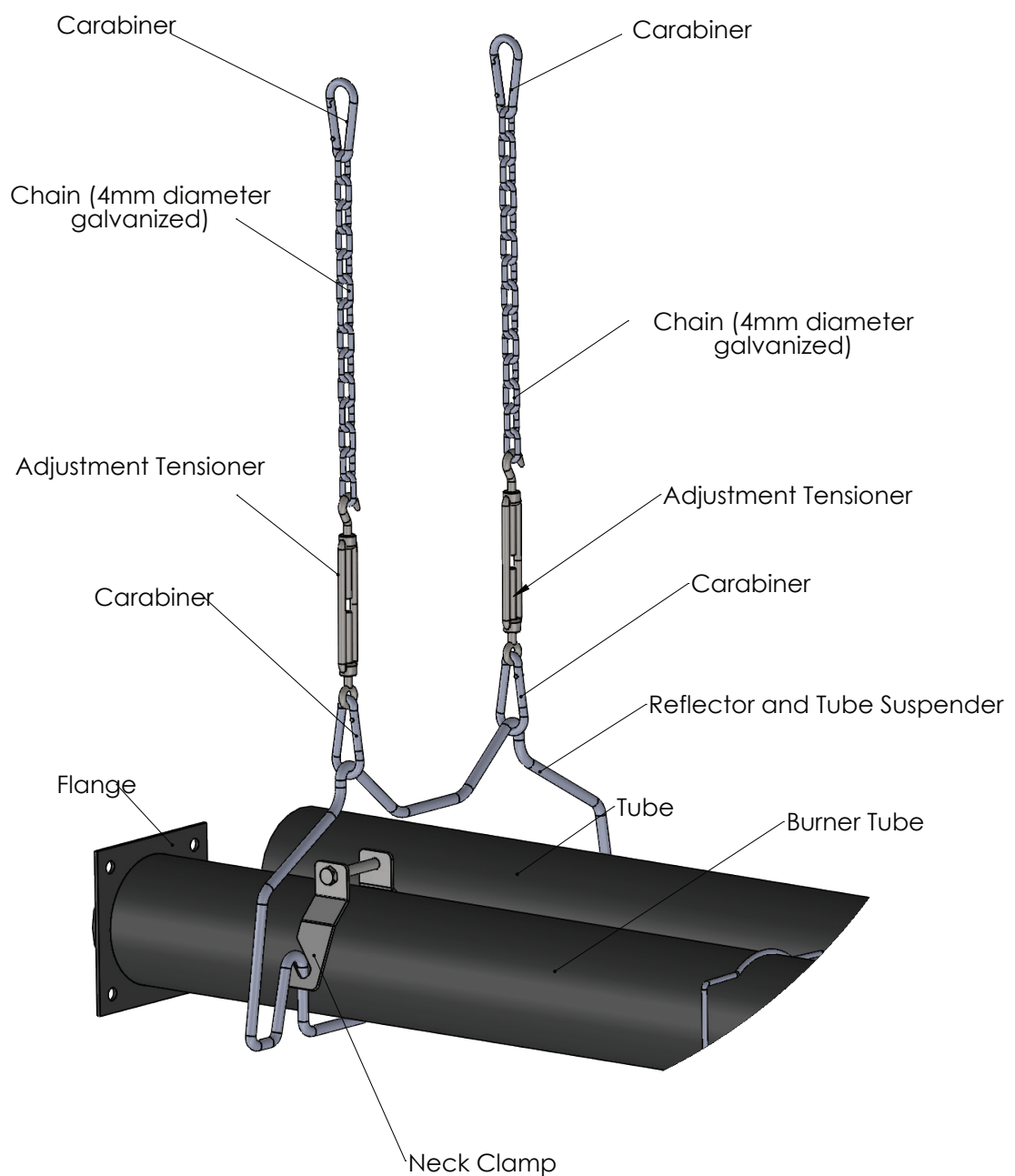
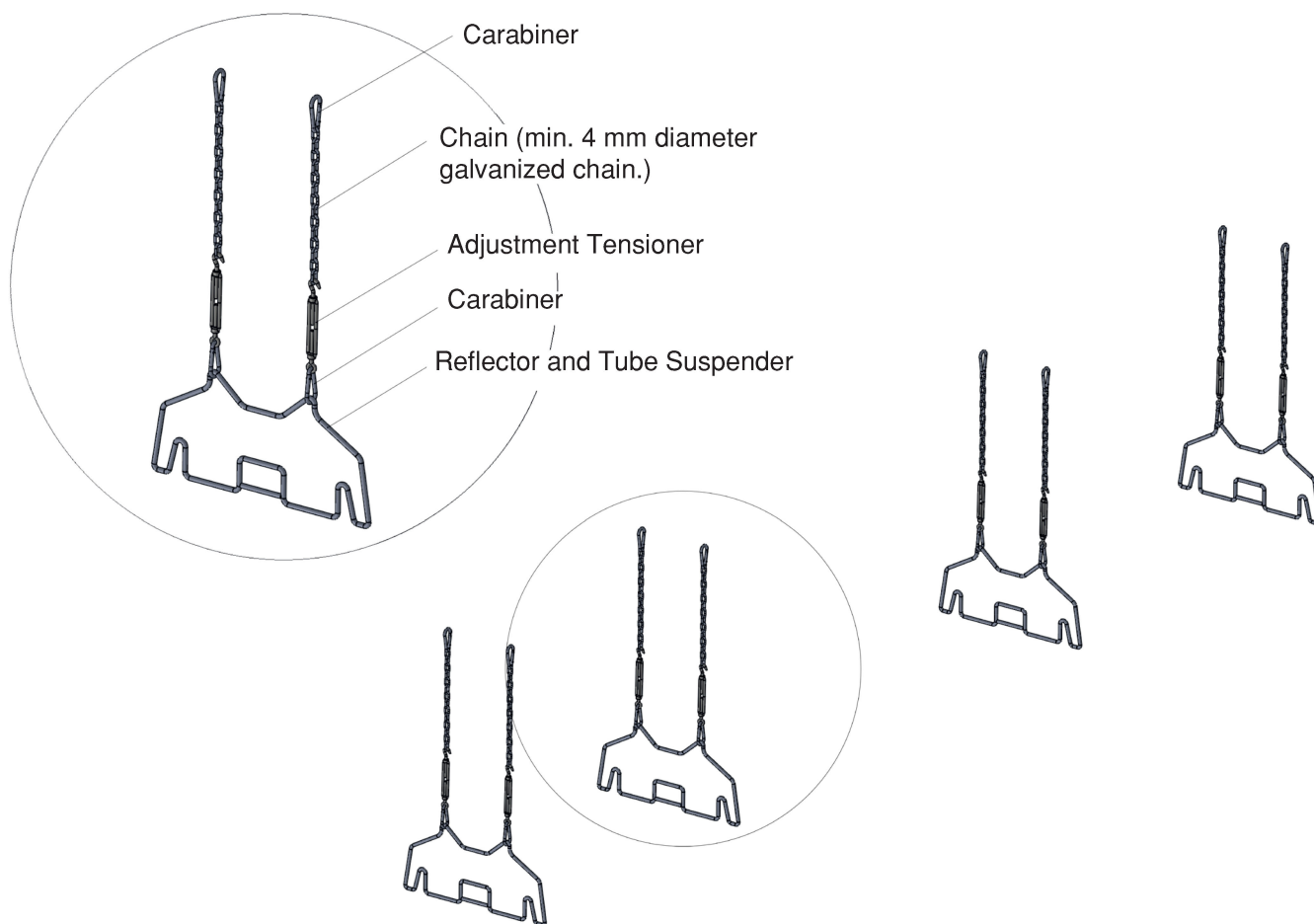


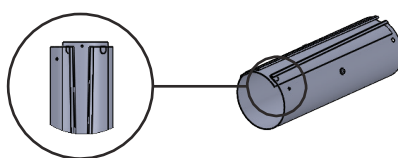
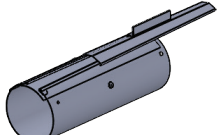
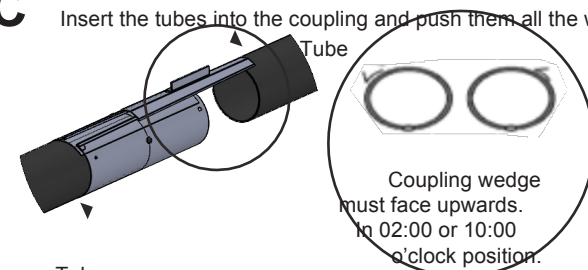
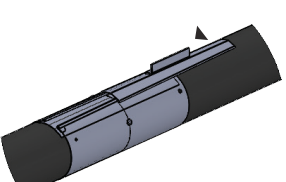
FIGURE 1: First Suspender Mounting Detail

* Carabiner, chain, tensioner are not included in the system. Must be provided externally. Make the suspender placement in conformance with the dimensions given in the mounting expansion as shown in the figure.

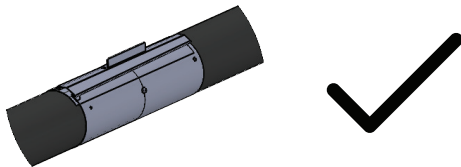


2.STEP: TUBE AND COUPLING MOUNTING

Connect the tubes with couplings and place them on the suspenders.

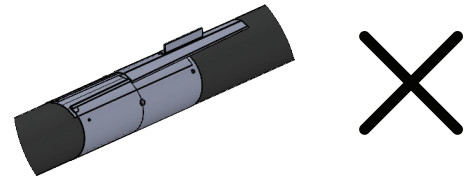
A Close the coupling cover Cover 	B Insert the sliding wedge to grip both sides of the coupling 
C Insert the tubes into the coupling and push them all the way in Tube  Coupling wedge must face upwards. In 02:00 or 10:00 o'clock position. Tube	D Drive the wedge to connect the tubes tightly 

Tighten the wedge as shown below

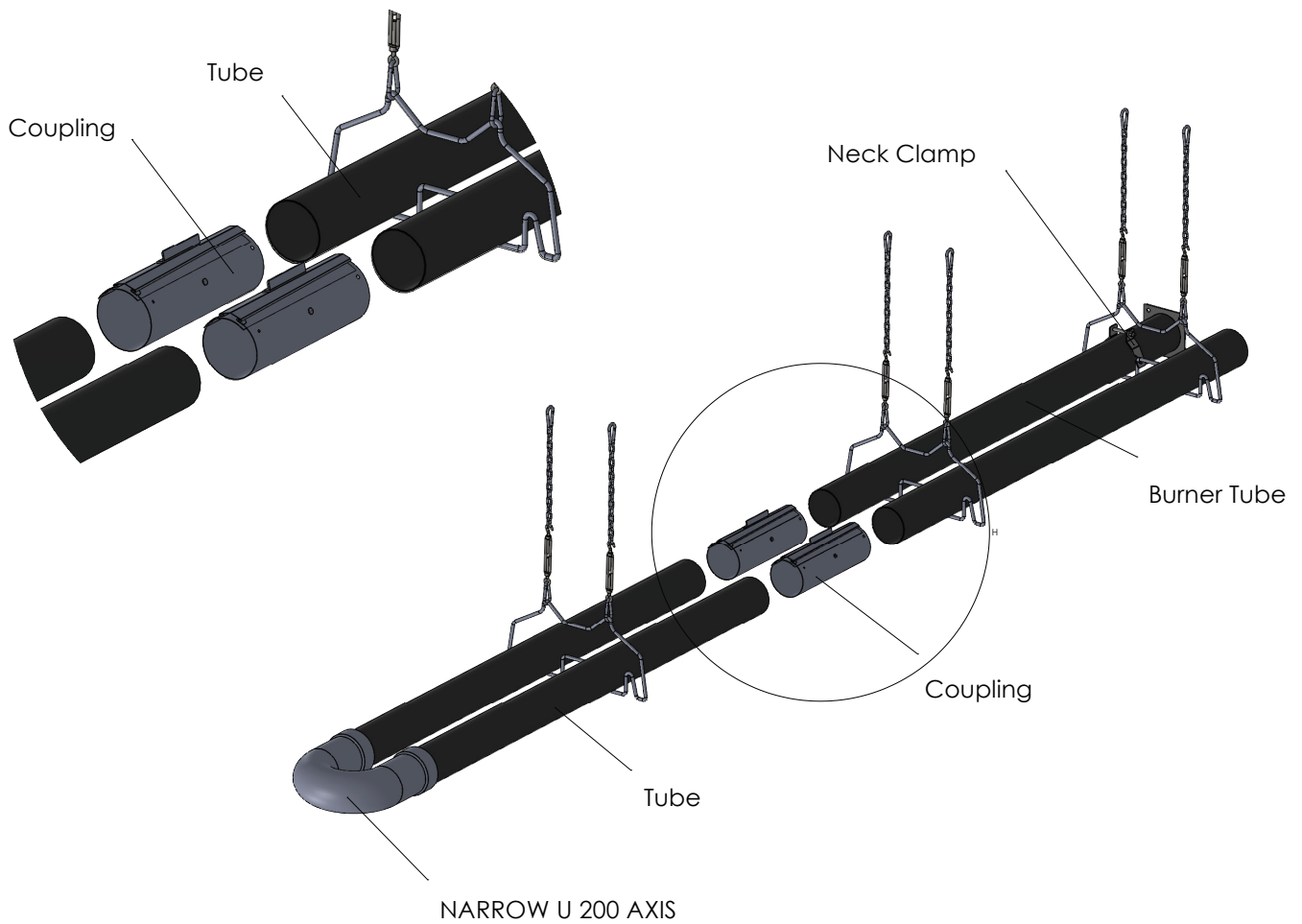


Drive the wedge it sits tight

Correct wedge placement



Incorrect wedge placement



3.STEP: BURNER MOUNTING

Connect the burner with bolts by placing the ceramic wool gasket between the burner tube flange and the burner.

Attach the neck clamp on the suspender and fix it with bolts and nuts so that the burner is in an upright position, as shown in Figure 2.

The welding seam in the combustion tube should face down.

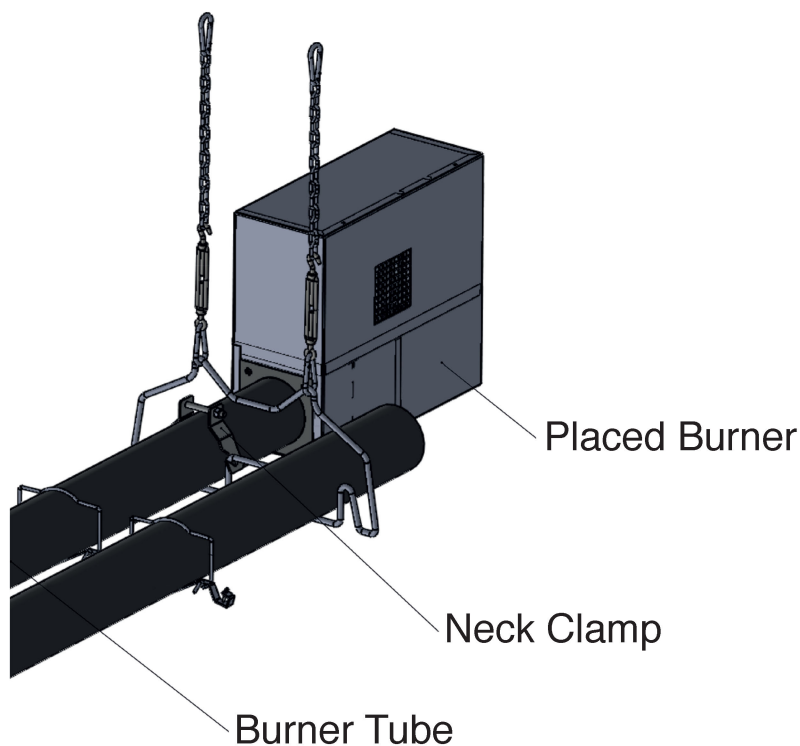
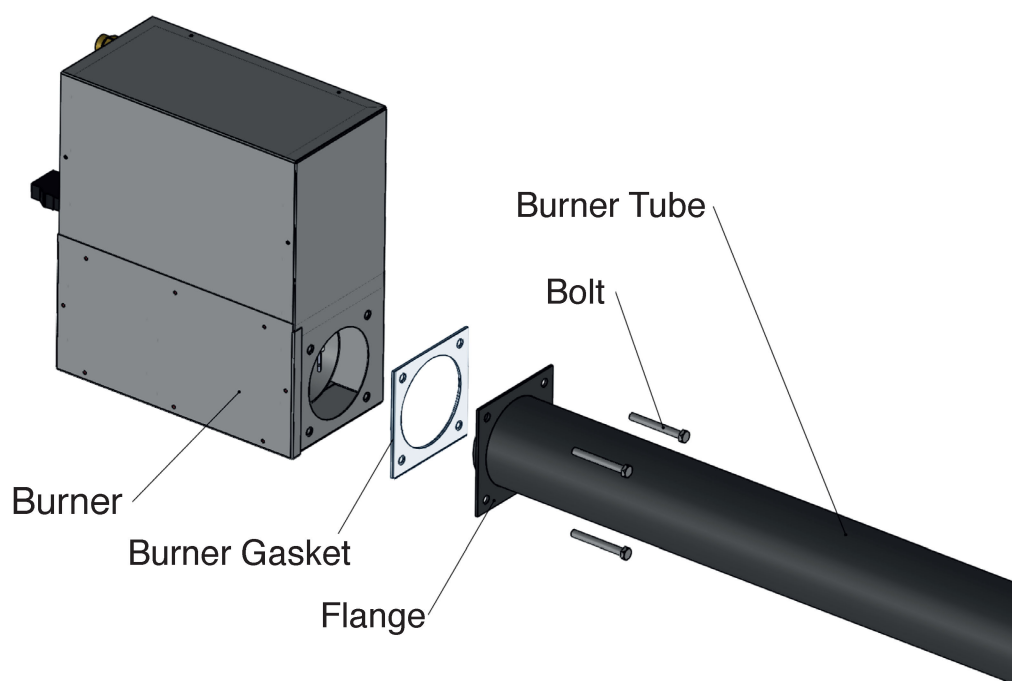
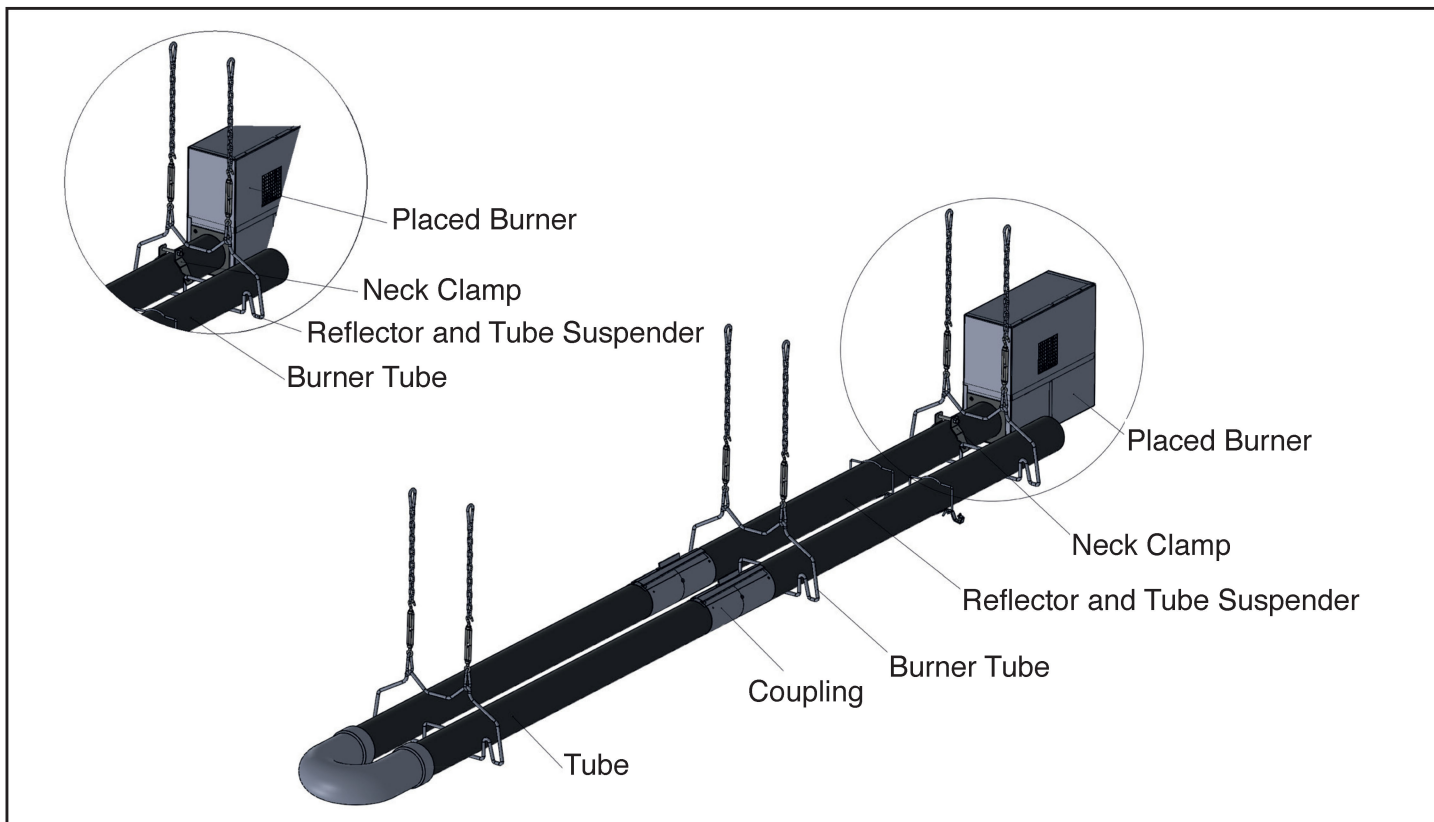


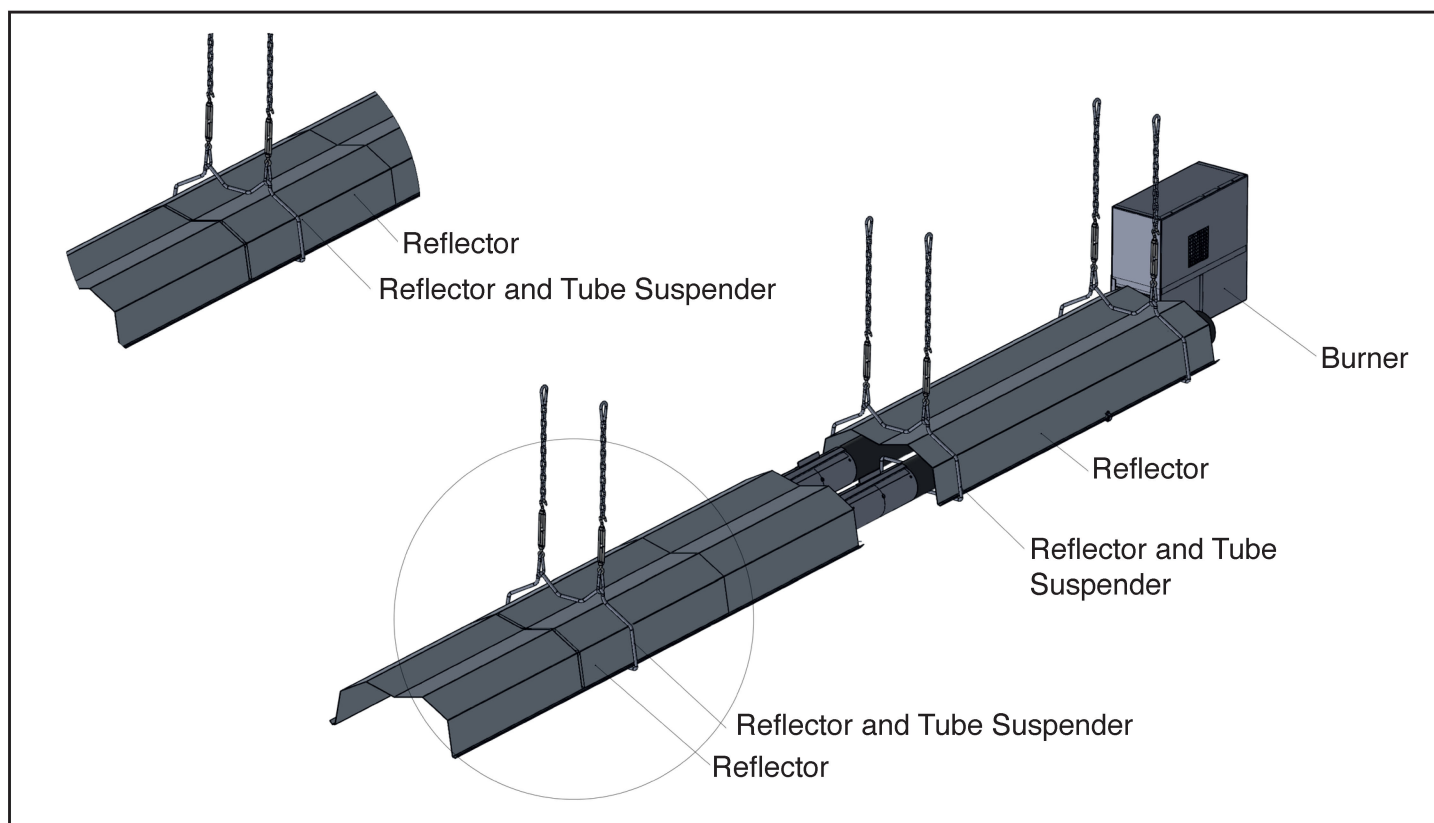
FIGURE 2: Neck Clamp Mounting



4.STEP: REFLECTOR MOUNTING

Place the reflectors one on the bottom and one on the top, with overlaps margin at a minimum of 150 mm, as specified in the mounting diagram. See Figure 3

As defined in the mounting expansion, place the reflector and reflector holders in quantities conforming to the burner capacity



Minimum 150 mm

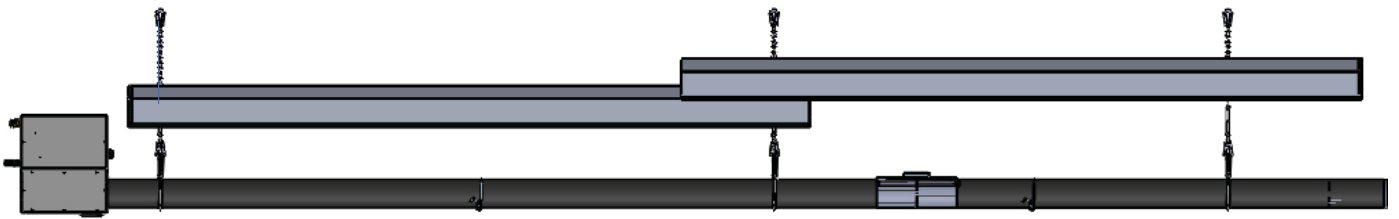


FIGURE 3: Reflector Overlap Margins

5.STEP: REFLECTOR HOLDER MOUNTING

Place the reflector holders (RT) at the points indicated in the mounting expansion, allowing elongations due to thermal expansions. In order to ensure the accuracy of sliding/fixed reflector overlaps, tight/loose screw application should be done in “one skip-one apply” order.

