Metalastik® type Spherilastik™ Bearings

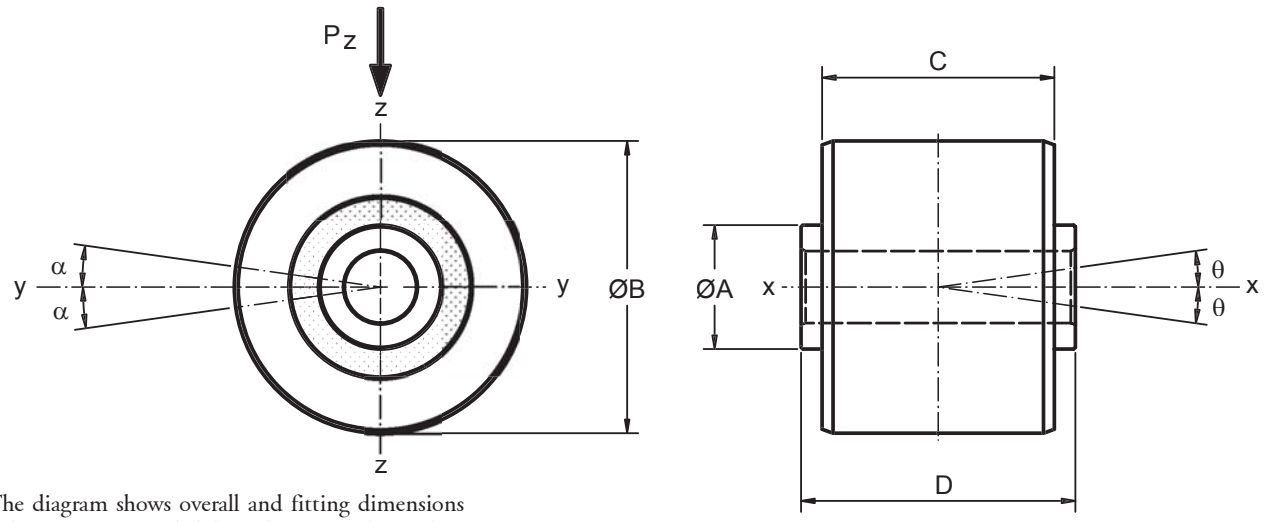
Features/Applications

A heavy duty flexible bearing which combines high-load carrying capacity with the ability to accommodate torsional and angular movements in all planes without lubrication and metal-to-metal wear.

Spherilastik™ bearings with through holes or solid centre members are available in a range of sizes as detailed in this leaflet.

Typical uses include traction and braking reaction rods for rail, road and off-road vehicles, hydraulic damper fixings and other applications where a high duty bearing of compact size is required.

Centre Bore



The diagram shows overall and fitting dimensions only. It is recommended that a drawing of the product is obtained before ordering.

Part No.	13/1316	13/1962	13/2201	13/2047	13/2108	13/1295	13/2106
P_z kN	34	34	34	35	53	53.5	58
K_z MN/m	70	70	70	32	83	83	100
α^o	8	8	8	10	8	8	8
K_{xx} kNm/rad	0,9	0.9	0.9	3.2	2.6	2.6	2.8
θ	6	6	6	8	6	6	6
K_{yy} kNm/rad	0,9	0.9	0.9	2.9	2.6	2.6	2.8
A mm	25,4	25	25.4	38.1	41.3	41.3	28.6
B mm	66,7	66	66.7	104.8	90.5	90.5	90
C mm	47,6	48	47.6	76.2	101.6	70	70
D mm	54	54	54	82.6	65	73.2	76.2
Mass weight, kg	0,84	0.83	0.41	3.2	1.5	2.2	1.8

General guidance notes for selection:

