



**Korta**  
industrial



**LET'S MOVE TOGETHER**

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**FACING LINEAR MOTION  
CHALLENGES SINCE 1963**

# CONTENTS

## 01

### Our company

About us	04
Our facilities	08
Quality	10

## 03

### Manufacturing

Our manufacturing	16
Product range	18
Custom made solutions	20

## 05

### Korta Service

Korta Service	26
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## 02

### Our technologies

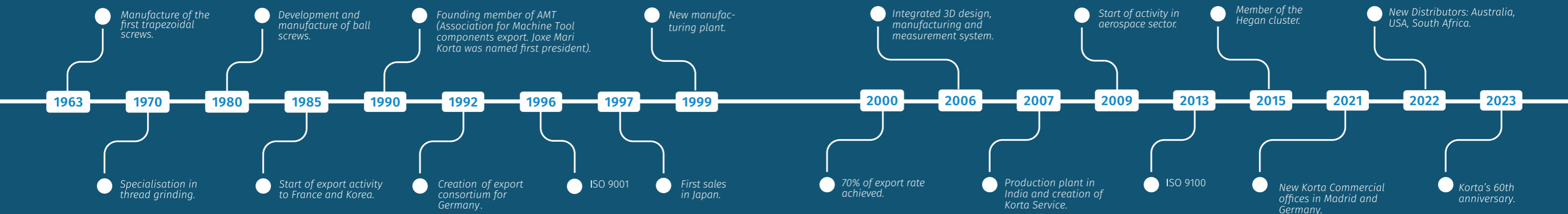
KRR	12
NTG	13
BSR	14
S+	15

## 04

### Sectors

Sectors	22
Success stories	24

# 1 Korta, our company



## OUR MISSION

We offer linear motion solutions of the highest precision to improve the product quality of our clients working as a team.

## OUR VISION

We are the state leader in our sector, being a solid company and a reference in quality and things well done at an international level with a team of people united and committed to the client.