Sliding reflector overlapping application can be done as follows:

- a- Both reflectors are placed in a one suspender. There is no need to use reflector holder
- b- At the overlapping point of the reflectors, the reflector holder is used and the screws are left loose (RT-G).

Fixed reflector overlapping application can be done as follows:

- a- At the overlapping point of the reflectors, the reflector holder is used and the screws are tightened (RT-S).
- b- If both reflectors have one suspender, one U-clip is used on both sides of the reflectors.

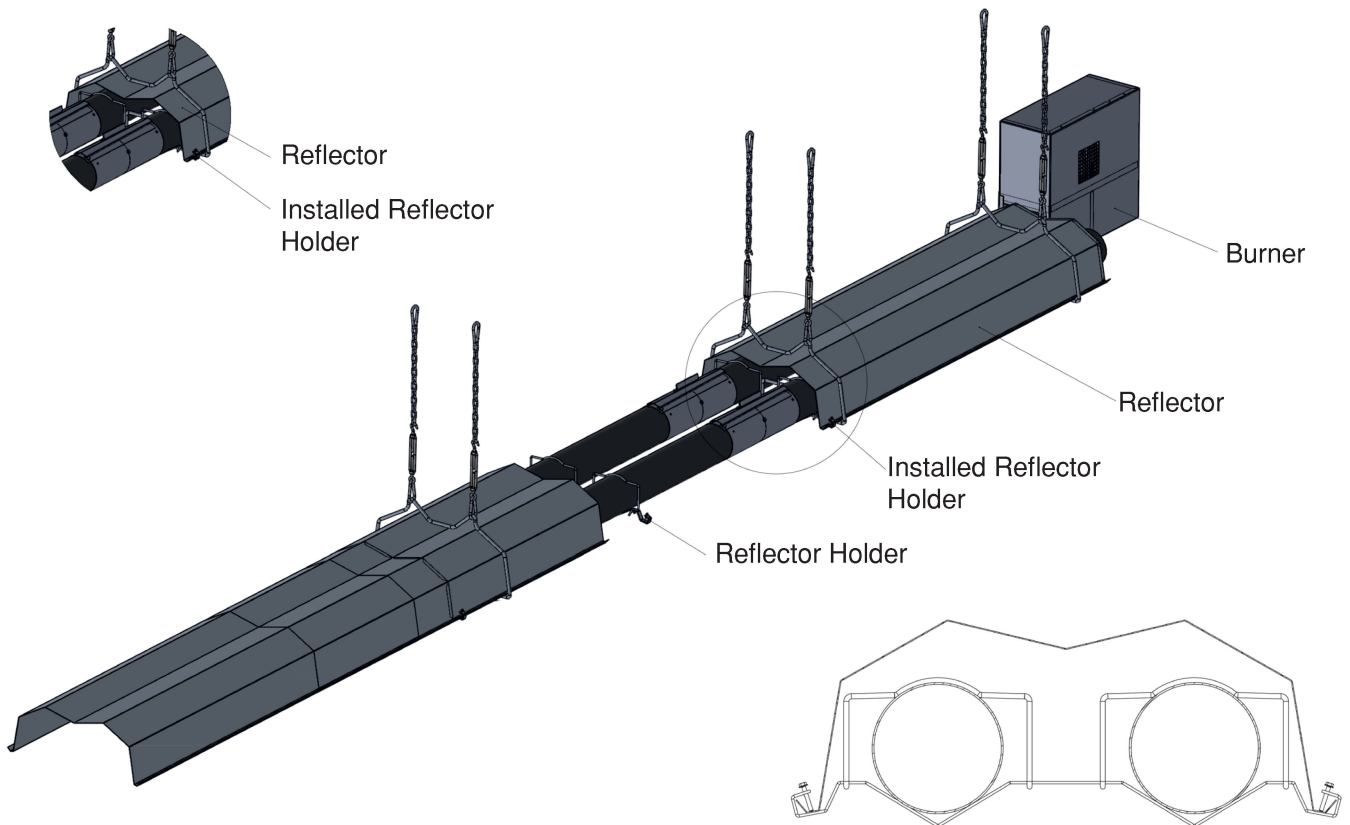
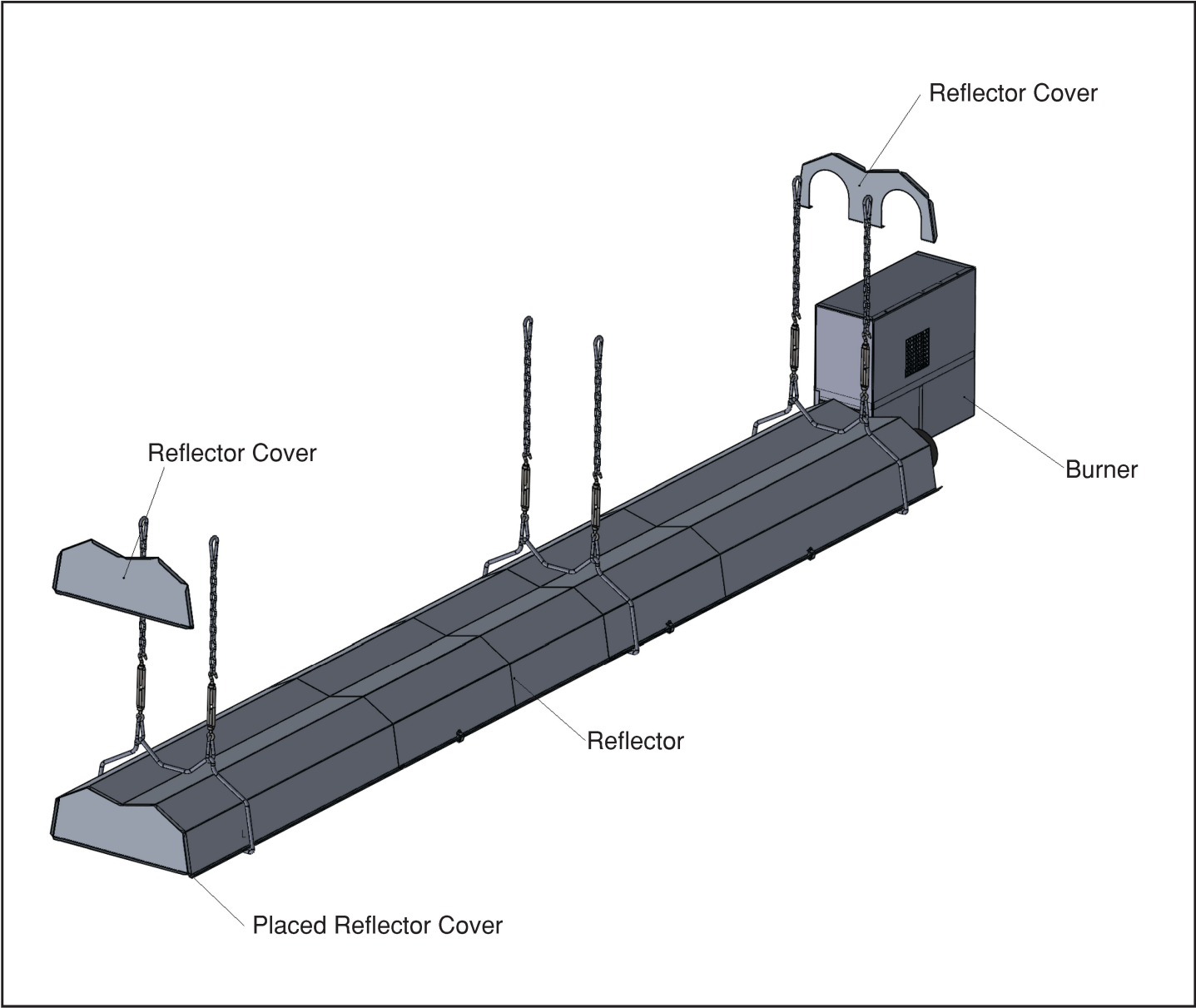


FIGURE 4: Reflector Placement and Tight Screw Application

6.STEP: REFLECTOR COVER MOUNTING

Fix the reflector covers at the both ends of the reflectors with U clips.

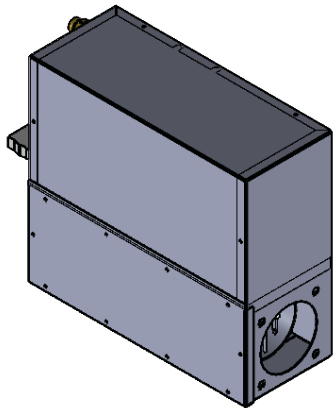


SECTION 6: MAIN EQUIPMENT

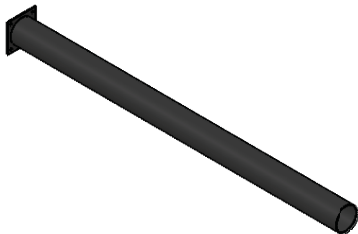
SILVERSUN EVO FLAT TYPE TUBULAR RADIANT

(SSE 10/15 DT – SSE 13/20 DT – SSE 17/25 DT – SSE 20/30 DT – SSE 27/40 DT – SSE 33/50 DT – SSE 40/60 DT)

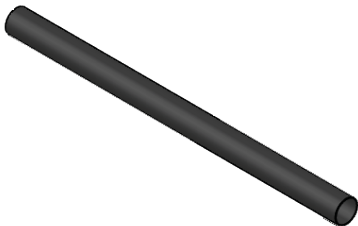
Burner



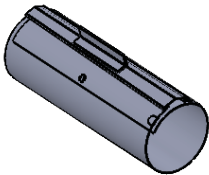
Burner Pipe



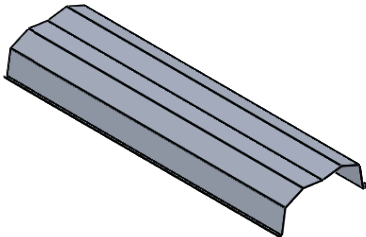
Tube



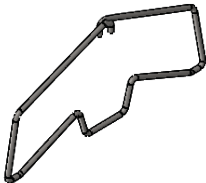
Coupling



Reflector



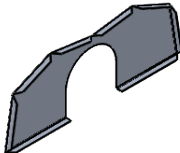
Reflector and
Tube Suspender



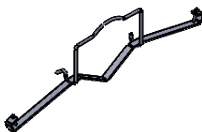
Neck
Clamp



Reflector
Cover



Reflector
Holder



SECTION 7: FLAT TYPE MOUNTING

SECTION 7.1: MATERIAL LIST

SILVERSON EVO FLAT TYPE TUBULAR RADIANT

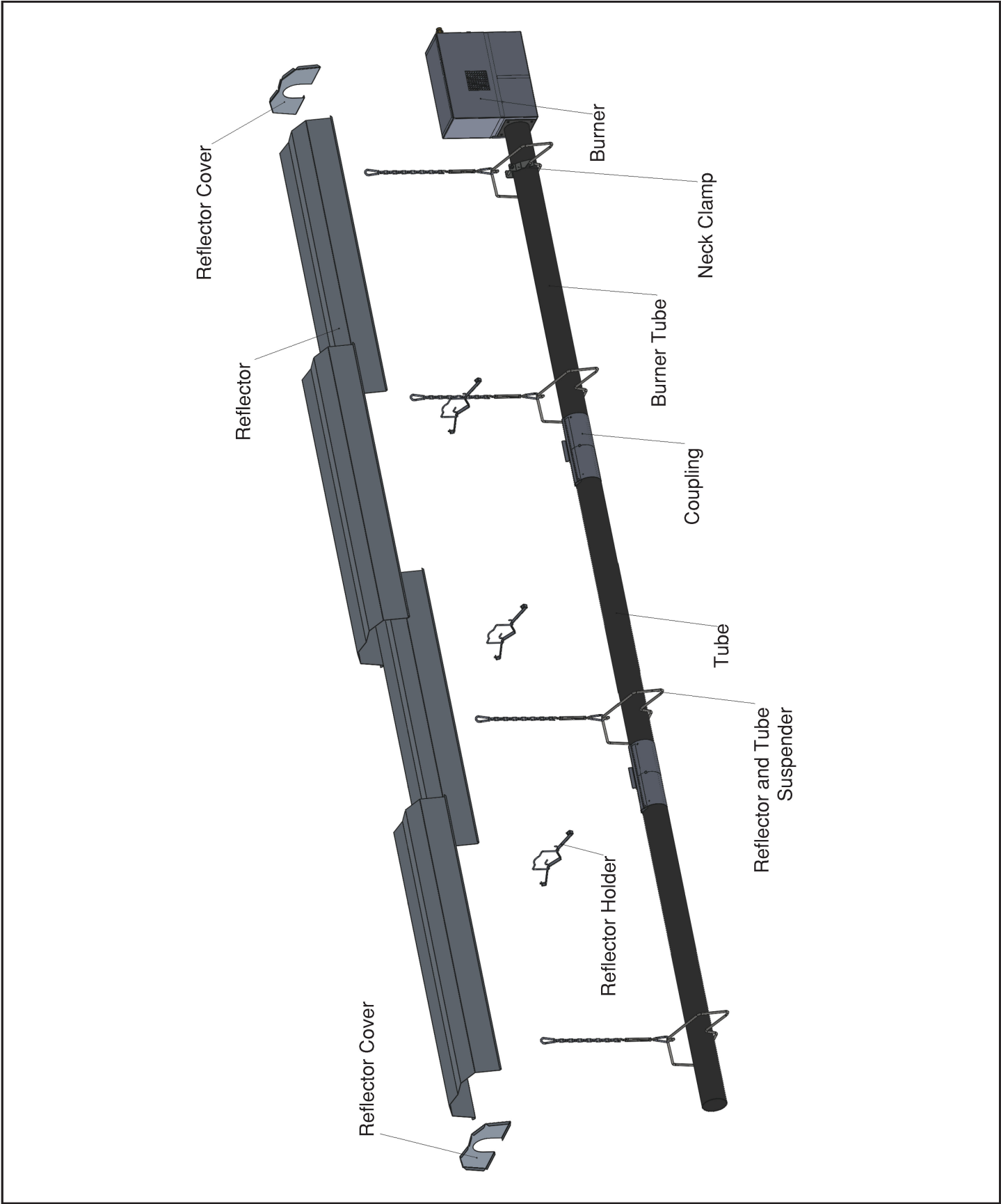
(SSE 10/15 DT – SSE 13/20 DT – SSE 17/25 DT – SSE 20/30 DT – SSE 27/40 DT – SSE 33/50 DT – SSE 40/60 DT)

STOCK CODE	EXPLANATION	SSE 10/15 DT	SSE 13/20 DT	SSE 17/25 DT	SSE 20/30 DT	SSE 27/40 DT	SSE 33/50 DT	SSE 40/60 DT
SSE 10/15	Silversun Evo Burner 10/15 Kw	1						
SSE 13/20	Silversun Evo Burner 13/20 Kw		1					
SSE 17/25	Silversun Evo Burner 17/25 Kw			1				
SSE 20/30	Silversun Evo Burner 20/30 Kw				1			
SSE 27/40	Silversun Evo Burner 27/40 Kw					1		
SSE 33/50	Silversun Evo Burner 33/50 Kw						1	
SSE 40/60	Silversun Evo Burner 40/60 Kw							1
26.059	Combustion Pipe, 100 x 3000	1	1	1	1	1	1	1
91409408	Tube, 100 x 3005	1	2	2	3	3	4	5
1329600	Coupling	1	2	2	3	3	4	5
26.056	Reflector, Aluminum 2550 mm	3	4	4	5	5	7	8
26.080	Reflector Cover	2	2	2	2	2	2	2
26.075	Tube and Reflector Suspender	3	4	4	5	5	6	7
26.079	Tube Fixing Clamp Assembly	1	1	1	1	1	1	1
26.081	Reflector Holder Assembly	2	3	3	4	4	6	7

SECTION 7.1.1: MOUNTING DIAGRAM

SILVERSUN EVO FLAT TYPE TUBULAR RADIANT

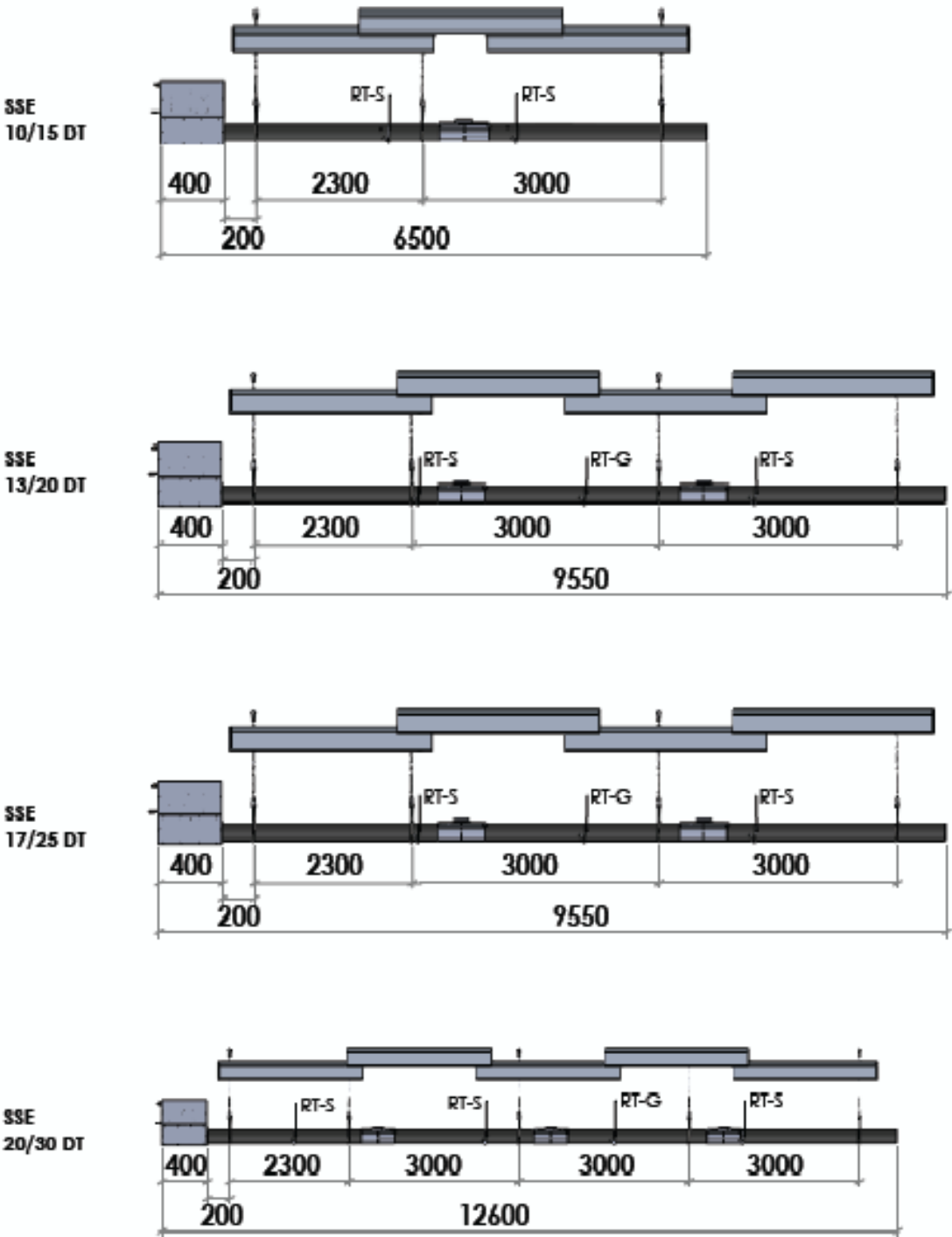
(SSE 10/15 DT – SSE 13/20 DT – SSE 17/25 DT – SSE 20/30 DT – SSE 27/40 DT – SSE 33/50 DT – SSE 40/60 DT)



SECTION 7.1.2: MOUNTING EXPANSION

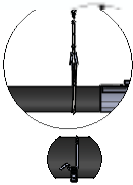
SILVERSUN EVO FLAT TYPE TUBULAR RADIANT

(SSE 10/15 DT – SSE 13/20 DT – SSE 17/25 DT – SSE 20/30 DT)



RT-S : Reflector holder is tight.

RT-G : Reflector holder is loose.

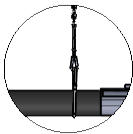
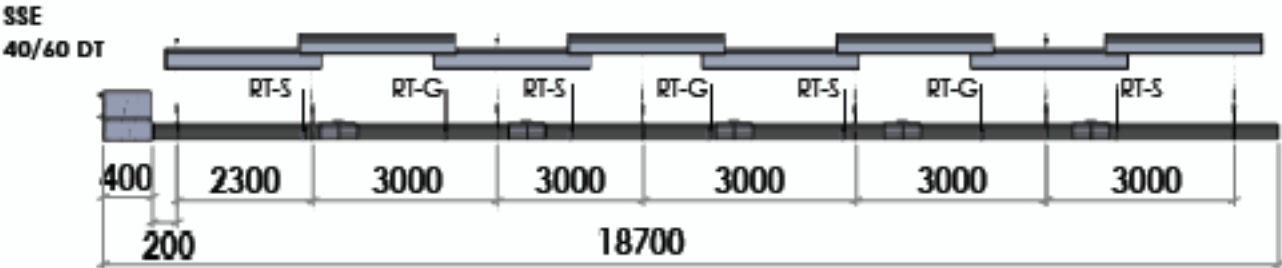
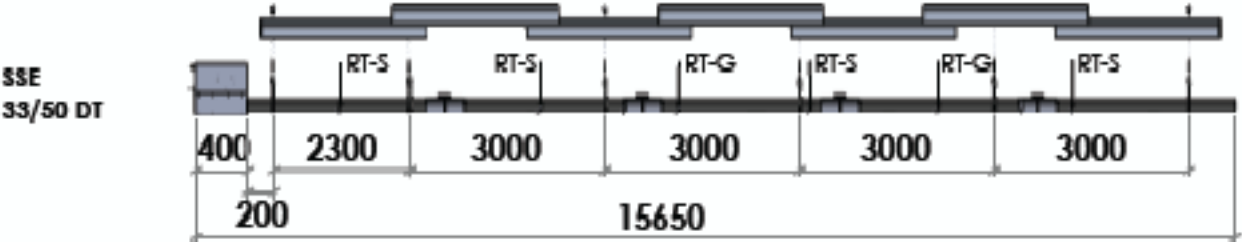
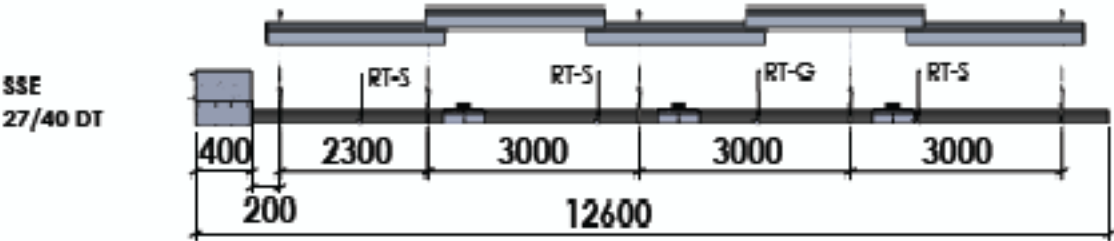


: Tube and Reflector Suspender.

: Reflector holder.

MOUNTING EXPANSION
SILVERSUN EVO FLAT TYPE TUBULAR RADIANT

(SSE 27/40 DT – SSE 33/50 DT – SSE 40/60 DT)



: Tube and Reflector Suspender.

RT-S : Reflector holder is tight.

RT-G : Reflector holder is loose.



: Reflector holder.

