

# COBRA AK / Evo X

Sonnenkollektoren  
Les capteurs solaires  
Pannello solare  
Solar collectors

soltop  
energie



## Montageanleitung Instructions de montage Istruzioni di montaggio Installation instructions



### WARNUNG

#### Absturzgefahr

Ungesichertes Arbeiten auf Dachflächen ist lebensgefährlich.

Sichern sie sich und ihr gesamtes Arbeitsumfeld normengerecht!



### AVERTISSEMENT

#### Risque de chute

Les travaux non sécurisés sur toitures plates présentent un danger de mort.

Protégez-vous, ainsi que tout votre environnement de travail conformément aux normes!



### ATTENZIONE

#### Pericolo di caduta

Chi lavora sui tetti senza applicare i dispositivi di sicurezza corre un pericolo mortale.

Applicate i dispositivi di sicurezza secondo le norme per voi e per il vostro ambiente lavorativo!



### WARNING

#### Danger! Risk of Falling

Unsecured work on roof surfaces is extremely dangerous.

Protect yourself and make sure that your entire working space is safe.  
Follow guidelines.

Montagearbeiten dürfen nur durch ausgebildetes Fachpersonal ausgeführt werden.

Für Montagearbeiten auf der gesamten Baustelle sind die Sicherheitsbestimmungen der SUVA zwingend einzuhalten.

Detaillierte Informationen dazu erhalten Sie unter [www.suva.ch](http://www.suva.ch) oder unter Telefon 0848 83 08 30. Suva, Fluhmattstrasse 1, 6002 Luzern

Ist eine Montagehilfe der Firma SOLTOP Schuppisser AG vor Ort, sind den Anweisungen dieser Person zwingend Folge zu leisten.

Das gesamte Kollektorfeld muss wenn vorhanden, an die Blitzschutzanlage des Hauses angeschlossen werden.

Die Kollektoren dürfen nicht bei intensivem Sonnenschein befüllt werden.

max. Betriebsdruck: 6.0 bar (g)  
Stagnations-Temperatur: 195° C

Les travaux de montage doivent être exécutés uniquement par un personnel spécialisé formé.

Pour les travaux de montage sur tout le chantier, les consignes de sécurité de la SUVA doivent être impérativement respectées.

Vous trouverez de plus amples informations à ce sujet en consultant le site [www.suva.ch](http://www.suva.ch) ou en appelant au numéro de téléphone 0848 83 08 30. Suva Fluhmattstrasse 1, 6002 Lucerne

Si un assistant de montage de la société SOLTOP Schuppisser AG se trouve sur place, il faut impérativement suivre les instructions de cette personne.

Si la maison est équipée d'un système de parafoudre, tous les capteurs doivent y être connectés.

Ne pas remplir les capteurs quand le soleil brille intensément.

Pression de service max.: 6.0 bars (g)  
Température de stagnation: 195° C

Il lavori di montaggio possono essere eseguiti unicamente da personale specializzato e qualificato!

Per le operazioni di montaggio in tutto il cantiere si devono assolutamente rispettare le disposizioni di sicurezza SUVA.

Informazioni dettagliate in proposito al sito [www.suva.ch](http://www.suva.ch) o telefonando al numero 0848 83 08 30. Suva, Fluhmattstrasse 1, 6002 Lucerna

Se sul posto è presente un assistente al montaggio della SOLTOP Schuppisser AG, si devono assolutamente rispettare le istruzioni di questa persona.

Tutto il campo di collettori deve essere collegato all'impianto parafulmini della casa, se presente.

I collettori non devono essere riempiti in caso di forte irraggiamento solare.

Pressione di esercizio max.: 6.0 bar (g)  
Ristagno di temperatura: 195° C

Assembly work may only be carried out by trained specialised staff.

Compliance with SUVA safety regulations is mandatory for all installation work anywhere on the building site.

You can obtain detailed information at [www.suva.ch](http://www.suva.ch) or by calling 0848 83 08 30. Suva Fluhmattstrasse 1, 6002 Lucerne

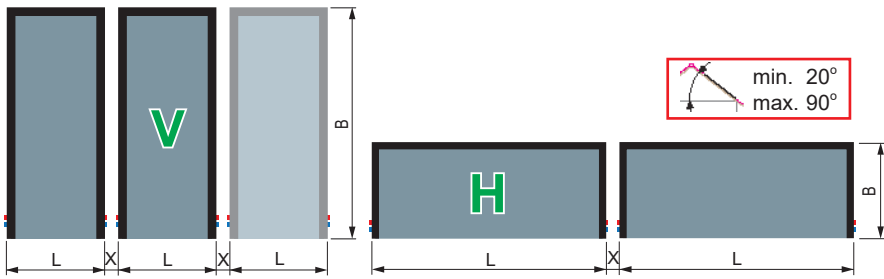
If an installation technician from SOLTOP Schuppisser AG is on location, his instructions must be complied with.

If the building has a lightning protection system, the entire collector field must be connected to it.

