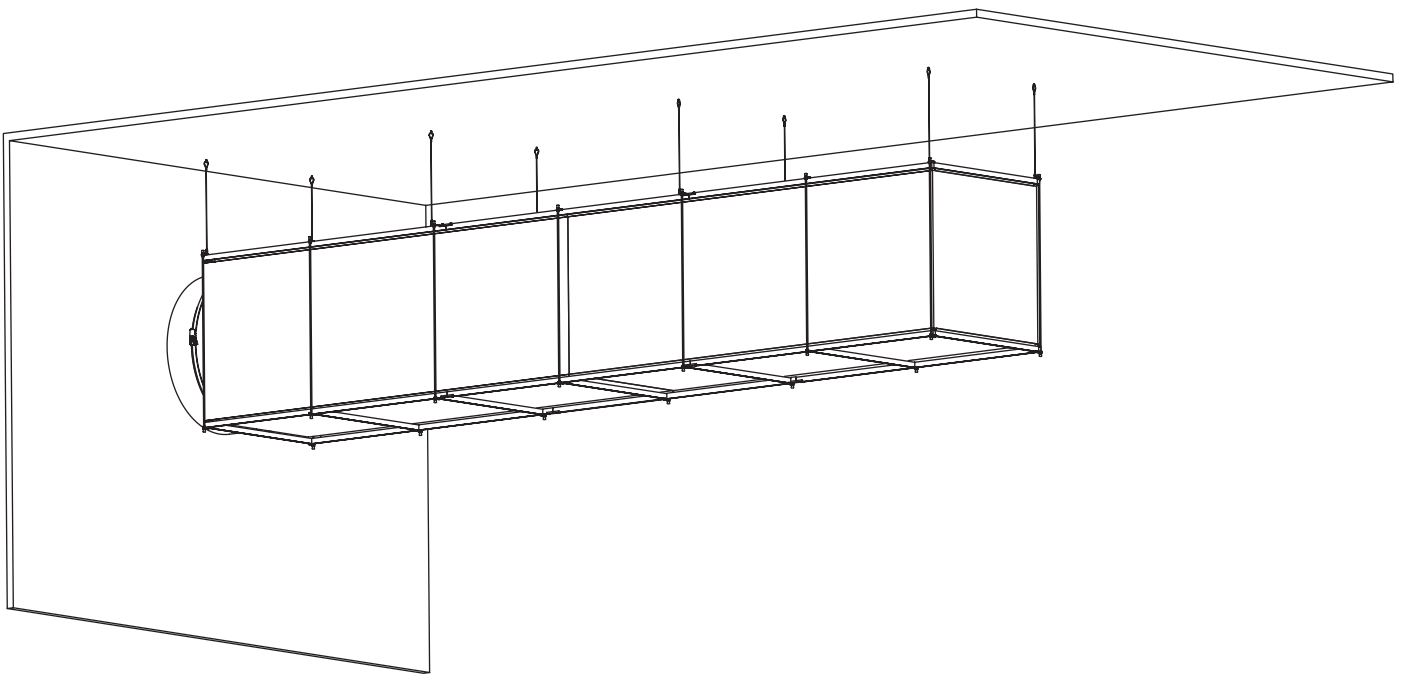


Type 21

Installation Manual



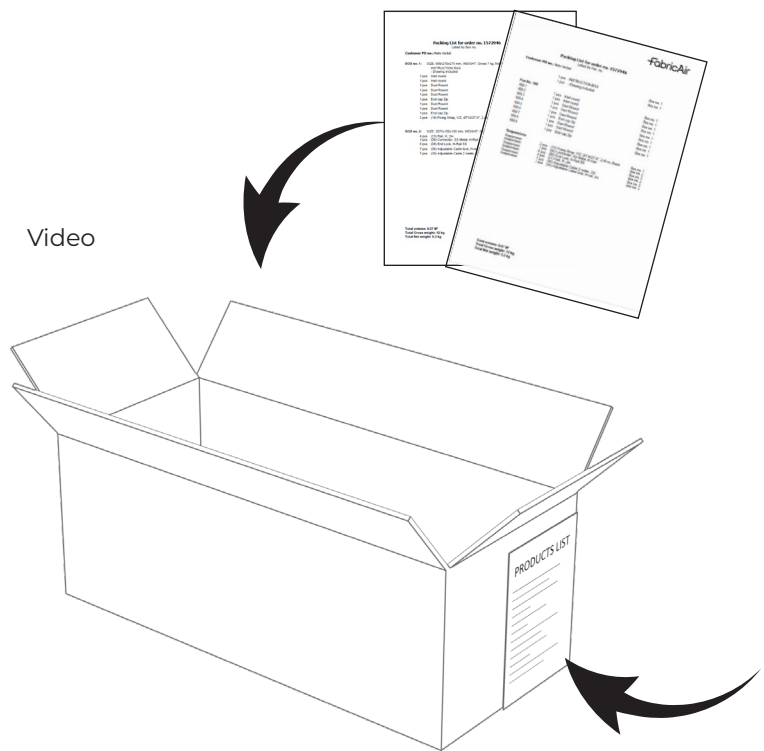
Type 21 suspension is a rectangular duct suspension with cables and adjustable cable locks connecting the suspension frame to the ceiling structure.

Content

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This installation manual describes the generic mechanical installation of the fabric structure (referred to here as the “duct”) and applies to both supply and return air applications.

1.0 OPENING PACKAGE



Box 1 includes all project documentation:

- System Drawing(s)
- Installation Guide
- Packing List (by box)
- Packing List (by positions)

Box number and contents list visible on external box label.

ORDER NO.: 1473677		FabricAir
Contents of box NO. 1/2:		
Instruction bag	1 pcs	
Drawing included	1 pcs	
Distribution Ducts		
Tag. no. 100.1 Inlet		
Tag. no. 100.2 Inlet		
Suspensions		
(05) Stretcher		
(14) Cable lock		
(18) Fixing		

FabricAir		
Packing List for order no. 1572946		
Listed by Pos. no.		
Customer PO no.: Nate Verbal		
	1 pcs INSTRUCTION BAG	Box no. 1
	1 pcs - Drawing included	Box no. 1
Pos No. 100		
100.1	1 pcs Inlet round	Box no. 1
100.2	1 pcs Inlet round	Box no. 1
100.3	1 pcs Duct Round	Box no. 1
100.4	1 pcs Duct Round	Box no. 1
100.5	1 pcs Duct Round	Box no. 1
100.6	1 pcs End cap Zip	Box no. 1
100.7	1 pcs Duct Round	Box no. 1
100.8	1 pcs Duct Round	Box no. 1
100.9	1 pcs End cap Zip	Box no. 1
Suspensions		
Suspension	2 pcs (18) Fixing Strap, Y/Z, Ø710/27.9", 2.46 m, Black	Box no. 1
Suspension	1 pcs (06) Connector, SS Metal, H-Rail	Box no. 2
Suspension	6 pcs (08) End Lock, H-Rail SS	Box no. 2
Suspension	4 pcs (21) Rail, H, 2m	Box no. 2
Suspension	7 pcs (38) Adjustable Cable 2 meter, SS	Box no. 2
Suspension	7 pcs (36) Adjustable Cable lock, H-rail, SS	Box no. 2
Total volume: 0.07 M³		
Total Gross weight: 12 kg		
Total Net weight: 9.3 kg		

FabricAir		
Packing List for order no. 1572946		
Listed by Box no.		
Customer PO no.: Nate Verbal		
BOX no. 1: SIZE: 590x210x275 mm, WEIGHT: Gross 7 kg. Net 5.9 kg.		
INSTRUCTION BAG		
- Drawing included		
1 pcs	Inlet round	Tag No. 100.1
1 pcs	Inlet round	Tag No. 100.2
1 pcs	Duct Round	Tag No. 100.3
1 pcs	Duct Round	Tag No. 100.4
1 pcs	Duct Round	Tag No. 100.5
1 pcs	End cap Zip	Tag No. 100.6
1 pcs	Duct Round	Tag No. 100.7
1 pcs	Duct Round	Tag No. 100.8
1 pcs	End cap Zip	Tag No. 100.9
2 pcs	(18) Fixing Strap, Y/Z, Ø710/27.9", 2.46 m, Black	Suspension
BOX no. 2: SIZE: 2070x150x100 mm, WEIGHT: Gross 5 kg. Net 3.45 kg.		
4 pcs	(21) Rail, H, 2m	Suspension
1 pcs	(06) Connector, SS Metal, H-Rail	Suspension
6 pcs	(08) End Lock, H-Rail SS	Suspension
7 pcs	(36) Adjustable Cable lock, H-rail, SS	Suspension
7 pcs	(38) Adjustable Cable 2 meter, SS	Suspension
Total volume: 0.07 M³		
Total Gross weight: 12 kg		
Total Net weight: 9.3 kg		

1.1 Understanding components table (located on system drawing)

COMPONENTS								
Tag#	Fabric	Color	Flow model			Suspension		
			Primary	Placement	Secondary	Type	Strap length	Material
350404600025	Combi 70	Black 3004			FabFlow		0	GV
100.1	Combi 70	Black 3004			FabFlow		0	GV
100.2	Combi 70	Black 3004	SonicFlow SonicFlow SonicFlow SonicFlow SonicFlow	2:00 3:00 4:00 5:00 6:00	FabFlow	Type 01 AiO	50 mm [2"]	GV

THE CHART SHOWN ABOVE IS AN EXAMPLE

Tag#: the unique number for that section, this is the identifying/unique number for that section.

Tag 3504...##..25: this part is the FabricAir flow straightener that helps manage turbulence and can be zipped into any joint.

Fabric: the fabric selected for this project.

Color: the color selected (standard meaning to select from the standard color chart for that fabric).

Flow model primary: primary dispersion method.

Placement: position of the holes; direction of airflow based on looking in the direction of airflow with the air hitting you from behind.

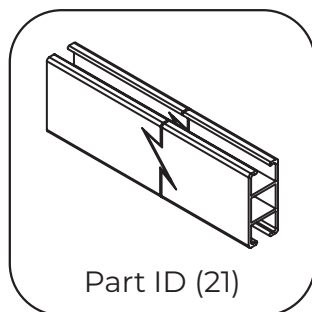
Flow model secondary: FabFlow for permeable fabrics.

Suspension type: the suspension model selected for the project.

Strap length: the length of the strap from the top of the duct to the suspension.

