

Archatrak Wind Uplift Mitigation - 2cm Porcelain Pavers

WIND UPLIFT MITIGATION

Wind uplift of porcelain pavers laid over a pedestal system can be mitigated by securing the pavers such that they are held together in a contiguous array. With 2cm pavers, bonding the pavers to Archatrak 'Spansafe' steel wind uplift mitigation plates and then securing the plates tightly to the heads of 'Incendio' steel pedestals with a screw, can create the required array. This method of mitigating wind uplift offers the benefit of:

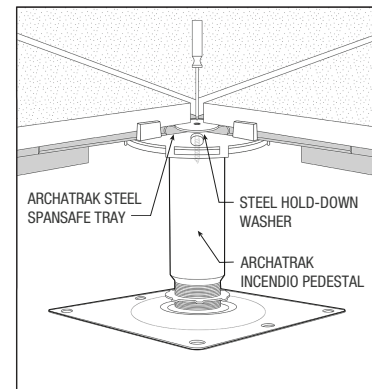
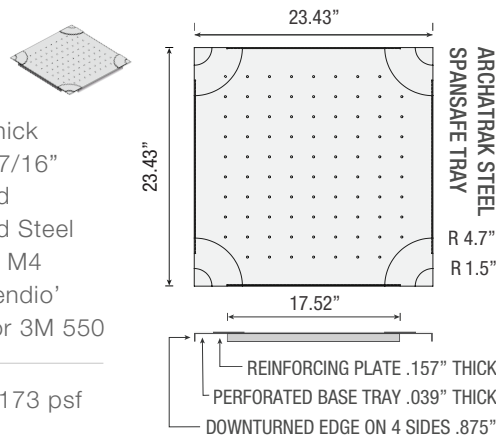
- Steel pedestals with tapped heads ensures hold down screws cannot pull out when subject to strong uplift forces as can occur with plastic pedestals.
- Steel plates secured at each corner provide superior break through protection.
- Pavers can be removed if necessary by moving the washers sideways.
- Steel pedestals enable construction of totally non-combustible decks.
- Pavers only require bonding to a small area of the flat corners of the steel plates.
- Pedestal bases can be adhered to the substrate for more extreme uplift protection.
- Wider 3/16" pedestal head tab creates larger gap between pavers resulting in better pressure equalization during wind events.



Specifications

SpanSafe Tray	Steel 1.5mm thick
Size	23 7/16" x 23 7/16"
Corrosion Protection	Powder Coated
Hold Down Washer	Powder Coated Steel
Screw	Stainless Steel M4
Pedestals	Archatrak 'Incendio'
Bonding Adhesive	Chemlink M1 or 3M 550

Wind Uplift Test ASTM 330 173 psf



Installation Guidelines

1. Bond Archatrak 24" x 24" porcelain pavers to the raised quadrants at each corner of the Spansafe steel trays with beads of either Chemlink M1 or 3M 550 adhesive, making sure that the trays are accurately aligned with the pavers and are not overhanging the edges of the pavers. Allow the adhesive to cure fully.
2. Begin the deck installation by laying the first row of paver and tray assemblies with the corners of the trays resting on the heads of the Incendio pedestals.
3. Starting now on the second row, lay the first paver/tray assembly, and where the corners of three steel trays meet on the pedestal head, loosely insert the steel washer into the slot between the paver and steel tray.
4. Insert the stainless screw through the washer and into the tapped head of the pedestal and secure only loosely.
5. Maneuver the next paver and tray into position, making sure the washer lies in the gap between paver and steel tray. Continue laying pavers in this manner along the row, constantly checking levels of the deck surface and making sure pavers are butted tightly against the spacer tabs on the pedestal heads.
6. Lay the remainder of the deck row by row, in a similar manner.
7. After ensuring the deck is level and no pavers are rocking on any pedestal, insert a hex key into the gap where 4 pavers meet and tightly secure the steel trays to the pedestal heads.
8. When utilizing the T-20 wind uplifts restraint systems, we recommend utilizing a perimeter hold down mechanism, such as aluminum L channel, to maximize the hold-down capabilities. This is only needed at the outside perimeter of the surface and negates the need for wind uplift screws and washers at the perimeter.

Archatrak Wind Uplift Mitigation - 3cm Porcelain Pavers

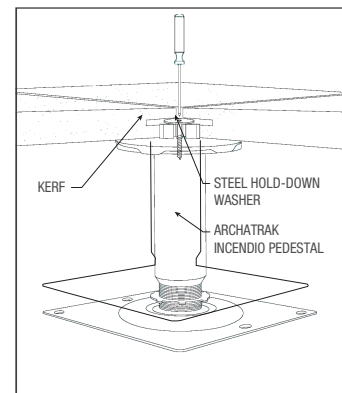
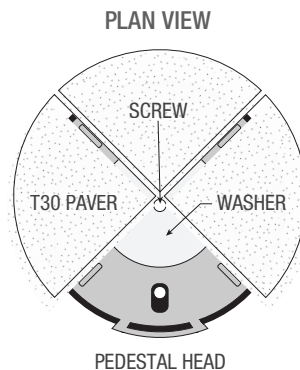
Wind uplift of porcelain pavers laid over a pedestal system can be mitigated by securing the pavers such that they are held together in a contiguous array. With T30 3cm pavers, steel washers inserted into small semicircular kerfs cut in each corner of the pavers and secured tightly to the heads of 'Incendio' steel pedestals with a screw, can create the required array. This method of mitigating wind uplift offers the benefit of:

- Steel screw in steel pedestal provides superior hold down vs. plastic pedestals.
- No additional components needed other than a screw and washer.
- 3cm pavers which are 44% heavier than 2cm pavers.
- Relatively simple installation procedure.
- No adhesives needed and no waiting for adhesives to cure.
- Individual pavers can be removed for under deck maintenance.
- No visible fixing devices on the surface of the deck.
- Total non-combustibility.
- Wider 3/16" pedestal head tab creates larger gap between pavers resulting in better pressure equalization during wind events.



Specifications

Hold Down Washer	Stainless Steel
Screw	Stainless Steel M4
Pedestals	Archatrak 'Incendio'
Wind Uplift Test	ASTM 330 270 psf



Installation Guidelines

1. A small semicircular kerf approx. 1/8" thick is cut in each corner of Archatrak 3cm T30 porcelain pavers, 9/16" from the underside of the paver and extending approx. 1" deep into the corner. Contact us for advice on a cutting tool that can be used for this purpose.
2. Begin the deck installation by laying the first row of pavers on the Incendio pedestals, ensuring that all pavers are butted tightly against the spacer tabs on the pedestal heads.
3. Starting now on the second row, lay the first paver, and where the corners of three pavers meet on the pedestal head, loosely insert the steel washer into the slots in each corner of the three pavers.
4. Insert the stainless screw through the washer and into the tapped head of the pedestal and secure only loosely.
5. Maneuver the 4th paver into position, making sure the washer slots correctly into the kerfs of the pavers.
6. Continue laying pavers in this manner along the row, constantly checking levels of the deck surface and making sure pavers are butted tightly against the spacer tabs.
7. Lay the remainder of the deck row by row, in a similar manner.
8. After ensuring the deck is level and no pavers are rocking on any pedestal, insert a hex key into the gap where 4 pavers meet and tightly secure the pavers to the pedestal heads.
9. When utilizing the T-30 wind uplifts restraint systems, we recommend utilizing a perimeter hold down mechanism, such as aluminum L channel, to maximize the hold-down capabilities. This is only needed at the outside perimeter of the surface and negates the need for wind uplift screws and washers at the perimeter.