



LINKAGES



Rod Ends and Spherical Plain Bearings



Dunlop BTL Ltd - Ashford European Distribution Centre

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Ashford, Kent
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Contact us



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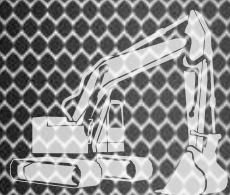
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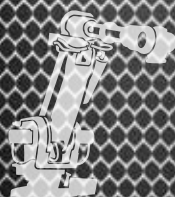
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Consett, County Durham
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Manufacturing Facilities, Consett, Co. Durham UK

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European Distribution Centre, Ashford, Kent UK

MPT House, Brunswick Road
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“We are proud to be a European manufacturer; it is a privilege to supply our products to some of the world’s most prestigious original equipment manufacturers in the Agricultural, Automotive, Construction, Industrial and Motor Sport sectors”.

“Our distributor network is vital to the continued global growth of the DUNLOP brand and our valued distributor partners form the perfect link between manufacturer and end user”.

“Our commitment to our staff, our customers and the environment is of paramount importance to our company, we will continue to develop our organisational skills to further enhance our company’s potential, to engage in sustainable practices and anticipate the needs and expectations of our customers”.

“At Dunlop BTL we love our products”.

Ray Mifsud, *Managing Director.*


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Application

There are several factors that need to be addressed to ensure the maximum performance and safe working of all **DUNLOP** rod ends, spherical bearings, ball joints and clevises.

- Rod ends and ball joints should where possible be mounted vertically, i.e. the housing member to the top, this will give maximum efficiency and life of the product.
- Cyclic motion in contaminated conditions can lead to premature failure, every effort should be taken to keep the unit clean, nylon and PTFE raced products have self-cleaning tendencies which can prove beneficial in contaminated environments.
- When mounting ball studs the hex should be properly tightened and flush to its mating surface. Adequate countersinks, counter bores or washers may be necessary to achieve acceptable assembly.
- Self-locking nuts or washers should be used in applications involving vibration and shock loads.
- It is recommended that separate stops should be mounted into the assembly to eliminate the possibility of over articulation of the rod end or ball joint over a maximum cone angle of 55°.
- Clamping forces can cause distortion of the ball and lead to a loss in internal tolerance, maximum torque values are shown below.
- All applications vary and so will product life, samples can be supplied for testing to help determine the suitability in actual operating conditions.
- Products listed in this catalogue are made to commercial standards, if you have any questions concerning a particular product or application please consult with our sales and engineering staff.

Bore Size Metric (mm)	Bore Size Imperial (inches)	Clamping Torque (Newton Metres) Bronze	Clamping Torque (Newton Metres) Steel
3		N/A	1.5
	0.1250	N/A	1.5
	0.1900	1.6	5.6
5		1.6	5.6
6		2.2	19.6
	0.2500	2.5	22.5
	0.3125	6.8	28.0
8		6.8	28.0
	0.3750	9.5	56.4
10		10.6	65.0
	0.4375	13.5	79.0
12		14.0	93.0
	0.5000	14.7	104.0
14		15.8	167.0
	0.6250	18.0	203.0
16		18.0	203.0
18		19.0	234.0
	0.7500	20.3	259.0
20		21.0	272.0

Materials

DUNLOP rod ends, spherical bearings, ball joints and clevises are available in a wide range of materials, steel, stainless steel and aluminium housings, nylon, PTFE and bronze races and steel, stainless steel and Bronze balls. Please refer to table below.

Housings

- Steel 230M07PB is used for all general purpose applications and are zinc plated and white-blue passivate (silver/clear finish) that conforms with RoHS directives on banned substances and ELV 2000/53/EC and are trivalent. Other plating colours and options are available, please refer to our 'Plating options section on page 14.
- Alloy steel, gives extreme load carrying capacity, extended wear life and high shock load resistance.
- Stainless steel 303L offers excellent corrosion resistance, other stainless steel materials such as 304 and 316 are available to order, please discuss with our sales or engineering departments.
- Aluminium A6026 also has corrosion resistance and weight reduction for lighter applications.

Races

- Nylon races are glass fibre reinforced and are suitable for extended high cycling use in heavy applications, also excellent in damp or wet environments.
- PTFE races provide zero backlash, smooth movement and can withstand extreme temperature conditions -200°C to + 260°C, and are suitable for use in high cycling use in heavy applications.
- Bronze design races SAE660 are suitable for low speed high duty loading, general purpose applications.

Spherical balls

- Steel 100Cr6 spherical balls are produced from high quality bearing steel and are heat treated and hardened to HRC 58-62 and electroless nickel plated.
- Stainless steel 440C spherical balls offer excellent corrosion resistance.
- Alloy steel, gives extreme load carrying capacity, extended wear life and high shock load resistance.
- Bronze SAE660 spherical balls are suitable for applications that require the pin or shaft fitted through the bore to rotate.

We reserve the right to vary the materials shown in the interest of product replacement or improvement.

Product Series	Housing Material	Housing Plating	Race Material	Ball/Ball Stud material	Ball Plating
MP / FP	230M07PB	ZINC WHITE/BLUE PASSIVATE	GR-NYLON	100CR6	ELECTROLESS NICKEL
MP-SS / FP-SS	303L	NOT PLATED	GR-NYLON	440C	NOT PLATED
MB / FB	230M07PB	ZINC WHITE/BLUE PASSIVATE	SAE660	100CR6	ELECTROLESS NICKEL
MB-SS / FB-SS	303L	NOT PLATED	SAE660	440C	NOT PLATED
MH / FH	230M07PB	ZINC WHITE/BLUE PASSIVATE	POLYURETHANE	230M07PB	NITROTEC
MH-SS / FH-SS	303L	NOT PLATED	POLYURETHANE	440C	NOT PLATED
MS / FS	230M07PB	ZINC WHITE/BLUE PASSIVATE	230M07PB / PTFE FABRIC	100CR6	ELECTROLESS NICKEL
MS-SS / FS-SS	303L	NOT PLATED	304L / PTFE FABRIC	440C	NOT PLATED
MSX / FSX	708M40	ZINC WHITE/BLUE PASSIVATE	230M07PB / PTFE MESH	100Cr6	ELECTROLESS NICKEL
MSX-MS / FSX-MS	17-4PH	N/A	17-4PH	440C	N/A
MX / FX	817M40	PHOSPHATED	N/A	100Cr6	PHOSPHATED

Product Series	Housing Material	Housing Plating	Race Material	Ball/Ball Stud material	Ball Plating
RM	230M07PB	ZINC WHITE/BLUE PASSIVATE	NYLON 66	100CR6	ELECTROLESS NICKEL
RM-SS	303L	NOT PLATED	NYLON 66	440C	NOT PLATED
GAR / GIR	080M46	ZINC WHITE/BLUE PASSIVATE	080M46 / PTFE FABRIC	100CR6	ELECTROLESS NICKEL
DB	230M07PB	ZINC WHITE/BLUE PASSIVATE	GR-NYLON	100CR6	ELECTROLESS NICKEL
AL	A6026	BLACK ANODISED	GR-NYLON	100CR6	ELECTROLESS NICKEL
SP	230M07PB	CHEMI-BLACKED	GR-NYLON	100CR6	ELECTROLESS NICKEL
SPH	230M07PB	ZINC WHITE/BLUE PASSIVATE	GRILAMID	230M07PB	NITROTEC
GE-ES	100CR6	MANGANESE PHOSPHATED	N/A	100CR6	MANGANESE PHOSPHATED
GEZ-ES	100CR6	MANGANESE PHOSPHATED	N/A	100CR6	MANGANESE PHOSPHATED
GE-UK	100CR6	NOT PLATED	PTFE FABRIC	100CR6	ELECTROLESS NICKEL
GE-FW	100CR6	NOT PLATED	PTFE FABRIC	100CR6	ELECTROLESS NICKEL
COM	100CR6	NOT PLATED	PTFE FABRIC	100CR6	ELECTROLESS NICKEL
SX	100CR6	PHOSPHATED	N/A	100CR6	PHOSPHATED
A	230M07PB	ZINC WHITE/BLUE PASSIVATE	NYLON 6	230M07PB	ZINC WHITE/BLUE PASSIVATE
BL	DIE CAST ZINC ALLOY	NOT PLATED	N/A	100CR6 / 535C	ZINC WHITE/BLUE PASSIVATE
BM	NYLON 12	NOT PLATED	N/A	230M07PB	ZINC WHITE/BLUE PASSIVATE
C	230M07PB	ZINC WHITE/BLUE PASSIVATE	N/A	212A42	ZINC WHITE/BLUE PASSIVATE
D	230M07PB	ZINC WHITE/BLUE PASSIVATE	N/A	230M07PB	ZINC WHITE/BLUE PASSIVATE
F	230M07PB	ZINC WHITE/BLUE PASSIVATE	N/A	230M07PB	ZINC WHITE/BLUE PASSIVATE
I	230M07PB	ZINC WHITE/BLUE PASSIVATE	NYLON 6	230M07PB	ZINC WHITE/BLUE PASSIVATE
P	230M07PB	ZINC WHITE/BLUE PASSIVATE	N/A	230M07PB	ZINC WHITE/BLUE PASSIVATE
Q	230M07PB	ZINC WHITE/BLUE PASSIVATE	N/A	230M07PB	ZINC WHITE/BLUE PASSIVATE
M	NYLON PA6.6	NOT PLATED	N/A	230M07PB	ZINC WHITE/BLUE PASSIVATE
G	080M46	ZINC WHITE/BLUE PASSIVATE	N/A	N/A	N/A

Load Capacity

Rod ends and spherical bearings

- The static load ratings listed are based on the yield strength of the race material and define the maximum gradually applied load.
- Radial load which the rod end or spherical bearing assembly can withstand, without significant permanent deformation.

- The steel housing provides a backup so that the product can sustain loading in excess of the listed values without collapsing.
- For highly stressed cyclic applications or those involving impact loads a safety factor of two or three should be applied to arrive at a safe working load.
- Although rod ends and spherical bearings are not recommended for use in applications involving axial loads, the construction is such that they can sustain axial loads up to 15% of the actual applied radial static load ratings without distress, but should not exceed 25% of the listed values.
- For extended life the recommended normally applied loads should be 25% - 50% of the static load ratings.
- All load ratings listed are presented for design guidance only and do not imply or constitute a warranty claim of any type.
- All applications vary and so will product life, samples can be supplied for testing to help determine the suitability in actual operating conditions.

Studs

- In applications using studded rod ends or spherical bearings the capacity of the product is limited by that of the stud to withstand sheer loading.
- Table below lists the expected minimum load capacities based on the use of studs made from carbon steel, please consult our sales and engineering departments where the applied loads exceed 50% of the listed values.

Ball joints

- The capacities listed are based on either the maximum tensile strength of the female body or the maximum shear strength of the ball stud, whichever is the lower. Suitable safety factors should be applied depending on the nature of the loading. Pull out force is the minimum required, when applied axially along the stud to cause complete disengagement of the stud from the housing.

Bore Size Metric (mm)	Bore Size Imperial (inches)	Ultimate Radial Loads (Newton)
	0.1900	1,200
5		1,200
6		1,930
	0.2500	1,930
	0.3125	3,190
8		3,190
	0.3750	4,240
10		4,240
	0.4375	5,720
12		5,720
	0.5000	7,200
14		7,200
	0.6250	9,000
16		9,000

Temperature ranges

- The operating temperature range of rod ends and spherical bearings with a GR-nylon or nylon 66 race is limited by the thermal characteristics of the race material, this is -35°C to +170°C and -30°C to +120°C respectively. However in temperatures in excess of 80°C there may be a loss of load carrying capacity, e.g at 170°C an applied load equal to 20% of the static load rating can result in a compression set of .025mm.
- For application requiring extreme temperature ranges we recommend our liner, rod ends and spherical bearings can safely operate within a temperature range of -200°C to +260°C.
- Ball joints are generally temperature limited by the type of lubricant employed.

Specification

- Metric rod ends and spherical bearings are based on DIN 648.
- Imperial rod ends and spherical bearings are based on SAEJ1120.
- Metric ball joints are based on DIN71802 and DIN 71803.
- Imperial ball joints are based on SAEJ490.
- Metric clevises are based on DIN71752
- Imperial clevises are based on DIN71802
- All items are manufactured to commercial standards and tolerances, these tolerances are shown below.

