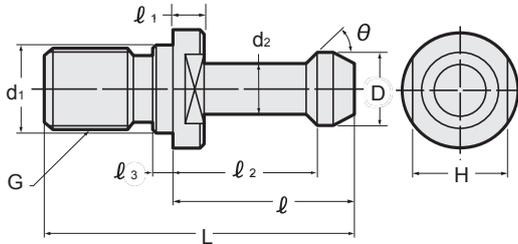


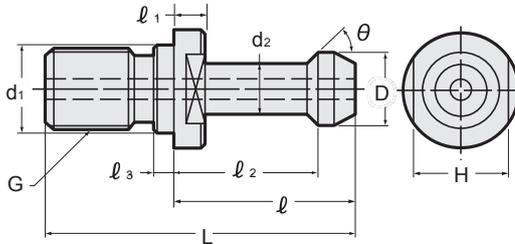


# PSB Retention Studs BT Taper

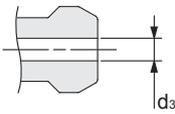
## Center- thru noncompliant



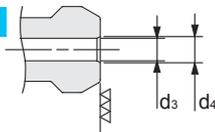
## Center- thru compliant



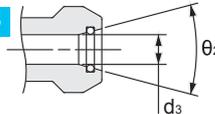
Type 1



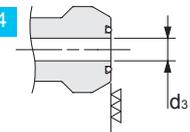
Type 2



Type 3



Type 4



Code	Model	Shank	Standard	Center through	D <sub>0-0.1</sub>	d <sub>1</sub> h7	d <sub>2</sub>	L	ℓ	ℓ <sub>1</sub>	ℓ <sub>2</sub>	ℓ <sub>3</sub>	G	H	θ	Type	d <sub>3</sub>	θ <sub>2</sub>	d <sub>4</sub>
0754 00000000	PSB -0	BT30	MAS-1	—	11	12.5	7	43	23	5	18	4	M12	13	45°	—	—	—	—
0754 00000100	PSB -0A	BT30	MAS-2	—	11	12.5	7	43	23	5	18	4	M12	13	60°	—	—	—	—
0754 10000000	PSB -0-CH	BT30	MAS-1	○	11	12.5	7	43	23	5	18	5.5	M12	13	45°	1	2.5	—	—
0754 10000100	PSB -0A-CH	BT30	MAS-2	○	11	12.5	7	43	23	5	18	5.5	M12	13	60°	1	2.5	—	—
0754 00000030	PSB -30P	BT30	JIS	○	12	12.5	8	43	23.4	5	18.4	6	M12	13	75°	1	4	—	—
0754 10000401	PSB -1T	BT30	—	○	11	12.5	8	43	23	5	18	5.5	M12	13	45°	1	4	—	—
0754 00000026	PSB -26	BT30	—	○	11	12.5	7.5	43	23	5	18	4	M12	13	60°	1	2.5	—	—
0754 00000302	PSB -2M	BT35	MAS-1	—	13	12.5	8.5	48	28	5	22.5	4	M12	13	45°	—	—	—	—
0754 00000001	PSB -1	BT35	—	—	13.7	13	8.9	53	28	5	22.5	5	M12	13	60°	—	—	—	—
0754 00000002	PSB -2	BT35	—	—	10	13	7	43	25	5	20	3	M12	13	45°	—	—	—	—
0754 00000003	PSB -3	BT40	MAS-1	—	15	17	10	60	35	6	28	5	M16	19	45°	—	—	—	—
0754 00000004	PSB -4	BT40	MAS-2	—	15	17	10	60	35	6	28	5	M16	19	60°	—	—	—	—
0754 00000009	PSB -9	BT40	—	—	15	17	10	54.6	30	5	23	5	M16	19	90°	—	—	—	—
0754 00000010	PSB -10	BT40	—	—	15	17	10	50	25	5	18	5	M16	19	90°	—	—	—	—
0754 00000011	PSB -11	BT40	—	—	15	17	10	60	35	6	28	5	M16	19	90°	—	—	—	—
0754 10000003	PSB -3-CH	BT40	MAS-1	○	15	17	10	60	35	6	28	7	M16	19	45°	1	4	—	—
0754 00000031	PSB -31	BT40	MAS-1	○	15	17	10	60	35	6	28	7	M16	19	45°	3	3	30°	—
0754 10000004	PSB -4-CH	BT40	MAS-2	○	15	17	10	60	35	6	28	7	M16	19	60°	1	4	—	—
