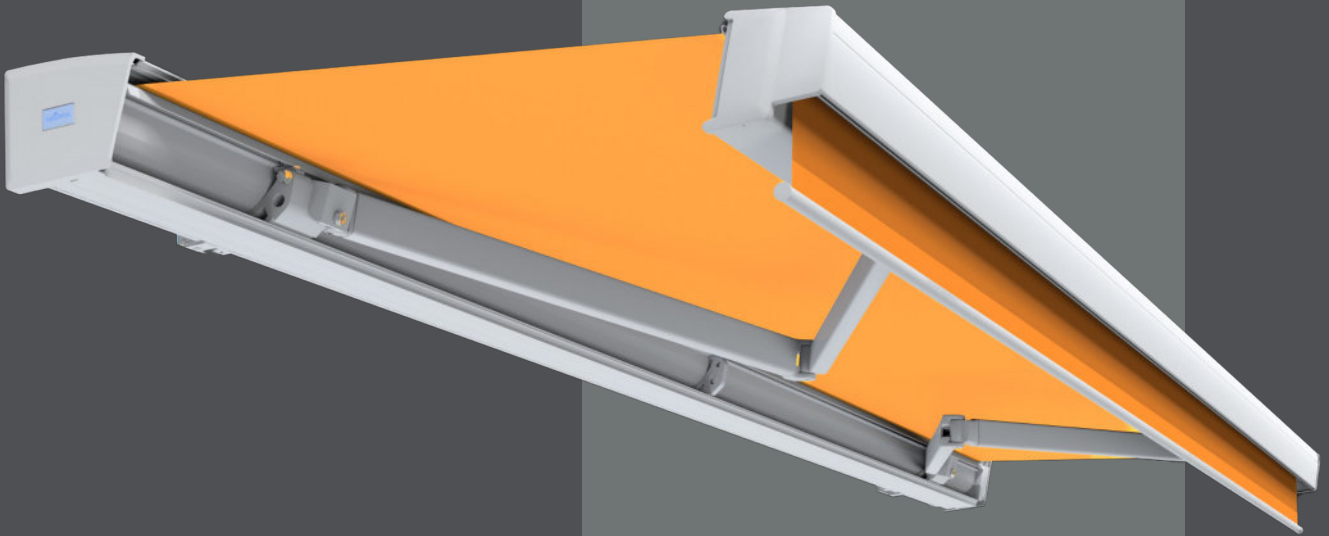


Installation instructions



Trentino

Vario-Valance

**Lewens**
MARKISEN



Important safety instruction!



To ensure the safety of persons it is important to read these instructions carefully prior to installation and to follow them. The installation instructions should be kept in a safe place and if the awning is sold they must be passed on to the new owner.

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1. General

1.1. Scope of supply

- 1 x awning: Trentino with Vario Valance
- 1 x base profile Trentino
- 1/1 x casing cap left/right
- * x 90/180/300 brackets
- * x ceiling angles *(only if ordered as an extra)*
- * x rafter brackets *(only if ordered as an extra)*
- * x mounting plate *(only if ordered as an extra)*
- 1 x awning crank handle *(only for crank operation)*
- 1 x Installation instructions
- 1 x Operating instructions
- 1 x Electrical connection and adjustment instructions *(only with motor drive)*
- 1 x Test operation or programming cable *(only if ordered as an extra)*

**Number of items according to: width, drop, installation base and plug withdrawal forces*

Important information

The overall system should be installed by a specialist firm.

The installation options on site must be checked to ensure that the awning can be installed safely and held securely in place. The choice of fixing materials must be based on the surface on which the awning is to be mounted. The awning is supplied without installation materials.

The components of this awning comply with the currently applicable technical requirements and rules of technology.

Design modifications are only permitted with the consent of Lewens Sonnenschutz Systeme GmbH & Co. KG.

1.2. Competence required of the installation company

- Adherence to occupational health and safety regulations and operational safety requirements
- Handling of ladders and scaffolding
- Safe transportation and storage of the awning
- Handling of tools and machinery
- Assessment and installation of fasteners in the existing building fabric
- Operation of the awning and instruction of the user

1.3. Attachment of ropes and lifting

If the vertical sunshade has to be lifted to a higher level with the aid of ropes, the system should be

- Removed from the packaging,
- Subject to uniform load distribution (horizontal position) when lifting
- Attached to the transporting ropes so that the awning cannot slip out,

1.4. Protection against falling

- When working at a great height, suitable personal safety measures should be taken to guard against the danger of falling.
- Ladders or scaffolding must be on a firm base and offer a secure foothold.

