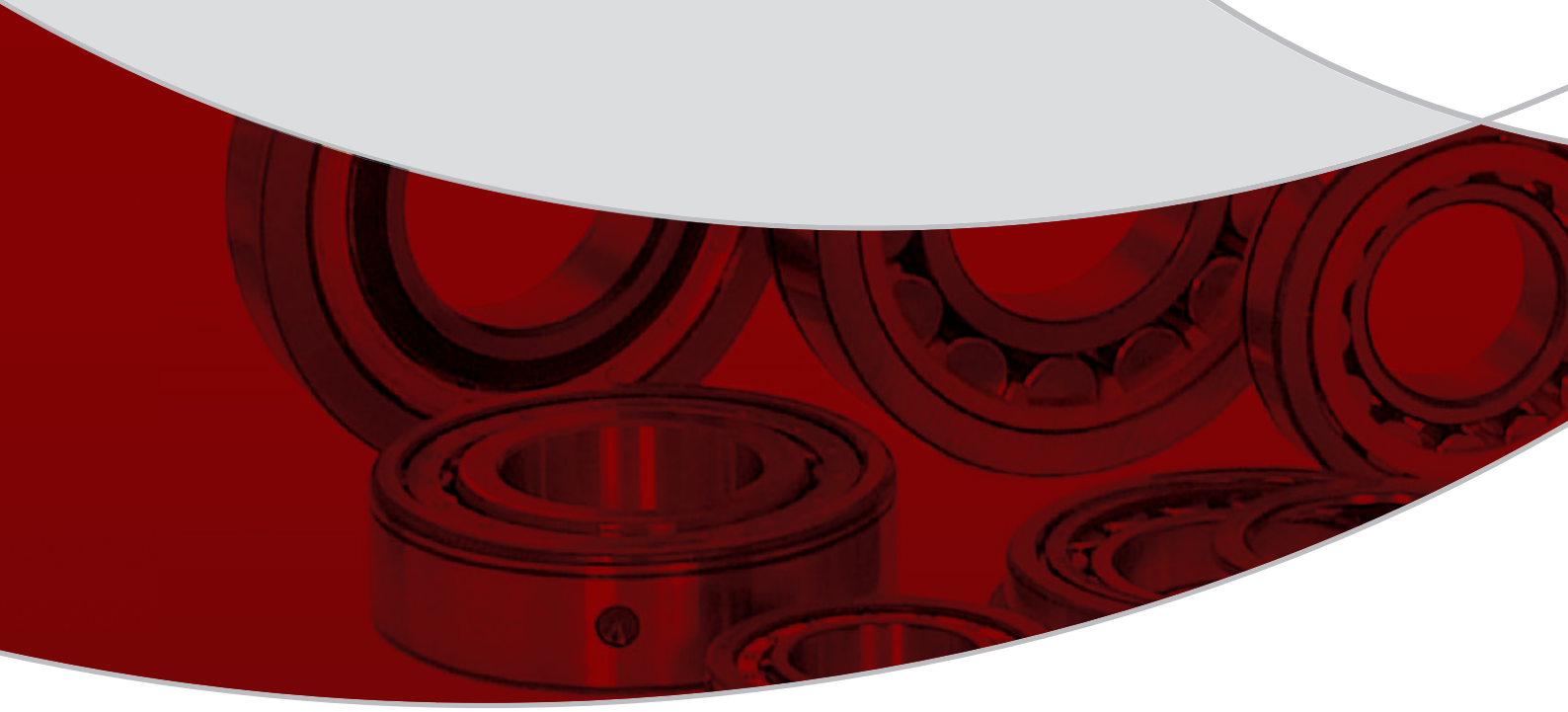
KASUMA®

Your global
search for
quality Bearing
ends here



From the Founder's Desk

Turning 20+ is a good time to reminisce. To reflect, and to look ahead. During the last 40+ years of our existence in the bearing industry, Kasuma Bearings has striven hard. The journey, indescribable with words, has constantly seen the ups and downs. From personal goals turning into company milestones to caring for the society, from learning and educating ourselves to refusing to compromise on quality. And above all, believing in a vision and see it become reality has been a yardstick for me. And will continue to be so.