SECTION 8: FLAT TYPE MOUNTING STEPS

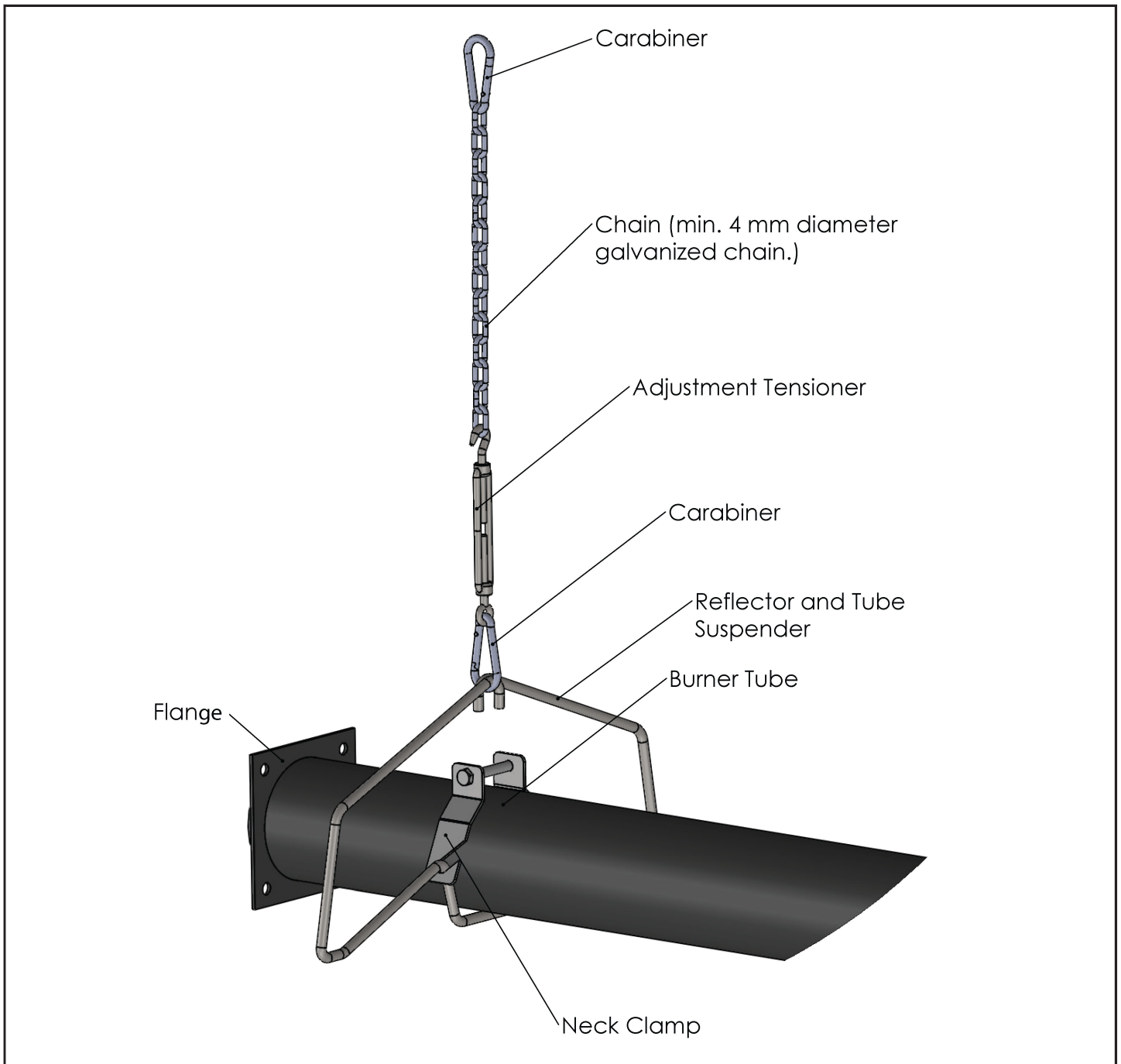
1. STEP: SUSPENDER MOUNTING

Suspenders should not be hung on gas and electricity tubes.

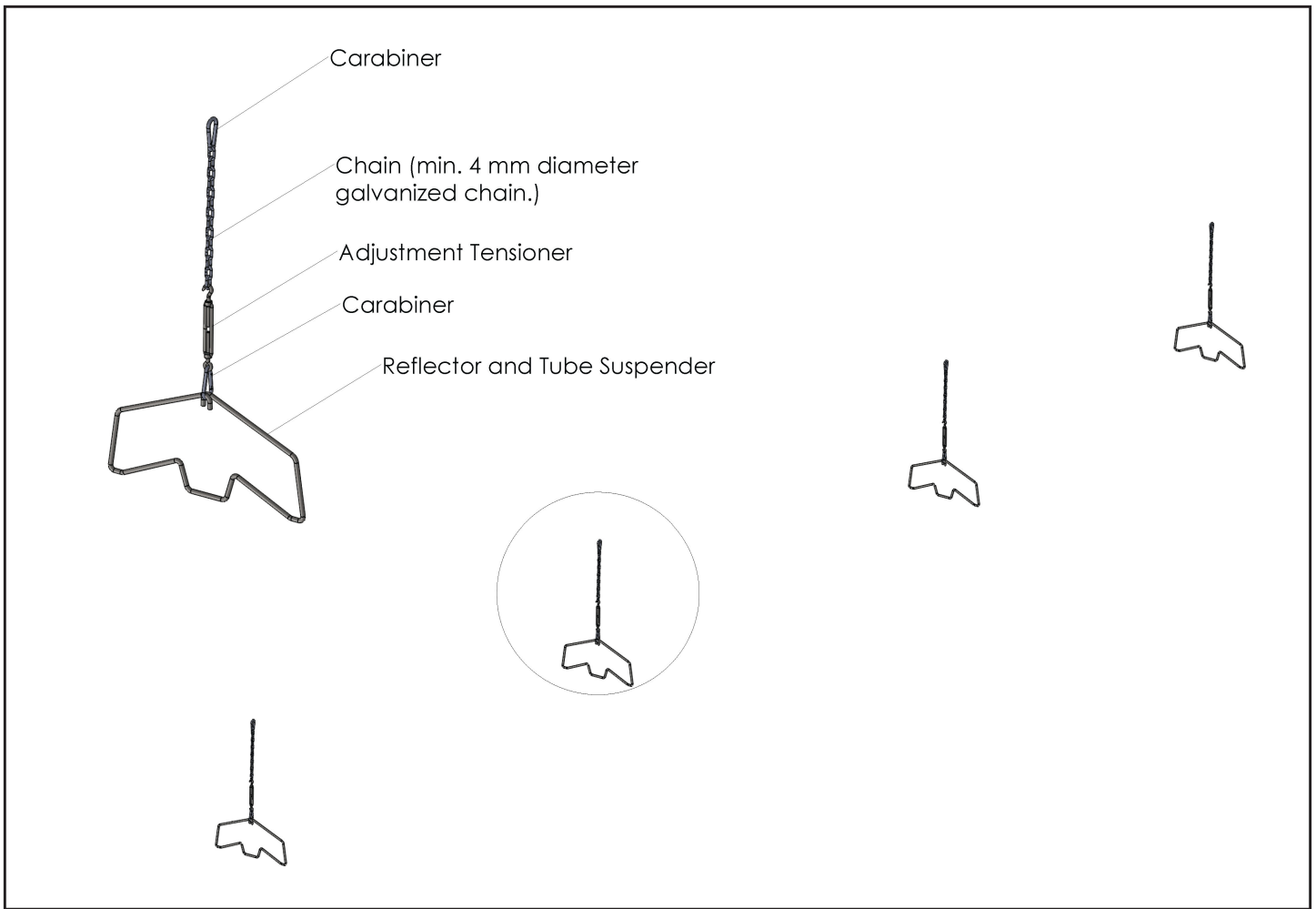
The system should be mounted in a place that is accessible for service. (The bottom of the burner and fan should be suitable for the placement of manlift, crane, scaffold, etc.)

The first suspender should be placed in a way not to exceed 200 mm distance from the burner. Suspender lengths should not be less than 300 mm.

CAUTION: The components to be used on each suspender must be strong enough to take 40 kg. Failure in suspending can cause death, injury and material damage.

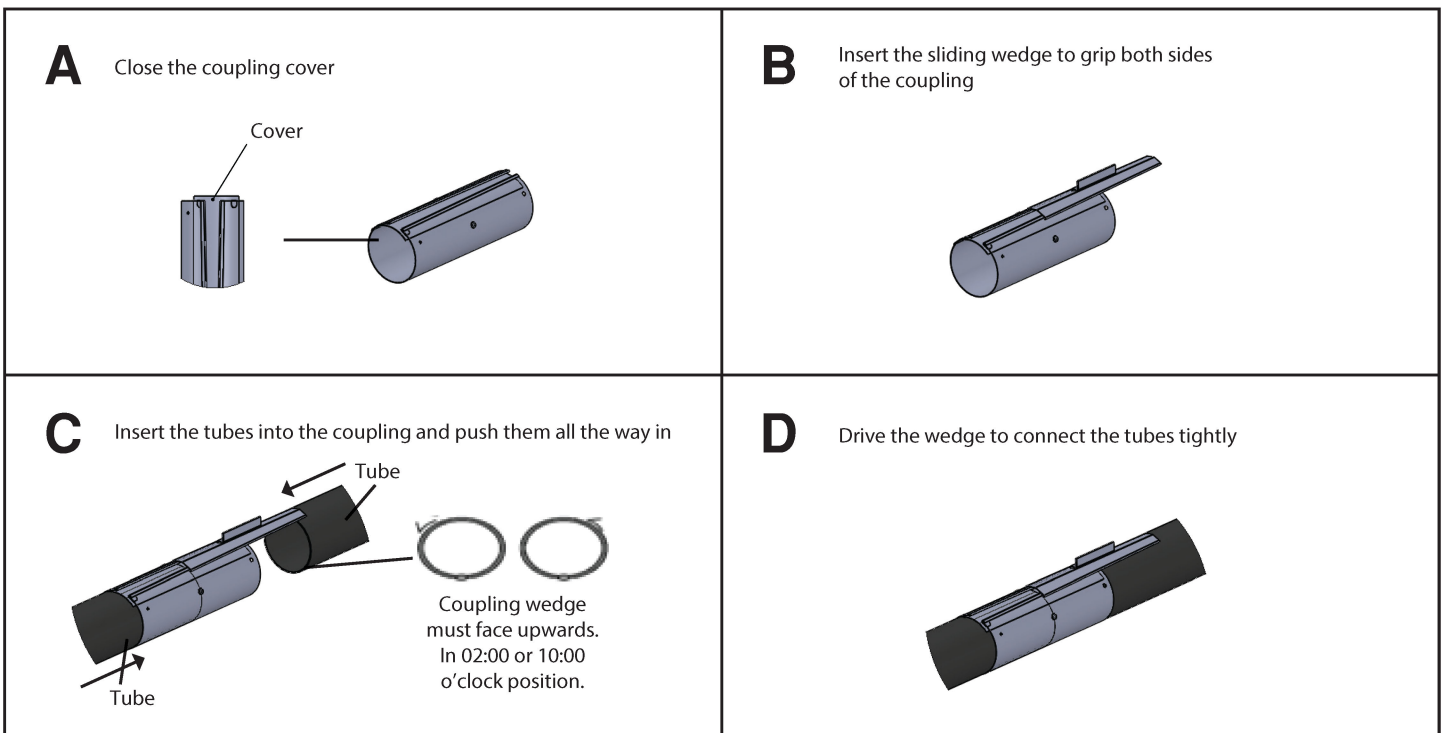


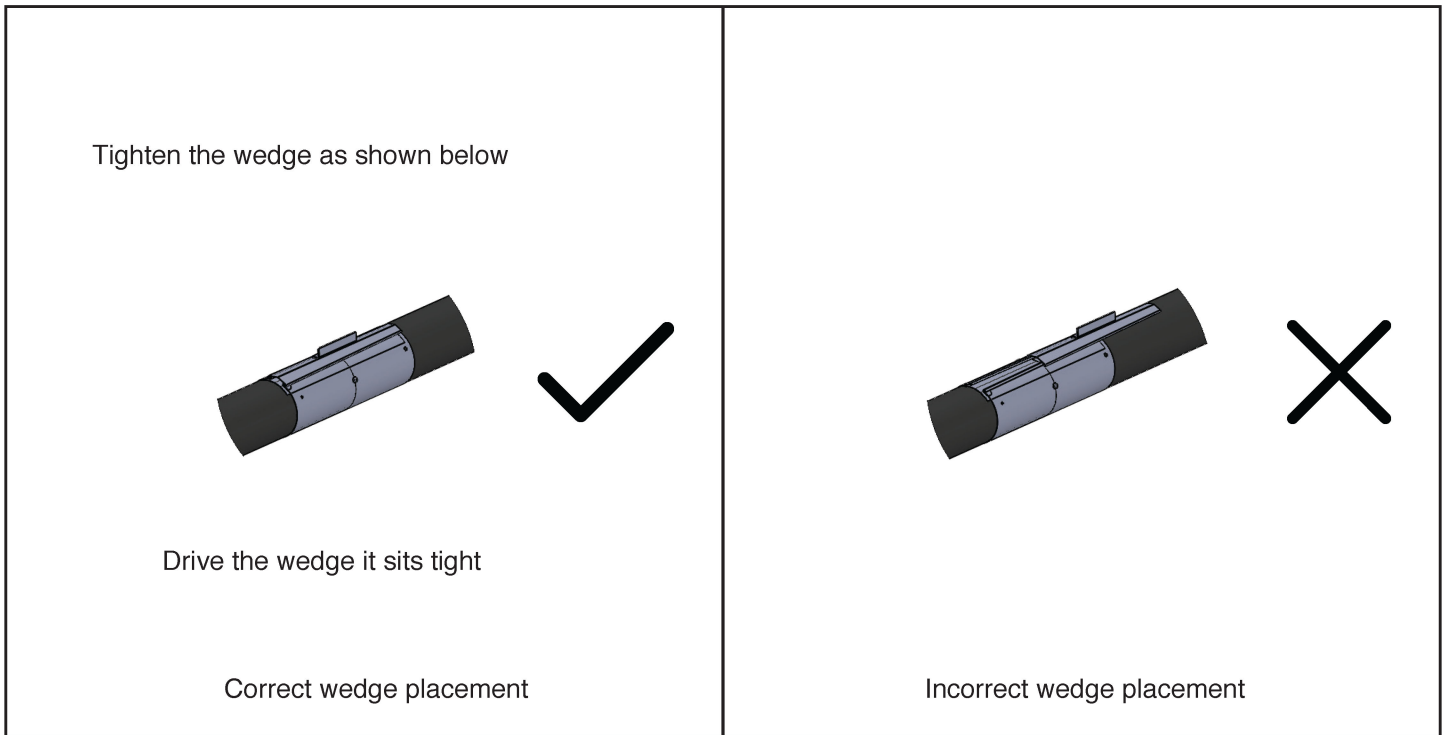
* Carabiner, chain, tensioner are not included in the system. Must be provided externally. Make the suspender placement in conformance with the dimensions given in the mounting expansion as shown in the figure.



2.STEP: TUBE AND COUPLING MOUNTING

Connect the tubes with ouplings and place them on the suspenders.



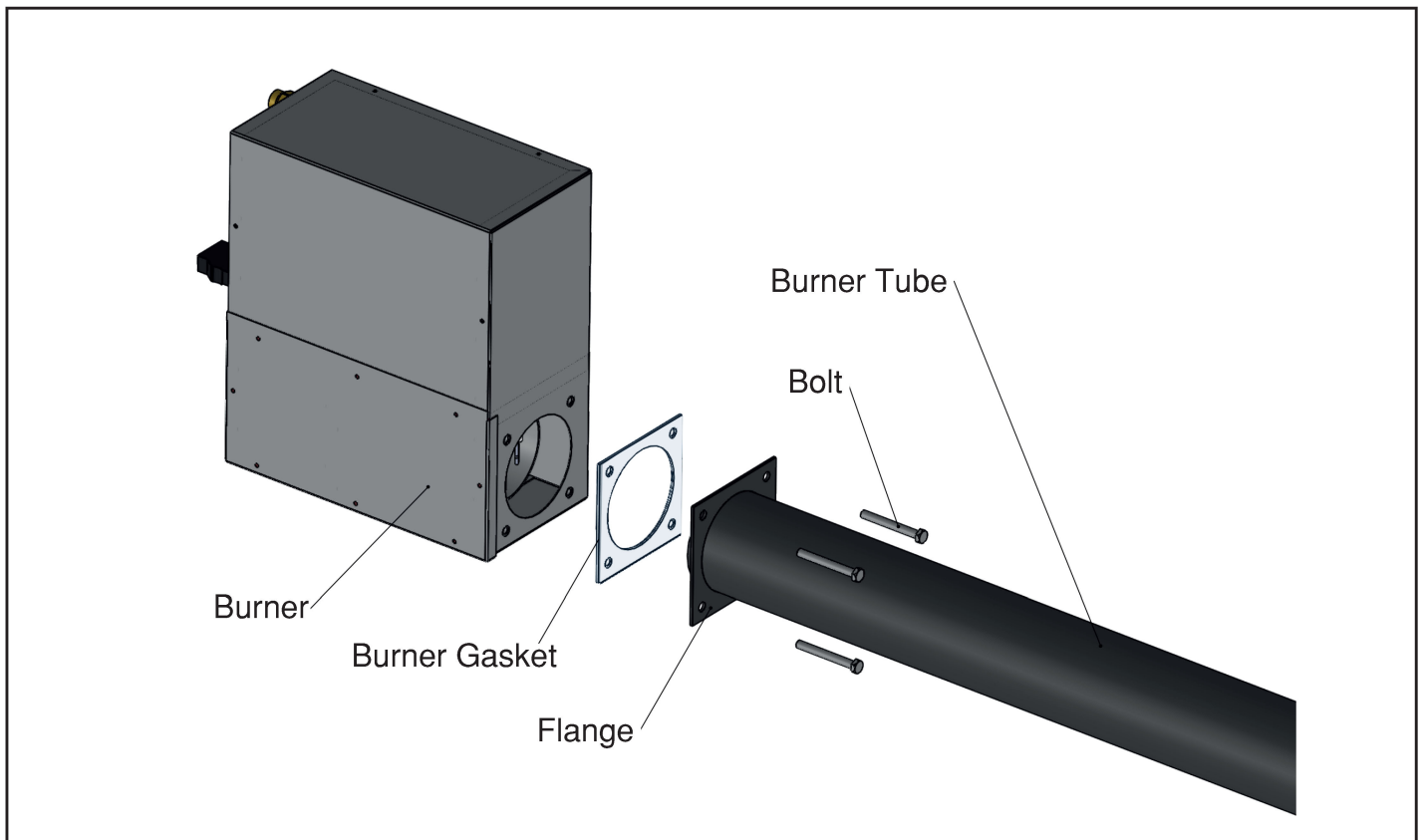


3.STEP: BURNER MOUNTING

Connect the burner with bolts by placing the ceramic wool gasket between the burner tube flange and the burner.

Attach the neck clamp on the suspender and fix it with bolts and nuts so that the burner is in an upright position, as shown in Figure 5.

The welding seam in the combustion tube should face down.



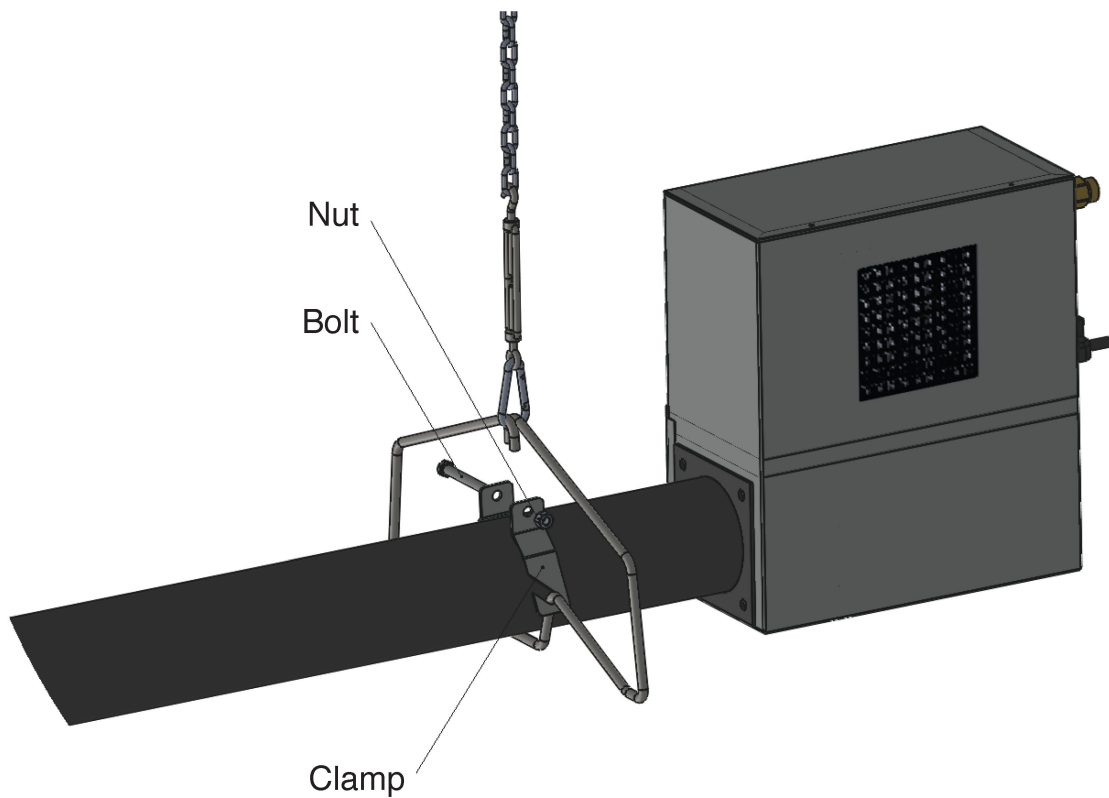
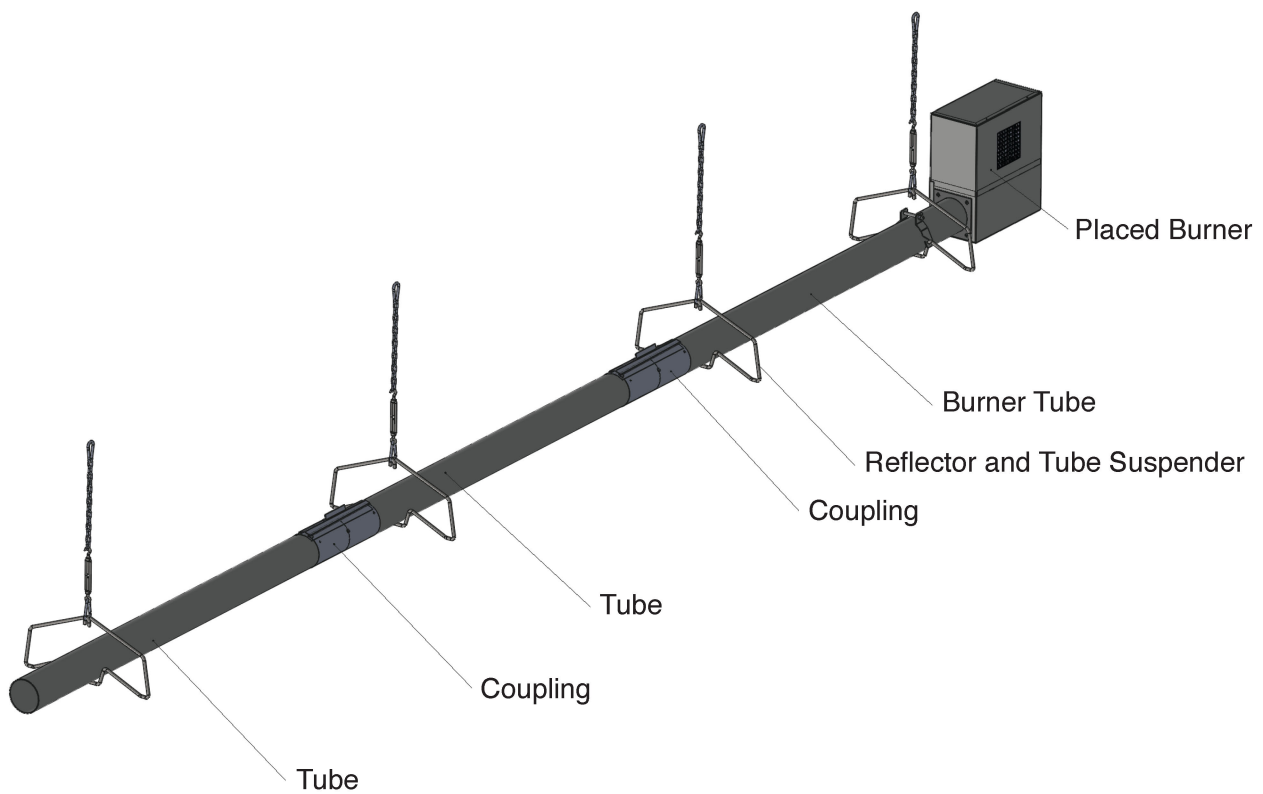


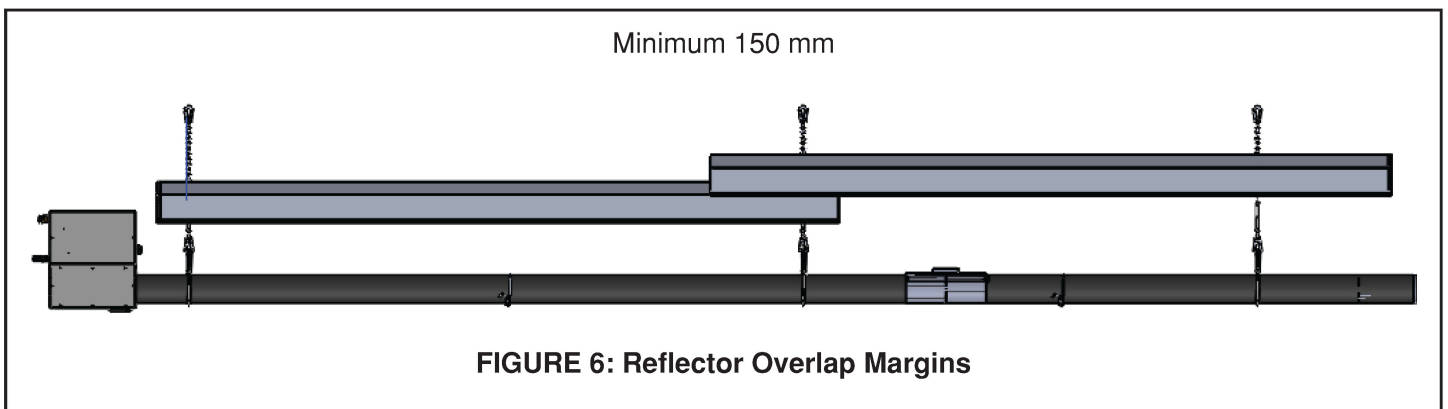
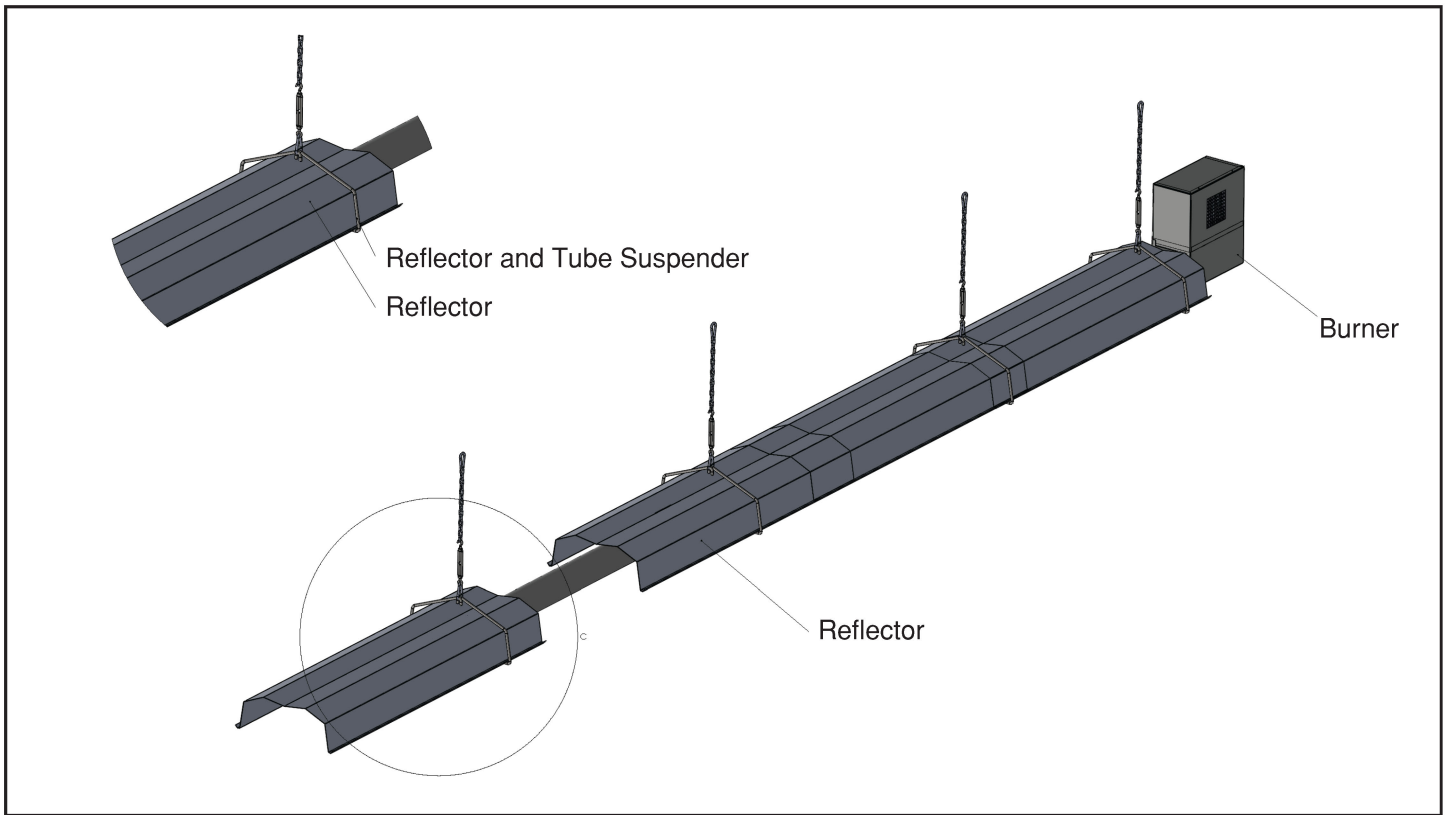
FIGURE 5: Neck Clamp Mounting



4.STEP: REFLECTOR MOUNTING

Place the reflectors one on the bottom and one on the top, with overlaps margin at a minimum of 150 mm, as specified in the mounting diagram. See Figure 6

As defined in the mounting expansion, place the reflector and reflector holders in quantities conforming to the burner capacity



5.STEP: REFLECTOR HOLDER MOUNTING

Place the reflector holders (RT) at the points indicated in the mounting expansion, allowing elongations due to thermal expansions. In order to ensure the accuracy of sliding/fixed reflector overlaps, tight/loose screw application should be done in "one skip-one apply" order.

