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## Bearing Pads

Type & Transition

### *Type & transition bands*

Bearing types are determined under a certain design criteria. In the table below by using AASHO-LRFD Bridge –Design Specification, we have established the transition band between the changes in the specification. This work had been carried out only for Rotations of  $\leq 0.005$  &  $\leq 0.015$ . Table A1 & A2.

The resulting design will provide the geometry and other pertinent specifications for the bearing. It is likely that one or more of the preliminary selections will be eliminated in this step because of an undesirable attribute. The final selection should be the bearing system with the lowest combination of first cost and maintenance costs as indicated in Table A. If no bearing appears suitable, the selection process must be repeated with different constraints.

The most likely cause of the elimination of all possible bearing types is that a mutually exclusive set of design criteria was established. In this case the basis of the requirements should be reviewed and, if necessary, the overall system of superstructure and bearings should be re-evaluated before repeating the bearing selection process.

<i>Bearing Types</i>	<i>Load</i>		<i>Transition</i>		<i>Rotation</i>	<i>Costs</i>	
	<i>Min KN</i>	<i>Max KN</i>	<i>Min mm</i>	<i>Max mm</i>	<i>Limit (Rad)</i>	<i>Initial</i>	<i>Maintenance</i>
<b>Elastomeric Pads</b>							
Plain (PEP)	0	450	0	15	0.01	Low	Low
Cotton Duck (CDP)	0	1400	0	5	0.03	Low	Low
Fibber glass (FGP)	0	600	0	25	0.015	Low	Low
<b>Steel Reinforced Elastomeric Bearing</b>	225	3500	0	100	0.04	Low	Low
<b>Sliding Bearing</b>	0	>10,000	25	>100	0.04	Low	Moderate
<b>POT Bearing</b>	1200	10,000	0	0	0.02	Moderate	High

*Table A - Summary of most used Bearing capabilities*



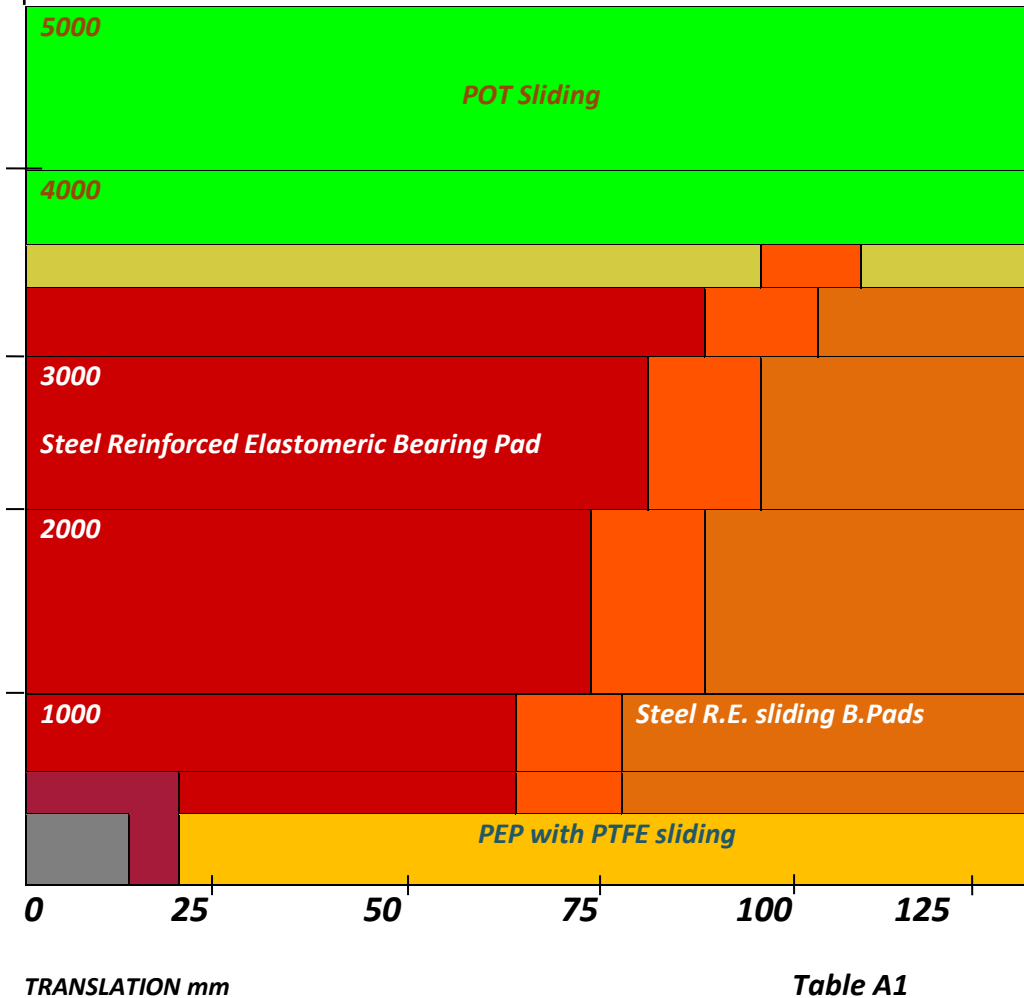
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## Bearing Selection Diagram

