

Inert Silicon Coated Products



ROKE
Valves ,Fittings and Tubing

www.chinaroke.com

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Introduction

Oil & gas, petrochemical, chemical, and analytical industries frequently involve diverse active chemical compounds, such as sulfur compounds (especially H₂S), mercury, and ammonia. While stainless steel is widely used in analytical sampling systems for its corrosion resistance, its tendency to adsorb these compounds hinders accurate determination when used untreated.

The inert silicon coating is an effective solution. It provides a chemically protective barrier of amorphous silicon on the surface of the stainless steel, preventing adsorption of active chemical compounds and enabling low detection limits for trace-level analysis.

Typical applications include analytical process, environment detection, downhole sampling from petroleum and natural gas wells, as well as monitoring and control of oil refining and petroleum processes.

ROKE uses inert silicon coating techniques (chemical vapor deposition) to coat the products. The coated product's maximum working pressure and temperature remain unchanged in typical applications mentioned.

Features

- ⊗ Coating by chemical vapor deposition (CVD) process
- ⊗ Typical thickness: 100-500 nm
- ⊗ Enables ppm-level trace analysis of active compounds
- ⊗ Accommodate any shapes, include complex geometries
- ⊗ Durable with long service life as normal stainless steel products

Typical Inert Silicon Coated Products Series

Seamless Tubing

- ⊗ Including ST series straight tubing, CT series coiled tubing
- ⊗ Internal surfaces of the tubing is inert silicon coated
- ⊗ Polished external surface to ensure reliable seal
- ⊗ The inner and outer surfaces of the coiled tubing are coated with inert silicon
- ⊗ Match with inert silicon coated tube fittings



Tube Fittings

- ⊗ Only the body is inert silicon coated
- ⊗ Silver plated nut to reduce the friction and avoid galling
- ⊗ Easy connection and disconnection
- ⊗ Minimum 20 times reassembly
- ⊗ Full range of the tube fittings available



Quick Connects

- ⊗ All welded metallic components are inert silicon coated
- ⊗ Single-end shutoff, double-end shutoff and full-flow
- ⊗ Maximum working pressure up to 3,000 psig (207 bar)
- ⊗ Sturdy locking mechanism with large contact area to ensure
- ⊗ Push-to-connect coupling for quick and easy operation



