

BALL TRANSFER UNITS

MULTI-DIRECTIONAL HANDLING SOLUTIONS



www.ball-units.com

Index

BTA Range	3
BTB Range	4 & 5
BTC Range	6
BTD Range	7
BTE Range	8
Fixing Clips	9
Ball Tables	10
Ball Channels	10
Bridge Bearings	11

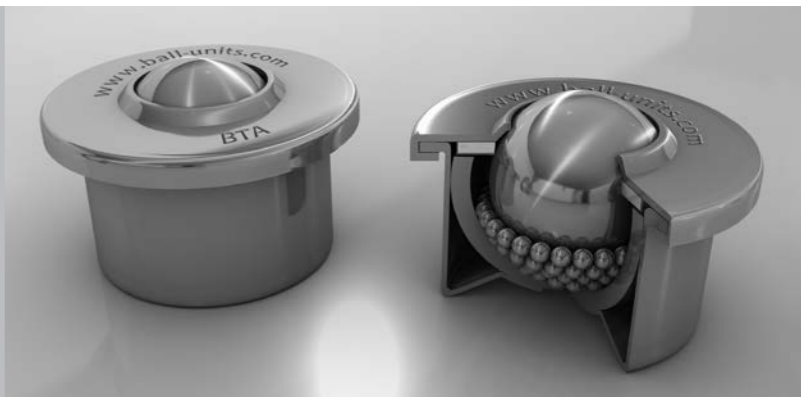
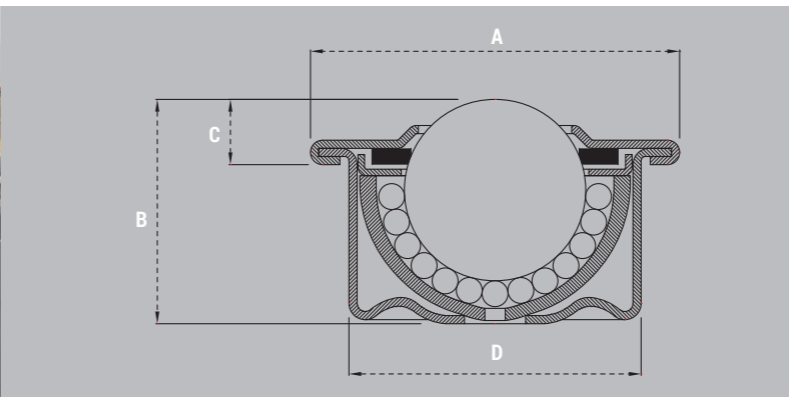
Ball Transfer Units

Bridge Bearings ball units are designed for multi-direction materials handling solutions. They consist of a large load-bearing ball running on a number of smaller support balls housed in a hemispherical cup. Each unit slightly oiled during manufacture. Our ball units are designed to be used in a standard vertical position.



BTA Range

- Light duty pressed steel ball transfer units.
- All ball contact surfaces are case hardened to ensure a long trouble free service.
- Fitted using Spring Clips or Tolerance Ring (See page 9).
- BTA units are fitted with a felt seal.



Introduction

At Bridge Bearings we have been manufacturing ball transfer units and ball tables for over 25 years. These provide a simple yet flexible, cost effective, multi-directional movement for both light and heavy loads. With a wide range of load capacities our ball units render them suitable for numerous materials handling solutions.

We offer free technical advice. If you cannot find the product you are looking for, let us help you.

Prefix	Load Ball	Minor Balls	Housing
Standard Units	Chrome Steel Grade 100 60-64HRC	Chrome Steel Grade 100 60-64HRC	Carbon Steel Bright Zinc Plated
NB	Plastic Delrin/Nylon	Stainless Steel AISI 420	Carbon Steel Bright Zinc Plated
SB	Stainless Steel AISI 420	Stainless Steel AISI 420	Carbon Steel Bright Zinc Plated
SP	Stainless Steel AISI 420	Stainless Steel AISI 420	Nylon 6 30% Glass Filled
SS	Stainless Steel AISI 420	Stainless Steel AISI 420	Stainless Steel AISI 304

Materials

Bridge Bearings ball transfer units are available in various materials. Material required should be stated when ordering.