2. Tools required

- Ladder/scaffolding
- Spirit level
- Guide line
- Tape measure
- Drill and drill bits *(selection depends on mounting base and fasteners)*
- Allen key size 4mm, 5mm and 6mm
- jaw wrench/ring spanner size 19 and for fastener size
- Crosshead screwdriver PH2

Installation

3. Assembly steps



To ensure smooth operation of the awning, it is essential to adhere precisely to the horizontal and diagonal dimensions.

3.1. Check the scope of supply

Prior to installation, it must be checked:

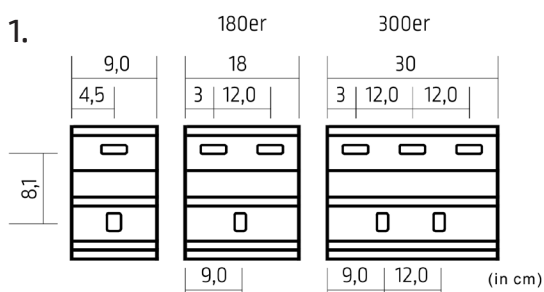
- whether the information given when ordering regarding awning type, colour, drive type (motor, radio-controlled motor or crank handle) and drive side matches the delivery
- that the right parts have been supplied in the correct quantity, see scope of supply (1.1)



It is recommended that at least two persons carry out installation. *(see weights of awning Pos.7)*

3.2. Marking and attachment of brackets

Fig. 1.



The awning is generally supplied with the following brackets:

⚠ Please note: Tables do not apply to Trentino Angular and Round!

Number of brackets:

Table 1.

Awning width

(cm)	0-300	301-350	351-400	401-450	451-500	501-550	551-600
Bracket	90	90	90	180/90	180/90	180/90	180/90
Drop up to:							
150	2	2	3	0/3	0/4	0/4	0/4
200	2	2	3	0/3	0/4	0/4	0/4
250	--	2	3	0/3	0/4	2/2	0/4
300	--	--	3	2/1	2/2	2/2	2/2
350	--	--	--	2/1	2/2	--	--

Position of the brackets:

Table 2.

Awning width

(cm)	250	300	350	400	450	500	550	600
	x	x	x	x	x	x	x	x/y
Drop up to:								
150	20	40	60	80	80	80	80	50/mittig*
200	--	5	20	50	80	80	80	20/297*
250	--	--	5	20	50	80	80	5/332*
300	--	--	--	5	20	50	80	5/332*
350	--	--	--	--	5	20	--	--

*Third arm [always right arm, measurement from left side, see y dimension]. In the case of intermediate sizes, take the dimension of the next size down [e.g. 4.38 = 4.00].

Special arms: take the next arm size up as the dimension [e.g. 3.02 = 3.50].

Prior to commencing installation it should be checked whether the information given when ordering regarding the mounting surface corresponds to the mounting surface actually found to exist. If differences should be found that would adversely affect secure and safe installation, installation must not be carried out. The awning only satisfies the wind resistance classification if the number and type of brackets recommended by the manufacturer are used, taking the correct choice of plug and plug pull-out forces into consideration. Ceiling angles or rafters and associated connection screws are supplied in the same number as the brackets [ordered as an extra].

Fig. 2.