Sliding reflector overlapping application can be done as follows:

2. Both reflectors are placed in a one suspender. There is no need to use reflector holder
3. At the overlapping point of the reflectors, the reflector holder is used and the screws are left

loose (RT-G). Fixed reflector overlapping application can be done as follows:

- c- At the overlapping point of the reflectors, the reflector holder is used and the screws are tightened (RT-S).
- d- If both reflectors have one suspender, one U-clip is used on both sides of the reflectors.

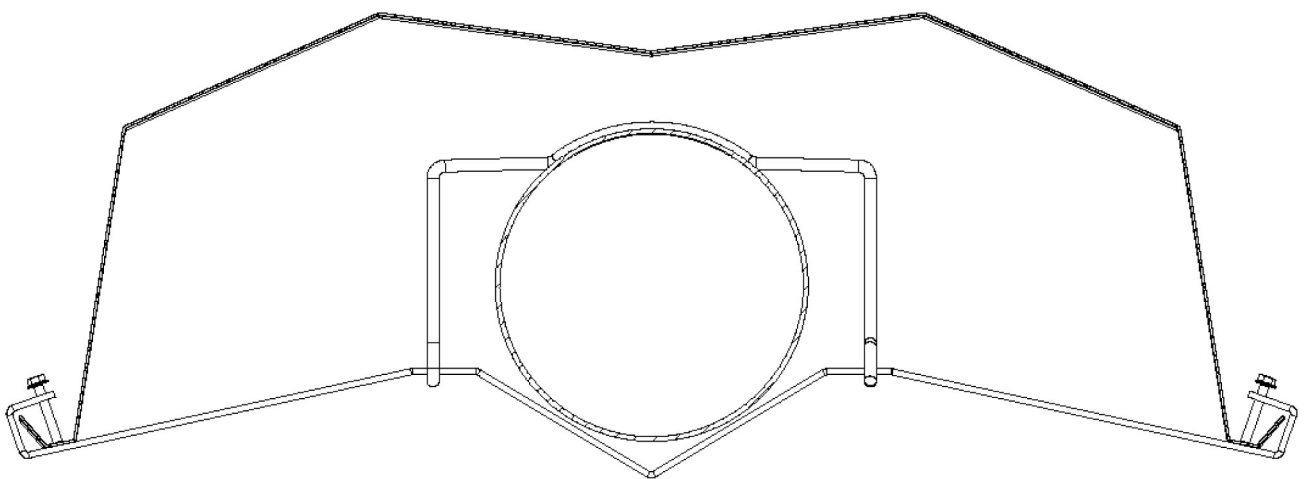
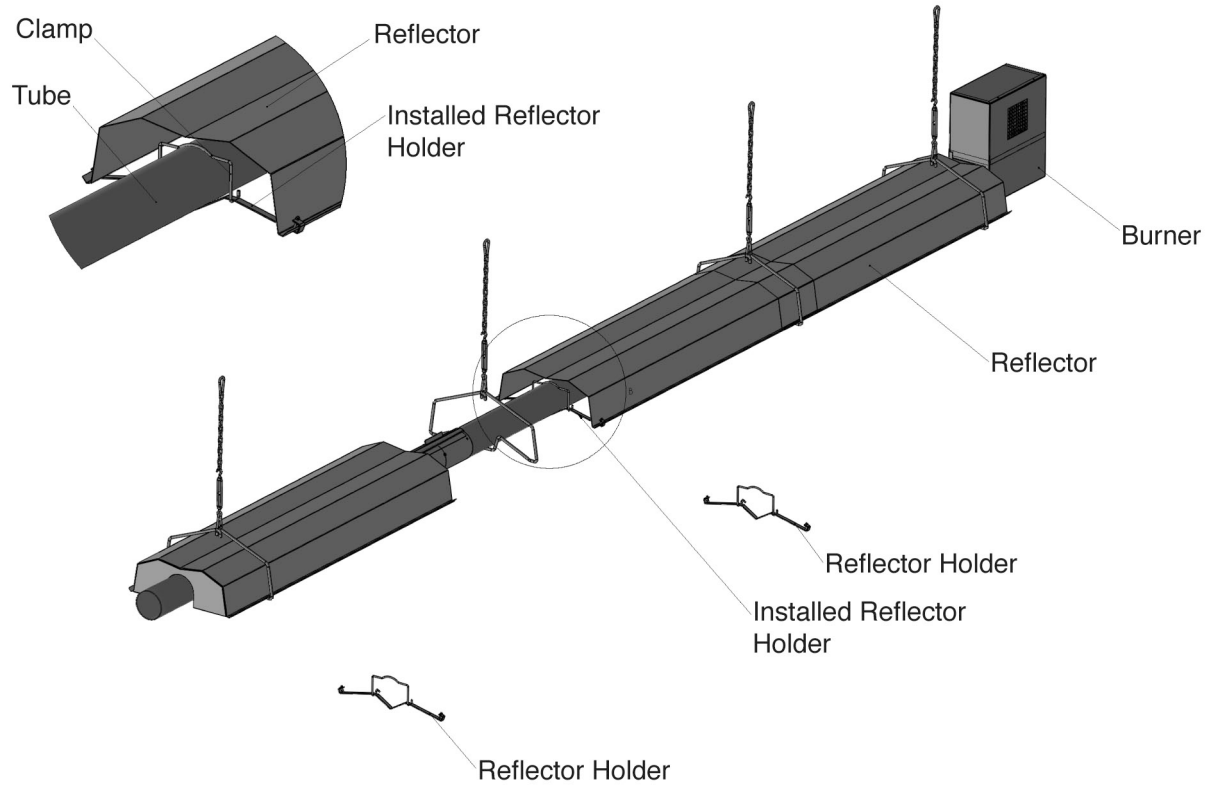
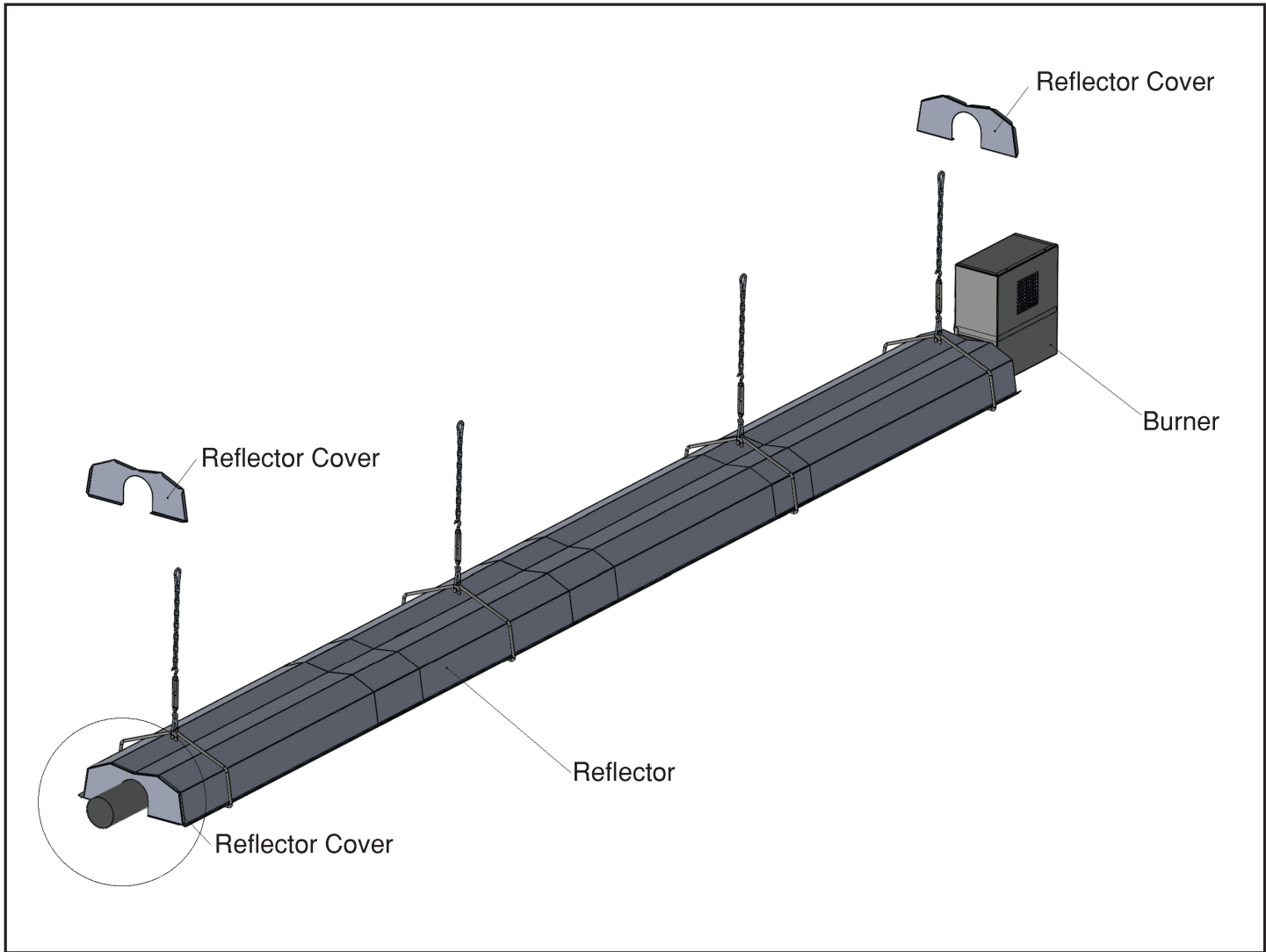


FIGURE 7: Tight Screw Application

6.STEP: REFLECTOR COVER MOUNTING

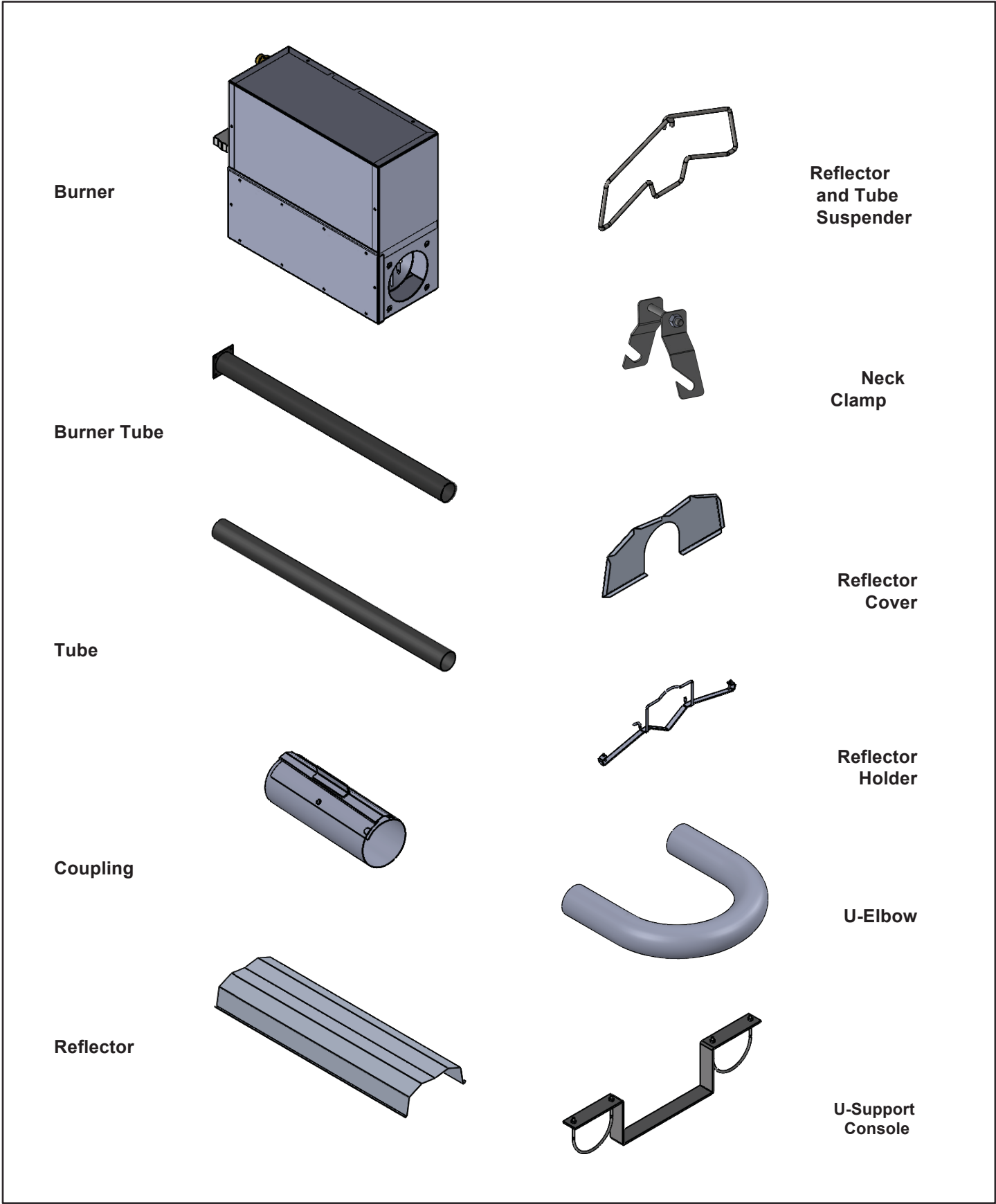
Fix the reflector covers at the both ends of the reflectors with U clips.



SECTION 9: MAIN EQUIPMENT

SILVERSUN EVO U TYPE TUBULAR RADIANT WITH DOUBLE REFLECTOR

(SSE 10/15 CRU– SSE 13/20 CRU– SSE 17/25 CRU– SSE 20/30 CRU– SSE 27/40 CRU– SSE 33/50 CRU– SSE 40/60 CRU)



SECTION 10: U-TYPE MOUNTING

SECTION 10.1: MATERIAL LIST

SILVERSUN EVO U TYPE TUBULAR RADIANT WITH DOUBLE REFLECTOR

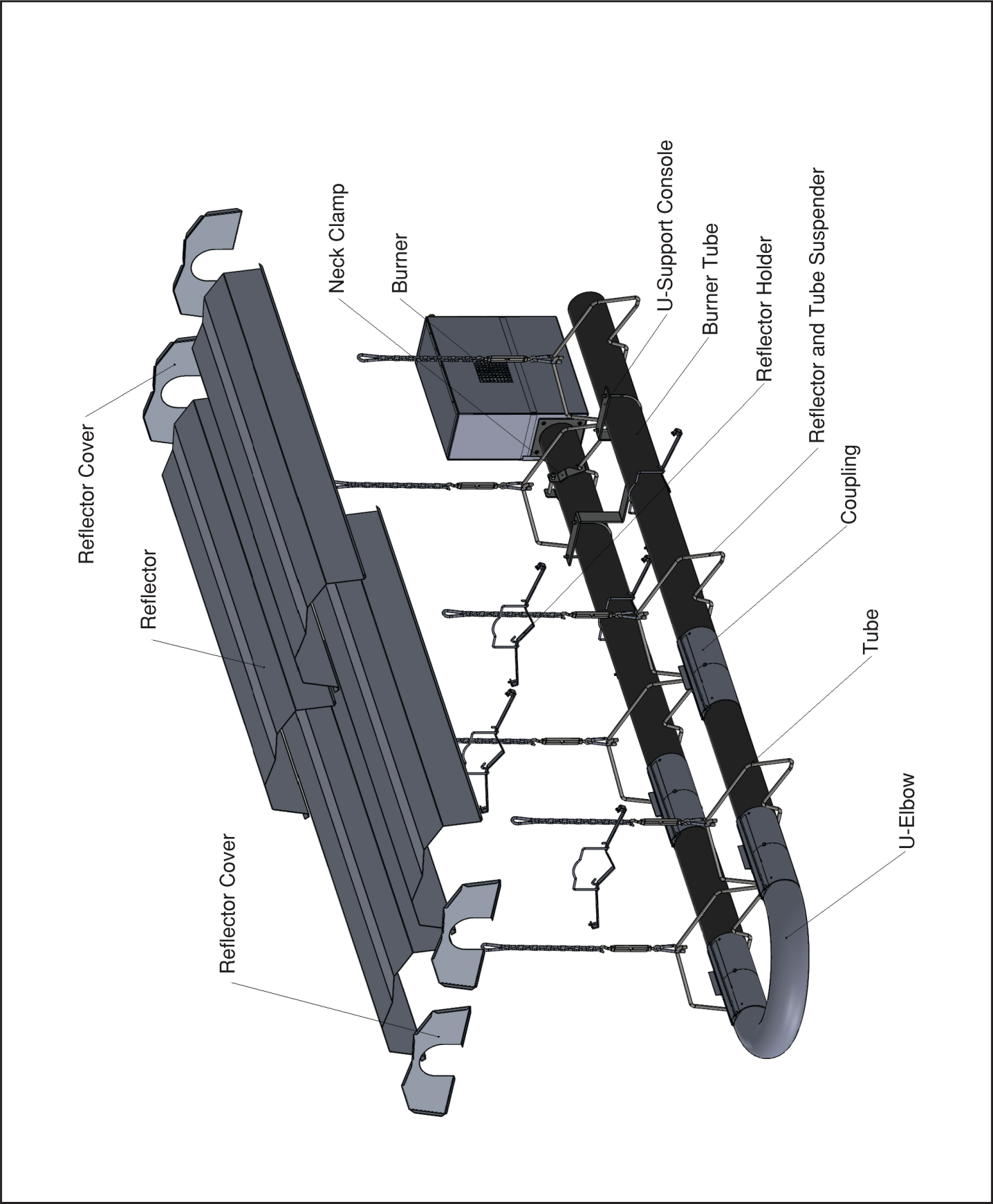
(SSE 10/15 CRU– SSE 13/20 CRU– SSE 17/25 CRU– SSE 20/30 CRU– SSE 27/40 CRU– SSE 33/50 CRU– SSE 40/60 CRU)

STOCK CODE	EXPLANATION	SSE 10/15 CRU	SSE 13/20 CRU	SSE 17/25 CRU	SSE 20/30 CRU	SSE 27/40 CRU	SSE 33/50 CRU	SSE 40/60 CRU
SSE 10/15	Silversun Evo Burner 10/15 Kw	1						
SSE 13/20	Silversun Evo Burner 13/20 Kw		1					
SSE 17/25	Silversun Evo Burner 17/25 Kw			1				
SSE 20/30	Silversun Evo Burner 20/30 Kw				1			
SSE 27/40	Silversun Evo Burner 27/40 Kw					1		
SSE 33/50	Silversun Evo Burner 33/50 Kw						1	
SSE 40/60	Silversun Evo Burner 40/60 Kw							1
26.059	Combustion Pipe, 100 x 3000	1	1	1	1	1	1	1
91409408	Tube, 100 x 3005	1	2	2	3	3	4	5
1329600	Coupling	4	4	4	4	4	6	6
26.056	Reflector, Aluminum 2550 mm	4	4	4	6	6	8	8
26.080	Reflector Cover	4	4	4	4	4	4	4
26.075	Tube and Reflector Suspender	4	6	6	6	6	8	8
26.079	Tube Fixing Clamp Assembly	1	1	1	1	1	1	1
26.081	Reflector Holder Assembly	2	2	2	4	4	6	6
20.349	" U " Tube	1	1	1	1	1	1	1
20.107	" U " Support Console	1	1	1	1	1	1	1
23.647	" U " Bolt	2	2	2	2	2	2	2

SECTION 10.1.1: MOUNTING DIAGRAM

SILVERSUN EVO U TYPE TUBULAR RADIANT WITH DOUBLE REFLECTOR

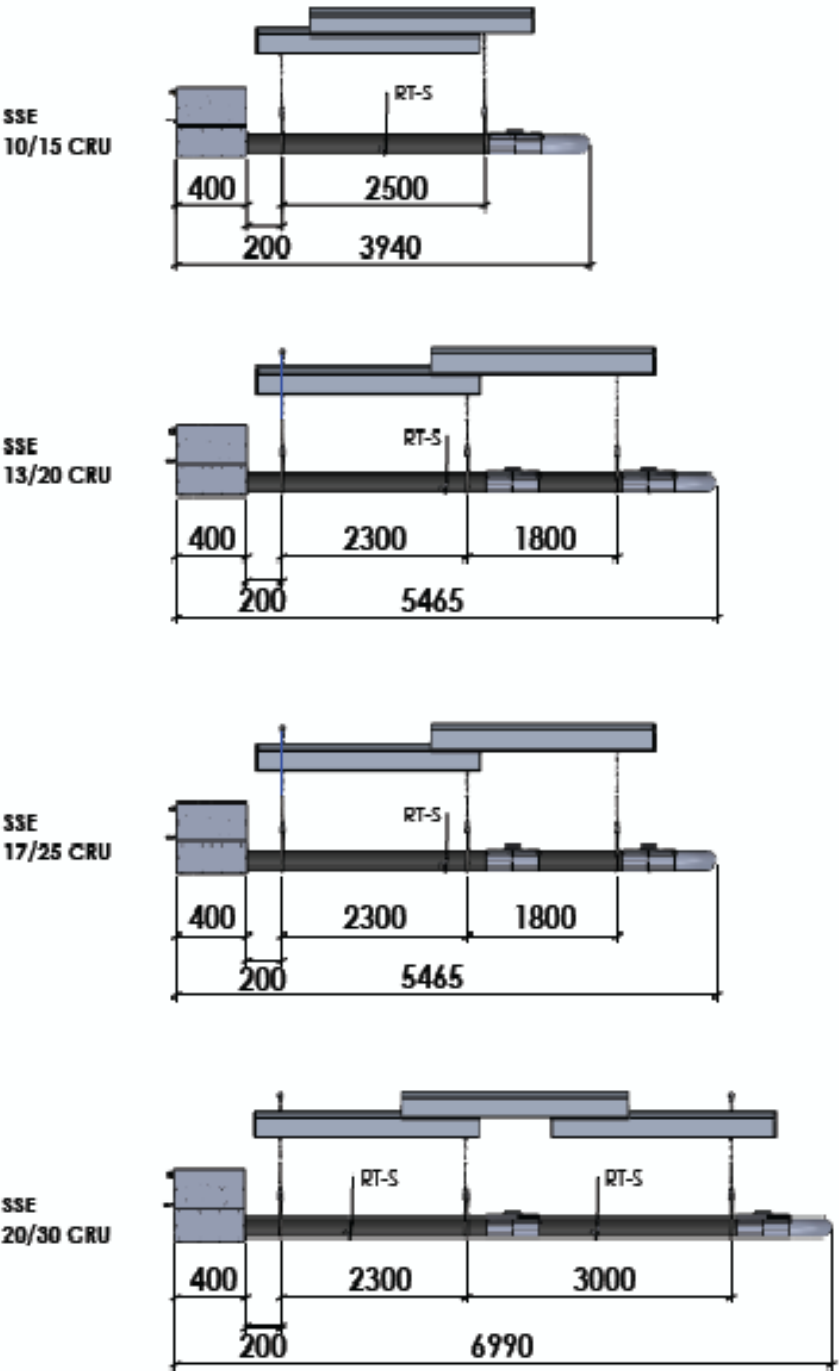
(SSE 10/15 CRU– SSE 13/20 CRU– SSE 17/25 CRU– SSE 20/30 CRU– SSE 27/40 CRU– SSE 33/50 CRU– SSE 40/60 CRU)



SECTION 10.1.2 MOUNTING EXPANSION

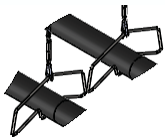
SILVERSUN EVO U TYPE TUBULAR RADIANT WITH DOUBLE REFLECTOR

(SSE 10/15 CRU – SSE 13/20 CRU – SSE 17/25 CRU – SSE 20/30 CRU)

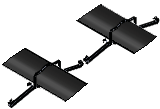


RT-S : Reflector holder is tight.

