



Bearing Units Expert &  
Leading Supplier



**BEARING  
UNITS**

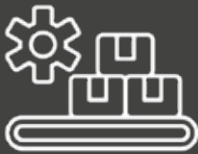
*Founded in 1969*



**50 Years  
of Experience**



*Annual production and sales up to*  
**18 Million Pieces**



*Fully automated production line*  
**300.000 m<sup>2</sup>**



*Supplying*  
**72 countries**  
**Word Wide**



*Wide Stocking*  
**4000 Euro Palette**  
**Space**



# Production Capacity

- 2 millions sets insert bearing rings automatic turning line per month
- 1 Automatic grinding line
- 2 Heat Treatment lines
- 12 automatic assembly lines
- 5 casting lines
- automatic machining line for housings
- Automatic painting line; capacity of 1.4 million pcs per month
- Automatic assembly and packing line

# Product Portfolio

Insert Bearings & Bearing Units



Stainless Steel Thermo Plastic/ Silver



High Temperature



High Speed & Silent



Maintenance Free (Long Life)



Corrosion Resistant



Low Torque Rotation



Plummer Blocks



Customized



# Product Portfolio

Adapter Sleeve



Back Seal



End Cap



Agriculture Bearings



Agriculture HUB Bearings



4 Point Contact HUB Units



# Insert Bearings

## SHAFT FASTENING WITH SET SCREWS



**UC**



**SB**



**CSB**

## SHAFT FASTENING WITH ECCENTRIC LOCKING COLLAR



**NA**



**SA**



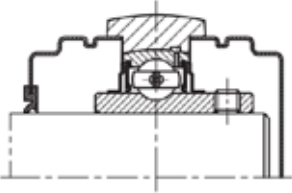

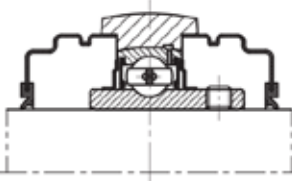

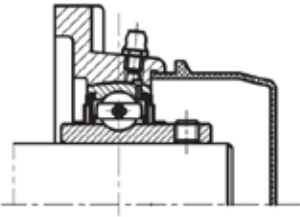

**CSA**

## SHAFT FASTENING WITH ADAPTER SLEEVE







**UK**







# Protective End-Cover Designs

Cover Types	Benefits
 <p>Closed Pressed Steel Cover</p>	 <ul style="list-style-type: none"> <li>Ensures longer bearing life even under rough conditions by protecting the bearing against external influences</li> </ul>
 <p>Open Pressed Steel Cover</p>	 <ul style="list-style-type: none"> <li>Improve safety</li> <li>Prevent the discharge of lubricants into sensitive environments</li> </ul>
 <p>Closed Plastic Cover</p>	 <ul style="list-style-type: none"> <li>Avoid touching rotation part to ensure security</li> </ul>

# Housing Materials

<h3>Grey Cast Iron</h3>	<h3>Sheet Steel</h3>
 <ul style="list-style-type: none"> <li>Most commonly used material</li> </ul>	 <ul style="list-style-type: none"> <li>Best for space saving in tight application areas</li> <li>Preferred in low impact application areas</li> <li>Makes the design lighter</li> </ul>
<h3>Stainless Steel Cast Iron</h3>	<h3>Composite/ Thermoplastic Material</h3>
 <ul style="list-style-type: none"> <li>Best for high temperature (+400) applications</li> <li>High corrosion resistance</li> </ul>	 <ul style="list-style-type: none"> <li>Washable since outer coating is thermoplastic</li> <li>100% hygiene when washed as its outer surface is smoother compared to metal</li> <li>Specifically preferred in Food Industry</li> </ul>
































