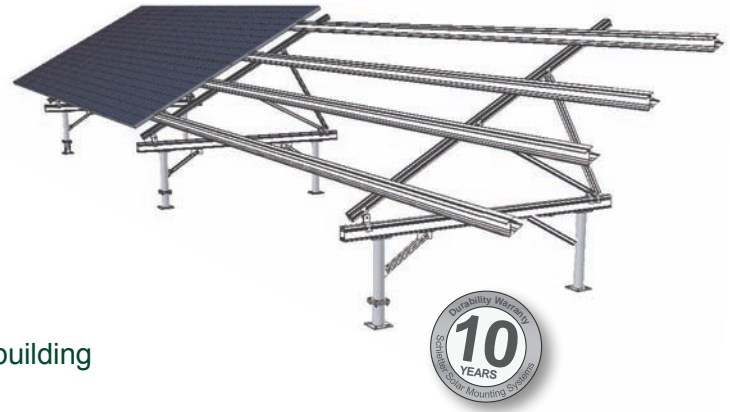




## IsoTop™

### Features and Benefits

- Ideal for industrial membrane roofs and special construction
- Support widths of up to 33 ft (10 m)
- Reduced load onto the roof substructure
- Direct load transfer into the supporting structure of the building
- Complete Schletter assistance with project planning
- Minimal roof penetration points



### Areas of Application

Membrane roofs of industrial buildings are usually composed of a substructure with large grid spans (16–25 ft) and a relatively soft roof covering. Both the structural dimensioning of the roofs and the maximum allowable load are so low that fastening solar modules is often thought to be impossible.

**IsoTop** is the solution for supporting solar mounting structures on low load membrane roofs of industrial buildings. The standard IsoTop unit assembly system works with most industrial roofs yet can be completely customized for individual applications. In the initial stages, Schletter provides consulting for the planning of the system in order to determine the most economic and design appropriate solution.

For planning, Schletter uses a proprietary structural analysis program, offering solutions quickly and inexpensively. Usually, the design constructions are performed with only a few penetration points required. These penetration points can be welded by a professional roofer reliably and cost effectively.



### Structural Dimensioning Suggestions

IsoTop is specifically designed to reduce the load weight on the roof covering. A thorough structural analysis must be performed to ensure that the substructure can bear the combined weight of the mounting rack, PV modules, and any external loads (wind, snow, etc).



## Perforations

### Cold Perforation

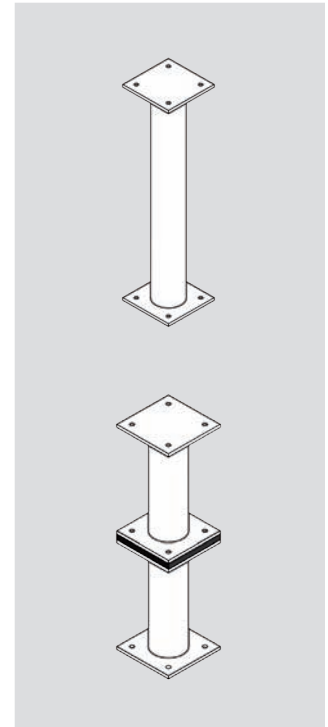
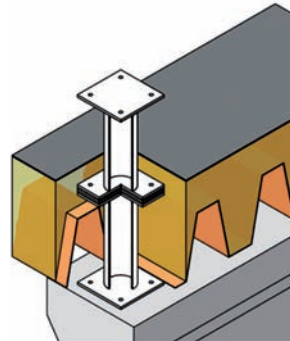
Attached to the main supports of the building via mechanical or welded connections

- ☑ Ideal for warehouses
- ☑ Made of quality steel
- ☑ Also available as rectangular tube
- ☑ Optional connector plates for the given constructional situation
- ☑ Dimensioning takes place during the system planning

### Warm Perforation

Attached to the main supports of the building via mechanical or welded connections

- ☑ Support is thermally separated
- ☑ Ideal for cold storage houses
- ☑ Also available as rectangular tube
- ☑ Made of quality steel
- ☑ Dimensioning takes place during the system planning
- ☑ Optional individualized connector plates



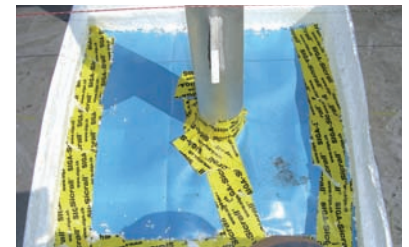
## Mounting



① Opening of the roof cladding



② Fastening of the support



③ Sealing of the support

## Examples of Roof Perforations

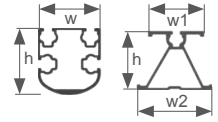




## Supporting Structure

Steel girders are usually not necessary due to Schletter's wide variety of load distribution beams. In order to reduce the weight of the mounting system, aluminum is used to support the structure. Additionally, all components are compatible with each other for ease of installation.

