

Schluter®-TROBA-LEVEL



INNOVATIVE SOLUTIONS FOR CERAMIC AND STONE TILE

EXTERIOR TILE AND PAVER SUPPORT SYSTEM

Application and Function

Schluter®-TROBA-LEVEL paver support system enables the installation of selfsupporting paver tiles for exterior applications. System components can be combined in various configurations to compensate for sloped substrates up to 5%, precisely level corners of adjacent paver tiles, and allow flush installation of pavers with different thicknesses. The elevated assembly provides easy access to the substrate, as well as drainage and ventilation. Due to the open joints between the tiles and pavers, surface water can freely drain on to the substrate and, if fitted, into the drainage system beneath.

Schluter®-TROBA-LEVEL-LV 3 stackable paver supports (height = 1/8" [3 mm]) are used for very low assembly heights, and feature 1/8" (3 mm) joint spacers to provide consistent joint widths throughout the installation. TROBA-LEVEL-LV 3 can also be used in combination with TROBA-LEVEL-PL 10 and TROBA-LEVEL-PLA 30 for additional load distribution.

Schluter®-TROBA-LEVEL-PL 10 stackable paver supports (height = 3/8" [10 mm]) are used for low assembly heights, and feature 1/8" (3 mm) joint spacers to provide consistent joint widths throughout the installation. Supports can be stacked to a maximum height of 7-7/8" (200 mm).

Schluter®-TROBA-LEVEL-PLA 30 stackable paver support extensions (height = 1-3/16" [30 mm]) can be inserted between two TROBA-LEVEL-PL 10 for assembly heights of 2" (50 mm) or greater.

Schluter®-TROBA-LEVEL-PLV 60 preassembled paver supports can be continuously adjusted from 2-3/8" to 5-1/8" (60 to 130 mm) by turning the height adjustment ring while



Schluter®-TROBA-LEVEL-LV 3



Schluter®-TROBA-LEVEL-PL 10



Schluter®-TROBA-LEVEL-PLA 30



Schluter®-TROBA-LEVEL-PLS 6



Schluter®-TROBA-LEVEL-PLV 60



Schluter®-TROBA-LEVEL-PLA 70



Schluter[®]-TROBA-LEVEL-AP 1



Schluter®-TROBA-ZFK

Schluter®-TROBA-LEVEL				
Item	Height	Support Diameter/Area	Material	Max. Stacking Height
Schluter®-TROBA-LEVEL-LV 3	1/8"	7-7/8"	PP	1/4"
Tile and paver support	(3 mm)	(200 mm)		(6 mm)
Schluter®-TROBA-LEVEL-PL 10	3/8"	4-3/4"	PE	7-7/8"
Tile and paver support	(10 mm)	(120 mm)		(200 mm)
Schluter®-TROBA-LEVEL-PLA 30	1-3/16"	4-3/4"	PE	7-7/8"
Tile and paver support extension	(30 mm)	(120 mm)		(200 mm)
Schluter®-TROBA-LEVEL-PLV 60	2-3/8 to 5-1/8"	7-7/8"	PP	15"
Height adjustable tile and paver support	(60 to 130 mm)	(200 mm)		<i>(381 mm)</i>
Schluter®-TROBA-LEVEL-PLA 70 Tile and paver support extension	2-3/4" (70 mm)	-	PE	15" <i>(381 mm)</i>
Schluter®-TROBA-LEVEL-AP 1 Leveling shim	1/32" (1 mm)	-	PE	3/8" (10 mm)
Schluter®-TROBA-LEVEL-PLS 6	1/4"	10-1/4" x 10-1/4"	Rubber/	-
Protective pad	(6 mm)	(260 x 260 mm)	Aluminum	

holding the top and base plate stationary. The thread features a vibration-lock mechanism to protect against accidental loosening. The TROBA-LEVEL-PLV 60 incorporates 1/8" (*3 mm*) joint spacers and perimeter spacer.

Schluter®-TROBA-LEVEL-PLA 70 adjustable paver support extension (height = 2-3/4" [70 mm]) can be integrated with TROBA-LEVEL-PLV 60. Multiple TROBA-LEVEL-PLA 70 units can be used to reach the desired height up to a recommend maximum of 15" (381 mm). The thread features a vibration-lock mechanism to protect against accidental loosening.

Schluter®-TROBA-LEVEL-AP 1 leveling shims (height = 1/32" [1 mm]) are used to compensate for variations in substrate and/or paver thickness by adjusting the corners of each paver tile. TROBA-LEVEL-AP 1 are designed to lock between the joint spacer tabs of the TROBA-LEVEL-LV 3/-PL 10/-PLV 60 paver supports and can be stacked up to 10 shims high.