# Sealing Solutions

Seals for Insert Bearings	Applicable Bearings	Features
 <p data-bbox="272 439 451 510">J Type Rubber Seal</p>	<p data-bbox="520 416 727 450">SB, SA, JB, CS</p> <p data-bbox="520 490 743 557">(Standard on SB, JB, CS Series)</p>	<p data-bbox="810 356 1289 389"><b>LOW FRICTION RUBBER SEALING</b></p> <p data-bbox="810 396 1517 618">Synthetic rubber is moulded into the core piece. It is inserted into groove of the outer ring and fitted in the inner ring's outer diameter. It has low friction, high oil resistance and good mechanical stability. Best for normal environmental conditions.</p>
 <p data-bbox="272 757 424 828">H Type Metal Seal</p>	<p data-bbox="520 725 671 759">SB, SA, JA</p> <p data-bbox="520 799 743 866">(Standard on SA, JA Series)</p>	<p data-bbox="810 636 1276 669"><b>COMBINED LONG-LIFE SEALING</b></p> <p data-bbox="810 676 1509 938">Synthetic rubber is moulded inside the steel plate and fixed with the outer ring of the bearing. The inner ring's outer diameter contacts synthetic rubber which helps friction resistance to be decreased. The steel plate protects the rubber seal. This combined effect ensures the long service life even under rough conditions.</p>
 <p data-bbox="272 1093 416 1164">SL Type Dual Seal</p>	<p data-bbox="520 1032 759 1099">UC, HC, UK, UCX, SER, NC, ERC</p> <p data-bbox="520 1140 748 1245">(Standard on UC, HC, UK, UCX, SER Series)</p>	<p data-bbox="810 978 1134 1012"><b>DUST PROOF SEALING</b></p> <p data-bbox="810 1019 1509 1245">Oil seal is fixed in the outer ring inner diameter groove, while the slinger is set at the inner ring outer diameter. The simultaneous revolution with inner ring generates the wind pressure for dust-proof property. This creates the ideal labyrinth, guaranteeing the dust-proof sealing.</p>
 <p data-bbox="272 1413 416 1518">L3 Type Triple-Lip Seal</p>	<p data-bbox="520 1408 703 1476">UC, HC, UCX, SER, NC, ERC</p>	<p data-bbox="810 1326 1313 1359"><b>SEALING FOR HARSH CONDITIONS</b></p> <p data-bbox="810 1366 1501 1588">The metal cap and synthetic rubber seal are moulded together to form a single seal. Seal lip has sufficient tightening allowance. The lip layers are of triple construction which is ideal for medium to high polluted environments (dust, water etc.)</p>
 <p data-bbox="272 1720 368 1792">F Type Seal</p>	<p data-bbox="520 1711 759 1816">UC, HC, UK, UCX, SA, SB, SER, NC, JA, JB, ERC</p>	<p data-bbox="810 1641 1485 1675"><b>SEALING FOR HIGH VIBRATION APPLICATIONS</b></p> <p data-bbox="810 1682 1501 1872">Consists of inner steel plate, outer steel plate and a rubber washer. It is fixed in the outer ring groove, therefore, resists loosening during assembly that may be caused by excessive grease or vibration via impact.</p>
 <p data-bbox="272 2011 424 2083">Combined Seal</p>		<p data-bbox="810 1910 1353 1944"><b>SEALING FOR EXTREME CONDITIONS</b></p> <p data-bbox="810 1951 1509 2175">The triple lip seal is completely covered by a massive steel protector. The zinc-coated impact shield is additionally equipped with a lip seal and strongly secured on a knurled seat. Ideal for; extremely polluted environments, shock resistance, low rotation speeds, high friction</p>










