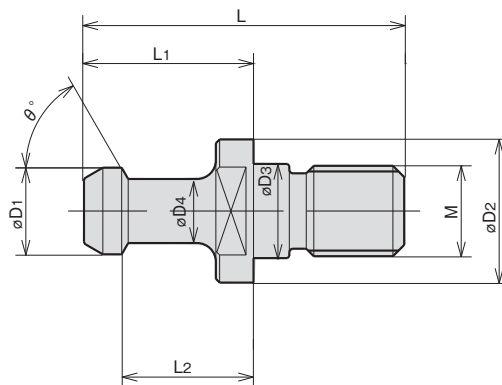


Accessories

177-180	RETENTION KNOB (PULL STUD)
181	LOCKING FIXTURE
182	POINT FINDER
183	TOOL SETTER
184-187	TOOL PRESETTER



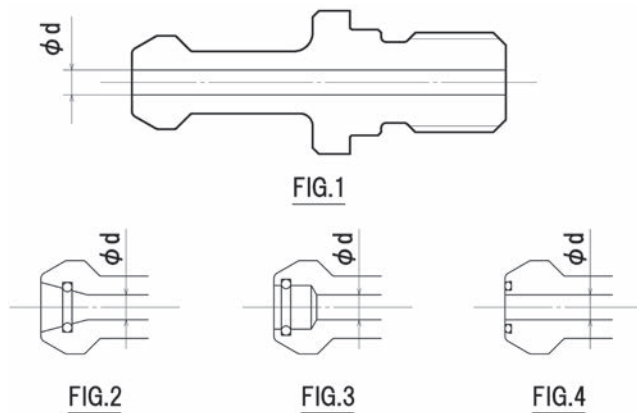
PULL STUD BOLT



Taper	CODE	φD1	φD2	φD3	φD4	L	L1	L2	M	θ°	φd	FIG.	Standard Machine Builder
BT30 (BBT30)	P30T-MAS1 (SKD)	17000	11	16.5	12.5	7	43	23	18	M12	45	—	MAS- I
	P30T-MAS2 (SKD)	17001	11	16.5	12.5	7	43	23	18	M12	60	—	MAS- II
	P30T-JIS SKD	17308	12	16.5	12.5	8	43	23.4	18.4	M12	75	—	JIS
BT35	P35T-1 (MAS1)	17013	13	20	12.5	8.5	48	28	22.5	M12	45	—	MAS- I
BT40 (BBT40)	P40T-MAS1	17032	15	23	17	10	60	35	28	M16	45	—	MAS- I
	P40T-MAS2	17034	15	23	17	10	60	35	28	M16	60	—	MAS- II
	P40T-F2	17036	15	23	17	10	60	35	28	M16	90	—	BT40-90°
	P40T-1 SKD	17320	15	23	17	10	60	35	28	M16	45	—	MAS- I
	P40T-2 SKD	17322	15	23	17	10	60	35	28	M16	60	—	MAS- II
	P40T-F2 SKD	17324	15	23	17	10	60	35	28	M16	90	—	BT40-90°
	P40T-JIS	17430	19	23	17	14	54	29	23	M16	75	—	JIS
	P40T-JIS SKD	17338	19	23	17	14	54	29	23	M16	75	—	JIS
	P40T-V7.5N YAMAZAKI MAZAK	17422	18.8	22	17	12.45	44.1	19.11	14.03	M16	45	—	YAMAZAKI MAZAK
	P40T-V7.5N YAMAZAKI MAZAK SKD	17334	18.8	22	17	12.45	44.1	19.11	14.03	M16	45	—	YAMAZAKI MAZAK
	P40T-YAMAZAKI MAZAK (Old mold 90°)	17428	15	23	17	10	54.6	29.6	22.6	M16	90	—	YAMAZAKI MAZAK
P40T-M1 MITSUI	17418	15	23	17	10	50	25	18	M16	90	—	mitsui SEIKI	
BT50 (BBT50)	P50T-MAS1	17062	23	38	25	17	85	45	35	M24	45	—	MAS- I
	P50T-MAS2	17064	23	38	25	17	85	45	35	M24	60	—	MAS- II
	P50T-Y3	17070	23	38	25	17	85	45	35	M24	90	—	BT50-90°
	P50T-JIS	17495	28	38	25	21	74	34	25	M24	75	—	JIS
	P50T-V15N/V20 YAMAZAKI MAZAK	17492	28.96	37	25	20.83	65.2	25.2	17.58	M24	45	—	YAMAZAKI MAZAK
	P50T-1G	17446	23	38	25	17	85	45	35	M24	45	—	MAS- I
	P50T-2G	17448	23	38	25	17	85	45	35	M24	60	—	MAS- II
	P50T-M MITSUI	17488	24	36	25	18	71	31	23	M24	90	—	mitsui SEIKI
	P50T-4R Long type of MITSUBISHI	17498	23	38	25	17	110	70	60	M24	45	—	MITSUBISHI

