Zenith

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1 INTRODUCTION

This manual for the **Zenith** awning was prepared by the Manufacturer to provide necessary information to those authorized to install and perform special maintenance on the product. It is prohibited to remove, rewrite or in any way modify the pages of the manual and their content.
Operations must be carried out by personnel with the technical and professional skills required by current applicable national laws or standards.
This manual must be kept complete in all its parts in an easily accessible place.
The manufacturer reserves the right to update products and corresponding manuals without the obligation to update previous products and manuals.

1.1 · Symbols used in the manual

The WARNING symbols used in the manual are shown below.

INFORMATION AND PRECAUTIONS

Useful advice and instructions to be observed to ensure proper installation and/or maintenance of the awning. Failure to observe these messages may compromise the integrity and/or the resistance of the product.

WARNING

DANGER TO OPERATOR! Instructions to be evaluated and followed carefully. Failure to comply with these messages may compromise individual safety.

1.2 · Personnel requirements

Personnel assigned to this operation must have technical knowledge of the product obtained either through two years' experience or by means of a suitable technical training course.

1.3 · Required equipment

To ensure proper installation of the awning, and consequently best operation of the finished product, the following equipment is required:

- power screwdriver;
- a level;
- string;
- complete tool set;
- equipment for working at heights (scaffolding, ladders, aerial platforms, etc.) which are compliant with current standards of individual safety in the workplace.

WARNING

All of the screws used on aluminium components must be tightened with a maximum force of 20Nm (=2Kgm). Greater tightening force causes the castings to break and damage to the stainless steel screws. It is advisable to use dynamometric power screwdrivers and wrenches.

WARNING

Use low-speed power screwdrivers. Screwing in the stainless steel screws at high speed may cause the threads to jam, especially in the case of stainless steel/stainless steel and stainless steel/ aluminium screws and threads.

WARNING

In the square bar supports with double screw, be sure to evenly screw the two fastening screws of the square bar, distributing the tightening force alternatively on the two screws up to a maximum of 20 Nm. Uneven tightening may cause abnormal tension in the casting, causing it to fail immediately, or lead to subsequent problems caused by external stress on the awning (e.g. gusts of wind).

1.4· Contents of packaging

The awning is delivered complete with extensible arms, fabric, control (manual or motorized) and any requested optional.

INFORMATION AND PRECAUTIONS

Never move the arm supports from the position in which they are supplied.

2 SAFETY

2.1· General safety information

- **During all operations described in this manual, make sure that ONLY individuals involved in the work are in the work zone (see Chap. 1.2 "Personnel requirements")** .
- Do not set objects on the canvas of the awning.
- It is prohibited to stand on or hang from the awning. This would create the risk of severe personal injury, as well as damaging the awning.
- Wear personal protective equipment and clothing as required by current standards on safety in the workplace.

WARNING

Installation, adjustment, and special maintenance of the awning must be carried out only by specialized, skilled technical personnel.

WARNING

It is necessary to ensure a distance of at least 500 mm between the end of the fully-opened awning (outermost part) and any fixed obstacle (wall, terrace, etc.).

WARNING

It is prohibited to install or place ladders or any fixed object near the awning which may reduce the space required by the awning.

WARNING

Never loosen the awning more than the tension in the arms as there is the risk that the awning return under the tube and be ruined.

2.2· Requirements for working in safety

- Installation must be performed in full compliance with standards set forth by Presidential Decree 164/56 and Legislative Decree 494/96 for all that which concerns individual safety.
- Before use, check that all temporary structures (scaffolding, ladders, etc.) and all individual safety gear (harnesses, belts, etc.) are compliant with standards and in good condition.
- Always use suitable individual protection gear.
- If there is more than one installation technician, their work must be coordinated.
- Operators must work in compliance with the safety instructions given to them.
- If the awning is to be installed above ground level, the area underneath the awning must be marked off and guarded so that no one can get underneath the hanging load.
- Firmly tie the ropes or straps around the arm supports so that it does not slip and risk falling.

2.3· Working environment

- Installation and special maintenance must be carried out in a place that is sufficiently illuminated (based on specific standards) by either natural or artificial lighting. The operator must have a clear view of the work to be performed, and he must also prevent third persons from approaching the work area around the awning.

3 TECHNICAL TABLES FOR INSTALLATION

3.1 · TABLE NO. ARMS, SQUARE BAR BRACKETS AND CASSETTE BOX SUPPORTS

Sporgenza (cm) Projection (cm) Avancée (cm) Ausladung (cm) Proyección (cm)	Componenti Components Composants Komponenten Componentes	LARGHEZZA - WIDTH - LARGEUR - BREITE - ANCHO Centimetri - Centimetres - Centimètres - Zentimeter - Centimetros								
		400	500	600	700	800	900	1000	1100	1200
160	Bracci - Arms - Bras - Arme - Brazos	2	2	2	4	4	4	4	4	6
	Staffa barra quadra - Square bar bracket - Support barre carree - Straggepreste Konsole - Escuadra barra cuadrada	5	5	6	8	8	8	11	11	12
	Supporto cassonetto - Bok support - Support coffre - kassettenkonsole - Soporte cofre	4	6	6	8	8	8	10	10	10
	Convogliatore - Convoyer - Convoyeur - Konvoyer - Convoyador	3	3	3	4	4	5	5	6	6
185	Bracci - Arms - Bras - Arme - Brazos	2	2	2	4	4	4	4	4	6
	Staffa barra quadra - Square bar bracket - Support barre carree - Straggepreste Konsole - Escuadra barra cuadrada	5	5	6	8	8	8	11	11	12
	Supporto cassonetto - Bok support - Support coffre - kassettenkonsole - Soporte cofre	4	6	6	8	8	8	10	10	10
	Convogliatore - Convoyer - Convoyeur - Konvoyer - Convoyador	3	3	3	4	4	5	5	6	6
210	Bracci - Arms - Bras - Arme - Brazos	2	2	2	4	4	4	4	4	6
	Staffa barra quadra - Square bar bracket - Support barre carree - Straggepreste Konsole - Escuadra barra cuadrada	5	5	6	8	8	8	11	11	12
	Supporto cassonetto - Bok support - Support coffre - kassettenkonsole - Soporte cofre	4	6	6	8	8	8	10	10	10
	Convogliatore - Convoyer - Convoyeur - Konvoyer - Convoyador	3	3	3	4	4	5	5	6	6
235	Bracci - Arms - Bras - Arme - Brazos	2	2	2	4	4	4	4	4	6
	Staffa barra quadra - Square bar bracket - Support barre carree - Straggepreste Konsole - Escuadra barra cuadrada	5	5	6	8	8	8	11	11	12
	Supporto cassonetto - Bok support - Support coffre - kassettenkonsole - Soporte cofre	4	6	6	8	8	8	10	10	10
	Convogliatore - Convoyer - Convoyeur - Konvoyer - Convoyador	3	3	3	4	4	5	5	6	6
260	Bracci - Arms - Bras - Arme - Brazos	2	2	2	4	4	4	4	6	6
	Staffa barra quadra - Square bar bracket - Support barre carree - Straggepreste Konsole - Escuadra barra cuadrada	5	5	6	8	8	8	11	11	12
	Supporto cassonetto - Bok support - Support coffre - kassettenkonsole - Soporte cofre	4	6	6	8	8	8	10	10	10
	Convogliatore - Convoyer - Convoyeur - Konvoyer - Convoyador	3	3	3	4	4	5	5	6	6
285	Bracci - Arms - Bras - Arme - Brazos	2	2	2	3	4	4	4	4	6
	Staffa barra quadra - Square bar bracket - Support barre carree - Straggepreste Konsole - Escuadra barra cuadrada	5	5	6	8	8	8	11	11	12
	Supporto cassonetto - Bok support - Support coffre - kassettenkonsole - Soporte cofre	4	6	6	8	8	8	10	10	10
	Convogliatore - Convoyer - Convoyeur - Konvoyer - Convoyador	3	3	3	4	4	5	5	6	6
310	Bracci - Arms - Bras - Arme - Brazos	2	2	2	3	4	4	4	4	6
	Staffa barra quadra - Square bar bracket - Support barre carree - Straggepreste Konsole - Escuadra barra cuadrada	5	5	6	8	8	8	11	11	12
	Supporto cassonetto - Bok support - Support coffre - kassettenkonsole - Soporte cofre	4	6	6	8	8	8	10	10	10
	Convogliatore - Convoyer - Convoyeur - Konvoyer - Convoyador	3	3	3	4	4	5	5	6	6
335	Bracci - Arms - Bras - Arme - Brazos	2	2	2	3	3	4	4	4	6
	Staffa barra quadra - Square bar bracket - Support barre carree - Straggepreste Konsole - Escuadra barra cuadrada	5	5	6	8	8	8	11	11	12
	Supporto cassonetto - Bok support - Support coffre - kassettenkonsole - Soporte cofre	4	6	6	8	8	8	10	10	10
	Convogliatore - Convoyer - Convoyeur - Konvoyer - Convoyador	2	3	3	4	4	5	5	6	6
360	Bracci - Arms - Bras - Arme - Brazos	-	2	2	3	3	4	4	4	4
	Staffa barra quadra - Square bar bracket - Support barre carree - Straggepreste Konsole - Escuadra barra cuadrada	-	5	6	8	8	8	11	11	12
	Supporto cassonetto - Bok support - Support coffre - kassettenkonsole - Soporte cofre	-	6	6	8	8	8	10	10	10
	Convogliatore - Convoyer - Convoyeur - Konvoyer - Convoyador	-	3	3	4	4	5	5	6	6
385	Bracci - Arms - Bras - Arme - Brazos	-	2	2	3	3	3	4	4	4
	Staffa barra quadra - Square bar bracket - Support barre carree - Straggepreste Konsole - Escuadra barra cuadrada	-	5	6	8	8	8	11	11	12
	Supporto cassonetto - Bok support - Support coffre - kassettenkonsole - Soporte cofre	-	6	6	8	8	8	10	10	10
	Convogliatore - Convoyer - Convoyeur - Konvoyer - Convoyador	-	3	3	4	4	5	5	6	6
410	Bracci - Arms - Bras - Arme - Brazos	-	2	2	2	3	3	4	4	4
	Staffa barra quadra - Square bar bracket - Support barre carree - Straggepreste Konsole - Escuadra barra cuadrada	-	5	6	6	8	8	11	11	12
	Supporto cassonetto - Bok support - Support coffre - kassettenkonsole - Soporte cofre	-	6	6	8	8	8	10	10	10
	Convogliatore - Convoyer - Convoyeur - Konvoyer - Convoyador	-	3	3	4	4	5	5	6	6
435	Bracci - Arms - Bras - Arme - Brazos	-	-	2	2	3	3	3	4	4
	Staffa barra quadra - Square bar bracket - Support barre carree - Straggepreste Konsole - Escuadra barra cuadrada	-	-	6	7	8	8	8	11	12
	Supporto cassonetto - Bok support - Support coffre - kassettenkonsole - Soporte cofre	-	-	6	8	8	8	10	10	10
	Convogliatore - Convoyer - Convoyeur - Konvoyer - Convoyador	-	-	3	4	4	5	5	6	6

