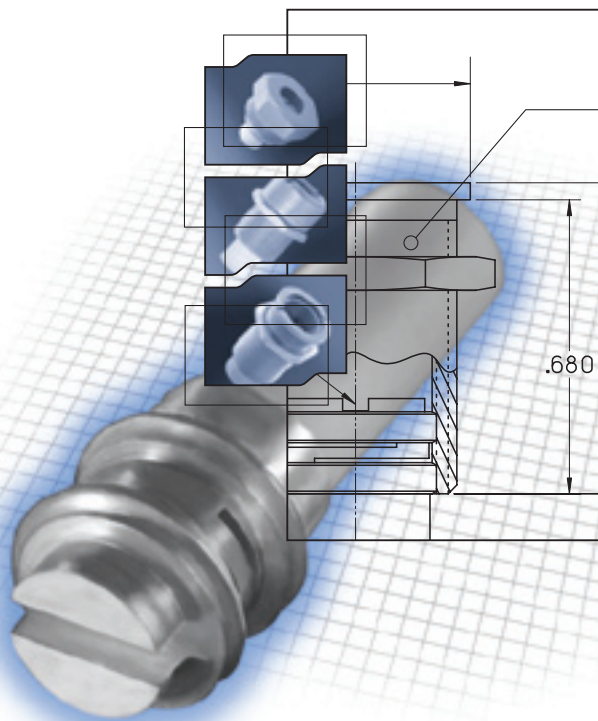


TUNING ELEMENTS



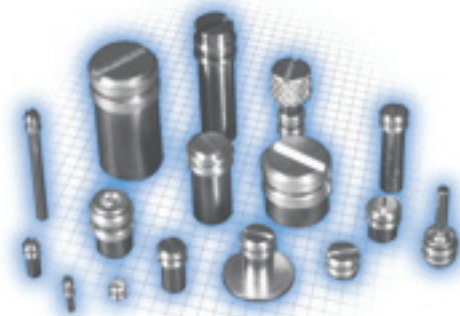
Microwave Tuning Elements are a very cost effective method for the precision tuning of microwave filters, oscillators, and other resonant structures. They are excellent for applications requiring precision, low loss tuning permitting costly mechanical and electrical tolerances to be relaxed. The self-locking design eliminates the need for locking nuts and assures stable, noise-free adjustments in applications from L to Ka band.

FEATURES

- One handed adjusting/tuning
- Self-Locking/Constant torque mechanism
- Eliminates need for "jam" nuts
- Produced with fine-pitched threads for high resolution zero back lash positioning from 24 TPI to 108 TPI
- Basic thread diameters available from 0.060" to 1.00", SI & US customary threads
- Excellent electrical conduction (Contact resistance < 0.01 Ω)
- Capable of re-tuning/re-positioning
- Available with Gold, Silver, Nickel Plating and Chromate Finish
- Can be assembled with other materials, (Ceramic, Ferrites, Sapphire, Glass, etc.)
- Available as a set, to provide a positive stop or extended travel range
- Available in copper or ferrous alloys
- Custom torque designs available

TYPICAL APPLICATIONS

- Micro Wave Filter Positioning
- Fiber Optic Alignment
- Metering Valve Adjustment
- X Y Z Stage Positioning
- Self Locking Fastener
- Limit Switch/Sensor Positioning

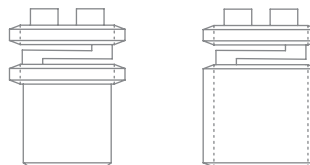


New Slotted Positioning Devices
Patent Pending



Threaded Inserts

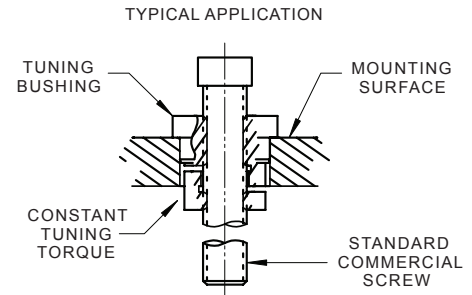
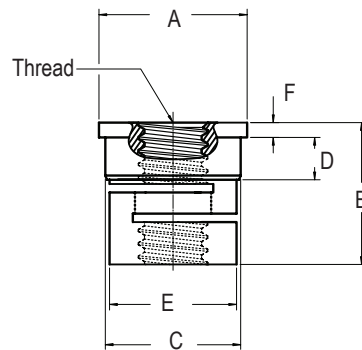
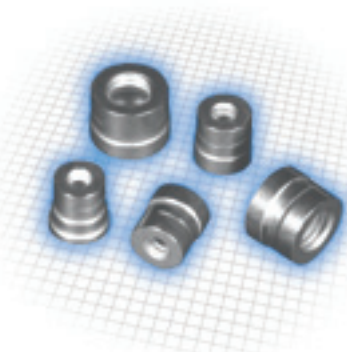
Original Slotted Positioning Devices
Patented by Johanson
Ref. Original US Patent No. 30,406