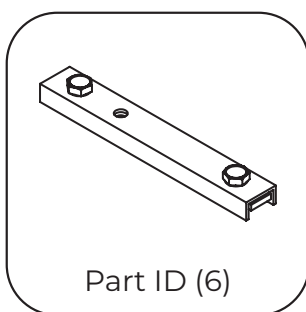
1.2 Type 21 suspension components (located on packing lists)

Suspension frame



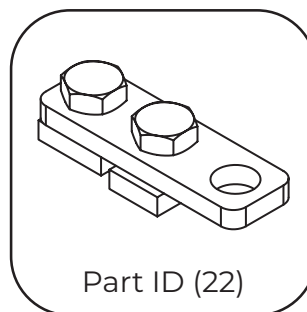
Part ID (21)

H-Rail profile



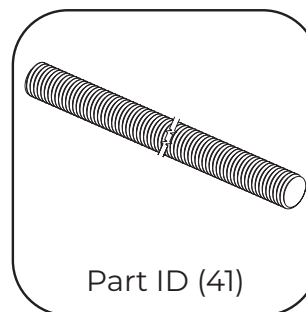
Part ID (6)

Connector for H-Rail



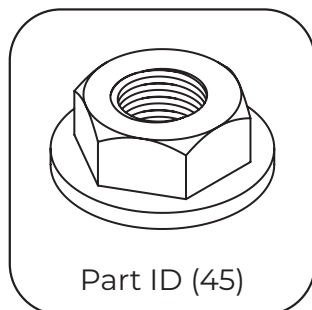
Part ID (22)

T-connector



Part ID (41)

Threaded rod



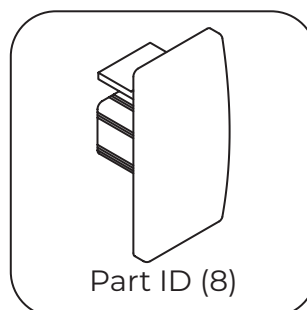
Part ID (45)

Flange nut



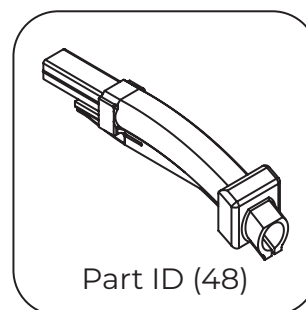
Part ID (44)

Threaded rod cap



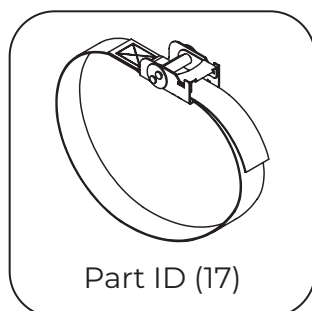
Part ID (8)

H-Rail endcap



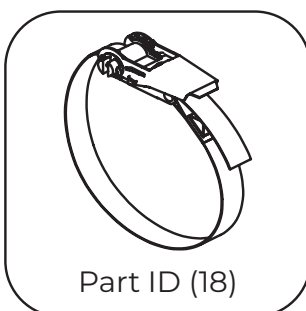
Part ID (48)

RapidSlider feeder
H-Rail



Part ID (17)

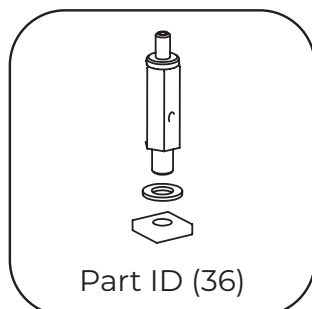
Fixing strap for duct
 $\varnothing < 508 \text{ mm [20"]}$



Part ID (18)

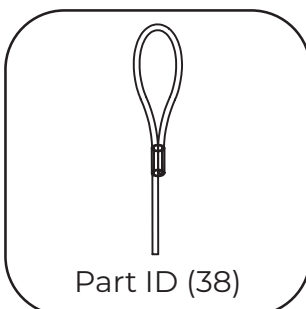
Fixing strap for duct
 $\varnothing > 508 \text{ mm [20"]}$

Suspension vertical hangers



Part ID (36)

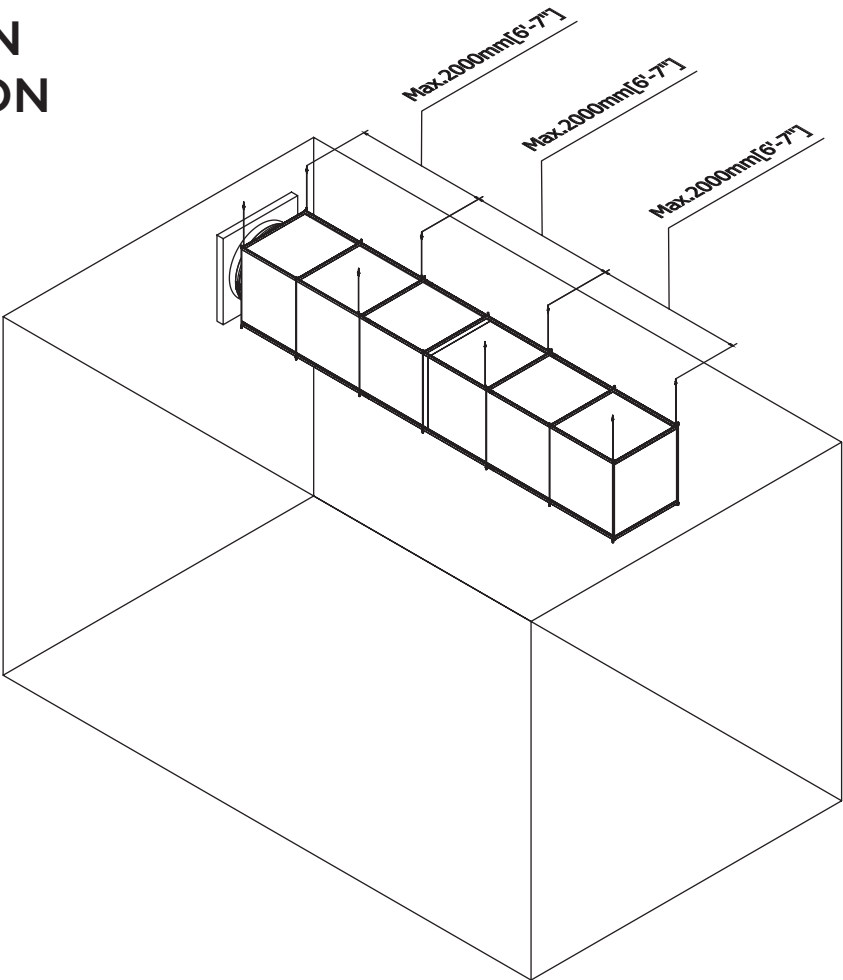
Adjustable cable lock



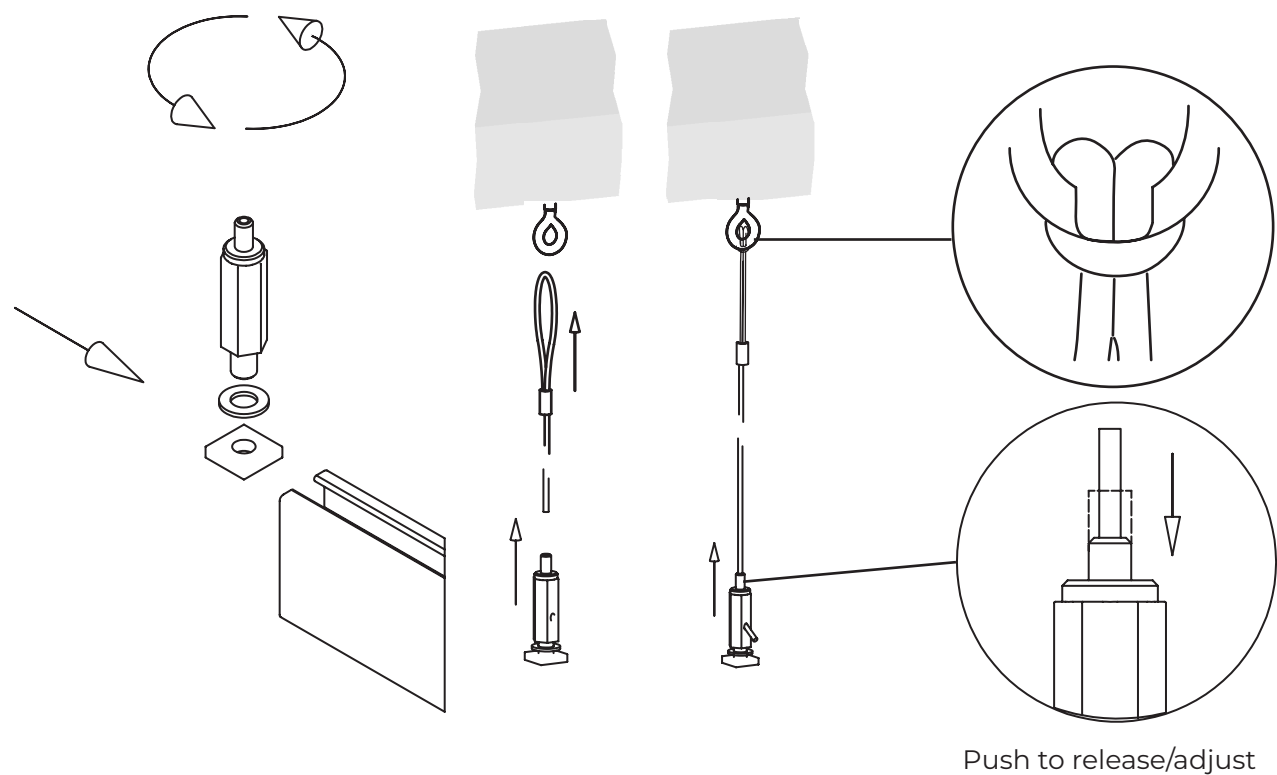
Part ID (38)

Pre-looped
suspension cable

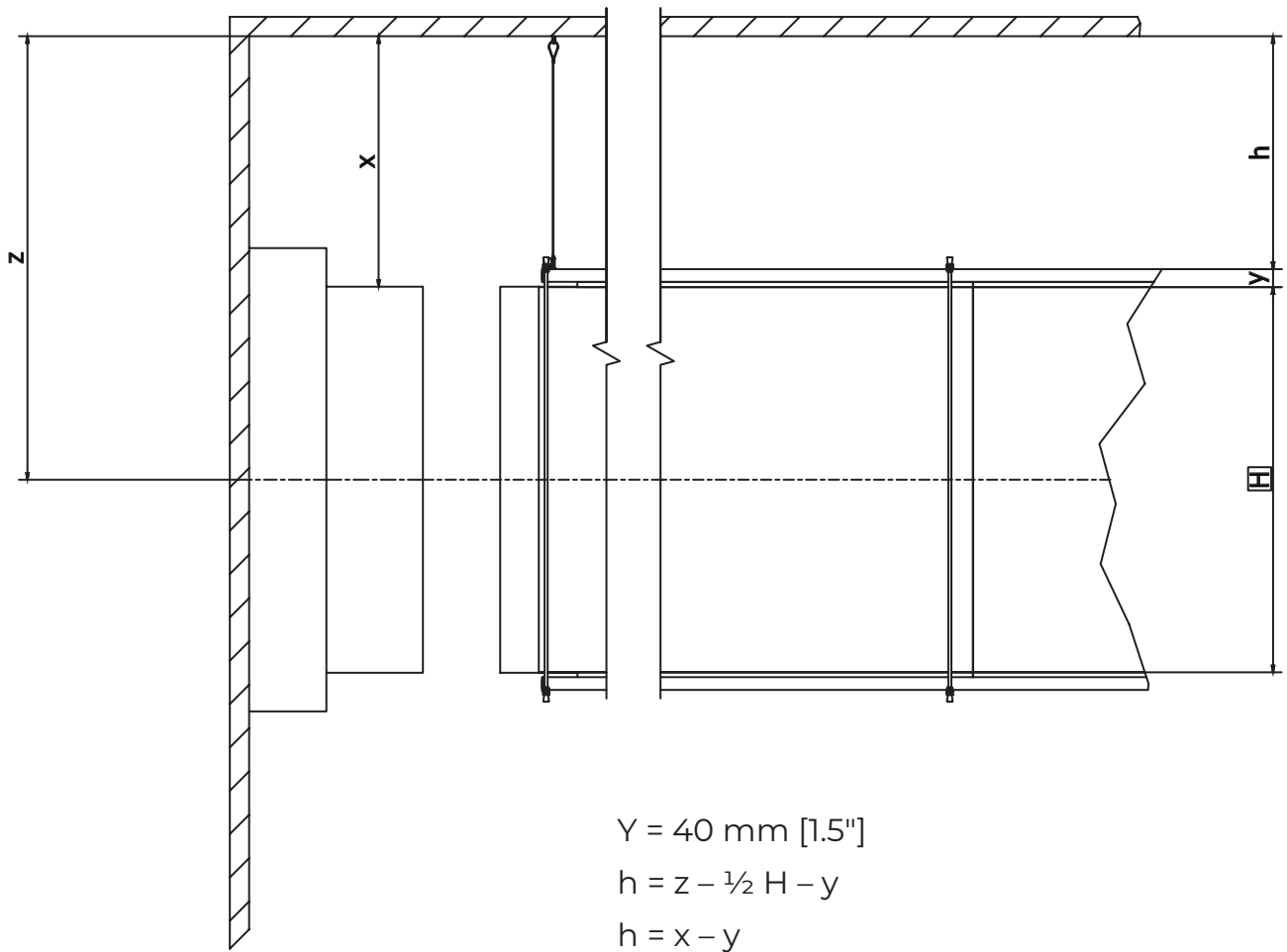
2.0 SUSPENSION INSTALLATION



2.1 Vertical hangers



Ceiling fasteners are not part of the FabricAir delivery.