GIANT ARM

Le staffe devono essere installate sia a sinistra che e a destra del supporto braccio ad una distanza massima di 25 cm dal supporto stessso.
The brackets must be installed either on the left or the right of the arm support at a distance of 25cm of it.
Les supports doivent etre montés soit à gauche soit à droite du support bras à une distance maxi de 25cm de ce support.
Die Konsolen müssen jeweils links und rechts der Armkonsole mit einem Höchstabstand von 25 cm von dieser letzten installiert werden.
La escuadra puede ser instalada tanto a la izquierda como a la derecha del soporte del brazo y a una distancia máxima de 25 cm. del mismo.

3.2· Table of awning sizes/ no. arm supports and brackets

WARNING

THE FOLLOWING TABLES ARE PURELY INDICATIVE. TO THE BEST OF OUR KNOWLEDGE THE INFORMATION IS UP TO DATE. BAT S.p.A. DOES NOT PROVIDE ANY GUARANTEE REGARDING ACCURACY, RELIABILITY, AND COMPLETENESS OF THE INFORMATION CONTAINED HEREIN. INDEED, IT IS THE USER'S RESPONSIBILITY TO ENSURE THE SUITABILITY AND COMPLETENESS OF THIS INFORMATION.

INFORMATION AND PRECAUTIONS

All the measurements of the tables are in cm.

TABLES LEGEND:
A - B - C - D- E - F square bar bracket
X - Y - Z arm support

INFORMATION AND PRECAUTIONS

For the number of accessories to install on the awning, please refer to the table on page 6.

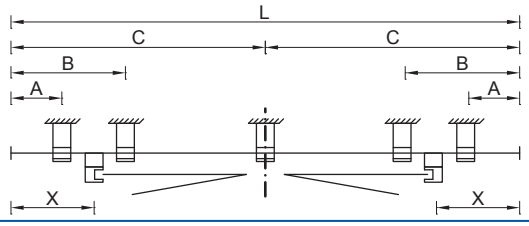
WARNING

Distribute the CASSETTE BOX SUPPORTS evenly throughout the width of the awning. If the position of the supports coincides with that of the square bar brackets, position them adjacent to the latter. (For the number of cassette box supports, see "Table no. arms, square bar brackets and cassette box supports" on page 6).

WARNING

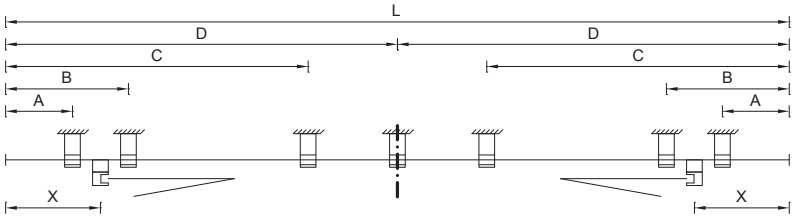
The awning is tested in its maximum size of no more than 6m.

2 ARMS (MEASUREMENTS 400-500)

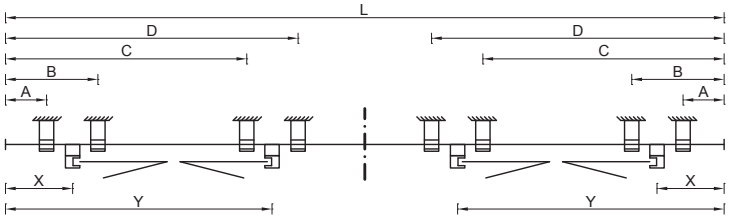


		"L" WIDTH								
		400				500				
		A	B	C	X	A	B	C	X	
PROTRUSION	160	40	90	L/2	65	40	100	L/2	70	2 ARMS
	185	40	90	L/2	65	40	100	L/2	70	
	210	40	90	L/2	65	40	100	L/2	70	
	235	40	90	L/2	65	40	100	L/2	70	
	260	40	90	L/2	65	40	100	L/2	70	
	285	30	80	L/2	55	40	90	L/2	65	
	310	30	80	L/2	55	40	90	L/2	65	
	335	30	80	L/2	55	30	80	L/2	55	
	360	-	-	-	-	30	80	L/2	55	
	385	-	-	-	-	20	50	L/2	35	
	410	-	-	-	-	15	45	L/2	25	
	435	-	-	-	-	-	-	-	-	

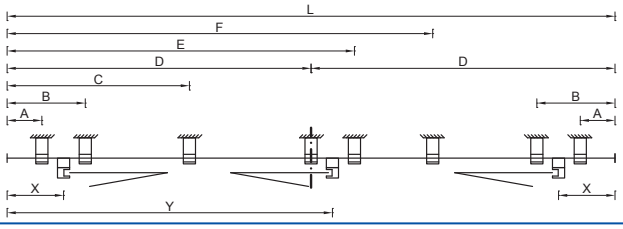
2 ARMS (MEASUREMENTS 600-700)



4 ARMS (MEASUREMENTS 700-800-900)



3 ARMS (MEASUREMENTS 700-800-900)



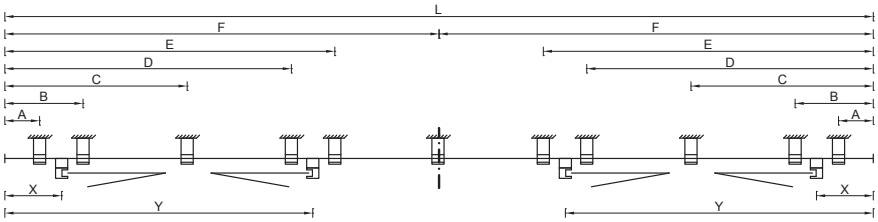
		"L" WIDTH				
		600				
		A	B	C	X	
PROTRUSION	160	50	110	235	80	2 ARMS
	185	50	110	235	80	
	210	50	110	235	80	
	235	50	110	235	80	
	260	40	100	230	70	
	285	40	100	230	70	
	310	40	90	230	65	
	335	40	90	230	65	
	360	30	80	225	55	
	385	30	80	225	55	
	410	30	70	223	50	
	435	30	70	223	50	