Dimension	Metric (mm)	Imperial (inches)
Rod end bearings:		
Bore (Steel)	+0.064 - 0.013	+0.0025 - 0.0005
Bore (Bronze)	+0.038 - 0.013	+0.0015 - 0.0005
W	+0.000 - 0.0150	+0.000 - 0.0050
H	+0.050 - 0.050	+0.0030 - 0.0030
D	+0.130 - 0.130	+0.0050 - 0.0050
L1	+0.000 - 1.000	+0.0000 - 0.0620
L2	+0.250 - 0.250	+0.0320 - 0.0320
O	+0.050 - 0.050	+0.0030 - 0.0030
A	+0.130 - 0.130	+0.0050 - 0.0050
B	+0.250 - 0.250	+0.0320 - 0.0320
C	+0.050 - 0.050	+0.0030 - 0.0030
K	+0.130 - 0.130	+0.0050 - 0.0050
Spherical bearings:		
Bore (Steel)	+0.064 - 0.013	+0.0025 - 0.0005
Bore (Bronze)	+0.038 - 0.013	+0.0015 - 0.0005
D	+0.000 - 0.130	+0.0000 - 0.0050
H	+0.000 - 0.100	+0.0050 - 0.0050
W	+0.000 - 0.150	+0.0050 - 0.0050
Ball joints:		
Ball Ø	+0.064 - 0.013	+0.0025 - 0.0005

Table continued from over page:

Dimension	Metric (mm)	Imperial (inches)
L1	+0.000 - 1.000	+0.0000 - 0.0620
L2	+0.250 - 0.250	+0.0320 - 0.0320
STUD A/F	+0.130 - 0.130	+0.0050 - 0.0050
A	+0.130 - 0.130	+0.0050 - 0.0050
B	+0.250 - 0.250	+0.0320 - 0.0320
C	+0.050 - 0.050	+0.0030 - 0.0030
D1	+0.050 - 0.050	+0.0030 - 0.0030
D2	+0.050 - 0.050	+0.0030 - 0.0030
bore	+0.060 - 0.000	+0.0020 - 0.0000
G	+0.300 - 0.300	+0.0118 - 0.0118
A1	+0.300 - 0.160	+0.0118 - 0.0062
A2	+0.300 - 0.160	+0.0118 - 0.0062
B1	+0.150 - 0.000	+0.0060 - 0.0000
D3	+0.130 - 0.130	+0.0050 - 0.0050
L1	+0.500 - 0.500	+0.0196 - 0.0196
L2	+0.300 - 0.300	+0.0118 - 0.0118
L3	+0.300 - 0.300	+0.0118 - 0.0118
Ball studs:		
BALL Ø	+0.064 - 0.013	+0.0025 - 0.0005
A	+0.130 - 0.130	+0.0050 - 0.0050
B	+0.250 - 0.250	+0.0320 - 0.0320
C	+0.050 - 0.050	+0.0030 - 0.0030
K	+0.130 - 0.130	+0.0050 - 0.0050
Threads:		
Male	ISO 6G	Class 2A
Female	ISO 6H	Class 2B

**ISO 9001:2008**

Our commitment is to quality, to continuously improve in every aspect of the companies activities. In 2006, we successfully passed UKAS quality assurance inspection to ISO 9001:2008 for the manufacture and distribution of bearings, power transmission and motion transfer linkages.

ISO 14001:2004

As a responsible European manufacturer, we take our environmental responsibility extremely seriously. In 2012, we successfully passed UKAS quality assurance inspection to ISO 14001:2004 for the manufacture and distribution of bearings, power transmission and motion transfer linkages.

Plating Options

DUNLOP rod ends, spherical bearings, ball joints and clevises are available in a wide range of plating options. Our standard catalogue and stock specification is trivalent F39, zinc and white/blue passivate, (zinc and clear), that conforms with RoHS directives on banned substances and is ELV 2000/S3/EC compliant.

Table below shows our suffix designations, other available plating options may not be RoHS and ELV compliant, please enquire for availability. For a full list of options, please refer to table below.

BRITISH PLATING STANDARDS

BS3382 – Zinc plating of all steel parts with external threads

Basic major diameter of thread	Average plating thickness
0.127"-0.250" (3-6mm)	5.0 to 6.4 µm
0.251"-0.500" (6-12mm)	6.4 to 7.6 µm
0.501"-0.750" (12-19mm)	7.6 to 8.9 µm
0.751" and over (19mm)	8.9 to 12.7 µm

Finish Code	Finish Description
F0	SELF COLOUR
F1	ZINC PLATE & YELLOW PASSIVATE (CONTAINS HEXAVALENT CHROMIUM)
F2	ZINC PLATE & CLEAR PASSIVATE (CONTAINS HEXAVALENT CHROMIUM)
F3	PHOSPHATE, DE-EMBRITTLE & OIL
F4	ZINC NICKEL ALLOY & BLACK PASSIVATE 8 microns (2000 hours salt spray resistance)
F5	CHEMI-BLACK
F6	AS SPECIFIED ON CUSTOMERS DRAWING
F7	ZINC PLATE & BLUE PASSIVATE
F8	ZINC PLATE & OLIVE DRAB PASSIVATE TO ACCO CABLES (TRIDENT) SPEC. FS.25
F9	COPPER PLATE 0.0127/0.0203mm THICK
F10	DACROMET (REPLACED BY GEOMET F54)
F11	ZINC PLATE, DE-EMBRITTLE & YELLOW PASSIVATE (CONTAINS HEXAVALENT CHROMIUM)
F12	ZINC PLATE, DE-EMBRITTLE & CLEAR PASSIVATE
F13	ZINC PLATE, DE-EMBRITTLE & BLUE PASSIVATE
F14	ZINC PLATE, DE-EMBRITTLE & OLIVE DRAB PASSIVATE
F15	PHOSPHATE & OIL
F16	MECHANICAL ZINC PLATE & YELLOW PASSIVATE
F17	CATHODIC BLACK
F18	XYLON XL BLACK
F19	PHOSPHATE, DE-EMBRITTLE & OIL DRY TO TOUCH
F20	PARKERISE
F21	ZINC PLATE & BLACK PASSIVATE (CONTAINS HEXAVALENT CHROMIUM)
F22	PAINT TO IRR NATO GREEN – DEF STD 80-41
F23	ZINC PLATE & BRONZE PASSIVATE FORD WSD-M1P85-A2+WSB-M10P10-A4

Table continued from over page:

Finish Code	Finish Description
F24	RED OXIDE PAINT AND SPRAY BLACK GLOSS TO S/A SPEC 1000-SEDDON
F25	BLACK FURALON B5514 FORD SPEC WSK-M2P153-A3
F26	BRIGHT NICKEL FLASH (PLATING DEPOSIT 0.0025/0.0051mm)
F27	POWDER COAT PAINT
F28	OIL
F29	ZINC PLATE, DE-EMBRITTLE & BLACK PASSIVATE (CONTAINS HEXAVALENT CHROMIUM)
F30	BLACKODIZE
F31	BLACK PAINT TO AULTRAFast SPEC AF1
F32	NITROTEC TO SPECIFICATION NQ40
F33	NITROTEC TO SPECIFICATION NQ3
F34	ZINC PLATE TO JS 500 (NO COLOUR)
F35	FERRITIC NITROCARBURISE
F36	ZINC NICKEL ALLOY & CLEAR PASSIVATE
F37	ZINC NICKEL ALLOY & YELLOW PASSIVATE
F38	ZINC PLATE & YELLOW TRIVALENT PASSIVATE (COLOUR DIE)
F39	ZINC PLATE & CLEAR TRIVALENT PASSIVATE
F40	DELTATONE & DELTASEAL BLACK (FREE FROM HEXAVALENT CHROMIUM)
F41	ZINC NICKEL PLATE, DE-EMBRITTLE & BLACK TRIVALENT PASSIVATE
F42	ZINC NICKEL PLATE & BLACK TRIVALENT PASSIVATE
F43	ZINC IRON PLATE & BLACK TRIVALENT PASSIVATE
F44	ZINC PLATE & BLACK TRIVALENT PASSIVATE
F45	ZINC NICKEL PLATE & CLEAR TRIVALENT PASSIVATE (BRIGHT FINISH)
F46	ZINC NICKEL PLATE, DE-EMBRITTLE & CLEAR TRIVALENT PASSIVATE
F47	ZINC PLATE, DE-EMBRITTLE & CLEAR TRIVALENT PASSIVATE WITHOUT SEALER
F48	ZINC PLATE, CLEAR TRIVALENT PASSIVATE AND SEAL (ZINKLAD 250)
F49	ZINC PLATE, DE-EMBRITTLE, CLEAR TRIVALENT PASSIVATE & SEAL (ZINKLAD 250)
F50	ZINC PLATE, THICK FILM PASSIVATE AND ADDITIONALLY SEAL / SST
F51	ZINC PLATE, DE-EMBRITTLE & YELLOW TRIVALENT PASSIVATE
F52	ZINC PLATE & TRIPASS CORROBLUE ELV
F53	ZINC PLATE, DE-EMBRITTLE & TRIPASS CORROBLUE ELV
F54	GEOMET 500 (REPLACES DACROMET A) F10
F55	SALT BATH NITRIDE TO AMS 2753B COMPOUND DEPTH .0003/.0010" SURFACE FILE HARD TO RC58.
F56	ZINC IRON PLATE, DE-EMBRITTLE & BLACK TRIVALENT PASSIVATE
F57	GEOMET 321 PLUS 10 VW 137 50, T602
F58	ELECTROLESS NICKEL PLATE
F59	CADMIUM PLATE TO DEF 03-19 AND CHROMATE PASSIVATE TO DEF 130
F60	BLACK PHOSPHATE DEF STAN 3-11 ROHS AND ELV COMPLIANT
F61	BLACK ANODISE ROHS & ELV COMPLIANT
F62	ZINC FLAKE COATING TO VW SPEC T630 TL233 SILVER
F63	BRIGHT NICKEL PLATE
F64	MANGANESE PHOSPHATE AND OIL
F65	ZINC NICKEL PLATE, DE-EMBRITTLE & Cr3 PASSIVATE TO KA SPEC PS224500
F66	ZINC NICKEL PLATE AND Cr3 PASSIVATE.
F67	ZINC PLATE, DE-EMBRITTLE & THICK FILM PASSIVATE AND ADDITIONALLY SEAL
F68	BLACK ON STAINLESS STEEL, STAY BLACK.



English



Español



Italiano



Deutsch



Français



Nederlands



Polskie

SP series

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Serie SP • Serie SP • SP-Serie

Série SP • SP-serie • Seria FP

SPH series

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Serie SPH • SerieSPH • SPH-Serie

Série SPH • SPH-serie • seria SPH

GE-FW series

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Serie GE-FW • Serie GE-FW • GE-FW-Serie

Série GE-FW • GE-FW-serie • seria GE-FW

GE-UK series

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Serie GE-UK • Serie GE-UK • GE-UK-Serie

Série GE-UK • GE-UK-serie • seria GE-UK

GE-ES series

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Serie GE-ES • Serie GE-ES • GE-ES-Serie

Série GE-ES • GE-ES-serie • seria GE-ES

GE-LO series

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GE-HO series

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GE-Z series

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GF-DO series

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Serie GF-DO • Serie GF-DO • GF-DO-Serie

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English



Español



Italiano



Deutsch



Français



Nederlands



Polskie

GK-DO series

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Serie GK-DO • Serie GK-DO • GK-DO-Serie
Série GK-DO • GK-DO-serie • seria GK-DO

GE-AW series

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Serie GE-AW • Serie GE-AW • GE-AW-Serie
Série GE-AW • GE-AW-serie • seria GE-AW

GE-AX series

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Serie GE-AX • Serie GE-AX • GE-AX-Serie
Série GE-AX • GE-AX-serie • seria GE-AX

GE-SW series

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Serie GE-SW • Serie GE-SW • GE-SW-Serie
Série GE-SW • GE-SW-serie • seria GE-SW

GE-SX series

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Serie GE-SX • Serie GE-SX • GE-SX-Serie
Série GE-SX • GE-SX-serie • seria GE-SX

GXSW series

82

Serie GXSW • Serie GXSW • GXSW-Serie
Série GXSW • GXSW-serie • seria GXSW

COM series

85

Serie COM • Serie COM • COM-Serie
Série COM • COM-serie • seria COM

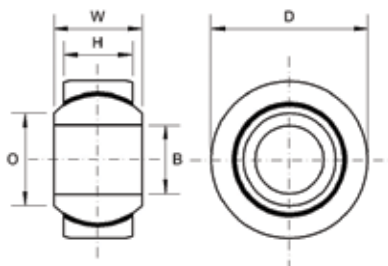
SX series

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Serie SX • Serie SX • SX-Serie
Série SX • SX-serie • seria SX



SPHERICAL BEARINGS



SP SERIES

Description:

SP-Series is our 3-piece standard range of self lubricating general purpose spherical bearings suitable for light to medium industrial/mechanical load applications requiring low friction, with good wear resistance and available in both metric and imperial bore sizes. They have excellent moisture resistance and require no maintenance.