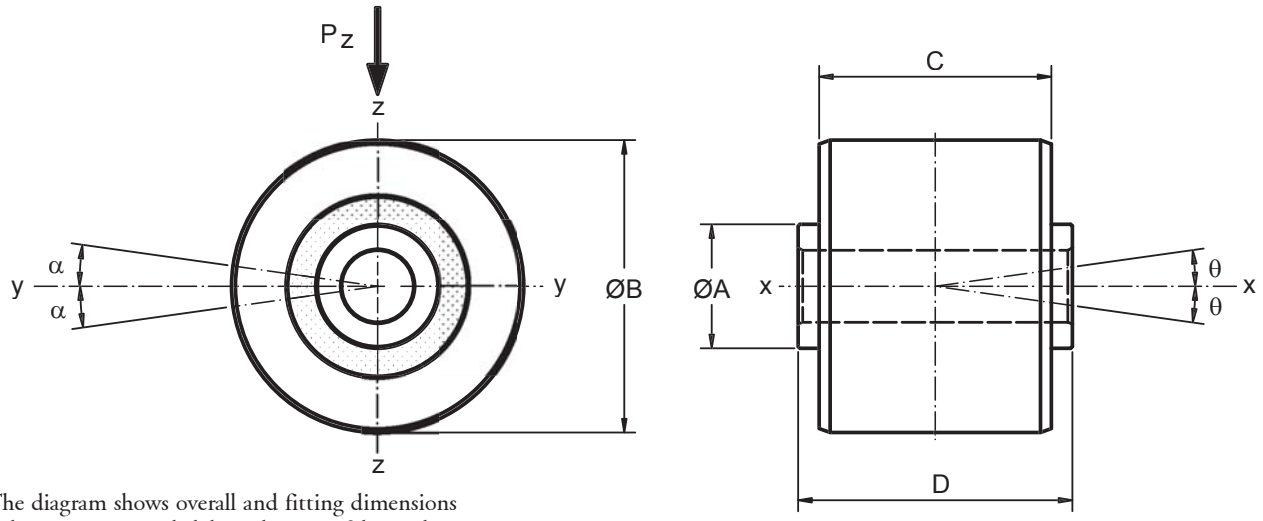
1. Properties quoted for the components in this leaflet relate to continuous steady loading or deformation conditions.

2. For continuous dynamic cyclic loading or deformation, the maximum values should be reduced to approximately 30% of the figures quoted, depending on frequency.

3. For medium and low incidence loading and deformation, the tabled values may be increased up to 2 to 3 times.

4. Combined stressing in the different modes and the effects of stress reversals may require a more critical assessment.

Centre Bore



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Part No.	13/1006	13/1285	13/1180	13/0894	13/1680	13/1339	13/1990
P_z kN	58	78	110	180	220	400	425
K_z MN/m	93	90	100	100	260	350	470
α^o	8	8	10	9	6	7	7
K_{xx} kNm/rad	2.8	4.5	7	30	15	26	21
θ	6	7	6	8	5	6	6
K_{yy} kNm/rad	2.8	3.8	6	20	13	20	18
A mm	28.6	38.1	44.5	76.2	50.1	114.3	60
B mm	90.5	104.8	127	200	127	200	150
C mm	70	76.2	101.6	152.4	101.6	152.4	120
D mm	76.5	82.6	104.8	139.7	104.8	114.3	134
Mass weight, kg	2.5	3.4	6.6	21.9	6.3	19.4	11.5

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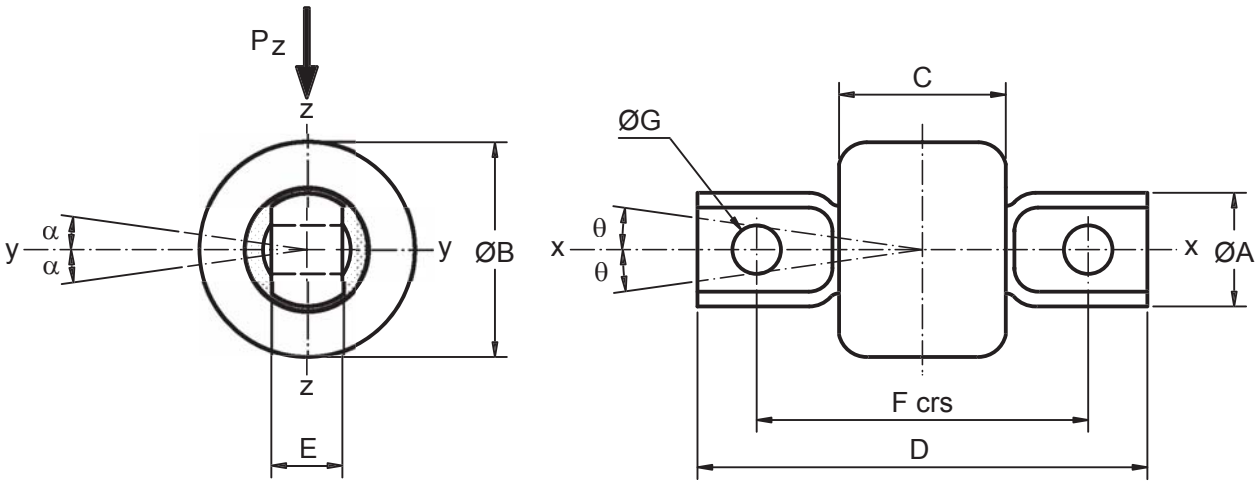
Trunnion Type



