

The background of the entire page is a photograph of an industrial robotic arm in a factory. The arm is dark blue and metallic, with various cables and hoses attached. It is positioned in the foreground, with its end effector (a welding torch) pointing towards the right. The background shows a blurred industrial environment with other machinery and structures. The image is overlaid with a semi-transparent blue and white geometric pattern that divides the page into several triangular and quadrilateral sections.

# World-Class Technical Components

*Always the First Choice™*



AFC Europe, an AFC Industries Company, is one of the most trusted engineering groups in the UK and Europe. We supply high-quality components from leading manufacturers to required specifications, helping clients achieve their design goals. Our clients receive innovative and comprehensive engineering support resulting in the highest quality certified products, ensuring the utmost confidence in finished product performance.

## Supplier of world-leading Smalley retaining rings and springs

With decades of experience, AFC is the leading European supplier of Smalley Retaining Rings (Spirolox and Revolox® included), Snap Rings and Wave Springs including Crest-to-Crest®, Gap, Overlap, Nested and WAVO® springs.

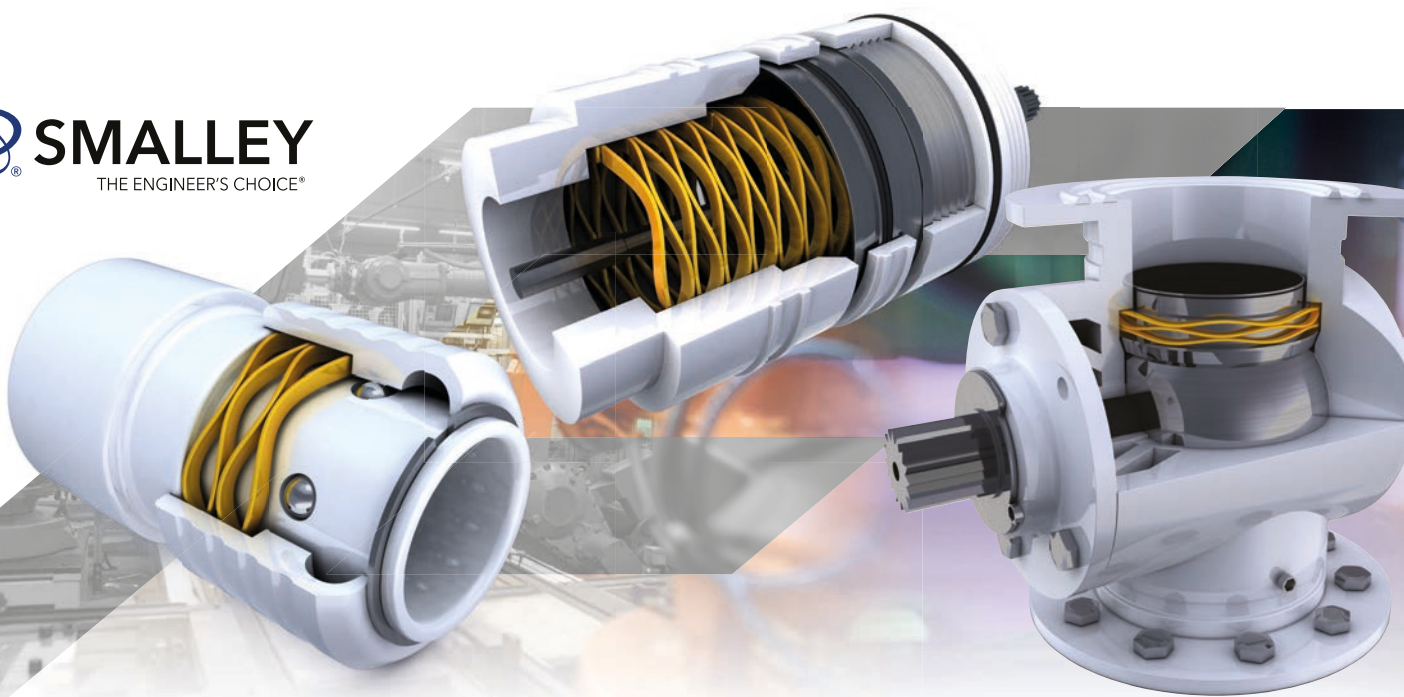
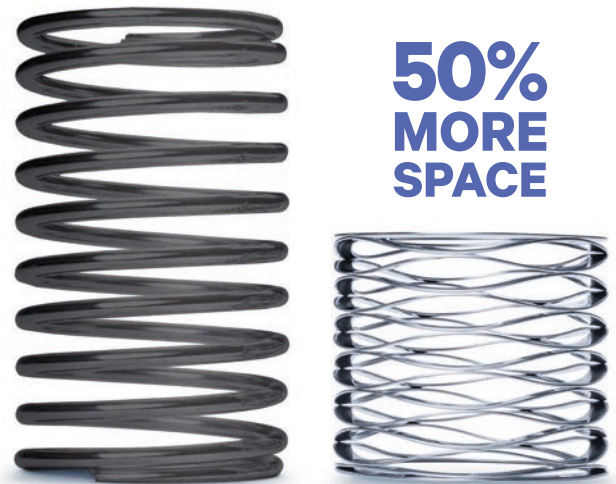
Smalley is the world leader in manufacturing and developing these products, with a standard range of 10,000 parts stocked in carbon and stainless steel.

