



GRANOR® STRUCTURAL SLIDE BEARINGS — SERIES D

DBA – HEAVY DUTY POINT LOAD SLIDE BEARING

DBAP – DBA SLIDE BEARING WITH (TOP) STEEL PLATE



A SIMPLE LOW FRICTION BEARING SOLUTION

Series 'D' Structural Slide bearings were developed to accommodate concentrated point loads where continuous Slip-Joint is inappropriate. A simple low friction bearing solution on corbels or columns, allowing free movement and rotation support conditions.

DBA bearings are typically cast-in-situ; first placed in position onto the support and then the overlaying slab or beam is poured onto them.

A DBAP is a DBA bearing with a galvanised steel plate mounted on top complete with threaded studs which allow direct bolting to steelwork.

STANDARD DESIGN FEATURES

- > Point load free/released sliding support
- > Low co-efficient of friction
(TYP. 0.01 to 0.02 at SLS)
- > Rotational capacity
- > 50 – 100 year design life
(EXPOSURE CATEGORY DEPENDANT)
- > Noise free
- > Ease of handling & installation

OPTIONAL EXTRA(S)

- > Custom bearing capacities available
- > Design and manufacture can be project specific

BUILD

DBA Bearings utilises a combination of GRAFAB®, GRAFLON® PTFE and stainless steel for simple economical cast-in-situ point load sliding bearings.

GRAFLON® PTFE (Grade 1-Pure) is bonded to the GRAFAB® pad via an intermediate reinforcement layer, providing a low friction sliding interface against a polished grade 316 stainless steel sheet.

DIMENSIONS & CAPACITIES

Plan sizes shown are typical. Standard movements shown of +/-25mm in any direction from the neutral position, with the +/-200mm range for seismic applications. For DBA bearings, additional polystyrene surrounds should be added by the contractor to completely envelope the corbel support area ensuring concrete does not short out load transfer.

Non-standard/custom bearings (different load capacity or movement range to standard sizes), can be manufactured. Alternative plan size are available to suit project specific requirements.

Consult Granor Rubber & Engineering for engineering design advice.

PART NUMBERS

A bearing with 200kN SLS working load capacity (and 300 kN ULS capacity), with +/-25mm lateral movement and +/-25mm longitudinal movement, would correspond to a "DBA-200-25/25".

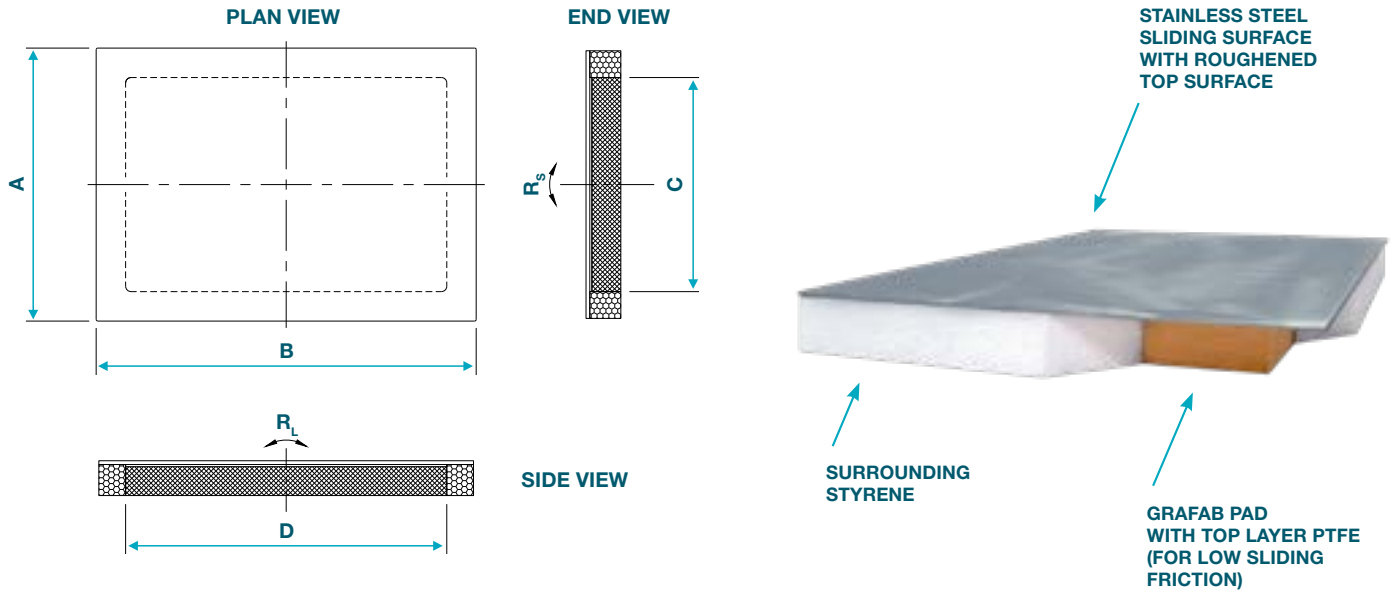
DBA	Series Designation
200	200KN SLS capacity (times by 1.5 for ULS)
25	±25 mm lateral movement
25	±25 mm longitudinal movement
= DBA-200-25/25	

