



Technical data

Folding arm awnings
TC130

HAROL

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Harol reserves the right to make alterations of the product without prior notice.

1. Generalities

- The TC130 is a folding arm awning of the two-tube type.
- The construction is characterised by a box profile, an extension pole and a roller tube which are, together with the arms, assembled between and to the side consoles.
- The outer consoles are the heart of the system and serve as for the mounting against the wall as well as for the setting of the angle of drop.
- Awning with complete box and with a complete extension pole.
- The colour of the aluminium parts and profiles: as a standard in the chosen colour of the awning. (see colour card)

2. The profiles

2.1. The fabric roll

- Material: a round welded zendzimir tube manufactured from a zinc-plated zendzimir strip .
- Function: the rolling up and down of the fabric.
- Provided with a slot for the attachment of the fabric.
- Diameter: Ø78 x 1mm

2.2. The Clip On-Clip Off profile

- Material: extruded PVC clips.
- Function: the attachment of the fabric to the fabric roll without the use of screws.
- Because of this system it is easy to subsequently replace the fabric.

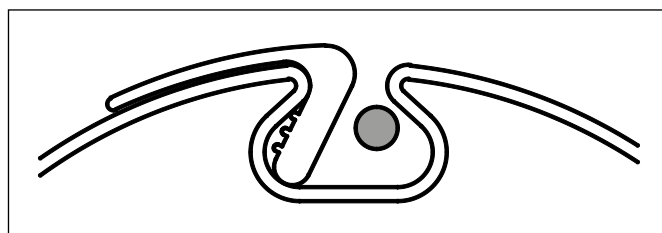


Fig. 1 : "Clip On - Clip Off" profile

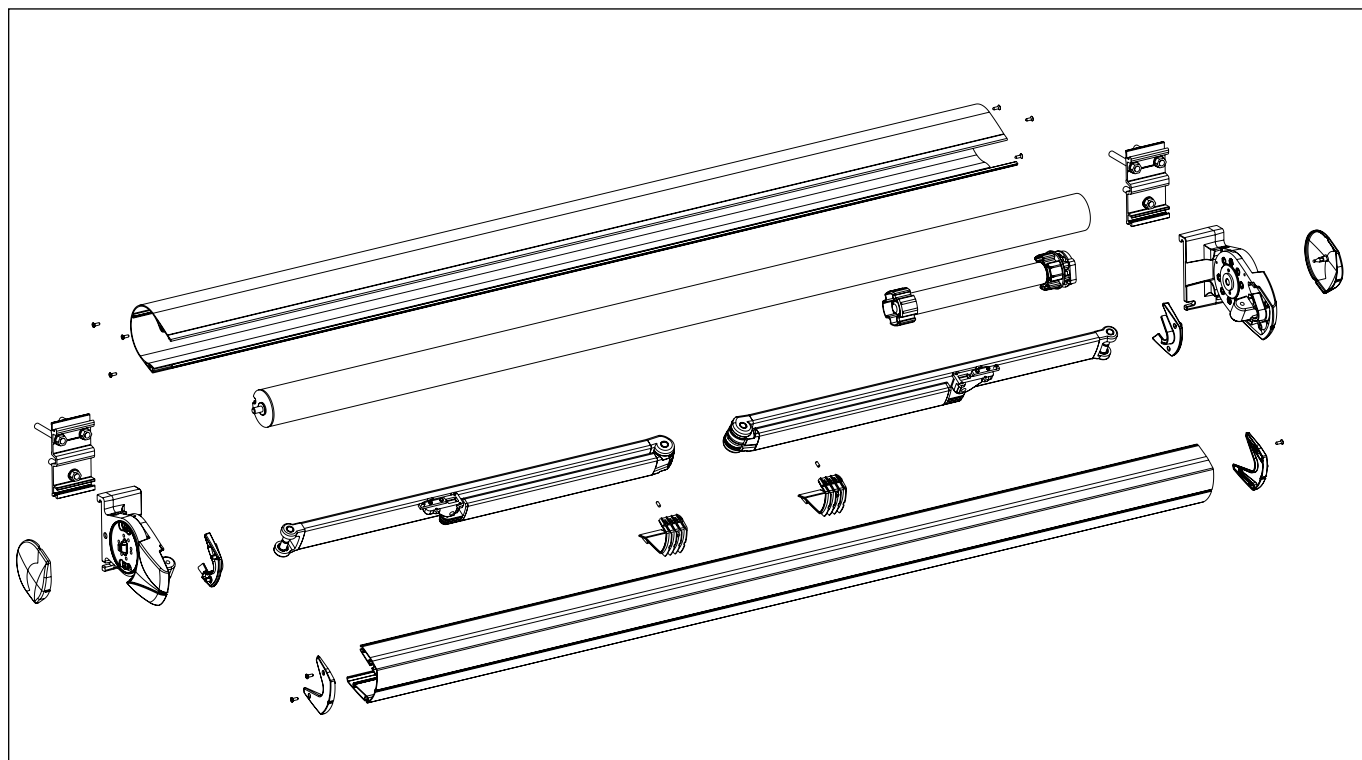


Fig. 2 : Exploded view TC130

2.3. The top board

- Material: extruded aluminium, powder coated.
- Function: covers the fabric over the whole width.
- With complete top board which protects the fabric all around.