The module bearing rails can be clamped individually and are equipped with Schletter's proven **Klick™ System**. The system components are then interconnected with customized devices.



## Profiles of Load Distribution Rails



BF0	w	h
mm	80	85
Inches	3.15	3.35
Item No.	440 120	
SAP #	124500-...	



BF1	w	h
mm	80	133
Inches	3.15	5.24
Item No.	440 121	
SAP #	124501-...	



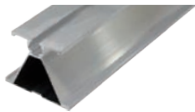
BF2	w	h
mm	80	161
Inches	3.15	6.34
Item No.	440 122	
SAP #	124502-...	



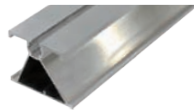
BF3	w	h
mm	80	200
Inches	3.15	7.87
Item No.	440 123	
SAP #	124503-...	

## Profiles of Module Bearing Rails

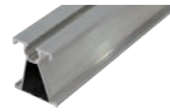
S0	w1	w2	h
mm	62	83	65
Inches	2.44	3.27	2.56
Item No.	440 130		
SAP #	124300-...		



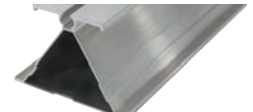
S1 In	w1	w2	h
mm	69	80	60
Inches	2.74	3.27	2.56
Item No.	430 131		
SAP #	124302-...		



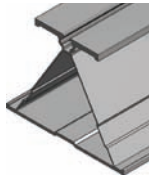
S1 Out	w1	w2	h
mm	49	54	60
Inches	2.44	3.27	2.56
Item No.	430 135		
SAP #	124301-...		



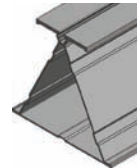
S2	w1	w2	h
mm	87	146	105
Inches	3.42	5.75	4.13
Item No.	440 132		
SAP #	124304-...		



S3	w1	w2	h
mm	87	160	125
Inches	3.42	6.30	4.92
Item No.	440 133		
SAP #	124305-...		



S4	w1	w2	h
mm	103	200	187
Inches	4.06	7.87	7.36
Item No.	440 134		
SAP #	124306-...		



## Connection Components



Joint	
Item no.	181990-001



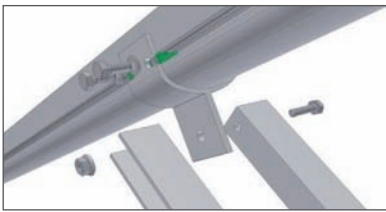
Mounting claw	
Item no.	146001-000



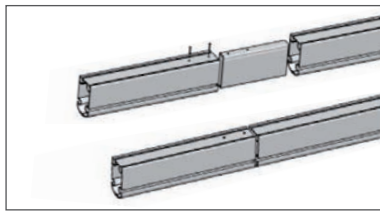
Lug angle reinforcement	
Item no.	181990-002



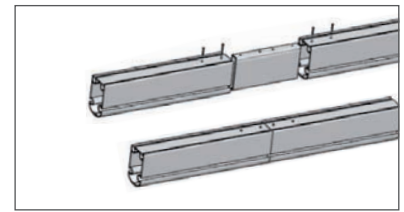
**Mounting**



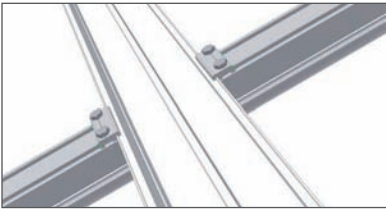
Connecting of struts



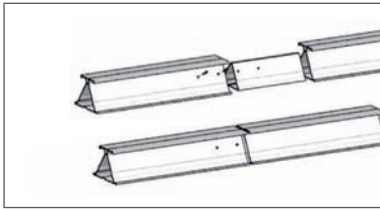
Connecting of insertion connector—  
with thermal separation



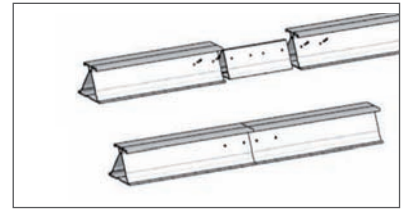
Connecting of insertion connector—  
fixed joint



Connecting of purlins



Connecting of insertion connector—  
with thermal separation



Connecting of insertion connector—  
fixed joint

**Project Planning Examples**

By obtaining the project's module configuration, Schletter's engineering team can create a cost-effective racking solution. The example to the right is a basic guide to follow when providing our engineers with project plans.

In some instances, a diagram or illustration might be necessary for determining specific load applications or unique construction considerations. By giving our engineers an illustration (right), you can further reduce the time required for planning your solar mounting project.