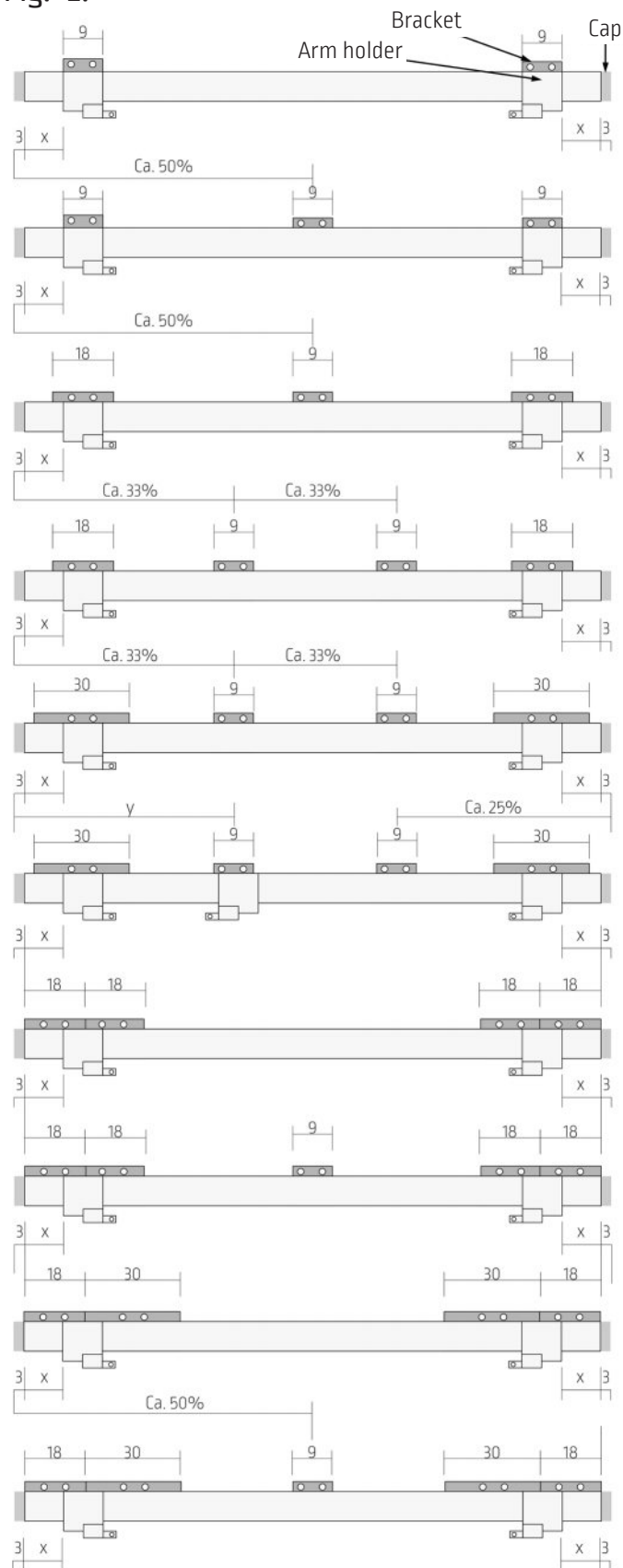


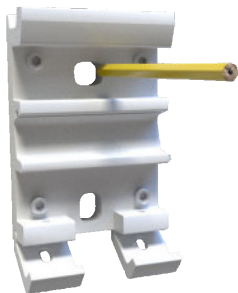
Fig. 3.



The brackets must be fitted behind the outer arm holders.

The position of the arm holders is marked by red dots on the rear of the awning! [Fig. 3]

Fig. 4.



Mark the position of the bracket.

Fig. 5.



The brackets must be aligned vertically and horizontally.

Fig. 6.



If one bracket is not in alignment due to an uneven surface, the position can be corrected to a certain extent using the adjustment screws.

Fig. 7.



Align the brackets using a spirit level and attach them using the appropriate fasteners.



Fit each bracket using the appropriate fasteners (take note of the guidelines for use and pull-out forces of the plug manufacturer as well as edge spacings from the mounting base).

3.3. Drill wall feedthrough for cable

(only if installing a motor drive)

Drill a hole approx. 10 mm in diameter through the wall on the side on which the electric cable is to emerge next to the awning. The supply cable for the motor drive should comply with VDE specifications!

