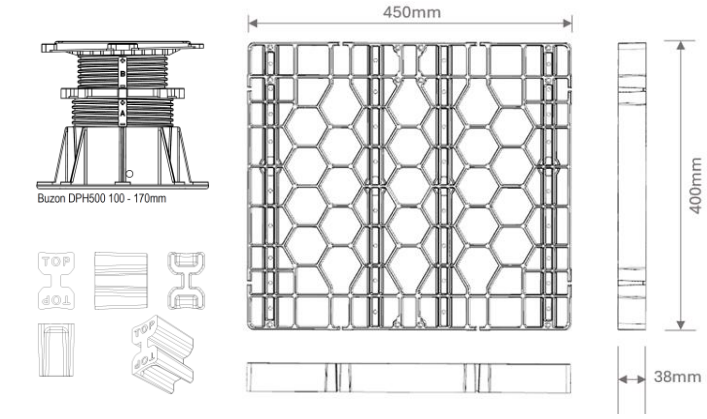
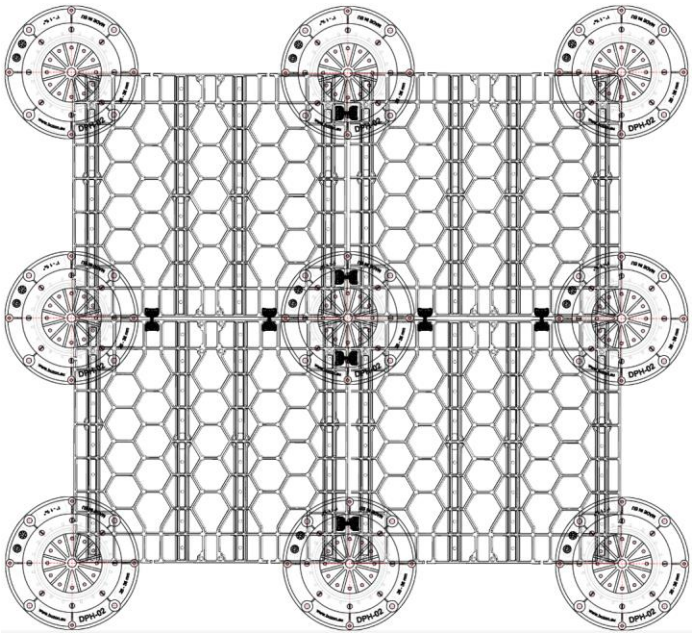
TECHNICAL DATA SHEET





SYSTEM OVERVIEW

Structurally compliant support system for tiles and natural stone over membrane or slab. Silca System Grates provide a stable, ventilated, and permeable substrate suitable for tiles, natural stone, pavers or artificial turf.

Silca Grates are installed on Buzon DPH adjustable pedestals range. Each pedestal supports the corners of four adjoining Grates.

The Silca Grates are mechanically locked together on all four sides using Silca Lock Connectors inserted into the alignment slots in each side (x2 per side – av3.3 per Grate), providing increased rigidity and consistent load distribution grate to grate across the surrounding element.

Mechanical fixing is achieved with x4 10 g × 75 mm 304SS countersunk screws per Grate - fixed through the Grate's designated corner locations into the pedestals.

Stone, tiles or pavers are adhered with SabreBond SMP 45 polymer adhesive (refer to SabreBond TDS and wind uplift analysis). Gaps are maintained using tile spacers during curing to ensure permeability while meeting wind uplift requirements. Spacers are removed post cure.

Designated zones allow access to membrane, drains, or service points without compromising the structural system.

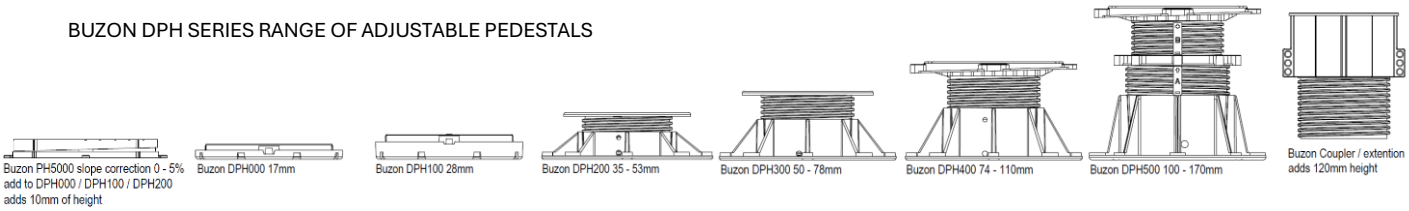
This combined system delivers a durable, compliant, and low-maintenance solution ideal for both residential and commercial applications.

