Granor® Graflon® Slipjoint Series "SJJ"

Granor® Slipjoint

Over 750,000 lineal metres of Granor Slipjoint has been manufactured and supplied by Granor to numerous projects throughout Australia and nearby countries. The current Series "SJJ" Slipjoint is the result of continuous development from the original Series "CD" Slipjoint introduced in the early 1970's, and the now recently superseded Series "SJ".

Application Areas –
Corbel/slab interfaces where a low friction sliding interface required. Granor Slipjoint provides a predictable low co-efficient of friction at the interface.

Centralised Load Transfer –
Ensures that the load transfer is correctly through the centre of the corbel, eliminating any chance of fretting of the corbel edge due to rotation of the slab.

Rotational Capability –
The very nature of the centralised elastomeric bearing strip, automatically provides load transfer to the corbel away from the edge of the seating. Live load rotation of the slab or deflection by means of settlement of adjacent columns/walls/piers, fretting of the concrete, is eliminated by the use of Granor Slipjoint.

Noiseless –
Continual shortening and/or thermal movements of the slab can build up until slippage occurs – complete with a creaking sound. This is eliminated by use of SJJ Slipjoint. Important in 'quiet' buildings such as recording studios or hotels.

Marking/Labelling –
In order to minimise on site confusion part numbers are clearly stamped on each length of Slipjoint.

Off-Set Designs –
Slipjoint can be offset or have the stainless steel slide plate, offset relative to centreline of the Slipjoint. Such options should be discussed with Granor's engineers.

Cutting to Length on Site –
Can be cut to length on site. (It is however, recommended that closure lengths be factory supplied.)

Packaging –
In twin cushion, stiff cardboard boxes – typical packing – 25 metres per carton.

Easy Installation –
Detailed installation instruction sheets are included with every consignment.

Recommended Minimum Width of Slipjoint –
The table shows a minimum practical seating width applicable to each size of Slipjoint.
The designer must ensure that if such narrow Slipjoint is used, that Load Transfer between slab/corbel or slab/beam, is adequately addressed.

Load Transfer –
The designer should give careful consideration to the subject of load transfer through the elastomeric bearing strip, both at the time of installation, but more importantly, at the time of maximum anticipated shortening of the slab.

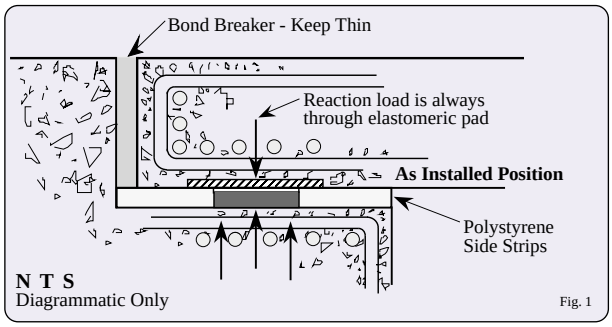


Fig. 1. Load Transfer Though Slipjoint – As Installed

At Time of Installation –
Ensure that adequate reinforcement is available to take the load. Ensure that such reinforcement is adequately and correctly bent in accordance with the structural engineers drawings, to ensure that load transfer through the concrete is contained within the reinforcement cage. Fig. 1.

At Time of Maximum Translation –
Ensure that the above still applies, particularly the rear corner of the slab.

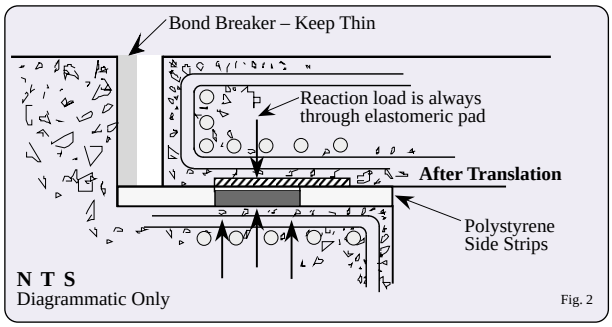
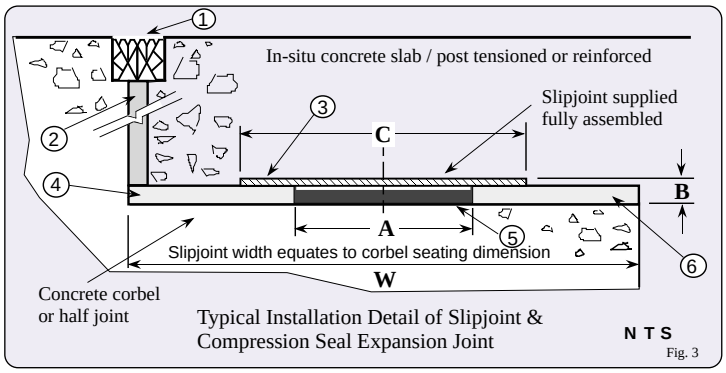


Fig 2. Load Transfer Through Slipjoint – Fully Translated



① Compression Seal Expansion Joint – typical
② Bondbreaker
③ Polished stainless steel plate
④ Polystyrene edge strip of Slipjoint
⑤ Graflon faced elastomeric strip
⑥ Seating – in accordance with specification

GRANOR RUBBER & ENGINEERING P/L

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SLIPJOINT

Design Considerations –

Standard working load capacities range from 75 kN/m to 500 kN/m. Where point loads or loads greater than 500 kN/m are required, the designer should refer to the Granor Series "DBA" and "DBAP" range of Point Load Structural Slide Bearings. For lightly loaded applications, Granor's Discrete Slipjoint should be considered, thus providing additional savings.