# Our sales team

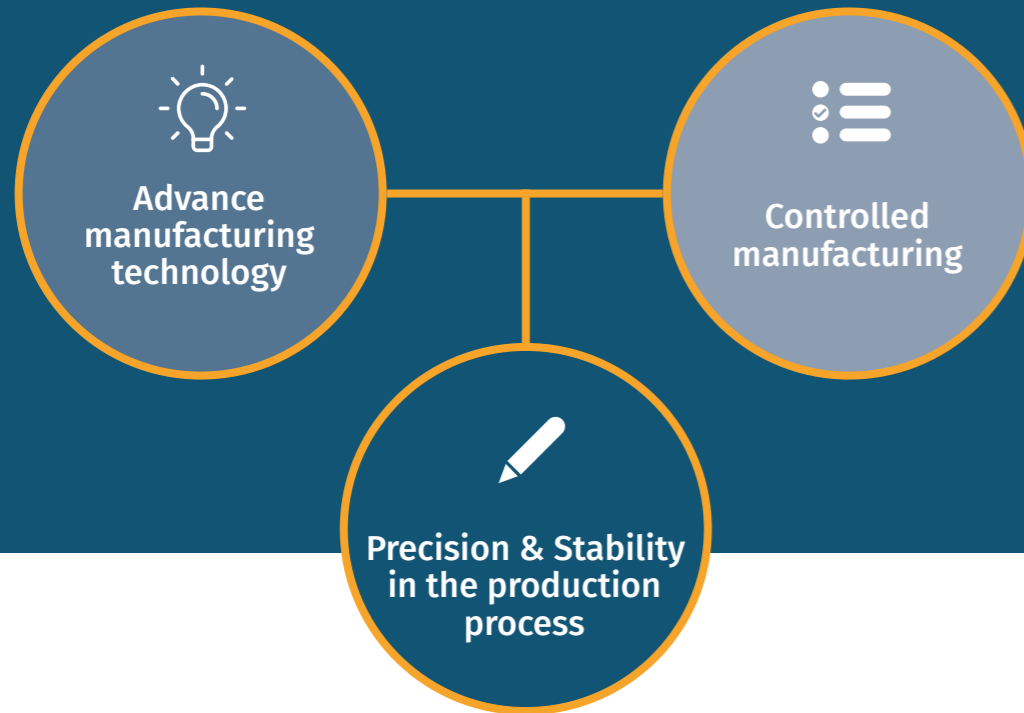


## KORTA'S COMMERCIAL NETWORK

Korta's commitment to continue to grow and meet the market's needs has led to it being present all over the world.



# Our facilities



“

Because our challenge is to move forward each day with an **INNOVATIVE ATTITUDE.**

”

