ROTARY AIR BEARING TABLES

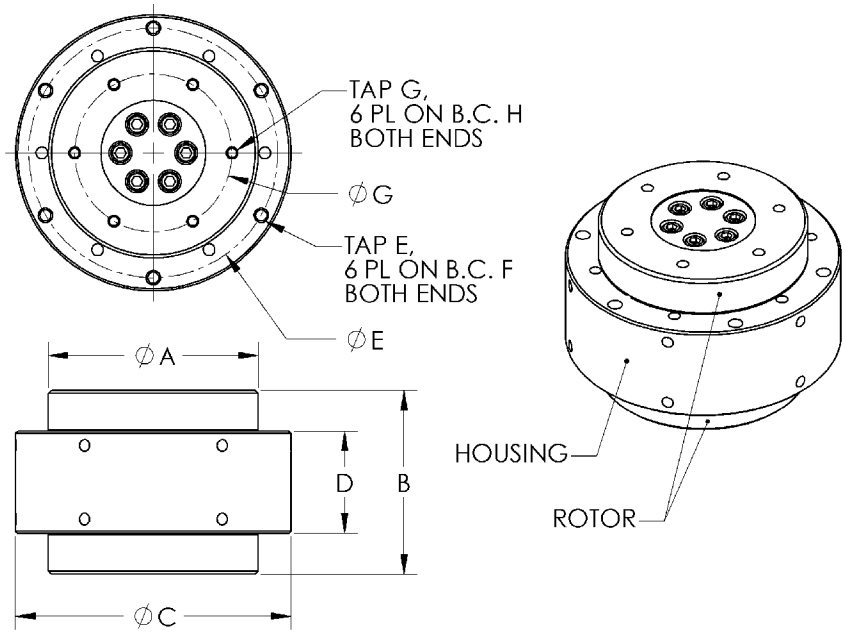
RT SERIES ROTARY AIR BEARING TABLES

- Superior Runout, Flatness and Repeatability

- Inherently Frictionless – no breakaway or running friction

Nelson Air's RT Series Rotary Air Bearing Tables are designed to deliver unsurpassed accuracy and repeatability. These bearings can easily replace ball bearing and crossed roller bearing tables and are simple to integrate and use. They offer better runout (TIR), flatness of rotation and repeatability than ball bearing tables with much higher stiffness. In addition, because air bearings are inherently frictionless they do not exhibit breakaway or running friction, even under their maximum loading. Finally, the totally noncontact, clean nature of air bearings means that they are virtually maintenance free and their accuracy won't degrade over time due to wear. These bearings are also fully preloaded and feature rotors that are accessible from either end, allowing operation in any orientation and making integration with motors and encoders simple and compact. These tables are ideal for precision positioning, grinding, torque testing and inspection applications.

Call us today to learn more about using these air bearings in your application!



Four Accuracy Grades:

A – Radial/Axial Runout: ±1 µin (0.025 µm)
B – Radial/Axial Runout: ±2.5 µin (0.063 µm)
C – Radial/Axial Runout: ±5 µin (0.130 µm)
D – Radial/Axial Runout: ±10 µin (0.250 µm)

We can also supply custom top plates and mounting bases assembled and ground to meet your exact accuracy requirements. Contact us to learn more.

We offer many options to make the most of these precision air bearings in your application:

- Clear Aperture thru Bearing
- Mounting Bases (provides 3 pad bolt down mounting)
- Top Plates with custom sizes, hole patterns, materials, vacuum chucks, etc.
- Square or flanged housings
- Customized load capacities, bearing sizes
- Balancing for high speed operation
- Motor drives, encoders
- Integration with other air bearing stages for multi-axis positioning

Please contact us for more info!

MODEL	DIMENSIONS						WEIGHT	LOAD CAPACITY		STIFFNESS	
	A (IN)	B (IN)	C (IN)	D (IN)	E, F (IN)	G, H (IN)	(LBS)	AXIAL (LBS)	RADIAL (LBS)	AXIAL (LBS / µIN)	RADIAL (LBS / µIN)
RT50	2.00	1.75	2.75	1.00	#6-32, ø2.38	#4-40, ø1.50	0.8	25	15	0.15	.05
RT75	3.00	2.50	4.00	1.50	#8-32, ø3.50	#6-32, ø2.25	2.6	60	35	0.33	.13
RT100	4.00	3.00	5.25	2.00	#10-32, ø4.63	#8-32, ø3.00	5.6	100	60	0.55	.20
RT100L	4.00	2.00	5.25	1.00	#10-32, ø4.63	#8-32, ø3.00	3.4	135	18	0.75	.05
RT150	6.00	4.75	7.25	3.50	#10-32, ø6.63	#10-32, ø4.50	18.0	200	200	1.20	.65
RT150L	6.00	3.25	7.25	2.00	#10-32, ø6.63	#10-32, ø4.50	11.8	285	70	1.50	.21
RT200	8.00	5.50	9.50	4.00	¼-20, ø8.75	¼-20, ø6.00	36.0	425	375	2.20	1.00
RT200L	8.00	4.00	9.50	2.50	¼-20, ø8.75	¼-20, ø6.00	25.5	525	120	2.75	.33
RT300	12.00	9.00	14.00	7.00	¼-20, 13.00	¼-20, ø9.00	130	875	900	4.50	2.70
RT300L	12.00	6.00	14.00	4.00	¼-20, 13.00	¼-20, ø9.00	84	1100	300	5.00	0.80

Note: Load capacity at 60 psi, 5 µm filter. Max Pressure 80 psi, Load cap. @ 80 is 1.33 X load cap.

NELSON AIR CORP.
precision air bearing positioning

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