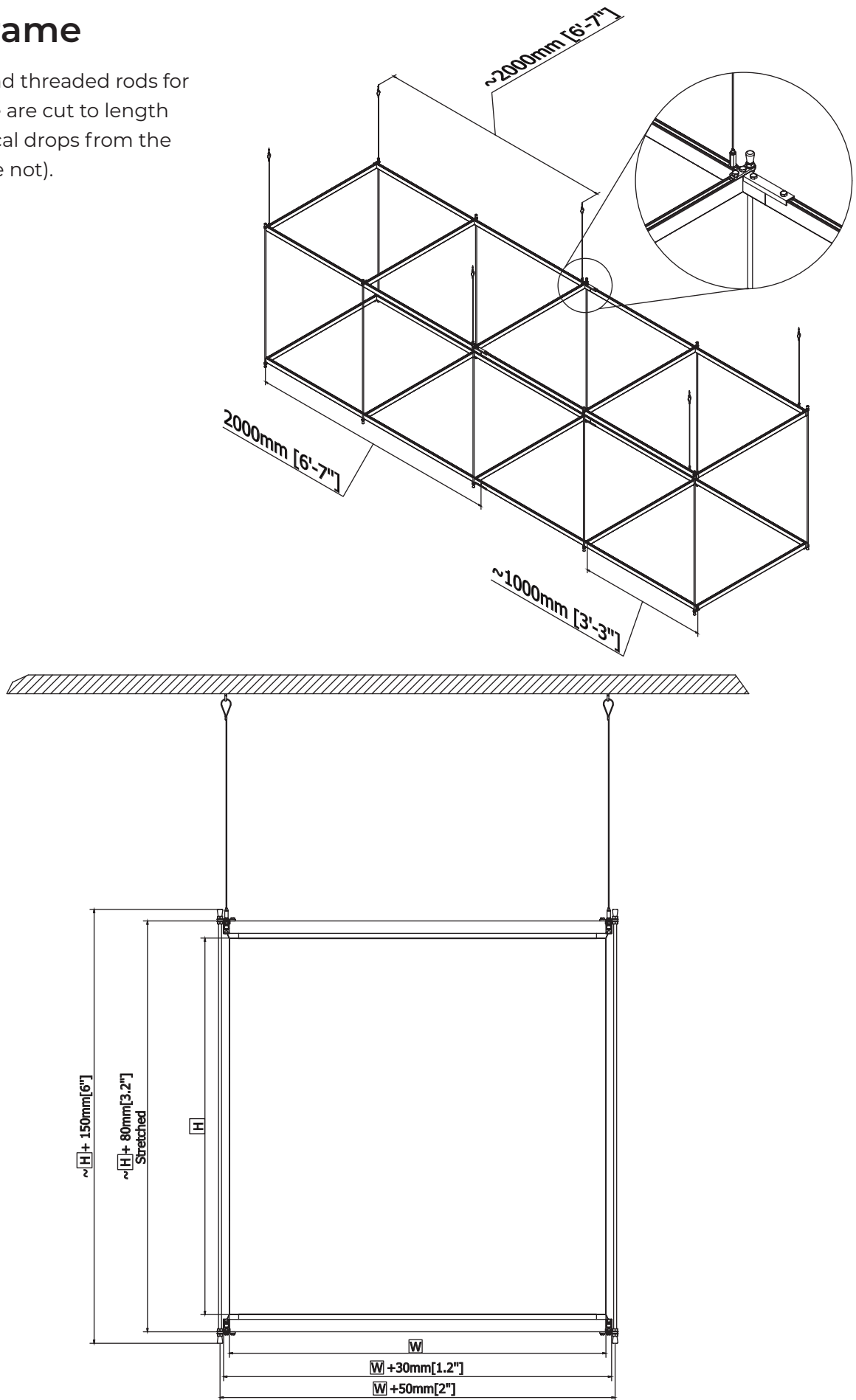
Dimensions given in squares (□) can be found in system drawings packed in the shipping box.

NOTE! Hardware quantities for vertical hangers are calculated based on 2 m [6'-7"] spacing.

Installer must request additional hardware if vertical anchor spacing is to be less than 2 m [6'-7"].

2.2 Frame

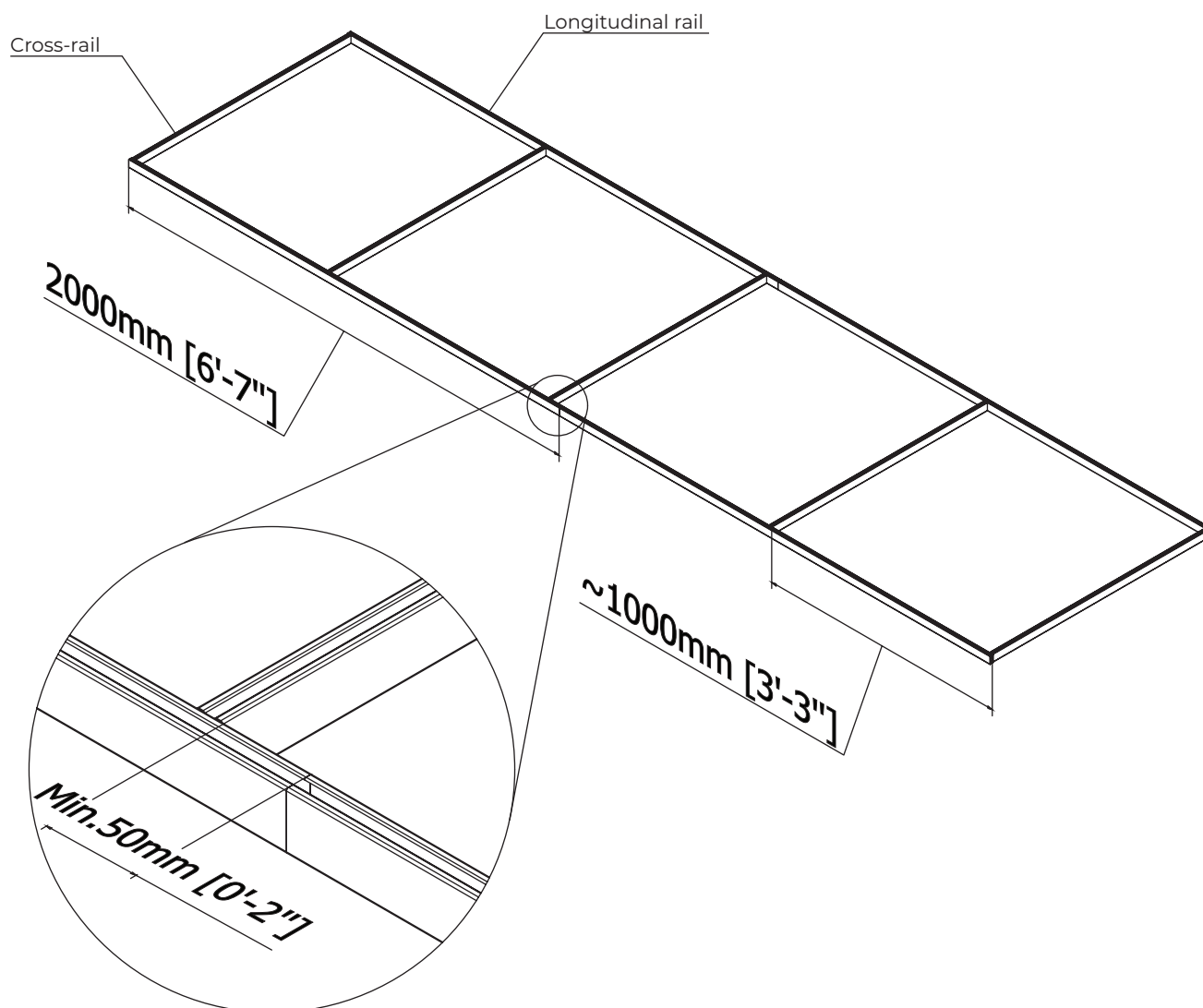
All rails and threaded rods for the frame are cut to length (the vertical drops from the ceiling are not).



Dimensions given in squares (□) can be found in system drawings packed in the shipping box.

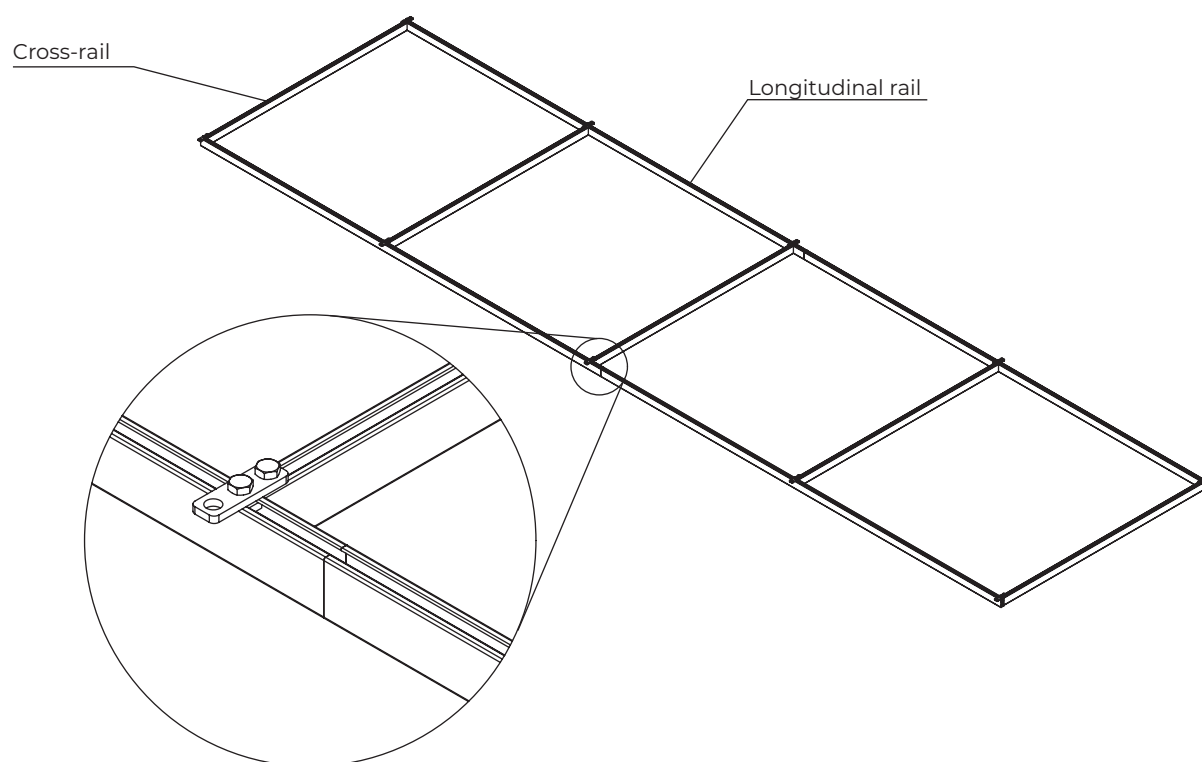
2.2.1 Build the lower half of the frame in 2 meter sections. Each with 2 longitudinal rails and 2-3 cross rails