		"L" WIDTH								
		700								
		A	B	C	D	E	F	X	Y	
PROTRUSION	160	40	90	235	285	-	-	65	260	4 ARMS
	185	40	90	255	305	-	-	65	280	
	210	40	90	285	325	-	-	65	300	
	235	30	70	295	335	-	-	50	315	
	260	15	50	300	330	-	-	30	315	
	285	40	90	210	350	400	490	65	375	3 ARMS
	310	40	90	227	375	425	512	65	400	
	335	40	90	240	405	455	520	65	430	
	360	25	80	245	420	470	540	50	445	
	385	20	60	250	440	480	550	40	460	
	410	60	110	270	-	-	-	85	-	2 ARMS
	435	60	110	230	L/2	-	-	85	-	

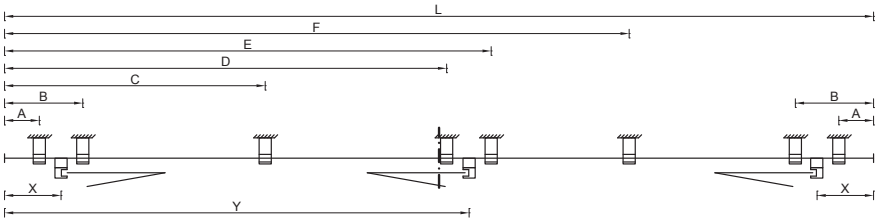
		"L" WIDTH								
		800								
		A	B	C	D	E	F	X	Y	
PROTRUSION	160	40	90	275	325	-	-	65	300	4 ARMS
	185	40	90	275	325	-	-	65	300	
	210	40	90	275	325	-	-	65	300	
	235	40	90	300	350	-	-	65	325	
	260	40	90	325	375	-	-	65	350	
	285	25	75	335	385	-	-	50	360	
	310	25	70	360	390	-	-	40	375	
	335	40	90	240	400	450	580	65	425	3 ARMS
	360	40	90	260	435	485	585	65	460	
	385	40	90	270	450	500	600	55	475	
	410	30	80	270	475	525	610	50	500	
	435	25	65	195	335	490	530	40	510	

		"L" WIDTH								
		900								
		A	B	C	D	E	F	X	Y	
PROTRUSION	160	40	90	295	345	-	-	65	320	4 ARMS
	185	40	90	295	345	-	-	65	320	
	210	40	90	295	345	-	-	65	320	
	235	40	90	300	350	-	-	65	325	
	260	40	90	315	365	-	-	65	350	
	285	40	90	350	400	-	-	65	375	
	310	40	90	375	425	-	-	65	400	
	335	30	80	390	440	-	-	55	415	
	360	25	55	410	440	-	-	40	425	
	385	40	90	275	460	510	660	65	485	3 ARMS
	410	40	90	290	485	535	665	65	510	
	435	25	80	290	495	535	680	45	515	

4 ARMS (MEASUREMENTS 1000)

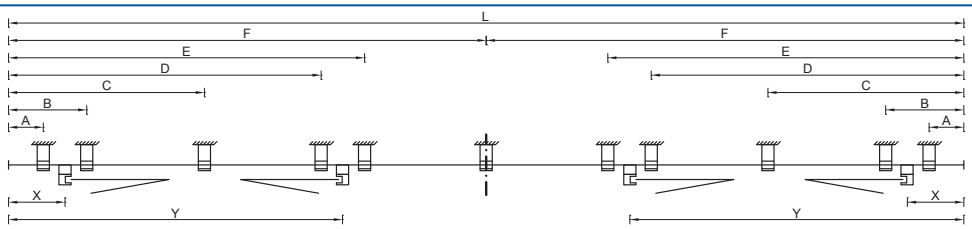


3 ARMS (MEASUREMENTS 1000)



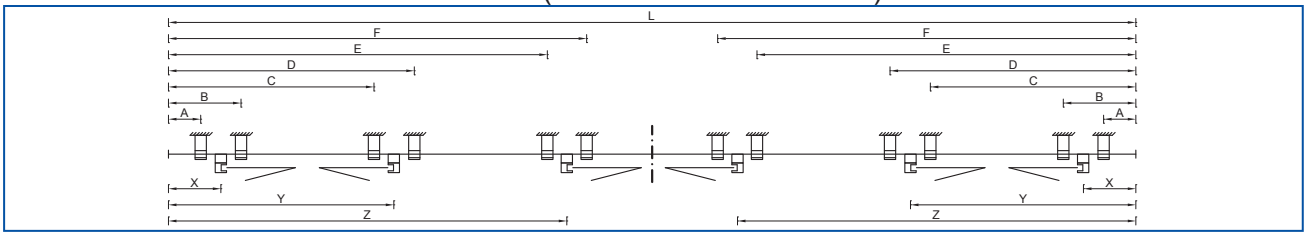
		"L" WIDTH								
		1000								
		A	B	C	D	E	F	X	Y	
PROTRUSION	160	40	90	210	330	380	500	65	355	4 ARMS
	185	40	90	210	330	380	500	65	355	
	210	40	90	210	330	380	500	65	355	
	235	40	90	210	330	380	500	65	355	
	260	40	90	210	330	380	500	65	355	
	285	40	90	220	350	400	500	65	360	
	310	40	90	230	375	425	500	65	385	
	335	40	90	190	290	400	450	65	410	
	360	40	90	200	310	435	485	65	445	
	385	30	70	200	330	450	485	50	470	
	410	20	50	190	320	465	490	35	480	
	435	40	90	300	510	560	720	65	535	3 ARMS

4 ARMS (MEASUREMENTS 1100)

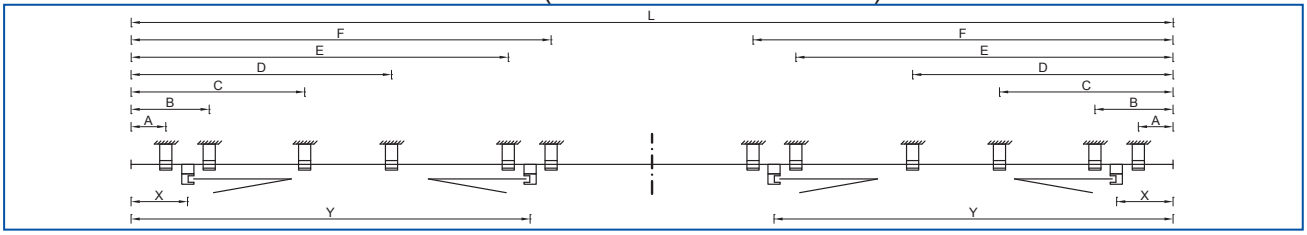


		"L" WIDTH								
		1100								
		A	B	C	D	E	F	X	Y	
PROTRUSION	160	40	90	225	360	410	550	65	385	4 ARMS
	185	40	90	225	360	410	550	65	385	
	210	40	90	225	360	410	550	65	385	
	235	40	90	225	360	410	550	65	385	
	260	40	90	225	360	410	550	65	385	
	285	40	90	225	360	410	550	65	385	
	310	40	90	225	375	425	550	65	400	
	335	40	90	235	400	450	550	65	425	
	360	40	90	200	300	435	485	65	460	
	385	40	90	210	330	460	510	65	485	
	410	30	90	220	350	475	515	50	495	
	435	20	55	195	335	490	530	40	510	

6 ARMS (MEASUREMENTS 1200)



4 ARMS (MEASUREMENTS 1200)



		"L" WIDTH									
		1200									
		A	B	C	D	E	F	X	Y	Z	
PROTRUSION	160	40	90	255	305	470	520	65	280	495	6 ARMS
	185	40	90	255	305	470	520	65	280	495	
	210	40	90	275	325	455	505	65	285	490	
	235	40	90	300	350	445	495	65	310	470	
	260	40	90	325	375	430	480	65	335	460	
	285	40	90	350	400	420	470	65	360	450	
	310	30	80	355	400	410	460	55	375	440	
	335	20	55	360	405	415	450	40	385	430	
	360	40	90	200	300	435	485	65	460	-	4 ARMS
	385	40	90	210	330	460	510	65	485	-	
	410	40	90	220	350	490	540	65	515	-	
	435	30	90	225	355	490	545	50	520	-	

3.3· Tables of loads on awning fastening plugs, based on the type of attachment

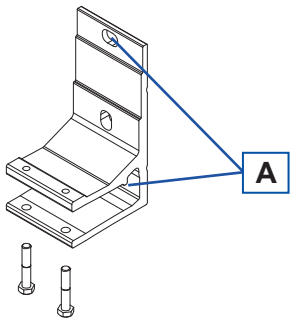
INFORMATION AND PRECAUTIONS

The calculations for the plugs were made for Class 1 wind resistance as per standard EN 13561.

WALL INSTALLATION

INFORMATION AND PRECAUTIONS

The wall plug calculations for the Zenith awning have been performed with the rectangular bar wall bracket, taking into consideration that the holes (A) are used for wall installation.

