

# **Zhejiang Lisheng Spring Co.,ltd**

**Wave Spring & Spiral retaining rings** 



# summary

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- 2 Certification
- 3. Wave spring
  - & spiral retaining rings
  - &Laminar Seal Rings

#### 1. About Lisheng Spring

- Zhejiang Lisheng Spring Co., Ltd. Since 2009, the company has started to develop wave springs, spiral retaining rings, constant section rings and Laminar seal Rings.
- •The company has successfully passed ISO9001、 ISO13485、 IATF16949、 AS9100 quality management system certification. Our wave springs and retaining rings and Laminar seal Rings are mainly used in aerospace, automobile, petroleum, medical equipment, wind energy, construction machinery, consumer electronics and other industrial products fields.











#### 2 Certification



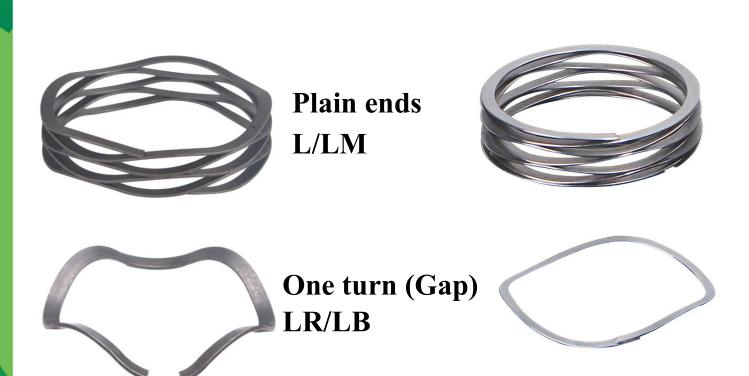
- **·ISO 9001**
- •IATF 16949
- **•ISO 13485**
- •ISO AS9100 ISO 14001

## IPR (intellectual property protection)



- •More than 30 registered trademarks from China, the United States, Germany, Britain, France, Italy, India, Israel.
- •More than 20 patent certificates

#### 3. Type of Wave spring



One turn (overlap) LR/LB

Shim ending

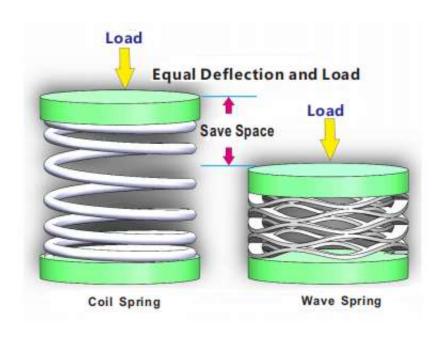
LS/LMS





Nested wave spring

### **Advantage of Wave Springs**

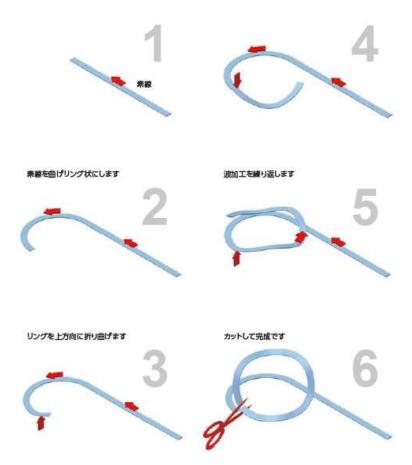


Coil springs require as much as twice the working height of a wave spring.

- Save up to 50% assembly space
- Have the same force and deformation
- Suitable for design with small assembly space
- Standard parts range in size from 4mm to 60mm
- More than 3000 kinds of carbon steel and stainless steel parts are in stock
- The size of specialty products ranges from 5mm to 2000mm

#### **Technology of Wave springs**

Perfect sine wave.