# Housings with Bearing Inserts









## Cast Iron Housings with Chrome Steel Bearing Inserts

BEARING INSERTS / HOUSINGS								Suitable protective covers for combination with (available for shaft-Ø 12-65mm)*	
		UC2..G2 / UC3..G2	US2..G2	EX2..G2 / EX3..G2	ES2..G2	LK2..G2H	UK2..G2H / UK3..G2H	UC2..G2 / US2..G2 / LK2..G2H / UK2..G2H	EX2..G2 / ES2..G2
<b>PILLOW BLOCKS</b>	 PE2	UCPE2	USPE2	EXPE2	ESPE2	LKPE2+H	UKPE2+H	SCC2 / SCO2	SCCE2 / SCOE2
	 PLE2	UCPLE2	USPLE2	EXPLE2	ESPLE2	LKPLE2+H	UKPLE2+H	SCC2 / SCO2	SCCE2 / SCOE2
	 P2 / P3	UCP2 / UCP3	USP2	EXP2 / EXP3	ESP2	LKP2+H	UKP2+H / UKP3+H	SCC2 / SCO2	SCCE2 / SCOE2
	 PH2	UCPH2	USPH2	EXPH2	ESPH2	LKPH2+H	UKPH2+H	SCC2 / SCO2	SCCE2 / SCOE2
	 PAE2	UCPAE2	USPAE2	EXPAE2	ESPAE2	LKPAE2+H	UKPAE2+H	SCC2 / SCO2	SCCE2 / SCOE2
	 PG2	UCPG2	USPG2	EXPG2	ESPG2	LKPG2+H	UKPG2+H	SCC2 / SCO2	SCCE2 / SCOE2
	 PA2	UCPA2	USPA2	EXPA2	ESPA2	LKPA2+H	UKPA2+H	SCC2 / SCO2	SCCE2 / SCOE2
<b>FLANGED UNITS</b>	 FE2	UCFE2	USFE2	EXFE2	ESFE2	LKFE2+H	UKFE2+H	SCC2 / SCO2	SCCE2 / SCOE2
	 F2 / F3	UCF2 / UCF3	USF2	EXF2 / EXF3	ESF2	LKF2+H	UKF2+H / UKF3+H	SCC2 / SCO2	SCCE2 / SCOE2
	 FCE2	UCFCE2	USFCE2	EXFCE2	ESFCE2	LKFCE2+H	UKFCE2+H	-	-
	 FC2	UCFC2	USFC2	EXFC2	ESFC	LKFC2+H	UKFC2+H	SCC2 / SCO2	SCCE2 / SCOE2
	 FEE2	-	USFEE2	-	ESFEE	-	-	-	-
	 FTE2	-	USFTE2	-	ESFTE	-	-	-	-
	 FLE2	UCFLE2	USFLE2	EXFLE2	ESFLE2	LKFLE2+H	UKFLE2+H	SCC2 / SCO2	SCCE2 / SCOE2
	 FL2 / FL3	UCFL2 / UCFL3	USFL2	EXFL2 / EXFL3	ESFL2	LKFL2+H	UKFL2+H / UKFL3+H	SCC2 / SCO2	SCCE2 / SCOE2
	 FLZ2	UCFLZ2	USFLZ2	EXFLZ2	ESFLZ2	LKFLZ2+H	UKFLZ2+H	-	-
	 FD2	-	USFD2	-	ESFD2	-	-	-	-
	 FAE2	-	USFAE2	-	ESFAE2	-	-	-	-
	 FA2	UCFA2	USFA2	EXFA2	ESFA2	LKFA2+H	UKFA2+H	SCC2 / SCO2	SCCE2 / SCOE2
	 FS3	UCFS3	-	EXFS3	-	-	UKFS3+H	-	-
<b>TENSIONER HANG UP CARTRIDGE UNITS</b>	 T2 / T3	UCT2 / UCT3	UST2	EXT2 / EXT3	EST2	LKT2+H	UKT2+H / UKT3+H	SCC2 / SCO2	SCCE2 / SCOE2
	 T2+WB	UCT2+WB	UST2+WB	EXT2+WB	EST2+WB	LKT2+H+WB	UKT2+H+WB	SCC2 / SCO2	SCCE2 / SCOE2
	 SP2	UCSP2	USSP2	EXSP2	ESSP2	LKSP2+H	UKSP2+H	SCC2 / SCO2	SCCE2 / SCOE2
	 C2 / C3	UCC2 / UCC3	USC2	EXC2 / EXC3	ESC2	LKC2+H	UKC2+H / UKC3+H	-	-
	 EHE2	UCEHE2	USEHE2	EXEHE2	ESEHE2	LKEHE2+H	UKEHE2+H	-	-