At the bottom provided with a toucher for the extension pole.
- At the front provided with a hard PVC profile .

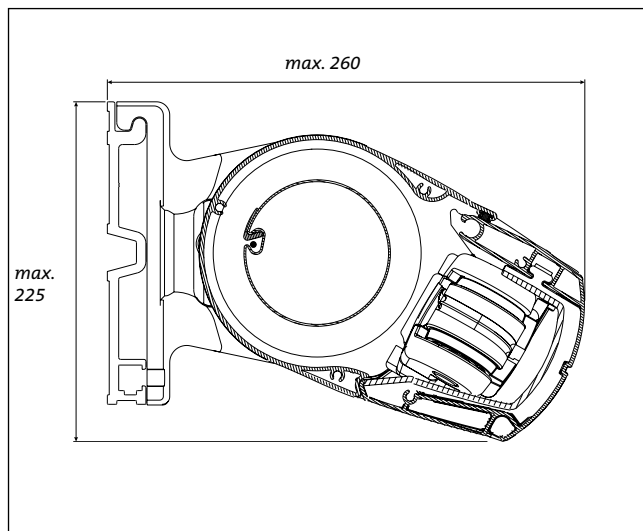


Fig. 3 : Section TC130

2.4. The extension pole

- Material: extruded aluminium, powder coated
- Function: closing off the awning at the front
- Provided with:
 - ▶ at the upper side:
 - a groove for the attachment of the fabric
 - a groove for the attachment of the arms
 - ▶ at the lower side:
 - a groove for the attachment of a valance
- At the ends finished with aluminium covers:
 - ▶ coated in the colour of the extension pole
- High extension pole
 - ▶ covers the arms completely
 - ▶ therefore: as standard no valance

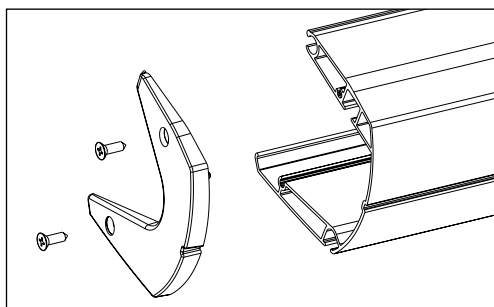


Fig. 4 : High extension pole TC130

3. The other components

3.1. The folding arms

- Connect the box and the extension pole
- Available with the following drops: 1500, 2000, 2500 and 3000mm
- Up to a width of 5500mm two arms are mounted
- The arm profiles:
 - ▶ Material: extruded aluminium, powder coated
- The hinges:
 - ▶ Material: of a high pressure cast aluminium alloy
 - ▶ Hinge on durable slide bearings of sintered bronze, provided with a PTFE sliding layer
 - ▶ The most heavily loaded parts are also thermally treated
- The springs and the steel cables:
 - ▶ Material: of high quality spring steel which has been zinc-plated beforehand
 - ▶ The diameter is always in relation to the force applied
 - ▶ The power of both springs is transferred via a wedge to two zinc-plated steel cables:
 - ensure a division of the power
 - considerable extension of the operating life