- Note : 1. Please check operation manual of machines to select appropriate type of the pull stud.
2. SKD in Code means dies steel, metal of high-tensile strength.

PULL STUD BOLT WITH COOLANT HOLE



Taper	CODE		φD1	φD2	φD3	φD4	L	L1	L2	M	θ°	φd	FIG.	Standard Machine Builder
BT30 (BBT30)	P30T-1 (φ2.5) SKD	17300	11	16.5	12.5	7	43	23	18	M12	45	2.5	1	MAS- I
	P30T-2 (φ2.5) SKD	17302	11	16.5	12.5	7	43	23	18	M12	60	2.5	1	MAS- II
	P30T-1F (φ4&S10) D8/SKD	17312	11	16.5	12.5	8	43	23	18	M12	45	4	1	FANUC
	P30T-2B (φ2.5) D7.5/SKD	17314	11	16.5	12.5	8	43	23	18	M12	60	2.5	1	BROTHER
	P30T-JIS (φ4) /SKD	17310	12	16.5	12.5	8	43	23.4	18.4	M12	75	4	1	JIS
BT40 (BBT40)	P40T-1 (MAS1) φ4	17406	15	23	17	10	60	35	28	M16	45	4	1	MAS- I
	P40T-2 (MAS2) φ4	17408	15	23	17	10	60	35	28	M16	60	4	1	MAS- II
	P40T-1 (φ4&O15) SKD	17326	15	23	17	10	60	35	28	M16	45	4	1	MAS- I
	P40T-JIS (φ6&φ7)	17432	19	23	17	14	54	29	23	M16	75	7	1	JIS
	P40T-JIS (φ7) SKD	17340	19	23	17	14	54	29	23	M16	75	7	1	JIS
	P40T-JIS (φ7&O15)	17434	19	23	17	14	54	29	23	M16	75	7	1	MAKINO
	P40T-JIS (φ7&O15) SKD	17342	19	23	17	14	54	29	23	M16	75	7	1	MAKINO
	P40T-JIS (φ4&S15) OKUMA	17436	19	23	17	14	54	29	23	M16	75	4	1	OKUMA
	P40T-JIS (φ4&S15) OKUMA SKD	17344	19	23	17	14	54	29	23	M16	75	4	1	OKUMA
	P40T-JIS (φ7&With Side hole) YASUDA	17438	19	23	17	14	54	29	23	M16	75	7	1	YASUDA
	P40T-V7.5N YAMAZAKI MAZAK (φ7)	17424	18.8	22	17	12.45	44.1	19.11	14.03	M16	45	7	1	YAMAZAKI MAZAK
	P40T-YAMAZAKI MAZAK (φ7&O15) SKD	17336	18.8	22	17	12.45	44.1	19.11	14.03	M16	45	7	1	YAMAZAKI MAZAK
	P40T-MORI (φ7&P9 O15)	17411	19	23	17	14	54	29	23	M16	75	7	2	DMG MORI
	P40T-MORI (φ7&P9/O15) SKD	17332	19	23	17	14	54	29	23	M16	75	7	2	DMG MORI
	P40T-1 (φ3&P5/O15) OKUMA	17416	15	23	17	10	60	35	28	M16	45	3	2	OKUMA
P40T-1 (φ3&P6) JTEKT	17414	15	23	17	10	60	35	28	M16	45	3	3	JTEKT	
BT50 (BBT50)	P50T-1 (MAS1) φ6	17450	23	38	25	17	85	45	35	M24	45	6	1	MAS- I
	P50T-2 (MAS2) φ6	17452	23	38	25	17	85	45	35	M24	60	6	1	MAS- II
	P50T-Y3 (φ6)	17454	23	38	25	17	85	45	35	M24	90	6	1	BT50-90°
	P50T-1 (MAS1) φ6&P21	17456	23	38	25	17	85	45	35	M24	45	6	1	MAKINO
	P50T-2 (MAS2) φ6&P21	17458	23	38	25	17	85	45	35	M24	60	6	1	MAKINO
	P50T-JIS (φ10)	17496	28	38	25	21	74	34	25	M24	75	10	1	JIS
	P50T-JIS (φ6&P21)	17497	28	38	25	21	74	34	25	M24	75	6	1	MAKINO
	P50T-V15N/V20 YAMAZAKI MAZAK (φ10)	17494	28.96	37	25	20.83	65.2	25.2	17.58	M24	45	10	1	YAMAZAKI MAZAK
	P50T-1 (φ6&P21) OKUMA	17466	23	38	25	17	85	45	35	M24	45	6	1	OKUMA
	P50T-2 (φ6&P21) OKUMA	17468	23	38	25	17	85	45	35	M24	60	6	1	OKUMA
	P50T-1 (φ8&P9/P21) High pressure for DMG MORI	17478	23	38	25	17	85	45	35	M24	45	8	2	DMG MORI
	P50T-2 (φ8&P9/P21) High pressure for DMG MORI	17480	23	38	25	17	85	45	35	M24	60	8	2	DMG MORI
	P50T-1 (φ5.5&P9/P21) YASUDA	17470	23	38	25	17	85	45	35	M24	45	5.5	2	YASUDA · KOMATSU NTC
	P50T-2 (φ5.5&P9/P21) YASUDA	17472	23	38	25	17	85	45	35	M24	60	5.5	2	YASUDA
	P50T-1 (φ6&P9) JTEKT	17462	23	38	25	17	85	45	35	M24	45	6	3	JTEKT
	P50T-2 (φ6&P9) JTEKT	17464	23	38	25	17	85	45	35	M24	60	6	3	JTEKT
	P50T-1 (φ6&S9/P21) OKK	17482	23	38	25	17	85	45	35	M24	45	6	4	OKK
	P50T-2 (φ6&S9/P21) OKK	17484	23	38	25	17	85	45	35	M24	60	6	4	OKK
	P50T-1 (φ6&S9/P21) OKUMA	17474	23	38	25	17	85	45	35	M24	45	6	2	OKUMA
	P50T-2 (φ6&S9/P21) OKUMA	17476	23	38	25	17	85	45	35	M24	60	6	2	OKUMA
P50T-Y3 (φ6&S9/P21) OKK	17486	23	38	25	17	85	45	35	M24	90	6	4	OKK	
P50T-Y3 (φ8&P9 P21) High pressure for DMG MORI	17481	23	38	25	17	85	45	35	M24	90	8	2	DMG MORI	
P50T-M MITSUI (φ8)	17490	24	36	25	18	71	31	23	M24	90	8	1	MITSUI SEIKI	