Having said that, often in life, I feel, it is necessary to take a bird's eye view of things, particularly in terms of leadership and how to apply it to things that really matter in life. A very good example would be – I look at the growth and development of my team, instead of looking at the myopia of life and getting bogged down by the day-to-day issues. In all these years, we have learned to look at ourselves in a detached way. Just so, we understand exactly those decisive values that we are taking that will cause us to manage our problems, to master our weaknesses, and channel the learning positively into strengths that can make a difference in our lives and as a brand.

We, as a brand, also believe that long-term success needs leadership that delivers on both, happy employees and bottom-line results. And currently, when I see my team performing I feel proud and happy. I feel that the guidance delivered to these minds has unfolded into an unbeatable force that is moving ahead with a strong impulse.

Today, I see Kasuma Bearings surpassing all the achievements that it has made so far. Today, I can say that we are ready to face the ever-so-rising market demands and the challenging jobs that test our limits.
Today, we are prepared to evolve into an organisation that lasts for years to come.
Today, I feel, just paved way for a fruitful tomorrow.

Beyond a thought, there lies an IDEA

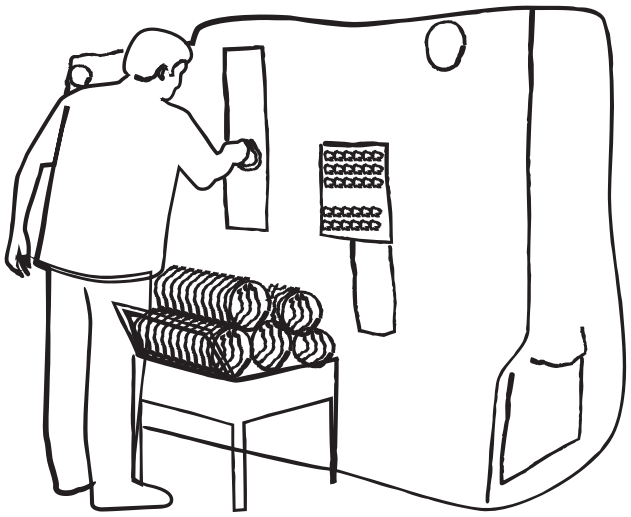
PROFILE

Quality, Kasuma always believed that it begins on the inside. And eventually, works its way out and shows itself in front of the whole world. A belief that has made Kasuma Bearings what it stands for today. An ISO/TS 16949, ISO 9001 and ISO 14001 certified company; we are manufacturers and international marketers of engineered precision plain, roller, ball bearings and special bearings. Today, we can say that we have taken some incredible steps forward, achieving what we had set out to do.

With a sole ambition to succeed in all endeavours, Kasuma Bearings was incorporated in the year 1995. From our modest beginnings, we have come a long way. Over the years, our actions exhibit our uncompromising attitude in terms of quality control. Our skills match with our commitments to deliver the best of the lot which are well-planned, precisely designed and flawlessly executed. With our immense expertise in this segment, we design, manufacture and market a portfolio of bearing products for a range of diversified industrial markets. Be it for applications in the automotive and industrial sector or construction, mining, packaging and semiconductor machineries. To say the least, we have successfully developed and manufactured a wide range of above 4,000 different sizes of bearings.

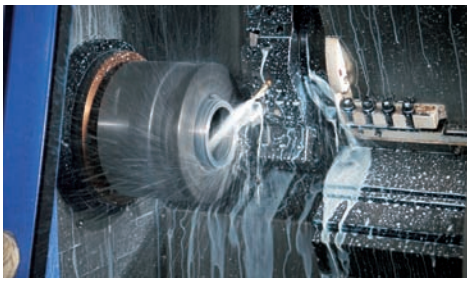
Since we began, within a very short period of time, we evolved into a focussed company handling several prestigious clients all over the world. Simply speaking of our credentials, we have won the trust and support of our partners, our associates and above all, our customers to whom, we are immensely grateful. So, with the perfect combination of design, utilisation and aesthetics of all the work we have done, we can say that we are a testimony of unmatched quality and precision.