3.2. The side consoles

- Material: cast aluminium, powder coated
- Function:
 - ▶ lateral enclosure of the awning.
 - ▶ the two folding arms are directly attached to the side consoles.
 - ▶ provided with a synthetic wedge-shaped lead-in funnel, for the entrance of the extension pole.
 - ▶ provided with several holes for the setting of the (approximate) angle of inclination.

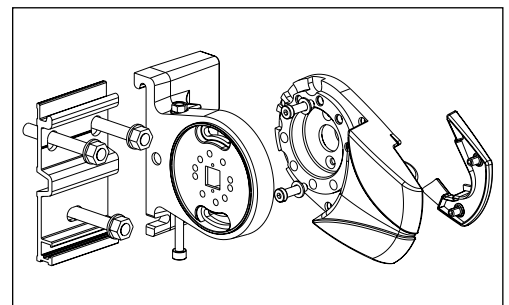


Fig. 5 : Side console with wall/ceiling bracket and mounting bracket

3.3. The wall/ceiling brackets

- Material: cast aluminium, powder coated
- Function:
 - ▶ connecting the side consoles and the mounting brackets.
 - ▶ in accordance with the positioning of the brackets to the side consoles, the awning can be mounted against the wall or against the ceiling.
 - ➡ therefore, you should always indicate the mounting type

3.4. The angular displacement system

- Function: makes the setting of the angle possible.
 - ▶ the angular displacement can be effected very easily.
 - ▶ the awning hinges in its totality.
 - ▶ it is not necessary to readjust the extension pole.
- The system also ensures complete protection against the flapping and dropping of the arms.
- The range for the angle is 0° to 90°, depending on the mounting type.
- The setting of the angle is effected via the underside, for assembly against the wall and via the back, for assembly against the ceiling. (sufficient space should be provided, see point 8.1 and fig. 12)

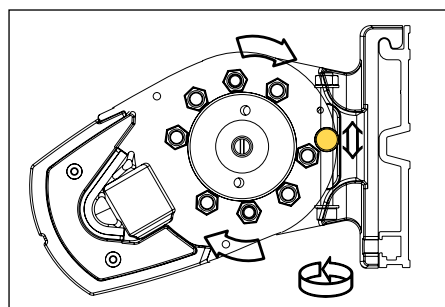


Fig. 6 : Angular displacement system

Mounting type	Angle (in °)
1	0 - 38
2	38 - 76
3	14 - 52
4	52 - 90

Table 1 : Angle per mounting type

Mounting type	Angle (in °)	Drop			
		1500	2000	2500	3000
1	0	0	0	0	0
	38	923	1231	1539	1847
2	38	923	1231	1539	1847
	76	1455	1941	2426	2911
3	14	363	484	605	726
	52	1182	1576	1970	2364
4	52	1182	1576	1970	2364
	90	1500	2000	2500	3000

Tabel 2 : Angle in function of drop
(approaching values)