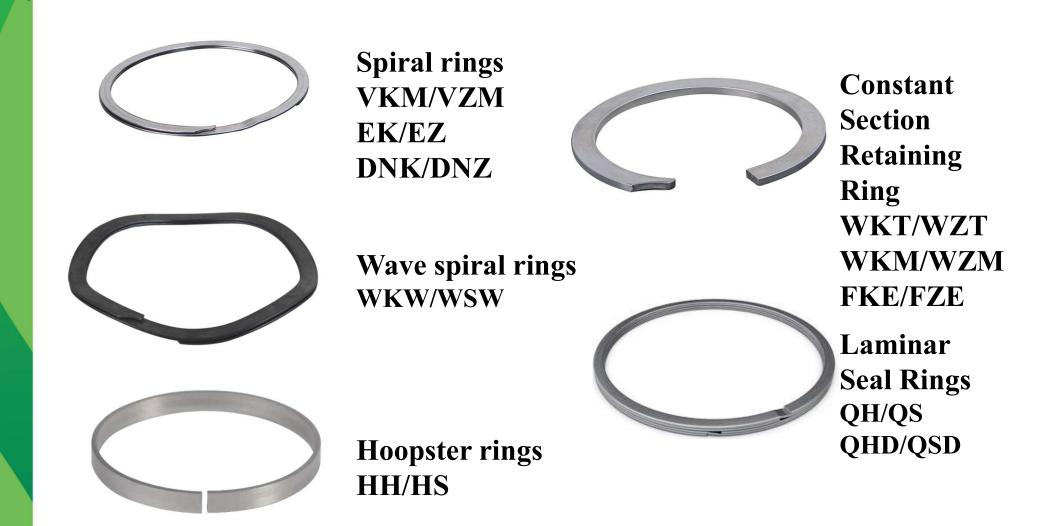




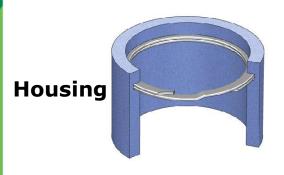


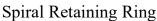


## Type of Retaining rings



### **Advantage of Spiral Retaining Rings**







Ordlnary Snap Ring

- The earless design does not interfere with other components
- Using ring crystal processing technology from winding, non stamping
- Standard parts range in size from 6mm to 400mm
- Carbon steel and stainless steel parts inventory exceeds 2,000
- The size of specialty products ranges from 5mm to 3000mm
- Special materials such as alloy steel are added
- Easy to install and remove

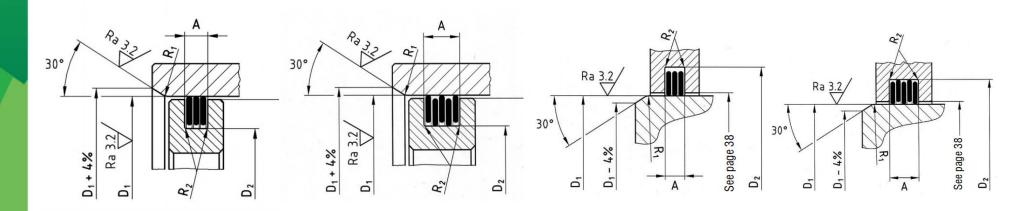


Spiral Retaining Ring

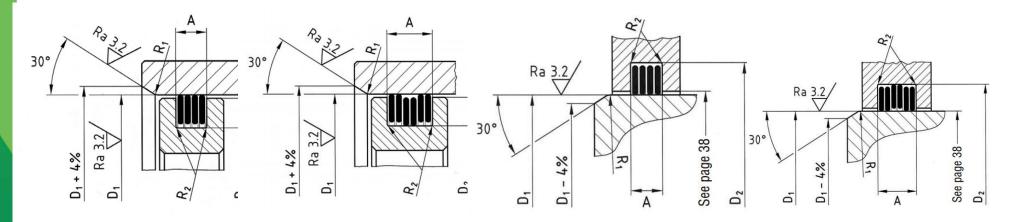


Ordlnary Snap Ring

# **Type of Laminar Seal Rings**

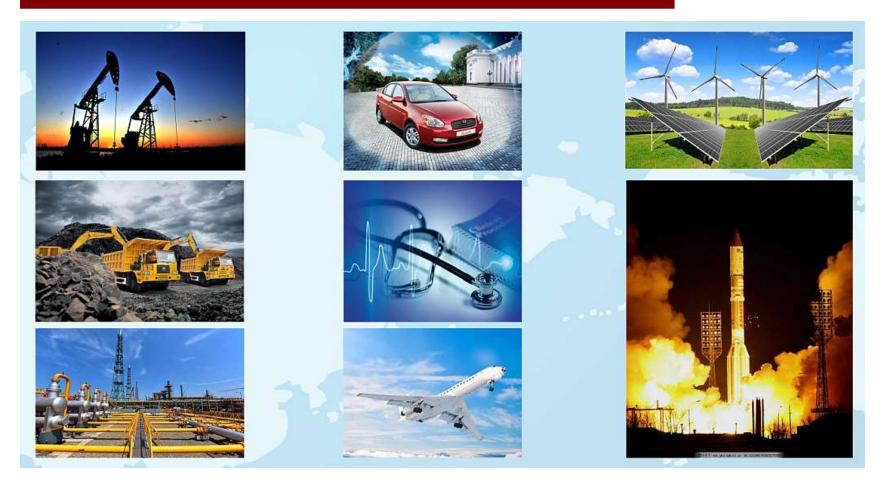


Single laminar sealing rings combined for bores & shafts



Double laminar sealing rings combined for bores & shafts

## **Product application**



Our crest to crest wave springs and retaining rings are mainly used in aerospace, automobile, petroleum, medical equipment, wind energy, construction machinery, consumer electronics and other industrial products fields.