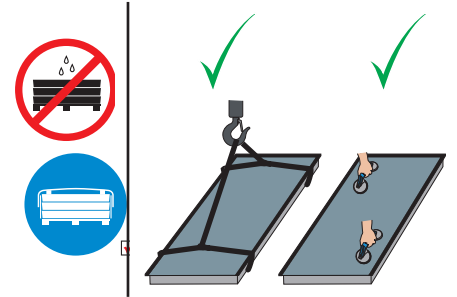
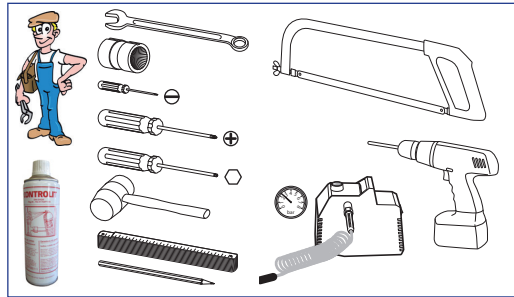
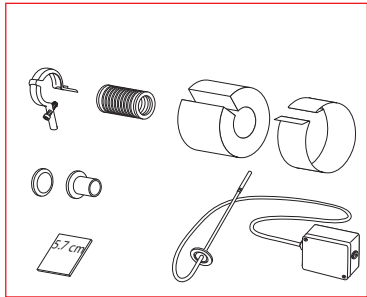
The collectors cannot be filled during intense sunlight.

Max. operating pressure: 6.0 bar (g)  
Stagnation temperature: 195° C

# COBRA AK / Evo X



Typ		L	B	X	
	COBRA AK 2.2V	1167	1900	40	38
	COBRA AK 2.8V	1167	2370	40	47
	COBRA Evo X 2.8V	1167	2370	40	49
	COBRA AK 2.3H	2347	970	40	41
	COBRA AK 2.8H	2347	1190	40	48
	COBRA Evo X 2.8H	2347	1190	40	51



## deutsch

### Hinweis

Der Montageablauf in dieser Anleitung ist mit der vertikalen Kollektor Ausführung ausgeführt, für die horizontale Variante ist die Montage identisch.

### Wartung/ Pflege

SOLTOP Hochleistungskollektoren sind selbstreinigend, befreien Sie diese nicht von Schnee und anderen Umwelteinflüssen. Bei Störungen am SOLTOP Solarsystem wenden sie sich bitte an den SOLTOP Service.

### Füllmedium

0–1000 m.ü. M 38% Antifrogen L H<sub>2</sub>O  
1001–2500 m.ü. M 50% Antifrogen L H<sub>2</sub>O  
Giftklassenfrei. 38%  $\pm$  -20°C, 50%  $\pm$  -40°C

### Entsorgung

Alle Baustoffe welche in den SOLTOP Hochleistungskollektoren verbaut sind, sind fachgerecht zu entsorgen, dem Umweltschutz ist Rechnung zu tragen.

## français

### Remarque

La procédure de montage décrite dans ces instructions concerne la variante à capteur vertical. Le montage est identique pour l'exécution horizontale.

### Entretien / soins

Les capteurs à haute performance SOLTOP sont autonettoyants. Il n'est pas nécessaire d'éliminer une éventuelle charge de neige ou de les protéger d'autres influences environnementales. En cas de dysfonctionnement du système solaire SOLTOP, veuillez vous adresser au Service SOLTOP.

### Fluide

0–1000 m.ü. M 38% Antifrogen L H<sub>2</sub>O  
1001–2500 m.ü. M 50% Antifrogen L H<sub>2</sub>O  
Non-toxiques. 38%  $\pm$  -20°C, 50%  $\pm$  -40°C

### Elimination

Tous les matériaux de constructions utilisés dans les capteurs à haute performance SOLTOP doivent être éliminés dans les règles de l'art afin de tenir compte de l'environnement.

## italiano

### Avvertenza

Le operazioni di montaggio in queste istruzioni sono eseguite per la variante del collettore verticale, per la versione orizzontale il montaggio è identico.

### Manutenzione / cura

I collettori SOLTOP ad alto rendimento sono autopulenti e non vanno liberati da neve ed altri agenti atmosferici. In caso di anomalie al sistema solare SOLTOP, rivolgersi al servizio assistenza SOLTOP.

### Fluido

0–1000 m.ü. M 38% Antifrogen L H<sub>2</sub>O  
1001–2500 m.ü. M 50% Antifrogen L H<sub>2</sub>O  
Non tossico. 38%  $\pm$  -20°C, 50%  $\pm$  -40°C

### Smaltimento

Tutti i materiali utilizzati nei collettori SOLTOP ad alto rendimento devono essere smaltiti a regola d'arte tenendo conto della tutela dell'ambiente.

## english

### Please note

The installation sequence in these instructions has been shown using the vertical collector version; the installation for the horizontal version is identical.