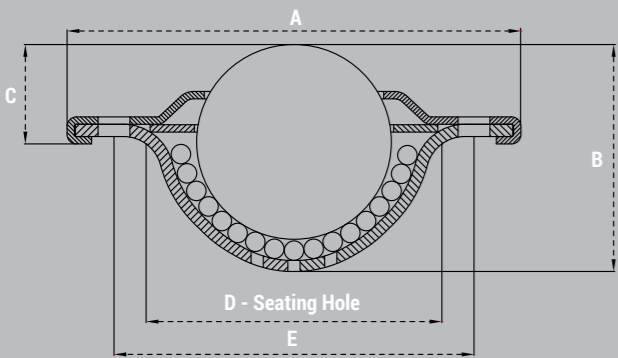
Reference	Material & Finish	Ball Dia. mm	A mm	B mm	C mm	D mm	Maximum Load Kg.
BTA 15	Chrome Steel Balls, Bright Zinc Plated Pressings	15.8	31	21	9.5	24	60
BTA 22		22.2	45	27.5	8.2	36	160
BTA 30		30	55	37	14	45	300
BTA 15 NB	Nylon Load Ball, Bright Zinc Plated Pressings	15.8	31	21	9.5	24	10
BTA 22 NB		22.2	45	27.5	8.2	36	20
BTA 30 NB		30	55	37	14	45	25
BTA 15 SB	Stainless Steel Balls, Bright Zinc Plated Pressings	15.8	31	21	9.5	24	60
BTA 22 SB		22.2	45	27.5	8.2	36	160
BTA 30 SB		30	55	37	14	45	300
BTA 15 SS	Stainless Steel Balls, & Pressings	15.8	31	21	9.5	24	50





BTB Range

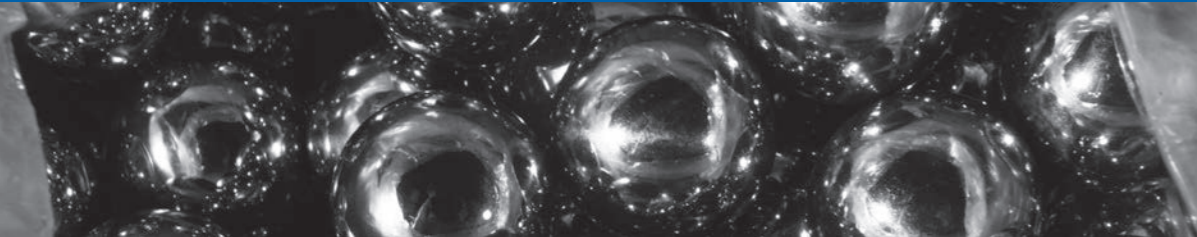
- Various 'load' ball sizes available.
- Holes on flange for fixings by means of screws or rivets.
- BTB 32 Stainless Steel units are used predominantly in air cargo and baggage handling/ground support equipment.
- Units available with 2 or 3 hole fixings.
- BTB 32 units have multiple drainage holes.



Reference	Material & Finish	Ball Dia. mm	Fixing Holes	A mm	B mm	C mm	D mm	E (PCD) mm	F (Dia.) mm	Maximum Load Kg.
BTB 15	Chrome Steel Balls, Bright Zinc Plated Pressings	15.8	2	41.3	18.5	10.2	23	30	3.5	12
BTB 19		19	3	61	22	10	30	44.5	5	25
BTB 25		25.4	2 / 3	73.5	30.5	14.2	40	55.6	5	60
BTB 25R		25.4	2	56	29.2	14.6	35.5	45.5	4.5	55
BTB 32		31.7	2 / 3	73.7	36.7	16.3	47	58.7	5	125
BTB 15 NB	Nylon Load Ball, Bright Zinc Plated Pressings	15.8	2	41.3	18.5	10.2	23	30	3.5	10
BTB 19 NB		19	3	61	22	10	30	44.5	5	20
BTB 25 NB		25.4	2 / 3	73.5	30.5	14.2	40	55.6	5	25
BTB 25R NB		25.4	2	56	29.2	14.6	35.5	45.5	4.5	25
BTB 32 NB		31.7	2 / 3	73.7	36.7	16.3	47	58.7	5	25