TILE WIND UPLIFT SUMMARY (Refer to Wind Uplift Summary / adhesive application sheet and SabreBond SMP45 TDS)		
Test Reference	**Adhesive**	**Result**
Tile Wind Uplift	SabreBond SMP45	119.49 kN/m^2 (calculated uplift resistance)

SILCA SYSTEM GRATES - SPECIFICATIONS	
Dimension	400 x 450 x 38mm
Material	PCABS - Recycled Polycarbonate ABS with UV Stabiliser
Coverage	0.180m2 (5.5 Units per m2)
Weight per grate	1.814 kg
Floor loading (refer to Design Statement and span tables)	(2kPa, 1.8kN) to (4kPa, 4.5kN)
Compliance - NZS AS 1720.1:2022	Clause B1/VM1 and B2 of NZS AS 1720.1:2022, and E2/AS1
Load deflection test (per grate) Spanned at 400mm centres	5000kg per unit (spanned)
Load compression test (per grate)	68,000kg (with a 400mm2 paver)
Packing Grates	162 Grates per pallet load (30m^2)
Packing Connectors	500 box

BUZON PEDESTAL LOAD SPECIFICATIONS			
PEDESTAL CAPACITY	PEDESTALS PER M^2	UNIFORM LOAD CAPACITY	EQUIVALENT KGF/M^2
9.74 kN (conservative)	8	77.9 kN/m^2	7,950 kgf/m^2
11.5 kN (typical)	8	92.0 kN/m^2	9,380 kgf/m^2

BUZON DPH SERIES RANGE OF ADJUSTABLE PEDESTALS



INSTALLATION NOTES

Preparatory checks

1.1 Verify substrate and membrane integrity.

1.2 Confirm Buzon DPH pedestal spacing and base protection per Viking Roofspec instructions.

1.3 Confirm tile/paver selection (14–60 mm thickness; 20 mm used in this example) and SabreBond SMP45 availability.

Layout and pedestal placement

2.1 Set out pedestals to achieve required coverage (8 pedestals/m^2 typical). Work in zones, typically starting at high point.

2.2 Adjust pedestals to achieve finished deck level as you go and required falls for drainage.

Position Grates (as you go)

3.1 Place Silca Grates onto pedestals so each pedestal supports the corners of multiple Grates intersections as required.

3.2 Align side and end slots between adjacent Grates.

Lock Grates

4.1 Insert Silca Lock Connectors into designated slots — two connectors per side (≈3.3 connectors per grate) knock down < flush.

4.2 Confirm engagement on all sides so Grates form a continuous panel.

Mechanical fix to pedestals

5.1 At each grate corner, install one 10 g × 75 mm 304 stainless steel countersunk screw through the designated countersunk hole into the pedestal (x4 screws per grate).

5.2 Verify screw heads are flush or below and that mechanical engagement to the pedestal is achieved.

Tile/paver fixing

6.1 Apply spot application using SabreBond SMP45 to the Grate surface as specified in the Application Summary. Typically on top of connectors, screw head 'key' areas and bead at Grate intersections or on cell walls.

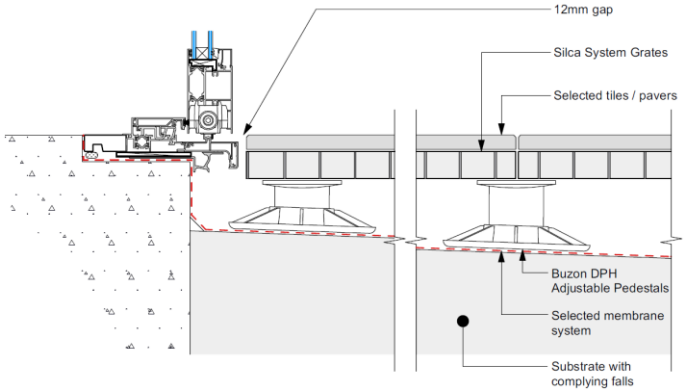
6.2 Place tiles/pavers onto Grates with tile spacers to maintain uniform gaps for drainage and permeability per E2/AS1.

6.3 Designate tile/grate removal zones for membrane, drain and service point access.

Curing and spacer removal

7.1 Allow adhesive to cure per SabreBond TDS.

7.2 Remove tile spacers after cure, leaving tile gaps intact.



SYSTEM INTERPRETATION

Using conservative pedestal data 9.74 kN, the combined Silca + Buzon system capacity exceeds standard pedestrian and tile live load requirements (AS/NZS 1170.1 ≤ 5 kPa). The 5,000kg spanned test and 68,000kg compression test confirm performance margins well above typical service conditions. All calculations assume 8 pedestals/m^2 at 400 × 450 mm centres.