If you can't find a part to suit your needs, then Smalley's No-Tooling-Cost™ manufacturing process allows fast prototyping and economical production. AFC's engineers are available for design consultations, providing a full range of resources to ensure the application contains the most effective solution.

AFC designs, develops and supplies springs with diameters from 5mm to over 1000mm to meet the demands of a variety of applications across a wide range of industry sectors.

Smalley wave springs are a type of compression spring made of flat wire, manufactured using a precision forming process that involves coiling flat wire on edge.

- Reduction of spring height by 50%
- Same force and deflection as ordinary springs
- Wave springs fit tight radial and axial spaces
- Over 4,000 standard springs in carbon and stainless steel
- No-Tooling-Charges™ for special designs
- Exotic Alloys available





## Advantages of Spirolox® Retaining Rings

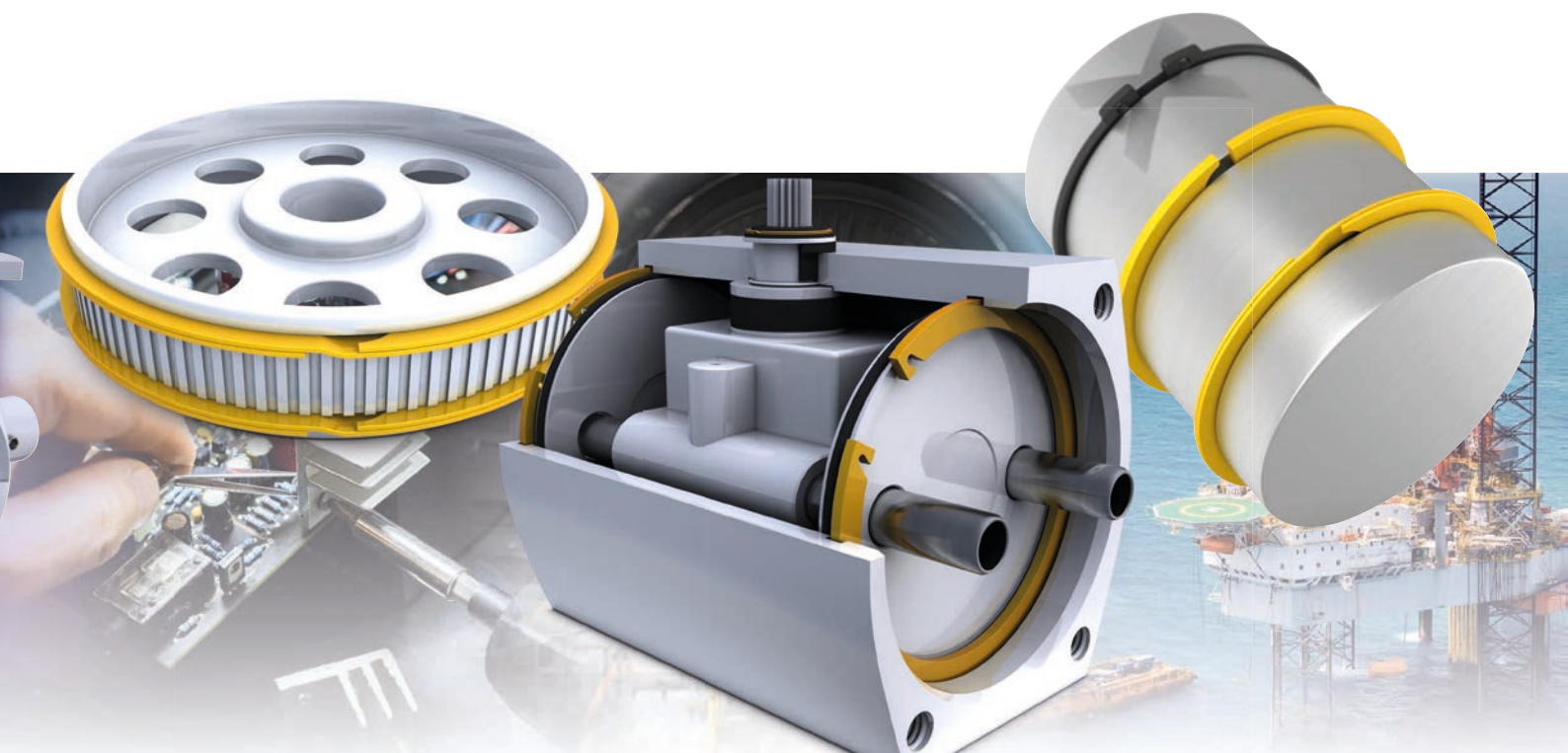
- No Gap – 360° retaining surface
- No Ears to Interfere® with mating components
- Internal and external rings available in carbon steel and 302/316 stainless steel
- More than 6,000 standard sizes in metric and inch sizes
- No-Tooling-Charges on custom designs
- Available on request in a wide range of exotic materials, including various stainless steels, Inconel and Elgiloy