### Maintenance / care

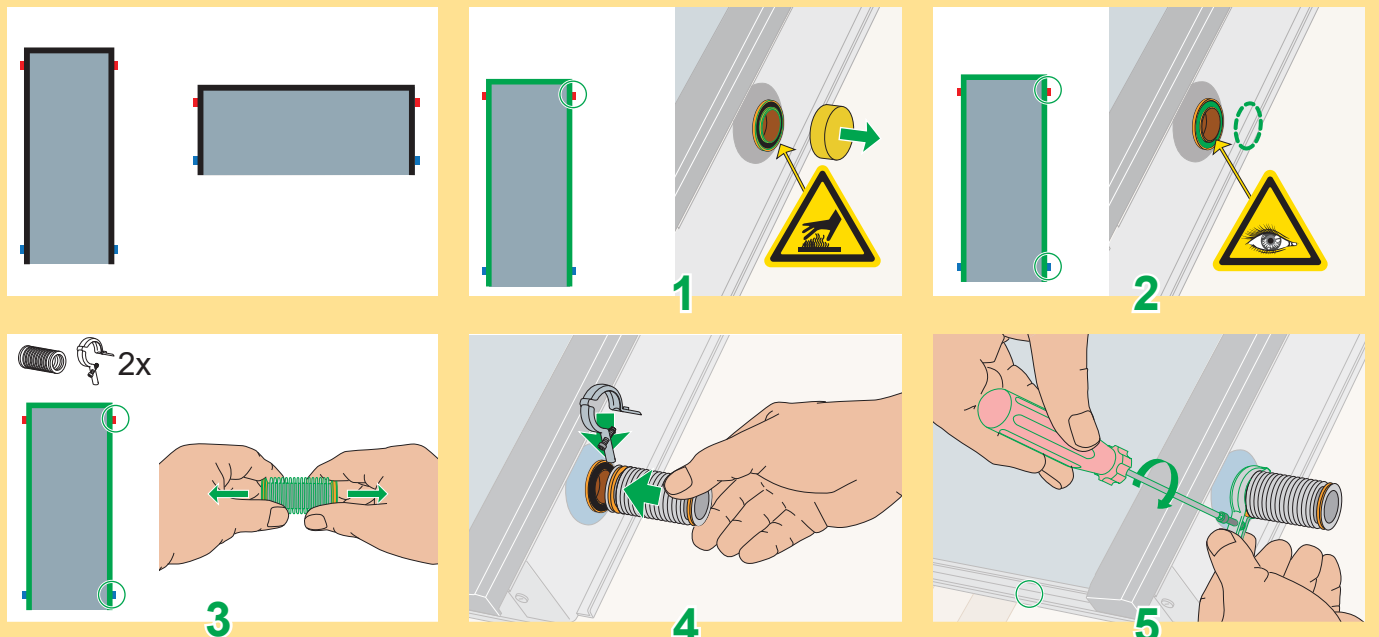
SOLTOP high performance collectors are self-cleaning; do not remove snow or other such substances from them. Please contact SOLTOP Service if you experience any difficulties with your SOLTOP Solarsystem.

### Fluid

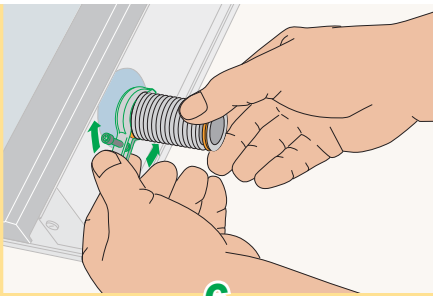
0–1000 m.ü. M 38% Antifrogen L H<sub>2</sub>O  
1001–2500 m.ü. M 50% Antifrogen L H<sub>2</sub>O  
Non-toxic. 38%  $\pm$  -20°C, 50%  $\pm$  -40°C

### Disposal

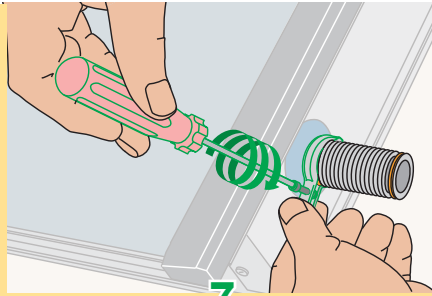
All materials present within SOLTOP high performance collectors are to be disposed of properly in accordance with environmental protection considerations.