IDENTIFICATION

DBA-100-25/25	—	Longitudinal movement accomodation +/- in mm
		Transverse movement accomodation +/- in mm
		Vertical load capacity SLS in kN
Structural Slide Bearing		

DBA

SPECIFICATIONS



DBA BEARINGS

Part No.	Design Load Capacity (kN)		Top Plate A x B (mm)	Pad Size C x D (mm)	Bearing Height H (mm)	Movement Capacity		Rotation Capacity (radians)	
	Serviceability (SLS)	Ultimate (ULS)				Transv. (+/-mm)	Long. (+/-mm)	R_s	R_L
DBA-100-25/25	100	150	130 x 175	80 x 125	19	25	25	0.0190	0.0120
DBA-200-25/25	200	300	170 x 215	120 x 165	19	25	25	0.0126	0.0090
DBA-300-25/25	300	450	200 x 250	150 x 200	25	25	25	0.0152	0.0114
DBA-400-25/25	400	600	215 x 290	165 x 240	25	25	25	0.0138	0.0095
DBA-500-25/25	500	750	230 x 330	180 x 280	25	25	25	0.0128	0.0090
DBA-600-25/25	600	900	250 x 350	200 x 300	25	25	25	0.0114	0.0070
DBA-800-25/25	800	1200	280 x 400	230 x 350	31	25	25	0.0128	0.0100
DBA-1000-25/25	1000	1500	315 x 430	265 x 380	31	25	25	0.0100	0.0090

