SUSPA – for Safety and Comfort

# Piston rods

## Precision and performance from a single source

Chrome piston rod

Stainless steel piston rod

Hard-anodized aluminum piston rod

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SUSPA piston rods are designed for rotary and translational movements, offering an optimum combination of wear resistance, dimensional stability and reliability.

Thanks to their excellent tribological properties and innovative coating technologies (e.g. hard chrome, nickel, and PVD), they ensure minimal friction and maximum service life, even under high loads, dynamic load changes, and extreme environmental conditions.

Manufactured on high-precision CNC machines with tight tolerance control, they can accommodate even complex geometries and customer-specific requirements. Having been proven millions of times over in automotive, mechanical engineering, and industrial applications, SUSPA piston rods represent the highest levels of quality, process reliability, and cost-effectiveness.

## Your benefits

- **Customized Solutions**

  Tailor-made solutions for your needs from prototypes to large-scale production.

- **High precision and dimensional accuracy**

  Smooth processes and seamless integration into your systems.

- **Corrosion- and wear-resistant**

  Minimized maintenance and extended service life of your components.

- **Highly automated series production**

  Efficient manufacturing provides economical, scalable solutions.

With more than 1,900 employees round the world, SUSPA produces gas struts, hydraulic dampers, adjustment systems and crash and safety systems for various branches from the furniture industry to the automotive industry.

**www.suspa.com**

# Manufacturing expertise

### CNC Machining

- Multi-axis CNC machine
- Curve-controlled automatic machine
- Deep hole drilling

### Hardening

- Inductive continuous hardening

### Grinding

- Centerless through-feed grinding

### Polishing

- Dry polishing (centerless and plunge polishing)
- Wet polishing

### Surfaces

- Hard chrome plating (in-house)
- Salt bath nitriding (Tenifer), burnishing, galvanizing, anodizing, passivation (with external partners)
- Other surface finishes on request

# Technical framework conditions

### CNC Machining

- Ø 4–32 mm
- Length 30–700 mm
- Deep hole drilling up to 200 mm per side
- Ø H7 bore, length ± 0.05 mm

### Hardening

- Ø 4–24 mm
- Length 55–550 mm
- Max. hardening depth: 1.3 mm
- Tolerance: ± 0.3 mm

### Grinding / Polishing

- ≥ Ra 0.1 µm and Rt 1.0 µm
- Ø 4–28 mm
- Length: 30–700 mm
- Ø tolerance: -0.02 or IT8

### Thread rolling

- M2.5 – M30
- Tolerance H6
- Gear rolling

### Welding

- MAG and resistance welding
- Horizontal, circumferential, and spot welding

### Materials

- Steel: C35, C45, 42CrMo4, 11SMn30, ETG100
- Stainless steel: X14CrMoS17, X5CrNi18-10/ X8CrNiS18-9
- Aluminum: AW – 7075 T6
- Other materials on request

# Applications

Motorbike

Automotive

Medical

Suspension

Hydraulics and pneumatics