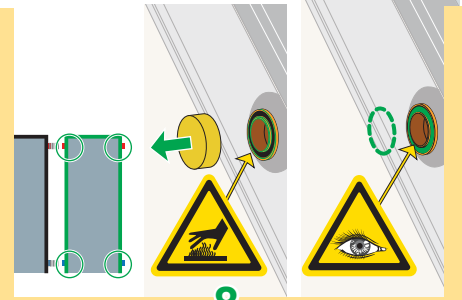
# COBRA AK / Evo X



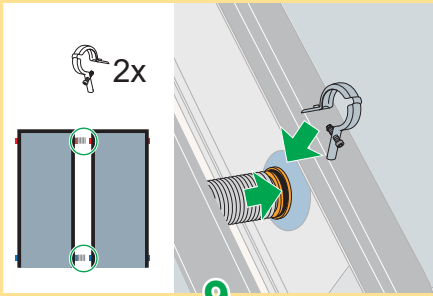
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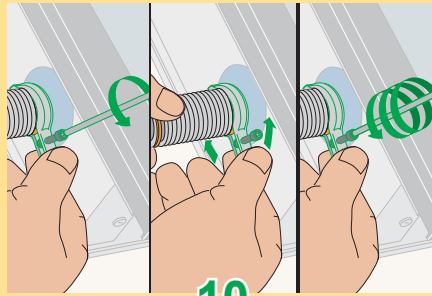
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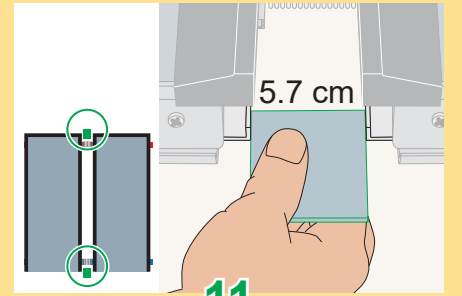
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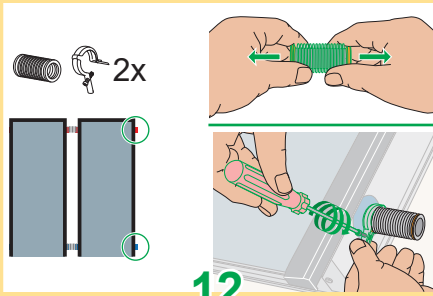
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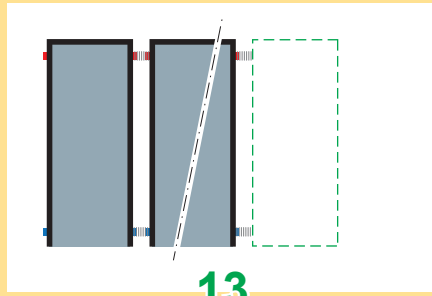
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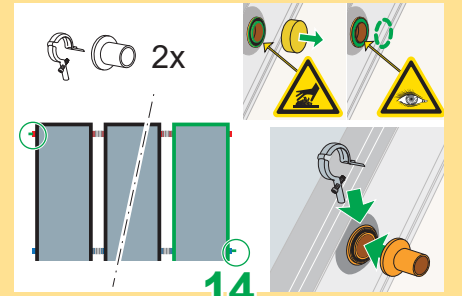
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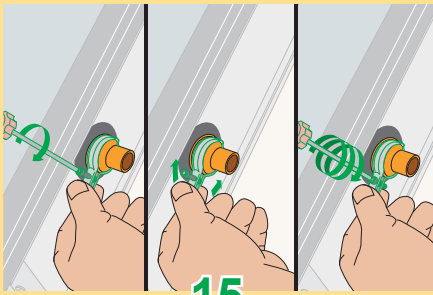
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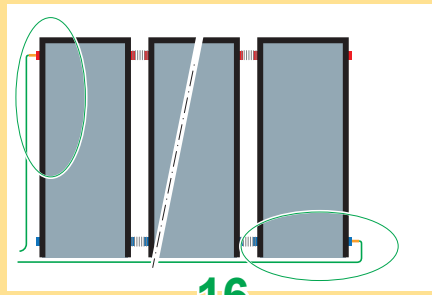
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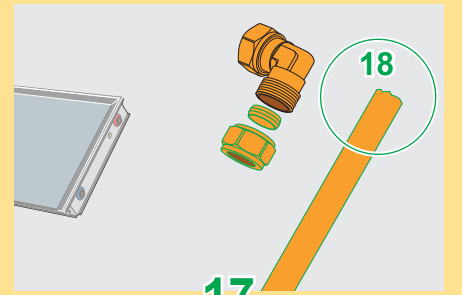
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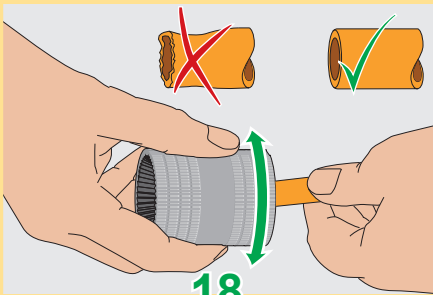
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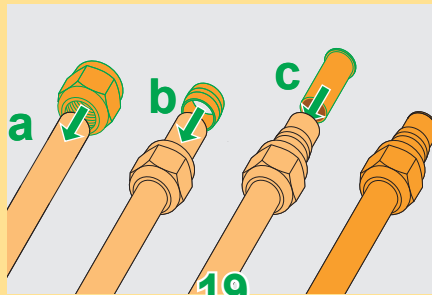
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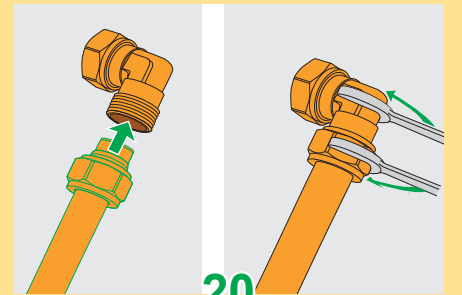
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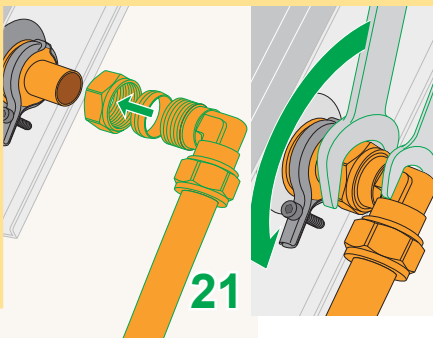
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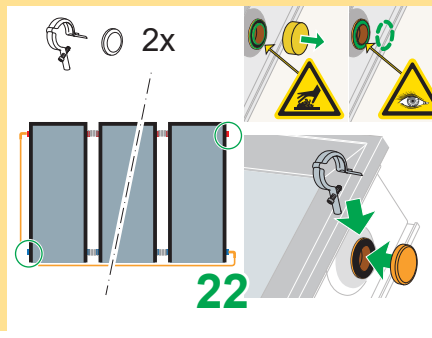
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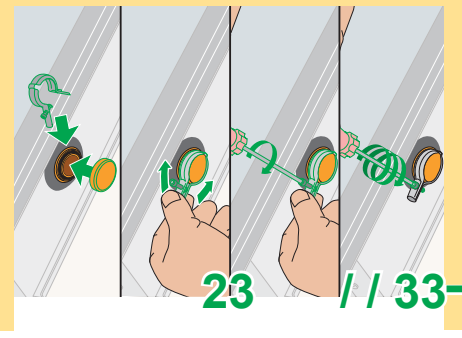
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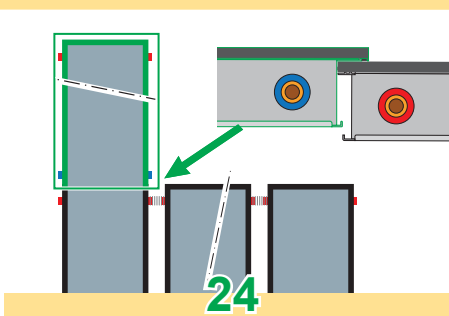
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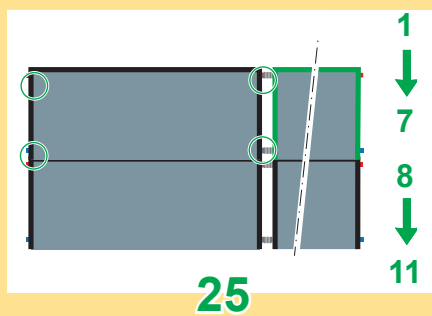
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// 33 ->