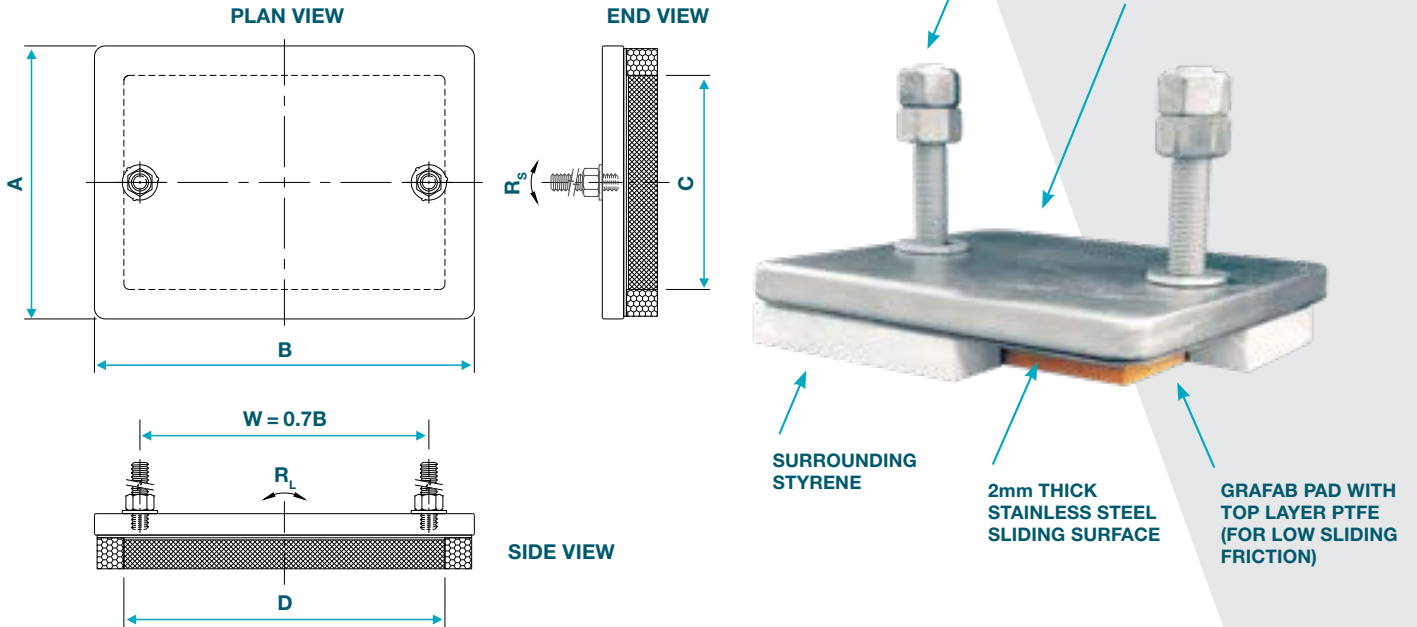
DBA SEISMIC[^] BEARINGS

Part No.	Design Load Capacity (kN)		Top Plate A x B (mm)	Pad Size C x D (mm)	Bearing Height H (mm)	Movement Capacity		Rotation Capacity (radians)	
	Serviceability (SLS)	Ultimate (ULS)				Transv. (+/-mm)	Long. (+/-mm)	R_s	R_L
DBA-100-200/200	100	150	480 x 525	80 x 125	19	200	200	0.0190	0.0120
DBA-200-200/200	200	300	520 x 565	120 x 165	19	200	200	0.0126	0.0090
DBA-300-200/200	300	450	550 x 600	150 x 200	25	200	200	0.0152	0.0114
DBA-400-200/200	400	600	565 x 640	165 x 240	25	200	200	0.0138	0.0095
DBA-500-200/200	500	750	580 x 680	180 x 280	25	200	200	0.0128	0.0090
DBA-600-200/200	600	900	600 x 700	200 x 300	25	200	200	0.0114	0.0070
DBA-800-200/200	800	1200	630 x 750	230 x 350	31	200	200	0.0128	0.0100
DBA-1000-200/200	1000	1500	665 x 780	265 x 380	31	200	200	0.0100	0.0090

Seismic[^] Custom bearings with very large (seismic) movement range, the slide plate must be fully supported / braced over its entire area for any movement range position. Slide Plates are NOT designed to resist bending moments for large off-centre load positions; they require bracing such as widened web stiffeners.

DBAP

SPECIFICATIONS



DBAP* BEARINGS

Part No.	Design Load Capacity (kN)		Top Plate A x B (mm)	Pad Size C x D (mm)	Bearing Height H (mm)	Movement Capacity		Rotation Capacity (radians)	
	Serviceability (SLS)	Ultimate (ULS)				Transv. (+/-mm)	Long. (+/-mm)	R_s	R_L
DBAP-100-25/25	100	150	130 x 175	80 x 125	35	25	25	0.0190	0.0120
DBAP-200-25/25	200	300	170 x 215	120 x 165	35	25	25	0.0126	0.0090
DBAP-300-25/25	300	450	200 x 250	150 x 200	41	25	25	0.0152	0.0114
DBAP-400-25/25	400	600	215 x 290	165 x 240	41	25	25	0.0138	0.0095
DBAP-500-25/25	500	750	230 x 330	180 x 280	41	25	25	0.0128	0.0090
DBAP-600-25/25	600	900	250 x 350	200 x 300	41	25	25	0.0114	0.0070
DBAP-800-25/25	800	1200	280 x 400	230 x 350	47	25	25	0.0128	0.0100
DBAP-1000-25/25	1000	1500	315 x 430	265 x 380	47	25	25	0.0100	0.0090

DBAP* SEISMIC^ BEARINGS

Part No.	Design Load Capacity (kN)		Top Plate A x B (mm)	Pad Size C x D (mm)	Bearing Height H (mm)	Movement Capacity		Rotation Capacity (radians)	
	Serviceability (SLS)	Ultimate (ULS)				Transv. (+/-mm)	Long. (+/-mm)	R_s	R_L
DBAP-100-200/200	100	150	480 x 525	80 x 125	35	200	200	0.0190	0.0120
DBAP-200-200/200	200	300	520 x 565	120 x 165	35	200	200	0.0126	0.0090
DBAP-300-200/200	300	450	550 x 600	150 x 200	41	200	200	0.0152	0.0114
DBAP-400-200/200	400	600	565 x 640	165 x 240	41	200	200	0.0138	0.0095
DBAP-500-200/200	500	750	580 x 680	180 x 280	41	200	200	0.0128	0.0090
DBAP-600-200/200	600	900	600 x 700	200 x 300	41	200	200	0.0114	0.0070
DBAP-800-200/200	800	1200	630 x 750	230 x 350	47	200	200	0.0128	0.0100
DBAP-1000-200/200	1000	1500	665 x 780	265 x 380	47	200	200	0.0100	0.0090


Seismic^ Custom bearings with very large (seismic) movement range, the slide plate must be fully supported / braced over its entire area for any movement range position. Slide Plates are NOT designed to resist bending moments for large off-centre load positions; they require bracing such as widened web stiffeners.

DBAP* "P" indicates an addition of 16mm thick mild steel plate to the top of the DBA bearing, enabling bolting to steelwork

W "W" Indicates positioning of M16 x 100mm Gr.8.8 Galv. fixings in the centre; default centre spacing fixed @70% of length of bearing top plate. (Unless advised or noted otherwise)



SIMPLE ECONOMICAL LOW FRICTION SLIDE BEARINGS



GRANOR RUBBER & ENGINEERING PTY LTD
8 REID STREET,
BAYSWATER, VICTORIA 3153
AUSTRALIA

+61 3 9762 9699

AUSTRALIA
GRANOR.COM.AU
INFO@GRANOR.COM.AU

NEW ZEALAND
GRANOR.CO.NZ
INFO@GRANOR.CO.NZ