



# LEVELING SYSTEMS

ALL YOU NEED TO KNOW

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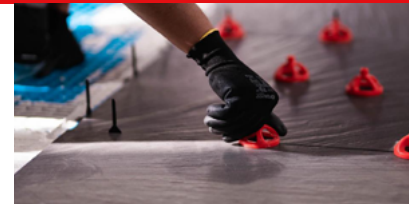


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## RUBI LEVELING SYSTEMS

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The skill and experience of the professional who cuts and installs tiles is very important. However, there are some factors that are out of our control, no matter how experienced we may be, which makes the **leveling system an essential tool if we want a job with a top-quality finish.**

Normally, not too much importance is given to this tool. In fact, it is common to hear things such as "it's only useful for beginners" or even "I achieve a perfectly flat finish with my level and mallet, I don't need any help".

With this downloadable guide, **we want to put all that we know about leveling systems** within the reach of professionals in the sector, and thus contribute to creating a community of professionals that master the technique of tile laying and can please their customers. We hope you find this helpful.

Also, remember that if you have any queries, you can always contact us through any of our channels.



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A leveling system is a very common on-site tool that is designed for leveling and preventing the creation of lippage during the installation of ceramic tiles, both on floors and walls. They are also usually used for spacing, although this is not their function.

The leveling system **is principally designed to avoid undesirable lippage when installing large-format ceramic tiles**. Lippage is nothing more than a difference in level between adjacent tiles, where one is higher than the other. The leveling system **lowers the tile that is higher until it is at the same height as the other**.

This is of special importance because the adhesive beneath a tile doesn't dry all at the same time and doesn't always dry uniformly; the adhesive near the tile's edges always dries first and small inconsistencies in the amount of adhesive beneath the tile can provoke lippage during the drying process. This means that, although you've laid your tiles perfectly flat, they might not remain that way. What's great about a leveling system, is that it removes this risk factor that otherwise would be out of the installer's control.



Tile leveling systems are generally recommended for use in tiles with dimensions larger than 12x12 inch, however this is not a hard and fast rule. If we have a tile that is rectangular and very long, it is absolutely recommended to use a tile leveling system on the long side of the tile even if its short side is less than 12 inch long. Tile leveling systems can be used with small tiles as well but because there are many tiles to keep flat in such a context, the use of a leveling system can become expensive, so we only recommend this in special circumstances, like in the case of an especially uneven floor.

That being said, no matter the overall cost of your project, the cost of the leveling system will only ever be a small part the whole. Additionally, to maximize the economics of RUBI's tile leveling systems, each one is designed so that the CAPS or WEDGES can be reused for multiple projects after they are removed from the surface they are flattening.

### ◆ CAP

One special benefit of RUBI's CAP based leveling systems is that they are designed with a round base shape, which is important because it guarantees an even distribution of pressure over the tile.



### ◆ WEDGE

An advantage of RUBI's WEDGE based leveling systems is that they are designed to work with hard heavy materials, such as granite stone or marble.



Whichever system you choose will always have a very small cost compared to the total cost of the job. Without them, the end result can be abysmal. No matter how good the materials and tools we use are, the result can be poor due to a less than perfect finish.



The leveling system, whichever type, is made up of 2 main parts:

### ◆ THE CLIPS, STRAPS AND POSTS

This part of the system is placed in the adhesive and cannot be recovered when the installation is complete.

- CLIPS, refer to the part of WEDGE based leveling systems that are shaped like a goal post and hold the wedges in place.
- STRAPS refer to the part of CAP based leveling systems that are elongated and flat.
- POSTS refer to the threaded part of CAP based leveling systems that hold the CAP in place once it has been screwed onto them. These look a lot like a traditional screw.



### ◆ THE WEDGE, CAP

This part of the system exerts a force on the clip, strap or post and the ceramic tiles to level them. Remember that this is the part of the leveling system that can be recovered and reused, in any of the RUBI leveling systems.



### 3.1 IMPORTANT POINTS ABOUT THE CLIP, STRAP OR POST



It is a common error to use the clips of a leveling system as spacers, but this is not recommended because of the resulting misapplication of pressure on the clip. Leveling system clips are designed to break when faced with lateral pressure, and to withstand vertical pressure for long periods of time. When you use leveling clips as spacers, you are applying lateral pressure, especially in the case of wall tiles, where the clip must additionally endure the laterally applied weight of the tile. This misapplied pressure can provoke the clip to break early or incorrectly at the moment of removal. Using leveling clips as spacers can also have a chipping effect on the surface of the tile.

The second reason why the clip may not break properly is due to the joints not being clear of adhesive which supports and holds the clip in place at the wrong points.

Another reason is the low quality of the plastic. At RUBI we carry out numerous pull, behaviour and installation tests so we don't run the risk of manufacturing millions of clips that do not fulfil their function.

We must be sure that the leveling system clips that we use have the necessary quality to break when required and in the correct place.