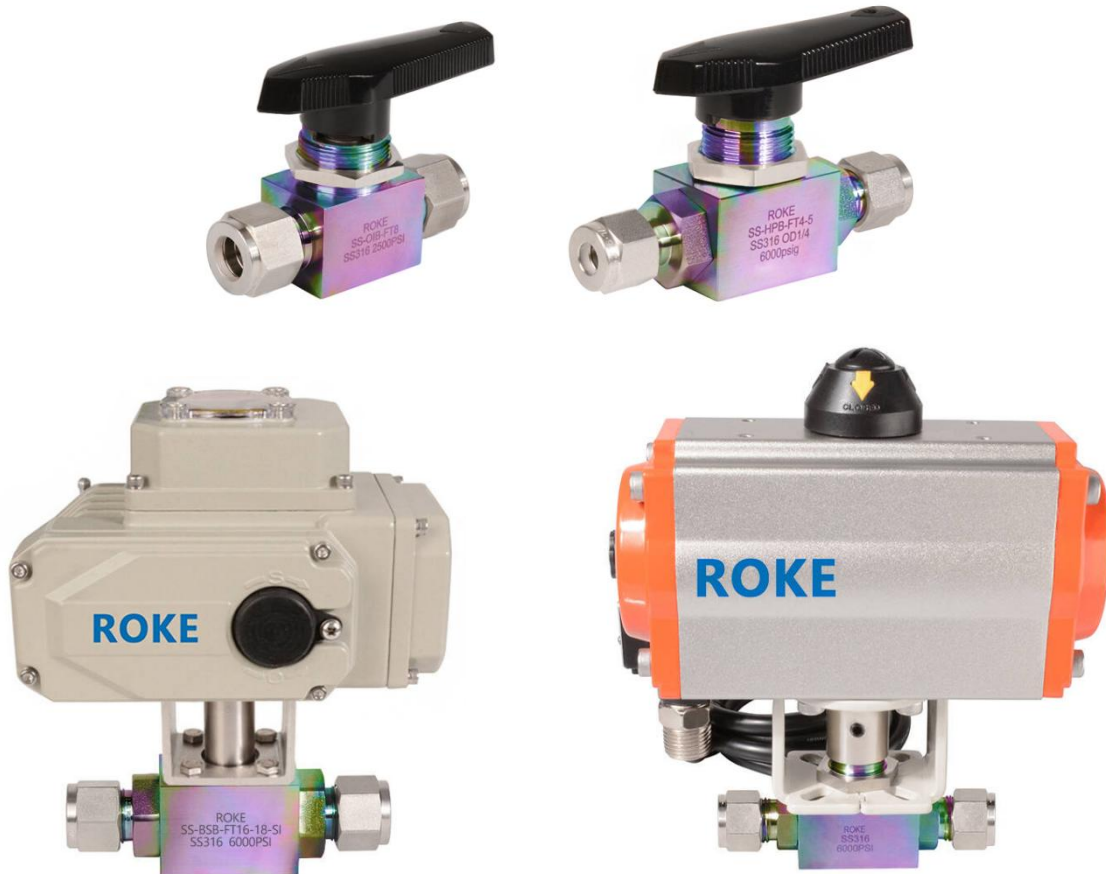
Needle Valves

- ⊗ All welded metallic components are inert silicon coated
- ⊗ Maximum working pressure up to 10,000 psig (690 bar)
- ⊗ Various stem tip and O-ring materials are optional
- ⊗ Full range of the needle valves available



Ball Valves

- ⊙ All wetted metallic components are inert silicon coated
- ⊙ Maximum working pressure up to 6,000 psig (414 bar)
- ⊙ Various flow path and end connections are available
- ⊙ Pneumatic or electric actuator available
- ⊙ Full range of the ball valves available



Check Valve & Excess Flow Valve

- ⊙ All wetted metallic components are inert silicon coated
- ⊙ Maximum working pressure up to 6,000 psig (414 bar)
- ⊙ Various flow path and end connections are available
- ⊙ Full range of the ball valves available



Proportional Relief Valves

- ⊗ All welded metallic components are inert silicon coated
- ⊗ Maximum working pressure up to 6,000 psig (414 bar)
- ⊗ 7 color-coded springs available for a wide range of set pressures
- ⊗ Various flow path and end connections are available
- ⊗ Full range of the ball valves available



Sample Cylinders

- ⊗ External and Internal surfaces are inert silicon coated
- ⊗ Single-ended and double-ended cylinders are available
- ⊗ Standard end connection: 1/4 female NPT



Ordering Information

If you need to order Inert Silicon coated products, please add "-SI" as a suffix to the standard ordering number

For example, if the standard ordering number of ball valve is **SS-OPB-FT8-7**, then the ordering number of Inert Silicon coated ball valve should be **SS-OPB-FT8-7-SI**

Note:

If other products require inert silicon coated, please contact ROKE Sales department or local distributors.

Nantong ROKE Fluid Equipment Co., Ltd.

ROKE Factory

27-28, Alpha Industrial Park, No. 333, Kaiyuan Avenue.
Hai'an City, Jiangsu Province, China
Tel :86-513-86751377
Fax :86-513-86752577

ROKE Marketing Center

B-1108, Fortune Building, No. 817, Jianghai Avenue.
Nantong City, Jiangsu Province, China
Tel: 86-513-85400443
Fax: 86-513-85400444
Web: www.chinaroke.com
E-mail: sales01@ntroke.com



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