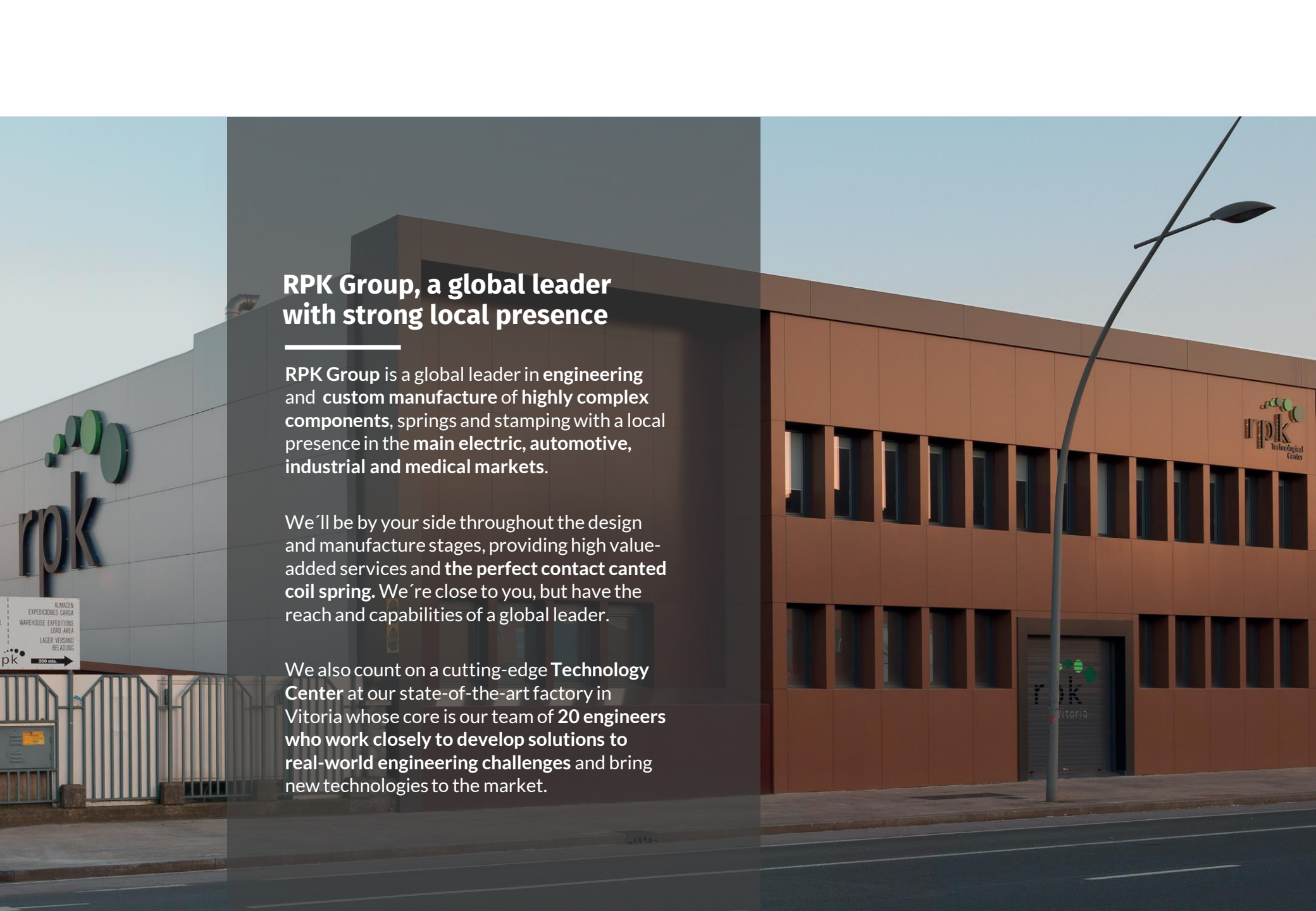


CONTACT SPRINGS

A photograph of a modern, two-story industrial building with a brown facade and large windows. The building is identified as the RPK Technological Center in Vitoria. A semi-transparent dark grey box is overlaid on the left side of the image, containing white text. The background shows a clear sky and a street with a lamp post.

RPK Group, a global leader with strong local presence

RPK Group is a global leader in **engineering** and **custom manufacture** of **highly complex components**, springs and stamping with a local presence in the **main electric, automotive, industrial and medical markets**.

We'll be by your side throughout the design and manufacture stages, providing high value-added services and **the perfect contact canted coil spring**. We're close to you, but have the reach and capabilities of a global leader.

We also count on a cutting-edge **Technology Center** at our state-of-the-art factory in Vitoria whose core is our team of **20 engineers** who **work closely to develop solutions to real-world engineering challenges** and bring new technologies to the market.