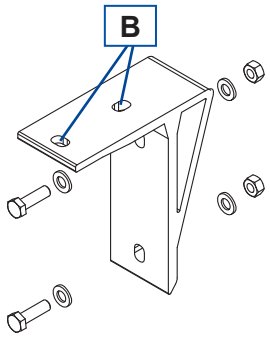


ZENITH WALL INSTALLATION									
Extraction load on anchoring devices (KN)		WIDTH (m)							
		2.5	3	3.5	4	4.5	5	5.5	6
PROTRUSION (m)	1.6	0.60	0.70	0.80	0.90	1.00	1.10	1.21	1.31
	1.85	0.78	0.91	1.04	1.18	1.31	1.44	1.58	1.71
	2.1		1.16	1.33	1.50	1.67	1.84	2.01	2.18
	2.35		1.44	1.65	1.86	2.07	2.28	2.49	2.70
	2.6			1.99	2.24	2.50	2.75	3.01	3.26
	2.85			2.36	2.67	2.97	3.28	3.58	3.89
	3.1				3.15	3.51	3.86	4.22	4.58
	3.35				3.75	4.17	4.59	5.00	5.42
	3.6					4.79	5.27	5.74	6.22
	3.85						5.98	6.53	7.07
	4.1						6.75	7.36	7.98
	4.35							8.23	8.92

CEILING INSTALLATION

INFORMATION AND PRECAUTIONS

The ceiling plug calculations for the Zenith awning have been made with the ceiling bracket, taking into consideration the use of holes (B) for ceiling installation.



ZENITH CEILING INSTALLATION									
Extraction load on anchoring devices (KN)		WIDTH (m)							
		2,5	3	3,5	4	4,5	5	5,5	6
PROTRUSION (m)	1,6	0.58	0.68	0.77	0.87	0.97	1.07	1.17	1.26
	1,85	0.74	0.87	1.00	1.12	1.25	1.38	1.51	1.63
	2,1		1.10	1.26	1.42	1.58	1.74	1.90	2.06
	2,35		1.35	1.54	1.74	1.94	2.13	2.33	2.52
	2,6			1.85	2.08	2.32	2.56	2.79	3.03
	2,85			2.19	2.47	2.75	3.03	3.31	3.59
	3,1				2.89	3.22	3.55	3.88	4.21
	3,35				3.44	3.82	4.20	4.58	4.96
	3,6					4.37	4.80	5.24	5.68
	3.85						5.44	5.94	6.43
	4.1						6.12	6.68	7.24
	4.35							7.44	8.06

WARNING

All values have been calculated taking into account that for each arm support there are two rectangular bar supports (one on the right and one on the left). The contribution from the other rectangular bar brackets has not been considered.

The value in the table is in KN and expresses the extraction load of the plug that is under the greatest stress. These values are required for the selection of the most suitable anchoring, based on the type of material upon which the awning will be installed. Choose the anchoring by referring to the recommended load values in the Hilti General Catalogue.

Example: awning with ceiling attachment
- awning dimensions: 4.5x2.6 - load on plug: 2.32 kN - base material: non-cracked concrete C25. Suggested plug: Hilti HST M10 or HST M12 (see technical characteristics of plugs in Hilti General Catalogue).

WARNING

The selection of the most suitable type of fastening device depends on the base material and its physical condition. It is therefore the responsibility of the installer to check the condition of the base material before attaching the awning. The installer is not obliged to use Hilti anchoring devices.

3.4. TABLE OF SUGGESTED ANCHORING DEVICES

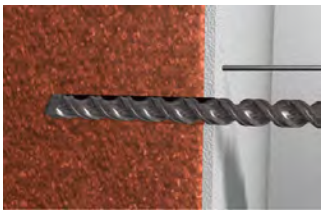
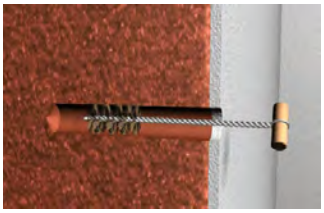
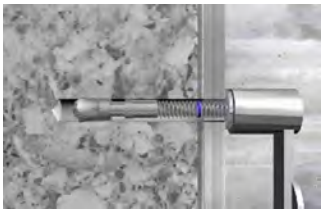
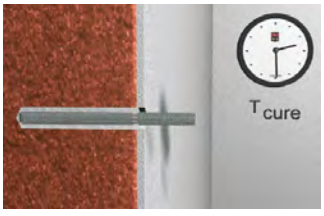
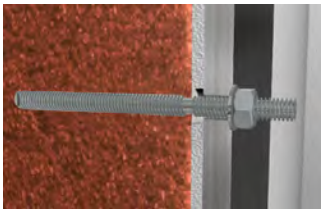
3.4.1 ▪Types of anchoring devices depending on the base material

Extraction load on anchoring devices (KN)	
Hilti HST 	CONCRETE CRACKED CONCRETE HARD NATURAL STONE
Hilti HSA 	CONCRETE HARD NATURAL STONE
Hilti HIT-HY 150 with HAS 	CONCRETE
Hilti HIT-RE 500 with HAS 	CONCRETE HARD NATURAL STONE SOLID BRICK WOOD
Hilti HIT-HY 50 	BETON GAS SOLID BRICK WOOD
Hilti HIT-HY 20 	PERFORATED BRICK

INFORMATION AND PRECAUTIONS

For corrosive environments, we suggest using stainless steel anchoring devices. For additional information, contact Hilti Italia S.p.A. technical service. (e-mail:tecnici@hilti.com)

3.4.2 ▪ Sequence for fastening of anchoring devices

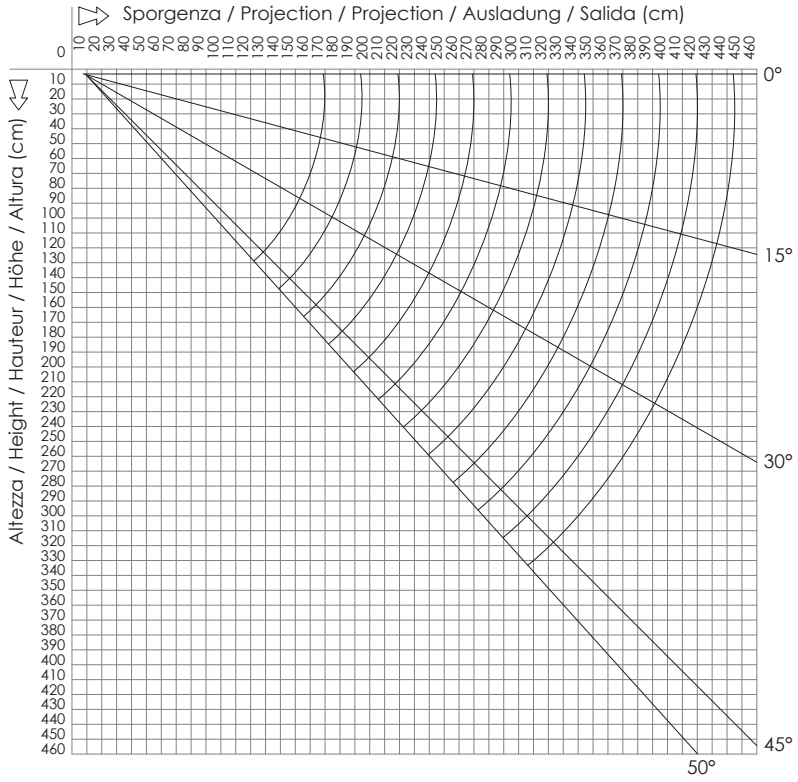
MECHANICAL ANCHORING DEVICE		CHEMICAL ANCHORING DEVICE	
	1▫ Make a hole with a drill bit that is suitable for the anchoring device		1▫ Make a hole with a drill bit that is suitable for the anchoring device
	2▫ Pay attention to how deep you make the hole		2▫ Pay attention to how deep you make the hole
	3▫ Remove dust and debris from the hole (preferably using compressed air)		3▫ Remove dust and debris using a brush
	4▫ Install the anchoring device		4▫ Remove residual dust with compressed air
	5▫ Tighten until achieving recommended tightening torque (see Hilti General Catalogue)		5▫ Inject the chemical adhesive
	6▫ Final configuration		6▫ Insert and settle the anchoring device. Comply with the setting time required before placing the plate (see product cartridge)
			7▫ After the time "T cure" has elapsed, place the plate and tighten until achieving recommended tightening torque (see Hilti General Catalogue)

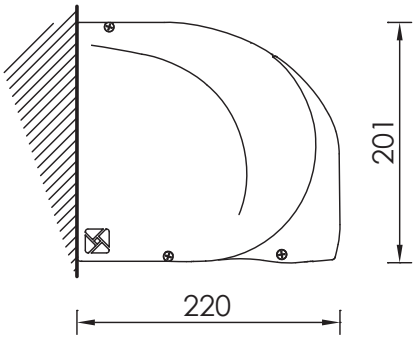
WARNING

For proper installation of the anchoring devices, refer to the Hilti General Catalogue