Reference	Material & Finish	Ball Dia. mm	Fixing Holes	A mm	B mm	C mm	D mm	E (PCD) mm	F (Dia.) mm	Maximum Load Kg.
BTB 15 SB	Stainless Steel Balls, Bright Zinc Plated Pressings	15.8	2	41.3	18.5	10.2	23	30	3.5	12
BTB 19 SB		19	3	61	22	10	30	44.5	5	25
BTB 25 SB		25.4	2 / 3	73.5	30.5	14.2	40	55.6	5	60
BTB 25R SB		25.4	2	56	29.2	14.6	35.5	45.5	4.5	55
BTB 32 SB		31.7	2 / 3	73.7	36.7	16.3	47	58.7	5	125
BTB 15 SS	Stainless Steel Balls & Pressings	15.8	2	41.3	18.5	10.2	23	30	3.5	12
BTB 19 SS		19	3	61	22	10	30	44.5	5	25
BTB 25 SS		25.4	2 / 3	73.5	30.5	14.2	40	55.6	5	60
BTB 32 SS		31.7	2 / 3	73.7	36.7	16.3	47	58.7	5	125

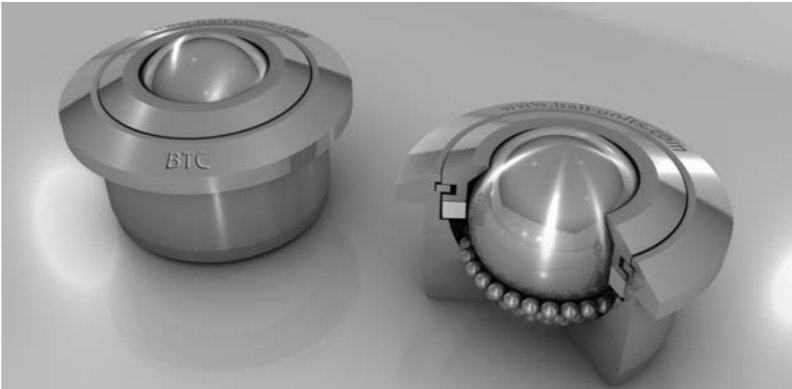
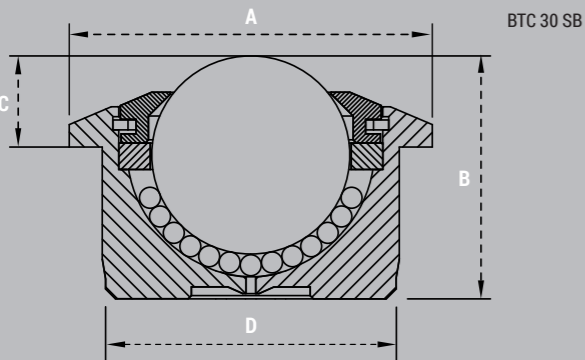
BTB 15 and BTB 25R (all options), BTB 32 SB and BTB 32 SS supplied without integral felt seal.





