

EXPANSION JOINTS – Small Movements

GRANOR® WIZFLEX Series “WZ”



The Design Concept

The Wizflex® Expansion Joint System has been developed by Granor after years of experience with waterproof expansion joint systems. Wizflex® is based on a combination of compression seal technology and epoxy-bonded rubber seal technology, comprising a unique system which was patented by Granor. A high-quality extruded elastomeric profile together with a specialist epoxy paste form the basic components of the system. The epoxy adhesive is applied to the joint gap walls and to both sides of the profile, which is then placed in the joint gap. The profile design ensures that the side walls of the profile remain vertical and push against the sides of the gap while the epoxy adhesive sets. This mechanism is paramount in achieving maximum bond strength between the elastomeric profile and the sides of the gap. The compression seal concept also ensures maximum movement range by providing a fully collapsible profile and also allowing a substantial extension when the joint is fully opened.

Applications

- Multilevel car parks
- Vehicle & pedestrian bridges
- Sports stadiums
- Railway station platforms
- Tunnel internal seals
- Vertical joints between tilt-up precast panels
- Pedestrian friendly warehouses
- Other elevated structures

Wizflex Seal Part No.	Seal Movement Range (mm)			Typical Minimum Install Gap Width (mm)	Minimum Height Required for Seal (mm)
	Minimum Gap	Maximum Gap	Total Movement Capacity		
WZ-50	26	56	30	35	50
WZ-60	35	76	41	45	65
WZ-80	40	95	55	55	80
WZ-100	50	110	60	65	90

Note: A lower profile version of the WZ-80 seal is also available by special order only. (This is nominated as part number: WZ-70)

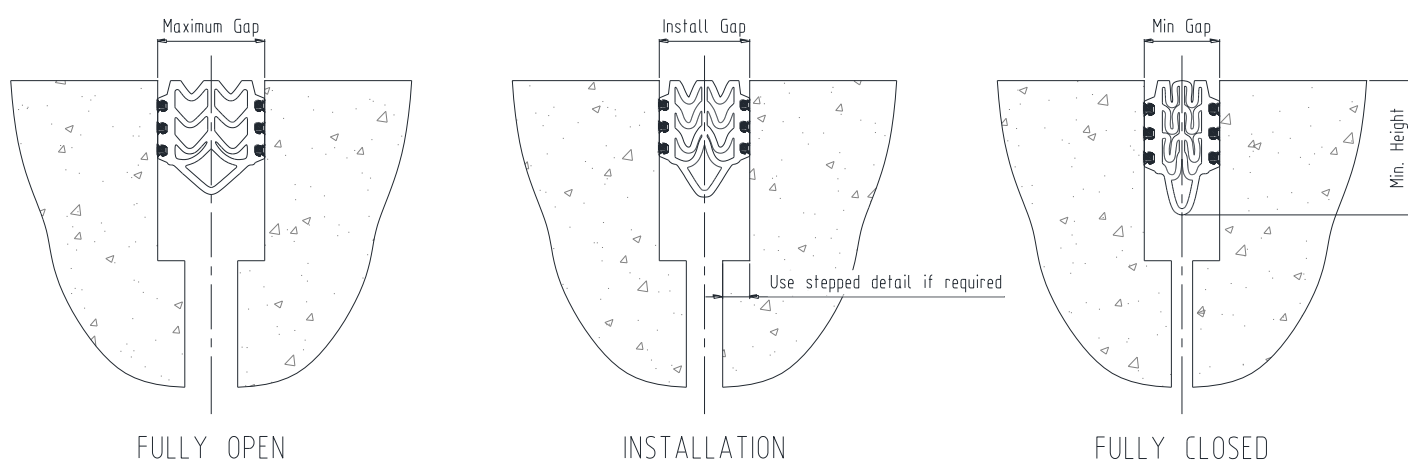
Wizflex Features

- Non-trip pedestrian friendly flush surface profile
- Puncture proof heavy duty profiles – safe for high heel / wheel chairs / prams / trolleys
- Slip resistant rubber surface
- Reliable long term sealing outcomes
- No metallic components – much quieter than metal cover plates
- Durable UV resistant elastomer compounds
- Suitable for both new work and replacement outcomes

Seal Selection Process (for Designers)

1. Calculate required movement capacity based on thermal effects plus long term creep and shrinkage (etc).
2. Select a seal size with equal or greater movement capacity than is required.
3. Design the gap width to suit the selected seal. A stepped gap detail with a wider gap for the seal can be used if required.

