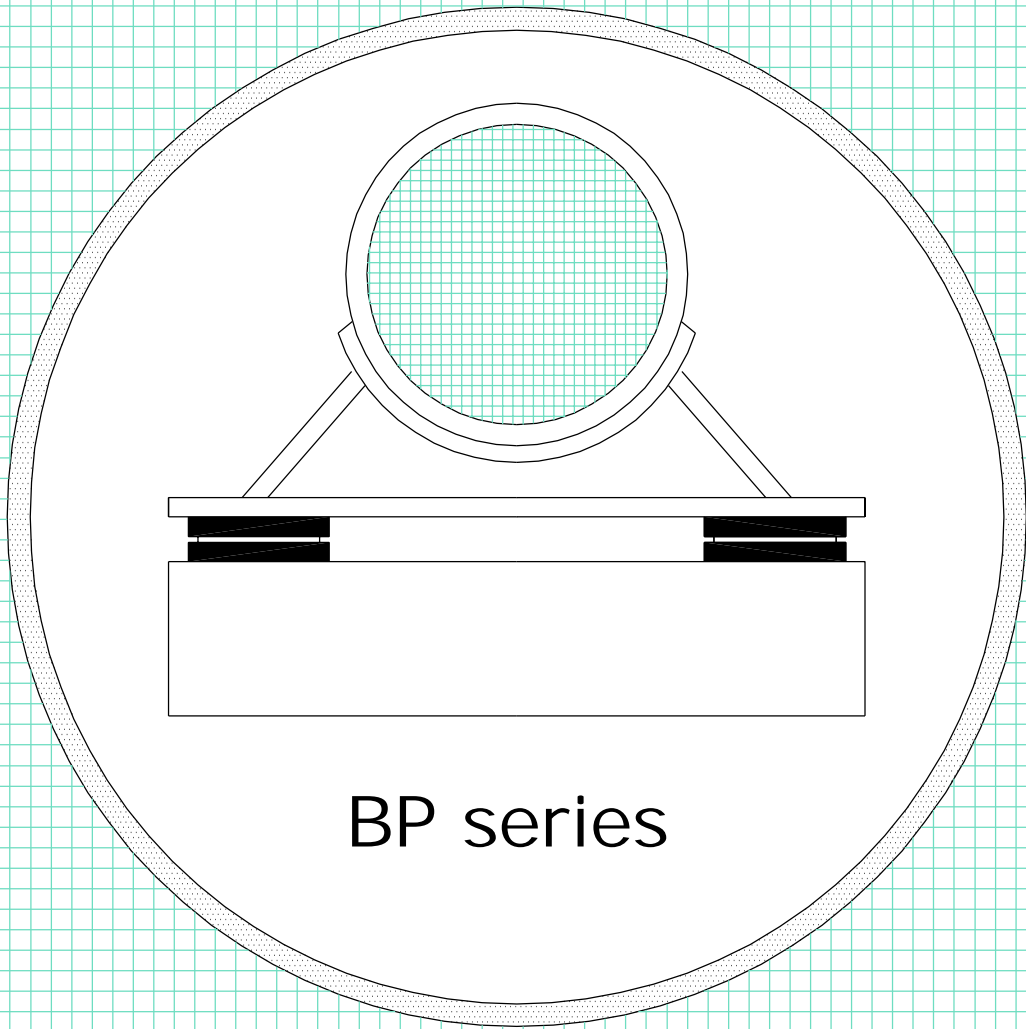


PIPE SUPPORT BEARINGS





PIPE SUPPORT BEARINGS

General

The expansion and contraction of pipelines and ducting due to thermal and internal pressure effects may result in substantial linear movement which unless properly considered may give rise to dangerous stresses at supports. This series of bearings provide means of supporting the pipe or flue whilst simultaneously offering negligible resistance to movement due to the extremely low friction properties of the dry bearing material used in the designs.

Support

Various methods of attachment are offered, each aimed at providing uniform support. Where more than one bearing is used at one support the structure design and construction should ensure that all sliding surfaces are parallel.

Rotation

Consideration should be made for rotation in the selection of bearing types. This may result from live load deflection of the pipe between supports, from relative rotation of the support under load or as compensation for discrepancies in support levels. Construction inaccuracies should also be considered.

Constraint

It may be necessary to provide transverse or uplift constraint at supports. This can readily be provided by standard designs on request.

Friction

The sliding bearing material is normally CSB10 (DU) which is a composite material comprising a steel backing strip clad with a porous sintered copper-lead layer which is impregnated with a PTFE mixture. This well proved bearing material can sustain extremely high specific loads whilst possessing very low coefficients of friction. In addition, the composite structure provides excellent heat transfer, wear rate and durability. The bearing material slides against a mirror polished surface of stainless steel. For design purposes a coefficient of friction of 0.05 should be used but this can vary between 0,02-0,08 depending on a number of operating variables.