RT-G : Reflector holder is loose.



Tube and Reflector Suspender.

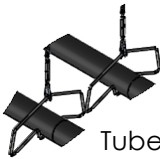
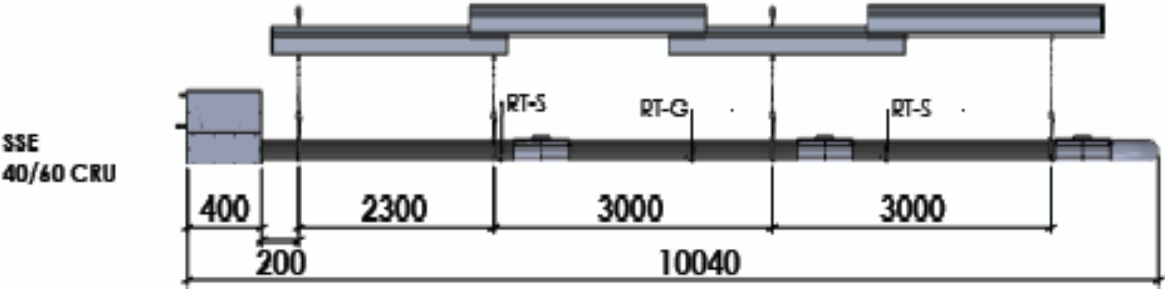
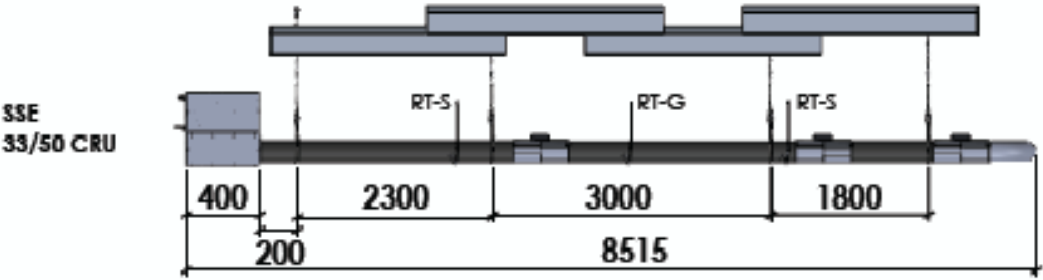
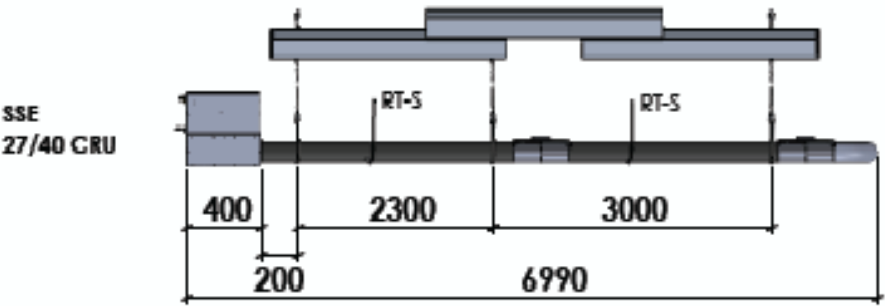


Reflector holder.

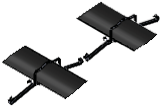
MOUNTING EXPANSION

SILVERSUN EVO U TYPE TUBULAR RADIANT WITH DOUBLE REFLECTOR

(SSE 27/40 CRU – SSE 33/50 TRU – SSE 40/60 TRU)



Tube and Reflector Suspender.



Reflector holder.

RT-S : Reflector holder is tight.

RT-G : Reflector holder is loose.

SECTION 11: U TYPE MOUNTING STEPS

1. STEP: SUSPENDER MOUNTING

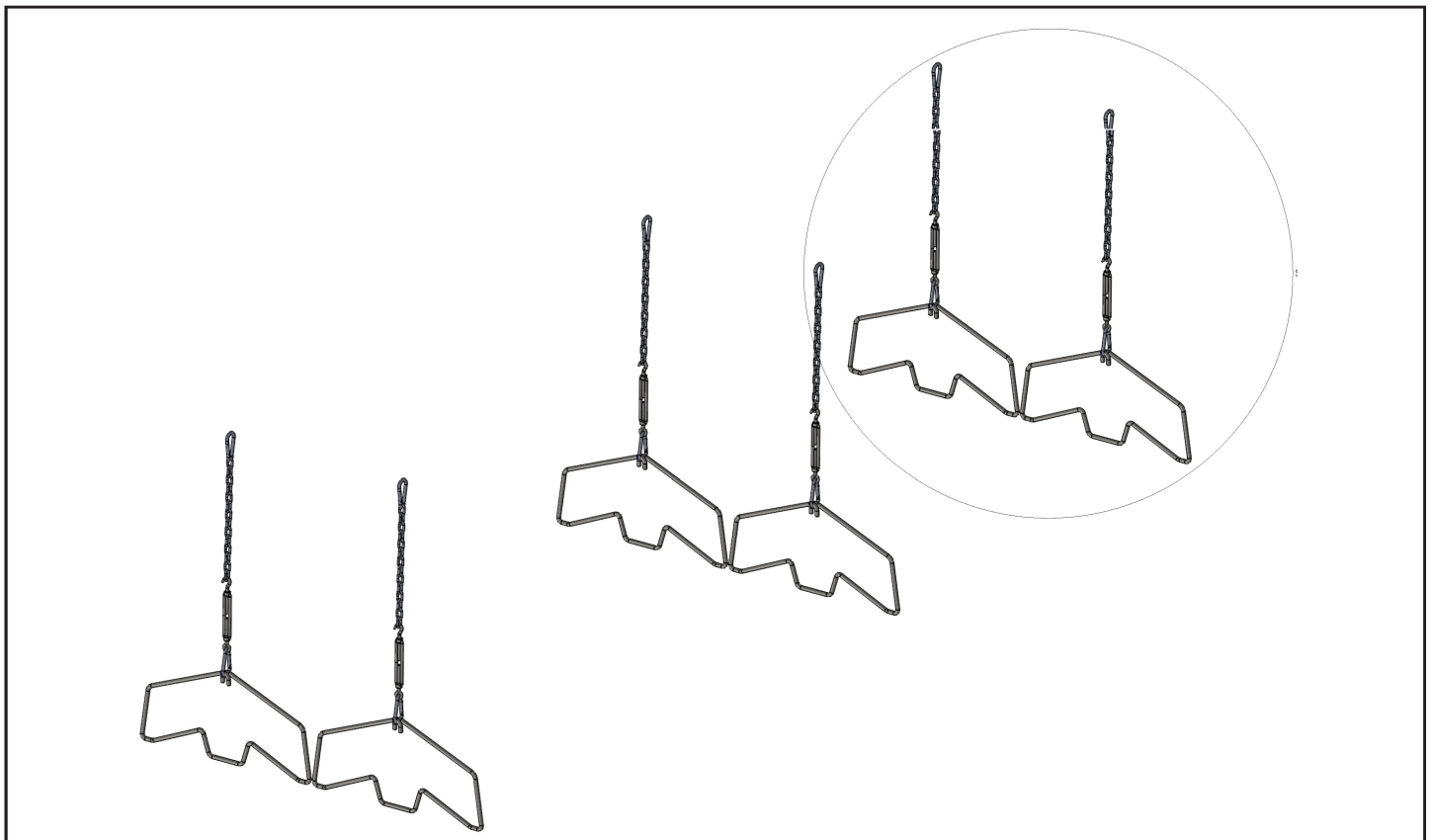
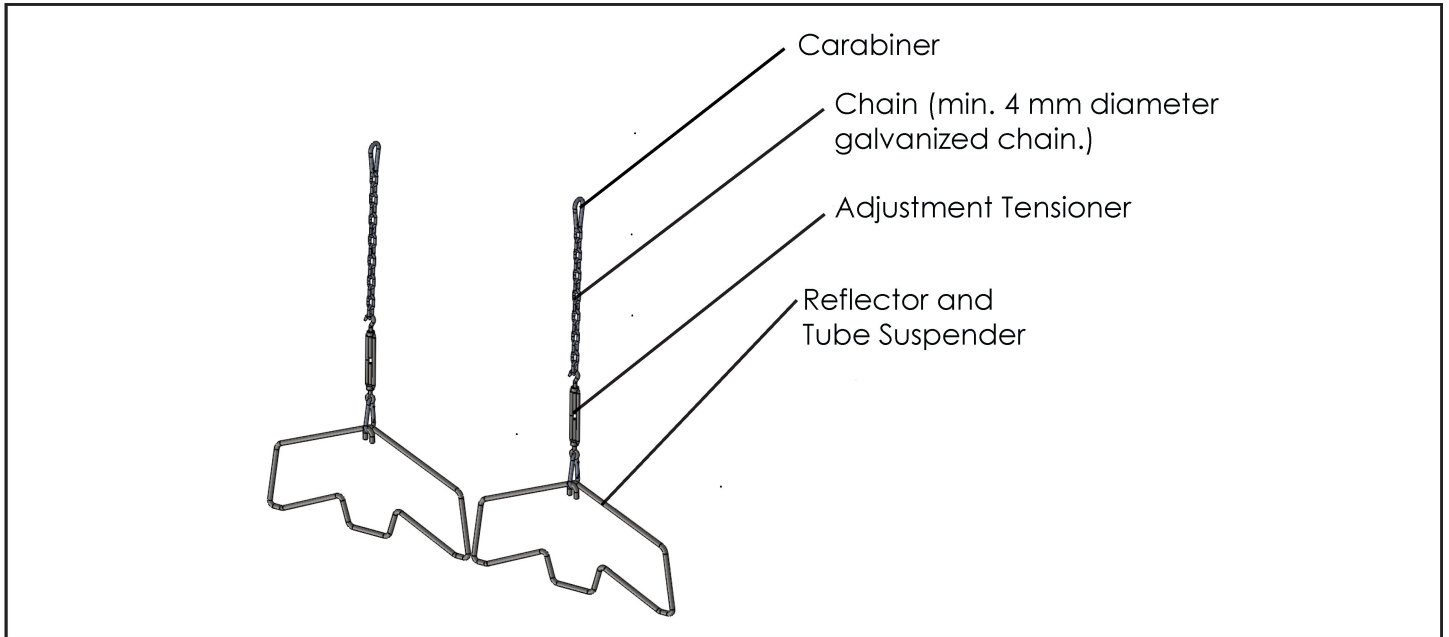
Suspenders should not be hung on gas and electricity tubes.

The system should be mounted in a place that is accessible for service.

The first suspender should be placed in a way not to exceed 200 mm distance from the burner.

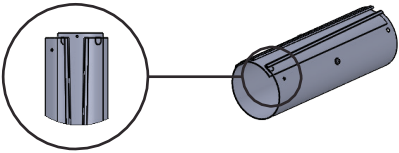
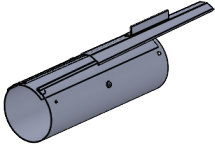
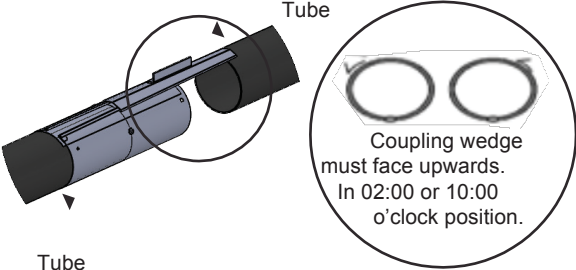
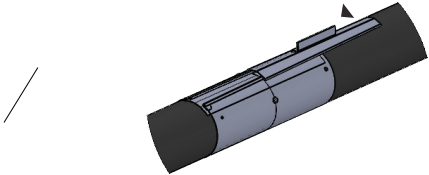
Suspender lengths should not be less than 300 mm.

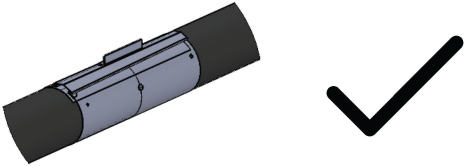
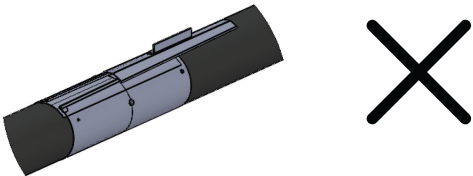
CAUTION: The components to be used on each suspender must be strong enough to take 40 kg. Failure in suspending can cause death, injury and material damage.

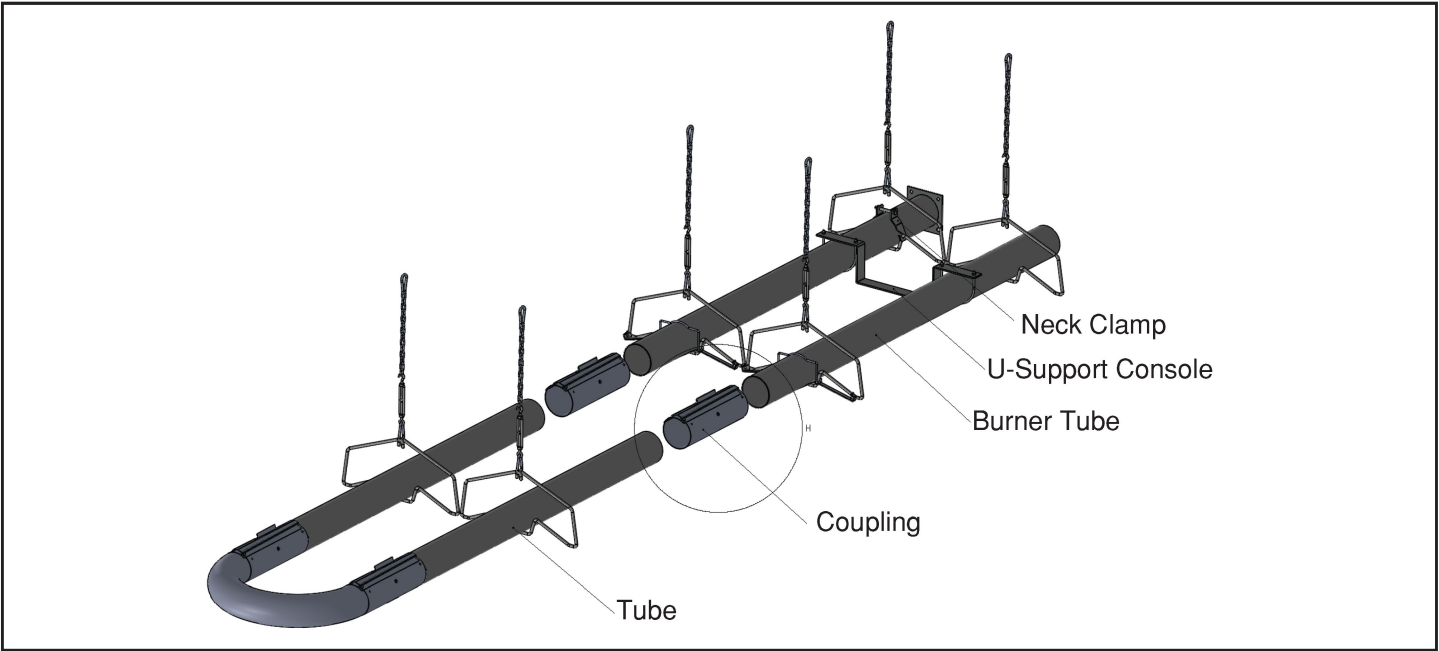


2.STEP: TUBE AND COUPLING MOUNTING

Connect the tubes with couplings and place them on the suspenders.

A Close the coupling cover Cover 	B Insert the sliding wedge to grip both sides of the coupling 
C Insert the tubes into the coupling and push them all the way in Tube 	D Drive the wedge to connect the tubes tightly 

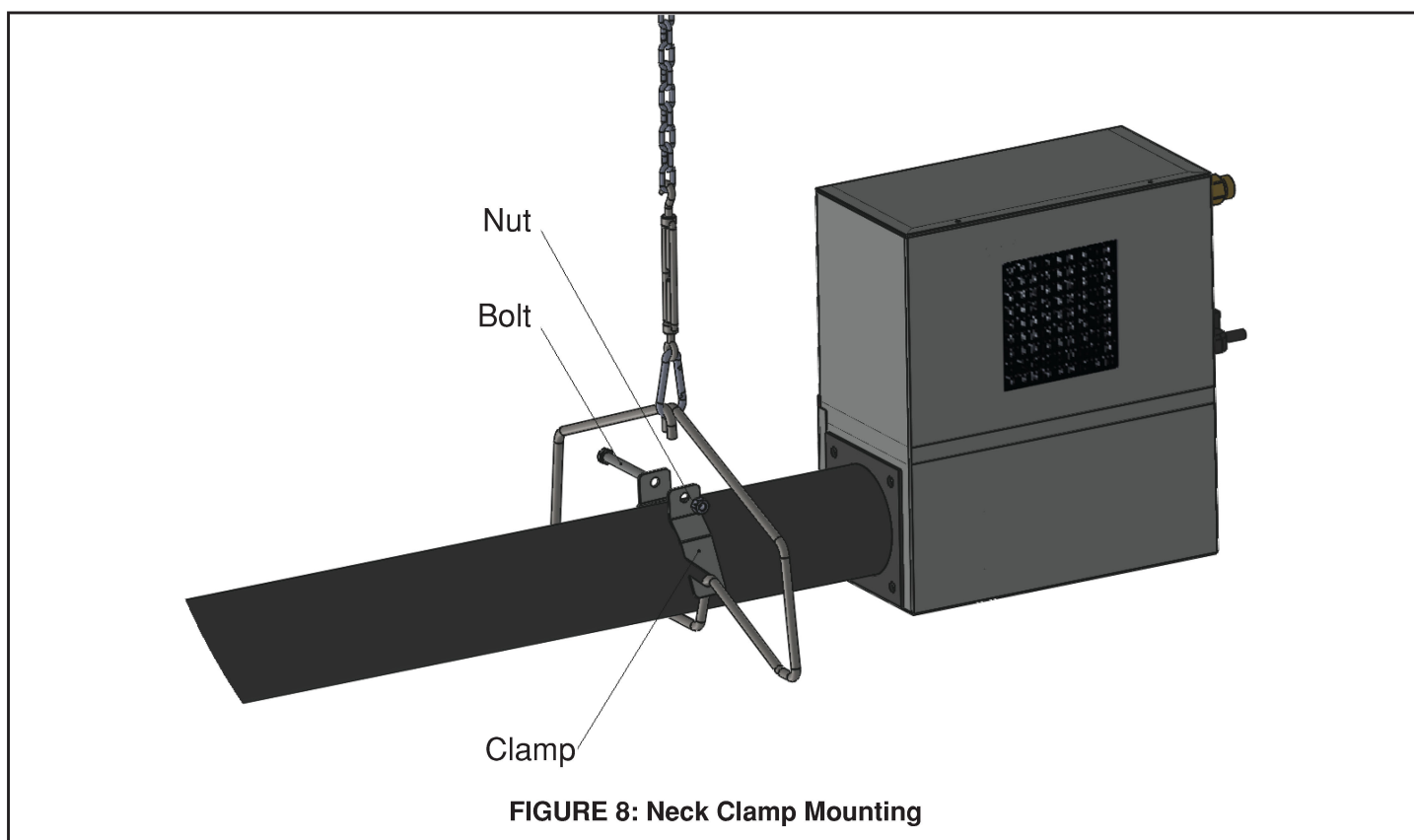
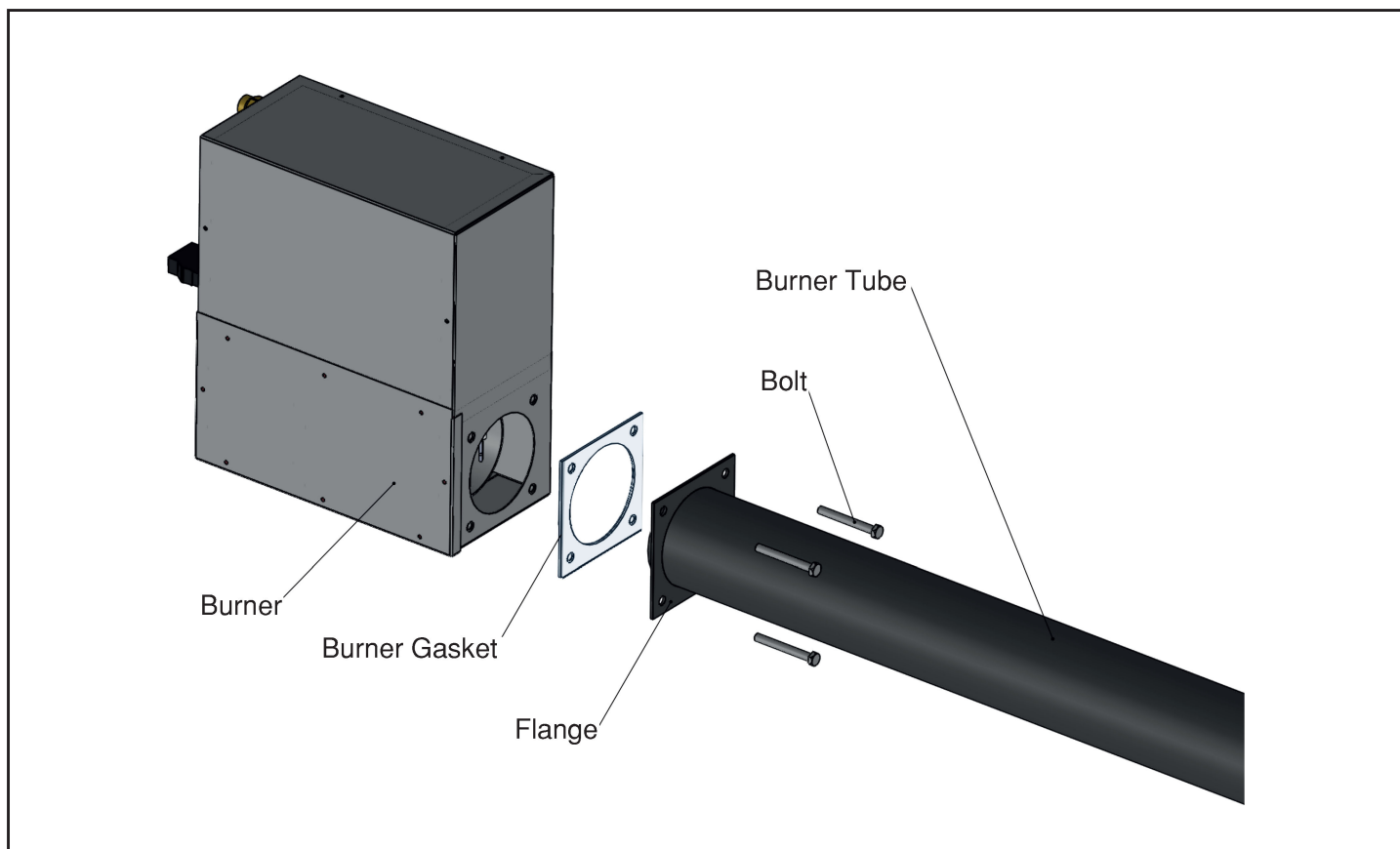
Tighten the wedge as shown below  Drive the wedge it sits tight Correct wedge placement	 Incorrect wedge placement
---	---

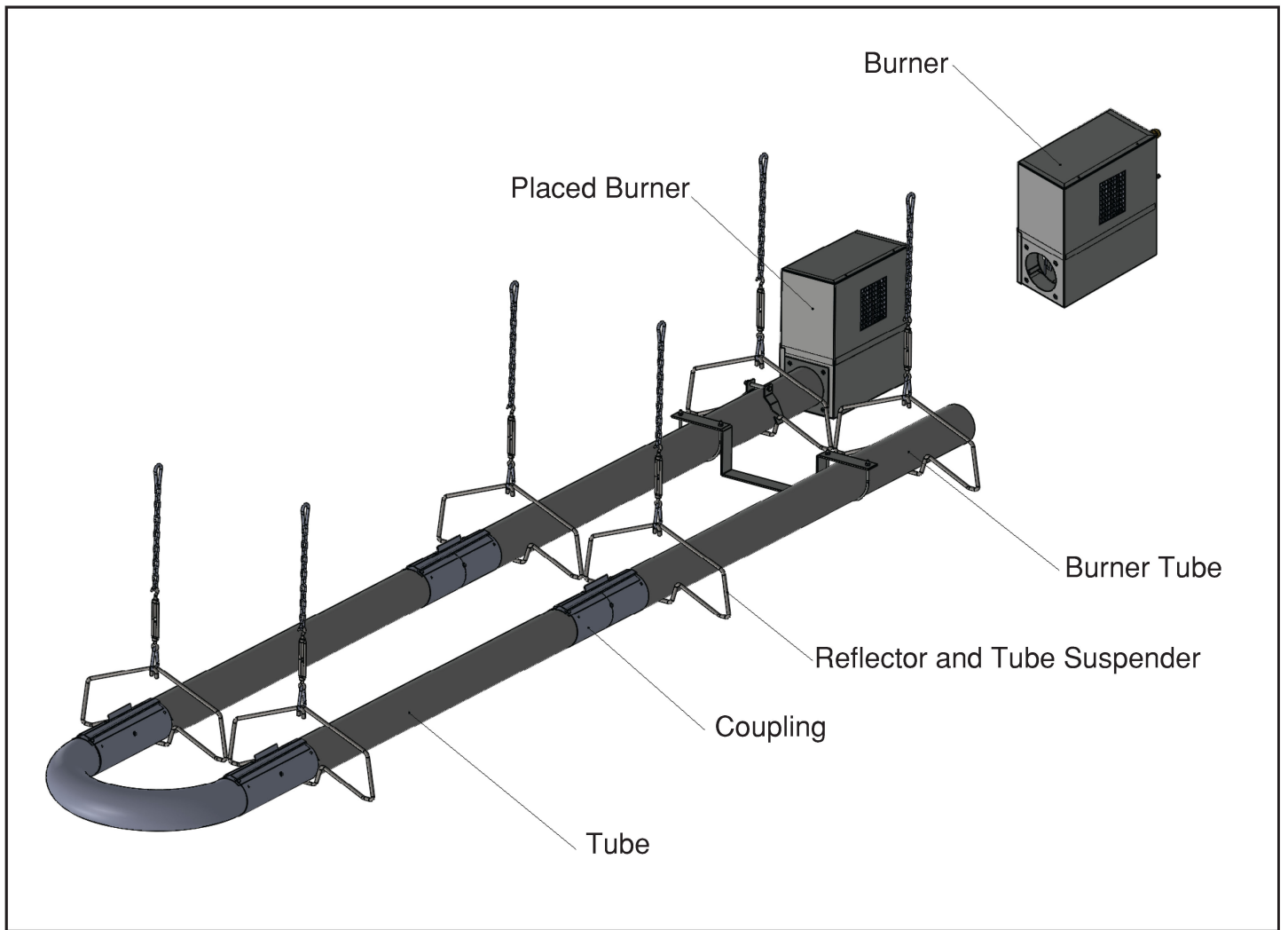


3.STEP: BURNER MOUNTING

Connect the burner with bolts by placing the ceramic wool gasket between the burner pipe flange and the burner.