Note : 1. Please check operation manual of machines to select appropriate type of the pull stud.
2. SKD in Code means dies steel, metal of high-tensile strength.

MACHINE MAKER

TYPE OF SPINDLE TAPER & PULL STUD BOLT CODE

Machine Builder	Machine Model	Shank	Standard	Code
IKEGAI	TV4 (HITOTSUBO KUN) , 4F, 4L	BT40	MAS- I	17032, (17320)
	TV-U4, 4L II H4 TH500 THU500	40	JIS	17430, (17338)
	TV5 (ANIKI) , U5 MX Series BX110P Series BX130P Series TH600 THU600 AH6, 8	50	MAS- I	17062
IWASHITA	IAM Series	BT40	MAS- II	17034, (17322)
	IAM Series	50	MAS- II	17064
ENSHU	S300 SS300 DT Center Series JE30S ES400	BT30	MAS- I	(17000)
	E-130 JE130 JE30S JE30G ES400 EV360, EV360T	30	MAS- II	(17001)
	Super400, 450FV VMC Series HMC Series	40	MAS- I	17032, (17320)
	JE S Series ES450, 450T EV450, 530S GE460H, 480H	40	MAS- II	17034, (17322)
	EV650, 600MV VMC Series HMC Series VE65E	50	MAS- I	17062
OKUMA	JE80, 80G EV530 EG580, 590H	50	MAS- II	17064
	MA, MB, MC, MD, MF, MU, MX-A Series VH-40 VR-40 MP-46V GENOSS Series	BT40	MAS- II	17034, (17322)
	Thru the coolant (JIS)	40	JIS	17434, (17344)
	MA, MB, MC, MD, MX-B MCV-A, B MCR, MU, MF Series MCM-B	50	MAS- II	17064
OKUMA	Thru the coolant	50	MAS- II	17468
	MILLAC V Series, H Series MAC TURNS Series MM-300 ML-300	BT40	MAS- I	17032, (17320)
	Thru the coolant	40	MAS- I	17416
	MILLAC V Series, H Series VTMS Series VMP-10, 16	50	MAS- II	17064
OKK	Thru the coolant	50	MAS- II	17476
	PM300, 350	BT30	JIS	(17308)
	PCV, TRC, VM, AMC, DGM, VP, GC, HM, HP, VC Series PG8 PM400 III DV5, V1 VB53 GR400	40	MAS- I	17032, (17320)
	MCV-350, 410/40 PCH-400, 500 HPV400 MPH-400	40	90°	17036, (17324)
	MCV, MCH, MHA, KCV, ACM, DCM, VM, HMS Series PCV-510, 620 VG5000 GC600 DV5	50	90°	17070
OHTORI	PCV50, 55, 60	50	MAS- I	17062
	OSH-54 OSV Series OSU-545 BMV II-85	BT40	MAS- I	17032, (17320)
	FTV-500, 500HV	40	JIS	17430, (17338)
	BMV-40NC (OP) , 400NC (OP) , 500LNC, 500ANC OSV-139 FTV-1200	50	MAS- I	17062
OM	OMC-40HS	BT40	MAS- I	17032, (17320)
	OMC-50V, 50HS	50	MAS- I	17062
	TDC Omega-M, VTLex-M, Neo α Series	50	MAS- II	17064
	Thru the coolant	BT50	MAS- II	17472