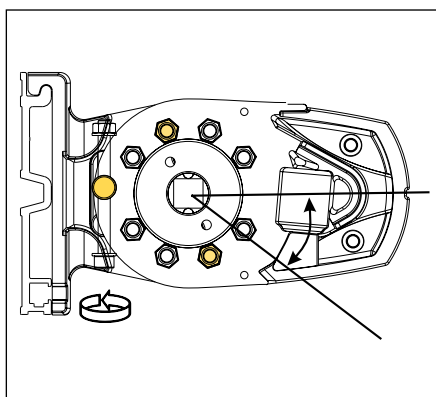


Fig. 7a : Mounting type 1

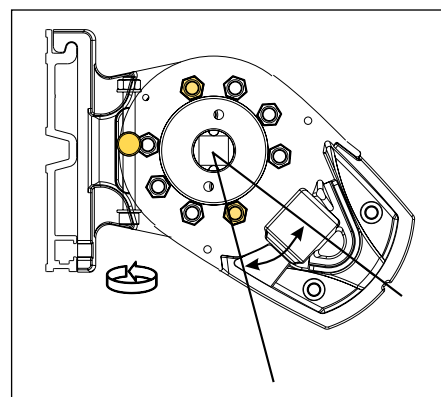


Fig. 7b : Mounting type 2

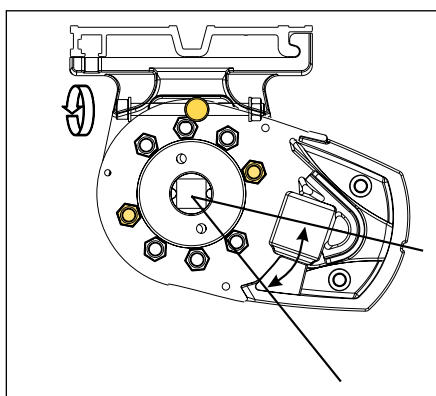


Fig. 7c : Mounting type 3

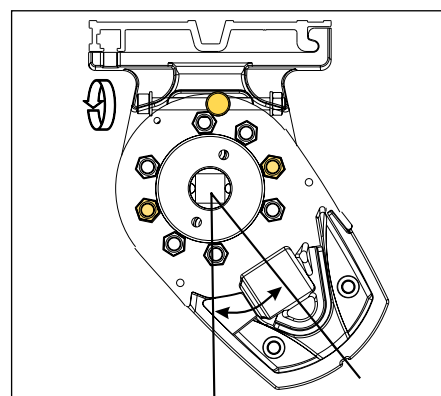


Fig. 7d : Mounting type 4

3.5. The mounting bracket

- Material: extruded aluminium, powder coated.
- Function:
 - ▶ is used for assembly against a wall or a ceiling.
- Width 120mm
- Provided with three fastening holes with slot for assembly to the base, and sidelong two holes with slot for assembly to the wall/ceiling brackets.

3.6. The extension pole regulation

- Material: cast aluminium, powder coated
- Function: to set the extension pole in the correct position, so that the extension pole always closes correctly

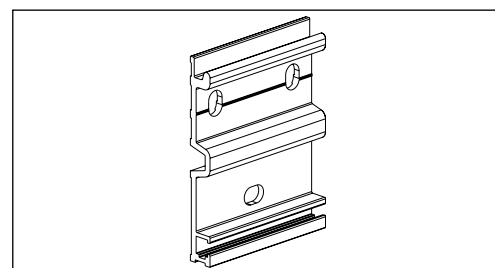


Fig. 8 : Mounting bracket

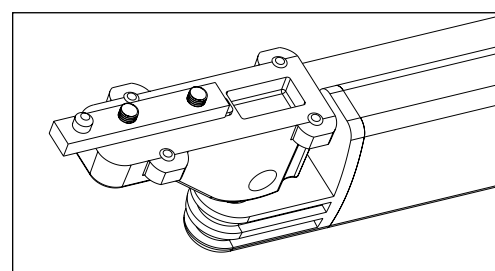


Fig. 9 : Extension pole regulation

3.7. The covers of the side consoles

- Material: cast aluminium, powder coated.
- Function:
 - ▶ lateral enclosure of the awning.
- With motor operation : a small cover at both sides of the box.
- With crank handle operation : a larger cover at both sides, to enclose the rod mechanism, and for the symmetry of the awning.

3.8. The covers of the extension pole (see fig. 4)

- Material: cast aluminium, powder coated.
- Function: the finishing of the extension pole.