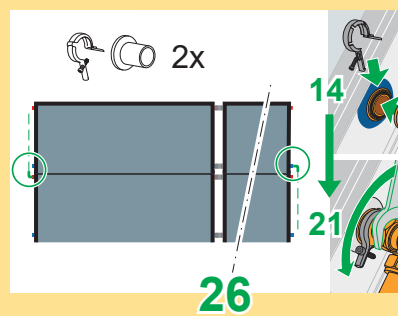
# COBRA AK / Evo X



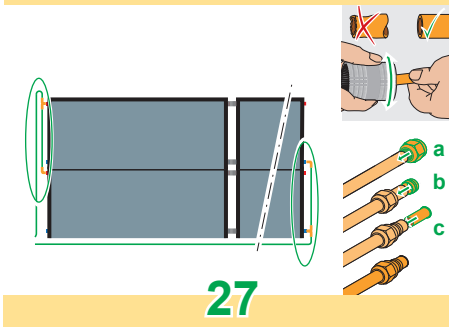
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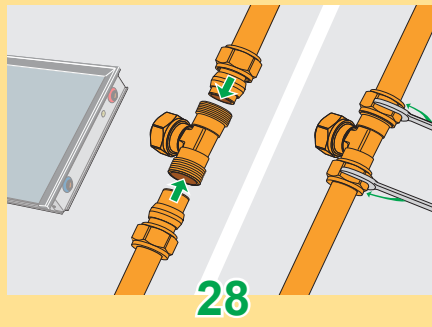
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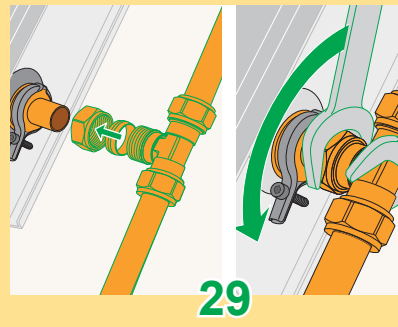
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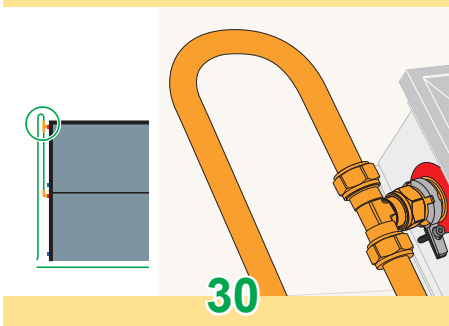
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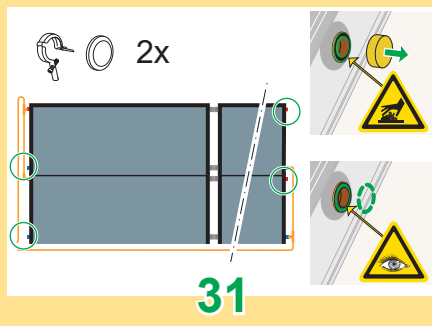
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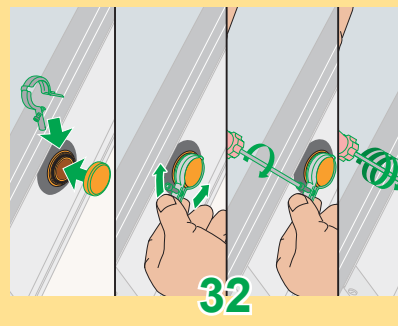
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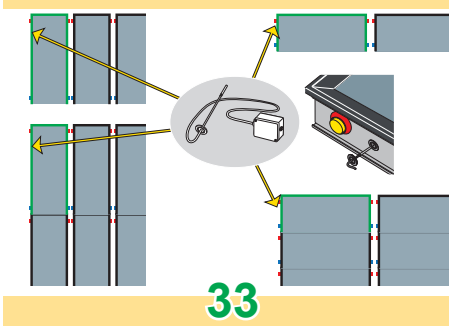
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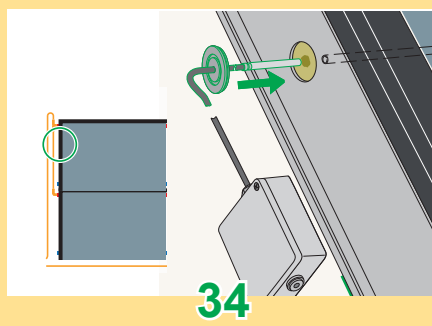
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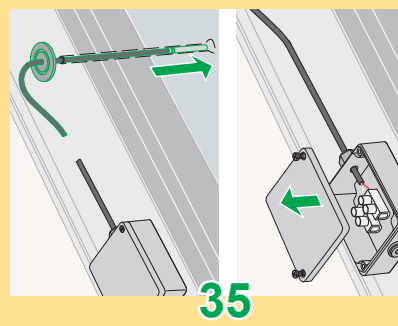
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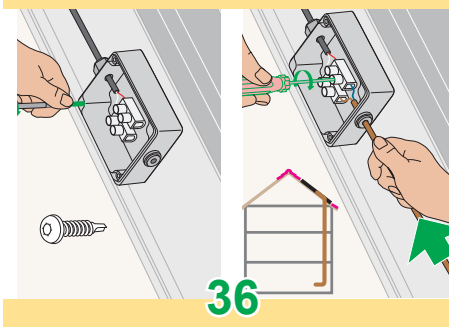