ACCURATE CONDUCTIVITY, ALWAYS

CONTACT SPRINGS

OUR CONTACT SPRINGS ENSURE ELECTRICAL CONTACT TO MANAGE HIGH, MEDIUM AND LOW CURRENT OVER LONG PERIODS

RPK Group **contact springs** are used to **manage more power in less space at cooler running temperatures**. Our contact canted coil springs, which serve as multiple contact points for optimal conducting or grounding capability in static or dynamic electrical applications, ensure consistent, reliable connections, even under shock and vibration.

Many design factors, including spring force, wire material, wire diameter, coil height, and plating thickness, contribute to the performance of the canted coil spring. Our engineering team designs these canted coil springs that are not just **perfect for managing power**, but also for **mechanical retention** due to their constant force and for **electromagnetic (EMI) shielding**.



BENEFITS

CONTACT SPRINGS



Our contact springs work in **static or dynamic electrical applications**. We assure **reliable connections even under shock and vibration**



Plating can make contact springs **more efficient in humid or corrosive environments**, or in any application that calls for **higher conductivity**



High-precision welded spring ends



Perfect for mechanical retention due to their constant force

ELECTRICAL CONTACT,
ALL COILS WORK AS CONTACT
POINTS

PLUG CONNECTIONS
(ELECTRICAL & MECHANICAL)

ELECTROMAGNETIC
SHIELDING

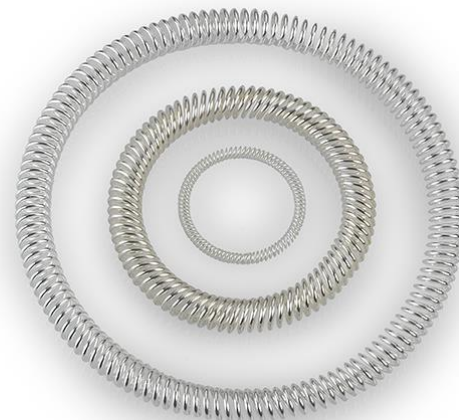
MECHANICAL
RETENTION

DIMENSIONS & MATERIALS

CONTACT SPRINGS

- **DIMENSIONS (FROM 0.3 MM. (0.012 IN)) EXAMPLES:**

WIRE DIAMETER	HEIGHT	WIDTH	INNER DIAMETER
0.3 mm. (0.012 in)	1.7 mm. (0.067 in)	2.0 mm. (0.079 in)	8.0 mm. (0.31 in)
0.4 mm. (0.016 in)	3.0 mm. (0.12 in)	3.6 mm. (0.14 in)	19.0 mm. (0.75 in)
0.5 mm. (0.02 in)	4.1 mm. (0.16 in)	5.0 mm. (0.2 in)	20.0 mm. (0.79 in)
0.8 mm. (0.03 in)	6.0 mm. (0.24 in)	7.3 mm. (0.29 in)	25.0 mm. (0.98 in)
1.0 mm. (0.04 in)	7.5 mm. (0.3 in)	9.0 mm. (0.35 in)	30.0 mm. (1.18 in)
1.3 mm. (0.05 in)	9.0 mm. (0.35 in)	10.9 mm. (0.43 in)	50.0 mm. (1.97 in)
1.5 mm. (0.06 in)	10.5 mm. (0.41 in)	12.7 mm. (0.5 in)	60.0 mm. (2.36 in)
2.0 mm. (0.08 in)	15.0 mm. (0.59 in)	17.5 mm. (0.7 in)	72.0 mm. (2.83 in)



- **MATERIALS:** COPPER K88, STEEL, OTHER MATERIALS AS REQUIRED

- **COATINGS:** SILVER, GOLD, NICKEL (FROM 0.5 μ m TO 10 μ m)

APPLICATIONS

CONTACT SPRINGS

ELECTRIC & INDUSTRY

- Mechanical plug connections
- Electrical plug connections
- Conductor connections
- Single pole connections
- Bus bar connections
- Single pole connectors
- Modular connectors
- Battery connectors
- Electromagnetic shielding (EMC)
- 3-position switches
- Isolation switches
- Earthing switches
- Disconnecter switches
- Industrial switches
- Vacuum contactors
- EPU (Electrical Power Unit)
- Plug-in tech
- Panel couplings
- Electrical couplings
- Cable ends
- High-voltage power contacts
- On board fast chargers
- Charging plug devices

- Encapsulated pole units
- MU GIS alignment springs
- Dead tank breakers
- VCB Vacuum Circuit Breakers
- Solar panels
- Power distribution systems
- DES systems
- Converters and inverters
- Wireline tools
- Arm and joints in robotics

AUTOMOTIVE & E-MOBILITY

- Connectors
- Bus bar connections
- Battery connectors
- Charging plug devices
- Charging controllers
- On-board chargers
- Electric power control unit
- Panels and interior parts

MEDICAL

- Powered surgical tools
- Diagnosis equipment
- Medical pumps
- Arm and joints in robotics
- Modular connectors



HOW DO WE DO IT?