Temperature

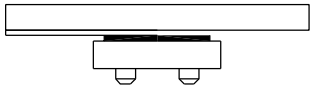
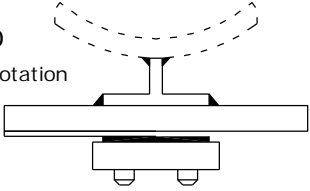
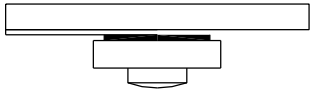
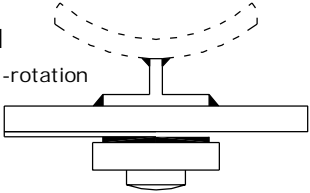
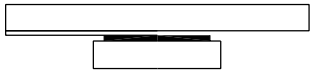
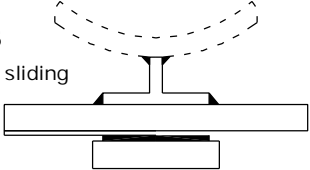
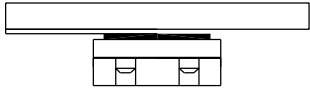
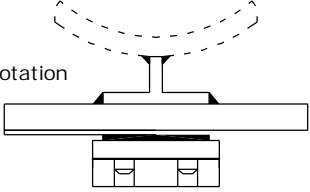
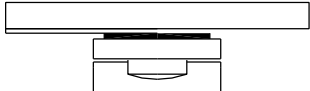
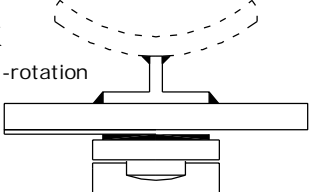
The standard "P" series bearings can accommodate the loads shown in the tables for an operating temperature up to 150°C. Where temperatures of up to 280°C are encountered the bearings need to be de-rated. For temperatures in excess of 280°C special bearing materials are employed up to 600°C.

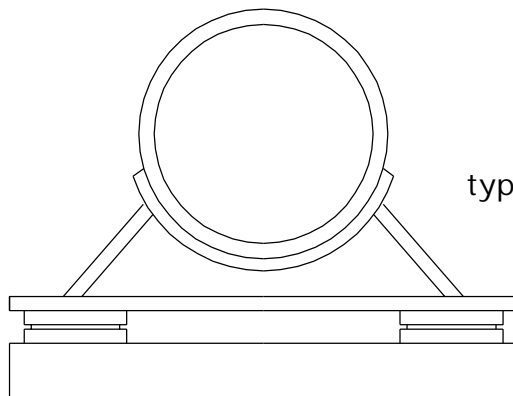
Corrosion protection

The standard protection system comprises a primer of zinc rich epoxy with an overcoat of MIO (Micacious Iron Oxide in epoxy base) which is suitable for up to 120°C. For applications above this temperature the exposed surfaces are treated with a temporary coating of PA10 primer prior to over-coating to customer's specification.