Beyond an ambition, there lies an ACTION



Beyond a process,
there lies a
SUCCESS

MANUFACTURING



With a reputation built on rapid and professional response that spans over 40 years in the bearing business, Kasuma Bearings is among the finest manufactures of precision-machined bearings available to date. We utilise top-quality materials to create top-notch products that stem from our leading edge technological expertise. And with expert mechanical engineers, leveraging years of experience in bearing scores of innovative designs, we build a custom solution that perfectly meets your application needs. The result – Get delivered the best.

And for all you know, with years of history, manufacturing quality bearings has given us the knowledge and expertise to service any of your bearing modification or manufacturing needs. With all this and more, we've perfected our manufacturing process to provide you with unparalleled products. Needless to say, today, we are known equally for our quality and value.

The Manufacturing Process:

- Induction forging
- Spheroidised annealing
- CNC Pre-machining
- Heat Treatment: Bearing races & rollers are heat treated and tempered with 59 to 63 HRC
- Grinding: With In-Process gauges
- Super Finish of Races & Rollers
- Assembly: Rollers sorted with automatic sorting machine
- Laser Marking (Branding)
- Oiling / Washing
- Packing
- Dispatching

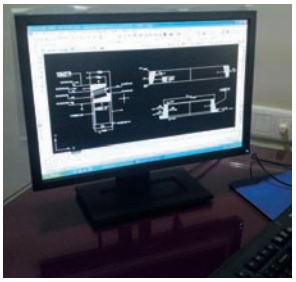
Such extensive treatment goes behind the making of every bearing. With 100% online inspection and an automatic production line, we are capacitated to produce approx 6 million bearings a year. We have range of caged bearings consisting of Steel / Brass / Teflon / Aluminium Cage depending upon applications and the customer requirements.

The raw materials we use:
Races: SAE 52100 Prime (Oxygen Content under 15ppm)
Rollers and Steel Balls: SAE 52100 Coil
Cages: Steel Cage: CRC Sheets
Brass Cage: Brass Pipes
Teflon Cage: Nylon E6
Aluminium Cage: Aluminium Pipes

Beyond passion,
there lies

PRECISION

QUALITY



With a strong belief of ***"there is no alternate to quality"***, Kasuma Bearings uses the most updated measurement and testing technology to enforce rigorous quality checks on all its products. Precisely why, you can be rest assured to get only the best. Having said that, we make sure that all the processes are carried out as per the Process Control Plan. And with specific work instructions given to all regularly trained employees, we ensure that they give their commitment in everything they do and live by the high quality standards that we have set over the years.

We have also incorporated innovative engineering technologies that ensure high-quality performance in the manufacturing of advanced system bearings. The production capacity of our company is approx 6 million bearings annually, and to ensure long life of the bearing we have installed In-House quality control systems like:

Metallurgical Laboratory
Metallurgical Microscope

- Spheroidize structure
- Amount of perlite
- Micro inclusions
- Carbide network
- Carbide Streaks (bending),

Hardness Tester
Profile projector for testing micro geometry at turning stage
Surface Finish Tester, etc

We at Kasuma carry inspection checks to bearings and components, on the grounds of:

- Eccentricity
- Roundness
- Concentricity
- 3-point
- Residual Magnetism
- Parallism
- Squarness
- Coaxiality
- Blue Contact

We have latest technology machine to monitor Bearing Noise Level and Life Testing Machine (Endurance Test) that monitors vibrations, temperature and speed of bearing under test. In order to develop the business, today, we have established our own R&D Department for designing of product and all activities are carried out by our design experts using latest designing software.

We focus on rapidly evolving in all our endeavours. That is why; we have continuously introduced new trends in the market, with the latest technology, style and ultra-modern facilities while creating economical as well as world-class products.