## Pressed Steel Housings with Chrome Steel Bearing Inserts

BEARING INSERTS / HOUSINGS			
		US2..G2	ES2..G2
	PP2	USPP2	ESPP2
	PF2	USPF2	ESPF2
	PFL2	USPFL2	ESPFL2
	PFT2	USPFT2	ESPFT2
	PFE2	USPFE2	ESPFE2

## Stainless Steel Housings with Stainless Steel Bearing Inserts

BEARING INSERTS / HOUSINGS				Suitable protective covers for combination with (available for shaft-Ø 12-60mm)*		
		SUC2	SUC2..FG1**	SES2	SUC2 / SUC2..FG1**	SES2
	SP2	SUCP2	SUCP2..FG1	SESP2	SCC2 / SCO2	SCCE2 / SCOE2
	SPA2	SUCPA2	SUCPA2..FG1	SESPA2	SCC2 / SCO2	SCCE2 / SCOE2
	SF2	SUCF2	SUCF2..FG1	SESF2	SCC2 / SCO2	SCCE2 / SCOE2
	SFL2	SUCFL2	SUCFL2..FG1	SESFL2	SCC2 / SCO2	SCCE2 / SCOE2
	SFB2	SUCFB2	SUCFB2..FG1	SESFB2	SCC2 / SCO2	SCCE2 / SCOE2
	ST2	SUCT2	SUCT2..FG1	SEST2	SCC2 / SCO2	SCCE2 / SCOE2

## Thermoplastic Housings with Stainless Steel Bearing Inserts

BEARING INSERTS HOUSINGS				Suitable protective caps (available for shaft-Ø 15-40 mm)
		MUC2..FD	SUC2..FG1**	
	PPL2	MUCPPL2	SUCPPL2..FG1	CV2 / CF2
	TBL2	MUCTBL2	SUCTBL2..FG1	CV2 / CF2
	FPL2	MUCFPL2	SUCFPL2..FG1	CV2 / CF2
	NFL2	MUCNFL2	SUCNFL2..FG1	CV2 / CF2
	FBL2	MUCFBL2	SUCFBL2..FG1	CV2 / CF2

## Material Handling

- » Bearings for smooth running
- » Special sealing solutions according to the materials
- » Resistance to customer application conditions
- » Developing and producing customized products according to handling process



## Solutions for Silage Making



## Agricultural Dryer



## Agricultural Products Storage



## Agricultural Machinery

- Seeding
- Tillage
- Combine harvesting
- Silage making
- Baling
- Agricultural dryer
- Agricultural products storage