Material Specifications:

Housing: Steel 230M07PB chemi-black finish. Race: GR-nylon LV-3H. Ball: Bearing steel 100Cr6, hardened and electro-less nickel plated.

Features:

- Metric & imperial bore sizes
- Low friction
- Self-lubricating
- Good wear resistance
- Excellent moisture resistance
- No maintenance

Possible Applications:

- Light to medium/heavy industrial/mechanical applications
- Construction equipment
- Agricultural equipment
- Recreational vehicles
- Precision equipment

Temperature Range:

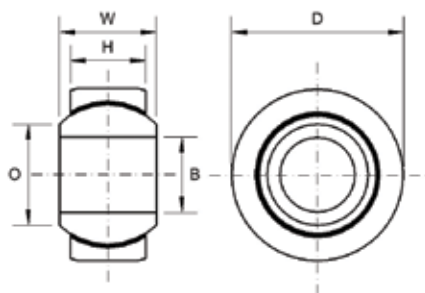
-30°C to +170°C

Specification:

ELV & RoHS compliant



SP SERIES: MAINTENANCE FREE SPHERICAL BEARINGS (METRIC)



Outer Ring: Steel 230M07Pb, Chemi-Blackened

Race: GR-nylon, LV-3H.

Ball: Bearing Steel 100Cr6, Hardened and Electro-less Nickel Plated

Specification: ELV and RoHS compliant.



Part No.	Bore Size	W	H	D	O	Static Load Rating (Newtons) Radial
SP-M03	3	6	4.50	16	5.20	3,040
SP-M04-3	3	7	5.00	18	6.30	4,060
SP-M04	4	7	5.00	18	6.30	4,060
SP-M05-4	4	8	6.00	16	7.50	5,340
SP-M05	5	8	6.00	16	7.50	5,340
SP-M06-5	5	9	6.75	18	9.30	7,720
SP-M06	6	9	6.75	18	9.30	7,720
SP-M08-6	6	12	9.00	22	10.40	12,775
JBS 8N	8	12	7.90	22	10.40	12,775
SP-M08	8	12	9.00	22	10.40	12,775
SP-M10-8	8	14	10.50	26	12.90	16,960
JBS 10N	10	14	9.50	26	12.90	16,960
SP-M10	10	14	10.50	26	12.90	16,960
SP-M12-10	10	16	12.00	30	15.40	22,900
SP-M12	12	16	12.00	30	15.40	22,900
SP-M14-12	12	19	13.50	34	16.80	28,950
SP-M14	14	19	13.50	34	16.80	28,950
SP-M16-14	14	21	15.00	38	19.30	37,130
SP-M16	16	21	15.00	38	19.30	37,130

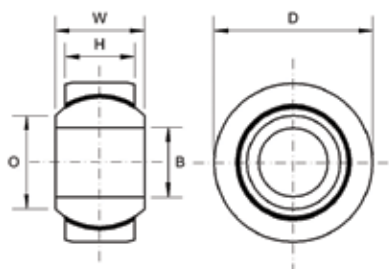
SP SERIES: MAINTENANCE FREE SPHERICAL BEARINGS (IMPERIAL)

Part No.	Bore Size	W	H	D	O	Static Load Rating (Newtons) Radial
SP-03	3/16	0.281	0.218	0.5625	0.293	4,900
SP-04-03	3/16	0.343	0.250	0.6562	0.364	7,150
SP-04	1/4	0.343	0.250	0.6562	0.364	7,150
SP-05-04	1/4	0.375	0.281	0.7500	0.419	12,000
SP-05	5/16	0.375	0.281	0.7500	0.419	12,000
SP-06-05	5/16	0.406	0.312	0.8125	0.475	13,090
SP-06	3/8	0.406	0.312	0.8125	0.475	13,090
SP-07-06	3/8	0.437	0.343	0.9062	0.530	16,100
SP-07	7/16	0.437	0.343	0.9062	0.530	16,100
SP-08-07	7/16	0.500	0.390	1.0000	0.600	19,250
SP-08	1/2	0.500	0.390	1.0000	0.600	19,250
SP-10-08	1/2	0.625	0.500	1.1875	0.739	30,250
SP-10	5/8	0.625	0.500	1.1875	0.739	30,250

For stainless steel add 'SS' to part no. For example 'SP-M03 SS'



SPHERICAL BEARINGS



SPH SERIES

Description:

SPH-Series is our 3-piece unique Internationally patented range of spherical bearings incorporating a Grilamid bearing race that provides ultra smooth operation. A nitrotec surface protected ball with a PTFE lubricant provide superior shock load and extended wear properties combined with excellent chemical and corrosion resistance.

The unique innovative captive body design prevents detachment through excessive axial loads.

Material Specifications:

Outer ring: Steel 230M07PB zinc plated and clear trivalent passivate. Race: Grilamid L20LF. Ball: 230M07PB nitrotec finish.

Features:

Metric bore sizes
Safety features applications
High shock loads
Extended wear life
No maintenance

Possible Applications:

Light to medium industrial/mechanical
Construction equipment
Agricultural equipment
Recreational vehicles
High precision motion control

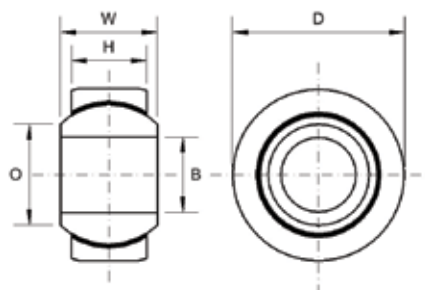
Temperature Range:

-40°C to +80°C

Specification:

ELV and RoHS compliant

SPH SERIES: MAINTENANCE FREE SPHERICAL BEARINGS (METRIC)



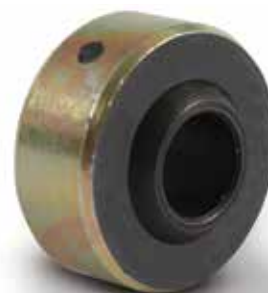
Outer Ring: Steel 230M07Pb, Zinc Plated and Clear Trivalent Passivate

Race: Grilamid L20LF.

Ball: 230M07Pb, Nitrotec Surface Protection

Lubricant: Uniflor oil.

Specification: ELV and RoHS compliant.

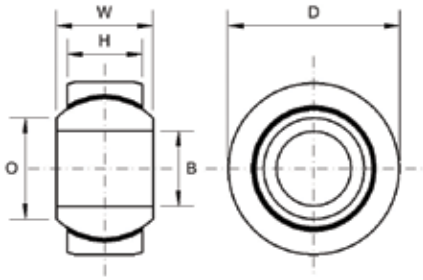


Part No.	Bore Size	W	H	D	O	Static Load Rating (Newtons) Radial
SPH-M06	6	9	6.75	18	9.30	9,300
SPH-M08	8	12	9.00	22	10.40	14,100
JBS8H	8	12	7.90	22	10.40	14,100
SPH-M10	10	14	10.50	26	12.90	18,690
JBS10H	10	14	9.50	26	12.90	18,690
SPH-M12	12	16	12.00	30	15.40	24,555
SPH-M14	14	19	13.50	34	16.80	34,650
SPH-M16	16	21	15.00	38	19.30	41,250

For stainless steel add 'SS' to part no. For example 'SPH-M06 SS'



SPHERICAL BEARINGS



GE FW SERIES

Description:

GE-FW-Series is our 2-piece metric range of general purpose spherical plain bearings incorporating a thin PTFE fabric between the ball and the outer ring, suitable for high shock loads and medium to heavy industrial/mechanical load applications requiring low friction, they do not require maintenance.

Material Specifications:

Outer ring: Bearing steel 100Cr6, case hardened. Ball: Bearing steel 100Cr6, hardened and electro-less nickel plated. Liner: PTFE fabric.
Seals: Polyurethane.

Features:

Metric bore sizes
Low friction
High shock loads
Extended wear life
No maintenance

Possible Applications:

Medium/heavy industrial/
mechanical applications
Construction equipment
Agricultural equipment
Recreational vehicles
High precision motion
control

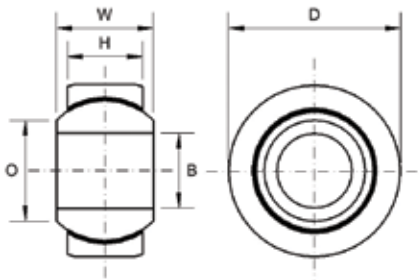
Temperature Range:

-53°C to +121°C

Specification:

ELV & RoHS compliant

GE FW SERIES: MAINTENANCE FREE SPHERICAL BEARINGS (METRIC)



Outer Ring: Bearing Steel 100Cr6, Hardened

Race: Bearing Steel 100Cr6, Hardened
and Electro-less Nickel Plated

Ball: PTFE Fabric

Specification: ELV and RoHS Compliant



Part No. Unsealed	Part No. Sealed	Bore Size	W	H	D	Static Load Rating (Newtons) Radial
GE6FW		6	9	5	16	14,000
GE8FW		8	11	6	19	21,000
GE10FW		10	12	7	22	28,000
GE12FW		12	15	9	26	45,000
GE15FW		15	16	10	30	56,000
GE17FW		17	20	12	35	78,000
GE20FW		20	25	16	42	127,000
GE25FW		25	28	18	47	166,000
GE30FW	GE30FW-2RS	30	32	20	55	350,000
GE35FW	GE35FW-2RS	35	35	22	62	462,000
GE40FW	GE40FW-2RS	40	40	25	68	600,000
GE45FW	GE45FW-2RS	45	43	28	75	737,000
GE50FW	GE50FW-2RS	50	56	36	90	1,150,000
GE60FW	GE60FW-2RS	60	63	40	105	1,475,000
GE70FW	GE70FW-2RS	70	70	45	120	1,875,000
GE80FW	GE80FW-2RS	80	75	50	130	2,300,000
GE90FW	GE90FW-2RS	90	85	55	150	2,862,000
GE100FW	GE100FW-2RS	100	85	55	160	3,075,000

For stainless steel add 'SS' to part no. For example 'GE6FW SS'



SPHERICAL BEARINGS



GE UK SERIES

Description:

GE-UK-Series is our 2-piece metric range of general purpose spherical plain bearings incorporating a thin PTFE fabric between the ball and the outer ring, suitable for high shock loads and medium to heavy industrial/mechanical load applications requiring low friction. They do not require maintenance.

Material Specifications:

Outer ring: Bearing steel 100Cr6 and stainless steel 316, hardened. Ball: Bearing steel 100Cr6 hardened and electro-less nickel plated and stainless steel 440C. Liner: High temperature PTFE composite. Seals: Polyurethane.