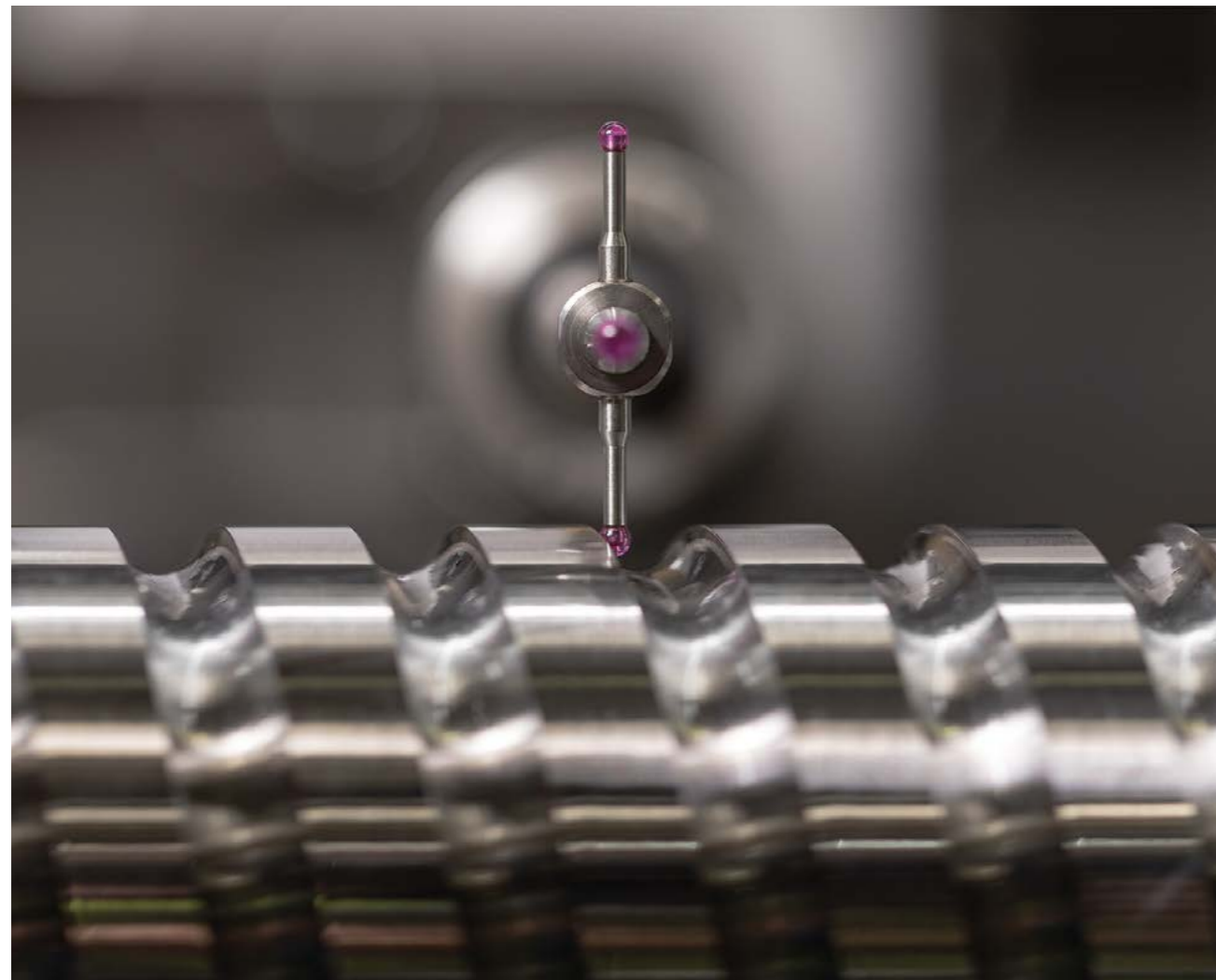
# Quality assurance

Korta is governed by a robust quality assurance policy, and is certified under the main international standards.



**ISO 9001 CERTIFICATE** KORTA obtained the UNE-EN ISO 9001 Standard Quality Assurance Certificate in 1996.

**ISO 9100 CERTIFICATE** KORTA obtained the UNE-EN ISO 9100 Standard Quality Assurance system Certificate (aeronautical sector) in 2015.



Korta has the most modern measuring and certification technology, thus guaranteeing the quality of our products:

Pitch resolution via laser interferometer.

Preload torque.

Dimensional tolerances.

Thread profile measurement.

Non-destructive detection control of grinding burns, by means of the Barkhausen Magnetic Emission analysis.”

Dynamic screw test benches.

Rigidity of the screw-nut assembly.

# 2 Our technologies

## KRR







HIGH PERFORMANCE B.S. 

KRR, our ball screws into a new scenario



The result of the commitment to continuous improvement and technological innovation. A new range of more efficient and high-performance products.

KRR significantly improves outcome, quality, and capacity of our ball screws.

-  Higher load capacities and life.
-  Lower noise
-  Lower temperature.
-  Smaller size and lower inertia
-  Increased energy efficiency.
-  Constant torque running.





