

Ultra High Purity Products

Products Condensed Catalog

No. CC-1
September 2017



IDK-LOK
Fittings & Valves

Weld Fittings



- High Purity Gas Line
- Auto Welding Design and 1/8"~1" Size
- DK-Lok's Own Electro Polished and Cleaning Process (18MΩ D.I Water)
- SS316L, SS316L VAR Material • BA/EP Grade

DCR Fittings



- High Purity Gas Line
 - DCR Design and 1/8"~1" Size
 - DK-Lok's Own Electro Polished and Cleaning Process (18MΩ D.I Water)
 - SS316L, SS316L VAR Material • BA/EP Grade
- * DCR : DK-Metal Face Seal

Bend Fittings



- Pipe Size 8A~300A, Tube Size 1/4"~6"
- DK-Lok's Own Electro Polished and Cleaning Process (18MΩ D.I Water)
- SS304, SS316, SS316L Material
- AP/MP/BA/EP Grade

Diaphragm Valves



- Working Pressure 145psig(10bar)
- SS316/316L, SS316L, SS316L VAR Material
- DCR, DK-Lok, TBW 1/4"~3/4" Size • Elgiloy Diaphragm Material
- Manual, Pneumatic, Block, Shut off Model
- Minamall Particle Generation • Moisture Contribution

Bellows Valves



- Working Pressure 145psig(10bar)
- SS316/316L, SS316L Material
- DCR, DK-Lok, TBW 1/4"~1", 15A~50A
- Manual, Pneumatic Operation
- Minamall Particle Generation
- Moisture Contribution

Casting Bellows Valves



- Working Pressure 145psig(10bar)
- SS304, SS316, SS316L Material
- Butt Weld, Flange Type
- 65A, 80A, 100A, 125A, 150A~500A

Regulator



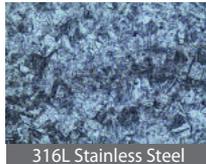
- Max. Inlet Working Pressure 600psig, 3500psig
- Outlet Working Pressure 30psig, 60psig, 100psig, 150psig, 250psig
- SS316L, SS316L VAR Material
- DCR, TBW Type 1/4"~1/2" Size
- BA, EP Grade

Manufacturing Process

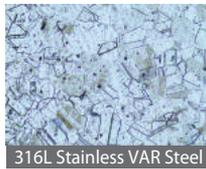
Process 1



Material



316L Stainless Steel

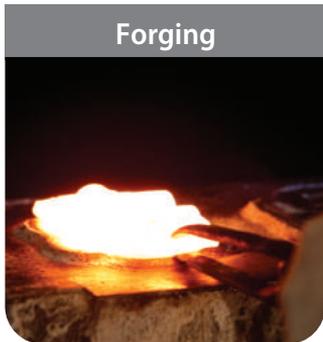


316L Stainless VAR Steel

DK-Lok Specification

| Chemical Compositions | 316L Stainless | | 316L Stainless VAR | | Remark |
|-----------------------|----------------|-------|--------------------|-------|-------------|
| | Spec | Act | Spec | Act | |
| S | 0.005 | 0.001 | 0.003 | 0.001 | Weldability |
| Mn | 1.000 | 0.423 | 0.500 | 0.020 | |

Process 2



Forging

- Material before Machining
- Capability : 1,000 ton

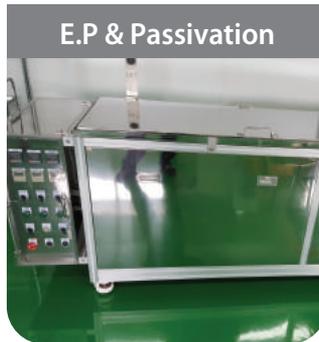
Process 3



Machining

- CNC and MCT Operation
- Six Axis Machine
- Five-Axis Machines with Robotic Arm

Process 4



E.P & Passivation

- DK-Lok's Own EP System
- Inner Surface 0.7 μm (Ry)
- After E.P, Surface Passivated

Process 5



Cleaning

- Ultrasonic Hot D.I Water
- Electric-Resistivity 18M Ω -Cm
- Final D.I Water Cleaning & N2 Purge, Vacuum Drying in a Class 1,000

Process 6



Assembly

*Assembled in Class 10

Process 7



Inspection

Inspection

- Surface Roughness Measurement
- Particle Counting Test (ASTM F1374)
- Helium Leak Test (SEMA 90120391B-STD)
- Function, Cv Testing
- Surface Composition & Chemical Components (SEMA 91060573B, SEMA 90120430B-STD)
- Moisture Analysis (SEMA 90120391B-STD)
- Redual Oil Content ($\leq 0.01\text{mg}/\text{ft}2$)

Process 8



Packing

*Double Packing in Class 100

DK-LOK

Fittings & Valves

www.dklok.com



DK-Lok strives to ensure customer satisfaction by providing products of the highest quality. We expanded the customer base with the world leading companies in Railway Vehicles, Offshore & Onshore, shipbuilding & Marine Engine, CNG & NGV, Chemical, Petrochemical & Refinery, Semiconductor and Power Plant industries on 46 countries across the globe. DK-Lok continues to strengthen our basis for growth through aggressive production facility investment, ceaseless employee training and R&D for the development of new technologies. For superior product and process quality, we acquired the certifications of ASME N, NPT, NS stamps. Moreover, we have received product certifications from global certification agencies, such as LR, GL, ABS, DNV, RWTUV, NK and KR. Hence, we are able to ensure the provision of high quality products and service that meet the product quality needs of global high tech industry customers.



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