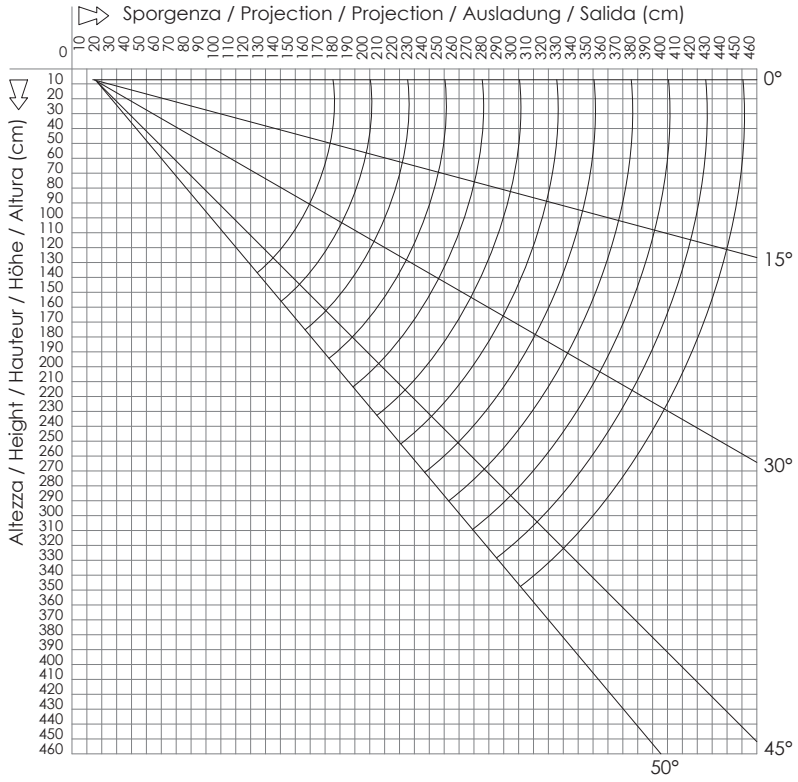
3.5· Diagrams of covering and installations

WALL INSTALLATION





CEILING INSTALLATION



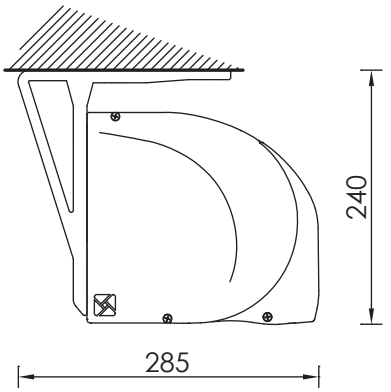


FIG. 1

3.6· Support brackets

WALL BRACKET

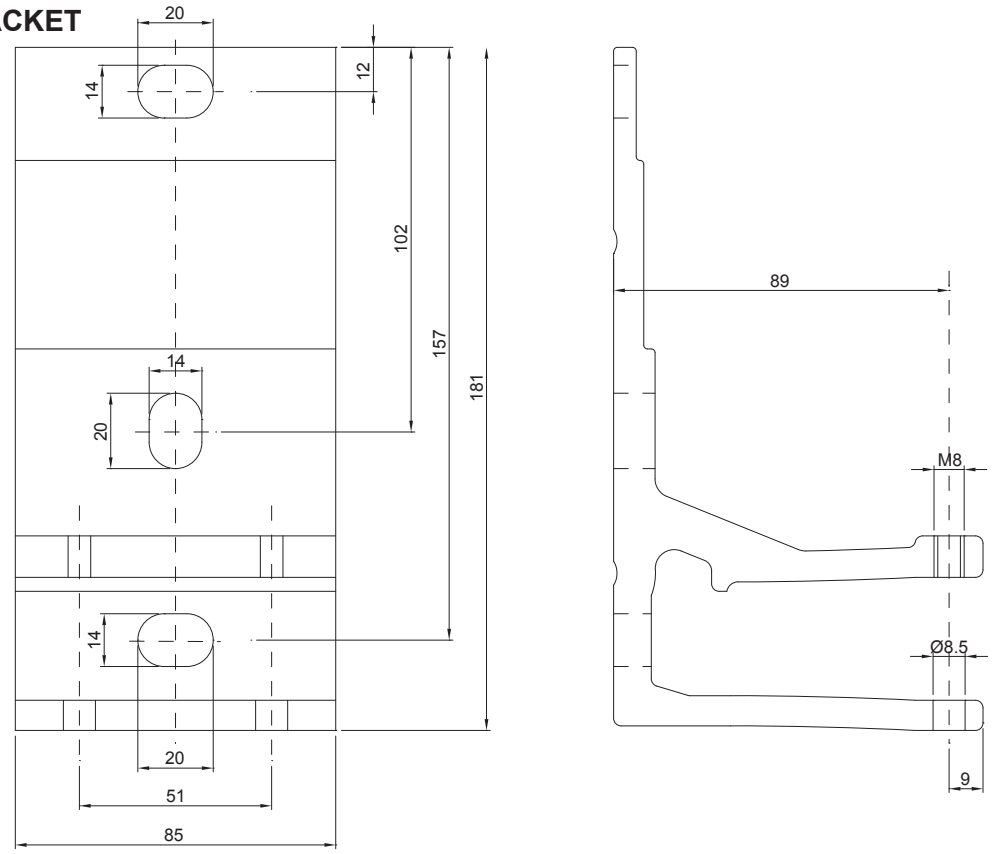


FIG. 2

CEILING BRACKET

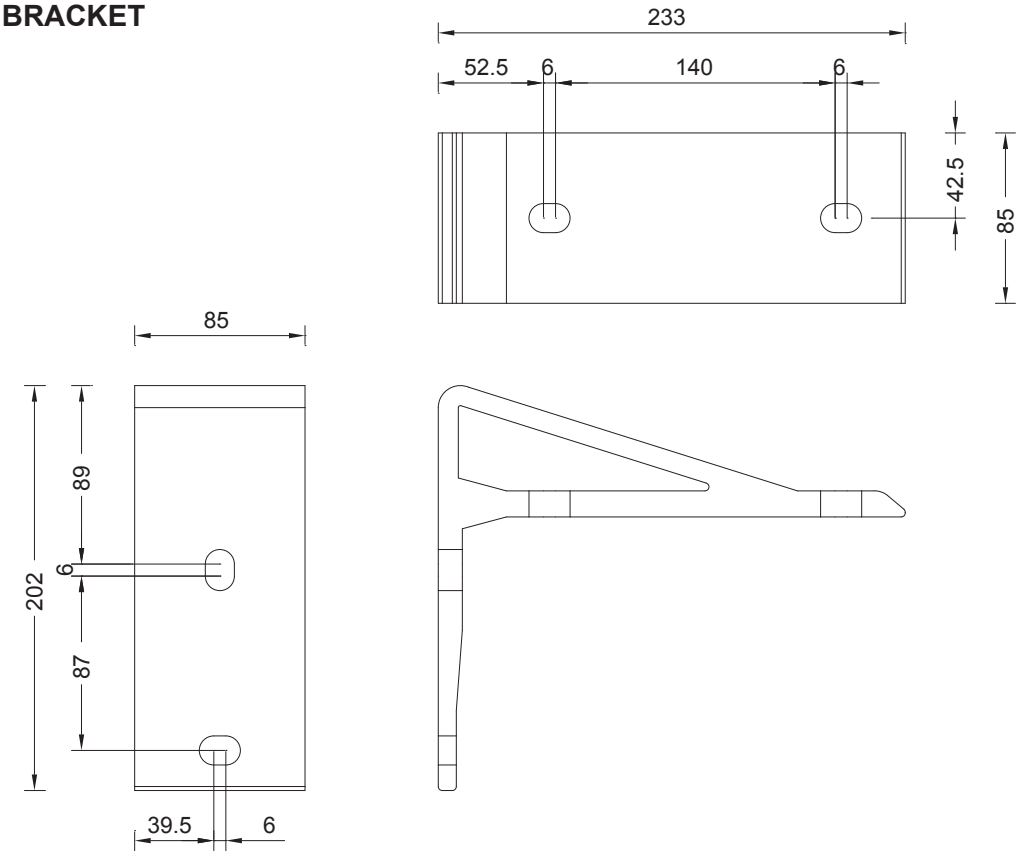


FIG. 3

4 · INSTALLATION OF MANUAL AWNING

The **Zenith** awning can be either wall-mounted or ceiling-mounted. If any options are provided, **first read** chapter 6, "Options".

WARNING

Ensure a minimum space of 500 mm between the open awning and any fixed obstacle. The awning must be installed at a minimum height of 2500 mm. If this is not possible, for awnings equipped with automations it is obligatory to install an acoustic warning device.