0754 00000038	PSB -38	BT40	MAS-2	○	15	17	10	60	35	6	28	7	M16	19	60°	3	3	30°	—
0754 00000040	PSB -40P	BT40	JIS	○	19	17	14	54	29	7	23	7	M16	19	75°	1	7	—	—
0754 00000032	PSB -32	BT40	JIS	○	19	17	14	54	29	7	23	7	M16	19	75°	1	4	—	—
0754 00000023	PSB -23	BT40	—	○	18.8	17	12.5	44.1	19.1	3	14	5	M16	19	45°	1	7	—	—
0754 00000025	PSB -25	BT40	—	○	19	17	14	54	29	4	23	7	M16	19	75°	3	7	30°	—
0754 00000005	PSB -5	BT45	MAS-1	—	19	21	14	70	40	8	31	6	M20	24	45°	—	—	—	—
0754 00000007	PSB -7	BT50	MAS-1	—	23	25	17	85	45	10	35	8	M24	30	45°	—	—	—	—
0754 00000008	PSB -8	BT50	MAS-2	—	23	25	17	85	45	10	35	8	M24	30	60°	—	—	—	—
0754 00000013	PSB -13	BT50	—	—	25	25	18	95	55	29	45.5	8	M24	30	60°	—	—	—	—
0754 00000014	PSB -14	BT50	—	—	23	25	17	85	45	7.5	35	8	M24	30	90°	—	—	—	—
0754 00000016	PSB -16	BT50	—	—	21	25	15	105	63	29	55	5	M24	30	45°	—	—	—	—
0754 00000017	PSB -17	BT50	—	—	24	25	18	71	31	5	23	8	M24	30	90°	—	—	—	—
0754 00000019	PSB -19	BT50	—	—	23	25	17	85	45	10	35	8	M24	30	90°	—	—	—	—
0754 00000022	PSB -22	BT50	—	—	23	25	18	104	64	30	56	8	M24	30	4R	—	—	—	—
0754 10000007	PSB -7-CH	BT50	MAS-1	○	23	25	17	85	45	10	35	10	M24	30	45°	1	6	—	—
0754 00000029	PSB -29	BT50	MAS-1	○	23	25	17	85	45	10	35	10	M24	30	45°	2	4.5	—	5
0754 00000033	PSB -33	BT50	MAS-1	○	23	25	17	85	45	10	35	10	M24	30	45°	3	6	30°	—
0754 00000035	PSB -35	BT50	MAS-1	○	23	25	17	85	45	10	35	10	M24	30	45°	3	5.5	60°	—
0754 10000008	PSB -8-CH	BT50	MAS-2	○	23	25	17	85	45	10	35	10	M24	30	60°	1	6	—	—
0754 00000036	PSB -36	BT50	MAS-2	○	23	25	17	85	45	10	35	10	M24	30	60°	3	5.5	60°	—
0754 00000039	PSB -39	BT50	MAS-2	○	23	25	17	85	45	10	35	10	M24	30	60°	3	6	30°	—
0754 00000050	PSB -50P	BT50	JIS	○	28	25	21	74	34	7	25	10	M24	30	75°	1	10	—	—
0754 00000037	PSB -37	BT50	JIS	○	28	25	21	74	34	7	25	10	M24	30	75°	3	5.5	60°	—
0754 00000024	PSB -24	BT50	—	○	29	25	20.9	65.2	25.2	5	17.6	8	M24	30	45°	1	10	—	—
0754 00000027	PSB -27	BT50	—	○	23	25	17	85	45	10	35	10	M24	30	90°	3	8	30°	—
0754 00000028	PSB -28	BT50	—	○	23	25	17	85	45	10	35	10	M24	30	90°	4	6	—	—