Attach the neck clamp on the suspender and fix it with bolts and nuts so that the burner is in an upright position, as shown in Figure 8.





5.STEP: U SUPPORT CONSOLE MOUNTING

As shown in the figure, fix the fixing kit to the tube with a nut with U bolts at a maximum distance of 500 mm from the burner. See Figure 9

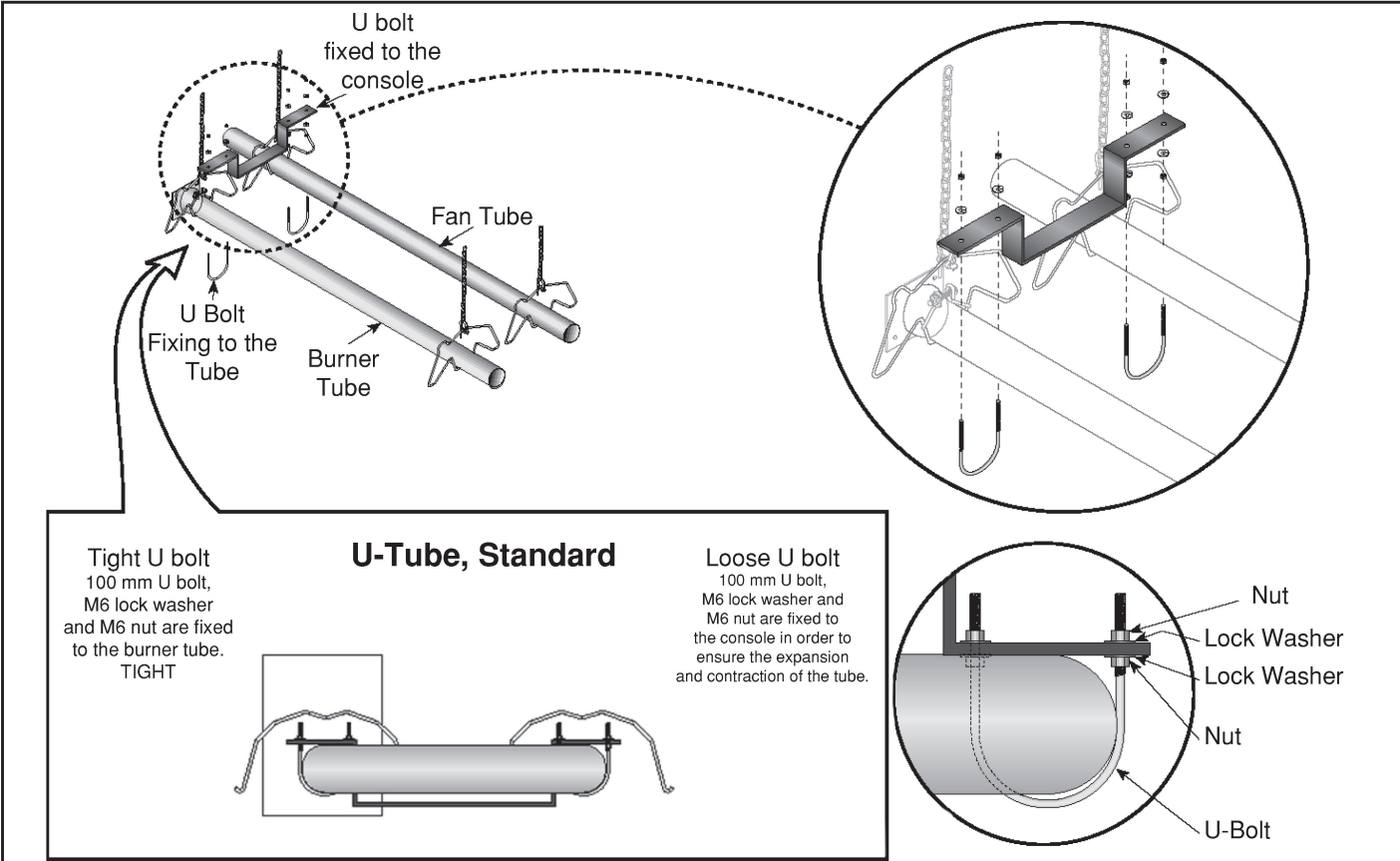
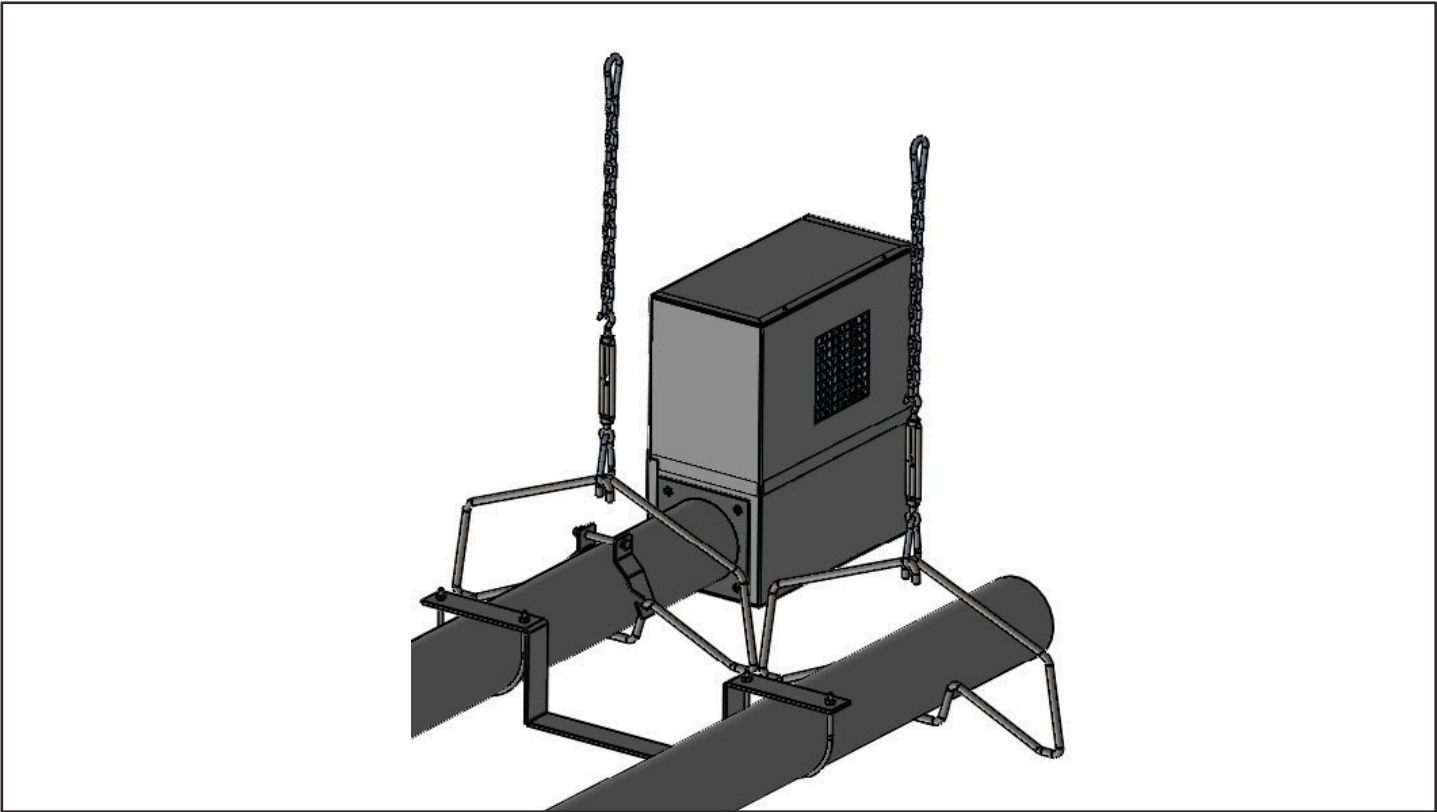
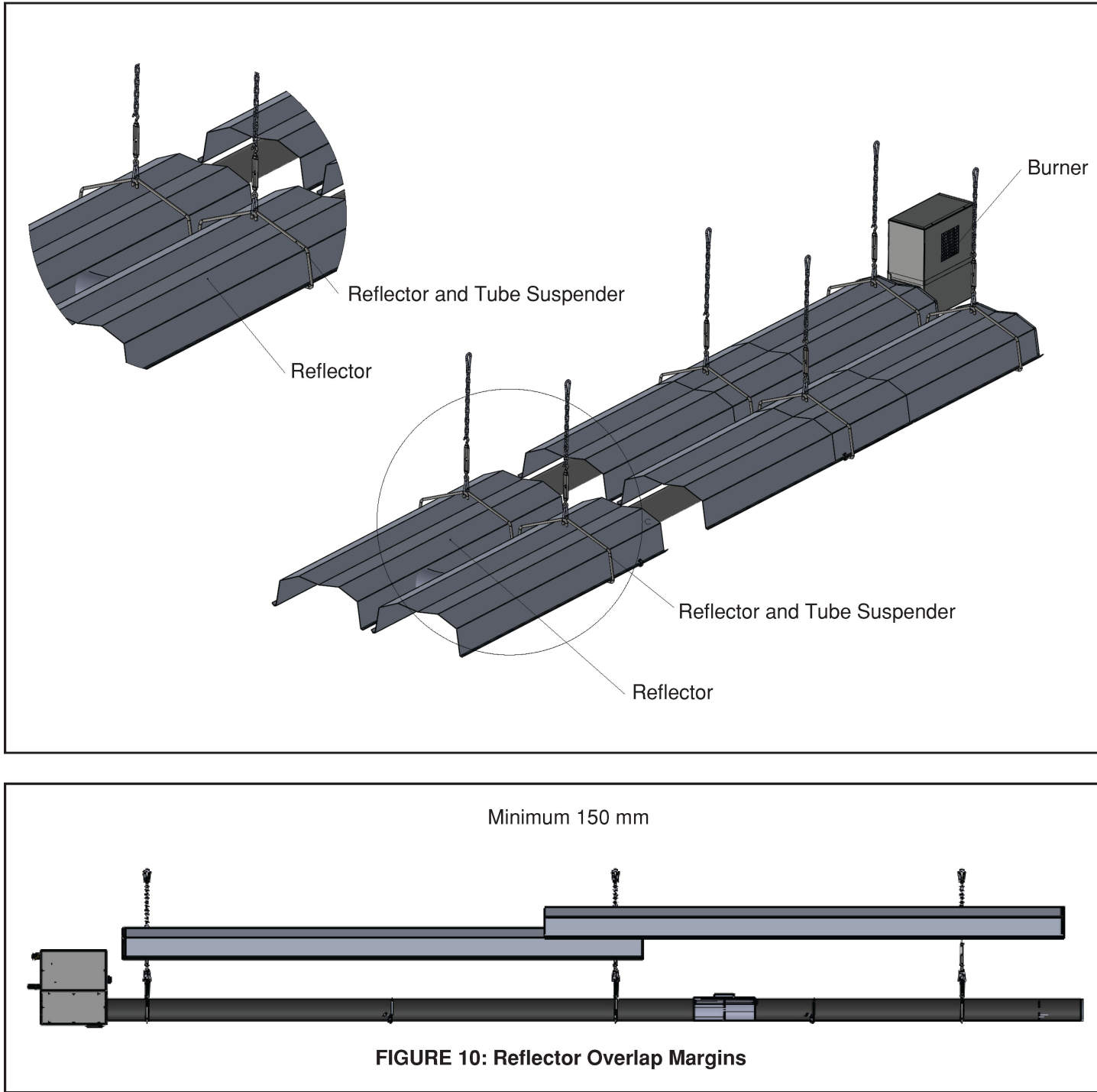


FIGURE 9: U Support Console Mounting

6.STEP: REFLECTOR MOUNTING

Place the reflectors one on the bottom and one on the top, with overlaps margin at a minimum of 150 mm, as specified in the mounting diagram. See Figure 10

As defined in the mounting expansion, place the reflector and reflector holders in quantities conforming to the burner capacities.



7.STEP: REFLECTOR HOLDER MOUNTING

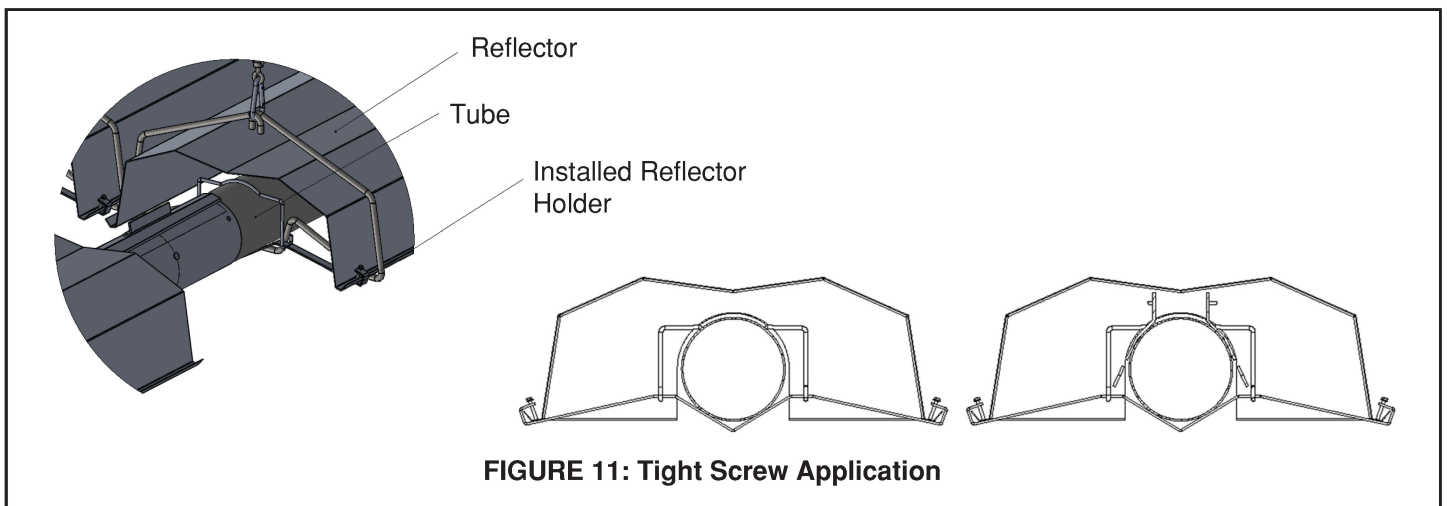
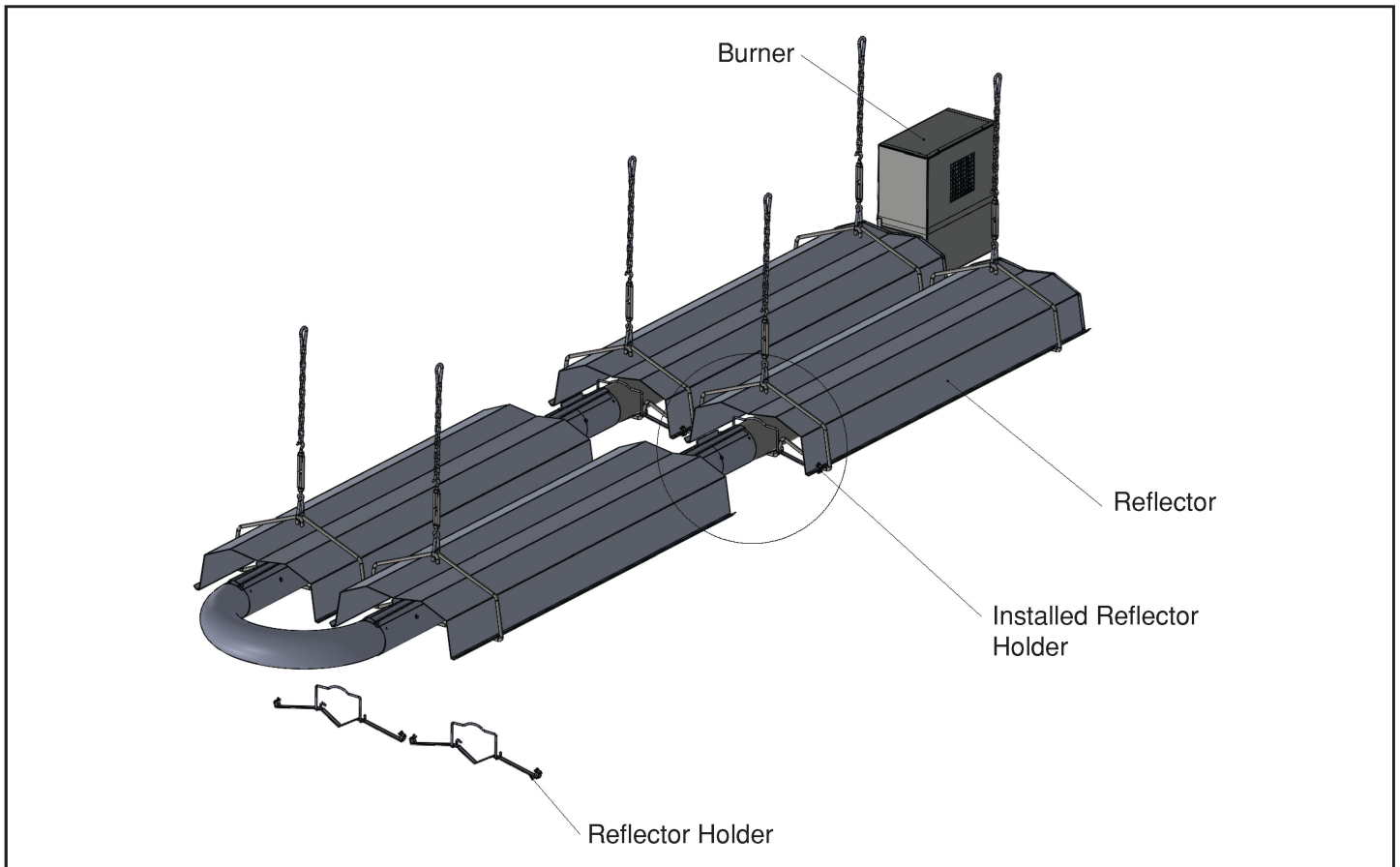
Place the reflector holders (RT) at the points indicated in the mounting expansion, allowing elongations due to thermal expansions. In order to ensure the accuracy of sliding/fixed reflector overlaps, tight/loose screw application should be done in “one skip-one apply” order.

Sliding reflector overlapping application can be done as follows:

- Both reflectors are placed in a one suspender. There is no need to use reflector holder
- At the overlapping point of the reflectors, the reflector holder is used and the screws are left

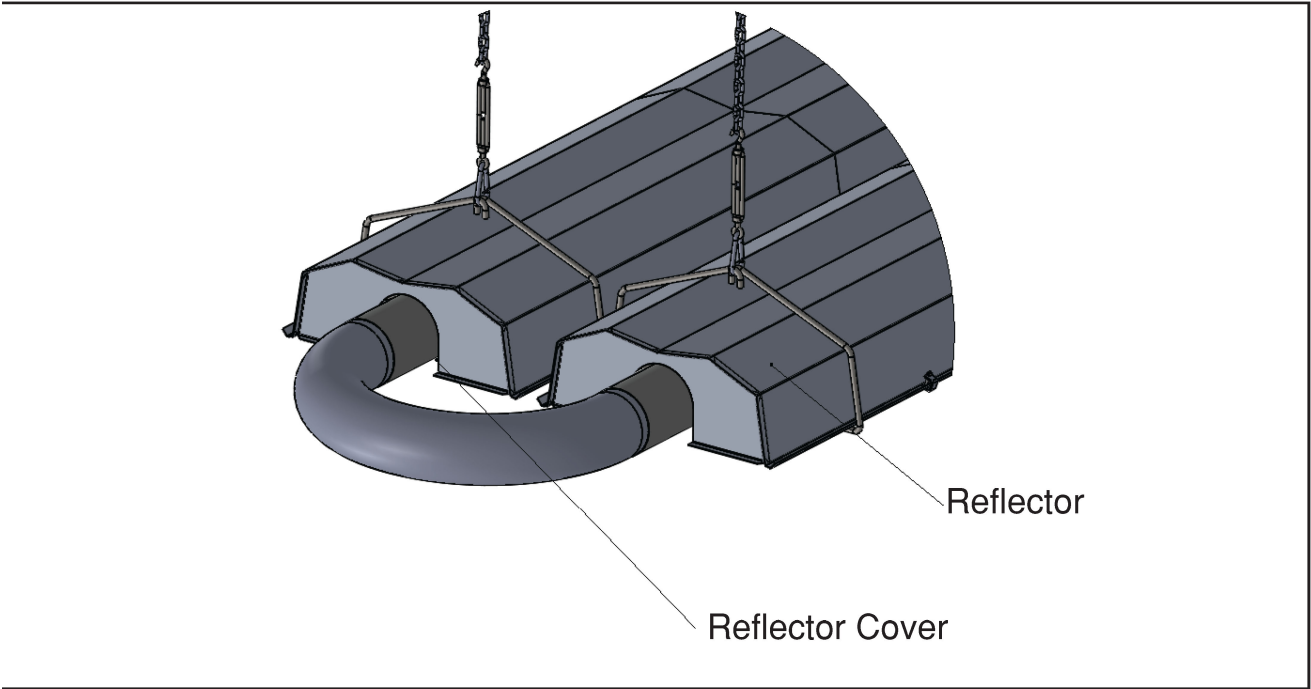
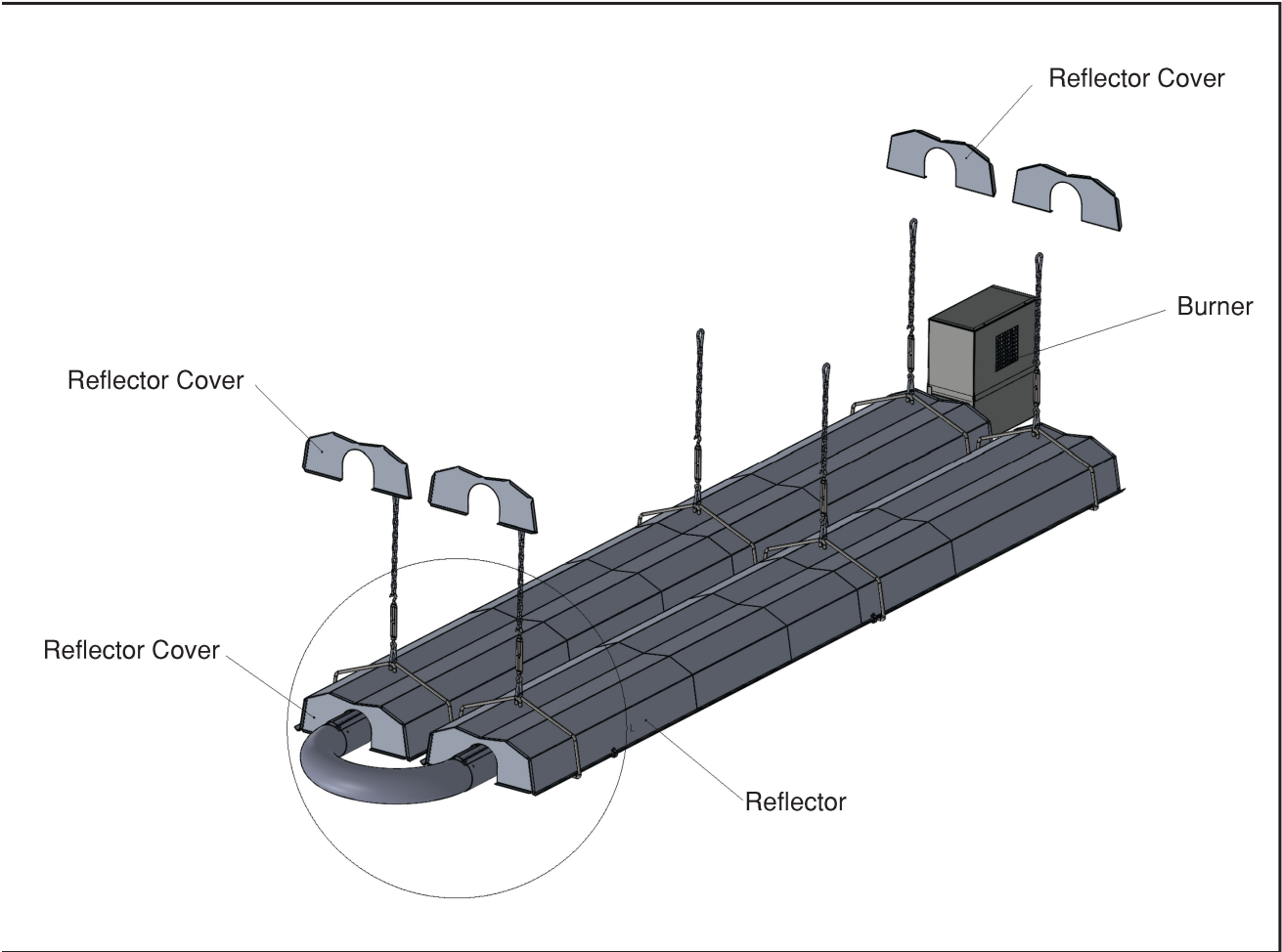
loose (RT-G). Fixed reflector overlapping application can be done as follows:

- At the overlapping point of the reflectors, the reflector holder is used and the screws are tightened (RT-S).
- If both reflectors have one suspender, one U-clip is used on both sides of the reflectors.