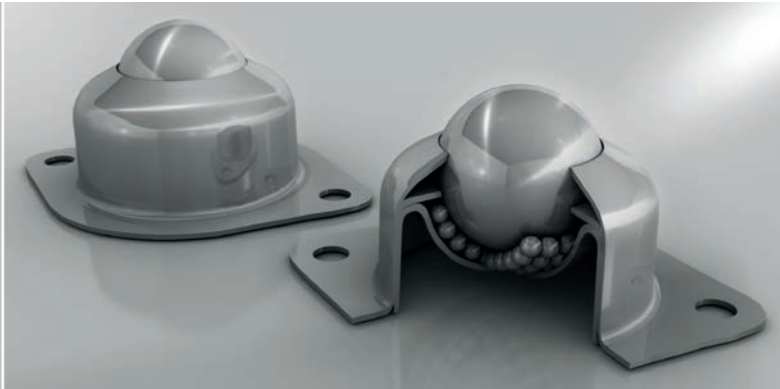
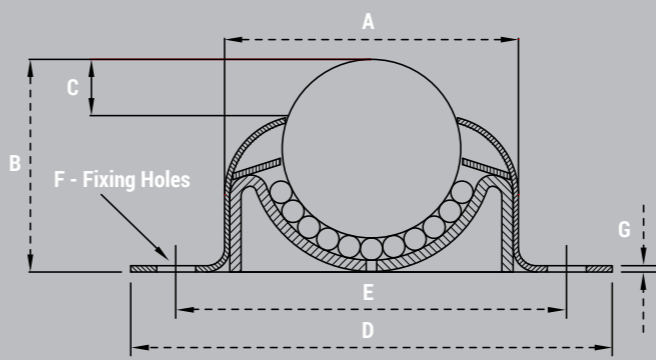
BTC Range

- BTC 30 SB and BTC 30 SS units manufactured with high capacity, CNC machined bodies.
- BTC 30 SP manufactured with hi-impact plastic body for reduced component weight.
- All BTC units supplied without integrated felt seal.
- Suitable for air cargo and baggage handling/ground support equipment.
- Fitted using Spring Clips or Tolerance Rings (See Page 9).



BTD Range

- Light duty pressed steel ball transfer unit manufactured with standard zinc plated finish.
- Ball contact surface is case hardened to ensure a long trouble-free service.
- Unit complete with 2 hole fixing.
- Dirt exit hole included as standard.
- BTD is fitted with a felt seal.

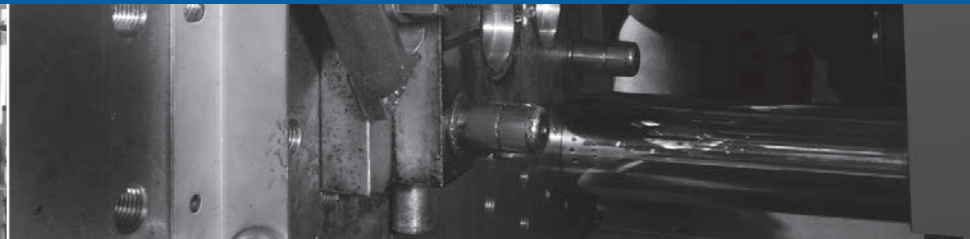
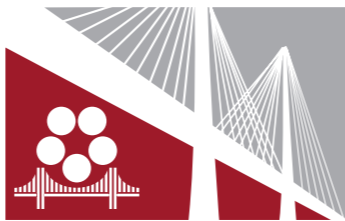


Reference	Material & Finish	Ball Dia. mm	A mm	B mm	C mm	D mm	Maximum Load Kg.
BTC 30 SB	Stainless Steel Balls, Bright Zinc Plated Body	30	55	37	13.8	45	350
BTC 30 SS	Stainless Steel Balls and Body	30	55	37	13.8	45	200
BTC 30 SP	Stainless Steel Balls, High Impact Plastic Body	30	55	36.5	13.8	45	200

BTC 30 SP fitted with integral 'stainless steel' Bearing Cup and multi drainage holes.

BTC 30 SB and BTC 30 SS units with slotted drainage hole.