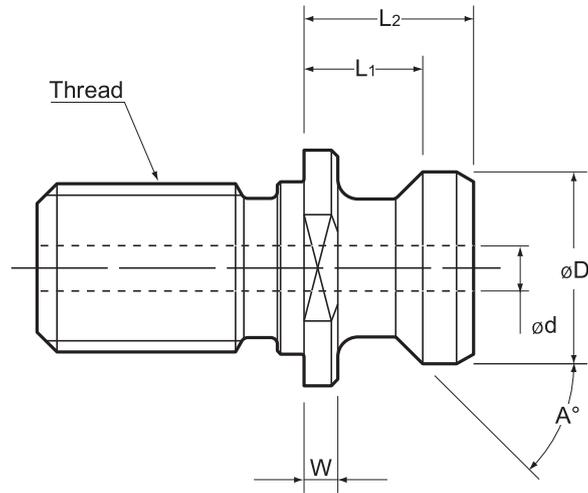
## Retention Stud Selection Table

1. This selection table describes standard retention studs for each of standard machines. Please check operation manual of machines to select appropriate type of the retention studs.
2. Take note that our center through coolant retention stud may not be used on certain M/C because of specifications.

Machine Tool Maker	M/C Model	BT	Center Through Coolant	PSB
IKEGAI	HM3	BT30	—	PSB-30P
	TV4, TH500	BT40	—	PSB-3
	TV5, TH600, TVU5, THU600, NB110T, NB130T, HM5	BT50	—	PSB-7
	TVU4, THU500	BT40	●	PSB-40P
ENSHU	GE Series, JE Series, E130, ES400, EV360 (T)	BT30	—	PSB-0A
	GE Series, JE Series, EV Series, ES450	BT40	—	PSB-4
	GE Series, JE Series, EV Series	BT50	—	PSB-8
	GE Series, JE Series, E130, ES400, EV360 (T)	BT30	●	PSB-0A-CH
	GE Series, JE Series, EV Series, ES450	BT40	●	PSB-4-CH
	GE Series, JE Series, EV Series	BT50	●	PSB-8-CH
OKUMA	MU Series, MA-400H, MB Series	BT40	—	PSB-4
	MILLAC Series	BT40	—	PSB-3
	MA Series, MB Series, MCR Series, MCM-B, MCV-AII, MILLAC Series	BT50	—	PSB-8
	MU Series, MA-400H, MB Series, MILLAC Series	BT40	●	PSB-31, PSB-38 、PSB-32
	MA Series, MB Series, MCR Series, MCM-B, MCV-AII, MILLAC Series	BT50	●	PSB-33, PSB-39 PSB-8-CH
OKK	VM/R Series, VP Series, VB53, VC51, GR400, HMC400, HM Series, VC-X350, VC-X500	BT40	—	PSB-3
	VM/R Series, KCV Series, GC Series, HM Series, MCH Series	BT50	—	PSB-19
	VM/R Series, VP Series, VB53, VC51, GR400, HMC400, HM Series, VC-X350, VC-X500	BT40	●	PSB-3-CH
	VM/R Series, KCV Series, HM Series, MCH Series	BT50	●	PSB-28
KITAMURA	Mycenter Series, Mytrunnion Series	BT30	●	PSB-30P
	Mycenter Series, Mytrunnion Series, Supercell-400, BRIDGE center	BT40	●	PSB-40P
	Mycenter Series, BRIDGE center	BT50	●	PSB-50P
KIRA	PCV-30, KPC-30a, KPC-30b, KPC-30b-6vs, HPC-30Vb-2AQC, HPC-30Vb-2API, HPC-30Vb-350s, HPC-30Vb-350s-2AQC, PC-30H	BT30	—	PSB-0