- 1 Place the longitudinal and cross-rails on the floor for the lower half of the frame. Keep the distance between the cross-rails approx. 1000 mm [3'-3"]



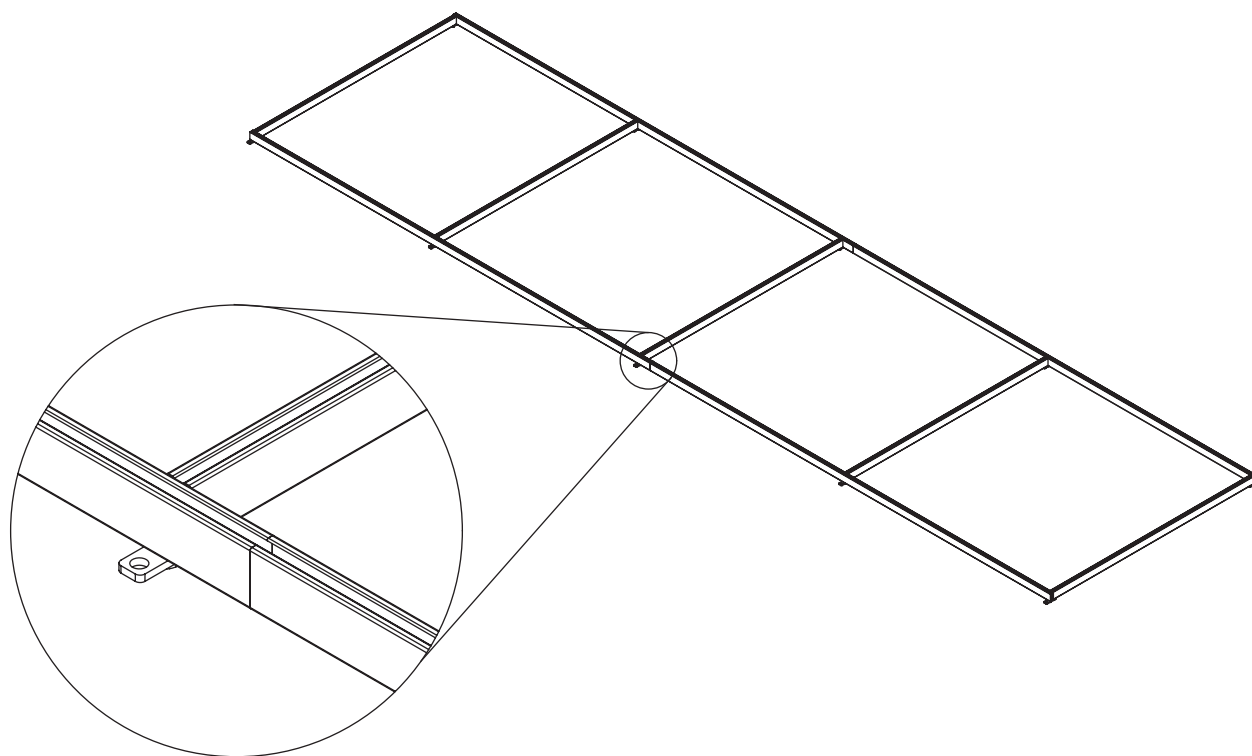
2

Connect the longitudinal and cross-rails with connectors *ID (22)*

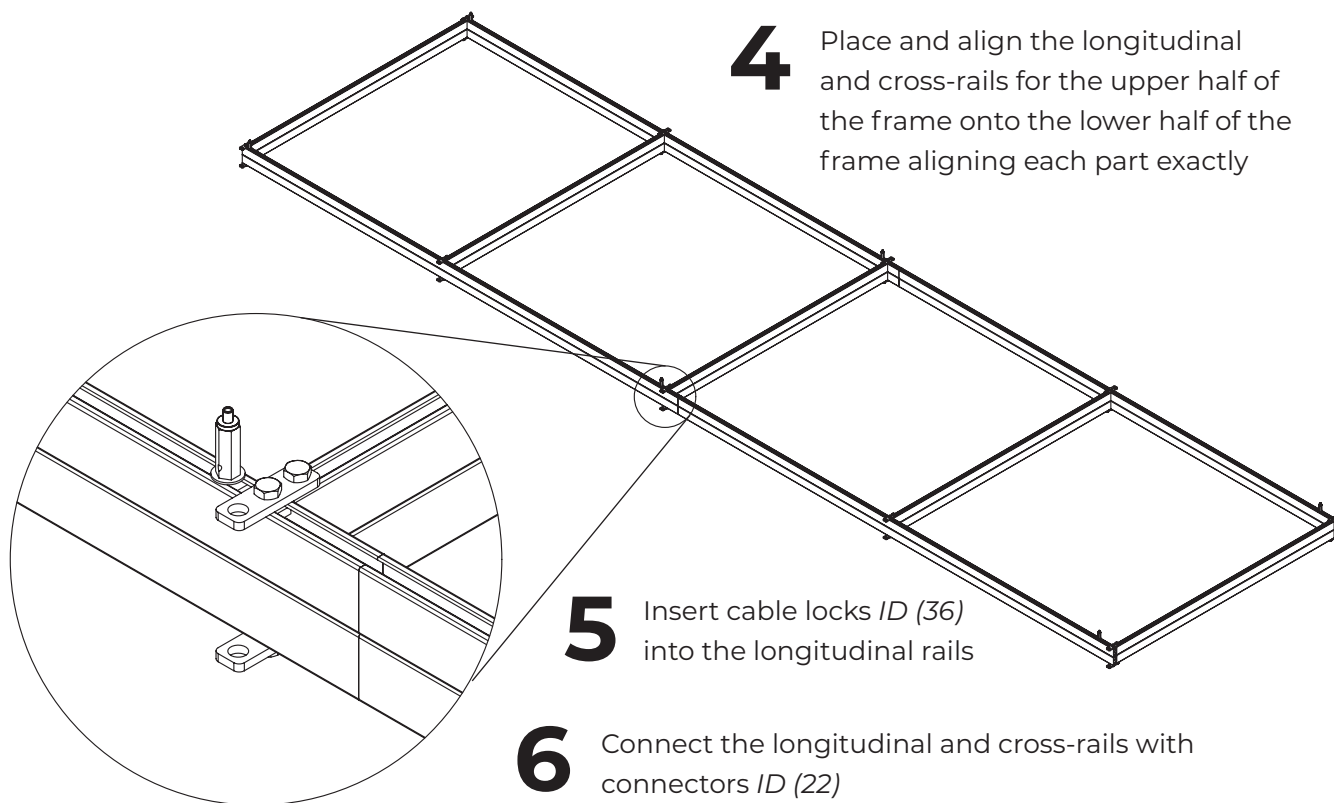


3

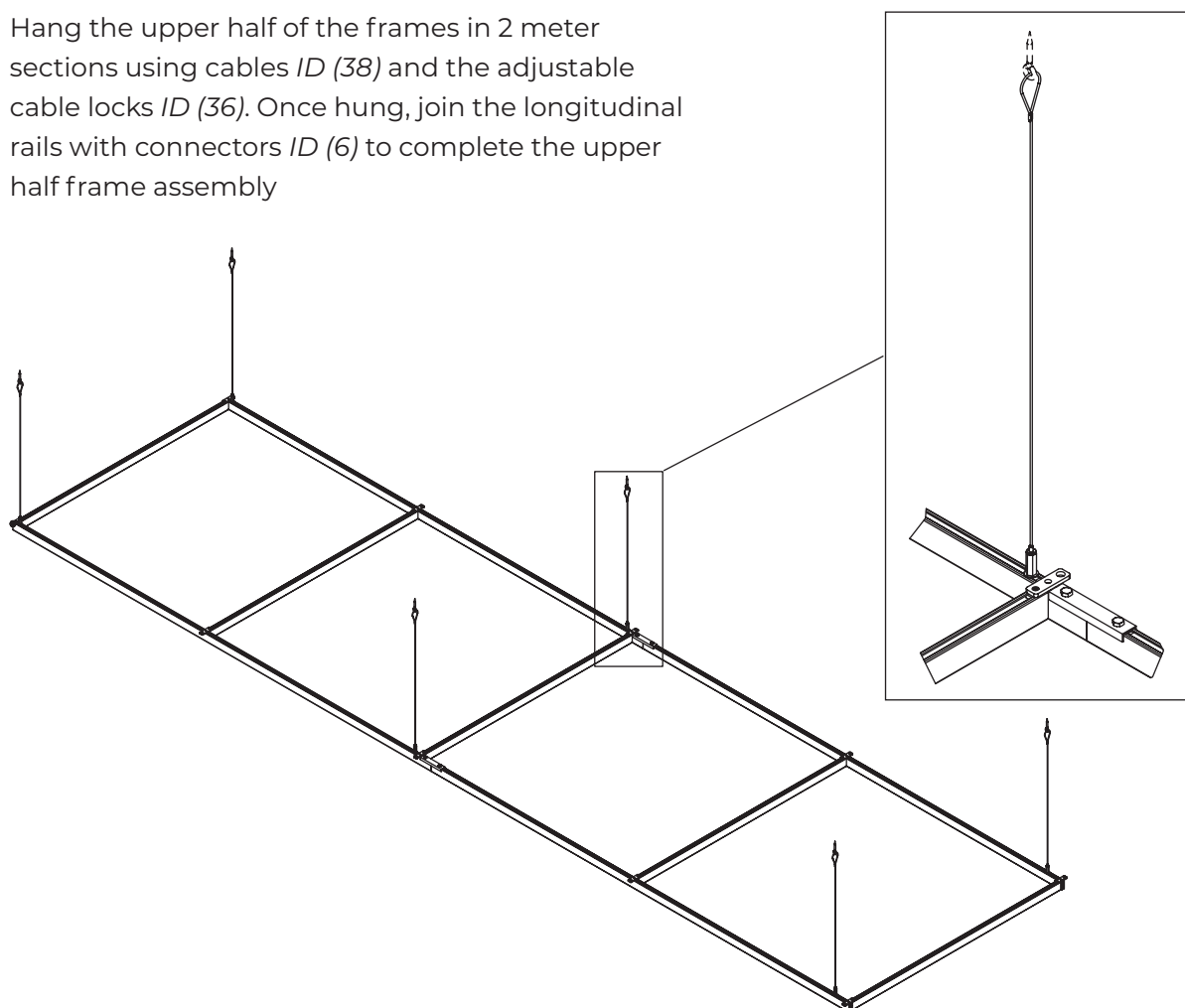
Turn the assembly upside down



2.2.2 Now build the upper half of the frame, on top of the lower frame in 2 meter sections. Each with 2 longitudinal rails and 2-3 cross-rails



7 Hang the upper half of the frames in 2 meter sections using cables *ID (38)* and the adjustable cable locks *ID (36)*. Once hung, join the longitudinal rails with connectors *ID (6)* to complete the upper half frame assembly