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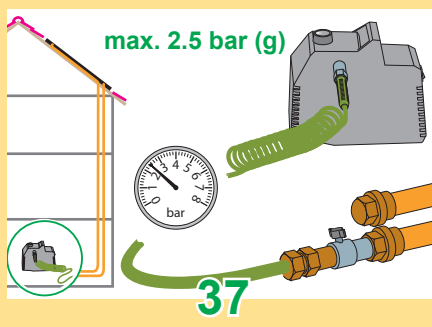
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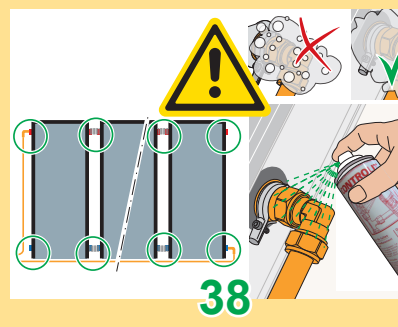
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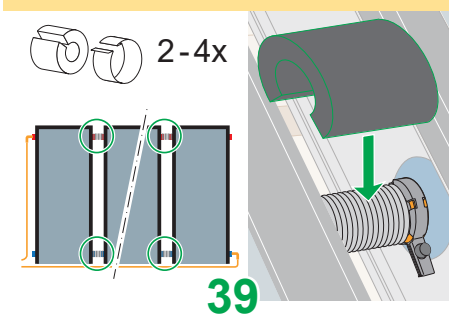
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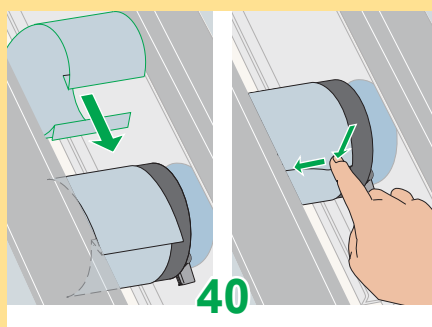
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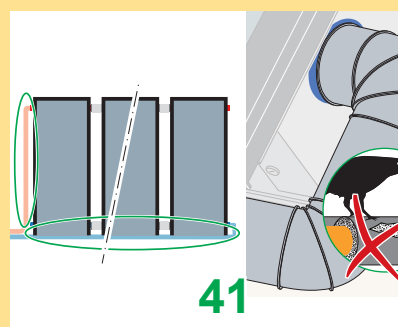
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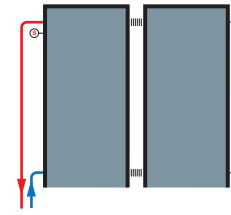
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# COBRA AK / Evo X

## Aufdach / Montage en surimposition / Montaggio sul tetto / On-roof mounting system

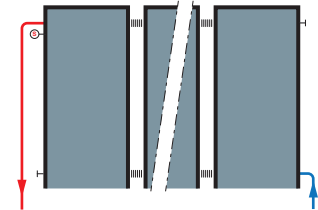
Einreihige Anordnung, bis 8 m<sup>2</sup> Absorberfläche / Arrangement de la ligne, jusqu'à 8 m<sup>2</sup> Surface de l'absorbeur /  
 Disposizione in fila, fino a 8 m<sup>2</sup> Superficie di assorbimento / Row arrangement, until 8 m<sup>2</sup> Absorber area

