

## WORLDWIDE OPERATIONS





# ORIGINAL POWERTRAIN APPLICATIONS

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EGR, TURBO, GASOLINE INJECTORS, ROLLER FOLLOWER FINGER (RFF), DIESEL & GASOLINE PUMPS, TWO STEP VALVE (TSV), VARIABLE CAM TIMING (VCT)(VCP), ELECTRONIC THROTTLE CONTROL (ETC, ETB) MODULAR FUEL UNIT





## FUEL DELIVERY

DIESEL PUMP



- Plunger Spring
- Tappet Spring
- Inlet Valve Spring
- Outlet Valve Spring
- Press Relieve Valve Spring





GDI GASOLINE PUMP



- Plunger Spring
- Inlet Valve Spring
- Outlet Valve Spring
- Press Relieve Valve Spring
- Spacers



GDI GASOLINE INJECTOR



- Armature Spring
- Core Spring







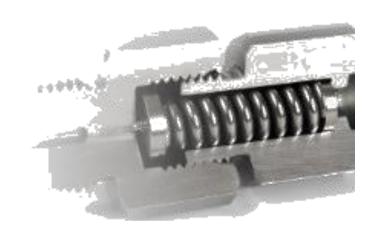


# FUEL DELIVERY

COMMON RAIL



Press Relieve Valve Spring



FUEL MODULE



- Fuel Sender Arm
- Clip
- Spring





# VARIABLE VALVE & CAM TIMING

CAM PHASER



- Spiral Spring
- Torsion Spring
- Spring Lock Pin
- Spring Check Valve
- Spring Bypass
- Spring Diverter