KITAMURA	HX-250G	BT30	JIS	(17308)
	Thru the coolant	30	JIS	(17310)
	Mycenter-3XG, 4XiF, 7X, HX400G, Supercell-400 Mytrunnion-5 JIGcenter-5	40	JIS	17430, (17338)
	Thru the coolant	40	JIS	17432
	Mycenter-4XiF, 7X, HX500i, 630i, 800iL, 1000i, 1250i, BridgeCenter-8F, 10	50	JIS	17495
	Thru the coolant	50	JIS	17496
KIRA	VMC, HMC, Arik, KN, VTC Series PC-30E 30F 30H 30W KPC30a, 30b HPC-30Vb PCV-30, 150	BT30	MAS- I	(17000)
	Thru the coolant	30	JIS	(17310)
	KV, Arik, VTC, KN Series PC40G	40	MAS- I	17032, (17320)
	Thru the coolant	40	JIS	17432
KURASHIKI	KV-500, 500H, 700	BT40	MAS- I	17032, (17320)
	KV Series KMV Series KBT Series KH Series CMN Series KHM-125 KBM11X	50	MAS- I	17062
KOMATSU NTC	N, Z Series	BT30	MAS- I	(17000)
	TMC, NH, NV, H, N, Z, ZV, ZH Series	40	MAS- I	17032, (17320)
	ZV5400 ZH4000, 5000 (Thru the coolant)	40	MAS- I	17416
	TMC, CNC, N, ZV Series	50	MAS- I	17062
	ZV5500 (Thru the coolant)	50	MAS- I	17470
SHIZUOKA	CM-210G, 350B CM300-A, 300-5A	BT30	MAS- I	(17000)
	B Series CM-350 SSR-550 HSR-7, 10	40	90°	17036, (17324)
	B Series SMV Series SG-600	50	90°	17070
SHINNIHON	CMV-50, 70T	BT40	MAS- II	17034, (17322)
	CMV, DC, ESP, FSP, HF, HPS, PS, RB, BFR Series PC-55V EXI-70K	50	MAS- II	17064
JTEKT	PV640J	BT30	MAS- I	(17000)
	FA, FV, FVN, FXN, JV, PV Series e500H4, UX570	40	MAS- I	17032, (17320)
	FV, FVN, FHN, FXN, PV, BN, FH, FA, RB, SB Series SV-65 e500H5	50	MAS- I	17062
	DN-1V, 2V, 1H (Thru the coolant)	50	MAS- I	17462
SUGINO	Self center V15, NSV15, VC15, H15, H15B	BT30	MAS- II	(17001)
TAKIZAWA	MAC-V1E, 430VP VP10	BT40	MAS- I	17032, (17320)
	MAC-V40, 40B Y520	40	JIS	17430, (17338)
	MAC-V40, 40B Y520 (Thru the coolant)	40	JIS	17432
TAKEDA	MV, TK-VS Series	BT40	MAS- I	17032, (17320)
	VS Series	50	MAS- II	17064
SUGAMI	VMA3- III VMC3- III VML3- III VA31H, 32H VA3	BT30	MAS- I	(17000)
	FMA3- III FMA5- III	40	MAS- II	17034, (17322)
	VMA4- III	40	MAS- I	17032, (17320)
	VMT4- III	40	JIS	17430, (17338)
TOSHIBA	JRV400, 450 NX76B	BT40	MAS- I	17032, (17320)
	BMC, BTD, BP, MPC, MPE, MPF, MPH, VMC, BF, BTU, NX, BTH, BSF, BTFx Series	50	MAS- I	17062

