

RETENTION KNOBS



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RETENTION KNOB FEATURES

Retention knobs come in many shapes and sizes. Many machining center manufacturers use different configurations on each of their models. Please provide us with the following information when ordering retention knobs:

- Machining Center Taper Size (40, 50 taper etc.) and flange type (CAT or BT)
- Brand and model of machining center
- Drawing of retention knob (if available)



CAT RETENTION KNOBS

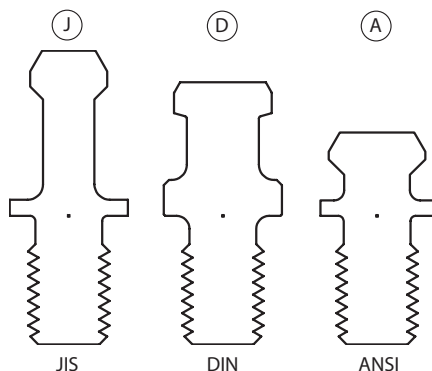
- Class 3A UNC Thread
- Magnetic particle crack tested
- Tensile and shear requirements per ISO and JIS standard
- All locations that make contact with ground spindle mechanism components are ground or hard turned
- Base of retention knob flange is ground to assure perpendicular alignment between retention knob and taper of toolholder
- Tight pitch diameter tolerance helps maintain accurate concentricity between threads and retention knob limiting the expansion or flaring of the small end of the taper



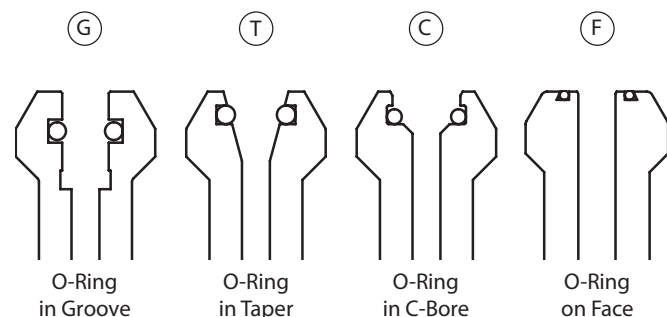
BT RETENTION KNOBS

- Class 4g6g metric thread
- Magnetic particle crack tested
- Tensile and shear requirements per JIS 6339
- All locations of the retention knob that make contact with ground spindle mechanism components are ground or hard turned
- Base of retention knob flange is ground to assure perpendicular alignment between retention knob and taper of toolholder
- Ground Pilot and tight pitch diameter tolerance help maintain accurate concentricity between threads and retention knob limiting the expansion or flaring of the small end of the taper