Reference	Material & Finish	Ball Dia. mm	A mm	B mm	C mm	D mm	E mm	F (Dia.) mm	G mm	Maximum Load Kg.
BTD 25	Chrome Steel Balls, Bright Zinc Plated Pressings	25.4	41.8	30.25	8.00	68.50	55.56	5.5	0.90	55
BTD 25 SB	Stainless Steel Balls, Bright Zinc Plated Pressings	25.4	41.8	30.25	8.00	68.50	55.56	5.5	0.90	55

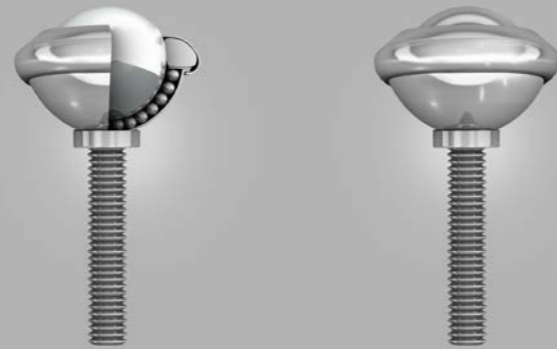
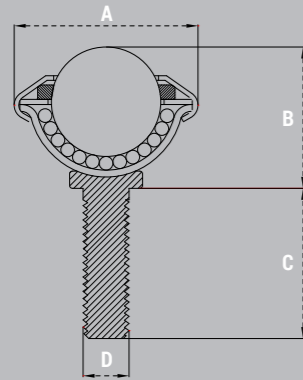


Celebrating
60 YEARS
of Excellence



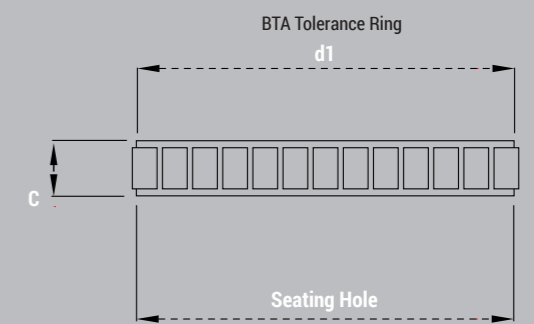
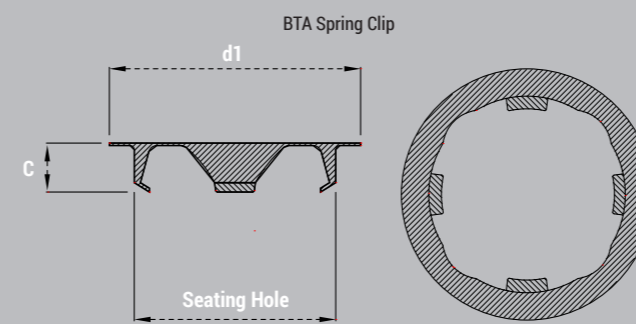
BTE Range

- Thread fixing for adjusted height.
- Drilled fixing hole.
- Various thread lengths available.
- BTE is fitted with a felt seal.



Fixing Clips

- Our range of fixing clips lock the ball units securely in position without any special tooling.
- Spring Clips: Fitted in seating hole before inserting ball unit.
- Tolerance Rings: Fitted to ball unit prior to fitting.
- BTA 30 SC & BTA 30 TR also suitable for use with BTC Units.
- Tables below for recommended 'seating hole' sizes.



Reference	Material & Finish	Ball Dia. mm	A mm	B mm	C mm	D mm	Maximum Load Kg.
BTE 19	Chrome Steel Balls, Bright Zinc Plated Pressings	19	32.1	24.6	25 30 35 40 50	M8	25
BTE 25		25.4	39.7	32.5	25 30 35 40 50	M8	55
BTE 19 NB	Nylon Load Ball, Bright Zinc Plated Pressings	19	32.1	24.6	25 30 35 40 50	M8	20
BTE 25 NB		25.4	39.7	32.5	25 30 35 40 50	M8	25
BTE 19 SB	Stainless Steel Balls, Bright Zinc Plated Pressings	19	32.1	24.6	25 30 35 40 50	M8	25
BTE 25 SB		25.4	39.7	32.5	25 30 35 40 50	M8	55

Example Part No.
BTE 19-40 NB (19mm unit supplied with Nylon Load Ball and 40mm long thread).