Note : 1. Please check operation manual of machines to select appropriate type of the pull stud.
2. Code in brance like (17320) means that its material is dies steel, metal of high-tensile strength.

Machine Builder	Machine Model	Shank	Standard	Code
NIIGATA	PN40, 40A SPN40 EF40H EN Series VN Series PN Series	BT40	MAS-II	17034, (17322)
	HN Series BHN Series SPN50, 63 ULTY501, 701, 901 MPN-80	50	MAS-II	17064
HAMAI	FZ-16, 16L, 16E, 26, 26L DZ-16, 16L, 16LA	BT30	MAS-I	(17000)
	MC-3VA, 3VS, 4VS EN-3, 4, 6 EN-40 HN-40	40	MAS-I	17032, (17320)
	MC-50V, 70V, 80V, 6V, 5VA, 6VA, 8VA T-80MH, 180MH	50	MAS-I	17062
FANUC	ROBO DRILL/DRILL/DRILL MATE Series α -T14iA α -T21iD α -T21iE α -T21iF α -D14iA α -D21iA	BT30	MAS-I	(17000)
	Thru the coolant	30	maker	(17312)
BROTHER	TC-221, 225, 227, 229, 229N, 22A, 311, 312N, 31A, 321, 323, 324, 324N, 325, 32A, 32B, S2A, S2B, S2C, R2A, 22B, S2D, 32BN, 31B, R2B, S500X1, S700X1	BT30	MAS-II	(17001)
	Thru the coolant	30	maker	(17314)
	TC-731, 731S	40	MAS-I	17032, (17320)
HORKOS	HFN, HTNC, ES Series NJ50 RS50H PM70H RM70 ES50H ES50V-I	BT30	MAS-I	(17000)
	HFN, HTNC, RM, DM, HFN Series NS70 MOH630 THMC410 TM70H TG70H MBE	40	MAS-I	17032, (17320)
	Thru the coolant	40	MAS-I	17406
	HFN, HTNC Series G50H C50H DM100H RM100H NM100 DM100H NM100	50	MAS-I	17062
HOWA	Thru the coolant	50	MAS-I	17450
	MMN, MDT, MBN, MSN, MEN, MJN, MZN, MKN Series	BT30	MAS-I	(17000)
	Thru the coolant	30	maker	(17312)
	MBN, MCN, MHN Series MCV-800	40	MAS-I	17032, (17320)
	Thru the coolant	40	MAS-I	17406
MAKINO	MBN-800 HS-500	50	MAS-I	17062
	Thru the coolant	50	MAS-I	17450
	a1, A, V Series J55, 88 D300, 500, 800Z BH50	BT40	JIS	17430, (17338)
	Thru the coolant	40	JIS	17434
	BNC, FNC, MC Series SF64 A55, 66, 88 FB127 Series	40	MAS-I	17032, (17320)
	a1, A, V, GF Series	50	JIS	17495
MAKINO	Thru the coolant	50	JIS	17497
	FDNC, FNC, GF, MC, MCC, MCD, MCF Series GN1712-A a71, 81 A77, 88, 99, 100 V77	50	MAS-I	17062
	MSA30, 40, 50 MS5A, 5B MSX30 PS1-W MSJ25 MSJX25 MSB58, 512, 516	BT30	MAS-I	(17000)
	MSA30, 40, 50 MS5A, 5B MSX30 MSB58, 512, 516, S5B	40	MAS-I	17032, (17320)
