

TANTALUM SURFACE ALLOY FOR RUPTURE DISC HOLDERS

DESCRIPTION

Fike offers a unique rupture disc holder treated with the Ultra-Metal tantalum surface technology specifically designed for applications requiring extreme corrosion resistance. Utilizing the Ultra-Metal tantalum technology a 100% pure tantalum surface is created on holders and bases that is nominally 50 μm(0.002”) thick and metalurgically alloys to the substrate material (316 sst), creating an extremely tough, durable and corrosion resistant surface. All treated parts are 100% tested in hot hydrochloric acid.

The Ultramet CPT treated rupture disc holders are a cost effective alternative to solid tantalum as well as other specialty alloys.

SPECIFICATIONS

The following rupture disc holder models, sizes and flange ratings are available as standard:

Insert Holder

Sizes:	1/2 IN - 6 IN (DN15-DN150)
Models:	Poly-SD, SRX, XL, (1.50 IN (DN40) SRL)

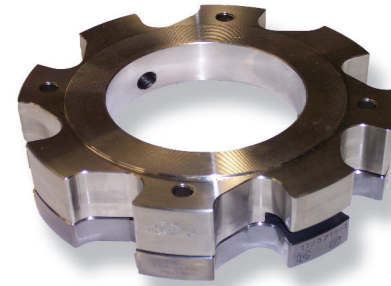
Pretorqueable Holder

Sizes:	TQ+: 1 IN - 6 IN (DN25-DN150) TQ: 8 IN (DN200)
Models:	Poly-SD, SRX, XL, (1.50 IN (DN40) SRL)

Please consult factory for information on other sizes.

Note:

An o-ring groove secondary seal in the seat area is standard in the base of XL, SRL, SRX, and POLY-SD tantalum treated holders to aid in retaining corrosive media for any potential leak path that may occur. Available Fike supplied o-ring materials include Viton®, Teflon®, and Teflon encapsulated Viton. Refer to accessories data sheet (R.1.16.01) For additional o-ring information.



MEDIA WHERE TANTALUM SHOWS IMMUNITY

The immunity is valid up to at least 302°F (150°C) unless otherwise noted.

Acetic acid	Chlorinated brine	Magnesium hydroxide	Potassium thiosulfate
Acetic anhydride	Chlorine, dry, <480°F (250°C)	Magnesium sulfate	Propionic acid
Acetone	Chlorine, wet, <660°F (350°C)	Maleic acid	Refrigerants
Air, <570°F (300°C)	Chlorine oxides	Manganous chloride	Sea water
Alcohols	Chloroacetic acid	Methyl alcohol	Silver nitrate
Aldehydes	Chromic acid	Methylsulfuric acid	Sodium acetate
Aluminum chloride	Chrome plating solutions	Milk	Sodium aluminate
Aluminum nitrate	Citric acid	Mineral oils	Sodium bisulfate, solution
Aluminum sulfate	Cleaning solutions	Mixed acids (sulfuric-nitric)	Sodium bromide
Amines	Copper salts	Motor fuels	Sodium chlorate
Ammonium bicarbonate	Dichloroacetic acid	Nickel salts	Sodium chloride
Ammonium carbonate	Dimethylformaldehyde	Nitric acid	Sodium citrate
Ammonium chloride	Ethylene dibromide	Nitric acid, fuming	Sodium cyanide
Ammonium nitrate	Ethyl sulfate	Nitric oxides	Sodium dichromate
Ammonium acid phosphate	Fatty acids	Nitrogen, <570°F (300°C)	Sodium hypochlorite
Ammonium phosphate	Ferric chloride	Nitrous acid	Sodium nitrate
Ammonium sulfate	Ferric sulfate	Nitrosyl chloride	Sodium nitrite
Amyl acetate or chloride	Ferrous sulfate	Organic chlorides	Sodium phosphate
Aniline hydrochloride	Food stuffs	Organic acids	Sodium silicate
Aqua regia	Formaldehyde	Organic esters	Sodium sulfate
Barium carbonate	Formic acid	Organic salts	Sodium sulfide
Barium chloride	Fruits	Oxalic acid	Sodium sulfite
Barium hydroxide	Glycerine	Oxygen, <570°F (300°C)	Sodium thiosulfate
Barium nitrate	Graphite, <1000°C (1830°F)	Pechloric acid	Sour Gas
Benzoic acid	Hydroiodic acid	Petroleum products	Stearic acid
Body fluids	Hydrobromic acid	Phenol	Succinic acid
Boric acid	Hydrocarbons	Phosphoric acid, <4ppmF, <360°F (180°C)	Sugar
Bromine, dry, <570°F (300°C)	Hydrochloric acid	Phosphorus, < 1290°F (700°C)	Sulfamic acid
Bromine, wet	Hydrogen bromide, <750°F (400°C)	Phosphorus chlorides	Sulfur, <930°F (500°C)
Butyric acid	Hydrogen chloride, <660°F (350°C)	Phosphorus oxychloride	Sulfur chlorides
Calcium bicarbonate	Hydrogen iodide	Phthalic anhydride	Sulfur dioxide
Calcium bisulfates	Hydrogen peroxide	Pickling acids, except HNO3-HF	Sulfuric acid, to 350°F (175°C)
Calcium bisulfites	Hydrogen sulfide	Potassium bromide	Sulfurous acid
Calcium carbonate	Hydroxyacetic acid	Potassium chloride	Sulfuryl chloride
Calcium chloride	Hypochlorous acid	Potassium dichromate	Tannic acid
Calcium hydroxide	Iodine, <570°F (300°C)	Potassium ferricyanide	Tartaric acid
Calcium hypochlorite	Ketones	Potassium iodine-iodine	Thoinyl chloride
Carbolic acid	Lactic acid	Potassium nitrate	Tin salts
Carbon dioxide	Lead salts	Potassium permanganate	Zinc chloride
Chloric acid	Magnesium chloride	Potassium sulfate	Zinc sulphate

TANTALUM SHOWS LIMITED RESISTANCE IN THE FOLLOWING MEDIA:

Consult with a tantalum corrosion expert at www.Ultrametcpt.com

Air, >570°F (300°C)	Hydrogen, <570°F (300°C)	Potassium hydroxide, conc.	Sodium hydroxide, conc.
Ammonia	Hydrogen fluoride	Potassium pyrosulfate, molten	Sodium pyrosulfate, molten
Ammonium hydroxide	Oleum (fuming sulfuric acid)	Sodium bisulfate, molten	Sulfur trioxide
Fluoride salt	Potassium carbonate	Sodium carbonate	Sulfuric acid, >350°F (175°C)
Hydrofluoric acid	Potassium hydroxide, dilute	Sodium hydroxide, dilute	

Note:

For more information on this specialized rupture disc holder solution, contact factory.

For more information about the Tantalum process, visit www.ultrametcpt.com