## NTG

CUTTING-EDGE B.S. 









NTG for high load, NTG for high speed



Merging KRR & NTG technologies, bring KORTA the highest performance ball screw for most demanding dynamic applications.

-  DNfactor increased 40% more.
-  Lifetime increase. Up to 3 times more lifetime compared to regular ballscrews.
-  Less vibrations. Up to 8 times less vibrations compared to a regular ball screw.
-  Noise reduction in 20% compared to regular ball screws.



-  High rigidity and compact design.
-  Easy installation.
-  Long stroke travel and high speed feed.
-  Multi-drive.
-  Low inertia.
-  Smooth operation.
-  Reduce vibration and noise.
-  Patented design.

### Korta rotating nuts.

The BSR design can be customized to fit existing rotating nut design and used in most of our range between 20-80mm diameter, with single or double nut. For higher load applications we offer customized design.







Intelligent tool for auto-diagnosis.



Korta's sensorized ball screw measures the temperature and preload in a direct way.

A real, thrust and tested solution allows the clients the access to critical information from the ball screw in real time.

The technology has been developed with Ulma Embedded solutions and ETIC Innovation Center,

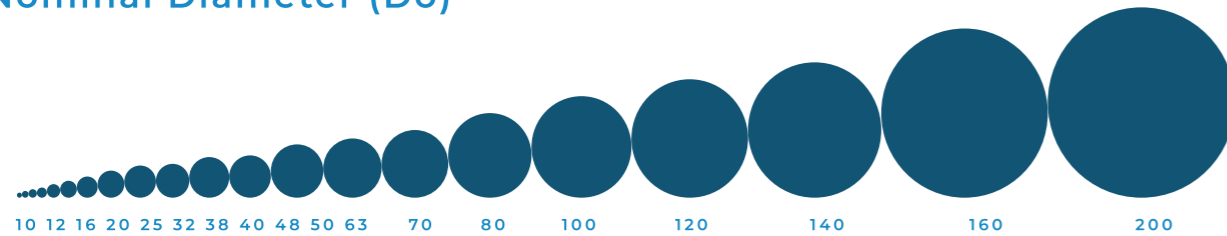
-  Sensorized
-  Connected
-  Intelligent
-  Advanced
-  Tecnological