Features

Metric bore sizes
Low friction
High shock loads
Extended wear life
No maintenance

Possible Applications

Medium/heavy industrial/mechanical applications
Construction equipment
Agricultural equipment
Recreational vehicles
Precision motion control

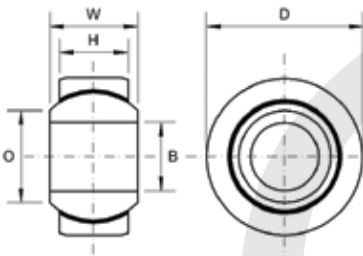
Temperature Range

-200°C to +260°C

Specification

ELV & RoHS compliant

GE UK SERIES: MAINTENANCE FREE SPHERICAL BEARINGS (METRIC)



Outer Ring: Bearing Steel 100Cr6, Hardened

Ball: Bearing Steel 100Cr6, Hardened and Electro-less Nickel Plated

Liner: High Temperature PTFE Composite

Specification: ELV and RoHS Compliant

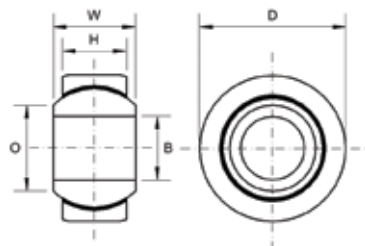


Part No. Unsealed	Part No. Sealed	Bore Size	W	H	D	Static Load Rating (Newtons) Radial
GE6UK	-	6	6	4	14	9,100
GE8UK	-	8	8	5	16	14,000
GE10UK	-	10	9	6	19	21,000
GE12UK	-	12	10	7	22	28,000
GE15UK	-	15	12	9	26	45,000
GE17UK	GE17UK-2RS	17	14	10	30	56,000
GE20UK	GE20UK-2RS	20	16	12	35	78,000
GE25UK	GE25UK-2RS	25	20	16	42	127,000
GE30UK	GE30UK-2RS	30	22	18	47	166,000
GE35UK	GE35UK-2RS	35	25	20	55	224,000
GE40UK	GE40UK-2RS	40	28	22	62	280,000
GE45UK	GE45UK-2RS	45	32	25	68	360,000
GE50UK	GE50UK-2RS	50	35	28	75	440,000
GE60UK	GE60UK-2RS	60	44	36	90	695,000
GE70UK	GE70UK-2RS	70	49	40	105	880,000
GE80UK	GE80UK-2RS	80	55	45	120	1,140,000
GE90UK	GE90UK-2RS	90	60	50	130	1,370,000
GE100UK	GE100UK-2RS	100	70	55	150	1,730,000
GE110UK	GE110UK-2RS	110	70	55	160	1,860,000
GE120UK	GE120UK-2RS	120	85	70	180	2,700,000

For stainless steel add 'SS' to part no. For example 'GE6UK SS'



SPHERICAL BEARINGS



GE ES SERIES

Description:

GE-ES-Series is our 2-piece fractured outer ring metric range of spherical plain bearings used in non rotational applications. Ball and race sliding surfaces are treated with MoS₂ for increased lubricity on wear surface. A lubrication groove is provided on the raceway for applications requiring re-lubrication after installation.

Material Specifications:

Outer ring: Bearing steel 100Cr6, hardened and manganese phosphate, treated with MoS₂. Ball: Bearing steel 100Cr6, hardened and manganese phosphate. Seals: Polyurethane.

Features:

- Metric bore sizes
- Low cost
- Maintenance required
- Up to 140mm bore sizes available

Possible Applications:

- Light to heavy industrial/mechanical applications
- Construction equipment
- Agricultural equipment
- Hydraulic applications

Temperature Range:

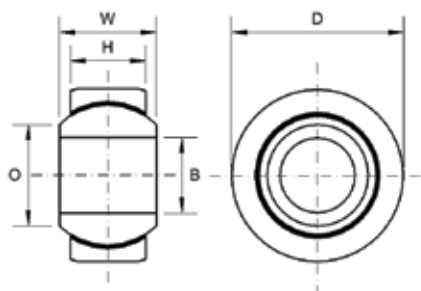
-54°C to +121°C

Specification:

ELV & RoHS compliant



GE ES SERIES: MAINTENANCE REQUIRED SPHERICAL BEARINGS (METRIC)



Outer Ring: Bearing Steel 100Cr6, Hardened and Manganese Phosphate, wear faces treated with MoS₂.

Ball: Bearing Steel 100Cr6, Hardened and Manganese Phosphate

Seals: Polyurethane

Specification: ELV and RoHS Compliant



Part No. Unsealed	Part No. Sealed	Bore Size	W	H	D	Static Load Rating (Newtons) Radial
GE06ES	GE06ES-2RS	6	6	4	14	17,000
GE08ES	GE08ES-2RS	8	8	5	16	27,500
GE10ES	GE10ES-2RS	10	9	6	19	40,500
GE12ES	GE12ES-2RS	12	10	7	22	54,000
GE15ES	GE15ES-2RS	15	12	9	26	85,000
GE17ES	GE17ES-2RS	17	14	10	30	106,000
GE20ES	GE20ES-2RS	20	16	12	35	146,000
GEH20ES	GEH20ES-2RS	20	25	16	42	240,000
GE25ES	GE25ES-2RS	25	20	16	42	240,000
GEH25ES	GEH25ES2-RS	25	28	18	47	310,000
GE30ES	GE30ES-2RS	30	22	18	47	310,000
GEH30ES	GEH30ES-2RS	30	32	20	55	400,000
GE35ES	GE35ES-2RS	35	25	20	55	400,000
GEH35ES	GEH35ES-2RS	35	35	22	62	500,000
GE40ES	GE40ES-2RS	40	28	22	62	500,000
GEH40ES	GEH40ES-2RS	40	40	25	68	640,000
GE45ES	GE45ES-2RS	45	32	25	68	640,000
GEH45ES	GEH45ES-2RS	45	43	28	75	780,000
GE50ES	GE50ES-2RS	50	35	28	75	780,000
GEH50ES	GEH50ES-2RS	50	56	36	90	1,220,000
GE60ES	GE60ES-2RS	60	44	36	90	1,220,000
GEH60ES	GEH60ES-2RS	60	63	40	105	1,560,000
GE70ES	GE70ES-2RS	70	49	40	105	1,560,000
GEH70ES	GEH70ES-2RS	70	70	45	120	2,000,000
GE80ES	GE80ES-2RS	80	55	45	120	2,000,000
GEH80ES	GEH80ES-2RS	80	75	50	130	2,450,000
GE90ES	GE90ES-2RS	90	60	50	130	2,450,000
GEH90ES	GEH90ES-2RS	90	85	55	150	3,050,000
GE100ES	GE100ES-2RS	100	70	55	150	3,050,000
GE110ES	GE110ES-2RS	110	70	55	160	3,250,000
GE120ES	GE120ES-2RS	120	85	70	180	4,750,000
GE140ES	GE140ES-2RS	140	90	70	210	5,400,000



SPHERICAL BEARINGS



GE LO SERIES

Description:

GE-LO-Series is our 2 piece metric range of spherical plain bearings used in non-rotational applications. Ball and race sliding surfaces are phosphate treated for increased lubricity. A lubrication groove is provided on the raceway for applications requiring re-lubrication after installation.

Material Specifications:

Outer Ring: Bearing Steel 100Cr6, hardened and phosphate – with single split in axial direction. Ball: Bearing Steel 100Cr6, hardened and phosphate – with cylindrical extensions at both sides.

Features:

Metric bore sizes
Low cost
Maintenance required
Up to 160mm bore sizes available

Possible Applications:

Light to heavy industrial/
mechanical applications
Construction equipment
Agricultural equipment
Hydraulic applications

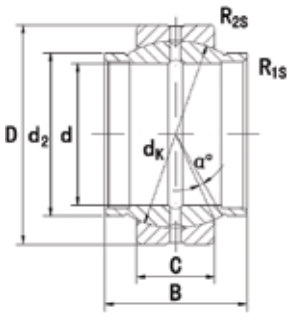
Temperature Range:

-54°C to +121°C

Specification:

ELV & RoHS compliant

GE LO SERIES: MAINTENANCE REQUIRED



Outer Ring: Bearing Steel 100Cr6, Hardened, Phosphate
Note: Single split in axial direction

Ball: Bearing Steel 100Cr6, Hardened, Phosphate
Note: With cylindrical extensions at both sides

Specification: ELV and RoHS Compliant



Part No.	Dimensions									kN Load Ratings		kg weight
	d	d ₂	D	B	C	d _k	R _{1S} MIN	R _{2S} MIN	α	dyn C	stat C ₀	
GE 12 LO	12	15.5	22	12	7	18	0.3	0.3	4	10	53	0.022
GE 16 LO	16	20	28	16	9	23	0.3	0.3	4	17	85	0.035
GE 20 LO	20	25	35	20	12	29	0.3	0.3	4	30	146	0.070
GE 25 LO	25	30	42	25	16	35.5	0.6	0.6	4	48	240	0.120
GE 30 LO	30	34	47	30	18	40	0.6	0.6	4	62	310	0.168
GE 32 LO	32	38	52	32	18	44	0.6	1.0	4	67	335	0.200
GE 35 LO	35	40	55	35	20	48	0.6	1.0	4	79	399	0.253
GE 40 LO	40	46	62	40	22	53	0.6	1.0	4	100	500	0.340
GE 50 LO	50	57	75	50	25	66	0.6	1.0	4	156	780	0.560
GE 60 LO	60	68	90	60	36	80	1.0	1.0	4	245	1220	1.15
GE 63 LO	63	71.5	95	63	36	83	1.0	1.0	4	255	1270	1.20
GE 70 LO	70	79	105	70	40	92	1.0	1.0	4	315	1560	1.70
GE 80 LO	80	91	120	80	45	105	1.0	1.0	4	400	2000	2.40
GE 90 LO	90	99	130	90	50	115	1.0	1.0	4	488	2440	3.20
GE 100 LO	100	113	150	100	55	130	1.0	1.0	4	607	3030	4.80
GE 110 LO	110	124	160	110	55	140	1.0	1.0	4	654	3270	5.78
GE 125 LO	125	138	180	125	70	160	1.0	1.0	4	950	4750	8.49
GE 160 LO	160	177	230	160	80	200	1.0	1.0	4	1370	6800	16.5



SPHERICAL BEARINGS



GE HO 2RS SERIES

Description:

GE-HO-2RS Series is our 2 piece metric range of spherical plain bearings used in non-rotational applications. Ball and race sliding surfaces are phosphate treated for increased lubricity. A lubrication groove is provided on the raceway for applications requiring re-lubrication after installation. Plastic seals are provided to stop the ingress of contaminants.

Material Specifications:

Outer Ring: Bearing Steel 100Cr6, hardened and phosphate – with single split in axial direction. Ball: Bearing Steel 100Cr6, hardened and phosphate – with cylindrical extensions at both sides. Seals: Polyurethane

Features:

Metric bore sizes
Low cost
Maintenance required
Up to 80mm bore sizes available

Possible Applications:

Light to heavy industrial/mechanical applications
Construction equipment
Agricultural equipment
Hydraulic applications

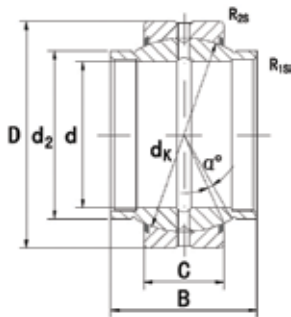
Temperature Range:

-54°C to +121°C

Specification:

ELV & RoHS compliant

GE HO 2RS SERIES: MAINTENANCE REQUIRED



Outer Ring:

Bearing Steel 100Cr6, Hardened, Phosphate
Note: Single split in axial direction

Ball:

Bearing Steel 100Cr6, Hardened, Phosphate
Note: With cylindrical extensions both sides

Seals:

Polyurethane

Specification:

ELV and RoHS Compliant



Part No.	Dimensions									kN Load Ratings		kg weight
	d	d ₂	D	B	C	d _k	R ₁₅ MIN	R ₂₅ MIN	α	dyn C	stat C ₀	
GE 20 HO 2RS	20	24	35	24	12	29	0.2	0.3	3	30	146	0.057
GE 25 HO 2RS	25	29	42	29	16	35.5	0.2	0.6	3	48	240	0.10
GE 30 HO 2RS	30	34.2	47	30	18	40.7	0.2	0.6	3	62	310	0.14
GE 35 HO 2RS	35	40	55	35	20	47	0.3	1.0	3	80	400	0.24
GE 40 HO 2RS	40	45	62	38	22	53	0.3	1.0	3	100	500	0.29
GE 45 HO 2RS	45	51.5	68	40	25	60	0.3	1.0	3	127	640	0.43
GE 50 HO 2RS	50	56.5	75	43	28	66	0.3	1.0	3	156	780	0.54
GE 60 HO 2RS	60	67.7	90	54	36	80	0.3	1.0	3	245	1220	1.10
GE 70 HO 2RS	70	78	105	65	40	92	0.3	1.0	3	315	1560	1.60
GE 80 HO 2RS	80	90	120	74	45	105	0.3	1.0	3	400	2000	2.40



SPHERICAL BEARINGS



GEZ ES SERIES

Description:

GEZ-ES-Series is our 2-piece fractured outer ring metric range of spherical plain bearings used in non rotational applications. Ball and race sliding surfaces are treated with MoS₂ for increased lubricity on wear surface. A lubrication groove is provided on the raceway for applications requiring re-lubrication after installation.