## Solutions for Seeding



## Solutions for Combine Harvesting



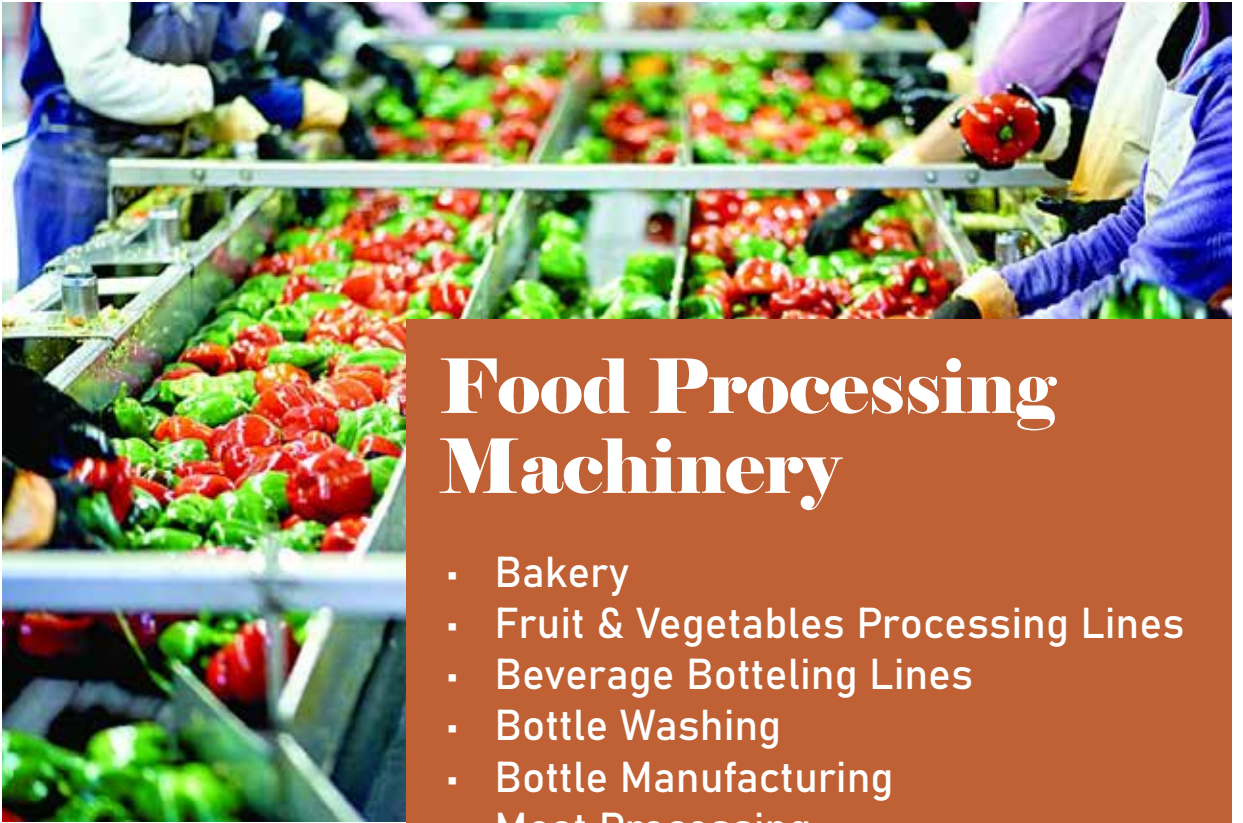
## Solutions for Tillage



## Solutions for Baling



INDUSTRIAL SOLUTIONS



## Food Processing Machinery

- Bakery
- Fruit & Vegetables Processing Lines
- Beverage Bottling Lines
- Bottle Washing
- Bottle Manufacturing
- Meat Processing
- Pasta Processing Lines
- Dairy
- Seafood
- Sauce
- Commercial Kitchens

### Bakery



### Pasta



### Fruit, Vegetables & Sauce



### Beverage



## Meat



## Dairy



## Seafood / Bottle Washing



## Bottle Manufacturing



## Commercial Kitchens





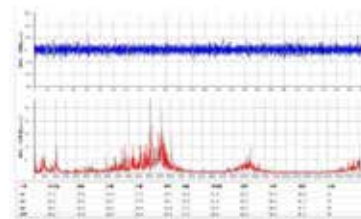
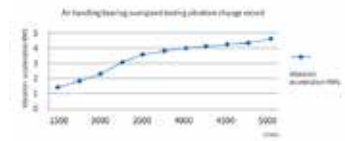
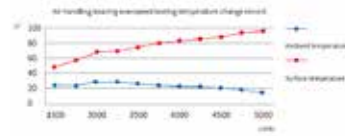
## Air Handling (HVAC)