Tolerances For Tapered Roller Bearings (Metric Series)

ISO 492:1994 (E)

Tolerance Values in Microns

Inner Ring					Tolerances for inner ring width (ΔBs) & outer ring width (ΔCs)		Assembled bearings		Outer Ring				
Tolerances for bore dia. and running accuracy							Tolerances for actual bearing width (ΔTs)		Tolerances for OD and running accuracy				
Nominal Bore Diameter d (mm)		Normal Class Δ dmp		Radial runout (Kia)					Nominal Outside Diameter D (mm)		Normal Class (ΔDmp)		Radial runout (Kia)
over	incl.	high	low	Max.	high	low	high	low	over	incl.	high	low	Max
---	18	0	-12	15	0	-120	+200	0	18	30	0	-12	18
18	30	0	-12	18	0	-120	+200	0	30	50	0	-14	20
30	50	0	-12	20	0	-120	+200	0	50	80	0	-16	25
50	80	0	-15	25	0	-150	+200	0	80	120	0	-18	35
80	120	0	-20	30	0	-200	+200	-200	120	150	0	-20	40
120	180	0	-25	35	0	-250	+350	-250	150	180	0	-25	45
									180	250	0	-30	50

Tolerances For Tapered Roller Bearings (Inch Series)

ISO 492:1994 (E)

Tolerance Values in Microns

Inner Ring					Tolerances for inner ring width (ΔBs)		Tolerances for outer ring width (ΔCs)		Outer Ring				
Tolerances for bore dia. and running accuracy									Tolerances for OD and running accuracy				
Nominal Bore Diameter d (mm)		Normal Class Δ dmp		Radial runout (Kia)					Nominal Outside Diameter D(mm)		Normal Class (ΔDmp)		Radial runout (Kia)
over	incl.	high	low	Max.	high	low	high	low	over	incl.	high	low	Max
---	76.200	+13	0	51	+76	-254	+51	-254	---	304.800	+25	0	51
76.200	266.700	+25	0	51									

Assembled Bearings			
Nominal Bore Diameter d (mm)		*Tolerances for actual bearing width (ΔTs)*	
over	incl.	high	low
---	101.600	+200	0
101.600	304.800	+356	-254

Tolerances For Radial Bearings (Except Tapered Roller Bearings)

ISO 492:1994 (E)

Tolerance Values in Microns

Inner Ring						Tolerances for inner ring width (ΔBs) & outer ring width (ΔCs)		Outer Ring				
Tolerances for bore dia. and running accuracy								Tolerances for OD and running accuracy				
Nominal Bore Diameter d (mm)		Normal Class (Δ dmp)		Width runout (Vbs)	Radial runout (Kia)			Nominal Outside Diameter D (mm)		Normal Class (ΔDmp)		Radial runout (Kia)
over	incl.	high	low	Max.	Max.	high	low	over	incl.	high	low	Max.
2.5	10	0	-8	15	10	0	-120	18	30	0	-9	15
10	18	0	-8	20	10	0	-120	30	50	0	-11	20
18	30	0	-10	20	13	0	-120	50	80	0	-13	25
30	50	0	-12	20	15	0	-120	80	120	0	-15	35
50	80	0	-15	25	20	0	-150	120	150	0	-18	40
80	120	0	-20	25	25	0	-200	150	180	0	-25	45
								180	250	0	-30	50

Radial Internal Clearance in Deep Groove Ball Bearings

ISO 5753:1991 (E)

Tolerance Values in Microns

Nominal bore diameter d (mm)		Radial Internal Clearance									
		C2		CN		C3		C4		C5	
over	incl.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.
10	18	0	9	3	18	11	25	18	33	25	45
18	24	0	10	5	20	13	28	20	36	28	48
24	30	1	11	5	20	13	28	23	41	30	53
30	40	1	11	6	20	15	33	28	46	40	64
40	50	1	11	6	23	18	36	30	51	45	73
50	65	1	15	8	28	23	43	38	61	55	90
65	80	1	15	10	30	25	51	46	71	65	105
80	100	1	18	12	36	30	58	53	84	75	120

Axial Internal Clearance in Four Point Contact Bearings

Tolerance Values in Microns

Nominal bore diameter d (mm)		Axial Internal Clearance							
		C2		CN		C3		C4	
over	incl.	min.	max.	min.	max.	min.	max.	min.	max.
10	18	15	55	45	85	75	125	115	165
18	40	26	66	56	106	96	146	136	186
40	60	36	86	76	126	116	166	156	206
60	80	46	96	86	136	126	176	166	226
80	100	56	106	96	156	136	196	186	246
100	140	66	126	116	176	156	216	206	266