Engineering, design, planning and product development

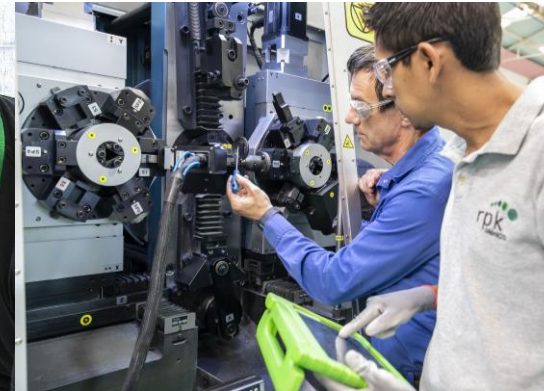
Our engineers work alongside our customers to find the best solution for them, applying scientific methods and knowledge accumulated over almost 50 years.

- Engineering
- Product design
- FEM/FEA analysis with ANSYS
- Prototyping
- Tooling development
- Research of processes and materials
- Design and development of special machinery
- Cost optimization

Machine development

At RPK Group, we use **state-of-the-art technologies** for all our manufacturing processes, from CNC machines to R&D+I projects, testing, control and quality inspection (with machine-integrated vision control technology for quality control) as well as deburring, cleaning, oiling and packaging solutions.

We have an **in-house machine and tooling workshop** that enables us to offer flexible solutions and meet our customers' specifications.





Materials

The choice of the right material, surface treatment and coating are critical for the final quality and safety of the product. From stainless steels to the most specific materials bought in from the best suppliers.

Key Processes

- Clean room in Europe, North America and China
- Passivation
- Ultrasonic cleaning
- Environment cleaning
- Custom packaging solutions in clean room such as Tape and Reel Packing
- Machine-integrated vision control technology (100% unitary control)
- Plastic assemblies
- Deburring
- Grinding
- Cold & hot presetting and hot setting
- Shot peening & vibrating
- Special coatings
- Overmolding

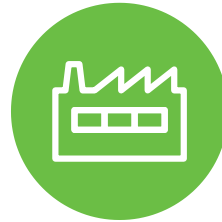
■ INDUSTRIES



AUTOMOTIVE



MEDICAL



INDUSTRIAL



ELECTRIC



E-MOBILITY



POWER TOOLS



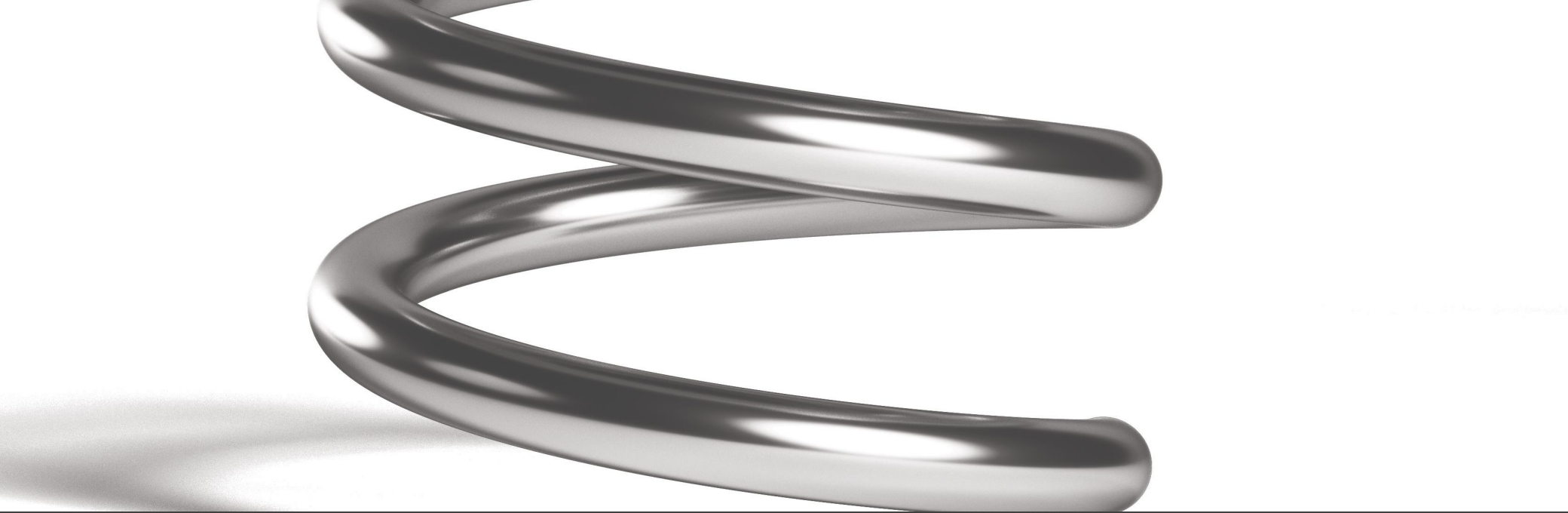
OTHER
INDUSTRIES



CONSUMER
GOODS

WORLDWIDE OPERATIONS





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rpk.es