Material Specifications:

Outer ring: Bearing steel 100Cr6, case hardened and manganese phosphated, treated with MoS₂. Ball: Bearing steel 100Cr6, hardened and manganese phosphate. Seals: Polyurethane.

Features:

Metric bore sizes
Low cost
Maintenance required
Up to 140mm bore sizes available

Possible Applications:

Light to heavy industrial/
mechanical applications
Construction equipment
Agricultural equipment
Hydraulic applications

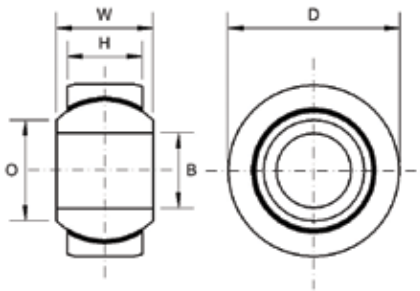
Temperature Range:

-54°C to +121°C

Specification:

ELV & RoHS compliant

GEZ ES SERIES: MAINTENANCE REQUIRED SPHERICAL BEARINGS (IMPERIAL)



Outer Ring: Bearing Steel 100Cr6, Hardened and Manganese Phosphate, wear faces treated with MoS₂.

Ball: Bearing Steel 100Cr6, Hardened and Manganese Phosphate

Seals: Polyurethane

Specification: ELV and RoHS Compliant



Part No. Unsealed	Part No. Sealed	Bore Size	W	H	D	Static Load Rating (Newtons) Radial
GEZ008ES	GEZ008ES-2RS	1/2	11.100	9.525	22.225	41,000
GEZ010ES	GEZ010ES-2RS	5/8	13.894	11.913	26.988	65,000
GEZ012ES	GEZ012ES-2RS	3/4	16.662	14.275	31.750	95,000
GEZ014ES	GEZ014ES-2RS	7/8	19.431	16.662	36.513	127,000
GEZ100ES	GEZ100ES-2RS	1	22.225	19.050	41.275	166,000
GEZ104ES	GEZ104ES-2RS	1-1/4	27.762	23.800	50.800	260,000
GEZ106ES	GEZ106ES-2RS	1-3/8	30.150	26.187	55.563	310,000
GEZ108ES	GEZ108ES-2RS	1-1/2	33.325	28.575	61.913	375,000
GEZ112ES	GEZ112ES-2RS	1-3/4	38.887	33.325	71.438	510,000
GEZ200ES	GEZ200ES-2RS	2	44.450	38.100	80.963	670,000
GEZ204ES	GEZ204ES-2RS	2-1/4	55.013	42.850	90.488	850,000
GEZ208ES	GEZ208ES-2RS	2-1/2	55.550	47.625	100.013	1,060,000
GEZ212ES	GEZ212ES-2RS	2-3/4	61.112	52.375	111.125	1,250,000
GEZ300ES	GEZ300ES-2RS	3	66.675	57.150	120.65	1,500,000
GEZ304ES	GEZ304ES-2RS	3-1/4	72.238	61.900	130.175	1,760,000
GEZ308ES	GEZ308ES-2RS	3-1/2	77.775	66.675	139.700	2,040,000



SPHERICAL BEARINGS



GF DO SERIES

Description:

GF-DO-Series is our 3 piece metric range of spherical plain bearings comprising weldable rod end housing and spherical plain bearing used in non-rotational applications. Ball and race sliding surfaces are phosphate treated for increased lubricity. A lubrication groove is provided on the raceway along with a grease nipple on the rod end housing for applications requiring re-lubrication after installation.

Material Specifications:

Rod End Housing: Weldable steel, phosphate. Bearing: Includes a GE-ES-Series spherical bearing – see pages 75 and 76 for material specifications.

Features:

Metric bore sizes
Low cost
Maintenance required
Up to 120mm bore sizes available

Possible Applications:

Light to heavy industrial/mechanical applications
Construction equipment
Agricultural equipment
Hydraulic applications

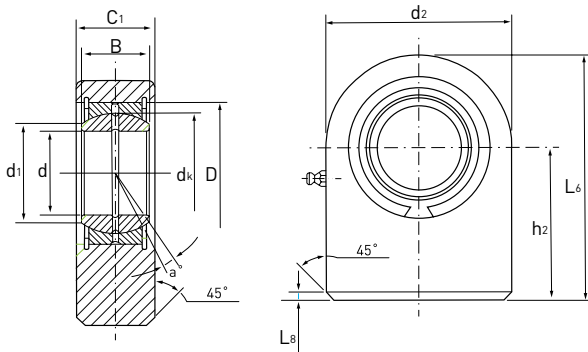
Temperature Range:

-54°C to +121°C

Specification:

ELV & RoHS compliant

GF DO SERIES: MAINTENANCE REQUIRED, FOR WELDING



Housing:

Weldable Steel,
Phosphate

Bearing:

Includes a GE ES Series
spherical bearing

Specification:

ELV and RoHS Compliant



Part No.	Dimensions										kN Load Ratings		kg weight
	d	C ₁	B	d ₂	L ₂	h ₂	d _k	d ₁	D	L ₈	dyn C	stat C ₀	
GF 20 DO	20	19	16	50	63	38	29	24.2	35	2	30.0	67.0	0.35
GF 25 DO	25	23	20	55	72.5	45	35.5	29.3	42	2	48.0	69.5	0.53
GF 30 DO	30	28	22	65	83.5	51	40.7	34.2	47	2	62.0	118	0.87
GF 35 DO	35	30	25	83	102.5	61	47	39.8	55	2	80.0	196	1.50
GF 40 DO	40	35	28	100	119	69	53	45.0	62	3	100	300	2.40
GF 45 DO	45	40	32	110	132	77	60	50.8	68	3	127	380	3.40
GF 50 DO	50	40	35	123	149.5	88	66	55.9	75	3	156	440	4.40
GF 60 DO	60	50	44	140	170	100	80	66.8	90	4	245	570	7.10
GF 70 DO	70	55	49	164	197	115	92	77.9	105	4	315	695	10.5
GF 80 DO	80	60	55	180	231	141	105	89.4	120	4	400	780	15.0
GF 90 DO	90	65	60	226	263	150	115	98.1	130	4	490	1340	23.5
GF 100 DO	100	70	70	250	295	170	130	109.5	150	4	610	1500	31.5
GF 110 DO	110	80	70	295	332.5	185	140	121.2	160	4	655	2160	48.5
GF 120 DO	120	90	85	360	390	210	180	135.5	180	4	950	3250	79.0



SPHERICAL BEARINGS



GK DO SERIES

Description:

GK-DO-Series is our 3 piece metric range of spherical plain bearings comprising weldable rod end housing with dowel pin and spherical plain bearing used in non-rotational applications. Ball and race sliding surfaces are phosphate treated for increased lubricity. A lubrication groove is provided on the raceway along with a grease nipple on the rod end housing for applications requiring re-lubrication after installation.

Material Specifications:

Rod End Housing: Weldable steel, phosphate – with a dowel pin at the base of the housing. Bearing: Includes a GE-ES-Series spherical bearing – see pages 75 and 76 for material specification.

Features:

Metric bore sizes
Low cost
Maintenance required
Up to 80mm bore sizes available

Possible Applications:

Light to heavy industrial/mechanical applications
Construction equipment
Agricultural equipment
Hydraulic applications

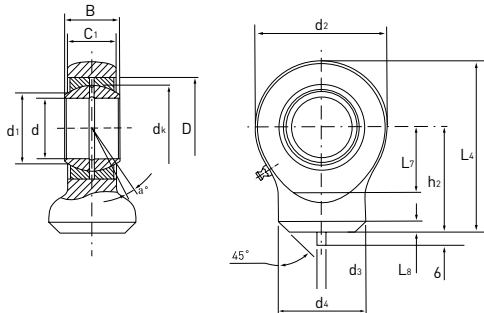
Temperature Range:

-54°C to +121°C

Specification:

ELV & RoHS compliant

GK DO SERIES: MAINTENANCE REQUIRED, FOR WELDING



Housing:

Weldable Steel, Phosphate
Note: With dowel pin at the base of the housing

Bearing:

Includes a GE ES Series spherical bearing

Specification:

ELV and RoHS Compliant



Part No.	Dimensions														kN Load Ratings		kg weight
	d	d ₁	B	C ₁	d _k	d ₂	L ₄	h ₂	L _{7 min}	L ₈	d ₃	d ₄	D	α	dyn C	stat C ₀	
GK 10 DO	10	13.2	9	7	16	29	38.5	24	15	1.5	3	15	19	12	8.15	15.6	0.041
GK 12 DO	12	15.0	10	8	18	34	44	27	18	1.5	3	17.5	22	11	10.8	21.6	0.066
GK 15 DO	15	18.4	12	10	22	40	51	31	20	2.0	4	21	26	8	17.0	32.0	0.12
GK 17 DO	17	20.7	14	11	25	46	58	35	23	2.0	4	24	30	10	21.2	40.0	0.19
GK 20 DO	20	24.2	16	13	29	53	64.5	38	27.5	2.0	4	27.5	35	9	30.0	54.0	0.23
GK 25 DO	25	29.3	20	17	35.5	64	77	45	33	3.0	4	33.5	42	7	48.0	72.0	0.43
GK 30 DO	30	34.2	22	19	40.7	73	87.5	51	37.5	3.0	4	40	47	6	62.0	95.0	0.64
GK 35 DO	35	39.8	25	21	47	82	102	61	43	3.0	4	47	55	6	80.0	125	0.96
GK 40 DO	40	45.0	28	23	53	92	115	69	48	4.0	4	52	62	7	100	156	1.30
GK 45 DO	45	50.8	32	27	60	102	128	77	52	4.0	6	58	68	7	127	208	1.80
GK 50 DO	50	55.9	35	30	66	112	144	88	59	4.0	6	62	75	6	156	250	2.50
GK 60 DO	60	66.8	44	38	80	135	167.5	100	72.5	4.0	6	70	90	6	245	390	3.90
GK 70 DO	70	77.9	49	42	92	160	195	115	86	5.0	6	80	105	6	315	510	6.60
GK 80 DO	80	89.4	55	47	105	180	231	141	98	5.0	6	95	120	6	400	620	8.70



SPHERICAL BEARINGS



GE AW SERIES

Description:

GE-AW-Series is our 2 piece metric range of thrust spherical bearings incorporating a thin PTFE fabric between the ball and the outer ring – suitable for high shock loads and medium to heavy industrial/mechanical load applications requiring low friction. They do not require maintenance.

Material Specifications:

Outer Ring: Bearing Steel 100Cr6, hardened and phosphate. Ball: Bearing Steel 100Cr6, hardened, precision ground and hard chrome plated. Liner: PTFE fabric.

