# Stainless Tube Connectors, Orifices & Filters

## The Confluence Of Stainless Steel Tube Fittings Precision Orifices and Filters

Bird Precision offers the design engineer standard stainless compression tube fittings which include Precision Orifices and/or filters for the control of liquid and gas all in one fitting. 316 Stainless Unions, Male Connectors, Port Connectors, Tees, Elbows, Face Seal and various Gland diameters are being offered. (See www.birdprecision.com for additional offerings)

Extreme corrosion and wear resistant Sapphire and Ruby orifices in sizes from .0004" thru .081." (See www.birdprecision.com for additional offerings) See our unique micron size chart for those very low flow requirements. These orifices typically offer repeatable, dependable flow even in harsh environments. 316 stainless wire mesh filters can be included in average micron ratings of 5, 25, 43, 75 and 140.



#### STAINLESS TUBE UNIONS

Part #	Tube Size	
RB82457	1/16" x 1/8"	
RB82929	1/8" x 1/8"	
RB82631	1/4" x 1/4"	
RB82466	1/4" x 1/8"	
RB82547	6mm x 6mm	
RB82289	3/8" x 3/8"	
RB82392	1/2" x 1/2"	

### **STAINLESS PORT CONNECTORS**

Part #	Tube Diameter	
RB82323	1/8″	
RB82462	1/4"	
RB82031	6mm	
RB82350	3/8"	
RB82508	1/4" tube to 1/8" reducer	
RB82047	3/8" tube to 1/4" reducer	

### STAINLESS MALE CONNECTORS

Part #	Tube Size	NPT / (OR)
RB82228	1/16"	1/16 NPT
RB82573	1/8″	1/8 NPT
RB82389	1/8″	1/4 NPT
RB82035	1/8″	5/16-24 (OR)
RB82088	1/4"	1/8 NPT
RB82815	1/4"	1/4 NPT
RB82210	1/4"	3/8 NPT
RB82533	1/4"	7/16-20 (OR)
RB82315	1/4"	9/16-18(OR)

## **Unique Manufacturing Methods**

Our unique laser piercing, and wire lapping methodology results in sharp edges, high lapped surface finish, roundness and high precision tolerances. This process is well suited to control all the little variables in hole geometry that effect flow variations. Eliminated are the chances of burrs, drill wobble, eccentricities and out of roundness. 2 micro inch surface finish and controlled orifice throat lengths all add up to repeatable flow characteristics in our products.

Choose from our stock micron Ruby series (see chart) or any of our standard Ruby series .0020" thru .081." These have a standard plus .0002"/ minus .0000" tolerance.

Additionally we have our new Golden Orifice series with plus .0001" Tolerance /minus .0000." Also available from stock are our Conical Sapphire orifice series for higher pressure applications in sizes from .002" thru .030."



# **Stainless Tube Connectors, Orifices & Filters**

### **Precision Orifices**

Bird Precision offers a unique series of laser drilled, wire lapped Ruby and Sapphire orifices. Orifices and filters are packaged in a huge variety of stainless, brass and plastic fittings, connectors and inserts. We have added a number of new stainless compression fittings in 2015. See our website for additional choices, such as Glands, Face Seal Unions, Bulkheads and Tees.

For the ultimate in low flow control we call your attention to our Micron Series Chart, giving the designer flows from less than .5 SCCM dry air. Standard sizes available up to .081" Extreme wear and chemical resistance make these orifices a welcome choice for harsh environments.



### **Filtration**

316 stainless square mesh filters, for corrosion resistance. Square wire mesh for more open flow with less restriction. Available in average filtration ratings of 5 (Dutch weave), 10, 25, 43, 75 and 140 microns.

#### **Micron Orifice Series**

Part #	Size	Microns
RB22329	0.0004"	10
RB22023	0.0006"	15
RB22104	0.0008"	20
RB22143	0.0010"	25
RB22111	0.0012"	30
RB22231	0.0014"	35
RB22114	0.0016"	40
RB22276	0.0018"	45
RB22021	0.0020"	50
RB22277	0.0025"	55



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