8.STEP: REFLECTOR COVER MOUNTING

Fix the reflector covers at the both ends of the reflectors with U clips.



SECTION 12: EXHAUST and VENTILATION

SECTION 12.1: USING THE HEATER WITH EXHAUST TUBE:

Burnt waste gases of heaters should be discharged to the outside with 100mm diameter aluminum exhaust pipe combined with couplings in accordance with the standards. The exhaust outlet can be in a vertical or horizontal position. It should be taken to the outside of the building through the side wall or the roof. A shield for the protection against rain and wind should be attached to the end of the tube outside the building. At the roof outlet, a bellow insulation with special EPDM membrane should be used for waterproofing.

At the installation sites with less than 0.5 air exchange per hour;

For more detailed information about natural ventilation in B Type Applications, please see the TS 7363 standard.

1.SILVERSUN EVO FLAT TYPE AND U TYPE EXHAUST TUBE LENGTH

APPLIANCE	FAN (W)	EXHAUST TUBE		
		DIAMETER (mm)	TOTAL LENGTH (m) Roof outlet	TOTAL LENGTH (m) Side outlet
SSE 10/15	60	100	5	5
SSE 13/20	60	100	5	5
SSE 17/25	60	100	5	5
SSE 20/30	60	100	5	5
SSE 27/40	80	100	5	7
SSE 33/50	80	100	5	7
SSE 40/60	80	100	5	7

NOTE: Each bellow corresponds to 1 m of tube. The long lines should be sloped by 0.5% in the direction of exhaust flow.

For applications with more than the exhaust tube lengths specified in the table, please contact **Çukurova Isı A.Ş.**

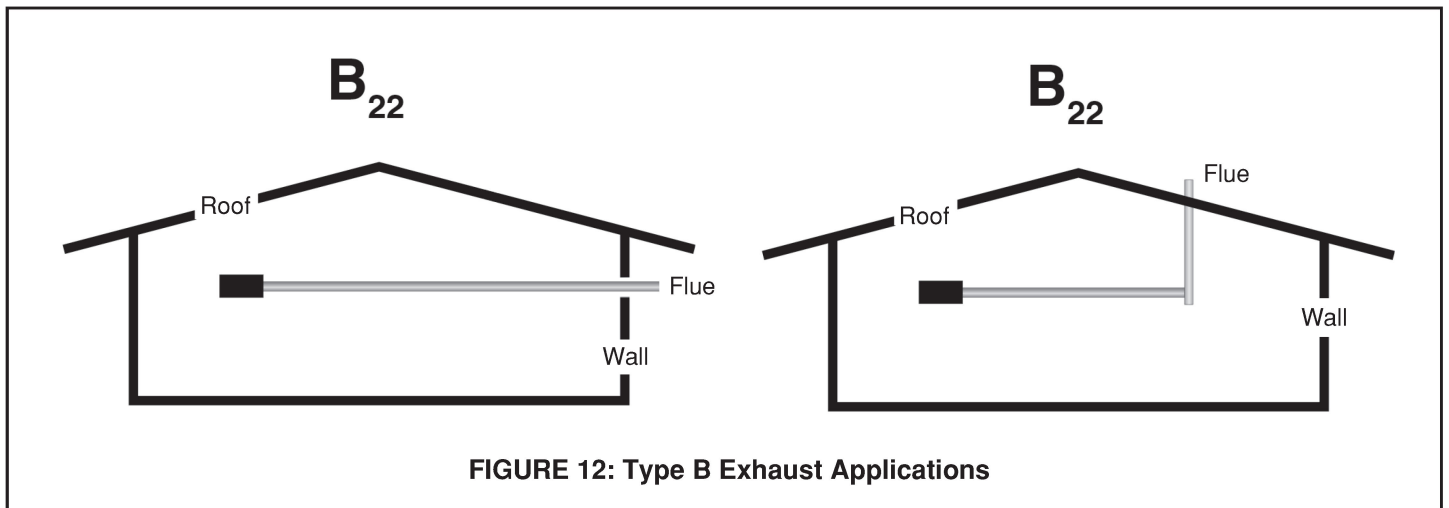


FIGURE 12: Type B Exhaust Applications

SECTION 12.2: USING THE HEATER WITHOUT EXHAUST TUBE:

The volume of the installation space of the heaters should be minimum 10 m³ per kW of nominal heat input of radiant heaters placed. If the volume is not sufficient, the combustion air of at least 10 m³/h per kW of the operating heat load must be fed to the installation site from outside by either thermal (natural) or mechanical ventilation. Appropriate fresh air and exhaust openings should be provided and when heating system is operated should be coupled with mechanical ventilation, if available. If the building air change rate is greater than 1.5 per hour or the density of operating heat input is less than 5 W/m³, no thermal (natural) or mechanical ventilation measures are necessary. (EN 13410, TS 13410).

SECTION 13: GAS INSTALLATION and BURNER CONNECTION

Prior to commissioning of the heaters, ensure that gas installation comply with local standards and legislations (Gas Installation Compliance) and leakage test is performed. High pressure test for the gas installation should be performed with burner gas shut off valve in closed position or prior to connecting gas flex hose to the burner. Before commissioning the burners, ensure that inner pipe cleaning is performed by purging gas pipelines. For additional safety, a strainer (Gas Filter) should be installed at burner gas inlet.

Install the gas flex tube as specified. See Figure: 12 Gas flex tube allows thermal expansion of the heating system, easy installation and servicing of the burner. In each combustion cycle, radiant tubes elongate due to thermal expansion, therefore the gas flex of the burner will move. If the gas flex is not mounted as specified, it may cause gas leakage.

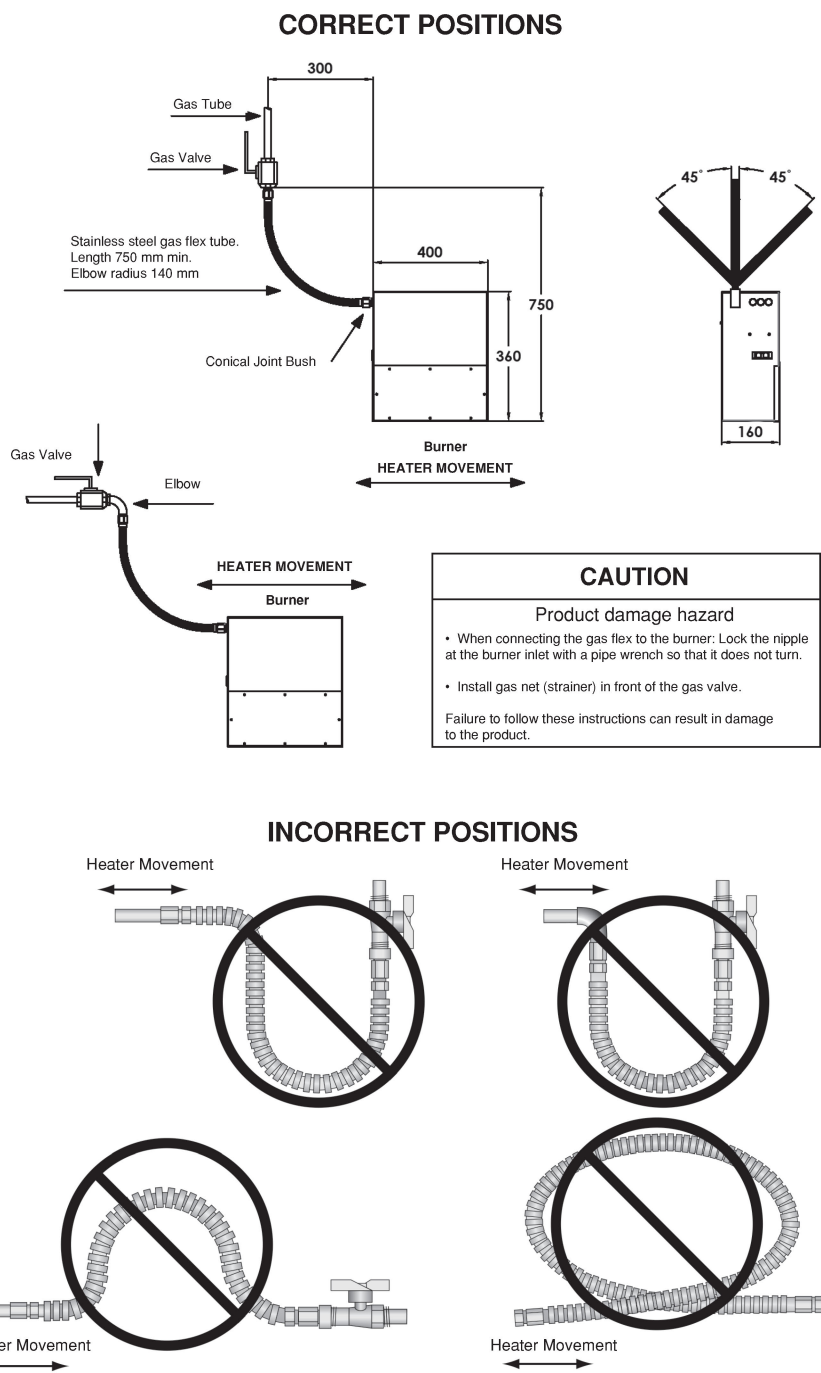


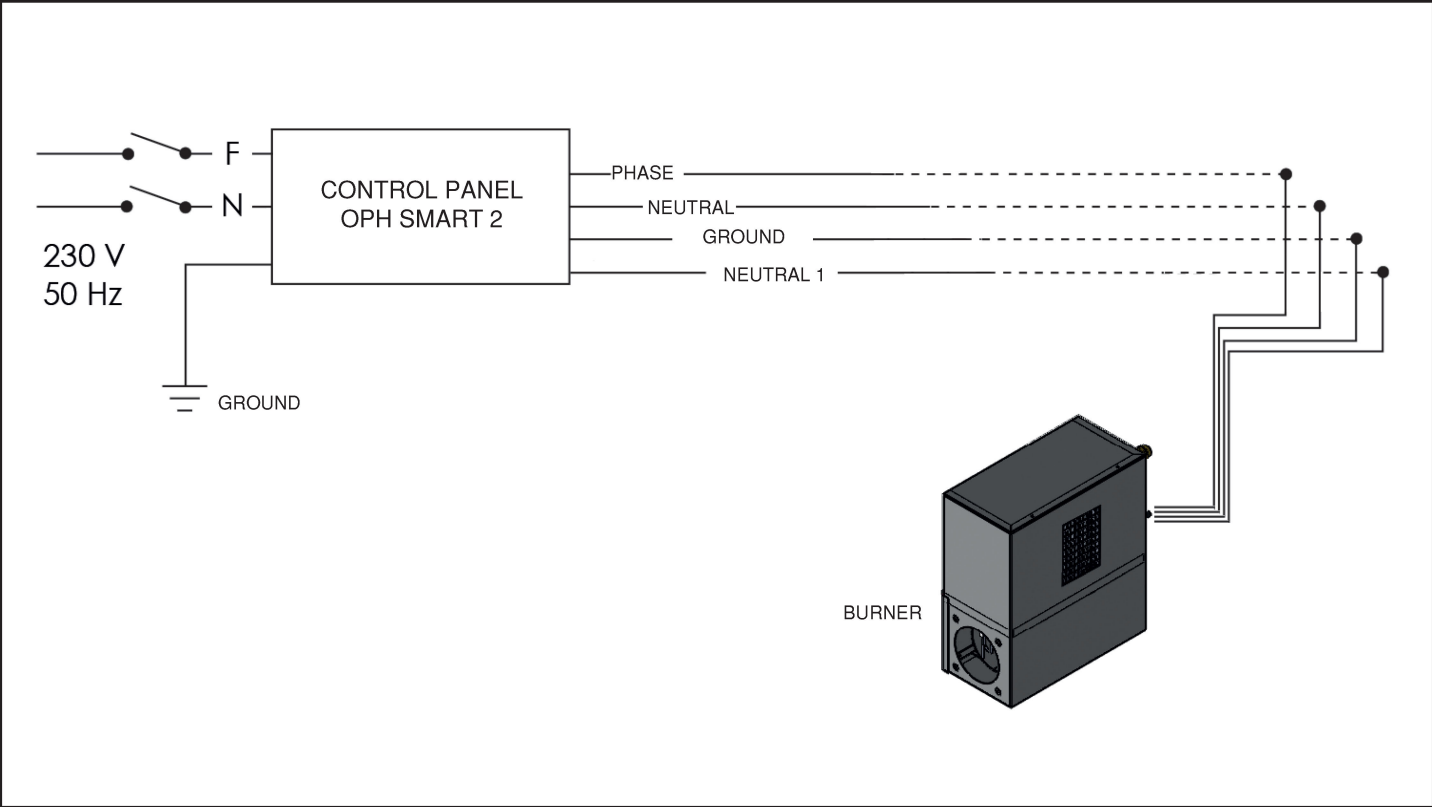
FIGURE 12: Gas Flex Connection

SECTION 14: WIRING

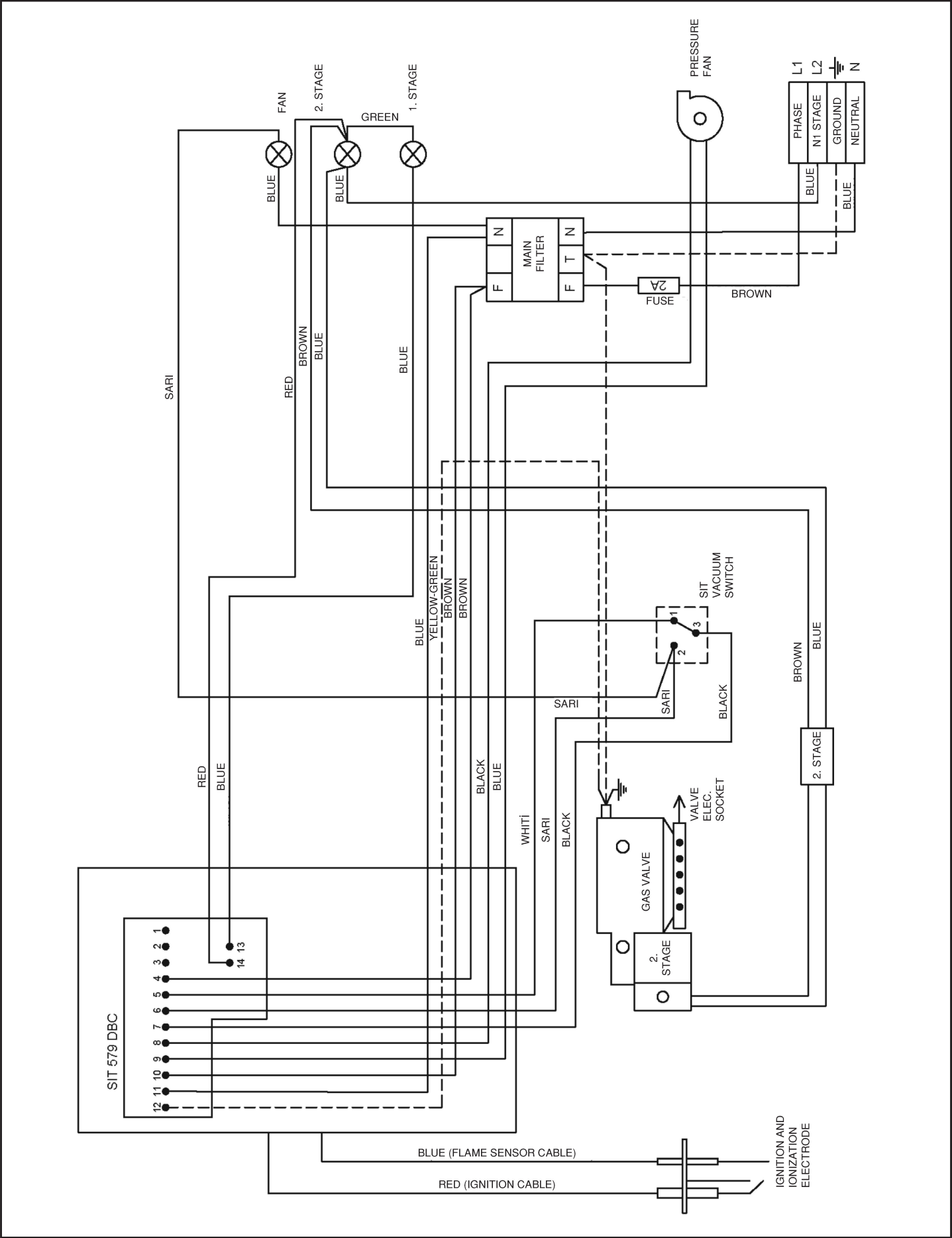
Power supply of the burner should be 230V and grounded. This also performs the control function. By cutting the power off, operation of the equipment is stopped. Make sure that the cable does not contact with the heater and it does not heat up full length or temperature limits are not exceeded. Cable terminal connections must be firm and tight.

All wiring should comply with building electrical wiring regulations and local electrical wiring standards.

SECTION 14.1: BURNER EXTERNAL WIRING DIAGRAM



SECTION 14.2: BURNER INTERNAL WIRING DIAGRAM



15.1: SEQUENCE OF ACTIONS TABLE



SECTION 15.2: START-UP

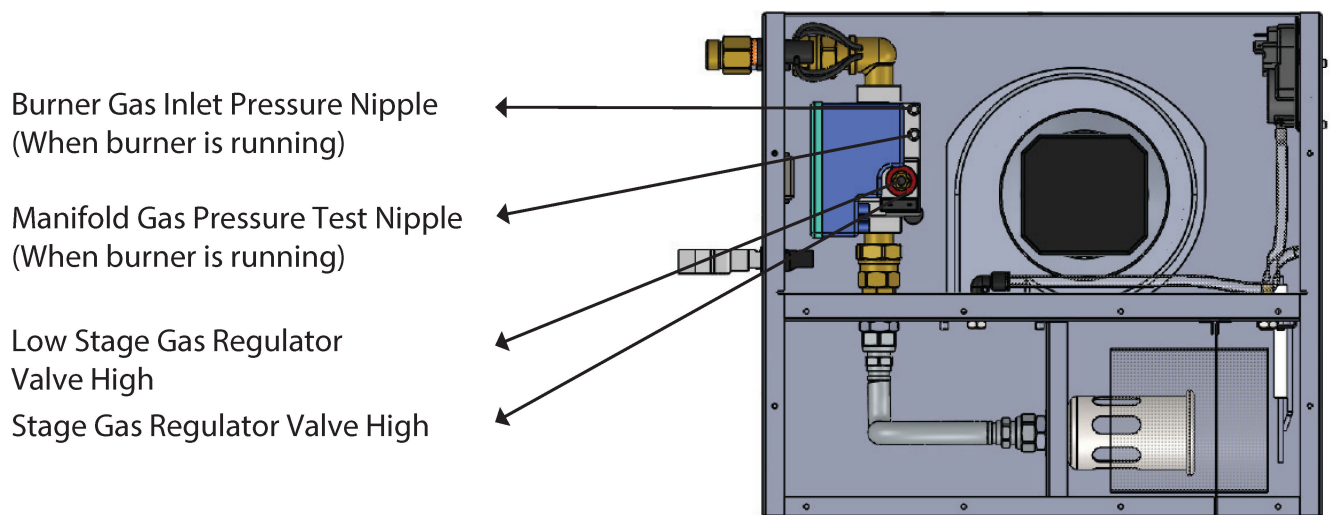
1. Make sure that the gas supply is at sufficient pressure and the power is connected to the heater.
2. With the gas shut-off valve closed and the power is disconnected on each burner, open the service cover fixed with a screw.
3. Make sure all the timer and thermostats are set to start heating.
4. Give a start command from the control panel. This action will start the exhaust fan.
5. Cold Fan Pressure Measurement:

Check the vacuum at the burner by connecting a digital pressure gauge to the T tube located on the inlet side of the pressure switch on the burner. The vacuum should be in the range of 1.5 - 2.0 mbar.

6. Gas Pressure Setting:

Remove the cover of gas valve adjusting screw and loosen the sealing bolt of pressure test nipple, connect a digital manometer to the test nipple. Open burner gas shut off valve and power supply. Make sure the timer or thermostat is set to start at full gas speed. Processes must be performed in specified order. When flame is formed, check gas pressure value and adjust if necessary. Refer to burner data label.

After switching off power supply, turn off the heater and remove the manometer – ensure gas impermeability by tightening pressure test nipple screw. Reinstall gas valve adjusting screw cover. Close service hatch of the burner.



7. Hot Fan Pressure Measurement:

Switch on the power supply of the burner; wait that it reaches the full operating temperature (approx. 20 minutes).

Measure the hot air vacuum at the T tube above the inlet of the pressure switch. A minimum hot vacuum of 0.9 mbar should be obtained.

SECTION 15.3: INSPECTION OF SAFETY SYSTEMS

In order to ensure a smooth ignition, give a restart command to the appliance from the control panel. Perform the following system checks:

Turn off the gas supply to the appliance during start-up. The heater will be shut down right after three ignition attempts following the failure procedure.

Turn off the fan's power supply during start-up, the appliance should stop within three seconds, indicating that the pressure switch is working.

SECTION 15.4: USER NOTIFICATION

After performing sufficient tests, make sure that the customer fully learned operation of the system. Show this manual to the user or buyer; inform them on the safe operation of heater(s). Hang the below user instructions beside the appliance control unit.

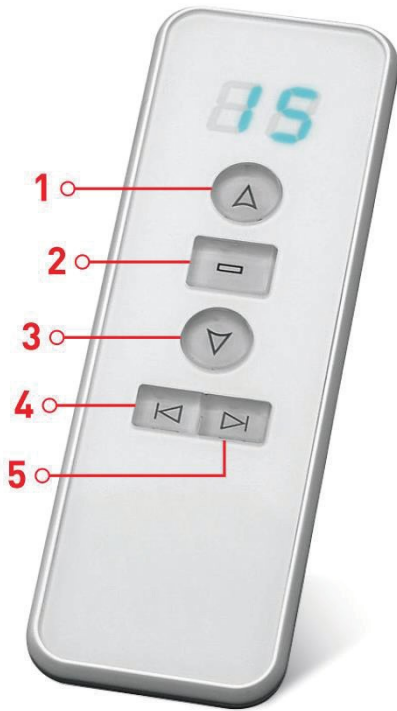
SECTION 15.5: SILVERSUN EVO USER INSTRUCTIONS

GAS PRESSURE

NATURAL GAS: Max: 55mbar Min: 20 mbar

In case an interruption in natural gas supply occurs, it is necessary to check the slam-shut valve and open the gas.

WARNING!: Start-up must be performed by Authorized Service Personnel.



1 - Open main power supply.

2 - Make sure that gas valve is open.

3 - (a) In systems using Remote Control, set the number of the device you want to operate on the display panel by using the buttons numbered 4-5. Press button number 2. Thus, ignition process is started.

(b) In systems using Optimumheat control panel, make the necessary program and temperature settings on the panel (see. Optimum Heat Smart 2 manual). Turn ON/OFF switch of the system you want to operate to "ON" position.

4 - The vacuum fan of the SS EVO system will start up. Within 5 - 10 seconds, the first warning lamp (yellow) on the burner box will turn on. This indicates that the vacuum has reached the normal level.

5 - After 10-15 seconds of sweeping, other warning lamps will light up. At the same time with these lights, the gas control elements inside the burner allow gas entry and the ignition starts. The ignition continues for 5-10 seconds, within this time the flame must be formed. Under normal operation, flame sensor monitors continuity of the flame and thus gas supply. Three warning lights indicate that the system is operating at normal and high stages.

6 - The appliance burns at high stage when it first starts To turn the appliance to low level,

(a) In systems using remote control, press button 3 on the remote control; the appliance switches to low stage, one of the red lights go out. In low stage, one red light stays on.

The appliance can be toggled to low – high stages using buttons 1 and 3 on the remote control. To turn off the appliance, button 2 on the remote control is pressed, all lights go off and the appliance shuts down.

(b) In systems where Optimumheat control panel is used, Optimumheat changes over the levels automatically according to the ambient temperature.

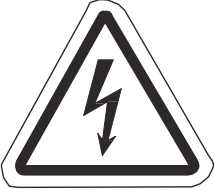
To turn off the appliance, turn the ON/OFF button of the system you want to turn off to the "OFF" position, all lights go out and the appliance turns off.

6 - If there is no flame formation at the first ignition: The device automatically fires two more times; however, if there is no flame, it will close the gas inlet and stop the ignition. In this case, all warning lights will go out. To restart the system, follow the steps in item 6; If the appliance does not work after 4-5 trials, the system should be shut down and service should be called.

WARNING!:

If the system will not be operated for a prolonged period, switch off power from the main supply switch and cut the gas off f the main cut-off valve.

**SECTION 16: SERVICE
INSTRUCTIONS**

⚠ DANGER		⚠ WARNING	
			
Electrical Shock Hazard Switch off power supply prior to servicing. More than one switch may be required to cut off power connection of the heater. Heater should be connected to an appropriately grounded power source.	Explosion Risk Shut off gas supply prior to servicing the heater.	Burn Hazard Leave the heater to cool down before servicing. After the heater stops the pipes may be still hot.	Cut / Pinch Hazard Use protective equipment during installation, operating and servicing. Edges are sharp.
Failing to comply these instructions may result in death, electric shock, injury or material damage. IMPORTANT: Never use the heater as a ladder support or other access tools. After completing the service or replacement of gas carrying components, perform leakage test with an appropriate detection fluid. Upon completion of service / diagnostic procedures requiring cut off and rebuilding of power connections, Phase – Neutral – Ground ordering and grounding connection controls must be repeated.			

16.1: Annual Maintenance Processes

Perform the following process annually. Preferred timing is just before winter heating season. In case of excessive dirt conditions, more frequent performance of this process may be required. More frequent service may be required if the appliance draws air through the air duct or filter assembly.