INFORMATION AND PRECAUTIONS

Use the most suitable plugs for the type of wall where the awning is to be installed.

INFORMATION AND PRECAUTIONS

For CEILING INSTALLATION, DO NOT FASTEN THE BRACKETS TO THE BLOCKS. The awning may fall with the risk of serious injury to individuals and damage to the product.

INFORMATION AND PRECAUTIONS

The procedure described below refers to the model of awning with TWO extensible arms. The operator must take the necessary measures for the installation of models with more than two arms (see the tables in Chap. 3.2).

4.1 · Fastening the brackets to the wall

Before starting installation, take note of the following information, which is indispensable to find the right position for fastening the brackets:

- dimensions of the awning (height and width of box, protrusion of awning when opened or closed);
- dimensions of support brackets (see chapter 3.6);
- number of arm supports;
- side of awning where control is located;
- dimensions of the wall/ceiling where the awning is to be installed.

INFORMATION AND PRECAUTIONS

For the positioning of the holes, for all types of brackets: measure the width of the awning and, referring to the data in Chapter 3.2 ("Table of awning dimensions/ no. arm supports and brackets"), calculate the position of the holes for the brackets.

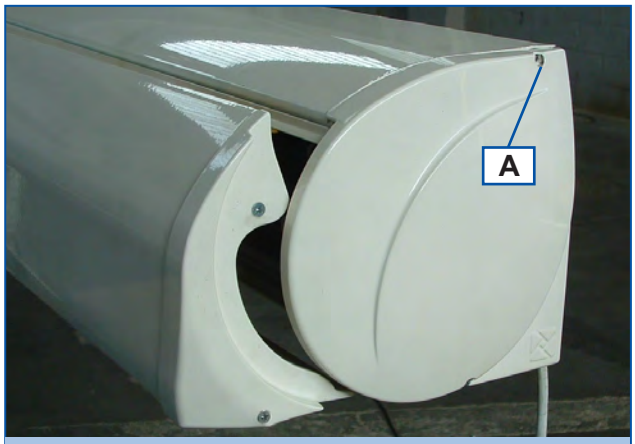


FIG. 4

1 ▫ Remove the two screws (A) supporting the box plugs, on both sides.

4.1.1▪ Wall bracket installation

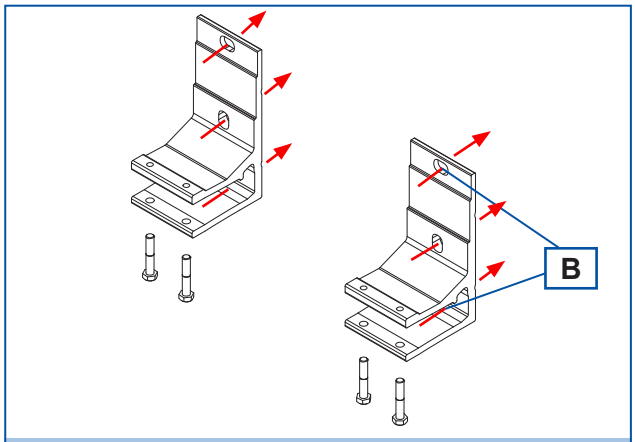


FIG. 5

2▫ Using a string and a level, mark the position on the wall of the holes (B) to be made (see Chap. 3.2, "Table of awning dimensions/ no. arm supports and brackets" and the template on page 20).

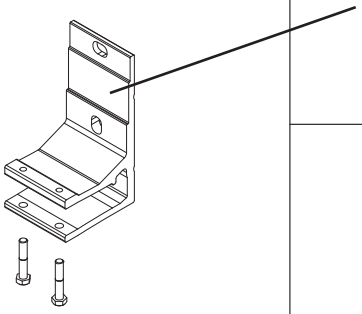
INFORMATION AND PRECAUTIONS

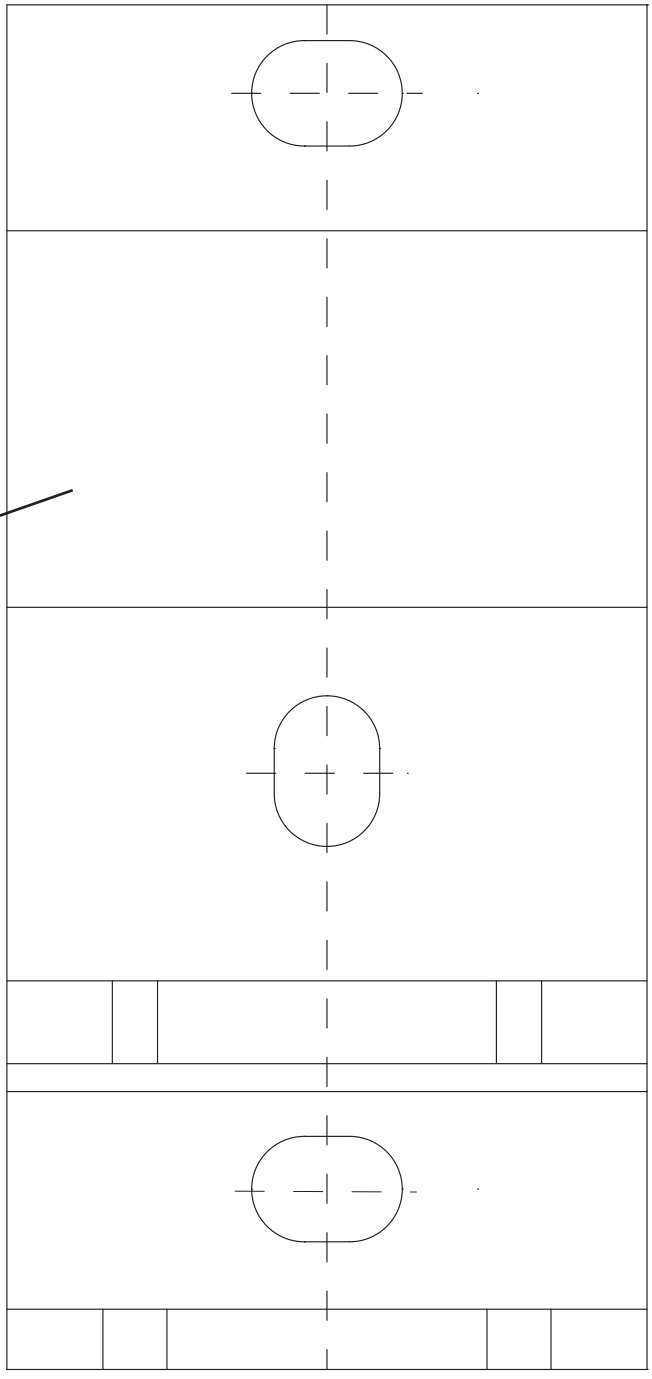
To facilitate the installation process, page 20 may be printed in A4 format for use as a template to find the best positions for the holes.

WARNING

TO AVOID GROSS ERRORS, MAKE SURE THE PRINT-OUT IS ON A SCALE OF 1:1, CHECKING THE MEASURE INDICATED ON PAPER WITH A RULER OR CALLIPER IN RELATION TO THE DIMENSIONS INDICATED ON PAGE 18.