Radial Internal Clearance in Cylindrical & Needle Roller Bearings

ISO 5753:1991 (E)

Tolerance Values in Microns

Nominal bore diameter d (mm)		Radial Internal Clearance									
		C2		CN		C3		C4		C5	
over	incl.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.
---	10	0	25	20	45	35	60	50	75	---	---
10	24	0	25	20	45	35	60	50	75	65	90
24	30	0	25	20	45	35	60	50	75	70	95
30	40	5	30	25	50	45	70	60	85	80	105
40	50	5	35	30	60	50	80	70	100	95	125
50	65	10	40	40	70	60	90	80	110	110	140
65	80	10	45	40	75	65	100	90	125	130	165
80	100	15	50	50	85	75	110	105	140	155	190
100	120	15	55	50	90	85	125	125	165	180	220

Radial Internal Clearance in Spherical Roller Bearings

ISO 5753:1991 (E)

Tolerance Values in Microns

Nominal bore diameter d (mm)		Radial Internal Clearance									
		C2		CN		C3		C4		C5	
over	incl.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.
14	18	10	20	20	35	35	45	45	60	60	75
18	24	10	20	20	35	35	45	45	60	60	75
24	30	15	25	25	40	40	55	55	75	75	95
30	40	15	30	30	45	45	60	60	80	80	100
40	50	20	35	35	55	55	75	75	100	100	125
50	65	20	40	40	65	65	90	90	120	120	150
65	80	30	50	50	80	80	110	110	145	145	180
80	100	35	60	60	100	100	135	135	180	180	225
100	120	40	75	75	120	120	160	160	210	210	260

Beyond a product,
there lies a

QUALITY

TAPER BEARINGS

- Single Row Taper Roller Bearings
- Double Row Taper Roller Bearings
- Taper Roller Bearing Wheel Kit

Kasuma offers the most extensive line of tapered roller bearings. Tapered roller bearings consist of four interdependent components: the cone (inner ring), the cup (outer ring), the tapered rollers (rolling elements) and the cage (roller retainer). Tapered bearings are uniquely designed to manage both thrust and radial loads on rotating shafts. The steeper the cup angle, the greater the ability of the bearing to handle thrust loads.

BALL BEARINGS

- Single Row Deep Groove Ball Bearings
- Double Row Deep Groove Ball Bearings
- Open Type Ball Bearing
- Shielded Type Ball Bearing
- Sealed Type Ball Bearing
- Self-Annealing Ball Bearing
- Single Row Angular Contact Ball Bearing
- Double Row Angular Contact Ball Bearing
- Four Point Angular Contact Ball Bearing

Kasuma is a premier manufacturer of ball bearings. We produce a broad range of precision ball bearings, wide inner ring ball bearings and housed units for standard industrial applications and specialized uses. From standard single-row deep groove radial ball bearings to advanced integral designs. Kasuma has your solution.

CYLINDRICAL BEARING

- Single Row Cylindrical Bearing
- Double Row Cylindrical Bearing
- Metric Series: N, NF, NH, NJ, NU, NUJ, NUP, NUPJ, RM, RNU
- Inch Series: CFL, CFM, CRL, CRM, XLRJ

Cylindrical roller bearing consists of an Inner and/ or outer ring, a roller retaining cage and a complement of controlled contour cylindrical rollers. Depending on the style of bearing, either the inner or the outer ring will have two roller guiding ribs. The other ring, separable from the assembly, has one rib or none. The ring with two ribs axially locates the position of the roller assembly. The diameters of these ribs may be used to support the roller cage. One of the ribs may carry light thrust loads when an opposing rib is provided in the mating ring.

SPHERICAL BEARINGS

- Spherical Roller Bearings with Cylindrical and Taper Bore

Kasuma spherical roller bearings feature all of the characteristics that have made Kasuma renowned – superior design, reliable performance and comprehensive technical support. Spherical roller bearings are designed to manage high radial loads and perform consistently, even when misalignment, marginal lubrication, contamination, extreme speeds and critical application stresses are present.