	VTC-40a, VTC-40b, KN-40Va-500s, KN-40Va-500s-2API, KN-40Vb-500s, KN-40Vb-500s-2API, KN-40Hb-500s, KN-40Hb-500s-2APC	BT40	—	PSB-3
	PCV-30, KPC-30a, KPC-30b, KPC-30b-6vs, HPC-30Vb-2AQC, HPC-30Vb-2API, HPC-30Vb-350s, HPC-30Vb-350s-2AQC, PC-30H	BT30	●	PSB-30P
	VTC-40a, VTC-40b, KN-40Va-500s, KN-40Va-500s-2API, KN-40Vb-500s, KN-40Vb-500s-2API, KN-40Hb-500s, KN-40Hb-500s-2APC	BT40	●	PSB-3-CH
	KCW-5VR, KCW-5VS	BT30	—	PSB-0
KIWA	KNH400/426, D433 Series, EX Series, PX Series, PMM40, AD-8	BT40	—	PSB-3
	KCW-5VR, KCW-5VS	BT30	●	PSB-0-CH
	KNH400/426, D433 Series, EX Series, PX Series, PMM40, AD-8	BT40	●	PSB-3-CH
	KCW-10V, V41-5X, KH-41, KH-45, V21i-R, V21i-S, V21i-B	BT40	●	PSB-40P
	KCW-11V, KH-55	BT50	●	PSB-50P
KURAKI	KBT, KBF, KBM, KBH, KGD, CMN, KMP	BT50	—	PSB-7
	CM-210G	BT30	—	PSB-0
SHIZUOKA	B Series, CM-350G	BT40	—	PSB-11
	B Series	BT50	—	PSB-19
SNK	CMV Series	BT40	—	PSB-4
	CMV Series, CMV Series, DC Series, HF Series, C Series, RB Series	BT50	—	PSB-8
	AIC Series, MAC Series, FSP Series, HPS Series, PARTE Series	BT40	●	PSB-4-CH
	CMV Series	BT50	●	PSB-8-CH
	CMV Series, DC Series, HF Series, PC Series, RB Series	BT50	●	PSB-8-CH
SUGINO	AIC Series, MAC Series, FSP Series, HPS Series, PARTE Series	BT50	●	PSB-8-CH
	NSV-1555, SCV-1555, SCV-C1555, SCH-1522, SCH-15B	BT30	—	PSB-0A
TAKISAWA	MAC-V1E/430VP	BT40	—	PSB-3
	MAC-V40/Y520	BT40	●	PSB-40P
TSUGAMI	VMA3-III, VML3-III, VMC3-III, VA32A	BT30	—	PSB-0
	VMA4-III, VLA4-III	BT40	—	PSB-3
	FMA3-III, FMA5-III	BT40	—	PSB-4
	VMT4-III, VLT4-III	BT40	—	PSB-40P
TOSHIBA	BSF-150C, BTD Series, BTH Series, BF-130B, BP Series, BTU-14, BMC800/1000, TUE Series, TUD Series, TSS-C Series, TMD Series	BT50	—	PSB-7, PSB-8
	BSF-150C, BTD Series, BTH Series, BF-130B, BP-130, R22/150, BTF-130.R22, BM Series, BTU-14, BMC800/1000, TUE Series, TUD Series, TSS-C Series, TMD Series	BT50	●	PSB-29
TOYOSK	TVT Series, THMC Series, TVMC310	BT30	—	PSB-0A
	H46, THMC410	BT40	—	PSB-3
	H46, THMC410	BT40	●	PSB-3-CH