The profile size should be chosen to match the joint gap opening at the median temperature for the range of expected movement. Installation in temperatures well below the median operating temperature may require an oversize seal. Consult with Granor engineers if in doubt.



Installation Tools

To assist with installation Granor® has proprietary installation tools available (“pogo-stick” and / or “clamping tool”). For smaller size seals and fairly open joint gaps a pogo-stick is typically used to help speed up the install process. For very narrow gaps and larger size seals, the use of the clamping tool is recommended in conjunction with the pogo-stick. Both can be purchased or hired from Granor.



Header Materials

Wizflex® can be installed between a variety of different header materials on either side of the gap including:

- Continuous concrete deck slab
- Galvanised steelwork or angle edging
- Granor SILSPEC 900 PNS rapid set – Refer to Granor 'XJS' product datasheet for nosing details.
- Granor Flexpatch (creamy grey-beige colour) polymer patching mortar
- Stainless steel angle
- Aluminium members



Wizflex between concrete deck



Wizflex between steel angles



Wizflex between Silspec 900 PNS



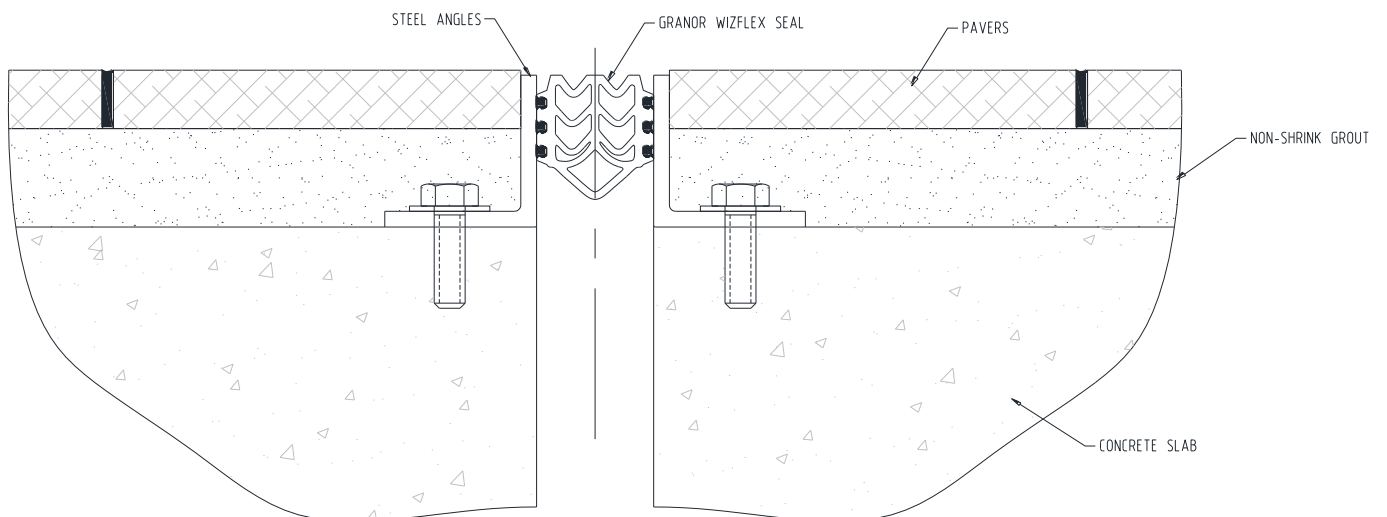
Wizflex between Silspec 900 PNS



Wizflex on Railway Station Platform



Wizflex into warehouse slab



Wizflex example detail for use with architectural paving (waterproofing membrane not illustrated)