BTA Spring Clips

Reference	C mm	d1 mm	Seating Hole Dimension	Plate Thickness
BTA 15 SC	6.0	30.8	25	2-3mm
BTA 22 SC	7.0	45	37	3-4mm
BTA 30 SC	7.0	54.9	46	3-4mm

BTA Tolerance Rings

Reference	C mm	d1 mm	Seating Hole Dimension	
			min	max
BTA 15 TR	10	24	24.9	26.1
BTA 22 TR	12	36	36.8	37.8
BTA 30 TR	15	45	45.9	46.9

When fitting ball units with fixing clips it is important NOT to strike the load ball when pushing into position as this may damage the ball unit.

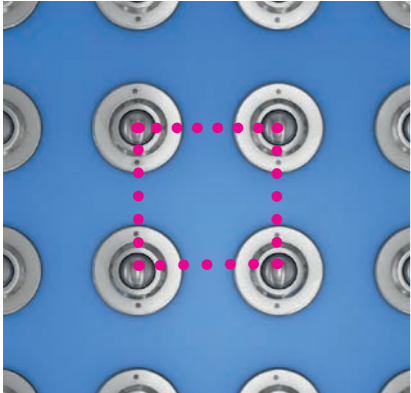


Celebrating
60 YEARS
of Excellence

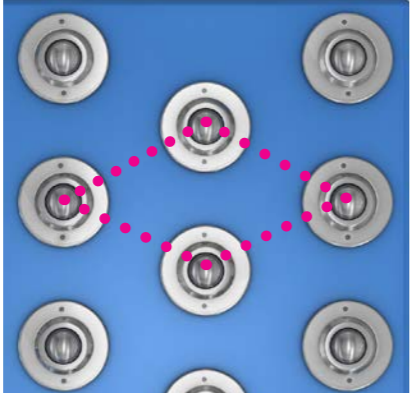


Fabricated Ball Tables

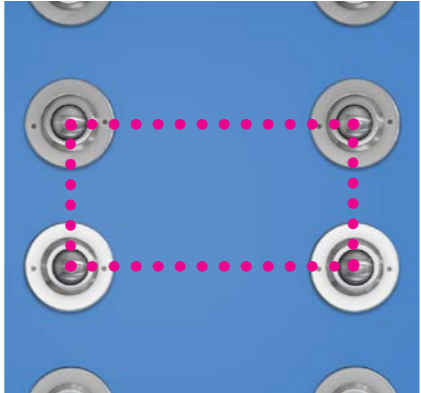
- Ball transfer tables manufactured to suit your requirements.
- Ball tables can be supplied fitted with BTA, BTB, BTC, BTD or BTE units.
- Standard finish: Powder coat Blue RAL 5010 or White RAL 9010.
- Other colours available.
- Stainless Steel ball tables also available.



Square Pitch



Diamond Pitch



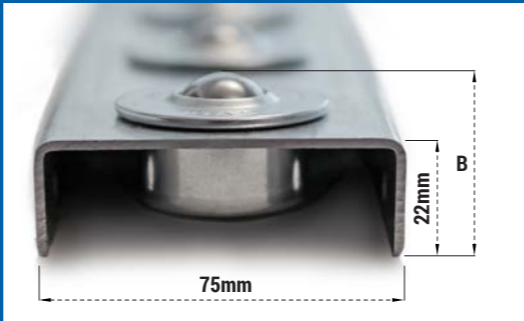
Elongated Pitch

Ball Channels

- Bridge Bearings Ball Channels – can be used individually or bolted together for simple, no nonsense ball table construction. Suitable for ‘light’ or ‘heavy’ duty applications. Ball Channels supplied fitted with BTA, BTB or BTC units. Supplied ‘galvanised’ or ‘painted’ in standard 1,200mm lengths and 75mm ball pitch.
- Standard Painted Finish: Powder coat Blue RAL 5010 or White RAL 9010.
- Other ball unit materials and channel colours available.
- Bespoke channel designs available, please contact our Sales Team for further detail.