## 3.2 IMPORTANT POINTS ABOUT TILE-TO-TILE JOINTS



Tile-to-tile joints should be given due importance, as they are an **essential element for the final quality, durability and good behaviour of the tile system.**

Tiling should never be installed without a joint or with a closed or butt joint. An installation without a joint helps the propagation of substrate stresses and expansion between the tiles. This can give rise to lifting, detachment or cracking.

The current standard in Spain is 138002:2017, which says the following about tile-to-tile joints:



**Tile-to-tile joints enhance the strength of the ceramic tiling**, since they help to absorb the stresses generated by the instability of substrates and intermediate layers, as well as the stresses generated by the dimensional variations of the tiles due to the action of moisture or changes in temperature.



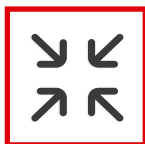
**They facilitate the evaporation of water from the adhesives** in tiles with low water absorption capacity so that they harden properly.



**They correct dimensional variations** in the tiles with tolerances.



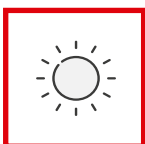
**They allow and facilitate the repair of individual tiles.** The width and dimensioning of the tile-to-tile joint should be chosen according to the type and size of the tile, its dimensional tolerances, the coefficients of thermal expansion of the materials, the degree of stability of the substrates, the ambient conditions and the requirements of use and, finally, according to the properties of the selected grouting and sealing materials.



A minimum joint is defined **as one between 1/16 and 1/8 inch wide**, an open joint is defined **as one between 1/8 and 3/16 inch wide** and a very open joint is defined **as one over 3/16 inch wide.**



A minimum joint with a width of 1/16 inch should be used for indoor tiles. An open joint with a width of at least 1/8 inch should be used for large format tiles.



Very open joints with a width of more than 5 mm should be used for tiles with little dimensional regularity, on all types of indoor and outdoor surfaces, for coverings with special features and when specified in the project.

To use the leveling system correctly, save time and achieve a perfect flat finish, follow these steps:

## ◆ 1.

Install the clips as you install the tiles.



## ◆ 2.

Tighten the wedges, caps or threads, and always apply the same force. In this way we level the tiles much faster than by using only a mallet and construction level.



## ◆ 3.

Remove the leveling system. It's as simple as picking up the mallet or simply kicking it with your foot. The RUBI TILE LEVEL has a special plier for this step.



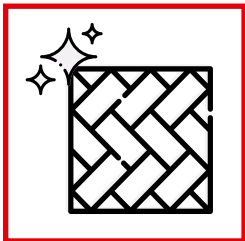
## ◆ 4.

Recover the wedges, caps or threads. This step is optional, but it allows you to use them again.



Good work, just like bad work, spreads quickly by word of mouth and this affects your reputation as a professional tiler. If every installation job you do is done well, quickly and with an excellent finish, more work will come. And for this, a leveling system can help you a great deal.

Finally, and if you still have doubts on whether you should use a leveling system, we want to share these 5 benefits of their use with you.



## YOU WILL PREVENT UNDESIRABLE LIPPAGE

Sometimes undesirable lippage is formed when one tile is higher than the others, this is a tripping hazard and is not visually appealing. Leveling systems are used precisely to avoid these types of problems.

The RUBI leveling systems work perfectly, but irrespective of the system that you use, **always ensure that it has a minimum quality so that the clip breaks** where it should break.



## THE COST IS LOW

Whichever system you use, whether it is cap, thread or wedge, one thing they all have in common is that **their cost compared with the total cost of the job or the installation is minimal.**

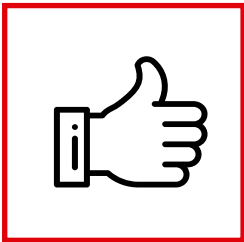
In this regard, **it does not involve a great increase in cost for you or the customer.** On the other hand, it offers many benefits, as it will help you to achieve a perfect finish.

**Our advice is that you use a RUBI** leveling system or any other on the market that has a minimum quality level. That is, it breaks properly when the leveling system is removed.



## TIME SAVINGS AND IMPROVED PERFORMANCE

Time is money, so make the most of it. Using a leveling system helps you to tile more consistently. As the tiles are installed, fit the clips, tighten them, wait for the adhesive to dry, and finally remove the leveling system via impact by kicking or hitting the cap or wedge with a mallet (in the case of the RUBI TILE LEVEL, this is done with special pliers).



## ACHIEVE THE BEST FINISH

It goes without saying that the world is full of people who, like you, work in tile installation. But, why does a customer call you and not someone else? Because of your reputation. **The best way to succeed is to stand out and try to be number one in what we do.**

For this reason, doing a good job and finishing it perfectly is the best way to generate more work. As people often say, **“a satisfied customer brings more customers”**.

Without a doubt, leveling systems help achieve the excellence that we desire and that the customer values so much.



If you want to calculate or predict the number of clips and caps or wedges that you are going to need in an installation, use our [leveling system calculator](#). You can also use this practical calculator in our free Club Rubi APP.