## Revolox® Innovative rings for high RPM

Smalley's latest retaining ring innovation, Revolox® Self-Locking Ring, features a 'dimple and slot' design that safely and efficiently secures your application at high speeds.

### Why is it worth using Revolox® ring?

1. Significantly higher RPM capacity over an equivalent non-locking retaining ring
2. The sturdy 'dimple and slot' design is not easily damaged during installation
3. With a part weight approximately half the weight of a typical retaining ring, the lower part weight reduces rotating mass and therefore increases efficiency in the application
4. Automated installation capabilities
5. Inherently better-balanced than snap rings, which helps decrease vibration



## Quick Connectors for automotive fluid lines

ARaymond Quick Connectors provides solutions adapted to the constraints and requirements of today's industries. Quick connectors bring many technical solutions for fluid connections in Automotive, HVAC (Heating, ventilation and Air-Conditioning) and Sanitation.

- Fuel and fuel vapour lines
- Fuel tank filler necks
- Low-pressure power steering
- In-tank fuel applications
- Vacuum brake lines
- Thermal management



**Advantages:** ARaymond's Quick Connectors help automotive manufacturers reach their cost, weight, and space reduction targets. And, because they limit assembly effort and cycle times, they also improve assembly-line ergonomics and productivity. Choose from a wide variety of connector designs and sizes to satisfy both SAE J2044 and VDA specifications.

AFC's dedicated team of engineers supports your connector configuration requirements and ensures that you receive a suitable product for your application.

## Partners in Excellence

AFC Europe, global presence means we can support your product and supply chain needs wherever you are in the world, whatever the size of your company, but with the personal relationship of a local supplier.

### **AFC Head Office**

Hale House,  
Ghyll Industrial Estate,  
Heathfield, East Sussex,  
TN21 8AW  
T: +44 (0) 1435 866011  
E: [enquiries@afceur.com](mailto:enquiries@afceur.com)

### **AFC Bochum, Germany**

Kohlenstrasse 51 55  
Bochum D-4795  
Germany  
T: +49 (0) 234 92361 0  
W: [www.afceur.com/de](http://www.afceur.com/de)

### **AFC Gottmadingen, Germany**

Industriepark 308  
Gottmadingen D-78244  
Germany  
T: +49 (0) 7731 676 50  
W: [www.afceur.com/de](http://www.afceur.com/de)

### **AFC Hranice, Czech Republic**

CTPark Hranice  
Olomoucká 306, Město,  
Hranice, 753 01  
Czech Republic  
T: +420 581 602 721  
W: [www.afceur.com/cz](http://www.afceur.com/cz)