Item Code	Ball Dia. mm	Maximum Load KG's per ball	Ball Unit Materials			Dimension B
			STD	SB	SS	
BC-BTA22	22.2	160	Y	Y	n/a	31.8mm
BC-BTB25*	25.4	55	Y	Y	Y	36.2mm
BC-BTB32*	31.7	125	Y	Y	Y	38.3mm
BC-BTC30SP	30	200	Y	Y	n/a	36.1mm
BC-BTC30	30	350	Y	Y	Y	36.1mm



MATERIALS STD: Chrome Steel Balls, Bright Zinc Plated Pressings. SB: Stainless Steel Balls, Bright Zinc Plated Pressings. SS: Stainless Steel Balls and Pressings.

* Channels fitted with BTB style ball units have the option to be 2 or 3 hole fixing.



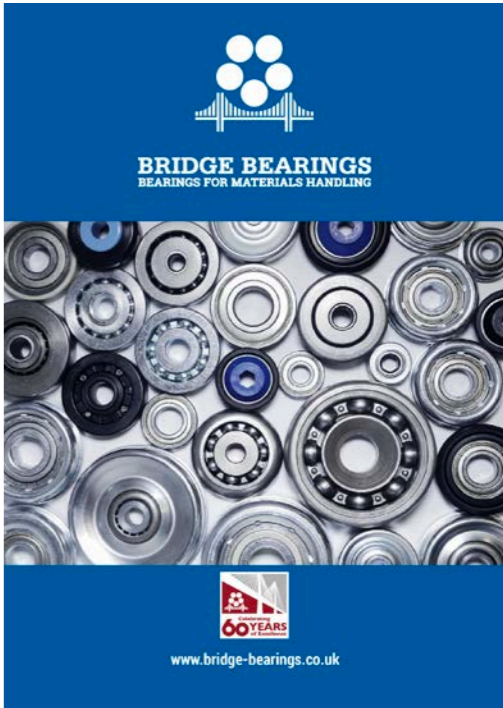
BRIDGE BEARINGS Bearings for Material Handling

Situated in the heart of the West Midlands, Bridge Bearings is the largest supplier of semi-precision bearings for the Materials Handling Industry, in the UK today.

Our range includes steel and plastic housed bearings for all types of Conveyor Rollers as well as Bearings for Overhead Conveyors which include Crowded Race, Sintered Iron Caged and Ribbon Caged construction. Many of our products are available either sealed or un-sealed and are suitable for a wide variety of environments.

Our bearings are not only unique to conveyors but can also be found in generic rolling devices used in everyday life, ranging from a patio door to the common garden lawnmower. We have full CNC and conventional machining capabilities to produce custom bearings.

Please refer to our Sales Office for information or visit www.bridge-bearings.co.uk



Optimise Your Operating Efficiency with our Rollers and Parts Service Guarantee

We have also gained a reputation for supplying high quality competitively priced rollers and spares to all aspects of the material handling industry. Our products are used by blue-chip companies in the UK and throughout Europe. We have a high degree of standardisation in our systems which means we can guarantee a particularly rapid and reliable spare parts service to meet the end-users’ needs with speed and ease. Furthermore, by buying replacement parts from the original equipment manufacturer you are helping to ensure that the equipment stays in prime condition, optimising the operating efficiency of your system.

Rollers

We are the UK’s largest conveyor manufacturer, producing in excess of a million rollers every year. We source and purchase only the best raw materials directly from the mills and in vast quantities – in excess of 200km of 50mm diameter steel tubing every year. This means that not only does it allow us to constantly meet order commitments, but is also makes our pricing extremely competitive. Our range of rollers includes: Gravity Rollers, Plastic Rollers, Stainless Steel Rollers, Grooved Rollers, Poly V Rollers, Tapered Rollers, Sprocketed Rollers, Belt Conveyor Rollers, as well as an extensive range of specialised rollers.

Spares

We also produce an extensive range of stock components, again competitively priced, for Powered Roller Conveyors, Pallet Conveyors, Gravity Conveyors and Belt Conveyors, with all plastic conveyor components injection moulded here on site.