Features:

Metric bore sizes
Low cost
Maintenance required
Up to 140mm bore sizes available

Possible Applications:

Light to heavy industrial/mechanical applications
Construction equipment
Agricultural equipment
Hydraulic applications

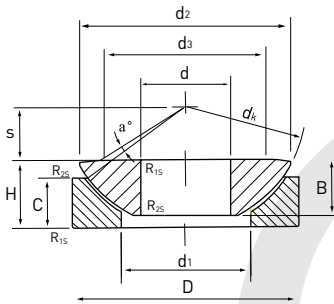
Temperature Range:

-54°C to +121°C

Specification:

ELV & RoHS compliant

GE AW SERIES



Outer Ring: Bearing Steel 100Cr6, Hardened, Phosphate

Ball: Bearing Steel 100Cr6, Hardened, Precision Ground, Hard Chrome Plated

Liner: PTFE Fabric

Specification: ELV and RoHS Compliant



Part No.	Dimensions mm													KN Load Ratings		Weight kg
	d	D	H	dk	d1	d2	d3	B	C	S	R15 min	R2s	α	dyn. C	stat. Co	
GE 10 AW	10	20	9.5	32	16.5	27.5	21	7.9	6.0	7.0	0.6	0.2	10	36	72	0.04
GE 12 AW	12	35	13	37	19.5	32	24	9.3	9.0	8.0	0.6	0.2	9.0	49	98	0.07
GE 15 AW	15	42	15	45	24	38.9	29	10.7	11	10	0.6	0.2	7.0	78	156	0.12
GE 17 AW	17	47	16	50	28	43.4	34	11.5	11.5	11	0.6	0.2	6.0	88	176	0.16
GE 20 AW	20	55	20	60	33.5	50	40	14.3	13	13	1.0	0.3	6.0	112	224	0.25
GE 25 AW	25	62	22.5	66	34.5	57.5	45	16	17	17	1.0	0.3	7.0	193	390	0.38
GE 30 AW	30	75	26	80	44	69	56	18	19.5	19.5	1.0	0.3	6.0	255	510	0.65
GE 35 AW	35	90	28	98	52	84	66	22	20	20	1.0	0.3	6.0	390	780	1.0
GE 40 AW	40	105	32	114	59	98	78	27	22	24.5	1.0	0.3	6.0	560	1120	1.6
GE 45 AW	45	120	36.5	130	68	112	89	31	25	27.5	1.0	0.3	6.0	735	1460	2.4
GE 50 AW	50	130	42.5	140	69	122.5	98	33.5	32	30	1.0	0.3	5.0	980	1960	3.3
GE 60 AW	60	150	45	160	86	140	108	37	33	35	1.0	0.3	7.0	1100	2200	4.5
GE 70 AW	70	160	50	170	95	149.5	121	40	36	35	1.0	0.3	6.0	1200	2400	5.5
GE 80 AW	80	180	50	194	108	168	130	42	36	42.5	1.0	0.3	6.0	1560	3100	7.0
GE 100 AW	100	210	59	220	133	195.5	155	50	42	45	1.0	0.3	7.0	1800	3600	10.5
GE 120 AW	120	230	64	245	154	214	170	52	45	52.5	1.0	0.3	8.0	1860	3750	13
GE 140 AW	140	260	72	272	176	244	198	61	50	52.5	1.5	0.6	6.0	2450	4900	18
GE 160 AW	160	290	77	310	199	272	213	65	52	65	1.5	0.6	7.0	2850	5700	23
GE 180 AW	180	320	86	335	224	300	240	70	60	67.5	1.5	0.6	8.0	3200	6400	31
GE 200 AW	200	340	87	358	246	321	265	74	60	70	1.5	0.6	8.0	3550	7100	34
GE 220 AW	220	370	97	388	265	350	289	82	67	75	1.5	0.6	7.0	4400	8800	44.5
GE 240 AW	240	400	103	420	294	382	314	87	73	77.5	1.5	0.6	0.6	5200	10400	55
GE 260 AW	260	430	115	449	317	409	336	95	80	82.5	1.5	0.6	7.0	5400	10800	69
GE 280 AW	280	460	110	480	337	445	366	100	85	80	3.0	1.0	4.0	8500	17000	82
GE 300 AW	300	480	110	490	356	460	388	100	90	80	3.0	1.0	3.5	8650	17300	87
GE 320 AW	320	520	116	540	380	500	405	105	91	95	4.0	1.1	4.0	10600	21200	109
GE 340 AW	340	540	116	550	380	510	432	105	91	95	4.0	1.1	4.0	11800	23600	114
GE 360 AW	360	560	125	575	400	535	452	115	95	95	4.0	1.1	4.0	12700	25500	129



GE AX SERIES

Description:

GE-AX-Series is our 2 piece metric range of thrust spherical bearings. A lubrication groove is provided on the raceway for applications requiring re-lubrication after installation.

Material Specifications:

Outer Ring: Bearing Steel 100Cr6, hardened and precision ground. Ball: Bearing Steel 100Cr6, hardened and phosphate.

Features:

Metric bore sizes
Low cost
Maintenance required
Up to 140mm bore sizes available

Possible Applications:

Light to heavy industrial/mechanical applications
Construction equipment
Agricultural equipment
Hydraulic applications

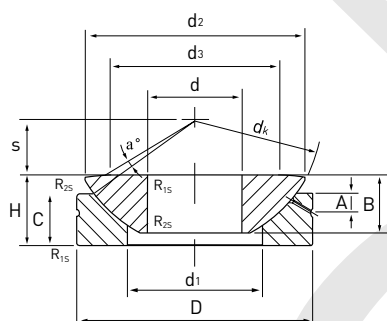
Temperature Range:

-54°C to +121°C

Specification:

ELV & RoHS compliant

GE AX SERIES



Outer Ring:

Bearing Steel 100Cr6, Hardened, Precision Ground

Ball

Bearing Steel 100Cr6, Hardened, Phosphate

Specification:

ELV and RoHS Compliant



Part No.	Dimensions mm														Load Ratings KN		Weight kg
	d	D	H	dK	d1	d2	d3	B	C	S	A	R1s	R2s	α	dyn.	stat.	
GE 10 AX	10	30	9.5	32	16.5	27.5	21	7.9	6	7	3	0.6	0.2	10	24	120	0.04
GE 12 AX	12	35	13	37	19.5	32	24	9.3	9	8	4	0.6	0.2	9	32.5	163	0.07
GE 15 AX	15	42	15	45	24	38.9	29	10.7	11	10	5	0.6	0.2	7	52	260	0.12
GE 17 AX	17	47	16	50	28	43.4	34	11.5	11.5	11	5	0.6	0.15	6	58.5	300	0.16
GE 20 AX	20	55	20	60	33.5	50	40	14.3	13	12.5	6	1.0	0.3	6	75	375	0.25
GE 25 AX	25	62	22.5	66	34.5	57.5	45	16	17	14	6	1.0	0.3	7	129	640	0.38
GE 30 AX	30	75	26	80	44	69	56	18	19.5	17.5	8	1.0	0.3	6	170	850	0.65
GE 35 AX	35	90	28	98	52	84	66	22	20	22	8	1.0	0.3	6	260	1290	1.0
GE 40 AX	40	105	32	114	59	98	78	27	22	24.5	9	1.0	0.3	6	375	1860	1.6
GE 45 AX	45	120	36.5	130	68	112	89	31	25	27.5	11	1.0	0.3	6	490	2450	2.4
GE 50 AX	50	130	42.5	140	69	122.5	98	33.5	32	30	10	1.0	0.3	5	655	3250	3.3
GE 60 AX	60	150	45	160	86	140	108	37	33	35	12.5	1.0	0.3	7	735	3650	4.5
GE 70 AX	70	160	50	170	95	149.5	121	40	36	35	13.5	1.0	0.3	6	800	4050	5.5
GE 80 AX	80	190	50	194	108	168	130	42	36	42.5	14.5	1.0	0.3	6	1040	5200	7.0
GE 100 AX	100	210	59	220	133	195.5	155	50	42	45	15	1.0	0.3	7	1200	6000	10.5
GE 120 AX	120	230	64	245	154	214	170	52	45	52.5	16.5	1.0	0.3	8	1250	6200	13.0
GE 140 AX	140	260	72	272	176	244	198	61	50	52.5	23	1.5	0.6	6	1630	8150	18.0
GE 160 AX	160	290	77	310	199	272	213	65	52	65	23	1.5	0.6	7	1900	9500	23.0
GE 180 AX	180	320	86	335	224	300	240	70	60	67.5	26	1.5	0.6	8	2120	10600	31.0
GE 200 AX	200	340	87	358	246	321	265	74	60	70	27	1.5	0.6	8	2360	11800	34.0



SPHERICAL BEARINGS



GE SW SERIES

Description:

GE-SW-Series is our 2 piece metric range of angular contact bearings incorporating a thin PTFE fabric between the ball and the outer ring – suitable for high shock loads and medium to heavy industrial/mechanical load applications requiring low friction. They do not require maintenance.

Material Specifications:

Outer Ring: Bearing Steel 100Cr6, hardened and phosphate. Ball: Bearing Steel 100Cr6, hardened, precision ground and hard chrome plated. Liner: PTFE fabric.

Features:

Metric bore sizes
Low cost Maintenance
required Up to 140mm
bore sizes available

Possible Applications:

Light to heavy industrial/
mechanical applications
Construction equipment
Agricultural equipment
Hydraulic applications

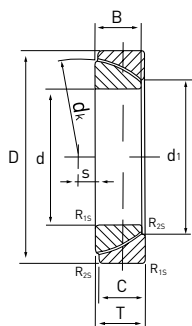
Temperature Range:

-54°C to +121°C

Specification:

ELV & RoHS compliant

GE SW SERIES



Outer Ring:

Bearing Steel 100Cr6,
Hardened, Phosphate

Ball:

Bearing Steel 100Cr6, Hardened,
Precision Ground, Hard Chrome Plated

Liner:

PTFE Fabric

Specification:

ELV and RoHS Compliant



Part No.	Dimensions mm										Load Ratings		Weight
	d	D	T	d _k	d ₁	B	C	S	R ₁₅ MIN	R ₂₅ MIN	dyn.	stat.	
GE 25 SW	25	47	15	42.5	31.4	14	14	1.0	0.6	0.2	71	140	0.14
GE 28 SW	28	52	16	47	35.7	15	15	1.0	1.0	0.3	90	180	0.18
GE 30 SW	30	55	17	50	36.1	16	16	2.0	1.0	0.3	95	190	0.22
GE 32 SW	32	58	17	52	37.5	17	16	2.0	1.0	0.3	102	204	0.24
GE 35 SW	35	62	17	50	42.4	17	17	2.0	1.0	0.3	116	232	0.28
GE 40 SW	40	68	19	60	46.8	18	18	1.5	1.0	0.3	134	270	0.34
GE 45 SW	45	75	20	66	52.8	19	19	1.5	1.0	0.3	160	320	0.43
GE 50 SW	50	80	20	74	59.1	19	19	4.0	1.0	0.3	176	355	0.47
GE 55 SW	55	90	23	80	62	22	22	4.0	1.5	0.5	220	440	0.70
GE 60 SW	60	95	23	86	68.1	22	22	5.0	1.5	0.6	240	480	0.75
GE 65 SW	65	100	23	92	75.6	22	22	5.0	1.5	0.6	260	520	0.8
GE 70 SW	70	110	25	102	62.2	24	24	7.0	1.5	0.6	315	630	1.0
GE 75 SW	75	115	25	107	84.4	25	25	7.9	1.5	0.6	345	670	1.1
GE 80 SW	80	125	29	115	90.5	27	27	10	1.5	0.6	375	750	1.6
GE 85 SW	85	130	29	122	94.8	29	26.5	9.4	1.5	0.6	425	810	1.7
GE 90 SW	90	140	32	130	103.3	30	30	11	2.0	0.6	480	965	2.2
GE 95 SW	95	145	32	135	104.4	32	29.5	10.8	2.0	0.6	500	1000	2.3
GE 100 SW	100	150	32	140	114.3	30	30	12	2.0	0.6	520	1040	2.4
GE 105 SW	105	160	35	148	113.8	35	32.5	12.3	2.0	2.0	565	1250	2.8
GE 110 SW	110	170	38	160	125.8	36	36	15	2.5	0.6	710	1430	3.7
GE 120 SW	120	180	38	170	135.4	36	36	17	2.5	0.6	765	1530	4.0
GE 130 SW	130	200	45	190	148	42	42	20	2.5	0.6	965	1930	6.0
GE 140 SW	140	210	45	200	160.8	42	42	20	2.5	0.6	1020	2040	6.4
GE 150 SW	150	225	48	213	170.9	45	45	21	3.0	1.0	1180	2360	7.9
GE 160 SW	160	240	51	225	181.4	48	48	21	3.0	1.0	1340	2700	9.6
GE 170 SW	170	260	57	250	194.3	54	54	27	3.0	1.0	1660	3350	13.0
GE 180 SW	180	280	65	260	205.5	61	61	21	3.0	1.0	2000	4000	17.5
GE 190 SW	190	290	64	275	211.8	61	61	29	3.0	1.0	2080	4150	18.0
GE 200 SW	200	310	70	290	229.2	66	66	26	3.0	1.0	2360	4750	23.0



SPHERICAL BEARINGS



GE SX SERIES

Description:

GE-SX-Series is our 2 piece metric range of angular contact bearings. Ball and race sliding surfaces are phosphate treated for increased lubricity. A lubrication groove is provided on the raceway for applications requiring re-lubrication after installation.

Material Specification:

Outer Ring: Bearing Steel 100Cr6, hardened and phosphate. Ball: Bearing Steel 100Cr6, hardened and phosphate.