Rotation  $\leq 0.015$

Compressive Load

Translation



**Note** that the limit lines which define the regions in this diagram are only approximate. The limits could move 5% in either direction. As a result, the user should examine both options when the application falls near one of these limit lines

### LEGEND

Steel reinforced E Bearing with sliding

CPD with PTFE sliding surface



PEP with PTFE sliding



Steel reinforced Elastomeric Bearing



Steel reinforced E sliding Bearing

POT sliding



POT with PTFE sliding



Transition between Steel reinforced & sliding POT



Transition between steel reinforce and steel reinforced sliding



Transition between PEP sliding & steel R with PTFE

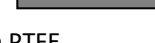
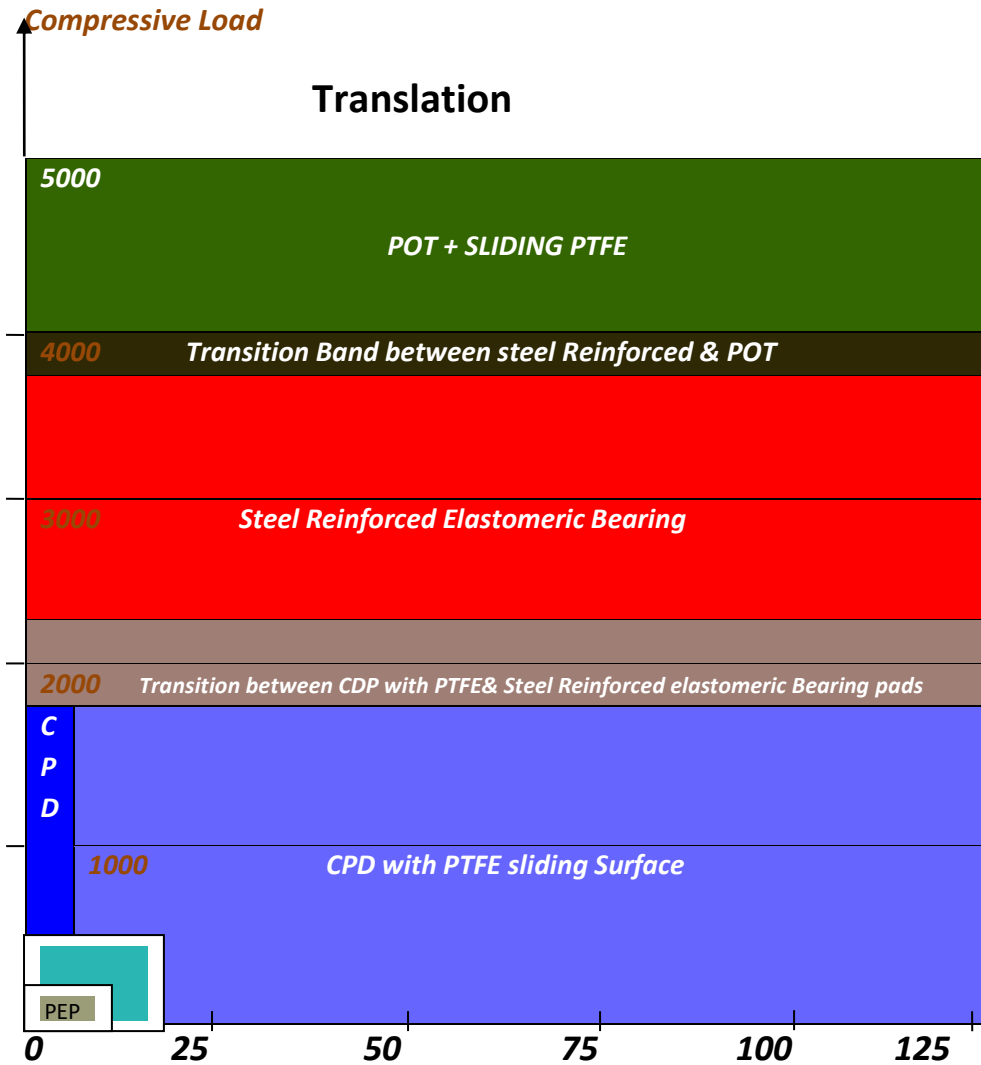


Table A1



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Rotation  $\leq 0.005$



TRANSLATION mm

Table A2