Please give us the opportunity to quote all your roller and spares requirements. We can guarantee:

- Competitive prices
- Fast turnaround
- Extensive product range
- Excellent customer service



BRIDGE BEARINGS LYE, STOURBRIDGE SITE



ASSEMBLY & DESPATCH DEPT.



COMPONENTS & FINISHED
PRODUCT STORES



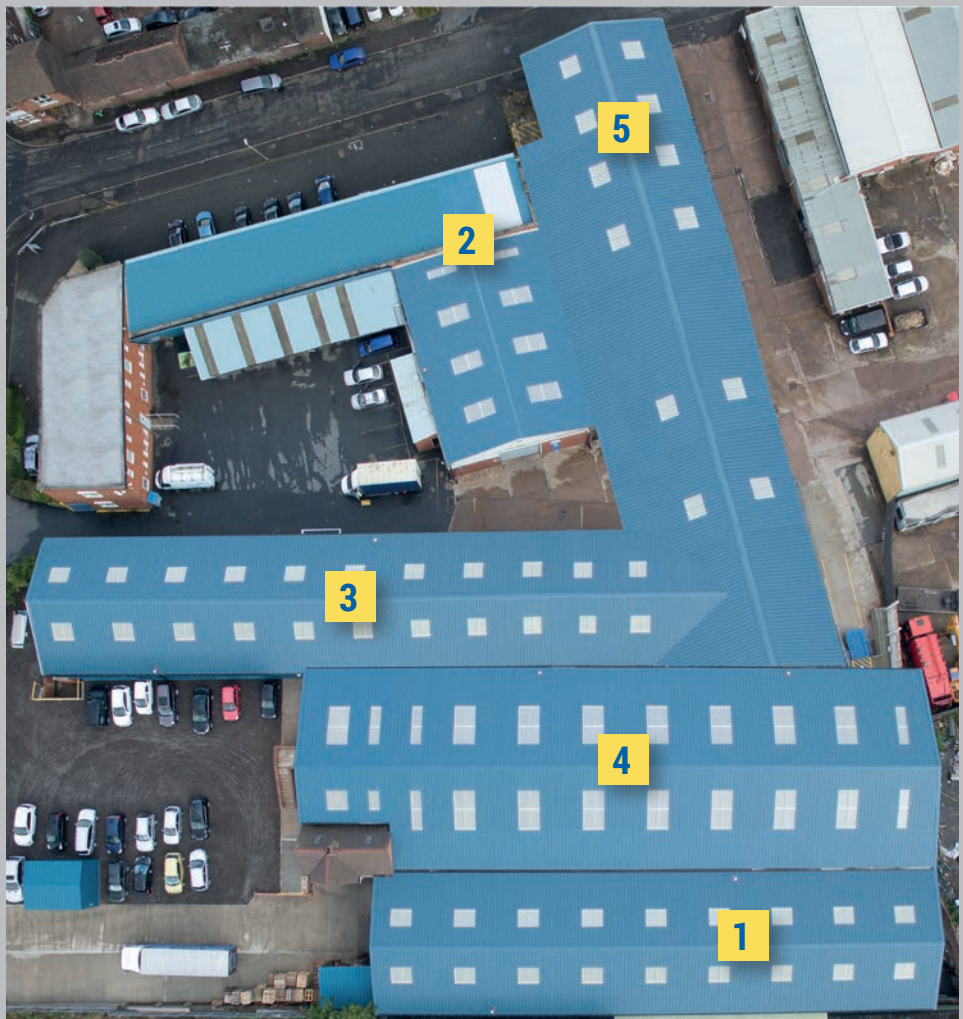
MACHINING DEPT.



PRESS DEPT.



ROLLER MANUFACTURE



BRIDGE BEARINGS
BEARINGS FOR MATERIALS HANDLING



Bridge Bearings Ltd.
Bromley Street, Lye, Stourbridge, W. Midlands. DY9 8PT
Tel: 00 44 (0)1384 264 930
Email: bearingsales@bridge-bearings.co.uk
www.ball-units.co.uk
www.bridge-bearings.co.uk
www.ball-units.com