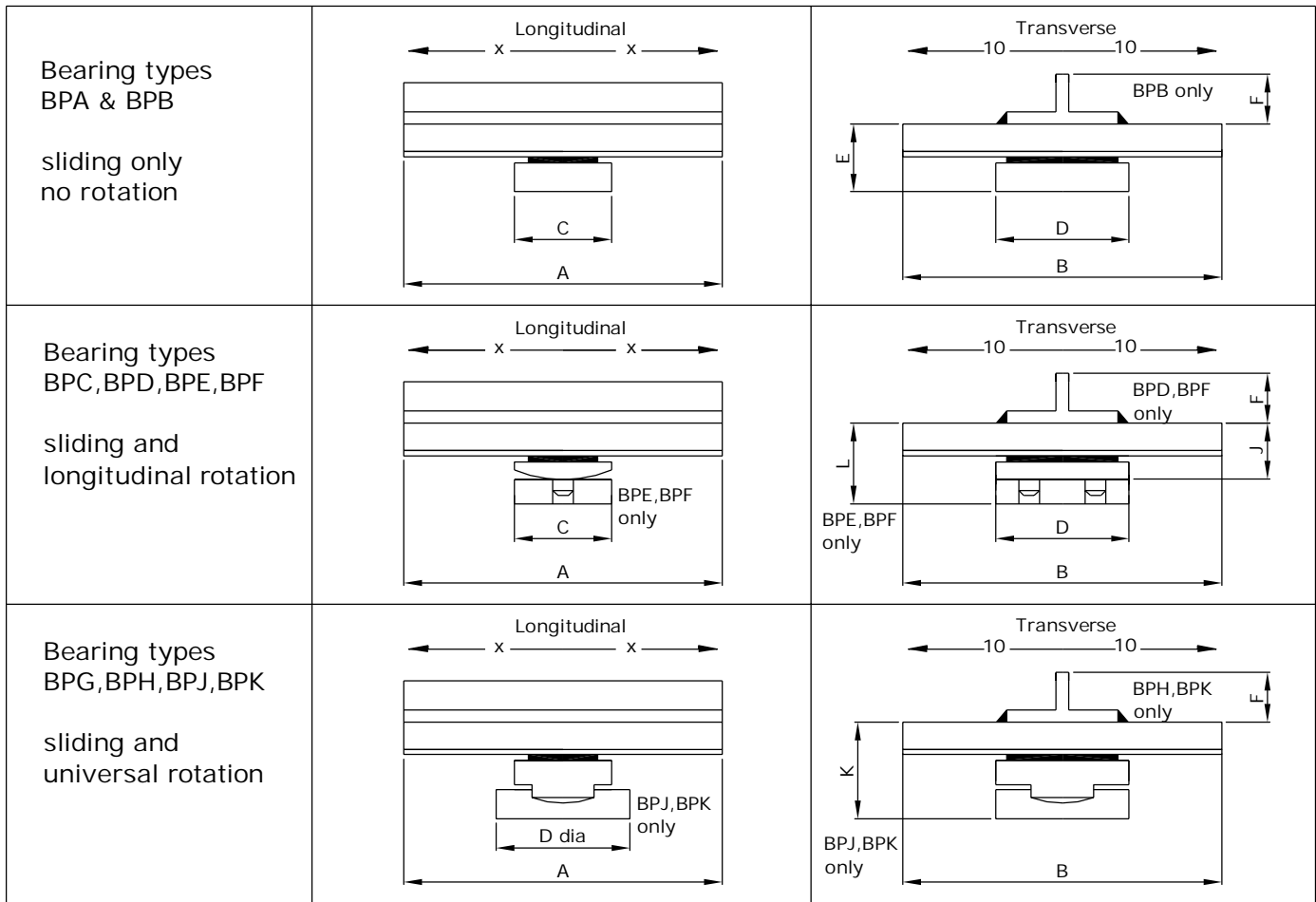


STANDARD TYPES AVAILABLE

<p>BPC uni-rotation</p> 	<p>BPD uni-rotation</p> 
<p>BPG multi-rotation</p> 	<p>BPH multi-rotation</p> 
<p>BPA plain sliding</p> 	<p>BPB plain sliding</p> 
<p>BPE uni-rotation</p> 	<p>BPF uni-rotation</p> 
<p>BPJ multi-rotation</p> 	<p>BPK multi-rotation</p> 



typical saddle arrangement

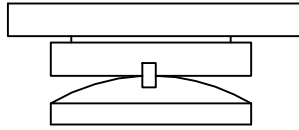


Part Number	Load		X	A	B	C	D	E	F	J	K	L
	kN	Tons										
* 3-100	30	3	50	175	125	63	100	32	75	36	60	50
* 3-200	30	3	100	275	125	63	100	32	75	36	60	50
* 3-300	30	3	150	375	125	63	100	32	75	36	60	50
* 3-400	30	3	200	475	125	63	100	32	75	36	60	50
* 6-100	60	6	50	175	175	75	150	35	75	36	75	53
* 6-200	60	6	100	275	175	75	150	35	75	36	75	53
* 6-300	60	6	150	375	175	75	150	35	75	36	75	53
* 6-400	60	6	200	475	175	75	150	35	75	36	75	53

* insert type prefix e.g BPC

OTHER STRUCTURAL BEARING TYPES AVAILABLE

BD series



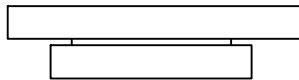
Sliding
High rotation about 1 axis
Up to 5000kN

BT series



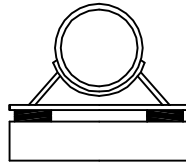
Sliding
Rotation about all axes
Up to 20000kN

BA series



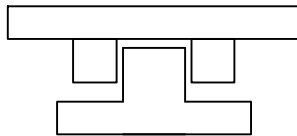
Plain sliding
No rotation
Up to 2000kN

BP series



Pipe support bearings
Rotation up to 0,04 radians
Up to 60kN
Unlimited movement

BV series



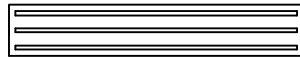
Horizontal guide
No transverse rotation
No vertical load capacity

BK series



Strip bearings
Up to 350kN/meter
Movement <10mm

BR series



Laminated rubber bearings
Limited rotation and movement
Up to 4000kN

These products are supplied by:

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BT is constantly developing these products and reserves the right to change dimensions, specifications and designs at any time without prior notice.