Movement Capacity –

Range from +/- 15 mm to +/-50 mm normal to the longitudinal axis of the Slipjoint, from the neutral position. Offset designs are available where most of the movement is in one direction. Alternative movement capacities are available.

Seating Width –

The designer must insert the last number (*) in the table, at the end of the selected item. This permits the product to be supplied to the exact seating width required.

Fire Rating –

If required, the polystyrene edges can be removed after installation and after most of the shrinkage has occurred. The gap left can be replaced with a suitable smoke or fire retardant material.

Standard Manufactured Lengths -

1000mm is standard. Alternative standard manufactured lengths are 1200mm & 600mm. Granor Slipjoint can be cut to length on site but it is recommended that the exact closure lengths required be ordered onto the factory.

Note * – In order to complete the Part Number, the designer must insert the project specific corbel (or seating) width dimension at the end of Granor's part number shown – assuming that it is not less than the minimum required corbel seating width nominated in tabulation.

Note ** – Loads/metre shown are working, rated or serviceability loads.

Note * –** Rotational capacity has been calculated in accordance with AUSTROADS BDC-92.

Note ** –** Minimum Required Seating Width is the recommended minimum taking into account a minimum thickness of (vertical) bondbreaker, and yet still achieve reasonable load transfer after maximum translation.

Part Number Type "SJJ"	Working Load** kN/m	Dimensions mm A	B	C	Rotation Rad.***	Expansion Capacity (+/- mm)	Min.Req'd Seating W (mm)****
SJJ-75-15/*	75	30	7	60	0.054	15	100
SJJ-75-20/*	75	30	7	70	0.054	20	110
SJJ-75-30/*	75	30	7	90	0.054	30	130
SJJ-75-50/*	75	30	7	130	0.054	50	170
SJJ-100-15/*	100	35	7	65	0.046	15	105
SJJ-100-20/*	100	35	7	75	0.046	20	115
SJJ-100-30/*	100	35	7	95	0.046	30	135
SJJ-100-50/*	100	35	7	135	0.046	50	175
SJJ-150-15/*	150	40	7	70	0.044	15	110
SJJ-150-20/*	150	40	7	80	0.044	20	120
SJJ-150-30/*	150	40	7	100	0.044	30	140
SJJ-150-50/*	150	40	7	140	0.044	50	180
SJJ-200-15/*	200	50	7	80	0.032	15	120
SJJ-200-20/*	200	50	7	90	0.032	20	130
SJJ-200-30/*	200	50	7	110	0.032	30	150
SJJ-200-50/*	200	50	7	150	0.032	50	190
SJJ-250-15/*	250	60	7	90	0.014	15	130
SJJ-250-20/*	250	60	7	100	0.014	20	140
SJJ-250-30/*	250	60	7	120	0.014	30	60
SJJ-250-50/*	250	60	7	160	0.014	50	200
SJJ-300-15/*	300	75	7	105	0.016	15	145
SJJ-300-20/*	300	75	7	115	0.016	20	155
SJJ-300-30/*	300	75	7	135	0.016	30	175
SJJ-300-50/*	300	75	7	175	0.016	50	215
SJJ-400-15/*	400	100	7	130	0.011	15	170
SJJ-400-20/*	400	100	7	140	0.011	20	180
SJJ-400-30/*	400	100	7	160	0.011	30	200
SJJ-400-50/*	400	100	7	200	0.011	50	240
SJJ-500-15/*	500	125	7	155	0.008	15	195
SJJ-500-20/*	500	125	7	165	0.008	20	215
SJJ-500-30/*	500	125	7	185	0.008	30	225
SJJ-500-50/*	500	125	7	225	0.008	50	265

Designer's Responsibility – Product Identification – Corbel/Seating Width

The part number in above table, requires that the designer insert the last number (represented by '*') being the width of the seating for the Slipjoint.

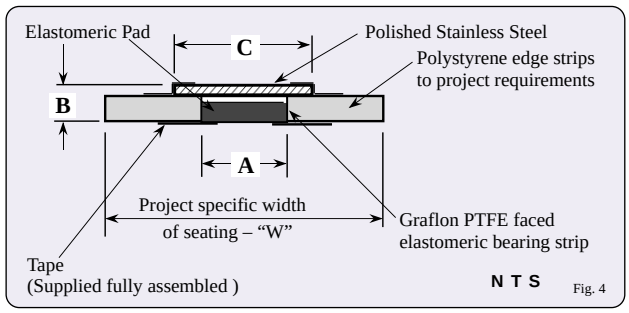

Fig. 4

Component Identification – Fig. 3

Typical Part No. being SJJ-100-20/180.

Identification of components being –

- **SJJ** Series designation of product group.
- **100** Working Load capacity, kN/m of Slipjoint. Ultimate load is 25% greater.
- **20** Movement capacity is +/- mm, from central position.
- **180** Total width of seating. (This number is project specific and must be inserted by the designer.)

Note – That there is a critical minimum value for "W" for each size Slipjoint.

Product Construction –

Granor Slipjoint is supplied fully assembled in modules of 1000mm, 1200mm or 600mm or lengths as otherwise specified by the customer.

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