Retention Knob Style



O-Ring Type



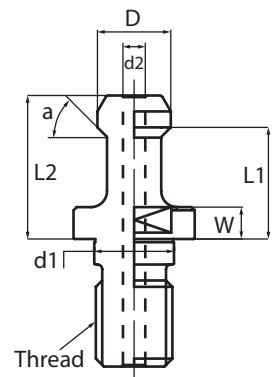
RETENTION KNOBS

CAT RETENTION KNOBS

Part Number	D	d1	d2	L1	L2	Angle Degree	W	Thread (UNC)	O-Ring	Torque Range (Ft-lbs)	Torque Wrench Attachment*	Style
C40-1500(R)-EU	0.748	0.641	0.276	0.793	1.030	15	0.276	5/8"-11	S-15	65-85	TQW-PS(19)	D
C40-1500-EU	0.748	0.512	0.276	0.793	1.030	15	0.276	5/8"-11	—	65-85	TQW-PS(19)	D
C40-1500-MATS-EU	0.748	0.512	0.276	0.787	1.024	15	0.157	5/8"-11	—	65-85	TQW-PS(19)	D
C40-1500-MORI-EU	0.748	0.641	0.276	0.793	1.030	15	0.236	5/8"-11	S-15, P-9	65-85	TQW-PS(19)	D
C40-1500-SOLID	0.748	0.512	—	0.793	1.030	15	0.276	5/8"-11	—	65-85	TQW-PS(19)	—
C40-4500(H)GFAC-EU	0.591	0.641	0.177	0.984	1.260	45	0.124	5/8"-11	S-15	65-85	TQW-PS(19)	—
C40-6000(H)-EU	0.591	0.512	0.177	0.990	1.266	30	0.124	5/8"-11	—	65-85	TQW-PS(19)	J
C40-9000(H)-EU	0.591	0.512	0.177	0.990	1.266	90	0.124	5/8"-11	—	65-85	TQW-PS(19)	J
C40-9000-EU	0.591	0.512	—	0.990	1.266	90	0.124	5/8"-11	—	65-85	TQW-PS(19)	J
C40S-4500(H)-EU	0.591	0.512	0.177	0.990	1.266	45	0.236	5/8"-11	—	65-85	TQW-PS(19)	J
C40S-4500-EU	0.591	0.512	—	0.990	1.266	45	0.236	5/8"-11	—	65-85	TQW-PS(19)	J
C40S-6000-EU	0.591	0.512	—	0.990	1.266	30	0.236	5/8"-11	—	65-85	TQW-PS(19)	J
C40S-9000-EU	0.591	0.512	—	0.990	1.266	90	0.236	5/8"-11	—	65-85	TQW-PS(19)	J
C40-STD-EU	0.740	0.512	0.276	0.433	0.640	45	0.118	5/8"-11	—	65-85	TQW-PS(19)	A
C40-STD-SOLID	0.740	0.512	—	0.433	0.640	45	0.118	5/8"-11	—	65-85	TQW-PS(19)	—
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C50-1500(ISO)-EU	1.102	0.827	0.433	0.984	1.339	15	0.197	1"-8	—	85-110	TQW-PS(30)/ER20	D
C50-1500-EU	1.102	0.827	0.394	0.992	1.346	15	0.276	1"-8	—	85-110	TQW-PS(30)/ER20	D
C50-4500(H)-EU	0.906	0.827	0.236	1.386	1.780	45	0.394	1"-8	—	85-110	TQW-PS(30)/ER20	J
C50-4500-EU	0.906	0.827	—	1.386	1.780	45	0.394	1"-8	—	85-110	TQW-PS(30)/ER20	—
C50-6000(H)-EU	0.906	0.827	0.236	1.386	1.780	30	0.394	1"-8	—	85-110	TQW-PS(30)/ER20	J
C50-6000-EU	0.906	0.827	—	1.386	1.780	30	0.394	1"-8	—	85-110	TQW-PS(30)/ER20	J
C50-9000(H)-EU	0.906	0.827	0.236	1.386	1.780	90	0.394	1"-8	—	85-110	TQW-PS(30)/ER20	J
C50-9000-EU	0.906	0.827	—	1.386	1.780	90	0.394	1"-8	—	85-110	TQW-PS(30)/ER20	J
C50-9000-MORI-EU	0.906	1.031	0.315	1.386	1.780	90	0.394	1"-8	P-9, S-24	85-110	TQW-PS(30)/ER20	J, G
C50-MAKINO-EU	0.906	0.984	0.236	1.378	1.772	45	0.394	1"-8	P-22	85-110	TQW-PS(30)/ER20	J, L
C50-OKUMA(OH)-EU	0.906	1.024	0.236	1.378	1.772	30	0.394	1"-8	P-22	85-110	TQW-PS(30)/ER20	—
C50-STD-EU	1.142	0.768	0.461	0.701	1.004	45	0.197	1"-8	—	85-110	TQW-PS(32)	A
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PS-874-EU	0.748	0.669	0.236	0.906	1.142	15	0.276	M16 P2	—	65-85	TQW-PS(19)	J
PS-B61-EU	0.906	1.024	0.236	1.378	1.772	30	0.394	1"-8	N-24	85-110	TQW-PS(30)/ER20	J, L
PS-B64-1-EU	0.740	0.641	0.157	0.440	0.640	45	0.118	5/8"-11	S-15	65-85	TQW-PS(19)	A
PS-037-1G	0.591	0.641	—	0.990	1.266	90	0.236	5/8"-11	S-15	65-85	TQW-PS(19)	J

Note:

- *Torque Wrench sold separately from Torque Wrench Attachments. See pages 41 and 88 for more details.



The drawing above details the seven critical dimensions needed to determine which retention stud is required.

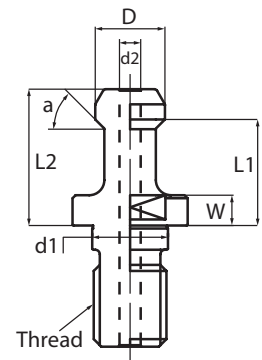
Please have these dimensions ready when you place your order, so that we may easily and quickly determine which retention stud is needed for your machining center.