Threaded Elements

POSI-TORQUE®

Posi-Torque Bushings are precision devices designed for applications requiring precision, low loss high resolution tuning. The self-locking, constant torque drive mechanism eliminates the need for locking nuts and assures stable, noise free adjustment in RF to Microwave frequencies. Posi-Torque Bushings are universal and can be used with standard SI and US customary screws.



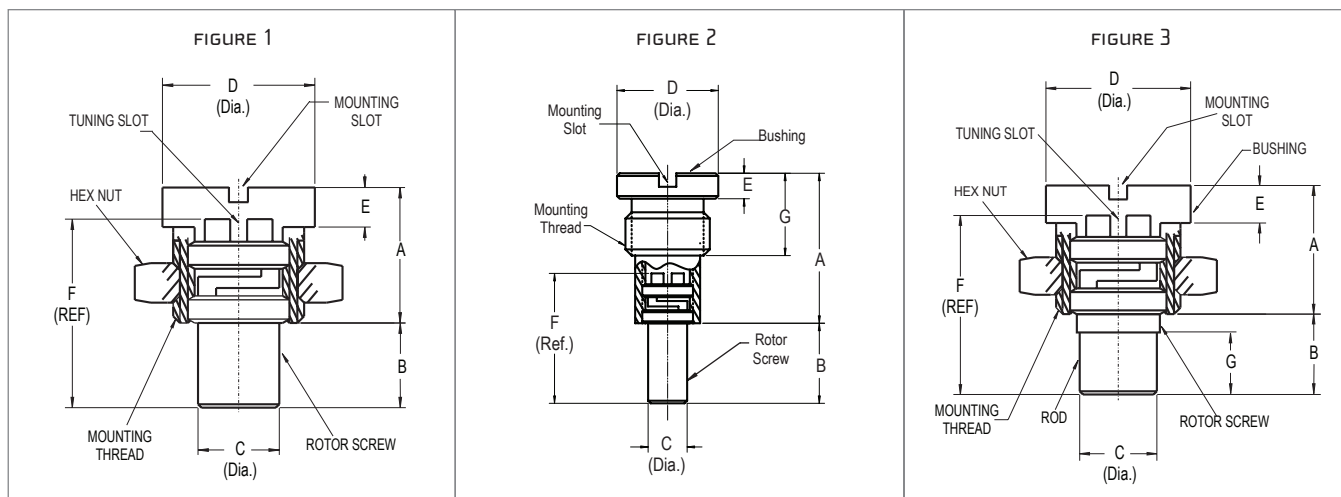
P/N	THREAD SIZE	A	B	C	D	E	F
LB1020-1	#0(.060)-80 UNF-2B	.145	.130	.1247	.035	.112	.030
LB1021-1	#2(.086)-56 UNC-2B	.175	.150	.1552	.035	.140	.030
LB1022-1	#4(.112)-40 UNC-2B	.300	.300	.2697	.090	.250	.035
LB1023-1	#6(.138)-32 UNC-2B	.330	.335	.2997	.100	.280	.035
LB1024-1	#10(.190)-32 UNF-2B	.380	.335	.3497	.100	.330	.035
LB1025-1	1/4(.250)-28 UNF-2B	.440	.335	.4097	.100	.390	.035
LB1026-1	#8(.164)-32 UNC-2B	.350	.335	.3197	.100	.300	.035

Custom design available upon request.

TAPS

P/N	THREAD SIZE	H#	# OF FLUTES (REF)	RECOMMENDED TAP DRILL
7053	#0 (.060)-80 UNF-2	H2	2	3/64 (.0469)
7054	#2 (.086)-56 UNC-2		2	#51 (.067)
7056	3/8 (.375)-64 UNS-2		4	23/64 (.3594)
7057	.200-80 UNS-2	H3	4	3/16 (.1875)
7059	5/32 (.156)-64 UNS-2		4	9/64 (.1406)
7060	.120-80 UNS-2		3	#36 (.1065)
7061	#10 (.190)-64 UNS-2		4	#17 (.173)
7062	15/64 (.234)-64 UNS-2		4	7/32 (.2187)
7063	1/4 (.250)-64 UNS-2		4	15/64 (.2344)
7064	3/32 (.094)-80 UNS-2		3	#45 (.082)
7065	5/16 (.312)-64 UNS-2		4	19/64 (.2969)