3.9. Entrance of the extension pole (see fig. 5)

- Material: of cast synthetic.
- Function: thanks to its shape, this wedge makes the extension pole always close identically

3.10. Fastening material

The folding-arm awnings produce a lot of pressure on the mounting surface. Therefore it's recommended to mount the awnings with chemical anchors (company Hilti, Würth, ...) or other mounting systems.

3.11. Ceiling console: (optional A2743)

4. Minimum and maximum sizes

- Width:
 - ▶ Maximum:
 - 5,5m in 1 part with 2 arms
 - cannot be coupled
 - ▶ Minimum:
 - depending on the chosen drop (motor : $B_{min} = \text{drop} + 490\text{mm}$;
crank : $B_{min} = \text{drop} + 550\text{mm}$)
- Drop:
 - ▶ Maximum: 3,0m
 - ▶ Minimum: 1,5m

5. Weight

- The approximate weight:
- ± 11 kg per metre (width)

6. Operation

Two operating types:

- Motor operation
- Crank handle operation

MOTOR OPERATION

- The standard motor is the Sunea IO motor, without push buttons and controlled with an IO transmitter.
 - ▶ IO transmitter.
 - ▶ 5m electric cable.
- Option:
 - ▶ without IO wall transmitter.
 - ▶ electric cable 10m instead of 5m.

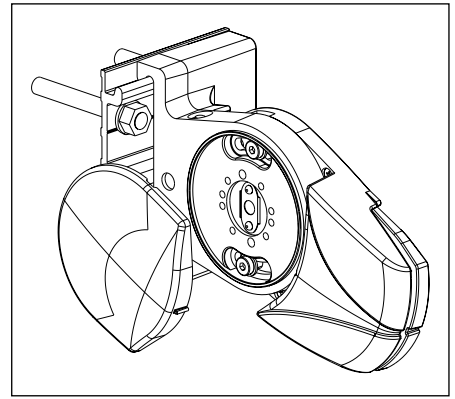


Fig. 10a : Cover motor operation

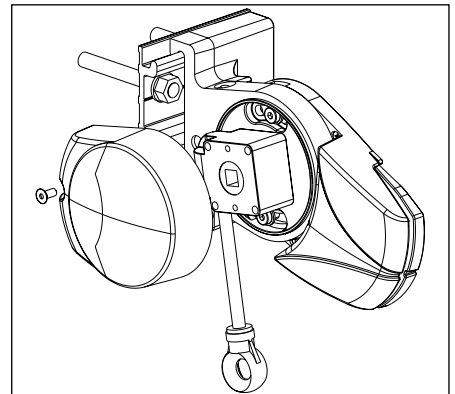


Fig. 10b : Cover crank handle oper.

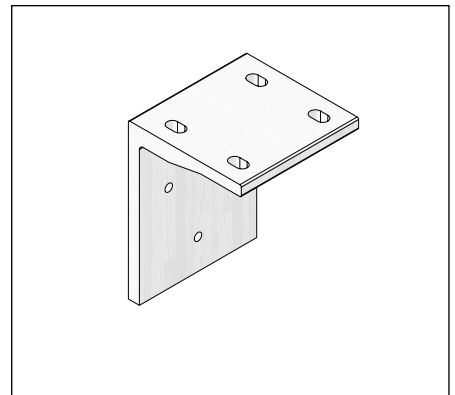


Fig. 11 : Ceiling console

Technical data folding arm awnings TC130

other types of motors :Orea WT.

Prod. Type	MOTORTYPE	OPTION	SURCHARGE	CABLE LENGTH		
				3M	5M	10M
TC130	Sunea IO	Standard	-	-	S	X
	Orea WT	A2619	Minusprice	S	X	X**

S: Standard X: Option

** : Without surface mounted switch

- ▶ motor with emergency control is not possible.
- ▶ For more possibilities and automation: see the Harol domotics map.

Remark: the motor is already adjusted in the fabric.!

CRANK HANDLE:

- As standard:
 - ▶ self-braking worm wheel.
 - ▶ with transmission capacity of 7:1
 - ▶ a laying hook of 1600 mm is supplied.
 - ▶ maximum width : 5500 mm
- Option:
 - ▶ a longer laying hook.
 - ▶ bevel gear not possible.
- Attention : with assembly against the ceiling : please indicate exit A or B.

