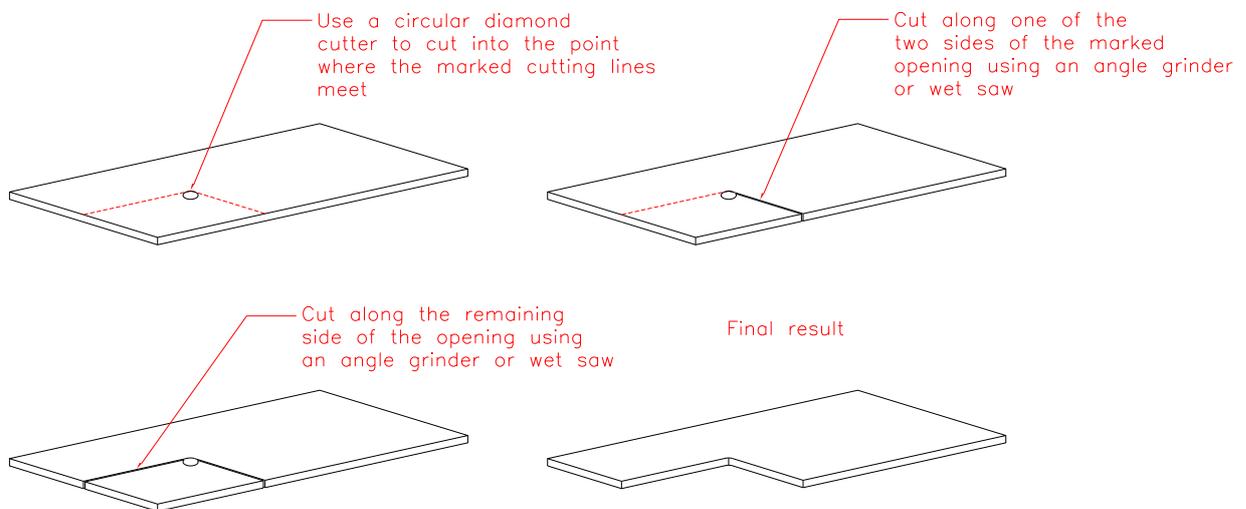


## CUTTING PORCELAIN STONEWARE TILES

The following recommendations are aimed at eliminating anomalous behaviours that may occur while cutting porcelain stoneware tiles, related to the type of tools utilised and the way in which they are operated.

When cutting difficulties are encountered we recommend proceeding as follows:

- check wear of the scoring wheel of the manual tile cutter and if necessary fit a tungsten carbide/titanium or carbon alloy steel replacement;
- make a progressive and uniform incision, without exerting excessive pressure;
- if necessary, repeat the operation 2 or more times to ensure the incision is continuous and uniform along the entire cutting line;
- the tile must **not** be cut in a single operation, i.e. by exerting significant pressure in a single position that normally coincides with the edge of the tile, but rather by pressing more lightly in several places along the cutting line and then completing the procedure by applying high pressure on the tile edge.



If a so-called "L" shaped opening is required, we advise you to comply with the indications in the figure above, as explained in detail below:

1. once you have marked the two cutting lines, make a stress-relieving hole where the two lines intersect. This hole must be cut with a suitable circular diamond cutter. Water must be constantly sprayed onto the cutting area while the cut is being made so as to reduce the friction between cutter and tile, and ensure that the cutting tool lasts longer;
2. after this, use an angle grinder with diamond cut-off disc or a professional wet saw to cut along the cutting lines.

Lastly, use of an adhesive with extended open time (E classification as established by standard EN 12004) can reduce stress on the tile created as the adhesive dries.

"Professional" manual tile cutters can be used to make diagonal cuts and standard cuts on both small and large size tiles.

For greater precision and improved quality of the cut edge, especially for large size rectangular tiles (22.5x90 cm / 45x90 cm / 20x120 cm / 30x120 cm, etc.), we recommend using a professional tile saw with a water-cooled diamond blade. Also in this case there are several measures to adopt in order to guarantee correct operation of the tile saw and high quality of the job:

- use professional diamond blades suitable for cutting porcelain stoneware tiles (such as Montolit, Raimondi Utensili, etc.);
- periodically sharpen the diamond blade with a dressing stone; this operation should be performed more frequently the harder the material to be cut (such as in the case of porcelain stoneware);
- modulate the diamond blade "federate" or cutting speed in proportion to the hardness of the material: excessively high feedrates can damage the machine, distort the diamond blade and break the tile.

Strict adherence to these instructions will ensure that tiles can be cut safely and easily.

Casalgrande Padana spa Technical Service

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