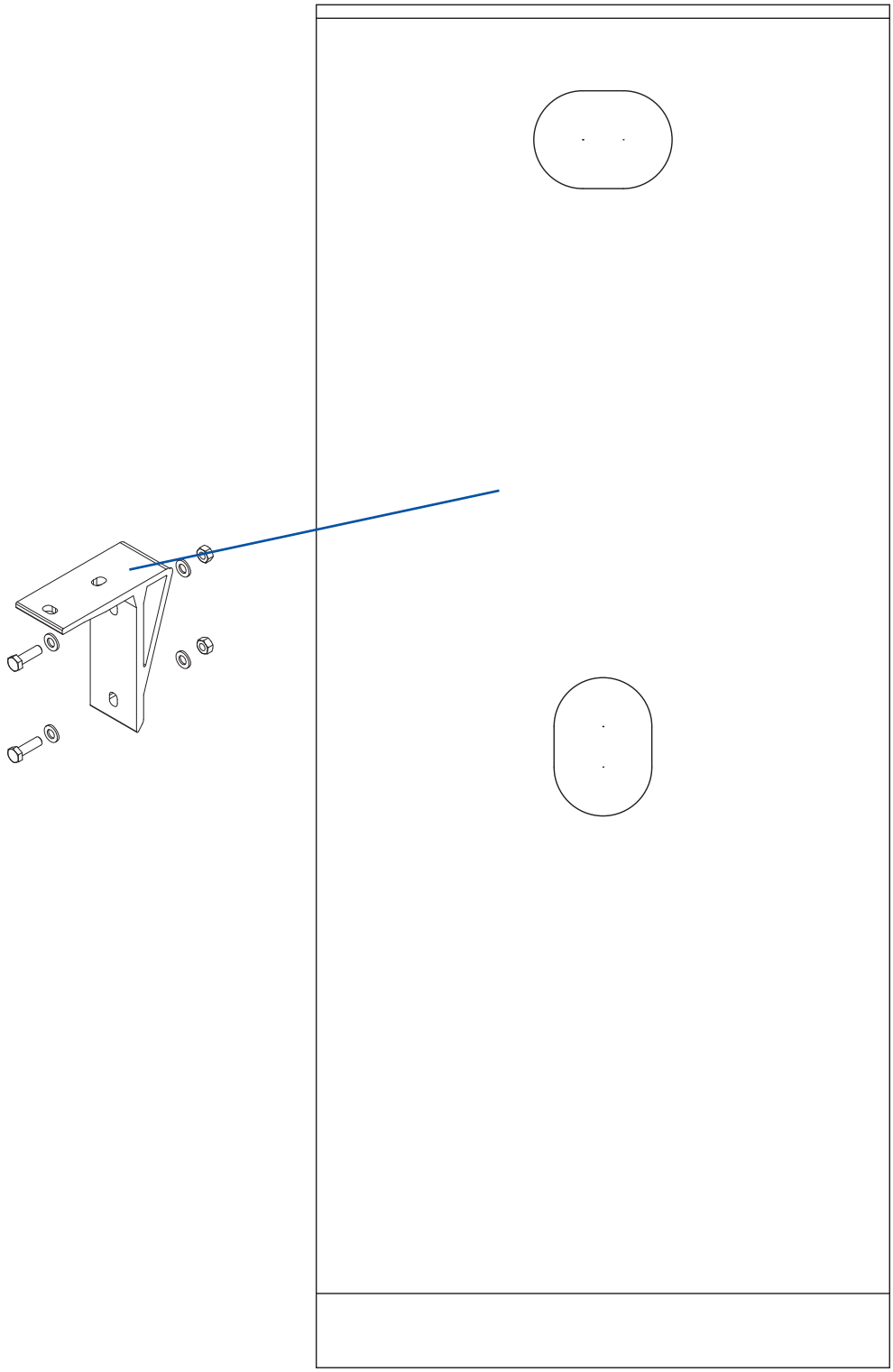
WALL BRACKET





Scale 1:1

CEILING BRACKETS



Scale 1:1

FIG. 6

3 ▫ Drill a hole in the wall based on the type of screws available and the type of masonry.

4 ▫ Fasten the WALL BRACKETS, inserting the plugs into the holes made in the wall, and secure the brackets in the holes (B - fig. 5) which have already been prepared.

INFORMATION AND PRECAUTIONS

If the wall is not squared off, installation of the brackets may be difficult. It is therefore advisable to check the alignment of the brackets (especially if there are more than two of them) and to provide inserts to ensure proper alignment for good installation. Use a string to check alignment.

4.1.2▪ Ceiling bracket installation

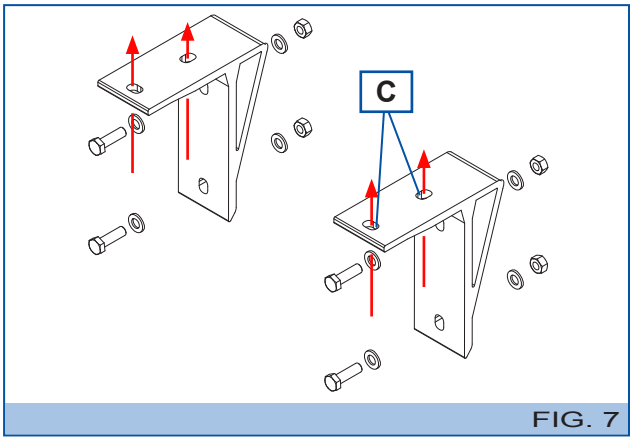


FIG. 7

5▫ Using a string and a level, mark the position of the holes (C) to be made on the ceiling (see Chap. 3.2, "Table of awning dimensions/ no. arm supports and brackets" and the template on page 21).

INFORMATION AND PRECAUTIONS

To facilitate the installation process, page 21 may be printed in A4 format for use as a template to find the best positions for the holes.

WARNING

TO AVOID GROSS ERRORS, MAKE SURE THE PRINT-OUT IS ON A SCALE OF 1:1, CHECKING THE MEASURE INDICATED ON PAPER WITH A RULER OR CALLIPER IN RELATION TO THE DIMENSIONS INDICATED ON PAGE 18.

6 ▫ Drill a hole in the wall based on the type of screws available and the type of masonry (see Fig. 6).

7 ▫ Fasten the BRACKETS to the CEILING, inserting the plugs into the holes made on the ceiling, and secure the brackets in the holes (D - fig. 7) using the dedicated screws.

INFORMATION AND PRECAUTIONS

If the wall is not squared off, installation of the brackets may be difficult. It is therefore advisable to check the alignment of the brackets (especially if there are more than two of them) and to provide inserts to ensure proper alignment for good installation. Use a string to check alignment.

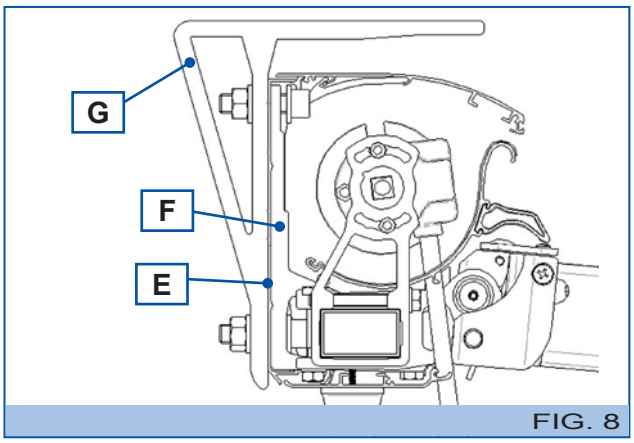


FIG. 8

For ceiling installations, the lower cover (E) must be inserted between the wall bracket (F) and the ceiling bracket (G).

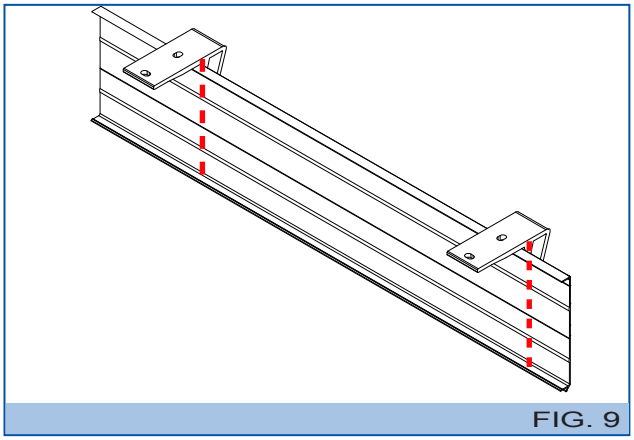


FIG. 9

8 ▫ Centre the lower cover on the ceiling brackets

previously mounted, and mark the line of the holes where the succession of wall brackets is to be fixed.

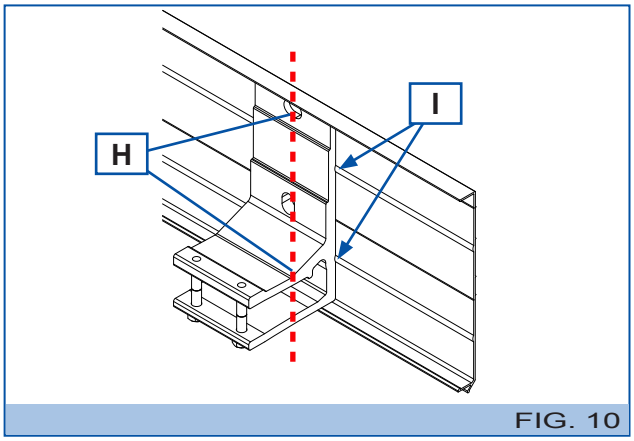


FIG. 10

9 ▫ Mark the position of the holes (H) to be made on the lower cover, laying the wall brackets on the cover so that the ribs (I) of the two accessories match up.

WARNING

The holes in the wall brackets must correspond to those in the ceiling brackets.

10 ▫ Pierce the lower cover in the positions as marked above.