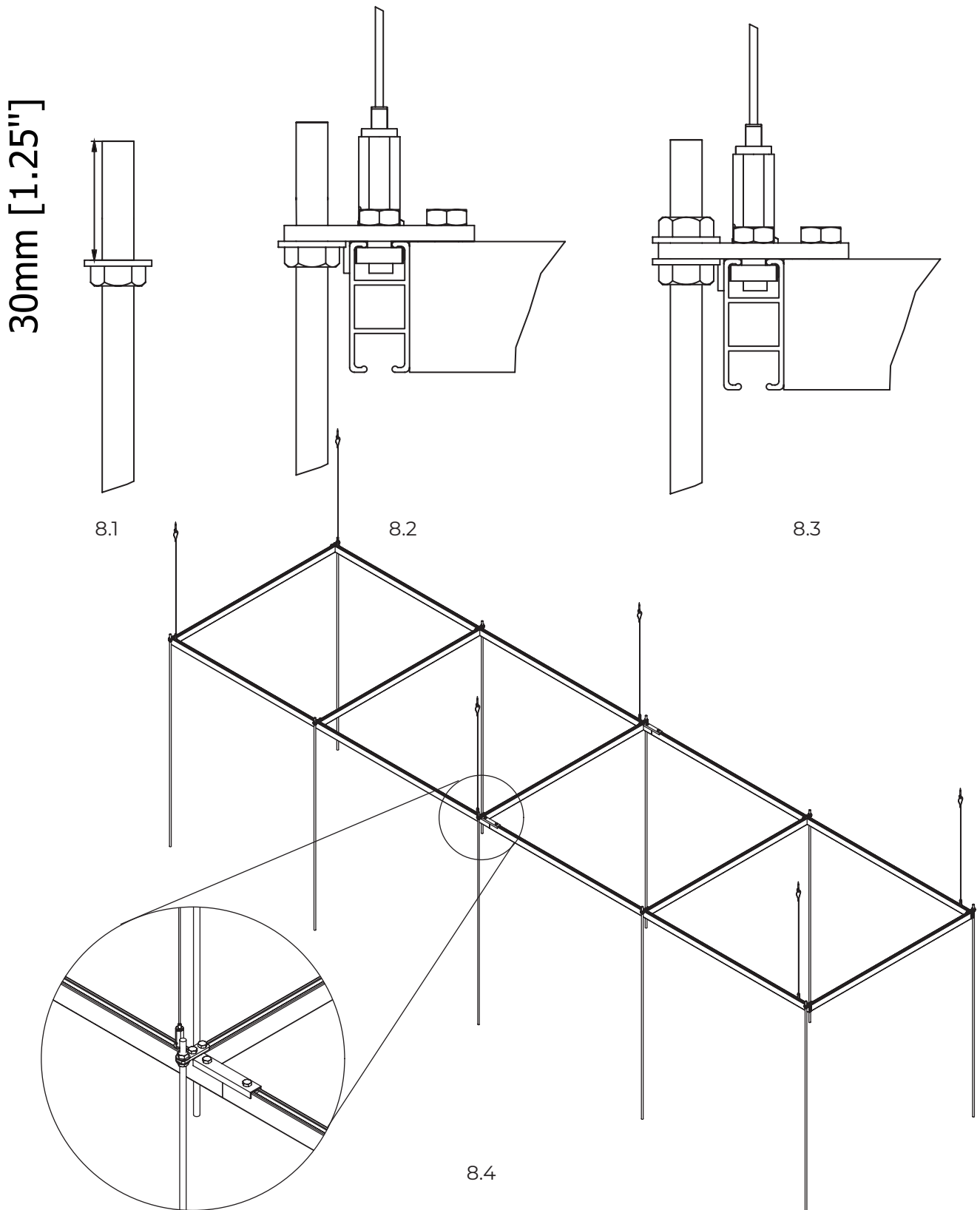
2.2.3 Attach the threaded rods to the upper half frame assembly

8.1 Screw the top lower flange nut *ID (45)* on the threaded rod *ID (41)*

8.3 Screw the top upper flange nut *ID (45)* to fix in place

8.2 Insert threaded rods *ID (41)* into the connectors *ID (22)* from below

8.4 Repeat until all threaded rods are attached to the upper half frame



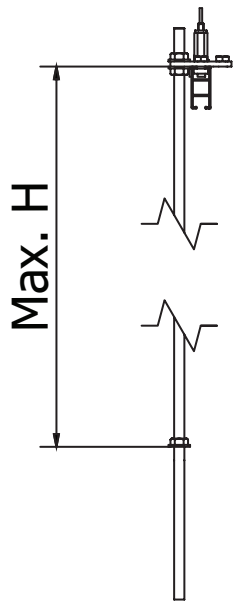
2.2.4 Connect the lower half of the frame to the upper half

9.1 Screw the bottom upper flange nut *ID (45)* on the threaded rod *ID (41)*

9.3 Screw the bottom lower flange nut *ID (45)* to fix in place

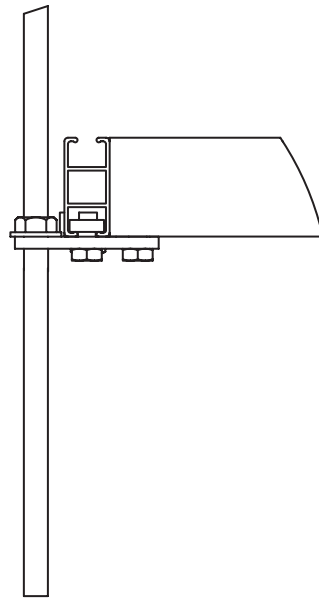
9.2 Lift the lower half of the frame until the bottom upper flange nuts *ID (45)*