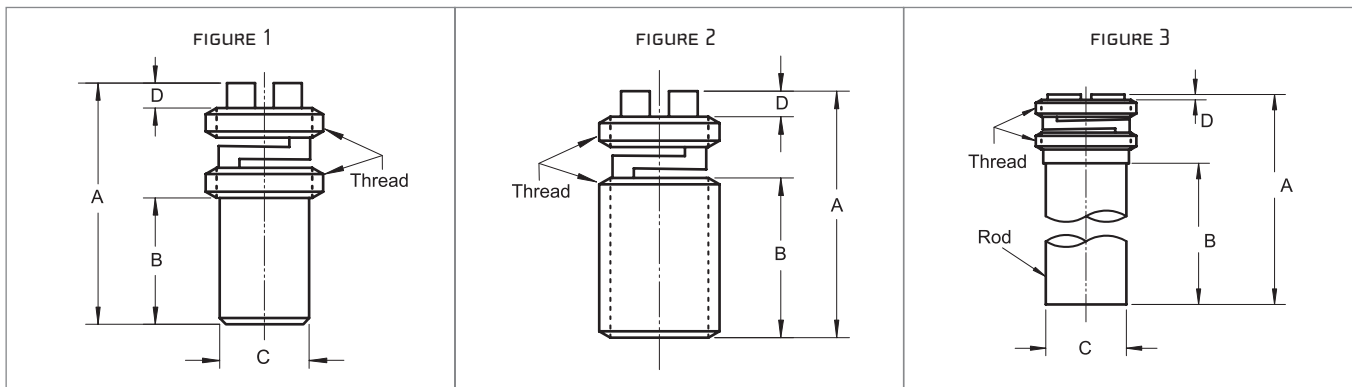
TUNING ELEMENTS



P/N	FIG.	A	B	C	D	E	F	G	THD (UNS-2A)	ROD MAT'L
6924-10	1	.120	.075	.072	.135	.035	.167		.120-80	BRASS
6924-11		.120								
6925-4		.250	.148	.125	.210	.037	.250		.190-64	
6925-5		.125	.023				.125			
6926-13		.210	.106	.160	.267	.035	.210		.234-64	
6926-17			.180				.284			
6927-2		.360	.250	.160	.265	.145	.360		.234-64	
6927-3			.255				.374			
6928-6		.450	.345	.125	.210	.042	.552		.190-64	
6929-2		.552	.450							
6965-1	.720	.500	.345	.531	.040	.720		.469-32		
6939-2	2	.482	.148	.072	.187	.045	.240	.230	.156-64	
6940-1		.555	.450	.125	.265		.552		.234-64	
6941-1		1.230	.350	.160	.280		.450		.250-64	
6933-4	3	.240	.168	.062	.135	.035	.260	.138	.120-80	SAPPHIRE
6934-4		.359	1.105	.152	.267	.144	1.209	1.075	.234-64	ALUMINA
6934-6		.210	.115			.035	.219	.085		SAPPHIRE
6935-11		.359	.265	.144	.369	.235	ALUMINA			
6950-2		.240	.168	.062	.135	.035	.260	.138	.120-80	ECCOSORB
6952-2		.359	.185	.152	.267	.144	.289	.155	.234-64	

Custom dimensions are available upon request. Please contact the factory.

TUNING ROTORS



P/N	FIG.	A	B	C	D	THD (UNS-2A)	TAP	ROD MAT'L	
6316-1	1	.165	.075	.072	.018	.120-80	7060		
6316-2	2	.223	.155	—	.020				7054
L6994-2		.175	.090	—					
L6995-0	1	.122	.030	.072	.010	7064			
L6995-1		.167	.075						
L6996-1		.250	.148	.125		7059			
L6996-5		.295	.193						
L6997-0	1	.554	.450	.160	.010	7061			
L6997-17		.146	.042						
6930-10	3	.369	.235	.152	.010	.190-64	7061		SAPPHIRE
6930-14								ALUMINA	

Custom dimensions are available upon request. Please contact the factory.

DYNA-TRIM – DRO TUNERS

P/N	A	ROD MAT'L	DISK MAT'L	NOM FREQ (GHZ)
4010-1	.970	INVAR	BRASS	2
4011-1	.750			3
4012-1	.500			4
4012-2	.625			4
4014-1	.250	INVAR [1 PIECE]		9

Custom dimensions are available upon request. Please contact the factory.