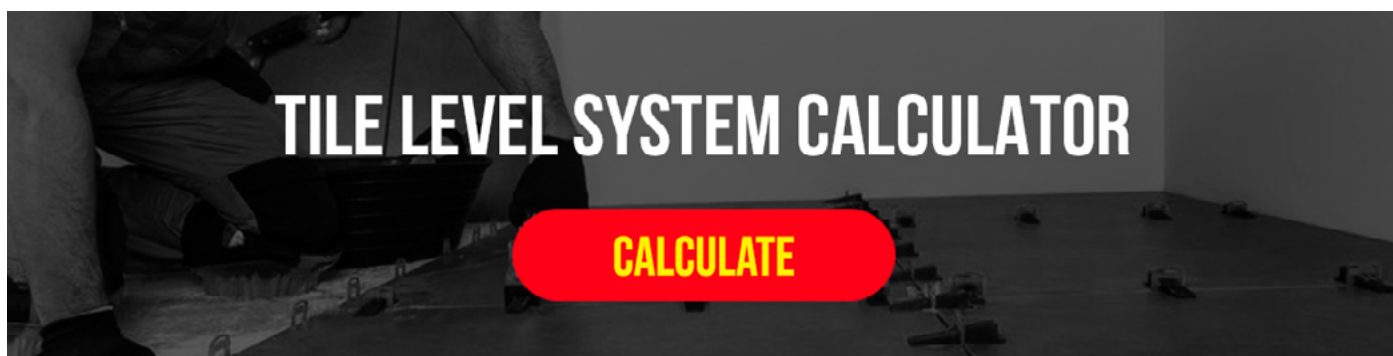


### TILE LEVEL SYSTEM CALCULATOR

\*Approximate calculation without considering perimeter or intermediate partitions of the surface to tile.

Tile Side A (in.) 30	Tile Side B (in.) 60	Total Area (sq ft) 300
Total straps 6667		Total caps 2222

This allows you to make an approximate calculation without taking into consideration the perimeter or intermediate partitions of the surface to be tiled.



RUBI, in its ongoing quest for improvement and to provide professional tile fixers with all possible tools, offers four different leveling systems: TILE LEVEL, TILE LEVEL QUICK, CYCLONE and DELTA LEVEL SYSTEM.

## TILE LEVEL

### MATERIAL

- ◆ 1 set of nippers
- ◆ 100 straps
- ◆ 100 reusable caps
- ◆ Packaged in a practical bucket



### CHARACTERISTICS

- ◆ Definitive solution for **preventing the creation of lippage**.
- ◆ The only system on the market capable of **guaranteeing uniform pressure**.
- ◆ **Reduces the** installation time for tiling work.
- ◆ **Gives work a better level of finish** and increases satisfaction.
- ◆ Ensures **a minimum** tile-to-tile joint of 1/16 inch.
- ◆ They offer reassurance **that the leveling will continue to be effective** and will not vary during setting.
- ◆ Ideal for installing large-format **ceramic tiles**.
- ◆ Allows **pressure regulation** according to the thickness of the tile.
- ◆ **Caps** and **Straps** removed with **nipper** after adhesive dries.

## TILE LEVEL QUICK

### MATERIAL

- ◆ 1 set of nippers
- ◆ 100 straps
- ◆ 100 reusable caps
- ◆ Packaged in a practical bucket



### CHARACTERISTICS

- ◆ **Prevents movement of the tiles** during setting of the adhesive and improves the resulting surface flatness.
- ◆ **Reduces installation time** and improves the profitability of your work.
- ◆ Ensures **a minimum** tile-to-tile joint of 1/16 inch.
- ◆ Uniform **pressure and flatness** of the tiles.
- ◆ Caps manufactured in **high-strength POM**, so they can be used **several times**.
- ◆ Ideal for the installation of horizontal and vertical **ceramic tiles**.
- ◆ Designed for greater comfort during **work on large surfaces**.
- ◆ **Caps and Straps removed by impact with a kick or rubber mallet** after adhesive dries.

## DELTA LEVEL SYSTEM

### MATERIAL

- ◆ 1 set of nippers
- ◆ 100 clips
- ◆ 100 reusable wedges
- ◆ Packaged in a practical bucket



### CHARACTERISTICS

- ◆ Ideal for 12 x 12 inch formats or larger and **various thicknesses** of up to 1/2, 9/16, or 13/16 inch.
- ◆ **Fast, easy and intuitive** system. **The wedges can be reused** several times.
- ◆ The system elements are **removed by impact** (kick or mallet).
- ◆ Nippers designed for **horizontal and vertical installation work**.
- ◆ Ideal system for obtaining **uniform flatness**.



## CYCLONE LEVEL SYSTEM

### MATERIAL

- ◆ 300 posts
- ◆ 100 reusable threads
- ◆ Packaged in a practical bucket



### CHARACTERISTICS

- ◆ Ideal for tiles of 12inch x 12inch format and 1/8inch to 11/16inch of thickness.
- ◆ **Does not require** the use of any other tools.
- ◆ Bases of the posts offered in a **variety of thicknesses** for tile joints of 1/16inch to 1/8inch.
- ◆ Bases of the posts offered in plain, T, and cross forms to **substitute spacers**.
- ◆ The system elements are **removed by impact** (kick or mallet).