BT RETENTION KNOBS

Part Number	D	d1	d2	L1	L2	Angle Degree	W	Thread	O-Ring	Torque Range (Ft-lbs)	Torque Wrench Attachment*	Style
PS-16	0.433	0.492	—	0.709	0.906	45	0.197	M12 P1.75	—	30-40	TQW-PS(13)	J
PS-17	0.433	0.492	—	0.709	0.906	30	0.197	M12 P1.75	—	30-40	TQW-PS(13)	J
PS-130E	0.433	0.492	0.098	0.709	0.906	30	0.197	M12 P1.75	—	30-40	TQW-PS(13)	J, L
PS-132	0.433	0.492	0.157	0.709	0.906	45	0.197	M12 P1.75	P-9	30-40	TQW-PS(13)	J
B30-4500-EU	0.433	0.492	—	0.709	0.906	45	0.197	M12 P1.75	—	30-40	TQW-PS(13)	J
B30-6000-EU	0.433	0.492	—	0.709	0.906	30	0.197	M12 P1.75	—	30-40	TQW-PS(13)	J
B40-1500(R)-EU	0.748	0.669	0.276	0.906	1.142	15	0.276	M16 P2	AS568-015	65-85	TQW-PS(19)	D
B40-1500-EU	0.748	0.669	0.276	0.906	1.142	15	0.276	M16 P2	—	65-85	TQW-PS(19)	D
B40-1500-MORI-EU	0.748	0.669	0.276	0.906	1.142	15	0.335	M16 P2	S-15, P-9	65-85	TQW-PS(19)	D, T
B40-4500(H)-EU	0.591	0.669	0.181	1.102	1.378	45	0.236	M16 P2	—	65-85	TQW-PS(19)	J
B40-4500-EU	0.591	0.669	—	1.102	1.378	45	0.236	M16 P2	—	65-85	TQW-PS(19)	J
B40-6000	0.591	0.669	—	1.102	1.378	30	0.236	M16 P2	—	65-85	TQW-PS(19)	J
B40-6000(H)	0.591	0.669	0.181	1.102	1.378	30	0.236	M16 P2	—	65-85	TQW-PS(19)	J
B40-9000-EU	0.591	0.669	—	1.102	1.378	90	0.236	M16 P2	—	65-85	TQW-PS(19)	J
B40-FADAL	0.740	0.669	—	0.552	0.752	45	0.236	M16 P2	—	65-85	TQW-PS(19)	A
B40-STD	0.740	0.669	0.276	0.433	0.640	45	0.118	M16 P2	—	65-85	TQW-PS(19)	A
PS-805	0.748	0.669	—	0.906	1.142	15	0.276	M16 P2	—	65-85	TQW-PS(19)	J
B50-4500(H)-EU	0.906	0.984	0.276	1.378	1.772	45	0.394	M24 P3	—	85-110	TQW-PS(30)/ER20	J
B50-4500-EU	0.906	0.984	—	1.378	1.772	45	0.394	M24 P3	—	85-110	TQW-PS(30)/ER20	J
B50-6000(H)-EU	0.906	0.984	0.276	1.378	1.772	30	0.394	M24 P3	—	85-110	TQW-PS(30)/ER20	J
B50-9000(H)	0.906	0.984	0.276	1.378	1.772	90	0.394	M24 P3	—	85-110	TQW-PS(30)/ER20	D
B50-9000-EU	0.906	0.984	—	1.378	1.772	90	0.394	M24 P3	—	85-110	TQW-PS(30)/ER20	D

Note:

- *Torque Wrench sold separately from Torque Wrench Attachments. See pages 41 and 88 for more details.



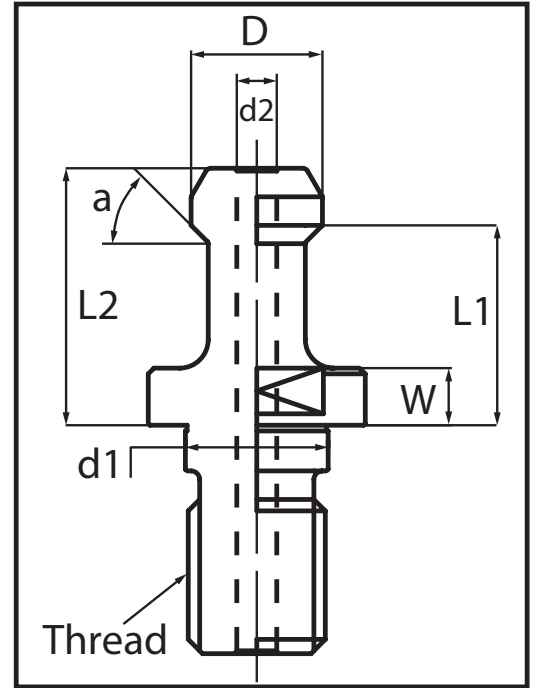
RETENTION KNOBS



RETENTION KNOB INQUIRY FORM

Please complete form with as much information as possible and return to sales@lyndexnikken.com.

CUSTOMER NAME:	
ADDRESS:	
CITY / STATE / ZIP:	
CONTACT:	
PHONE:	
EMAIL:	



Machine Information			Required Dimensions						Coolant Through		
Machine Make	Machine Model	Machine Taper	D	L1	L2	W	a	Thread	d1	d2	O-Ring (Y/N)

RETENTION KNOBS

THE GLOBAL LEADER IN MANUFACTURING INNOVATION



LYNDEX-NIKKEN

NIKKEN X-TREME CHUCKS



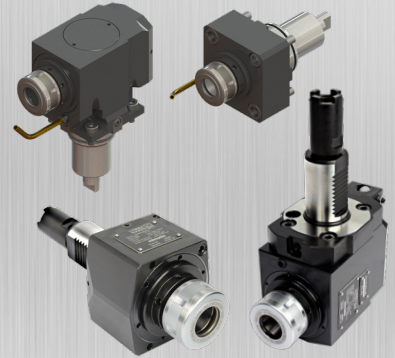
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