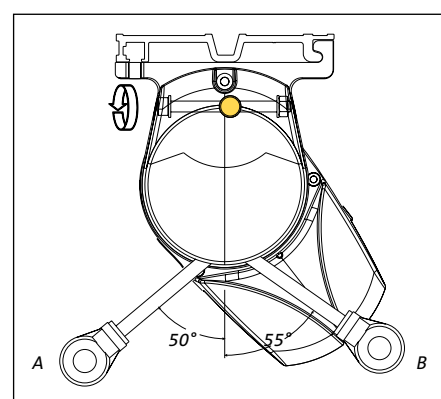


Fig. 12 : Crank handle operation exit with ceiling mounting

7. Fabrics

Choice between two different qualities.

Acrylic:

- Construction: acrylic fibres, coloured in the mass.
- Colour: patterns and colours chosen from the standard collection.
- Weight: +- 290-300 g/m²
- Thickness: +- 0,5mm
- Confection:
 - ▶ vertical rows of 1200mm
 - ▶ side hems of 50mm
 - ▶ double step stitch with polyester thread.
 - Mould-resistant and dirt-repelling

Wide width canvas:

- Infinity with a max. roll width of 3200 mm.
- Colour: uni-colours only.
- Fabric confectioning:
 - ▶ 1 horizontal strip.
 - ▶ no side hems.
 - ▶ always "Closed-edges" confectioning

8. Measuring and assembly of an awning

8.1. Guidelines for the correct measuring of the awning

- The total width:
 - ▶ measured including side guards.
 - ▶ the fabric is always less wide than the width of the awning indicated (pay attention for crank handle operation larger covers for the side consoles).
- The drop:
 - ▶ measured from the rear side of the box (at the top) to the front of the extension pole.
 - ▶ an assembled system always protrudes a little further from the wall than the drop indicated.
- For optimal sun shading an awning must protrude sufficiently past the window to the left and right.
- With assembly against the ceiling : please reckon with enough space for the fixing and the setting of the angle at the back. (see fig. 12)

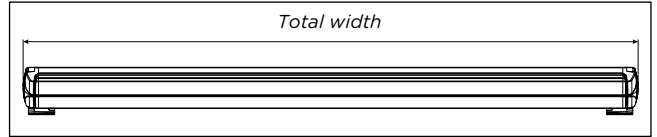


Fig. 13 : Total width

8.2. Assembly

- Pay attention to the quality of the surface for assembly:
 - ▶ With poor walls, gas concrete, soft or hollow stone walls:
 - adapted fastening accessories are required.
- Take account of the fact that the awning must be mounted at a sufficient height. (min. 2500mm)
- The slope should be adjusted to an angle between 0° and maximum 90°. (depending on the mounting type)
 - ▶ account of sufficient run-out height must be taken.
- With assembly between 2 walls, please reckon with enough space left and right, for mounting and removal of the covers of the side consoles.

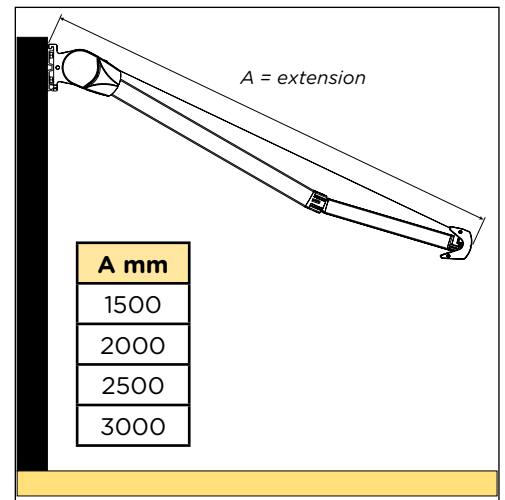


Fig. 14 : Extension

8.3. Wind load resistance class and tensile forces on screws

- This folding arm awning has been tested for use up to a max. wind load resistance class 2, if correctly fitted (and the appropriate fitting materials are used).
- For wind load resistance class 2, the tensile forces on screws are as detailed below:

TC130 (ACRYL) WITH STANDARD HIGH EXTENSION POLE ➡ MOUNTING TYPE 1 & MOUNTING TYPE 2

TRACTION FORCE PER UPPER FASTENINGPOINT, PER STANDARD WALLBRACKET [N].