≤ 8 m<sup>2</sup>

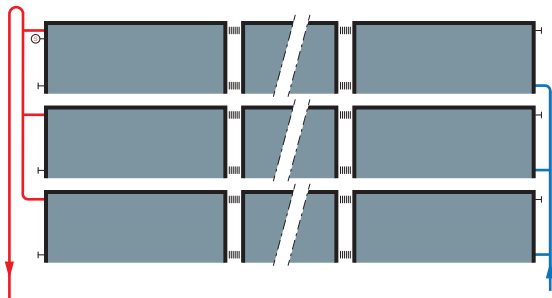


Einreihige Anordnung, größer als 8 m<sup>2</sup> Absorberfläche / Arrangement de la ligne, supérieure à 8 m<sup>2</sup> Surface de l'absorbeur /  
 Disposizione in fila, maggiore di 8 m<sup>2</sup> Superficie di assorbimento / Row arrangement, greater than 8 m<sup>2</sup> Absorber area

> 8 m<sup>2</sup>

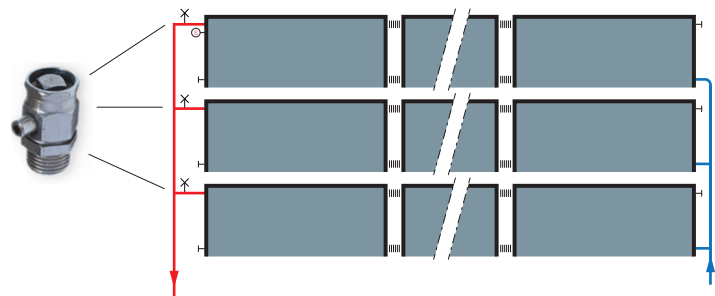


Mehreihige Anordnung / Disposition en séries /  
 Disposizione in serie / multiple rows

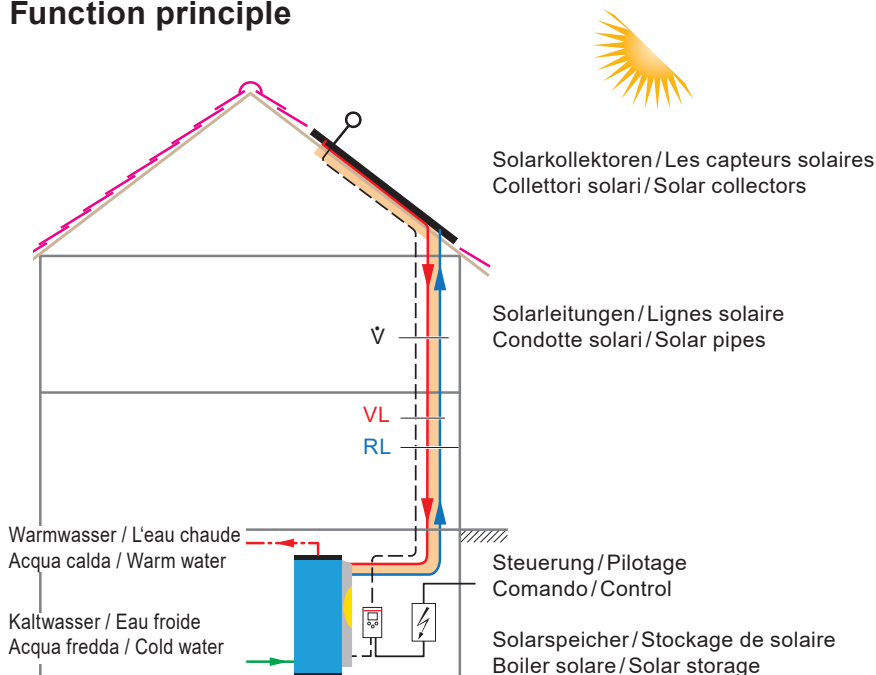


## Flachdach / Toit plat / Tetto piano / Flat roof

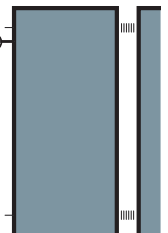
Aufgeständert / Montage surélevé / Montaggio su pensilina /  
 Elevated mounting system



## Funktionsprinzip / Principe de fonctionnement / Principio di funzionamento / Function principle



Kollektorfühler (S1)  
 Sonde de collecteur (S1)  
 Sonda collettore (S1)  
 Collector sensor (S1)



$\dot{V}$   
 Low-Flow = 15l/h m<sup>2</sup>  
 High-Flow = 30l/h m<sup>2</sup>

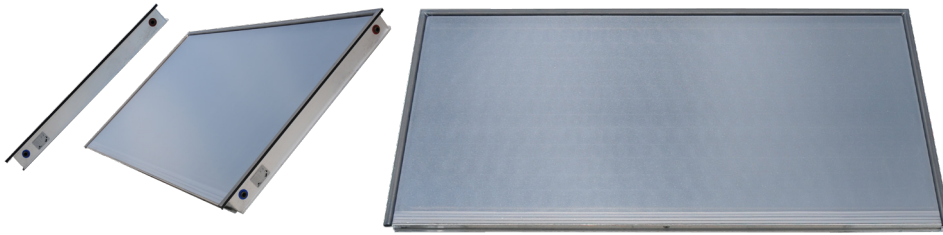
**VL** (v = max. 1.5 m/s)  
 Vorlauf  
 Marche en avant  
 Avanzamento rapido  
 Flow