Features:

Metric bore sizes
Low cost
Maintenance required
Up to 140mm bore sizes available

Possible Applications:

Light to heavy industrial/mechanical applications
Construction equipment
Agricultural equipment
Hydraulic applications

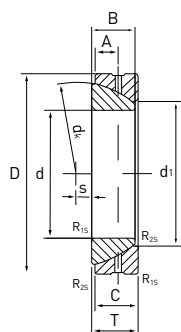
Temperature Range:

-54°C to +121°C

Specification:

ELV & RoHS compliant

GE SX SERIES



Outer Ring: Bearing Steel 100Cr6,
Hardened, Phosphate

Ball Bearing Steel 100Cr6,
Hardened, Phosphate

Specification: ELV and RoHS Compliant



Part No.	Dimensions mm											dyn. C		stat. Co	Weight kg
	d	D	T	dk	d1	B	C	S	A	R15 min	R25 min				
GE 25 SX	25	47	15	42.5	31.4	14	14	1	7.5	0.6	0.2	47.5	236	0.13	
GE 28 SX	28	52	16	47	35.7	15	15	1	8	1.0	0.3	60	300	0.17	
GE 30 SX	30	55	17	50	36.1	16	16	2	8.5	1.0	0.3	63	315	0.21	
GE 32 SX	32	58	17	52	37.5	17	16	2	8.5	1.0	0.3	71	354	0.24	
GE 35 SX	35	62	18	56	42.4	17	17	2	9	1.0	0.3	76.5	390	0.27	
GE 40 SX	40	68	19	60	46.8	18	18	1.5	9.5	1.0	0.3	90	450	0.32	
GE 45 SX	45	75	20	66	52.9	19	19	1.5	10	1.0	0.3	106	530	0.41	
GE 50 SX	50	80	20	74	59.1	19	19	4	10	1.0	0.3	118	585	0.45	
GE 55 SX	55	90	23	80	62	22	22	4	11.5	1.5	0.6	146	735	0.67	
GE 60 SX	60	95	23	86	68.1	22	22	5	11.5	1.5	0.6	160	800	0.72	
GE 65 SX	65	100	23	92	75.6	22	22	5	11.5	1.5	0.6	173	865	0.76	
GE 70 SX	70	110	25	102	82.2	24	24	7	12.5	1.5	0.6	208	1040	1.0	
GE 75 SX	75	115	25	107	84.4	25	24	7.9	12.5	1.5	0.6	220	1129	1.1	
GE 80 SX	80	125	29	115	90.5	27	27	10	14.5	1.5	0.6	250	1250	1.5	
GE 85 SX	85	130	29	122	94.8	29	26.5	9.4	14.5	1.5	0.6	284	1422	1.6	
GE 90 SX	90	140	32	130	103.3	30	30	11	16	2.0	0.6	320	1600	2.1	
GE 95 SX	95	145	32	135	104.4	32	29.5	10.8	16	2.0	0.6	335	1750	2.2	
GE 100 SX	100	150	32	140	114.3	30	30	12	16	2.0	0.6	345	1760	2.3	
GE 105 SX	105	160	35	148	113.8	35	32.5	12.3	17.5	2.0	0.6	423	2116	2.9	
GE 110 SX	110	170	38	160	125.8	36	36	15	19	2.5	0.6	475	2360	3.6	
GE 120 SX	120	180	38	170	135.4	36	36	17	19	2.5	0.6	510	2550	3.9	
GE 130 SX	130	200	45	190	148	42	42	20	22.5	2.5	0.6	640	3200	5.9	
GE 140 SX	140	210	45	200	160.6	42	42	20	22.5	2.5	0.6	680	3450	6.3	
GE 150 SX	150	225	48	213	170.9	45	45	21	24	3.0	1.0	780	3900	7.7	
GE 160 SX	160	240	51	225	181.4	48	48	21	25.5	3.0	1.0	900	4500	9.4	
GE 170 SX	170	260	57	250	194.3	54	54	27	28.5	3.0	1.0	1100	5500	12.0	
GE 180 SX	180	280	64	260	205.5	61	61	21	32	3.0	1.0	1320	6700	17.0	
GE 190 SX	190	290	64	275	211.8	61	61	29	32	3.0	1.0	1370	6950	18.0	
GE 200 SX	200	310	70	290	229.2	66	66	26	35	3.0	1.0	1560	7800	22.5	



SPHERICAL BEARINGS



GXSW SERIES

Description:

GXSW Series is our 2-piece metric range of general purpose spherical plain bearings incorporating a thin PTFE fabric between the ball and the outer ring, suitable for high shock loads and medium to heavy industrial/mechanical load applications requiring low friction. They do not require maintenance.

Material Specifications:

Outer ring: Steel 070M20, zinc plated and clear trivalent passivate.

Ball: Bearing steel 100Cr6, hardened and electro-less nickel plated.

Liner: High temperature PTFE composite.

Features

Metric bore sizes
Low friction
High shock loads
Extended wear life
No maintenance

Possible Applications

Medium/heavy industrial/
mechanical
Construction equipment
Agricultural equipment
Recreational vehicles
High precision motion
control

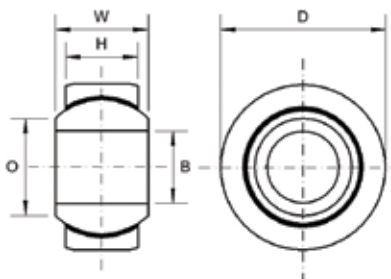
Temperature Range

-200°C to +260°C

Specification

ELV & RoHS compliant

GXSW SERIES: MAINTENANCE FREE SPHERICAL BEARING (METRIC)



Outer Ring: Steel 070M20, Zinc Plated and Clear Trivalent Passivate

Ball: Bearing Steel 100Cr6, Hardened and Electro-less Nickel Plated

Liner: High Temperature PTFE Composite

Specification: ELV and RoHS Compliant



Part No.	Bore Size	W	H	D	C	Static Load Rating (Newtons) Radial
GXSW-M05	5	8	6.00	13	1x15°	12,500
GXSW-M06	6	9	6.75	15	1x15°	15,500
GXSW-M08	8	12	9	18	1.2x15°	27,800
GXSW-M10	10	14	10.5	21	1.2x15°	39,000
GXSW-M12	12	16	12	24.5	1.2x15°	53,500
GXSW-M14	14	19	13.5	28	1.5x15°	70,000
GXSW-M16	16	21	15	31.5	1.5x15°	88,000
GXSW-M18	18	23	16.5	34.5	1.5x15°	106,500
GXSW-M20	20	25	18	38	1.5x15°	130,000
GXSW-M22	22	28	20	41	1.5x15°	162,000
GXSW-M25	25	31	22	46	1.5x15°	204,000

GXSW SERIES: MAINTENANCE FREE SPHERICAL BEARING (IMPERIAL)

Part No.	Bore Size	W	H	D	C	Static Load Rating (Newtons) Radial
GXSW-04	1/4	0.375	0.281	0.6094	0.039x15°	15,500
GXSW-05	5/16	0.437	0.344	0.7500	0.047x15°	27,800
GXSW-06	3/8	0.500	0.406	0.8437	0.047x15°	39,000
GXSW-07	7/16	0.562	0.437	1.000	0.047x15°	44,000
GXSW-08	1/2	0.625	0.500	1.0937	0.059x15°	53,500
GXSW-10	5/8	0.750	0.562	1.3125	0.059x15°	88,000
GXSW-12	3/4	0.875	0.687	1.500	0.059x15°	130,000



SPHERICAL BEARINGS



GXSW SS SERIES

Description:

GXSW SS-Series is our 2-piece metric range of general purpose spherical plain bearings incorporating a thin PTFE fabric between the ball and the outer ring, suitable for high shock loads and medium to heavy industrial/mechanical load applications requiring low friction. They do not require maintenance.

Material Specifications:

Outer ring: Stainless steel 304L. Ball: Stainless steel 440C.
Liner: High temperature PTFE composite.

Features

Metric bore sizes
Low friction
High shock loads
Extended wear life
No maintenance

Possible Applications

Medium/heavy industrial/
mechanical Construction
equipment
Agricultural equipment
Recreational vehicles
High precision motion
control

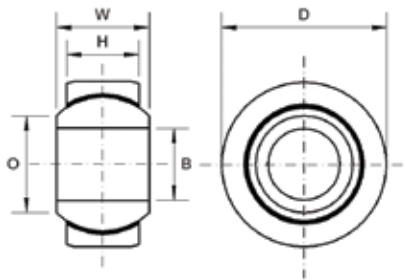
Temperature Range

-200°C to +260°C

Specification

ELV & RoHS compliant

GXSW SERIES: MAINTENANCE FREE SPHERICAL BEARING (METRIC)



Outer Ring: Stainless Steel 304

Ball: Stainless Steel 440C

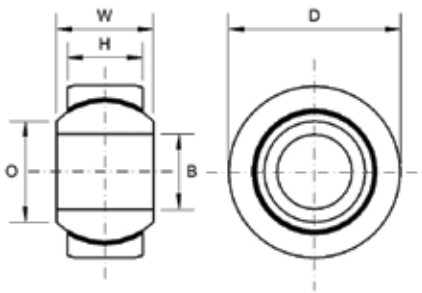
Liner: High Temperature PTFE Composite

Specification: ELV and RoHS Compliant



Part No.	Bore Size	W	H	D	C	Static Load Rating (Newtons) Radial
GXSW-M05-SS	5	8	6.00	13	1x15°	12,500
GXSW-M06-5SS	5	9	6.75	15	1x15°	15,500
GXSW-M06-SS	6	9	6.75	15	1x15°	15,500
GXSW-M08-6SS	6	12	9	18	1.2x15°	27,800
GXSW-M08-SS	8	12	9	18	1.2x15°	27,800
GXSW-M10-8SS	8	14	10.5	21	1.2x15°	39,000
GXSW-M10-SS	10	14	10.5	21	1.2x15°	39,000
GXSW-M12-10SS	10	16	12	24.5	1.2x15°	53,500
GXSW-M12-SS	12	16	12	24.5	1.2x15°	53,500
GXSW-M14-12SS	12	19	13.5	28	1.5x15°	70,000
GXSW-M14-SS	14	19	13.5	28	1.5x15°	70,000
GXSW-M16-14SS	14	21	15	31.5	1.5x15°	88,000
GXSW-M16-SS	16	21	15	31.5	1.5x15°	88,000
GXSW-M18-16SS	16	23	16.5	34.5	1.5x15°	106,500
GXSW-M18-SS	18	23	16.5	34.5	1.5x15°	106,500
GXSW-M20-18SS	18	25	18	38	1.5x15°	130,000
GXSW-M20-SS	20	25	18	38	1.5x15°	130,000
GXSW-M22-20SS	20	28	20	41	1.5x15°	162,000
GXSW-M22-SS	22	28	20	41	1.5x15°	162,000
GXSW-M25-SS	25	31	22	46	1.5x15°	204,000
GXSW-M25-20SS	20	31	22	46	1.5x15°	204,000

GXSW SERIES: MAINTENANCE FREE SPHERICAL BEARING (IMPERIAL)



- Outer Ring: Stainless Steel 304
- Ball: Stainless Steel 440C
- Liner: High Temperature PTFE Composite
- Specification: ELV and RoHS Compliant



Part No.	Bore Size	W	H	D	C	Static Load Rating (Newtons) Radial
GXSW-04-SS	1/4	0.375	0.281	0.6094	0.039x15°	24,000
GXSW-05-4SS	1/4	0.437	0.344	0.7500	0.047x15°	41,200
GXSW-05-SS	5/16	0.437	0.344	0.7500	0.047x15°	41,200
GXSW-06-5SS	5/16	0.500	0.406	0.8437	0.047x15°	58,900
GXSW-06-SS	3/8	0.500	0.406	0.8437	0.047x15°	58,900
GXSW-07-6SS	3/8	0.562	0.437	1.000	0.047x15°	68,950
GXSW-07-SS	7/16	0.562	0.437	1.000	0.047x15°	68,950
GXSW-08-7SS	7/16	0.625	0.500	1.0937	0.059x15°	79,000
GXSW-08-SS	1/2	0.625	0.500	1.0937	0.059x15°	79,000
GXSW-10-8SS	1/2	0.750	0.562	1.3125	0.059x15°	124,600
GXSW-10-SS	5/8	0.750	0.562	1.3125	0.059x15°	124,600
GXSW-12-10SS	5/8	0.875	0.687	1.500	0.059x15°	183,400
GXSW-12	3/4	0.875	0.687	1.500	0.059x15°	183,400





SPHERICAL BEARINGS



COM SERIES

Description:

COM-Series is our 2-piece metric range of general purpose spherical plain bearings. the "T" design incorporates a thin PTFE fabric between the ball and the outer ring. Suitable for high shock loads and medium industrial/mechanical load applications requiring low friction. The COMT series do not require maintenance. Dimensions suited to auto-sport and racing applications.