EXTENSION / WIDTH	2000	2250	2500	2750	3000	3250	3500	3750	4000	4250	4500	4750	5000	5250	5500
1500	549	604	660	716	771	827	883	938	994	1050	1106	1161	1217	1273	1328
2000			1046	1133	1220	1307	1394	1481	1568	1655	1742	1829	1916	2003	2090
2500					1773	1898	2023	2148	2273	2398	2523	2648	2773	2898	3023
3000							2727	2897	3067	3236	3406	3575	3745	3914	4084

TC130 (ACRYL) WITH STANDARD HIGH EXTENSION POLE ➡ MOUNTING TYPE 3 & MOUNTING TYPE 4 / ASSEMBLY AGAINST A CEILING

TRACTION FORCE PER UPPER FASTENINGPOINT, PER STANDARD WALLBRACKET [N].

EXTENSION / WIDTH	2000	2250	2500	2750	3000	3250	3500	3750	4000	4250	4500	4750	5000	5250	5500
1500	1086	1207	1329	1451	1572	1694	1816	1937	2059	2181	2303	2424	2546	2668	2789
2000			2069	2260	2451	2642	2833	3024	3215	3406	3597	3789	3980	4171	4362
2500					3521	3797	4073	4349	4625	4900	5176	5452	5728	6004	6280
3000							5535	5911	6287	6663	7039	7415	7791	8166	8542

TC130 (ACRYL) WITH EXTENDED WALLBRACKET

TRACTION FORCE PER UPPER FASTENINGPOINT [N].

EXTENSION / WIDTH	2000	2250	2500	2750	3000	3250	3500	3750	4000	4250	4500	4750	5000	5250	5500
1500	1690	1884	2078	2273	2467	2661	2855	3049	3243	3437	3631	3825	4019	4213	4408
2000			3319	3630	3941	4252	4563	4874	5185	5496	5807	6118	6429	6740	7051
2500					5741	6195	6649	7103	7557	8011	8464	8918	9372	9826	10280
3000							9112	9735	10357	10980	11603	12226	12849	13472	14094

TC130 (ACRYL) WITH BACK PLATE

TRACTION FORCE PER UPPER FASTENINGPOINT [N].

EXTENSION / WIDTH	2000	2250	2500	2750	3000	3250	3500	3750	4000	4250	4500	4750	5000	5250	5500
1500	120	134	148	162	176	190	204	218	231	245	259	273	287	301	315
2000			234	256	277	299	321	343	365	387	409	431	453	475	497
2500					401	433	465	496	528	560	592	623	655	687	719
3000							634	677	721	764	808	851	894	938	981

9. Accessories

9.1. Valance

- At option.
- Choice between four types.
- Standard height 250 mm, other heights available.

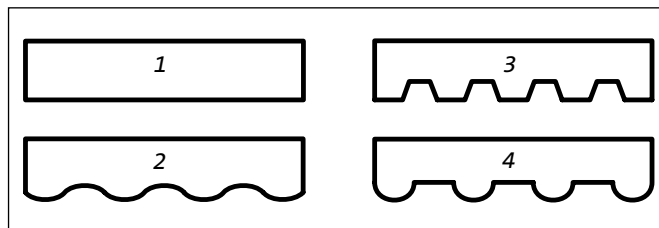


Fig. 15 : Valances

9.2. Side flaps

- At option.
- The side flaps are fitted between the housing and the extension pole at the side of the awning.
- The side flaps are available in several standardised forms or according to a drawing.
- This can only be done when the awning is fully open.