**RL** v = max. 1.5 m/s)  
 Rücklauf  
 Reflux  
 Riflusso  
 Return

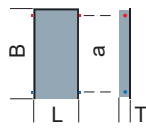
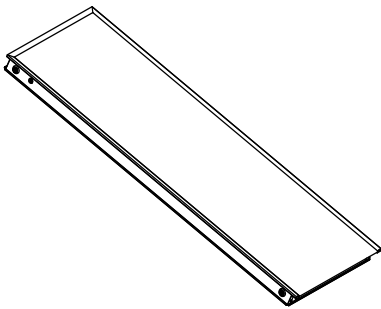
# COBRA AK / Evo X

## Kollektormasse / Mesure de capteur / Misur del pannello / Collector measures

Art. Nr. 91.100.003 / V\_0414

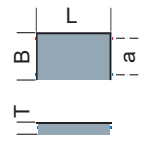
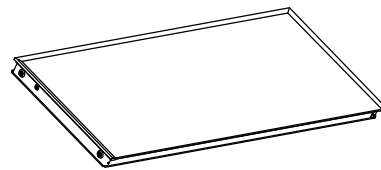


COBRA AK 2.2 V



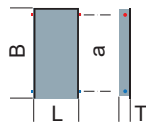
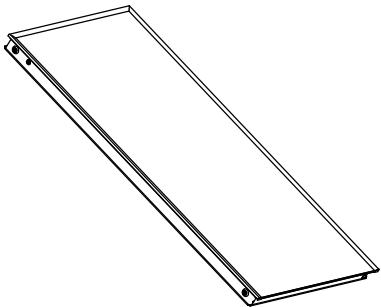
L	B	T	a	
mm	mm	mm	mm	kg
1167	1900	100	1710	38

COBRA AK 2.3 H



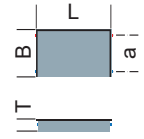
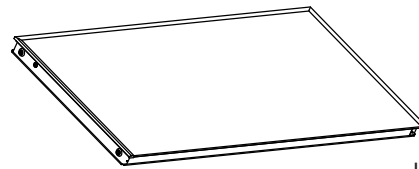
L	B	T	a	
mm	mm	mm	mm	kg
2347	970	100	780	41

COBRA AK 2.8 V



L	B	T	a	
mm	mm	mm	mm	kg
1167	2370	100	2180	47

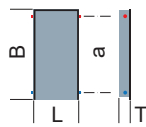
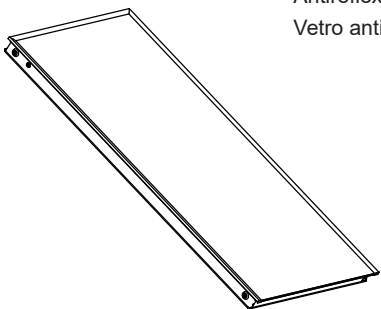
COBRA AK 2.8 H



L	B	T	a	
mm	mm	mm	mm	kg
2347	1190	100	1000	48

COBRA Evo X 2.8 V

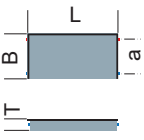
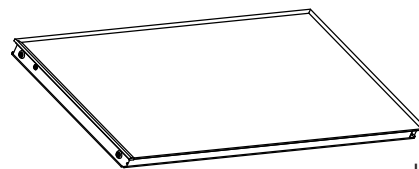
Antireflexglas / Verre anti-reflet  
Vetro anti-riflesso / Anti-reflective glass



L	B	T	a	
mm	mm	mm	mm	kg
1167	2370	100	2180	49

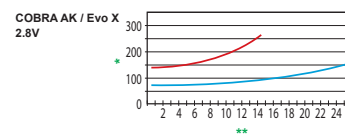
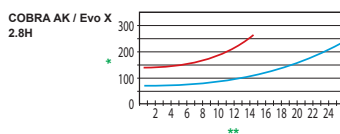
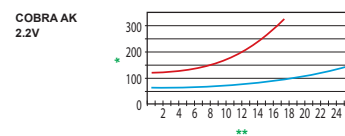
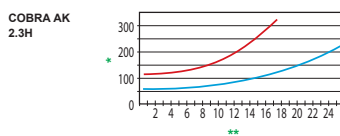
COBRA Evo X 2.8 H

Antireflexglas / Verre anti-reflet  
Vetro anti-riflesso / Anti-reflective glass



L	B	T	a	
mm	mm	mm	mm	kg
2347	1190	100	1000	51

### Druckverlusttabelle / Graphique perte de pression / Perdita di pressione grafico / Pressure loss chart



d \*mbar gesamt  
\*\*Kollektoren pro Reihe  
f \*total mbar  
\*\*Collectionneurs par ligne  
i \*totale mbar  
\*\*Collezionisti per fila  
e \*mbar total  
\*\*Collectors per row  
— 30l/m³h — 15l/m³h



   
Serie:  
AK 011-7S2296 F  
Evo X 011-7S1870 F

Technische Änderungen vorbehalten - Réserve de modifications techniques - Modifiche tecniche riservate - Technical changes reserved  
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