Schluter®-TROBA-LEVEL-PLS 6 (height = 1/4" [6 mm]) protective pads provide additional protection for the waterproofing membrane under the base plates of TROBA-LEVEL-LV 3, TROBA-LEVEL-PL 10, or TROBA-LEVEL-PLV 60 paver supports. The TROBA-LEVEL-PLS 6 protective pads feature four perforated tabs designed to maintain the position of the paver support on the pad. For installations over PVC waterproofing, the aluminum separating layer of the protective support pads must be installed facedown.

Schluter®-TROBA-ZFK joint spacers ensure a uniform joint appearance for self-supporting porcelain tiles, natural stone, or concrete pavers installed directly on sand, gravel, or crushed stone beds. The joint width is 1/8" (3 *mm*), and the joint spacer height is 9/16" (15 *mm*). When thicker pavers are being installed, a joint spacer height of 1-3/16" (*30 mm*) can be achieved by snapping two joint spacers together.

Material Properties and Areas of Application

TROBA-LEVEL pedestal system products are manufactured using polyethylene (PE) or polypropylene (PP) materials. They are serviceable in temperatures from -40°F to 131°F (-40°C to 55°C). TROBA-LEVEL-PLS 6 protective pad is manufactured using granulated rubber with an aluminum lining laminated on one side. All products are UV-resistant, do not rot, recyclable, physiologically harmless and compatible with bitumen.

Installation

The TROBA-LEVEL System and all other installation materials must be installed in accordance with these installation requirements, all applicable building codes and/or standards, industry standard guidelines, and the other manufacturer's installation instructions. Schluter-Systems' written installation requirements shall have precedence over referenced industry standard guidelines and paver manufacturer's installation instructions insofar as such referenced information may contain conflicting or overlapping requirements. All building materials, including the type, thickness, and format of the pavers, must be suitable for the intended application.

Follow the tile paver manufacturer's specifications regarding flexural strength and load restrictions of tile pavers. Depending on the material and format of the tile pavers, additional paver supports may be required. Please use the TROBA-LEVEL Estimator tool on our website to estimate the number of supports and tile pavers (www.schluter.com/troba-estimator).

Schluter [®] -TROBA-LEVEL			
Paver Support	*Load Capacity (lb)		
Configuration	73° F		
PLV 60	1,417		
PLV 60 + PLA70	1,383		
PL10	1,767		
PL10 + PLA30	1,359		

*Design professional (e.g., archiect, engineer, etc.) and general contractor must account for the expected dead and live loads including allowable loads during construction and maintenance. Note that elevated temperature will reduce load bearing capacity.

All substrates must be structurally capable of supporting the anticipated loads. Install extra paver supports if heavy items (e.g., hot tubs, planters, etc.) will be placed on top of the tile paver surface.

Insulation (e.g., foam plastic such as XPS or EPS) must have a compressive strength of 60 psi or greater for use under the TROBA-LEVEL paver supports.

Parapet walls, concrete dividers or other perimeter restraints are required and must be capable of resisting lateral forces. Movement in the assembly may not exceed 1/8" (*3 mm*).

Prior to installation, check all perimeter containment surfaces for square and flatness. Adjust tile paver layout so that the 1/8" (*3 mm*) perimeter joint spacer remains in contact with the perimeter containment.

The roofing membrane must be sufficiently sloped (1.5 to 2.0%) to provide positive drainage. TROBA-LEVEL paver supports may be installed directly on top of roofing membrane. To provide additional protection for the roofing membrane, TROBA-LEVEL-PLS 6 protective pads can be used under the TROBA-LEVEL paver supports.

To mitigate the collection of debris below the paver assembly, it is recommended to start with a paver support height of at least 3/8" (10 mm).

Surfaces to receive pedestals must be clean from any dirt or debris.

- 1. Start the paver support installation at the highest point of the substrate to ensure adequate clearance for pedestal placement.
- 2. **PERIMETER APPLICATION** Assembly heights less than 2-3/8" (60 mm)

For installations at edges or in corners, TROBA-LEVEL-LV 3 and TROBA-LEVEL-PL 10 paver supports can be cut into halves and stacked to obtain the desired starting height. Score the paver support with a utility knife and bend to snap in half.

Note: When stacking halves of the TROBA-LEVEL-PL 10 for perimeter applications:

- Determine how the paver supports fit together prior to cutting. Pay close attention to the 90° offset of each consecutive paver support to ensure that a spacer tab remains between the paver tile and the perimeter structure or wall.
- When TROBA-LEVEL-PL 10 paver supports are stacked to support a single paver tile edge (not at a joint between paver tiles), some spacer tabs may need to be trimmed or removed from the top two paver supports.
- The minimum width of a tile paver must be 3-3/8" (85 mm) when using TROBA-LEVEL-PL 10 stackable paver supports.
- Maximum stackable height of 7-7/8" (200 mm).