9.4 Join the longitudinal rails with connectors *ID (6)*

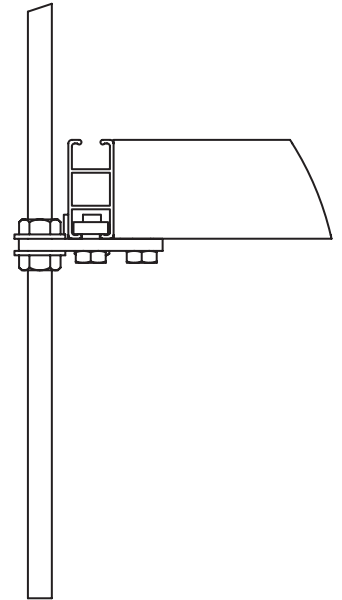


H – fabric duct height

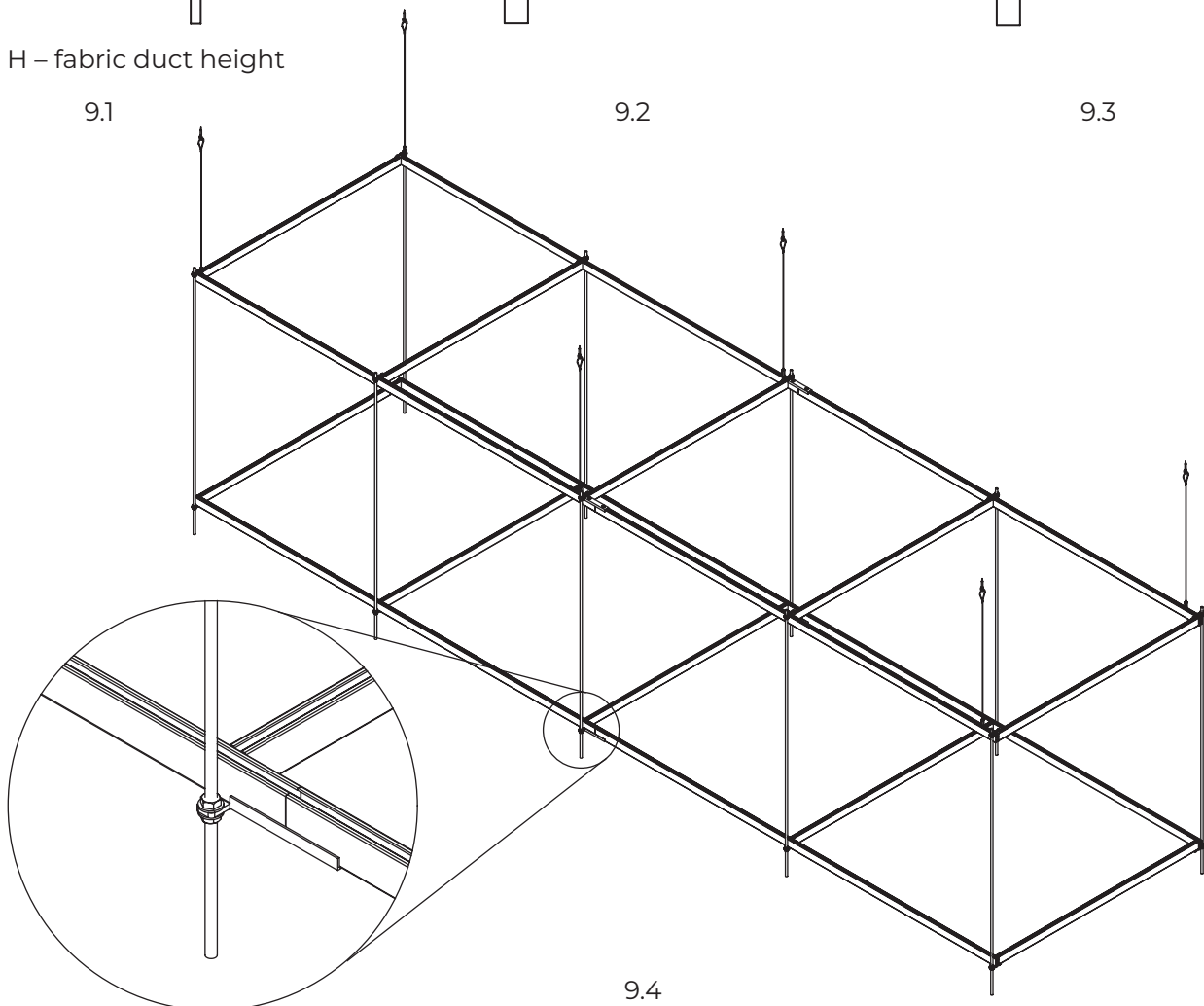
9.1



9.2



9.3

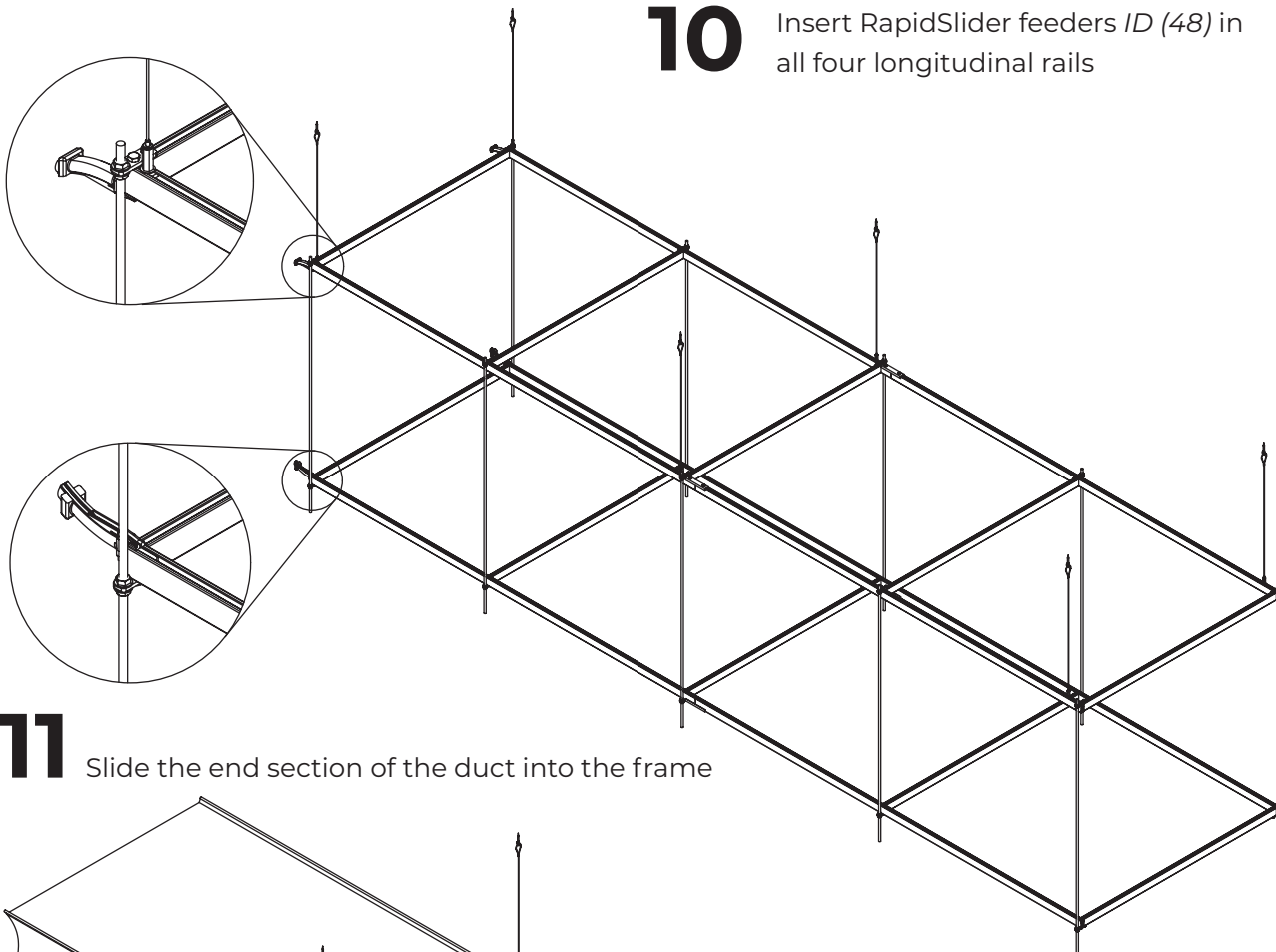


9.4

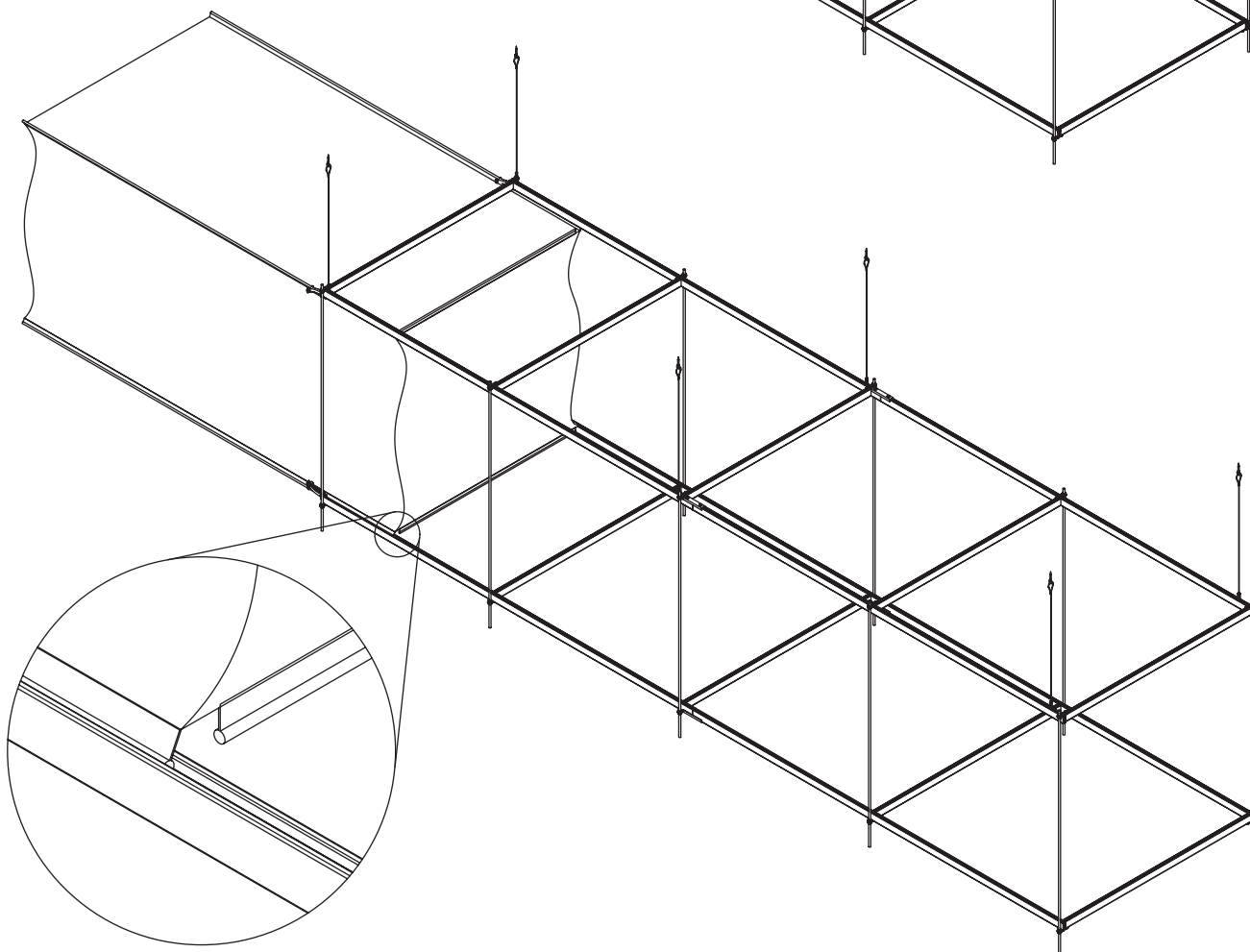
3.0 INSTALLING AND TENSIONING THE FABRIC

3.1 Install the fabric into the frame

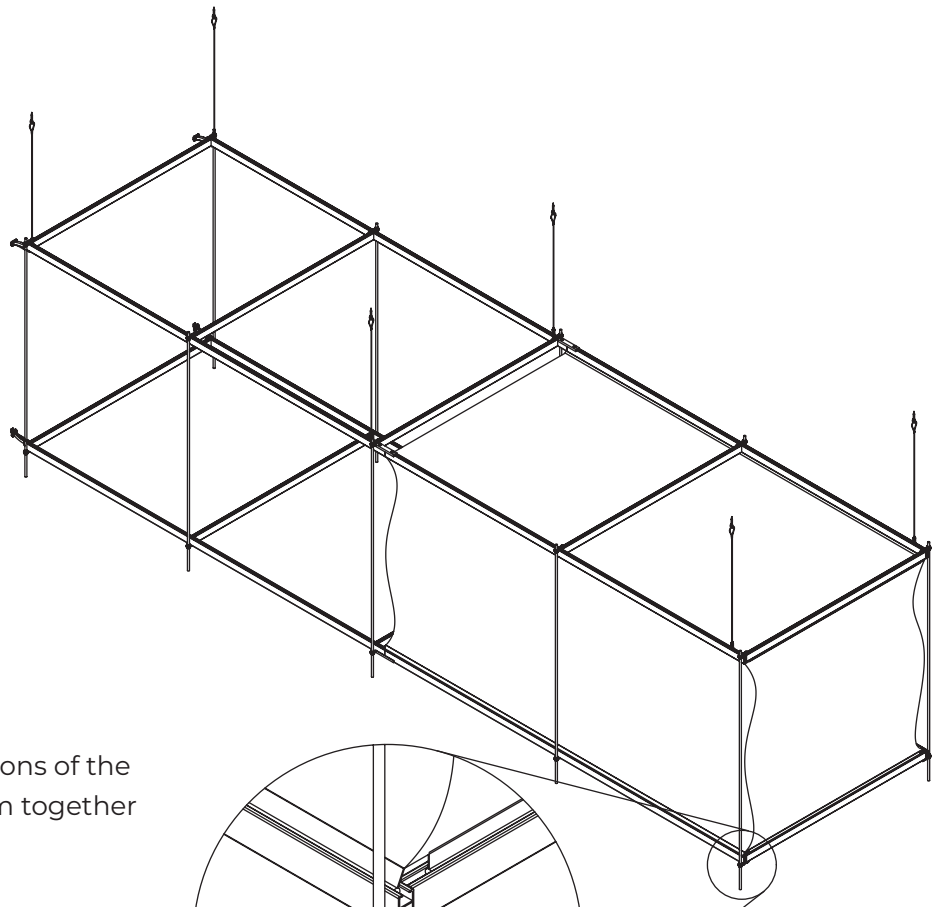
10 Insert RapidSlider feeders *ID (48)* in all four longitudinal rails



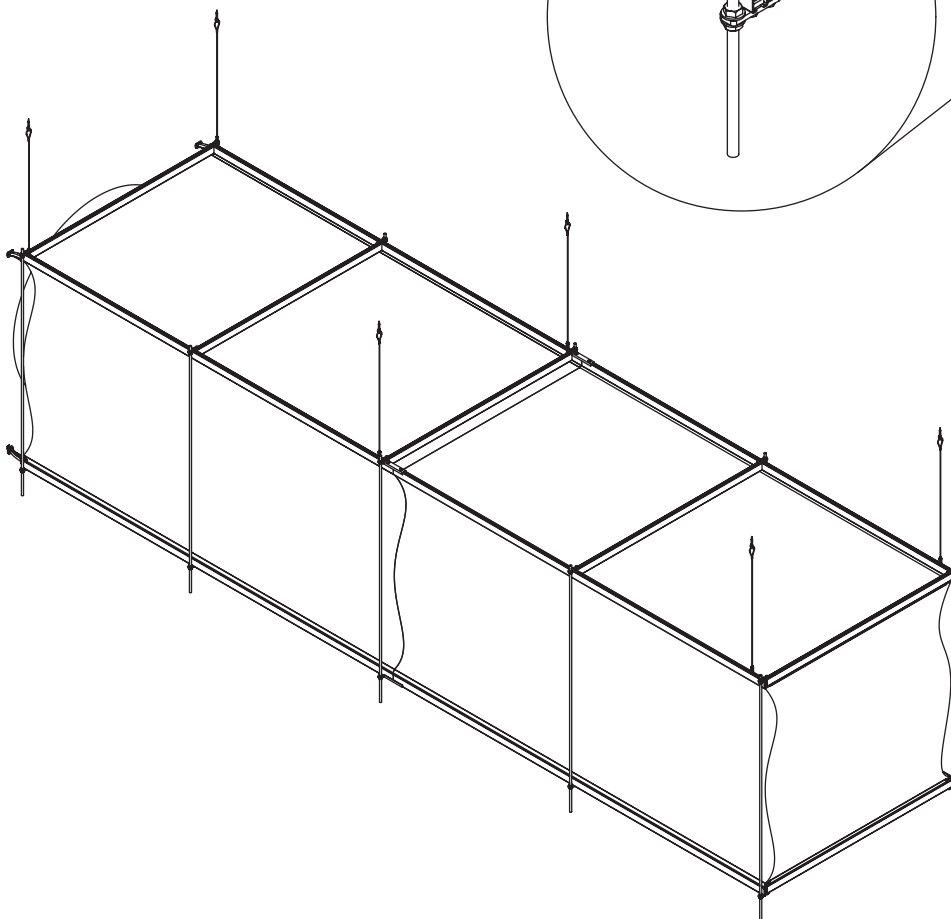
11 Slide the end section of the duct into the frame