NEEDLE BEARINGS

- Needle Roller Bearings
- Drawn Cup Needle Roller Bearings
- Needle Rollers (BPM) with Flat Grounded Ends
- Needle Rollers (BR) with Rounded Ends

Needle roller and cage assemblies are a complement of needle rollers held in place by a cage. The mating shaft and housing are normally used as inner and outer raceways. The unitized design allows for easy handling and installation. Controlled-contour rollers reduce and stresses and permit operation under moderate misalignment. A variety of cage designs, styles and materials, as well as multiple roller paths and segmented constructions, meet broad application requirements.

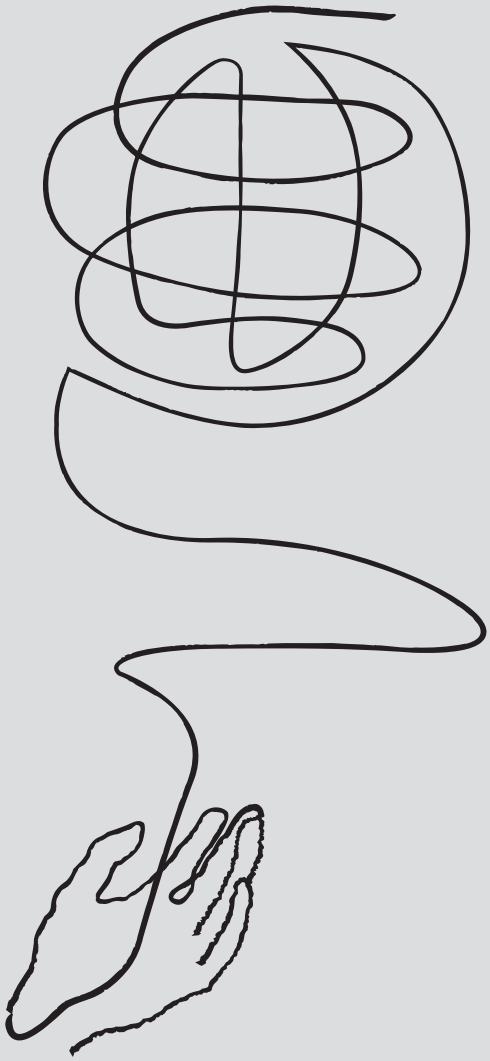
THRUST BEARINGS & RINGS

- Ball, Cylindrical and Taper Roller Thrust Bearings
- Thrust & Fly Wheel Rings

Kasuma thrust bearings are designed specifically to manage thrust loads and provide high-shock-load resistance in industrial and automotive applications. We manufacture six basic designs of thrust bearings that include ball, cylindrical, machined tapered, stamped tapered, spherical and needle.

CLUTCH BEARINGS

PILLOW BLOCK & CENTER BEARINGS (HUB)



Beyond a dream,
there lies a

VISION

NETWORK

Kasuma Bearings. Started as a gem of an idea in India, and it has soon spread its branches wide across the world. Here, we have a vision to grow in the business of bearings; delivering superior value to our customers, suppliers, share holders and employees at large, and to pursue excellence through total quality management. Something that has made us the leading distributor for our domestic market. Although, we don't just stop there. We target the world.

Slowly, but steadily emerging as one of the leading exporters in the country, our reach currently comprises of over 38 countries, across 7 continents. Firms from across the world have placed their trust on us with their specific product requirements. More so we have almost complete range of bearings for the American, European and Japanese markets. And, we are proud to say that – We haven't let anyone down. If you come to look at it, it has only been possible because of the sense of loyalty and pride that permeates through the dynamic workforce of Kasuma Bearings. So to speak, with an ambitious growth path for itself and with a sharp focus on exports, the world is not enough for us.

You can find our presence in most of the commercial events like exhibitions and seminars globally.

your global search for quality bearing ends here

THE SUCCESS OF YOUR COMPANY DEPENDS UPON THE QUALITY OF YOUR PRODUCTS

We have a variety of bearings for the following sectors...

- Automotive
- Industrial
- Agriculture
- Railway
- Aerospace
- Marine
- Earth Movers & Cranes

KASUMA®

B·E·A·R·I·N·G·S

YOUR GLOBAL SEARCH FOR QUALITY BEARING ENDS HERE

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