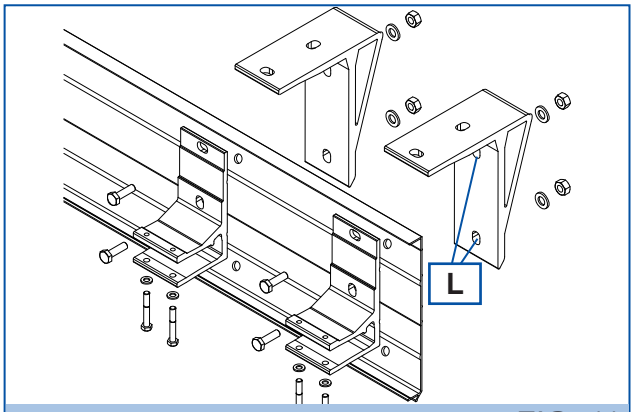


FIG. 11

11 ▫ Affix the wall brackets, the lower cover and the ceiling brackets in the holes (L) using the dedicated screws.

4.2 · Installing the rectangular bar on the brackets

FIG. 12

12 ▫ Insert the rectangular bar (previously assembled with the rest of the awning), in the bracket and fasten it in place using the screws (M).

4.3 · Adjustment of awning inclination

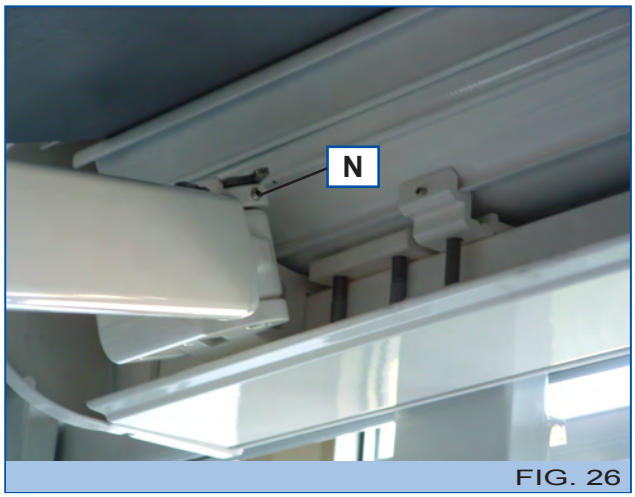


FIG. 26

If the two arms are not aligned together, adjust the grub screw in the arm supports.

13 ▫ Tighten the grub screw (N) to raise the elbow of the arm, and unscrew to lower it.

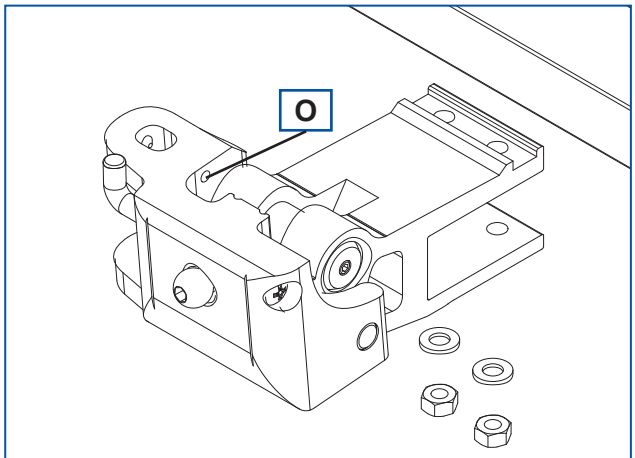


FIG. 27

14 ▫ Once the arms have been set in parallel correctly, fasten the grub screw (O) in both arm supports.

15 ▫ Simulate at least a couple of opening and closing motions of the awning to ensure that the cassette box and terminal match perfectly with the awning closed.

4.4 · Completing the installation

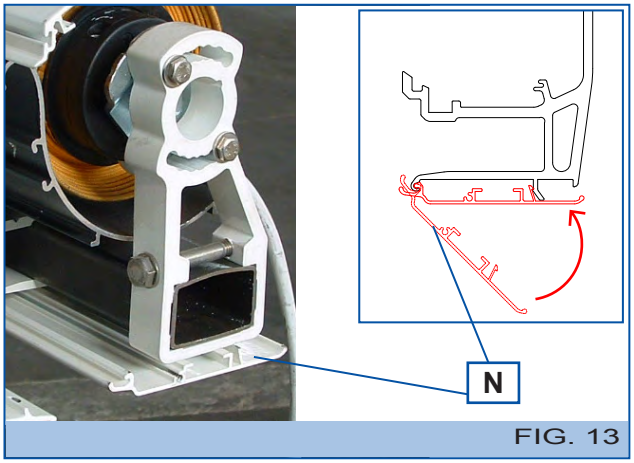


FIG. 13

16 ▫ Hook the interior profile (N) to the cassette box support as shown in the figure.

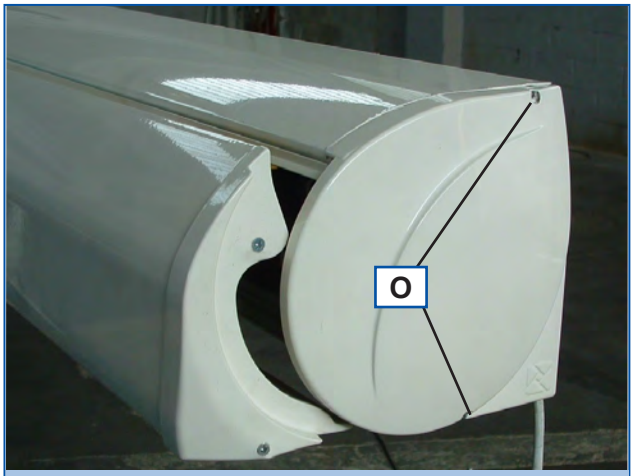


FIG.14

17 ▫Close the sides of the cassette with plugs and fasten them with the screws (O).

18 ▫ For a manual awning, fasten the manoeuvre rod to the winch.

5 INSTALLATION OF MOTORIZED AWNING

WARNING

IT IS PROHIBITED to install the motorized product in an explosive atmosphere.

WARNING

Use a locking switch (with key) if the awning is installed in sensitive locations such as schools, boarding schools, hospitals, retirement homes, etc. If the awning is equipped with a radio control, keep it out of the reach of children.

WARNING

If there is an opening/closing switch, it must be located in a protected position at a height of at least 1500 mm above ground level and in a safe place.

WARNING

The awning must be installed at a minimum height of 2500 mm. If this is not possible, for awnings equipped with automations it is obligatory to install an acoustic warning device.

5.1 · Limit switch calibration

INFORMATION AND PRECAUTIONS

Before installation, check that the limit switch is properly calibrated. If it requires adjustment, follow the instructions in the attached "Motor Manual".

5.2 · Electrical connections and installation

WARNING

The electrical connections must be performed by qualified personnel and with the electrical energy disconnected.

INFORMATION AND PRECAUTIONS

It is prohibited to connect two or more motors to the same switch due to the risk of induced current which would result in damage to the motors.

Installation of the motorized awning is performed with the same procedure as the manual awning, except for the application of the manoeuvre rod and except for the motors with emergency control (Chap. 4.3 “Completion of box installation", point 12).

Instructions for electrical connection and programming the type of operation are described in the "Motor Manual" which is attached.

6 OPTIONS

6.1 · Automations

(Only for motorized awnings)

Wind gauge, rain gauge, twilight sensor: installation of these optional is described in the manuals for automations and for requested controls.

WARNING

For awnings with automations, the awning must be installed at a minimum height of 2500 mm. If this is not possible, it is obligatory to install an acoustic warning device.

7 SPECIAL MAINTENANCE

7.1 · Troubleshooting table

MANUAL AWNING

PROBLEMS	CAUSES	SOLUTIONS
Conical rewinding of canvas	Uneven fabric thickness	Roll the canvass all the way back up

MOTORIZED AWNING
Without electronic control unit

PROBLEMS	CAUSES	SOLUTIONS
Conical rewinding of canvas	Uneven fabric thickness	Roll the canvass all the way back up
The awning does not roll up all the way. The awning does not open up all the way.	Incorrect adjustment of limit switch. Motor crown shifts during movement	See manual for motor (attached) See manual for Assembly, Chap. 7
The motor is very noisy	Incorrect wiring Motor failed	See manual for motor (attached) See manual for motor (attached)
The motor shuts down after 4-5 minutes of continuous operation	Thermal protection of motor trips	Let the motor cool off for a few minutes

With electronic control unit

PROBLEMS	CAUSES	SOLUTIONS
The awning does not move	Fuse blown Incorrect wiring	Replace the fuse as shown in the attached manual See manual for motor (attached)
The awning moves in jerks (moves for 50 cm, stops, etc.)	Faulty wind gauge	See instructions on automations (attached)
The awning does not roll up in high winds.	Fuse blown Faulty wind gauge	Replace the fuse as shown in the attached manual See instructions on automations (attached)
The awning does not roll up in heavy rain.	Fuse blown Rain gauge defective	Replace the fuse as per the instructions in the attached Manual. See instructions on automations (attached)
With radio control, the awning opens or closes by itself.	Battery dead Radio remote control damaged	Replace battery in radio remote control (see instructions concerning controls) Replacement of radio remote control