12 Affix (press in) the bulb edge into the top and bottom cross-rails at the end of the duct

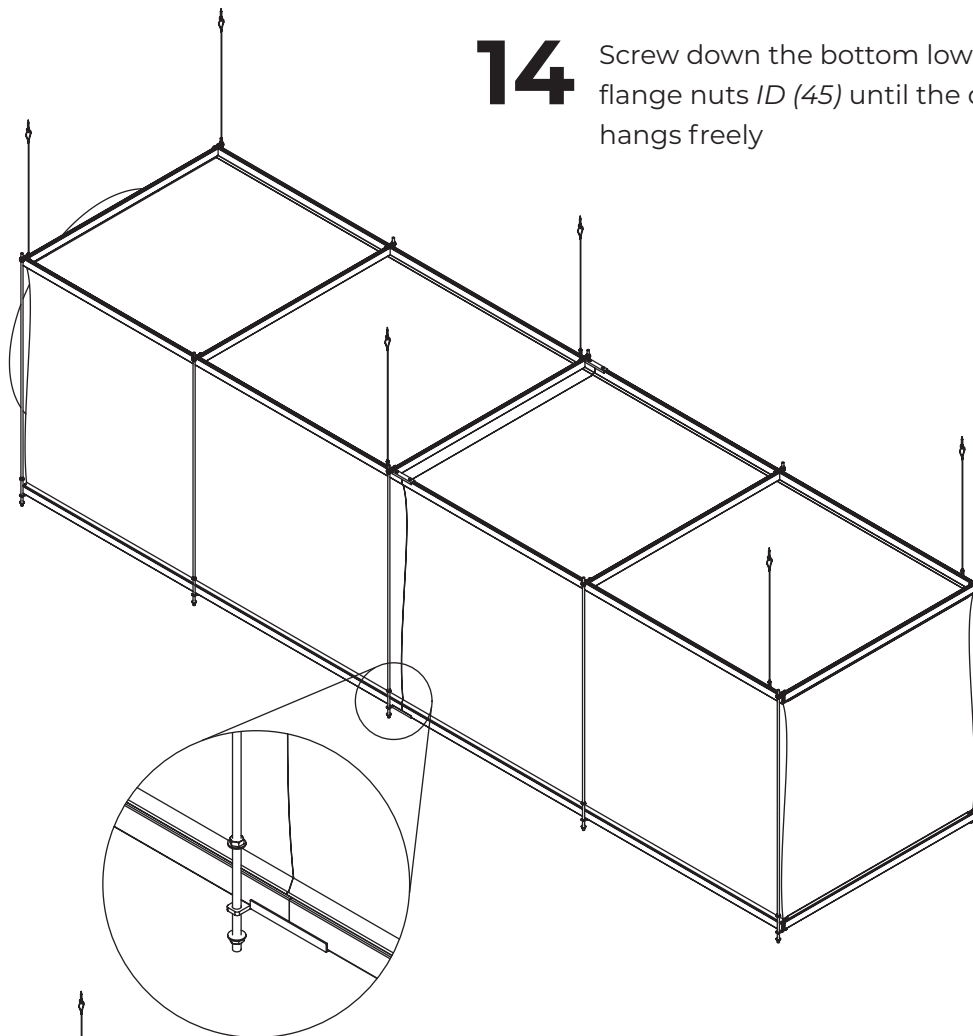


13 Slide in next sections of the duct and zip them together

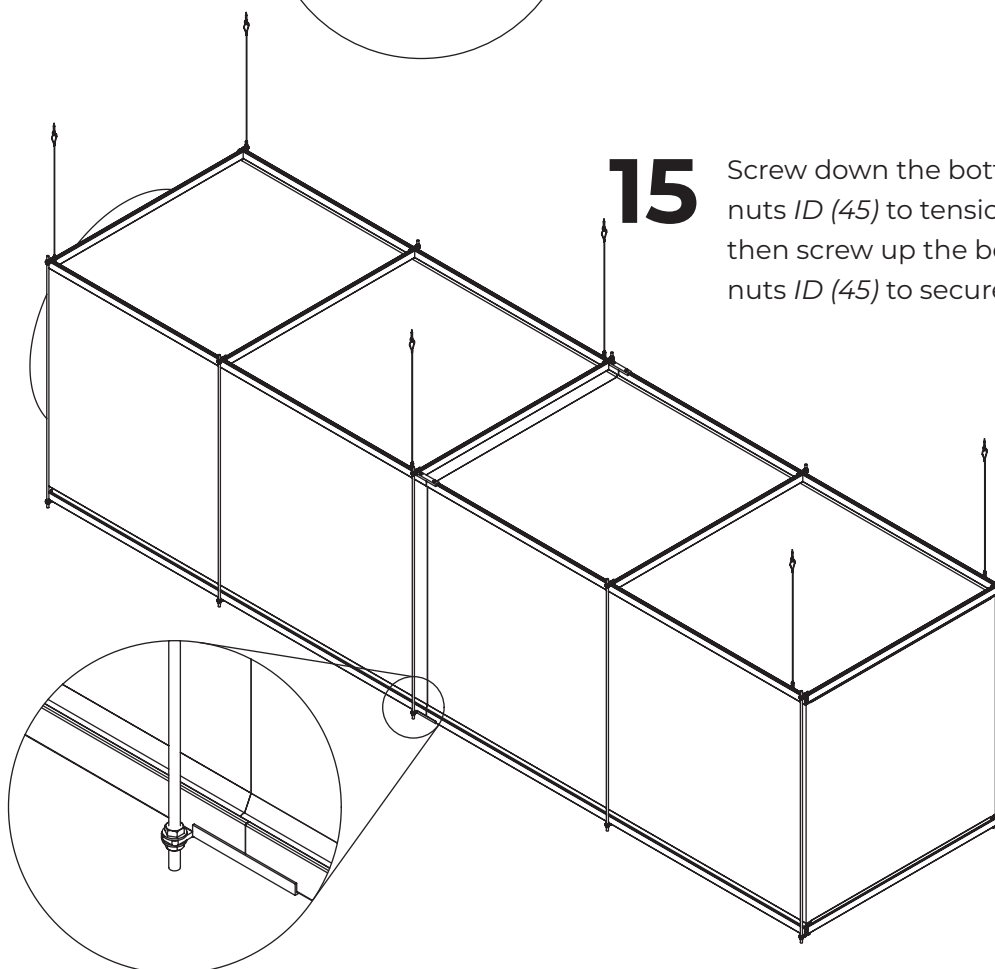


3.2 Tension the fabric

- 14** Screw down the bottom lower flange nuts *ID (45)* until the duct hangs freely

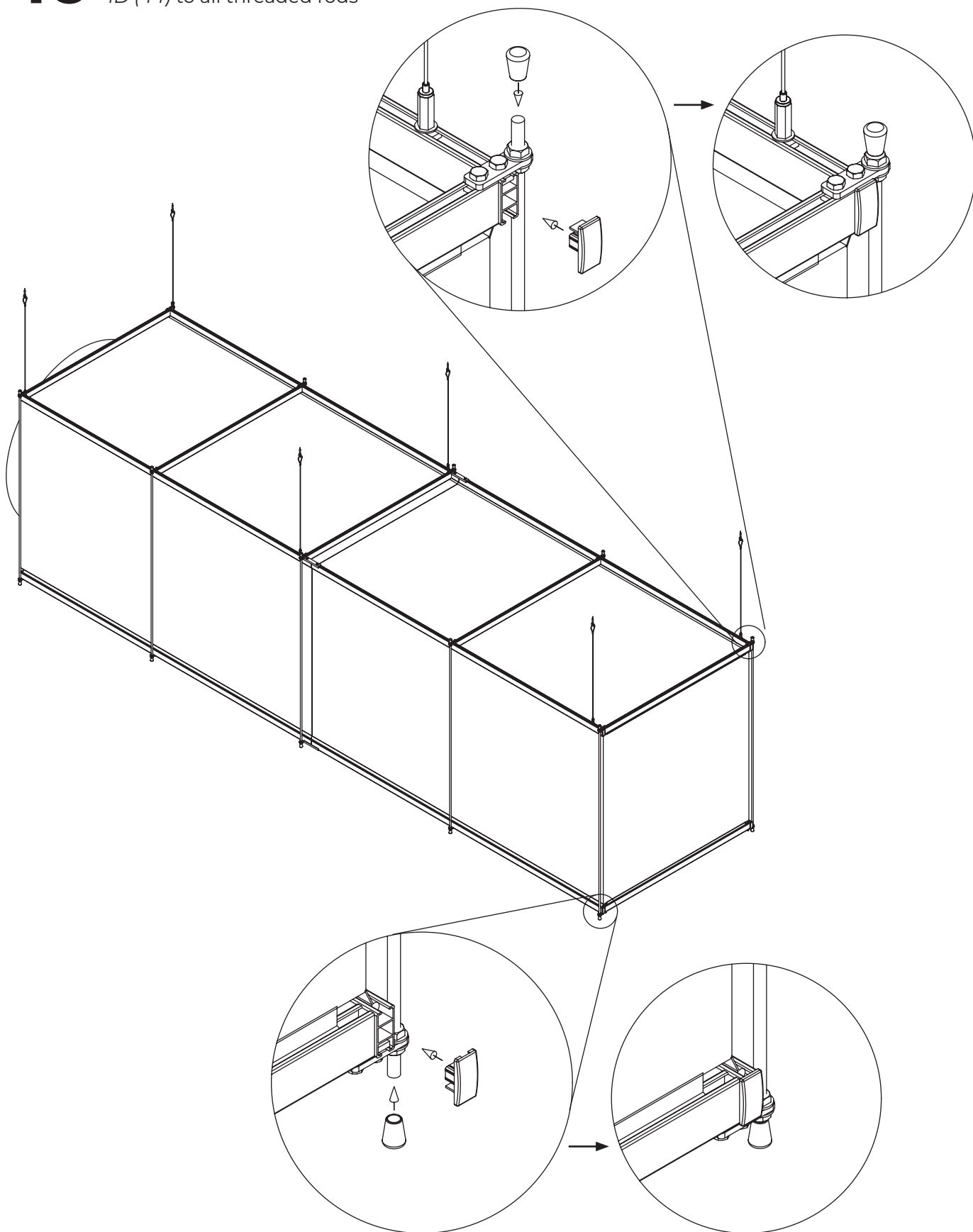


- 15** Screw down the bottom upper flange nuts *ID (45)* to tension the duct walls; then screw up the bottom lower flange nuts *ID (45)* to secure in place