3.4. Fit awning

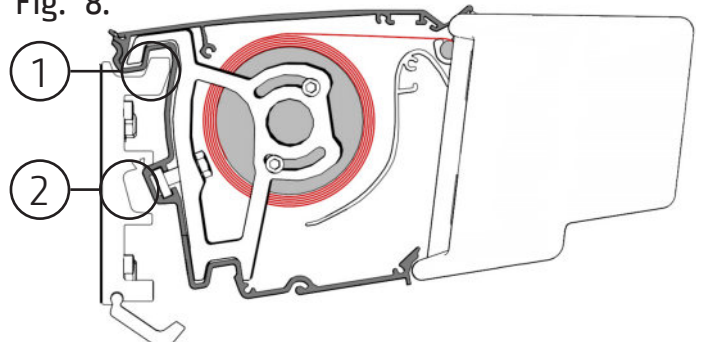


Please note:

Loosen the socket screw on each catch!

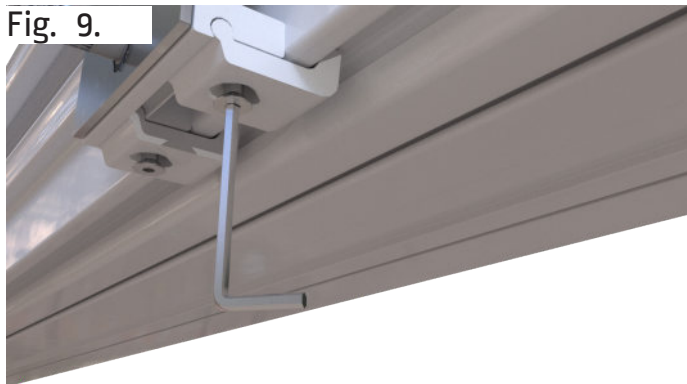


Fig. 8.



Lift the awning in an angled position onto the top hook (1) of the bracket and press it fully onto the bracket (2).

Fig. 9.



Tighten the catches with an Allen key to secure the awning.

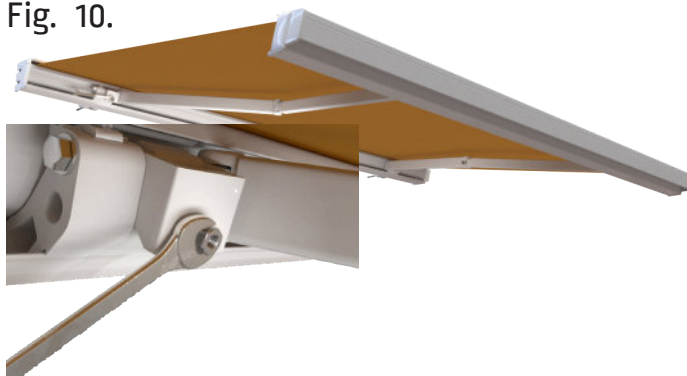
3.5. Set the pitch



Achtung! Die Arme stehen unter hoher Feder-
spannung, Verletzungsgefahr!

The following steps must be carried out on both sides of the awning:

Fig. 10.

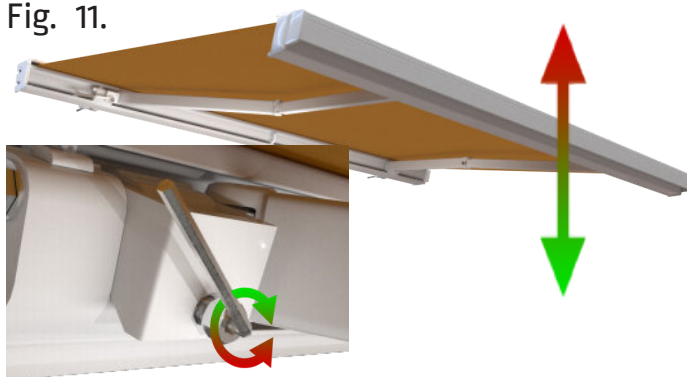


Extend the awning.

The front profile is raised and lowered at the arm holder. Relieve the load on the awning arm by raising the front profile slightly.

Undo the safety nut on the arm holder.

Fig. 11.



Rotate the support screw to the LEFT to RAISE the arm position and to the RIGHT to LOWER the arm.

Check that the front profile is horizontal using a spirit level and tighten the safety nut.