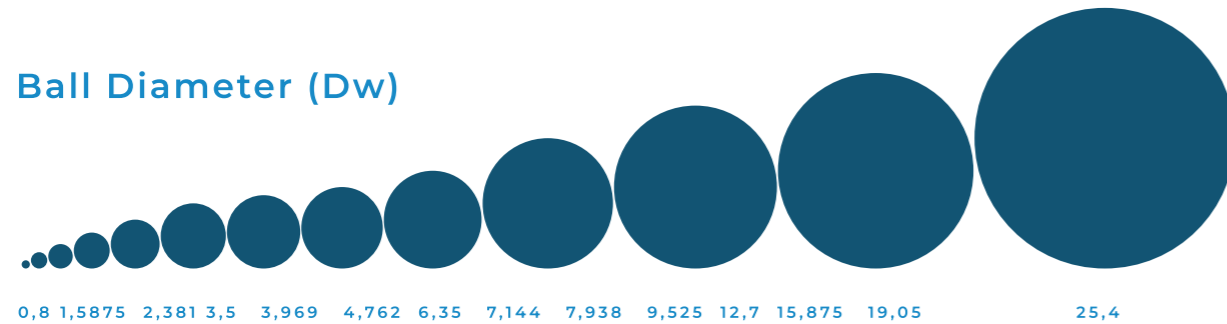
# 3 Our manufacturing

## BAR SHAFT RANGE

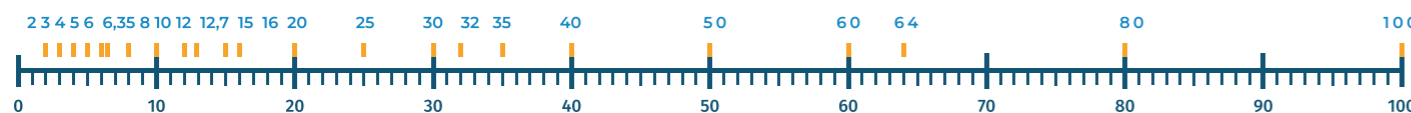
### Nominal Diameter (Do)



### Ball Diameter (Dw)



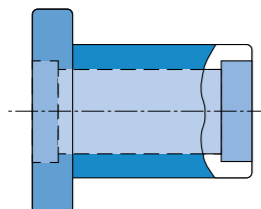
### Lead (Pho)



## NUT SHAPES

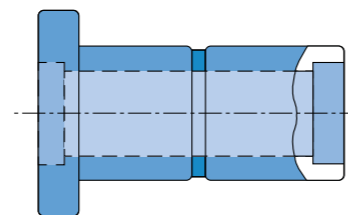
### Single nuts. BS

- Single with backlash
- Single preload by oversized balls
- Single preload by leace offset
- Single preload by start offset



### Double nuts. DBS

Preloaded by spacer



## RECIRCULATING SYSTEMS

- S type:** Single row recirculating system.
- L type:** Lateral recirculating system.
- R type:** Radial recirculating system.
- B type:** Basculant recirculating system.
- RT type:** Radial tangential recirculating

## ACCURACY GRADE

DIN, ISO			IT1			IT3			IT5			IT7
JIS	C0	C1		C3		C5		C7				
V 300p (µm)	3,5	5	6	8	12	18	23	50	25			

## MATERIALS

### Shaft

- 42CrMo4
- 440 C

### Nut

- 17CrNiMo6
- 440 C

### Balls

- 100Cr6
- 440 C
- 100Cr6+Ceramic

## EXTRA FEATURES

- Coatings
  - Armoloy
  - Magnesium phosphate
- Wipers
  - Finger wiper
  - Combination wiper

- Safety nut
- Cooling devices
  - Cooling shaft.
  - Cooling nut.
- Telescope ball screw

# Product range

## PRECISION BALL SCREWS

### Preloaded double nut

Preload is obtained by inserting a spacer between the two nuts, in such a way that the spacer thickness determines the **magnitude of the preload**. Preload is increased by **increasing the spacer thickness**.