	Thru the coolant	40	MAS-I	17406
MATSUURA	μ MASTER, 400V-24, FX-1	BT30	MAS-II	(17001)
	VX-0, -1 FX-0, 1G, 2 LX-0, 160 LF-160 LV-500	30	JIS	(17308)
	MC, RA, MAM, FXM, FX, H.Max, V.Max, H.Plus, R.Plus, V.Plus Series Mold Plus800 MX-520 VX-1000	40	JIS	17430, (17338)
	Thru the coolant	40	JIS	17432
	MC-1000V, 1250V, 1500V, 2000V MC900H, 900HG H.Plus Series	50	MAS-II	17064
	RA-4G (#50) MC-1500VG (#50) MC-900HG LX-1500	50	JIS	17495
MITSUI	VS, HR, HT, HU Series VT3A VU50A	BT40	maker	17418
	Vertex Series	40	JIS	17430, (17338)
	Thru the coolant	40	—	—
	VU, VJ, VS, H, HU, HS, HR, HPT Series	50	maker	17488
	Thru the coolant	50	maker	17490
MITUBISHI	V-360 M-V4C, V5C M-H4B, H5B MPA Series M-V Series M-H Series	BT40	MAS-I	17032, (17320)
	V, M-V, M-H, M-VS, MPA, MAF, MVR, MHT, MKH, DHS Series	50	MAS-II	17064
	Thru the coolant	50	MAS-II	17452
DMGMORISEIKI	TV-300, 400 ACCUMILL4000 ULTIMILLH3000, V3000 MILLTAP700 MAX3000	BT30	MAS-I	(17000)
	Thru the coolant	30	—	—
	SV, SH, SLV, MV, MH, NV, NMV, NVD, NH, AFM, Dura Vertical, NVX, NHX, VS, NT Series SuperTILT500 SLV5000, 5250	40	90°	17036, (17324)
	Thru the coolant	40	JIS	17411, (17332)
(formerlyHITACHI)	SV, SH, MV, MH, MB, NV, NH, NVX, NHX, VS, NMH, NMV, NT Series	50	90°	17070
	VK Series VM-40, 50 VS-40, 50, 60 VKC Series VA Series HG-40 HSS Series HK-630 HA Series	BT40	MAS-I	17032, (17320)
	VK-45, 55, 65, 85 VA Series VG Series VF Series VS-50, 60 HSS Series HK-630 HG Series HC Series	50	90°	17070
MAZAK	IMPULSE30 Type A, B, C UN-600V, 600H	BT30	MAS-II	(17001)
	VTC, V, VQC, AJV, FJV, FH, FF, VARIAXIS, NEXUS, INTEGREGX, VCN, HCN, PFH, μ Series ANGULAX900	40	maker	17422, (17334)
	VTC, V, VQC, AJV, FJV, SV, H, FH, MTV, HV, INTEGREGX, VORIEX, VCN, HCN, VERSATECH, μ Series	50	maker	17492
	H-12, 12N, 15, 20, 25 V12, 15, 20 VQC-10/15, 20/50	50	—	—
YASUDA	YBM, YPC, VPC Series H30i H40	BT40	MAS-I	17032, (17320)
	YBMVi40	40	JIS	17430, (17338)
	Thru the coolant	40	JIS	17438
	YBM, YMC Series	50	MAS-I	17062
ROKUROKU	Thru the coolant	50	MAS-I	17470
	LIBERO RX Series	BT30	MAS-I	(17000)
	KX, MX, LX, GR-655N VERTIMAC Series RM Series GIGA	40	MAS-I	17032, (17320)