3. **PERIMETER APPLICATION** - Assembly heights greater than 2-3/8" (60 mm)

For installations at edges or in corners, TROBA-LEVEL-PLV 60 adjustable paver supports can be used by cutting the base plate at one of the pre-marked lines on the underside to allow the support to be positioned closer to the wall. On the top plate of the TROBA-LEVEL-PLV 60, fold the wall spacer to the upright position. Remove any unnecessary joint spacer tabs by tapping sideways with a hammer. The minimum tile paver width is 3-3/8" (85 mm).

4. To level the pavers, use a spirit level

to determine the number of TROBA-LEVEL-AP 1 levelling shims (1/32" [1 mm]) required to bring the paver to the desired height.

- 5. TROBA-LEVEL-LV 3 and TROBA-LEVEL-PL 10 paver supports positioned away from the perimeter can be stacked with a 90° offset to obtain the desired height.
- For an assembly height of 2" (50 mm) or greater, TROBA-LEVEL- PLA 30 stackable paver support extensions (1-3/16" [30 mm]) are used between two TROBA-LEVEL-PL 10 stackable paver supports.
- For assembly heights of 5-1/8" 15" (130 mm 381 mm), install TROBA-LEVEL-PLA 70 adjustable paver support extensions (2-3/4" [70 mm]). To install, completely screw the extensions into the bottom plates of TROBA-LEVEL-PLV 60, or into each other when multiple TROBA-LEVEL-PLA 70 extensions are required.
- 8. TROBA-LEVEL-PL 10 and TROBA-LEVEL-PLA 30 stackable paver supports can be stacked on top of the TROBA-LEVEL-PLV 60 adjustable paver support.
- 9. For additional protection of a waterproofing layer (i.e. roofing membrane), TROBA-LEVEL-PLS 6 protective pads (1/4" [6 mm]) can be installed under the base plates of TROBA-LEVEL-PLV 60 or TROBA-LEVEL-LV 3 paver supports. For installations over PVC waterproofing, the aluminum separating layer of the protective support pads must be installed facedown. The four perforated tabs of TROBA-LEVEL-PLS 6 are lifted over the edge of TROBA-LEVEL-LV 3 and TROBA-LEVEL-PLV 60 to maintain the position of the paver support on the pad. If using TROBA-LEVEL-PL 10 stackable paver supports, these must be placed in the center of the pads.

Maintenance

Due to natural expansion and contraction of substrate materials, portions of the substrate under the TROBA-LEVEL paver support assembly may settle or rise causing unevenness in the finished floor surface. In this case routine maintenance must be performed to correct the uneven tile pavers. Failure to realign and correct uneven tile pavers can cause a tripping hazard. Check perimeter containment walls are structurally sound and prevents tile movement.















Product Item Numbers



Schluter®-TROBA-LEVEL-LV 3				
Item No.	Description	Height	Packaging	
TLLV3/10	Tile and paver support	1/8" - 3 mm	10/box	



Schluter [®] -TROBA-LEVEL-PL 10				
Item No.	Description	Height	Packaging	
TLPL10/10	Tile and paver support	3/8" - 10 mm	10/box	



Schluter [®] -TROBA-LEVEL-PLA 30			
Item No.	Description	Height	Packaging
TLPLA30/10	Tile and paver support extension	1-3/16" - <i>30 mm</i>	10/box



Schluter®-TROBA-LEVEL-PLV 60			
Item No.	Description	Height	Packaging
TLPLV60/6	Height adjustable tile and paver support	2 3/8" - 5 1/8" - 60 - 130 mm	6/box

Schluter [®] -TROBA-LEVEL-PLA 70			
Item No.	Description	Height	Packaging
TLPLA70/6	Tile and paver support extension	2 3/4" - 70 mm	6/box
	Schluter®-TROE Item No. TLPLA70/6	Schluter®-TROBA-LEVEL-PLA 70 Item No. Description TLPLA70/6 Tile and paver support extension	Schluter®-TROBA-LEVEL-PLA 70 Item No. Description Height TLPLA70/6 Tile and paver support extension 2 3/4" - 70 mm



Schluter®-TROBA-LEVEL-AP 1			
Item No.	Description	Height	Packaging
TLAP1	Leveling shim	1/32" - 1 mm	250/box



Schluter [®] -TROBA-LEVEL-PLS 6			
Item No.	Description	Height	Packaging
TLPLS6	Protective pad	1/4" - 6 mm	10/box



Schluter®-TROBA-ZFK			
Item No.	Description	Height	Packaging
TZFK3	Joint spacer	9/6" - <i>15 mm</i>	50/box

WARRANTIES

Schluter-Systems products and systems are covered under our warranty program, as applicable. For details and to access Schluter Systems' warranty documents:

Visit www.schluter.com/warranties

Or scan here



To obtain hard copies, please contact Customer Service at: 800-472-4588 (USA) or 800-667-8746 (Canada).



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