Material Specifications:

Outer ring: Bearing steel 100Cr6 and stainless steel 304L. Ball: Bearing steel 100Cr6, heat treated and electro-less nickel plated and stainless steel 440C. Liner: High temperature PTFE composite.

Features

Imperial bore sizes
Low friction
High shock loads
Motor sport dimensions
No maintenance

Possible Applications

Medium / heavy
industrial/mechanical
applications
Motor sport and
re-creational vehicles

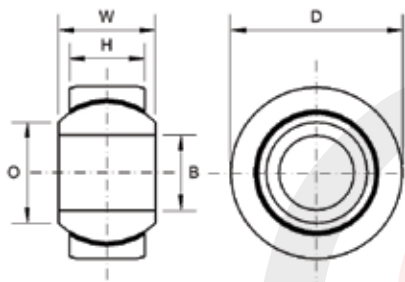
Temperature Range

-200°C to +260°C

Specification

ELV & RoHS compliant

COM SERIES: MAINTENANCE FREE SPHERICAL BEARINGS (IMPERIAL)



Outer Ring: Bearing Steel 100Cr6

Ball: Bearing Steel 100Cr6, Hardened and
Electro-less Nickel Plated

Liner: (Indicated by part No. ending with 'T')
High Strength PTFE fabric

Specification: ELV and RoHS Compliant



Part No. Unsealed	Bore Size	W	H	D	O	Static Load Rating (Newtons) Radial
COM-03	3/16	0.281	0.218	0.563	0.293	14,464
COM-03T	3/16	0.281	0.218	0.563	0.293	21,680
COM-04	1/4	0.343	0.250	0.656	0.364	22,015
COM-04T	1/4	0.343	0.250	0.656	0.364	33,020
COM-05	5/16	0.375	0.281	0.750	0.419	28,800
COM-05T	5/16	0.375	0.281	0.750	0.419	43,200
COM-06	3/8	0.406	0.312	0.813	0.516	37,361
COM-06T	3/8	0.406	0.312	0.813	0.516	56,040
COM-07	7/16	0.437	0.343	0.906	0.530	42,048
COM-07T	7/16	0.437	0.343	0.906	0.530	63,070
COM-08	1/2	0.500	0.390	1.000	0.640	58,934
COM-08T	1/2	0.500	0.390	1.000	0.640	88,390
COM-09	9/16	0.562	0.437	1.094	0.710	73,967
COM-09T	9/16	0.562	0.437	1.094	0.710	110,940
COM-10	5/8	0.625	0.500	1.187	0.780	94,658
COM-10T	5/8	0.625	0.500	1.187	0.780	141,960
COM-12	3/4	0.750	0.593	1.437	0.920	141,982
COM-12T	3/4	0.750	0.593	1.437	0.920	212,940
COM-14	7/8	0.875	0.703	1.563	0.980	186,639
COM-14T	7/8	0.875	0.703	1.563	0.980	279,930
COM-16	1	1.000	0.797	1.750	1.118	245,534
COM-16T	1	1.000	0.797	1.750	1.118	368,250

For stainless steel add 'SS' to part no. For example 'COM-03 SS'



SPHERICAL BEARINGS



SX SERIES

Description:

SX series Spherical Bearings have been developed for use in General Engineering applications where medium to high loads are encountered. Within their load carrying capacity they will withstand shock loading and high frequency oscillation.

Material Specifications:

Outer ring: 100Cr6, heat treated, Phosphated all over.
Ball: 100Cr6, heat treated, Phosphated all over.

Features

Metric and Imperial sizes available
Can be used in application involving shock loading and high frequency oscillation.

Possible Applications

Medium / heavy industrial/mechanical applications
Construction equipment
Agricultural equipment and motor sport.

Temperature Range

-40°C to +150°C

Specification

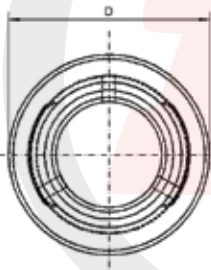
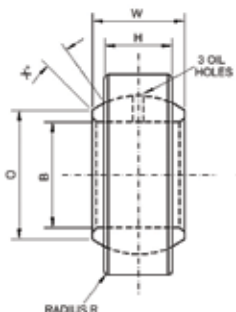
ELV & RoHS compliant

Interchange table

Dunlop	Rose	NMB
MX-M (metric)	RBJ-M	RBJ-M
MX (imperial)	RBJ	RBJ

Note: Manufacturers part numbers are used for descriptive purposes only and may not be direct equivalent products.

SX SERIES: MAINTENANCE REQUIRED SPHERICAL BEARINGS (IMPERIAL)



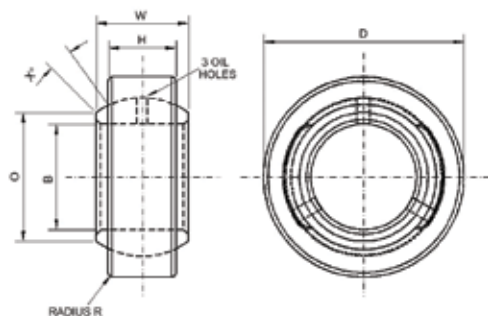
Outer Ring: Bearing Steel 100Cr6, Heat Treated, Phosphate all over except track

Ball: Bearing Steel 100Cr6, Heat Treated, Phosphate all over

Specification: ELV and RoHS Compliant



Part No.	B	D	W	H	O	R	X deg	Static Load Rating (Newtons) Radial
SX-03	.1898	.5625	.2187	.1562	.343	.015	10	19710
SX-04	.2500	.5625	.2187	.1562	.343	.015	10	19710
SX-05	.3125	.6250	.2500	.1875	.390	.015	10	27260
SX-06	.3750	.7500	.3125	.2187	.546	.015	9.5	42660
SX-08	.5000	.9375	.4375	.3125	.610	.015	11	72570
SX-10	.6250	1.1250	.5000	.3437	.750	.015	11.5	96100
SX-12	.7500	1.3125	.5625	.3750	.947	.031	10.5	127480
SX-16	1.0000	1.5625	.6875	.4375	1.125	.031	12	179460
SX-18	1.1250	1.8750	.8125	.5625	1.421	.062	9.5	287330
SX-20	1.2500	2.0000	.8125	.5625	1.562	.062	9	307920
SX-24	1.5000	2.5000	.9375	.6250	1.906	.062	9	415830

SX SERIES: MAINTENANCE REQUIRED SPHERICAL BEARINGS (METRIC)


Outer Ring: Bearing Steel 100Cr6, Heat Treated, Phosphate all over except track

Ball: Bearing Steel 100Cr6, Heat Treated, Phosphate all over

Specification: ELV and RoHS Compliant



Part No.	B	D	W	H	O	R	X deg	Static Load Rating (Newtons) Radial
SX-M04	4	14	5,50	4,00	8,71	0,4	9,5	19710
SX-M06	6	14	5,50	4,00	8,71	0,4	9,5	19710
SX-M08	8	16	6,25	4,75	10,12	0,4	8	27260
SX-M10	10	20	8,00	5,50	13,86	0,4	10	42660
SX-M12	12	24	11,00	8,00	15,55	0,4	10,5	72570
SX-M16	16	28	12,75	8,75	19,14	0,4	11,5	96100
SX-M18	18	34	14,25	9,50	24,03	0,8	10,5	127480
SX-M26	26	40	17,50	11,00	28,58	0,8	12,5	179460
SX-M28	28	48	20,50	14,25	36,26	1,6	9,5	287330
SX-M32	32	50	20,50	14,25	39,72	1,6	8,5	307920
SX-M38	38	64	23,75	16,00	48,45	1,6	9	415830



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"Our distributor network is vital to the continued global growth of the DUNLOP brand and our valued distributor partners form the perfect link between manufacturer and end user".

"Our commitment to our staff, our customers and the environment is of paramount importance to our company, we will continue to develop our organisational skills to further enhance our company's potential, to engage in sustainable practices and anticipate the needs and expectations of our customers".

"We **love** our products".

Ray Mifsud, Managing Director.



Agriculture



Automotive



Construction



Industrial

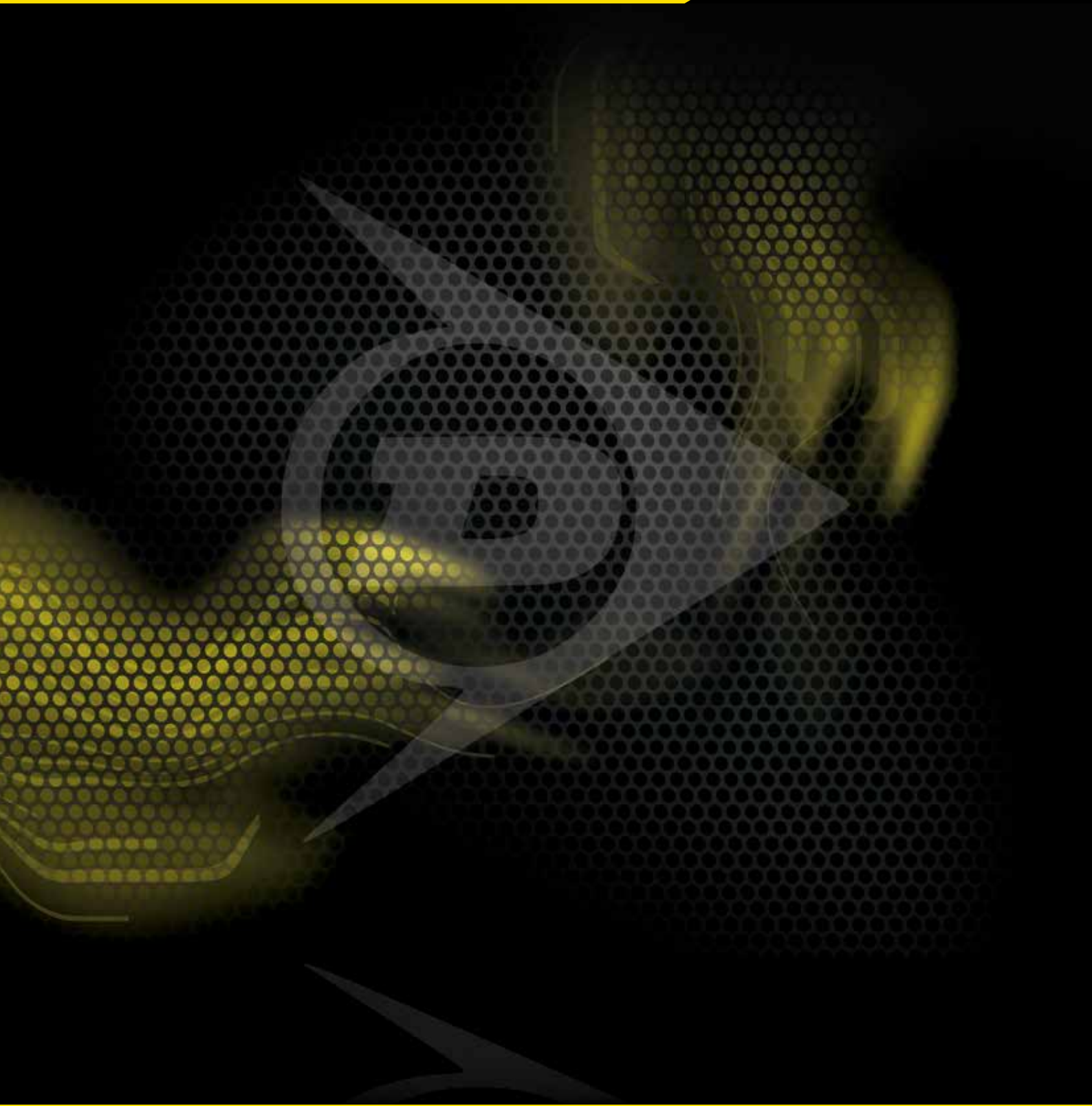


Motor Sport

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