16

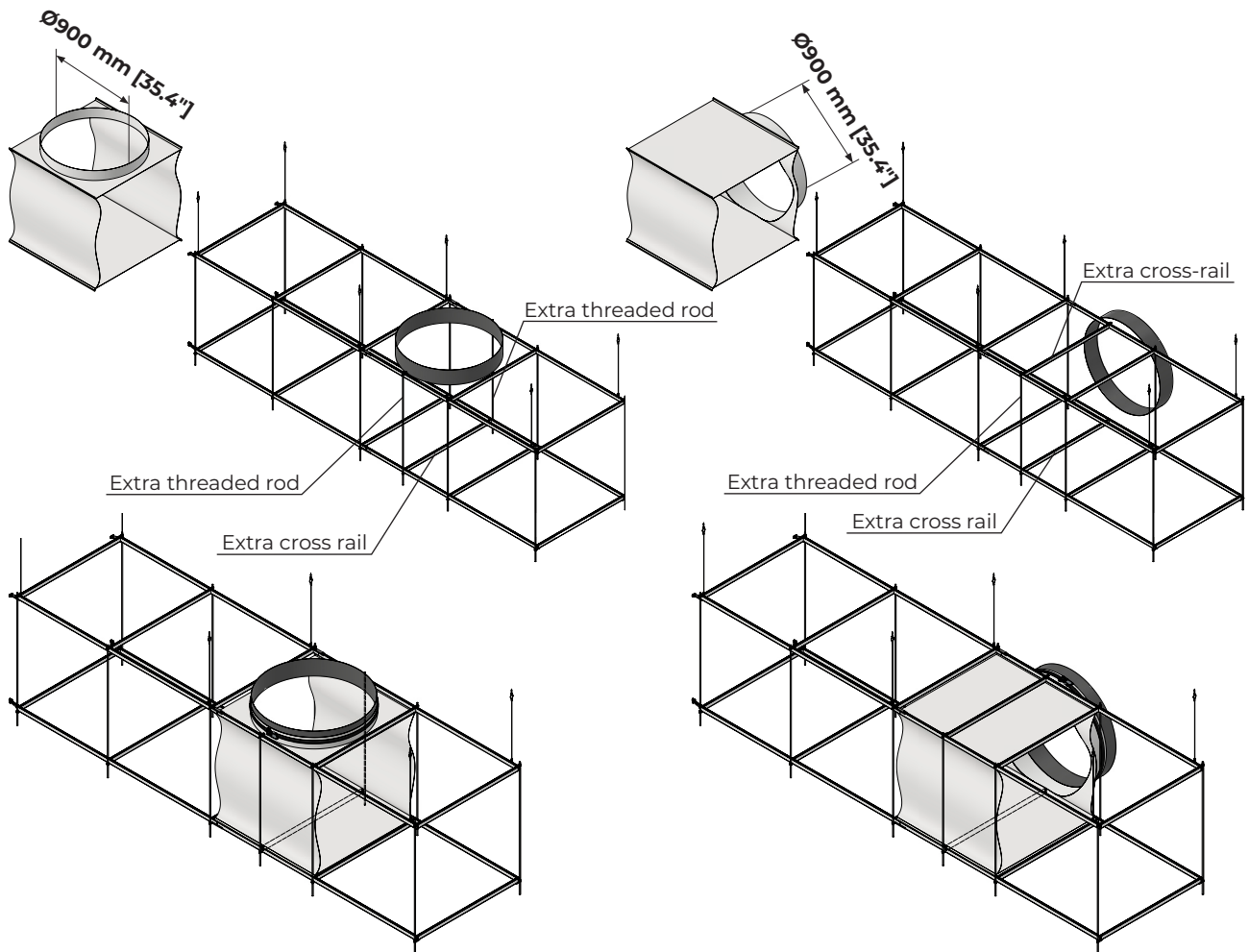
Add rail endcaps *ID (8)* to all open ends of longitudinal rails, and rod caps *ID (44)* to all threaded rods



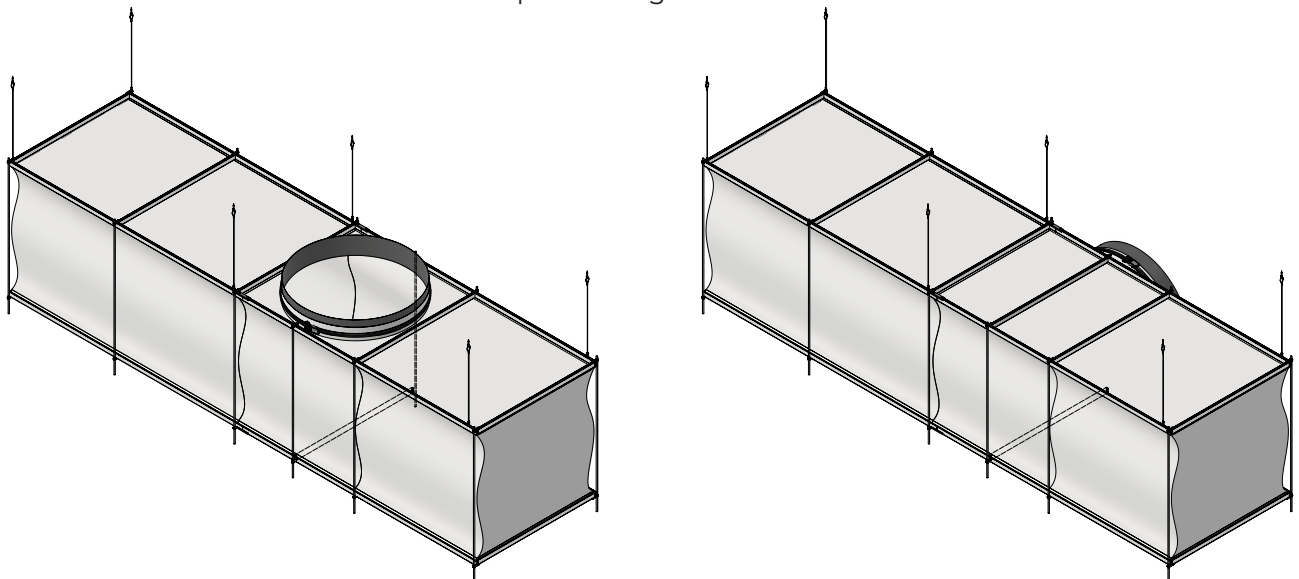
4.0 INLETS FROM SIDES, TOP OR BOTTOM OF THE DUCT

Inlets ≥ 900 mm [35.4"] in length must be supported by extra cross-rails and threaded rods (included in the delivery) centered to the inlet. Shorter inlets do not require the extra support.

Slide in the fabric section containing the inlet first, and connect it to the sheet metal part



Slide in the other fabric sections and zip them together

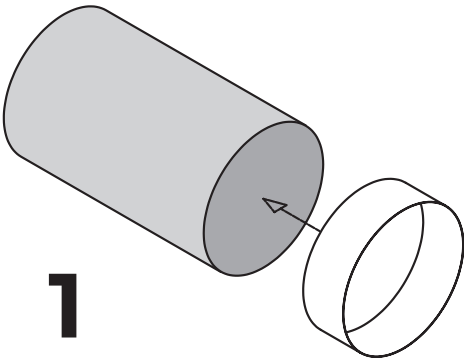


Tension the duct following steps 14 – 16

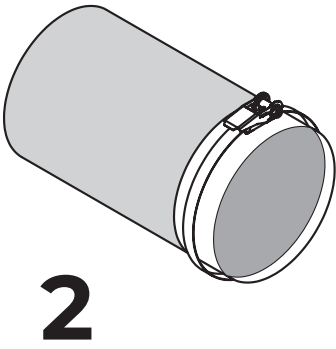
5.0 CONNECTION TO SHEET METAL PART

	Basic inlet	Cover inlet
Min. metal duct length required	50 mm [2"]	50 mm [2"]
Inlet length	Min. 50 mm [2"] Std. 100 mm [4"]	Min. and std. 100 mm [4"]

Basic inlet

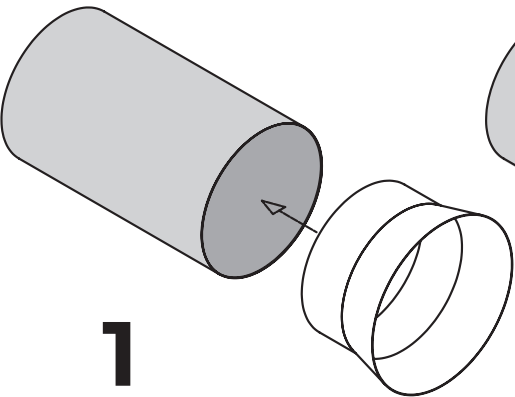


Put inlet on the duct

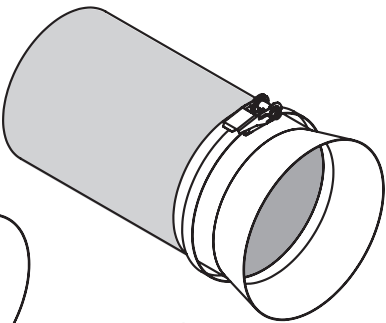


Put and tighten the fixing strap

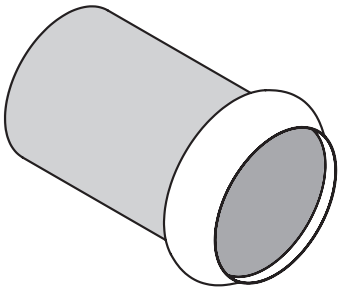
Cover inlet



Put inlet on the duct

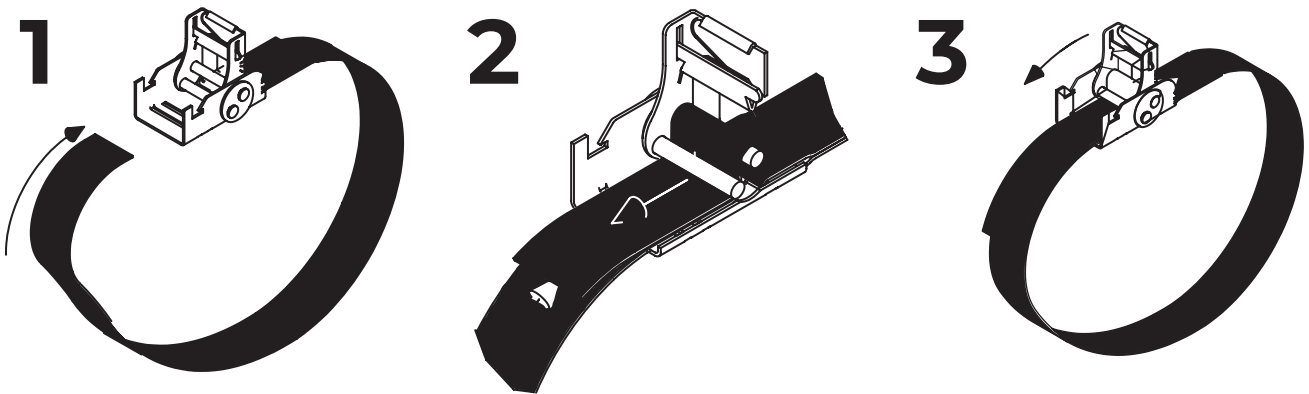


Put and tighten the fixing strap

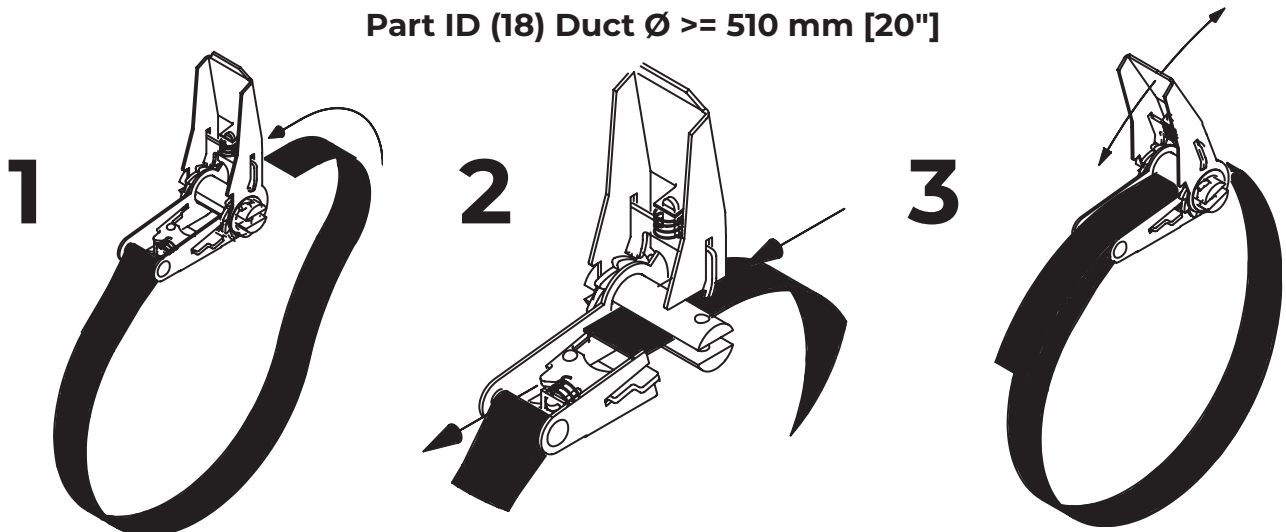


Close the cover

Part ID (17) Duct Ø < 510 mm [20"]



Part ID (18) Duct Ø ≥ 510 mm [20"]



For rectangular inlets please refer to the Rectangular Inlet installation manual packed in the shipping box.