16.1.1: Burner and Fan Removal

Disconnect gas and electrical connections of the heater. Remove the fan plug from the burner. Remove the fixing screws on the burner flange. The burner can now come out. Take care not to damage the gasket on the flanged burner tube. Remove the fastening screws on the fan flange. The fan can now be removed.

16.1.2: Burner and Fan Maintenance

Remove the fan and burner independently at ground level and clean both units from the inside using a soft brush and compressed air, if available. Try not to damage the internal parts of the burner. Make sure the fan blades are clean and rotate freely. Electrodes are an integral part of the burner. To check the spark gap, remove the fixing screws on the electrode and pull it out by taking care not to damage the gasket. The spark gap at the electrode should be about 3 mm.

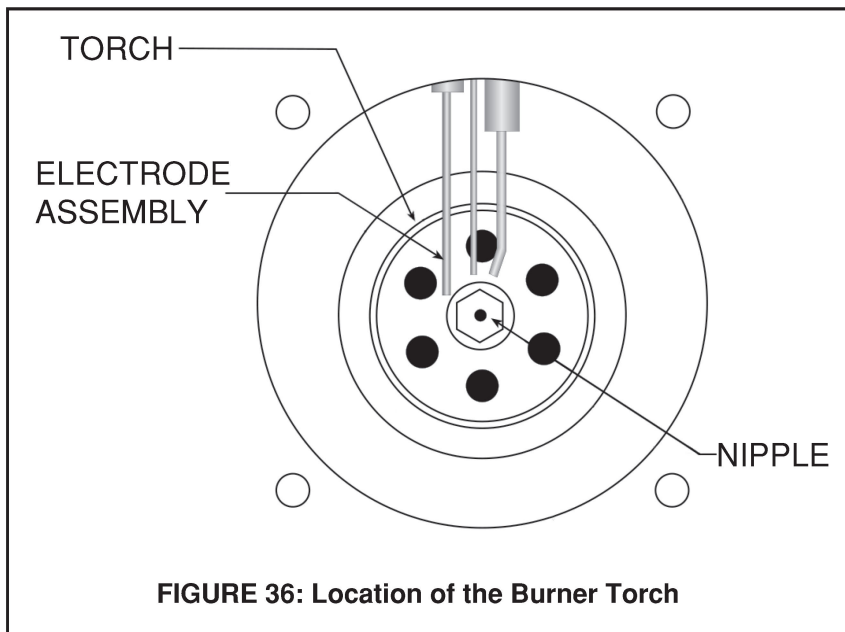
16.1.3: Tube and Reflector Maintenance

After the burner and fan have been removed, clean the outer surfaces of the pipes using a brush and wipe the inner surface of the reflector with a soft damp cloth - use a household detergent if necessary. Never use abrasive cleaning agents on the reflectors. Re-install the burner and fan in reverse order.

16.2: REMOVAL OF PARTS

First, disconnect gas and power supply of the appliance. When the cover screws are removed and the side cover is opened, access to the burner assembly is provided. When the combustion chamber cover is removed, access to the combustion chamber is provided.

16.2.1: ELECTRODE



16.2.2: Burner Torch/Nipple

When the cover is completely removed, the burner assembly opens. Remove burner torch. Remove the brass nozzle. Reassemble in reverse order.

16.2.3: GAS VALVE

Remove the burner cap. Fix the Gas Valve body bracket and remove the screws. Disconnect the quad electric cable plug that is connected to the gas valve. Residual Gas valve and fittings can be removed from the compartment. When the middle screw is removed, the gas valve can be removed from the body. Reassemble in reverse order. Note: Ground is green/yellow.

16.2.4: Automatic Flame Control Unit

Remove black colored ignition tip. Pull out the connectors. Remove two screws from the cover. If it is defective, replace it. Reassemble in reverse order.

16.2.5: Pressure Switch

Remove the two silicone tubing. Remove the cables with three wings. Remove two screws securing the pressure switch to the burner. Remove the pressure switch. If it is defective, replace the pressure switch and reinstall in reverse order; Make sure the rubber pipes are re-fitted to the switch correctly.

Note: The cables are connected as follows:

NO – YELLOW

NC - WHITE

Mutual - Black

16.2.6: Neon

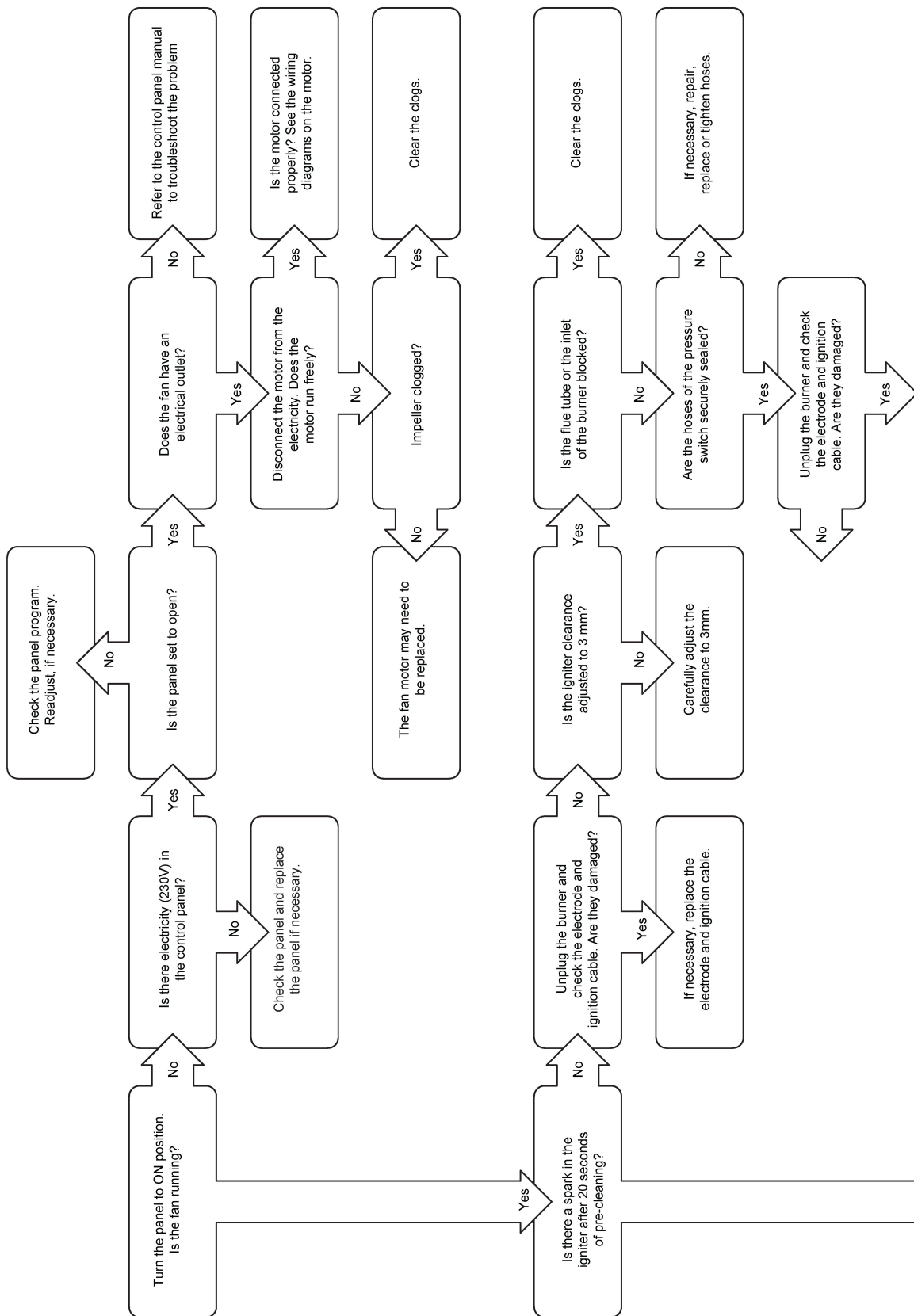
Take out the self-tapping screw connector and remove the neon. Reassemble in reverse order.

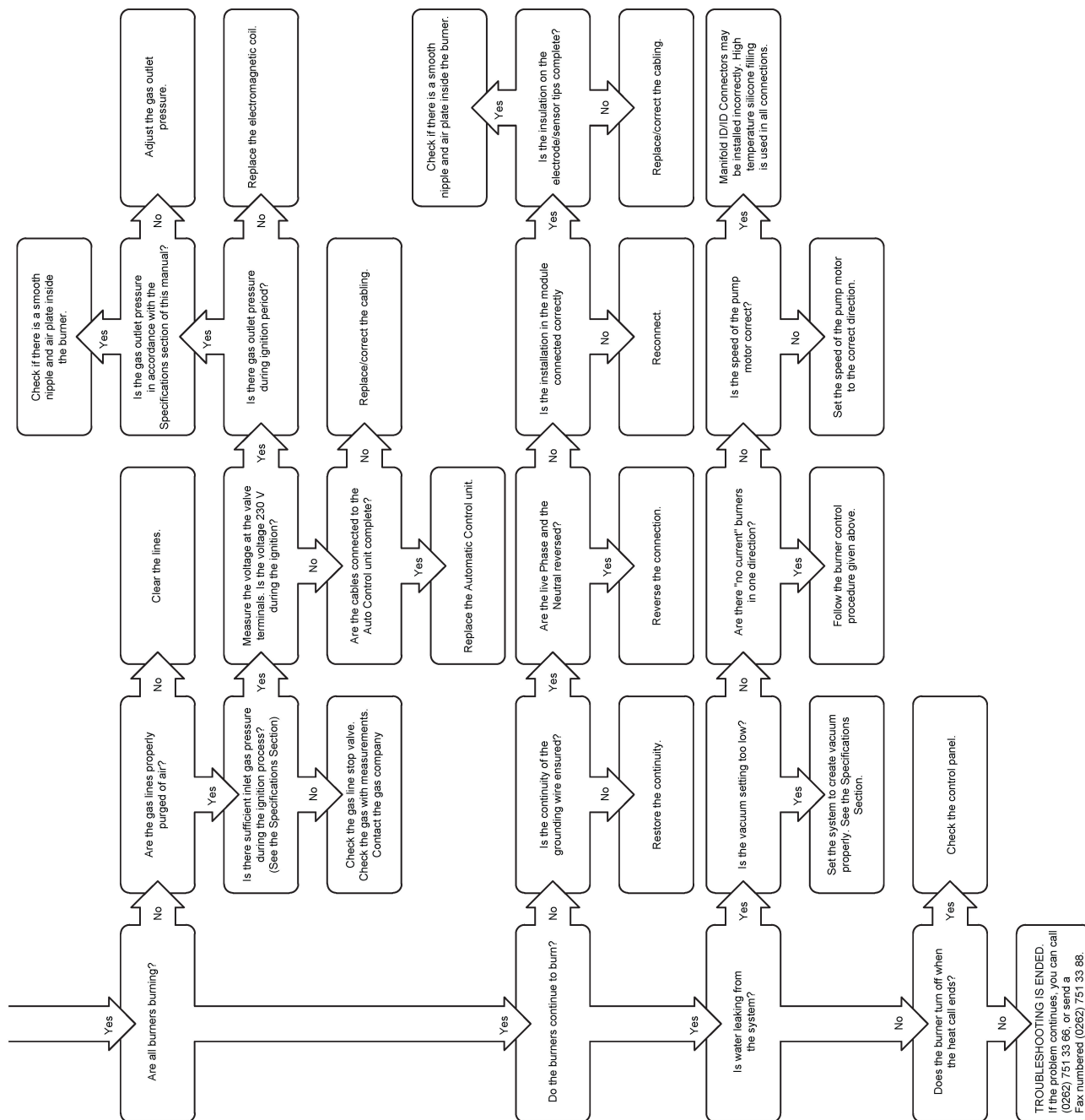
16.3: Annual Maintenance Checklist:

Installation and servicing of appliances sold and supplied by ÇUKUROVA ISI A.Ş. should be carried out by an authorized installer and should comply with all requirements regarding the installation, service and operation of the appliance specified in user manuals of ÇUKUROVA ISI® and anticipated by officials. In order to provide maximum performance and safety, ÇUKUROVA ISI A.Ş. recommends inspection of appliances at least once a year and using only original spare parts when necessary and provision of service by authorized personnel. The appliance should never be cleaned with flammable and abrasive materials.

Surroundings of the Heater	Do not store or use flammable materials, fluids, or vapor near the heater. If such materials exist, remove them immediately. See Page 6 SAFETY DISTANCES
Devices and Other Objects	Observe the required distances to inflammable objects. See Page 6 SAFETY DISTANCES Do not hang or place anything on the heater. Make sure that there are no objects under the reflector and between tubes.
Reflector	Support the reflector with the suspender and the Reflector holder. The reflector must not come into contact with the tube. Make sure there is no dirt, sag, crack or warp. Do not operate if there is sag, crack or warp. Make sure the reflectors overlap correctly.
Exhaust Tube	The Exhaust Tube must be in good condition. By using a torch check for clogs, cracks on the tubes, gaps or rust in closed areas. If soot has formed, remove carbon residues or crusts using a wire brush.
Outside Air Inlet	The air inlet should not be blocked. Look for cracks on the pipes, gaps or rust.
Tubes	Make sure there are no cracks. Make sure the tubes are securely fastened and suspended. Make sure there are no sags, bends or warp.
Gas Line	Check for gas leakage.
Fan Blades and Motor	Compressed air or a vacuum cleaner can be used to remove dust and dirt.

Burner Torch and Nipple	Clear clogs (even spider webs create problems). Carefully clean all dust and debris in the burner.
Electrode	In case of cracked ceramic, excessive carbon deposit or electrode wear, replace. Electrode gap should be 3 mm.
Thermostat / Control Panel	There should be no open cables or damage in the Thermostat / Control Panel.
Hanging Points	Make sure the heater is hanging securely. Look for wear scars on the chain or ceiling.
User Manual	If there is a User Manual, make sure that it is legible and correct. User Instructions If you need User Manual, please contact ÇUKUROVA ISI A.Ş. or contact your independent ÇUKUROVA ISI® distributor.





SECTION 18: LABELS AND WARNINGS

LABELS:

THIS APPLIANCE SHOULD BE INSTALLED IN COMPLIANCE WITH LOCAL REGULATIONS, AND SHOULD BE USED IN PROPERLY VENTILATED SPACES. REFER TO USER MANUAL PRIOR TO INSTALLING AND OPERATING THE APPLIANCE.



SILVERSUN EVO

RADIANT HEATER WITH TUBE



ÇUKUROVA ISI A.Ş.
GEPOSB ATATÜRK BULVARI NO: 28 GEBZE/KOCAELİ/TURKEY
T: +90 (262) 751 33 66 F: +90 (262) 751 33 88

CE

1984-20

MODEL NO: SSE 40/60	DATE OF MANUFACTURING: 2020	SERIAL NO: 2000230
CATEGORY: I2H, I2E	GAS PRESSURE: G20-20 mbar	CONSUMPTION: 6.4 m³
APPLIANCE TYPE: B23, A3	MANIFOLD PRESSURE: 7 / 14 mbar	NOX CLASS: 3
INLET POWER Hi: 60 KW Lo: 40 KW	NIPPLE DIAMETER: 6.6 mm	DESTINATION COUNTRY: TR
POWER SUPPLY: 230 V 50 Hz 130W	SERIAL NO: 1984 CO 0215	

WARNING

DISCONNECT GAS AND POWER CONNECTIONS OF THE APPLIANCE BEFORE SERVICING.

ÇUKUROVA ISI
www.cukurovaisi.com

Tel : (0262) 751 33 66

BH001

SILVERSUN
evo

WARNINGS:

!!! WARNING !!!

DANGER: IF YOU SMELL GAS

1. TURN OFF THE GAS.
2. EXTINGUISH ANY OPEN FLAME.
3. CALL YOUR AUTHORIZED SERVICE.

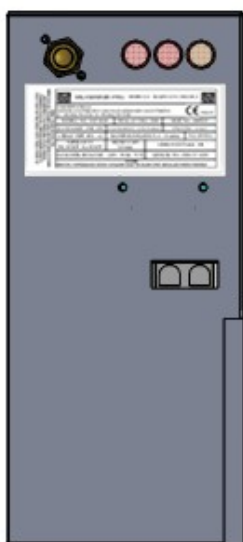
THIS APPLIANCE SHOULD BE INSTALLED IN COMPLIANCE WITH APPLICABLE LAWS AND LOCAL REGULATIONS. PRIOR TO INSTALLING, CHECK LOCAL DISTRIBUTION CONDITIONS, PROPERTIES AND PRESSURE OF GAS AND WHETHER APPLIANCE SETTINGS ARE SUITABLE.

DO NOT PERFORM MAINTENANCE WITHOUT SHUTTING DOWN THE HEATER, CUTTING OFF THE POWER SUPPLY AND COOLING OF THE APPLIANCE TO ROOM TEMPERATURE.

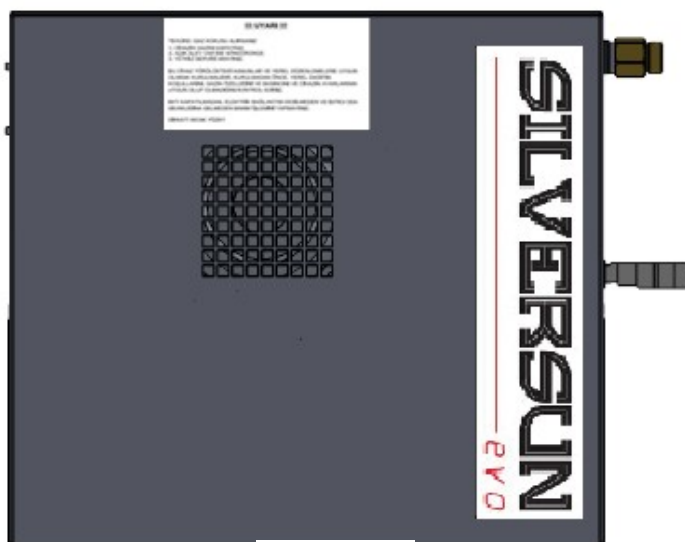
CAUTION! HOT SURFACE

LOCATIONS ON THE HEATER

BACK PANEL



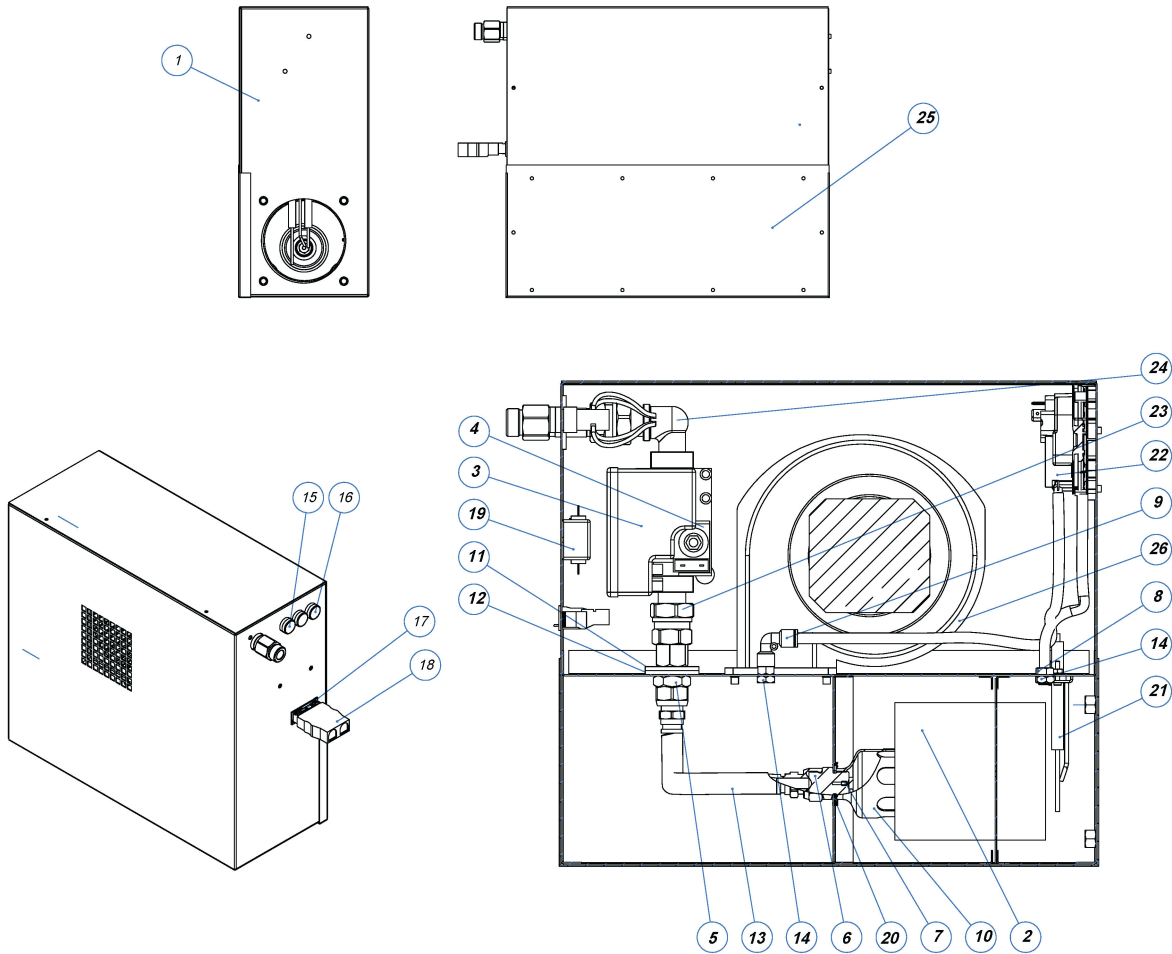
SIDE PANEL



FRONT PANEL



SECTION 19: SPARE PARTS



ITEM NO.	STOCK CODE	STOCK NUMBER	PIECES	ITEM NO.	STOCK CODE	STOCK NUMBER	PIECES
1	26.082	BURNER BOX	1	14		NARROW NUT M10	2
2	26.068	COMBUSTION FLANGE	1	15	26.016	RED LED SIGNAL	2
3	26.032	IGNITION MODULE	1	16	26.018	YELLOW LED SIGNAL	1
4	26.007	SOLENOID VALVE	1	17	26.025	4-PIECE MULTICONNECTOR (MALE)	1
5	26.038	REDUCER 1/2 - 3/8 NOZZLE	1	18	26.025	4-PIECE MULTICONNECTOR(FEMALE)	1
6	26.027	SPECIAL NOZZLE 1/2 (FLEX - TORCH)	1	19	26.002	AMPER FILTER	1
7	26.020	GAS NOZZLE (SSE)	1	20		SERRATED LOCK WASHER M20	1
8	26.021	BRASS YELLOW (AIR HOSE)	1	21	26.030	ELECTRODE	1
9	26.014	AUTO ROTARY ELBOW (AIR PIPE)	1	22	26.033	VACUUM SWITCH	1
10	26.003	COMBUSTION HEAD (TORCH)	1	23	27.073	STRAIGHT BUSH	2
11		WASHER	1	24	26.074	BRASS STREET ELBOW 1/2"	1
12	26.006	RUBBER JOINT	1	25		COMBUSTION CHAMBER COVER	1
13	26.011	GAS FLEX	1	26	26.072-073	FAN (SSE)	1

*** Use only spare parts of Çukurova Isı origin, do not use parts not having Çukurova Isı Warranty certificate. Failing to comply these rules may lead to material damage and voids warranty conditions.

AUTHORIZED SERVICES:

ÇUKUROVA ISI A.Ş.

Headquarter: Feyzullah Mah. Gelişim Sok. Piker Apt. No:9 Maltepe / ISTANBUL

Branch/Factory: Gebze Plastikçiler O.S.B. Atatürk Bulvarı No:28 Gebze / KOCAELİ

Phone: 0 262 751 33 66 Fax: 0 262 751 33 88

www.cukurovaisi.com

WARRANTY CONDITIONS

- Warranty period is 2 (two) years, beginning at the delivery date of the appliance.
- The whole of the goods, including all parts, are under the warranty of our company.
- In case of failure of the goods within the warranty period, time spent for repair is added to warranty period. Repair time of the goods is 30 (thirty) working days at most. This time begins at the date of notification of the failure to the service station or, in case of unavailability of a service station, to any one of the seller, dealer, agent, representative, importer or manufacturer. In case of failure to fix the problem of the goods in 15 (fifteen) days, the manufacturer or importer is obliged to provide another good with similar features to the consumer until the repair of the goods is completed.
- In case of failure of the good due to material and workmanship or assembly faults within the warranty period, the good will be repaired free of any charges under workmanship cost, replaced part cost or any other name.
- Although the consumer exercises the right of repair, if;
 - In addition to the factors of the same failure is repeated more than twice or more than four different failures occur within one year following the date of delivery to the consumer, on the condition that the warranty period has not expired, or the sum of different failures within the specified warranty period is more than six, these failures perpetuate not benefiting from the good,
 - Exceeding the maximum time required for repair,
 - In case of unavailability of service station of the company, a report issued respectively by any one of dealer, agent, representative, importer or manufacturer defining the impossibility of fixing the failure, the consumer can claim replacement of the good free of charge, refund of his money or a price discount proportional to the defect.
- Failures arising from usage against the instructions manual of the good are out of warranty coverage.
- For any problems relating to Warranty Certificate, applications can be forwarded to Republic of Turkey, Ministry of Commerce General Directorate of Consumer Protection and Market Surveillance.

CONDITIONS NOT INCLUDED IN WARRANTY COVERAGE

- Damages and failures due to misuse.
- Damages and failures occurring during loading, unloading, transportation after delivery to the customer.
- Damages and failures due to low or excessive voltage, faulty electrical wiring, using with different voltage from the one specified on the good's label.
- Failures due to usage against the user manuals.
- Failures occurring due to repairs by unauthorized people and using unapproved spare parts.
- Damages and failures due to halogenated hydrocarbon parts of the system or efficient chemicals.
- **THE SELLER IS NOT RESPONSIBLE FOR FAILURES ARISING FROM INAPPROPRIATE USE.**

WARRANTY PERIOD: 2 (TWO) YEARS

DEALER

Gebze Plastikçiler Organize Sanayi Bölgesi
Atatürk Bulvarı No: 28 41400 Gebze/Kocaeli
Tel +(90) 262 751 33 66 – Fax +(90) 262 751 33 88
info@cukurovaisi.com

Quality System Auditing Certificate



ISO 9001:2008 REGISTERED COMPANY

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