OCV VALVE



OCV Spring



CYLINDER DISCONNECTION



- Torsion Spring
- Pin Spring







## VARIABLE VALVE & CAM TIMING

# VARIABLE VALVE OPENING



Press Relieve Valve Spring



#### ROLLER FINGER



- Fuel Sender Arm
- Clip
- Spring





## THERMAL

EGR VALVE





- Torsion Spring
- Compression Spring
- Spiral Spring









- Compression Spring
- Wave Spring

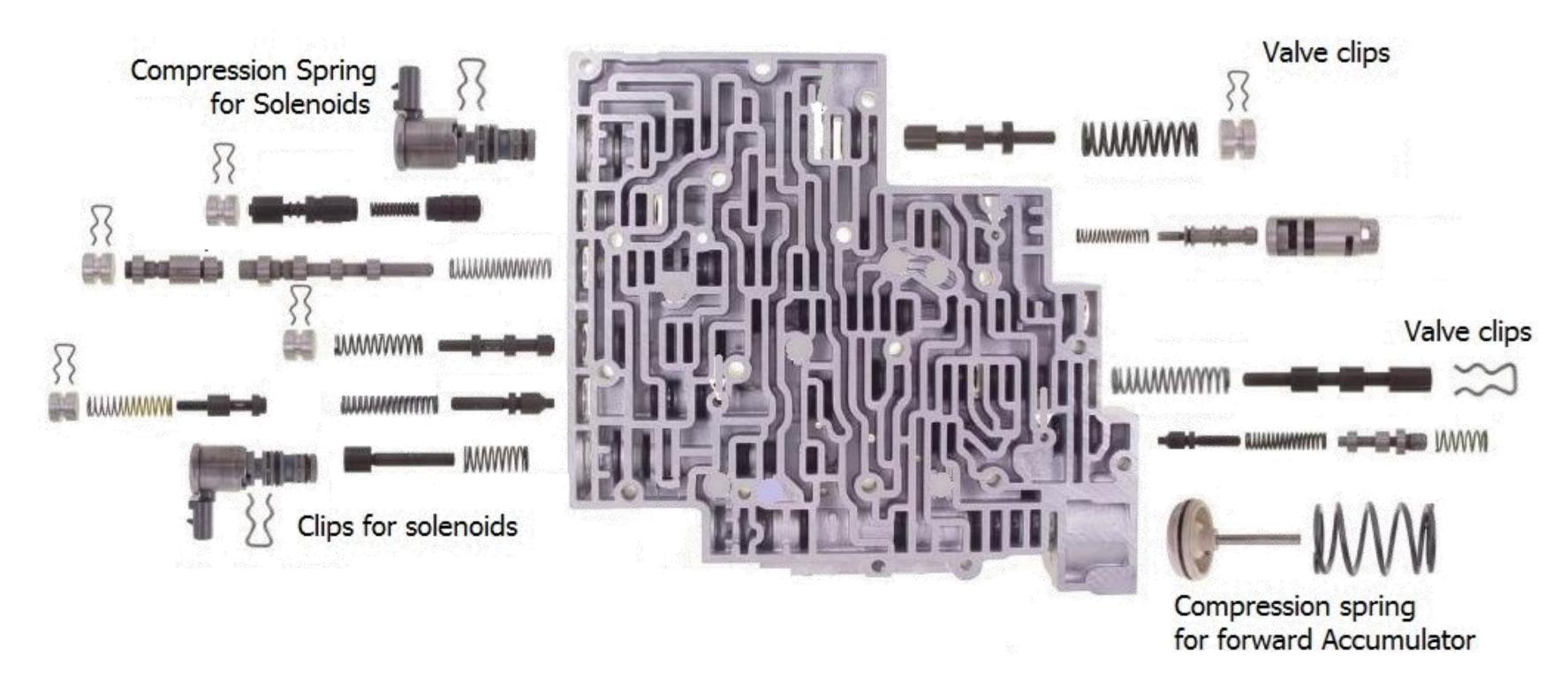






## TRANSMISSION

#### AUTOMATIC GEARBOX VALVE BOX





# IGNITION

#### IGNITION COIL



• Compression Spring







## HOW DO WE DO IT?

#### ENGINEERING, DESIGN, PLANNING AND PRODUCT DEVELOPMENT

Our engineers work alongside our customers to provide 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



## HOW DO WE DO IT?

#### KEY PROCESSES

- FEM/FEA Analysis
- Clean rooms in Europe, North America and China
- Ultrasonic cleaning
- Environment cleaning
- Custom packaging solutions in clean room such as Tape and Reel Packing
- Machine-integrated vision control technology (100% unitary control) and electric resistance
- Plastic assemblies
- Overmolding, Epoxy and Polyamid solutions
- Laser Welding
- Plating, special coatings & surface treatments
- Hardware insertions
- Deburring
- Grinding
- Cold & hot presetting
- Shoot peening & vibrating



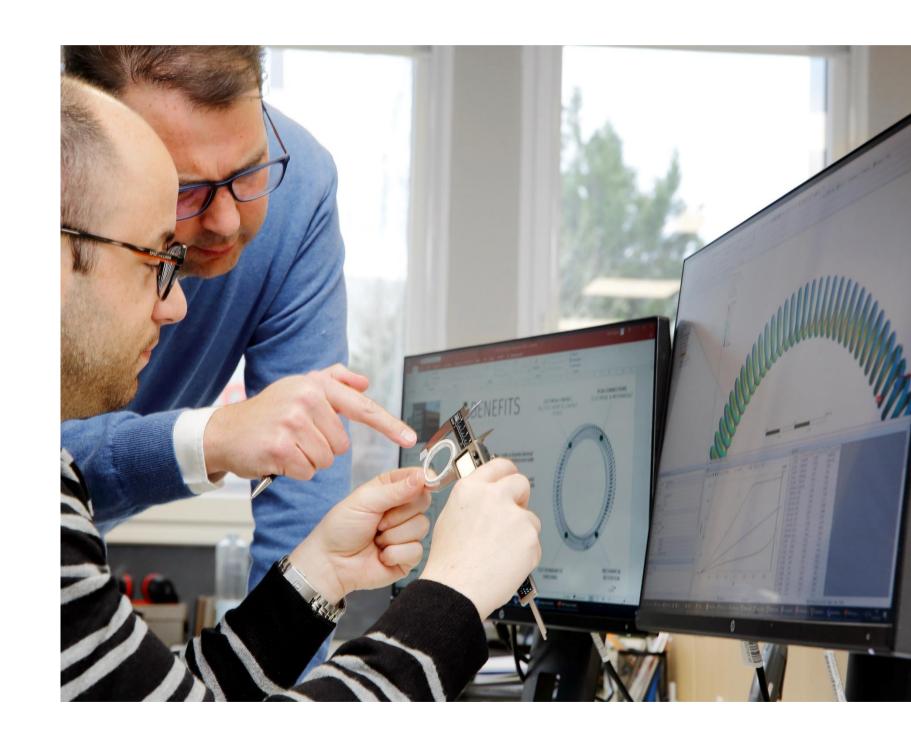
# RPK TECHNOLOGICAL CENTER

PASSION FOR ENGINEERING

Our cutting-edge **Technology Center** at our state-of-the-art factory in Vitoria-Gasteiz is home to our team of **20** engineers, who work closely to develop solutions to real-world engineering challenges and bring new technologies to the market.

All the knowledge generated at the RPK Technological Center is shared in real-time with our engineering teams around the world, and vice versa.

WE'RE CLOSE TO YOU BUT HAVE THE REACH AND CAPABILITIES OF A GLOBAL LEADER





## OUR ENGINEERS WILL SUPPORT YOU IN

#### PASSION FOR ENGINEERING

- •Creating, designing, and developing unique components from scratch or improving the performance or characteristics of an existing part
- •Guiding you through the design and manufacture stages, providing advice on processes and materials, to achieve an optimal, custom solution
- Developing in-house machines and tooling, packing, and vision control specifically for your components







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