Machine Tool Maker	M/C Model	BT	Center Through Coolant	PSB
JTEKT	FV Series, UX Series, e Series	BT40	—	PSB-3
	FH Series	BT40	—	PSB-3, PSB-10
	FV Series, RB Series, SB Series, e Series	BT50	—	PSB-7
	FH Series, FA Series	BT50	—	PSB-7, PSB-17
	FV Series, e Series, FH Series	BT40	●	
NIGATA	FV Series, e Series, FA Series	BT50	●	
	HN Series (ULTY Series)	BT50	—	PSB-8
NISHIDA MACHINE	HFA3 Series, HLB3 Series, HLA3S Series, VFR3 Series	BT30	—	PSB-0
	HA40 Series, HFB-4A Series, HLB-4A Series, HAB4 Series, HFB4 Series, NHF4 Series	BT40	—	PSB-3
	HFA5 Series, HFB5 Series, HS Series	BT50	—	PSB-8
	HFA3 Series, HLB3 Series, HLA3S Series, VFR3 Series	BT30	●	PSB-0-CH
	HA40 Series, HFB-4A Series, HLB-4A Series, HAB4 Series, HFB4 Series, NHF4 Series	BT40	●	PSB-3-CH
	HFA5 Series, HFB5 Series, HS Series	BT50	●	PSB-8-CH
KOMATSU NTC	N3 Series, Z3V, Zu3500	BT30	—	PSB-0
	Z Series, TMC Series, N4H7	BT40	—	PSB-3
	N5H, ZV Series	BT50	—	PSB-7
	N3 Series, Z3V, Zu3500	BT30	●	PSB-0-CH
	Z Series, TMC Series, N4H7	BT40	●	PSB-3-CH
	N5H, ZV Series	BT50	●	PSB-7-CH
FANUC	ROBODRILL	BT30	—	PSB-0
	ROBODRILL	BT30	●	PSB-1T
BROTHER	TC-S2DN, TC-22B/TC-22B-O, TC-R2B, TC-32BN QT/FT, TC-31B, SPEEDIO Series (S500X1, S700X1, M140X1)	BT30	—	PSB-0A
	TC-S2DN, TC-22B/TC-22B-O, TC-R2B, TC-32BN QT/FT, TC-31B, SPEEDIO Series (S500X1, S700X1, M140X1)	BT30	●	PSB-26
HORKOS	RS50H, ES50H, NJ50	BT30	—	PSB-0
	RM70H, RM70V, DM70H, NS70, MBE, MOH, TM70M	BT40	—	PSB-3
	RM100H, DM100H, NM100, HFN-C50H, TM100H	BT50	—	PSB-7
	RS50H, ES50H, NJ50	BT30	●	PSB-0-CH
	RM70H, RM70V, DM70H, NS70, MBE, MOH, TM70M	BT40	●	PSB-3-CH
	RM100H, DM100H, NM100, HFN-C50H, TM100H	BT50	●	PSB-7-CH
HOWA MACHINERY	MKN-355VCJ, MKN-335VT, MBN-350H $\alpha$	BT30	—	PSB-0
	MBN-450HQ1, MBN-450H $\alpha$ , MBN-455HN	BT40	—	PSB-3
	MBN-580H	BT50	—	PSB-7
	MBN-350H $\alpha$	BT30	●	PSB-0-CH
	MBN-450HQ1, MBN-450H $\alpha$ , MBN-455HN	BT40	●	PSB-3-CH
	MBN-580H	BT50	●	PSB-7-CH
HOMMA	HVM Series	BT40	—	PSB-40P
	FM Series, TAC-M Series, STAC-M Series, HVM Series, HTM Series	BT50	—	PSB-8
	HVM Series	BT40	●	PSB-40P
	FM Series, TAC-M Series, STAC-M Series, HVM Series, HTM Series	BT50	●	PSB-8-CH
MAKINO	FB127, BH	BT40	—	PSB-3, PSB-4, PSB-40P
	A99E, A100E, MCC Series, MCD1816	BT50	—	PSB-7, PSB-8, PSB-50P
	V33i, V56i, V77, G5, a51nx/a61nx/a61nx-5E	BT40	●	PSB-3-CH, PSB-4-CH, PSB-40P
	V77L, V99/V99L, G10, a71, a81/a82, a81M/a82M, a92	BT50	●	PSB-7-CH, PSB-8-CH, PSB-50P