The diagram shows overall and fitting dimensions only. It is recommended that a drawing of the product is obtained before ordering.

Part No.	13/2092	13/2202	13/2203	13/2181	13/2192	13/2033	13/2223
P_z kN	12	34	34	58	58	75	80
K_z MN/m	34	70	70	90	90	150	100
α^o	8	8	8	10	8	8	8
K_{xx} kNm/rad	0.17	0.7	0.7	2,8	2.8	2.8	4.5
θ	6	6	6	6	6	6	7
K_{yy} kNm/rad	0.2	0.9	0.9	2.8	2.8	2.8	3.8
A mm	30	35	35	48	48	40	50.5
B mm	45	66.7	66.7	90.6	90.6	84	104.8
C mm	35	47.6	47.6	70	70	65	76.2
D mm	105	120	126	190	170	155	170
E mm	12	20	20	30	30	20	30
F mm	75	90	96	140	130	120	130
Gmm	13	13	17	20.5	20.5	16.5	19
Mass weight, kg	0.47	1.14	1.02	2.8	3	2.8	5.8

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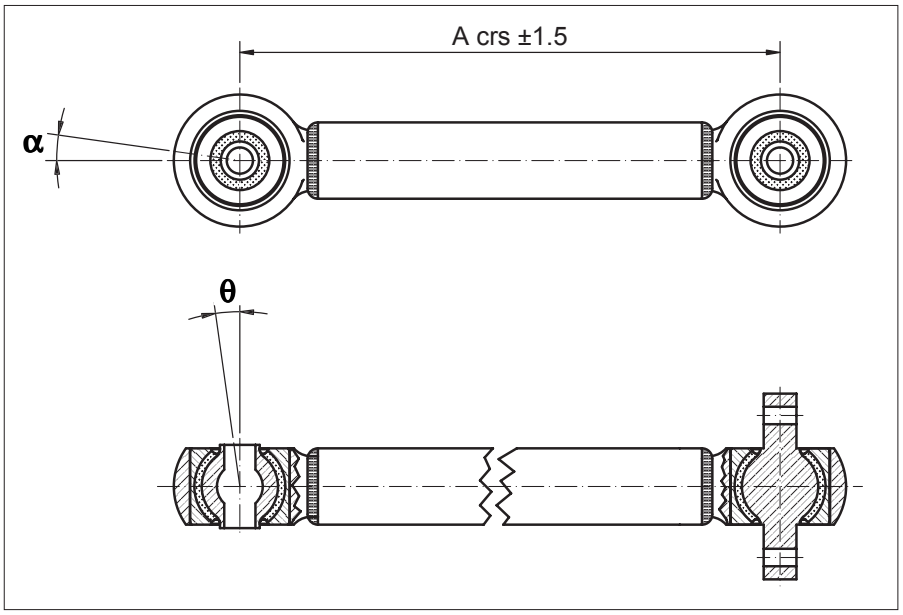
Control links



Features/Applications

A range of Control Links incorporating Spherilastik Bearings is available and typical sizes are listed below. Further details are available on request.

Part No.	Spherilastik Part No.	Type	A[1] mm	Nominal P. max kN	α Degrees	θ Degrees	Mass weight kg
13/2233	13/2192	2	490	58	6	8	12
13/2235	13/2107	2	644	58	6	8	14
13/2154	1371006	1	673	58	6	8	15
13/2280	13/1006	1	720	58	6	8	16
13/2369	13/2192	2	1315	58	6	8	27

Properties quoted are for 60H rubber compound

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4. Combined stressing in the different modes and the effects of stress reversals may require a more critical assessment.

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