### Oversize ball preloaded single nut

In order to increase the **rigidity** of a single nut system and to reduce **backlash**, it is possible to use two **preloading methods**. One consists in inserting balls which are slightly larger than the ball track groove diameter, so there will be 4 points of contact between the balls and the ball tracks. As two of the contact point will be **sliding wear** and **temperature increases** so this method is used for small preloads only.

### Lead offset preloaded single nut

Providing an **offset of the lead** at the central area of the nut, dividing the nut into two parts where the balls are contacting on opposite sides of the profile, generating a **force on the balls which is equivalent to the preload.**"

### Nuts with double start preloaded by pitch offset

Nuts with **double start threads** can be supplied with a **pitch offset** between the two starts, enabling **2-point contact**, have each thread the contact point on opposite side of the profile.



## HIGH LOAD BALL SCREWS

The development of the KRR range have led to the third generation of high-load ball screws. The new generation includes the following range benefits.

- **Higher load capacities and life.**
- **Lower noise.**
- **Smaller size and lower inertia.**
- **Increased energy efficiency.**
- **Possibility to incorporate this technology in more applications.**
- **Reduced maintenance requirements.**
- **When required, customized designs can be made.**



## TRANSPORT BALL SCREWS

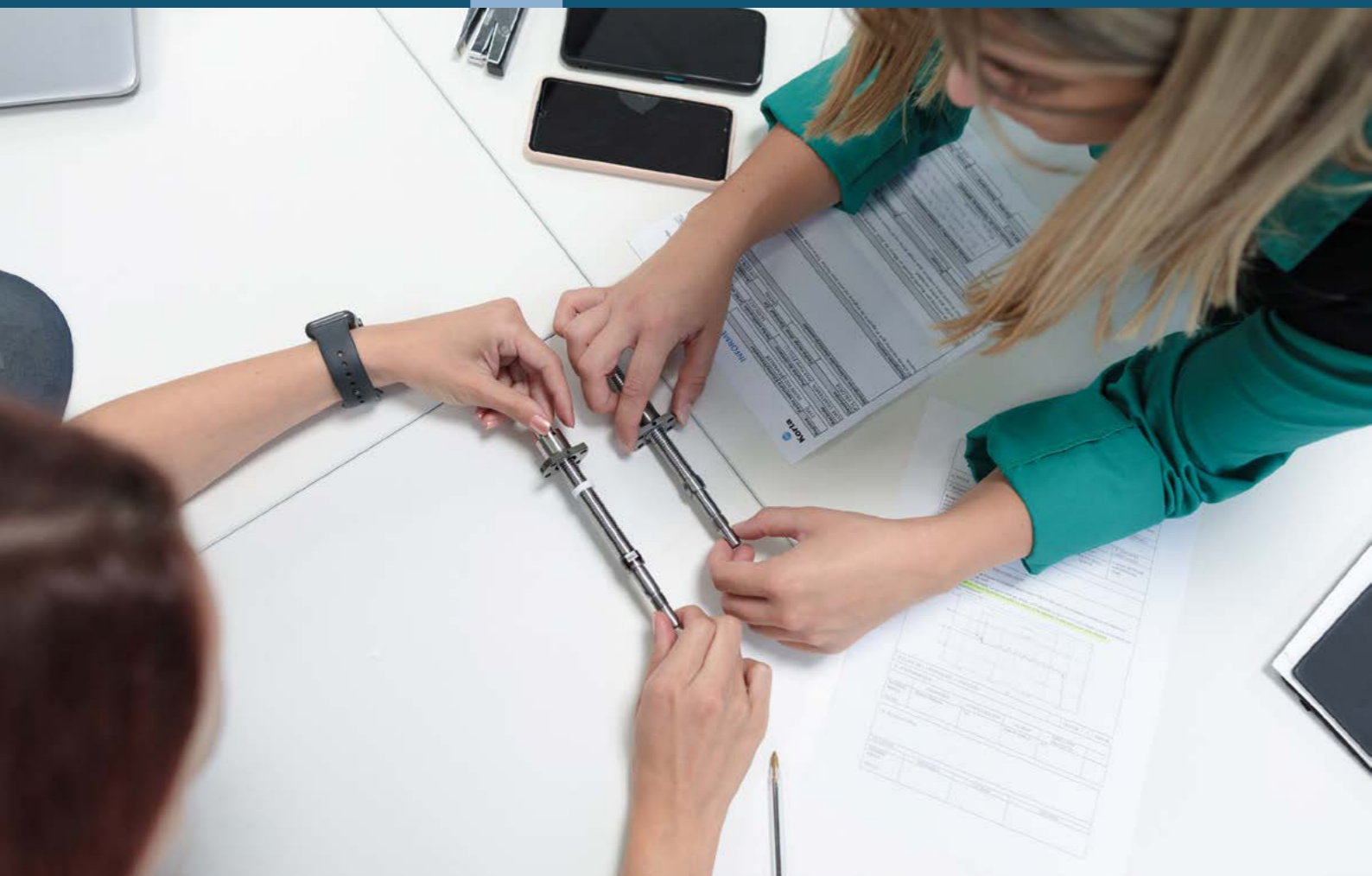
• **The increased manufacturing range** allows our customers to incorporate the advantages this type of mechanism offer to a larger number of applications.