- **Optimized bearing internal design**
  - » *Longer life*
  - » *Higher reliability*
- **More accurate rotation**
  - » *Higher accuracy than P6*
- **Noise & vibration test EMQ standards**
  - » *No abnormal noise*
  - » *Trouble-free rotation*
- **Premium grease**
  - » *Reliable lubrication performance*
  - » *Increase grease service life*
  - » *Extended bearing life*



# Air Handling (HVAC)

- **Special material for sealing rubber**
  - » *Excellent anti-wear performance*
  - » *Prolong seal integrity*
- **Strong housing structure**
  - » *Better load distribution*
  - » *Safe and reliable*
- **Special AH housing fit**
  - » *Special design for air handling*
  - » *More stable*
- **Resistance to various conditions**
  - » *High temperature (up to 380 C)*
  - » *Dirty & moisty operating environment*



INDUSTRIAL SOLUTIONS

# Application Specific Solutions

## High Speed Bearing Units

- High precision bearings for smooth and quiet running
- Special bearing unit design
- High quality grease
- Increased service and bearing life
- Customized solutions for specific needs
- Low vibration



## High Temperature Bearing Units

- Eco-friendly bearing units
- Smooth running at extreme temperatures
- Maintenance free solutions for cost savings
- Simple and easy replacement
- Special sealing design



## Maintenance Free Bearing Units

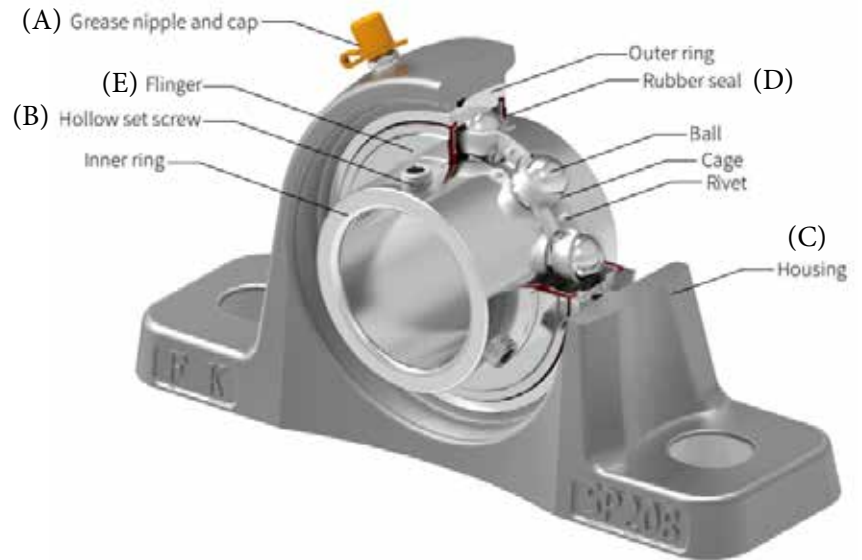
- Extended bearing life
- High reliability
- Trouble free rotation
- Special sealing solutions
- Strong housing structure



## IP69K Test

The product is placed on a turntable that rotates five times a minute. It's sprayed at 80 to 100 bar/1,160 to 1,450 PSI, in phases of 14 to 16 l/min, and at temperatures up to 176° F/80° C. The nozzle must be within four to six inches from the product, and the spray must be directed from four different angles (0°, 30°, 60°, and 90°) for 30 seconds at a time. The product is given the IP69K rating if it completely resists water ingress under these conditions.

# Application Specific Solutions



## Corrosion Resistant Bearing Units

- **(A) Grease nipple:** For lubricating food grade grease.
- **(B) Hollow set screw:** Two hollow set screws ensure easy and firm mounting on a shaft
- **(C) Housing:** Stainless steel housing or PBT plastic housing
- **(D) Rubber seal:** NBR or silicon rubber seal placed between the inner ring and the outer ring prevent grease from leaking as well as preventing moisture and dust from entry.
- **(E) Flinger:** Stainless steel flinger excludes dust efficiently

## Typical Applications