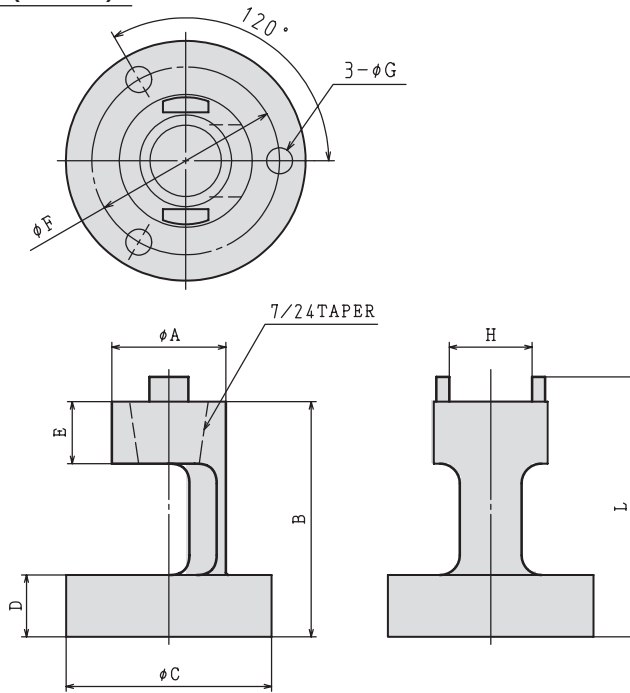
Note : 1. Please check operation manual of machines to select appropriate type of the pull stud.
 2. Code in brance like (17320) means that its material is dies steel, metal of high-tensile strength.

BT series
 HSK series
 ST series
 Versatile Tool
 Cutting Tool

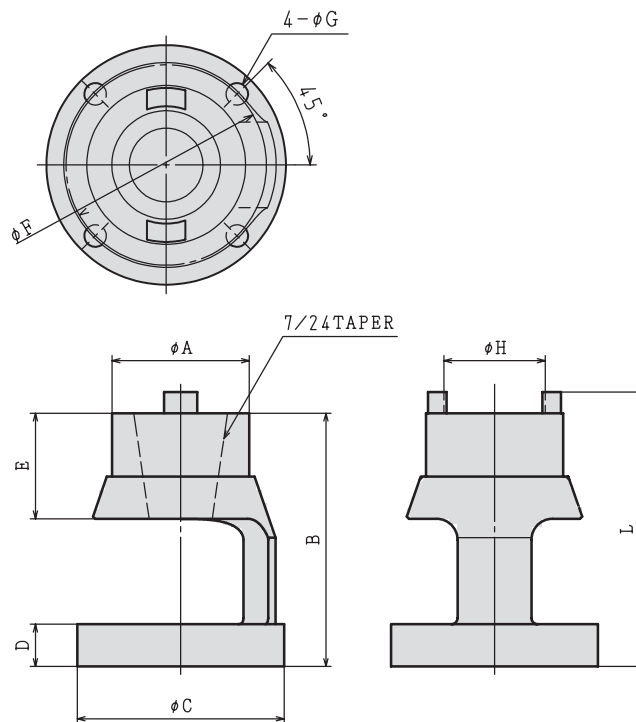
Accessories

LOCKING FIXTURE

3 Holes(LF30)



4 Holes(LF40,LF50)



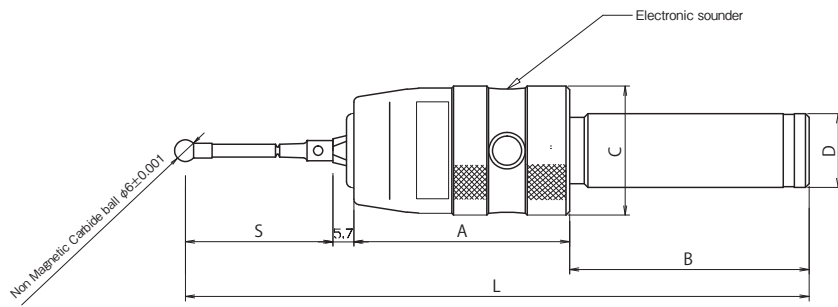
MODEL	CODE	TAPER	A	B	C	D	E	F	G	H	L	N/W (kg)
LF30	35905	NT30	46	95	83	25	25	65	9	33.5	105	1.2
LF40	35907	NT40	65	120	98	20	50	82	9	48	130	4.4
LF50	35909	NT50	95	175	128	25	70	115	9	77.6	187	9.0

ORDERING EXAMPLE

① LF - ② 30

- ① Name
- ② NT No.