Machine Tool Maker	M/C Model	BT	Center Through Coolant	PSB
MATSUURA	LX Series, FXII	BT30	—	PSB-30P
	H.Plus Series, V.Plus Series, R.Plus-800, RA-1X/2G, Mold.Plus-800, MAM72 Series, MC Series, MX Series	BT40	—	PSB-40P
	H.Plus Series, MAM72-100H	BT50	—	PSB-50P
	LX Series, FXII	BT30	●	PSB-30P
	H.Plus Series, V.Plus Series, R.Plus-800, RA-1X/2G, Mold.Plus-800, MAM72 Series, MC Series, MX Series	BT40	●	PSB-40P
MITSUI SEIKI	H.Plus Series, MAM72-100H	BT50	●	PSB-50P
	U50A, HU40-T, VU50A, Vertex55II, Vertex75II, Vertex75xII	BT40	—	PSB-10
	HPX63, HU63EX, HU80EX, HU100, HS8A, H5D, H6D, FH550R/HW550A, FH630R/HW630A, HU50-T, HU63-T, HU100-T, HU50A-5X, HU63A-5X, HU80A-5X, HU100-5X, HU100-5XL, HU100-5XLL, HU100-TS, VU65A	BT50	—	PSB-7, PSB-17
	U50A, HU40-T, VU50A, Vertex55II, Vertex75II, Vertex75xII	BT40	●	PSB-40P
	HPX63, HU63EX, HU80EX, HU100, HS8A, H5D, H6D, FH550R/HW550A, FH630R/HW630A, HU50-T, HU63-T, HU100-T, HU50A-5X, HU63A-5X, HU80A-5X, HU100-5X, HU100-5XL, HU100-5XLL, HU100-TS, VU65A	BT50	●	PSB-50P PSB-7-CH
MITSUBISHI	M-H Series, M-V Series	BT40	—	PSB-3, PSB-4
	DH Series, M-H Series, M-V Series, M-VRD Series MAF-B Series, MAF-C Series, MAF-E Series, MAF-R Series, MAF-RS Series, MAF-S Series, MG Series, MHT Series MVR Series, MVR-DX Series	BT50	—	PSB-7, PSB-8
	M-H Series, M-V Series	BT40	●	PSB-3-CH, PSB-4-CH
	DH Series, M-H Series, M-V Series, M-VRD Series, MAF-B Series, MAF-C Series, MAF-E Series, MAF-R Series, MAF-RS Series, MAF-S Series, MG Series, MHT Series, MVR Series, MVR-DX Series	BT50	●	PSB-7-CH, PSB-8-CH
MECTRON	MTV-T360, MTV-T311, MTV-T331W, MTV-C350, MTS-C360, MTS-C360W, MCH-80, MCH-330	BT30	—	PSB-0A
	MTV-T460, MTV-T470, MTV-T452W, MTV-C410	BT40	—	PSB-4
	MTV-T360, MTV-T311, MTV-T331W, MTV-C350, MTS-C360, MTS-C360W, MCH-80, MCH-330	BT30	●	PSB-0A-CH
	MTV-T460, MTV-T470, MTV-T452W, MTV-C410	BT40	●	PSB-4-CH
DMG MORI SEIKI	MAX Series, ACCUMILL Series, ULTIMILL Series	BT30	—	PSB-0
	NV Series, NVX Series, NVD Series, Dura Vertical Series, NHX Series, VS Series, MV-653, SVL5000, SH junior, AFM2400, FM Series	BT40	—	PSB-11
	NV Series, NVX Series, NVD Series, NHX Series, NMH Series, VS Series, MV Series, NH Series, HG Series, MH Series	BT50	—	PSB-19
	MAX Series, ACCUMILL Series, ULTIMILL Series	BT30	●	PSB-0-CH
	NV Series, NVX Series, NVD Series, Dura Vertical Series, NHX Series, VS Series, MV-653, SVL5000, SH junior, AFM2401, FM Series	BT40	●	PSB-25
	NV Series, NVX Series, NVD Series, NHX Series, NMH Series, VS Series, MV Series, NH Series, HG Series, MH Series	BT50	●	PSB-27
YASDA	YBM-N Series, YBM-T Series, YBM-1218V	BT50	—	PSB-7
	H30i, H40i, YBM-Vi40, YBM-640V, YBM-950V, YBM-9150V	BT40	●	PSB-25
	YBM-N Series, YBM-T Series, YBM-1218V	BT50	●	PSB-35, PSB-36 、PSB-37
MAZAK	UN Series	BT30	●	S/PSB-30P
	VRX Series, VCN Series, VTC Series, SVC Series, FF&F3 Series, FJV Series, MM/SMM Series, HCN Series, FH/PFH Series, $\mu$ Series, ANGULAX Series	BT40	●	PSB-23
	VRX Series, VCN Series, MAZATECH V Series, VERSATECH Series, VORTEX Series, FJV Series, HCN Series, FH Series, $\mu$ Series	BT50	●	PSB-24
ROKU-ROKU	RX Series	BT30	—	PSB-0
	KX, LX, MX Series	BT40	—	PSB-3
	GIGA-620	BT40	—	PSB-11



Unit : Inch

Model	D	L1	L2	Angle	W	Thread	d	Shank size	Description
PSC40-1	0.74	0.440	0.64	45°	0.12	5/8"-11	0.275	CAT40	ANSI Standard , With a coolant hole
PSC50-1	1.14	0.700	1.00	45°	0.20	1"-8	0.464	CAT50	ANSI Standard , With a coolant hole

Please check dimensions with your machine spindle specs.