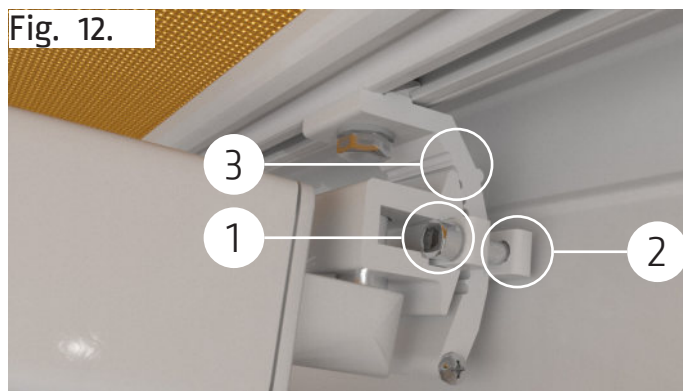


To prevent water from pooling on the awning fabric when it rains, a gradient of more than 14° or 25% pitch must be set when the awning is fully extended. Pooling may damage the unit and pose a hazard to people.

3.6. Set front profile

If the pitch of the awning arms was changed (as described in 3.5), the front profile may need to be reset to ensure smooth closure of the cassette.

Fig. 12.



Extend the awning and open the end position setting (see enclosed motor description) until the awning fabric sags slightly.

Loosen the hexagon socket screw (1) on each front profile holder.

Spread the clamp apart slightly (2).



Caution! Do not unscrew socket screw completely!

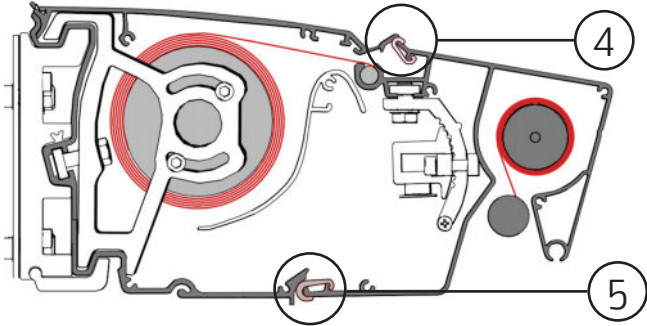
Adjust the holder on the curve (3) by the corresponding number of latch stages.

The setting should be identical on both front profile holders.



Check that the seam guard and the shell sleeves on the casing are correctly seated. To prevent damage to the awning fabric, these must be positioned on / under the fabric seams!

Fig. 13.



When the awning is retracted, the front profile must rest with the bottom edge close to the cassette **[4 and 5]** for smooth closure.

Following adjustment, tighten the hexagon socket screw again and set the end position.

3.7. Carry out electrical installation

(only with motor drive)



NB: The power supply must be connected by an approved electrician in conformity with VDE [German Electrical Engineering Association] regulations.

Connect electrical cables according to the enclosed circuit diagram. The awning may only be connected up if the data on the rating plate correspond to the data of the power source. The rating plate is located on the right-hand side of the casing. When laying the cable for the motor, care should be taken to ensure the connection cable is not damaged by kinking or sharp edges.

Long-term operation of an awning with an electric motor drive via a plug socket is not permitted! The awning switch used should be fitted at a height of 180 cm and must be locked reciprocally in the extension and retraction direction, as otherwise the programming of the end positions is lost. The extension and retraction limit is set at the factory. In the event of changes, a precise programming mode must be followed in accordance with the instructions (see enclosed motor description).

The awning can be supplied with an electric drive (operated via a permanent push-button) or a radio drive.

Adjustment of the electric drive

The awning can be supplied with an electric drive (operated by a permanent push-button) or a radio-controlled drive.

Adjustment of the radio drive

If using a radio-controlled drive, adjustment is carried out via the hand-held transmitter of the motor. The motor description enclosed with the system is required for this. The awning may remain on the existing power supply.



If the cable should become worn or damaged, do not use the awning until it has been repaired by an approved specialist.