• These **ballscrews** offer our customers the possibility to incorporate this technology in applications beyond the traditional ones, such as actuators, elevation systems and pick and place equipments.

• Machine design is simplified, and so are speed and load settings. **Efficiency and performance are improved** with significant **energy saving**. Maintenance requirements are reduced, and **oil leakage prevented**.



# Custom made solutions



KORTA has extensive experience in offering solutions that adapt to their customers' needs.



## OUR SOLUTIONS

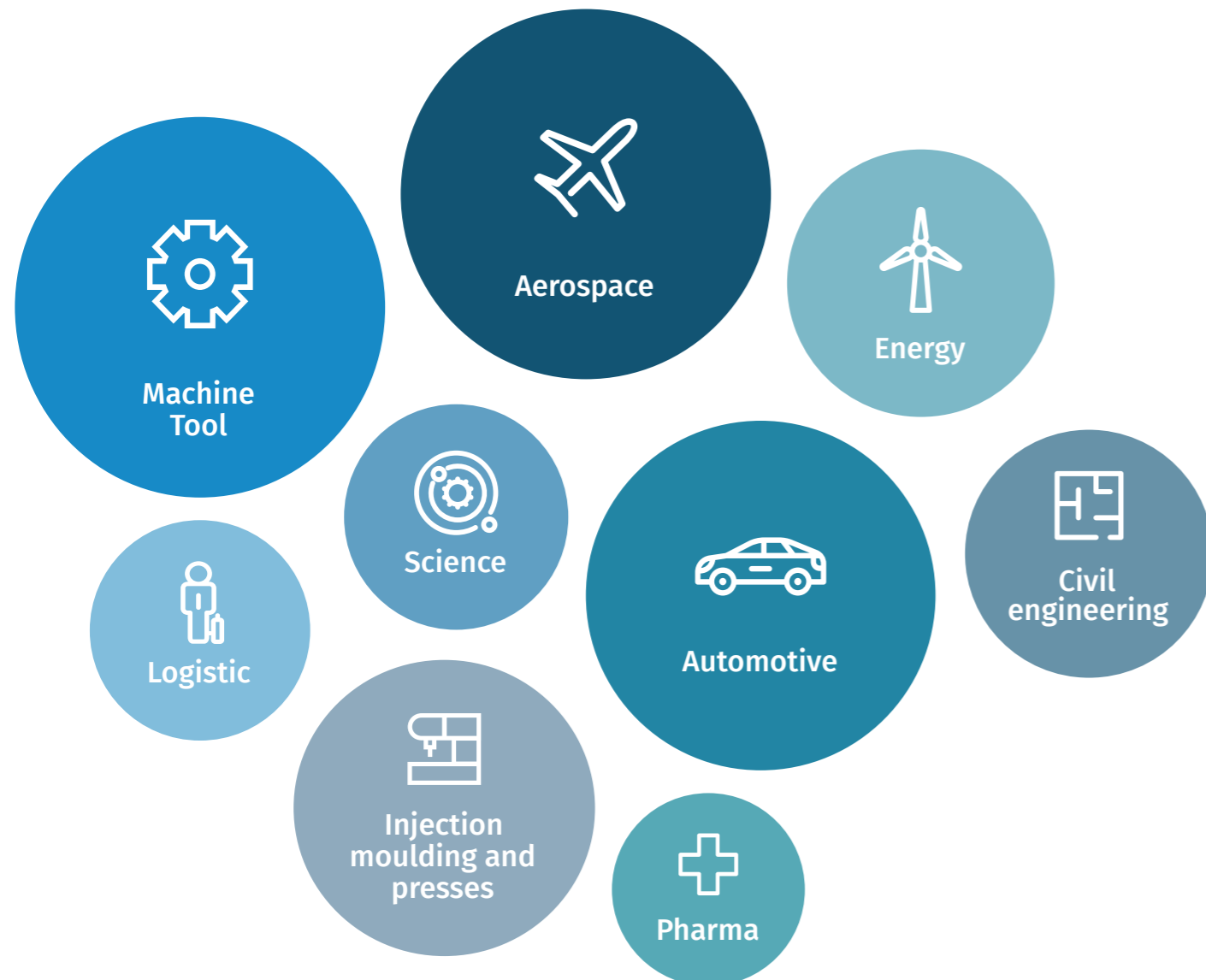
The technical department uses different designs and materials, affording solutions that **adapt** different requirements.

**KORTA** has many different innovative solutions to efficiently respond to the high demands of the new linear movement systems. The tailored solutions developed over six decades form the base that allows **KORTA** to respond to their customers' every need.



# 4 Sectors we serve

The incorporation of ball screws into all types of positioning and movement applications has also required the development of **new technologies** and the adaptation of the range.



## INDUSTRIES WE SERVE

**KORTA** has always been characterized by its high degree of flexibility, which is why they are **leaders** in a variety of sectors such as Machine tool, Automotive, energy, logistics or civil engineering.

Moreover, during this process of **constant evolution** and search for high value-added markets, **KORTA** has developed products for such demanding sectors as aerospace or injection molding, and presses.



# Success stories



## MADINAH PIAZZA SHADING PROJECT



Location:  
**Medina, Saudi Arabia**

Each umbrella is driven by Korta ball screws, allowing its opening time in just 180 seconds.

**250**  
UMBRELLAS

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Each umbrella with a shaded surface area of 600 m<sup>2</sup> and 21.7 meters high, have been installed in the area surrounding the mosque.

**150,000M<sup>2</sup>**  
SHADE

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With these impressive giant umbrellas, the ambient temperature within the cast of its shade is reduced by at least 8°C.



**Korta**  
service

KORTA BALL SCREW  
REPAIRS UP TO 24H\*



**24H\***



Our division, Korta Service, is exclusively dedicated to the **repair** and **reconditioning** of ball screws of all brands.

[service@korta.com](mailto:service@korta.com)

[WWW.KORTA.COM](http://WWW.KORTA.COM)

\*24h repairs only available for Korta ball screws when possible.