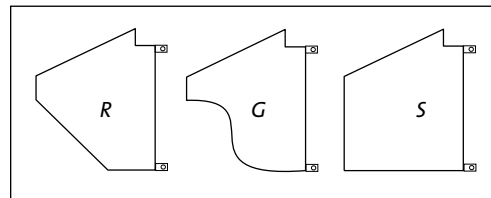


Fig.16 : Side flaps

9.3. Lettering

- The fabric, valance and/or side flap can be provided with lettering (as an option)
- The flounce height with lettering is 300mm as standard.

Attention: Texts on striped fabrics and flounces are often difficult to read. In this case uni-fabrics are best used.

10. Delivery

- The awning is delivered without fastening material.
- To prevent damage during transportation all awnings are provided with extra protection in the form of plastic foil and fully packed in strong cardboard.

11. Use and maintenance

- Suitable use and maintenance greatly increase the life of the awning.
 - ▶ Do not use the awning as a rain or wind awning.
- Regular maintenance of the awning prevents unnecessary wear.
 - ▶ cleaning the frame: with soft water instead of aggressive substances, which may affect the coatings and protective layers.
 - ▶ cleaning the fabric:
 - with a stiff brush
 - stubborn stains are best removed with a tepid water and brown soap solution (rinse thoroughly with copious amounts of clean water)
- Let the awning dry fully before rolling it up (even after an unforeseen rain shower)

12. Security

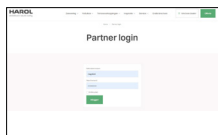
For security reasons (injuries) it is recommended to mount the awning according to the rules

13. Order form

Click the link below:

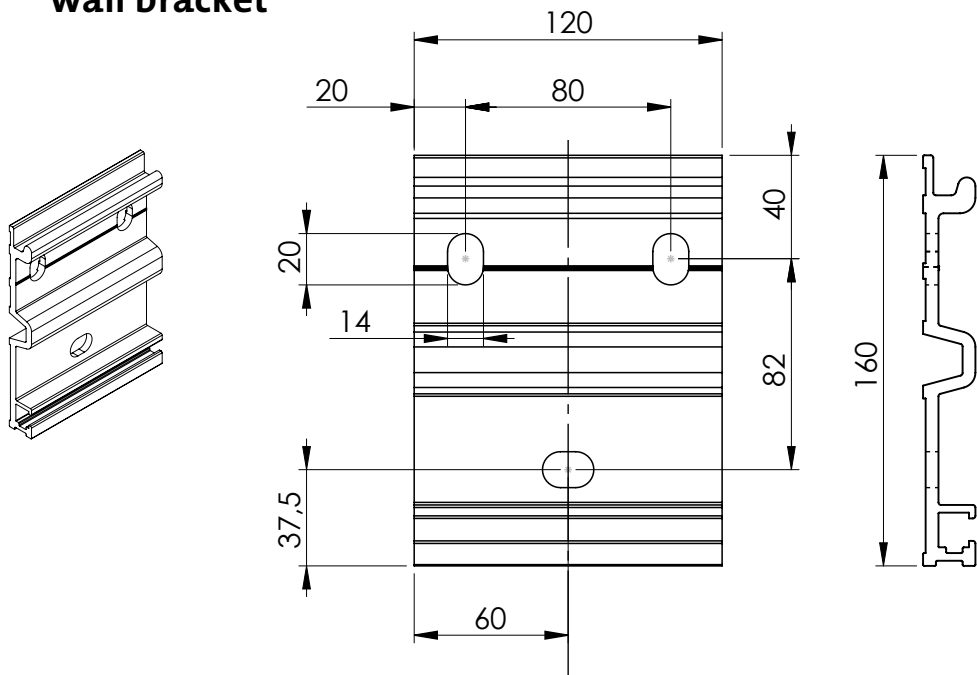
ORDER FORM TC130

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Contact our marketing team for login details or register online via www.harol.com



14. Technical drawings

wall bracket



Extended wall bracket