3.8. Using the awning crank handle

(only for crank operation)

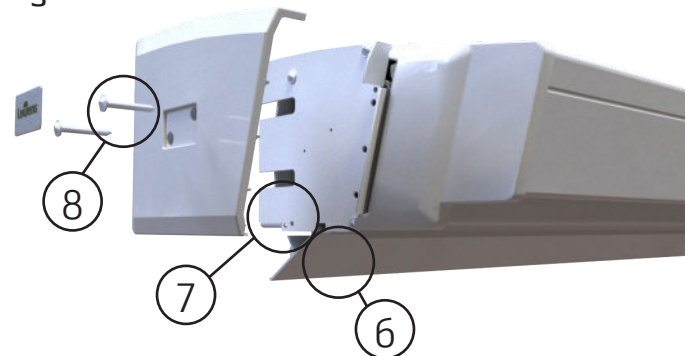
Insert the crank handle into the gear eye. Turning the crank handle retracts or extends the awning. The gear unit is fitted with a stop in the extension direction. This prevents incorrect operation. Forceful operation should be avoided, as this could result in damage to the gear unit..

3.9. Fit the base profile and casing caps



Prior to further assembly, examine the securing screws and check that they are tightened on the brackets!

Fig. 14.



Following assembly of the awning, the lower cover **[6]** is fitted and secured by 2 tapping screws **[7]**.

If the awning is fitted in a niche, the cover must be attached from underneath. To do this, shorten the cover by 6mm.

Insert the base profile **[6]** into the receptacle on the underside of the casing and rotate the profile 90° towards the rear until the profile catch audibly engages.

Secure the profile on both sides with a tapping screw **[7]**, fit the casing caps **[8]** and secure each cap with 2 screws (in advance if fitting into a niche).

4. Repair of the awning

Repairs should only be carried out by a specialist firm. Only spare parts from Lewens Sonnenschutz GmbH may be used.

4.1. Replacing the drive

To repair a defective drive, the awning must be secured by a strap. Suitable assembly aids and knowledge are required for this that can only be guaranteed by a specialist installation firm. When changing the drive, the following steps must be carried out:

- Remove the sticker on the cover cap to access the screws
- Remove the cover cap using a cross-head screwdriver (PH12)
- Undo the gear unit holder using a ring spanner/jaw wrench and pull it out

The drive to be fitted must be of the same type series and from the same manufacturer.

4.2. Replacing the fabric

To do this, the awning must be dismantled. Replacement must be undertaken by a specialist firm or the awning must be sent to the manufacturer for replacement of the fabric.

4.3. Replacing the folding arms

- Fully extend the awning and if the awning has a motor drive cancel the lower end position of the motor.
- Mark and remove the front profile holder on the front profile.
- Remove the arm holder's cap
- Loosen the safety nut and after that the arm holder's screw.
Hold the folding arm during removal.
- fit the new folding arm.
- Carry out the adjustments as described 3.5 and 3.6

5. Commissioning

Persons may not stand in the area of the awning while it is being tested. All objects located under the awning should be removed.

6. Handover

On completion of the installation, the following instructions should be given to the user:

- Installation instructions
- Operating instructions
- Adjusting instructions
- Completion certificate
- Awning care advice
- Warranty certificate

The installation company should explain the instructions on operation, safety and use in detail to the customer.

The actual wind resistance classification achieved following installation should be documented for the customer on the completion certificate. The resistance classification can be 0, 1 or 2 depending on the local installation conditions. The automatic sun and wind control system should be set according to this value.

The completion certificate should be countersigned by the customer and specialist dealer. If the certificate is incomplete or has not been filled in, the awning shall be classed as having a wind resistance classification of 0.

7. Trentino awning weight in kg
(without packaging)

Awning width

	up to 200 cm	up to 250 cm	up to 300 cm	up to 350 cm	up to 400 cm	up to 450 cm	up to 500 cm	up to 550 cm	up to 600 cm	up to 650 cm	up to 700 cm	
Drop up to:	150 cm	41,23	46,89	52,57	58,16	64,53	70,78	77,08	82,74	88,42	94,09	107,42
	200 cm	43,53	49,27	55,02	60,76	67,13	73,46	79,83	85,57	91,32	97,06	111,47
	250 cm	45,03	50,84	56,67	62,49	68,93	75,33	81,78	87,59	93,42	98,86	114,32
	300 cm	47,33	53,22	59,12	65,01	71,53	78,01	84,53	90,42	96,32	102,21	119,84
	350 cm	48,83	54,79	60,77	66,74	73,33	79,88	86,48	93,92	99,90	105,86	122,69
	400 cm	50,33	56,37	62,42	68,46	75,99	83,23	89,90	95,94	102,00	108,04	125,54