Point Finder with Buzzer



MODEL	CODE	D	S	A	B	L	C	Mass (g)	Battery (included)
PTC-20	83662	φ20	40	58.6	65	169.3	35	350	Manganese battery R1 (UM-5) ×2
PTC-32	83664	φ32	40	58.6	65	169.3	35	600	

Contact pressure of the stylus and workpiece is small, the LED lights at 0.1 gf. Measure accurately even on thin workpieces. If "with buzzer", we will inform the position detection simultaneously with the electronic sound and the LED.

Also, the safety that the stylus swings in X, Y, Z direction design. With the development of the new mechanism (patent pending), the measurement accuracy of metal and nonferrous metals has dramatically improved.

Stylus stroke / XY axis	±13mm
Stylus stroke / Z axis	±5mm
Buzzer frequency	2,700Hz
Measuring pressure	0.1gf
Repeatability	±0.5μm
Standard stylus (with φ 6 x 40 mm)	

BT series

HSK series

ST series

Versatile Tool

Cutting Tool

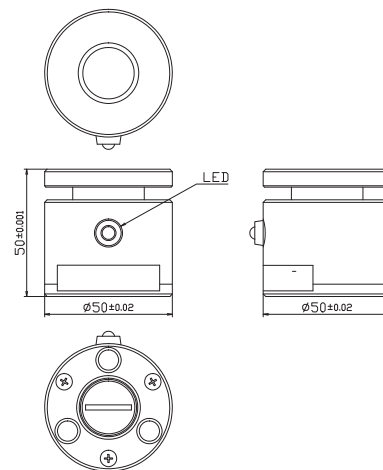
Accessories

NS Tool Setter

External Contact Type



NS Tool Setter makes it possible to measure the tool length (the position of a drill tip) on the machine tools. It saves your machining time! Sub-zero treatment and ultraprecise polish prevent the variation across the ages. It is usable to measure iron and nonferrous metal workpieces



Model number	CODE
M-50	83666

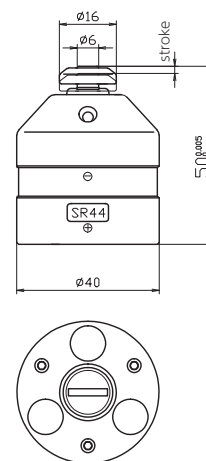
Height	50mm±0.001mm
Parallelism	2/1000mm
Reaction force	150gf
Measuring Pressure	0.001N(0.1gf)
Stroke	5mm
Mass	500g
LED	High Brightness Red

Tool Setter-i

Internal Contact Type



Tool Setter-i has been developed for ultra-highspeed spindle with the machine tools (10000rpm). It is available to measure plastic, wood and some other materials which block electricity. Magnets are attached at the bottom, so it can be used with both vertical and horizontal machining tools.

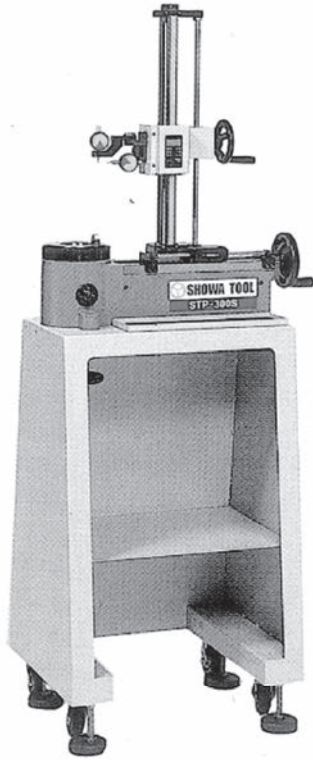


Model number	CODE
i-50	83668

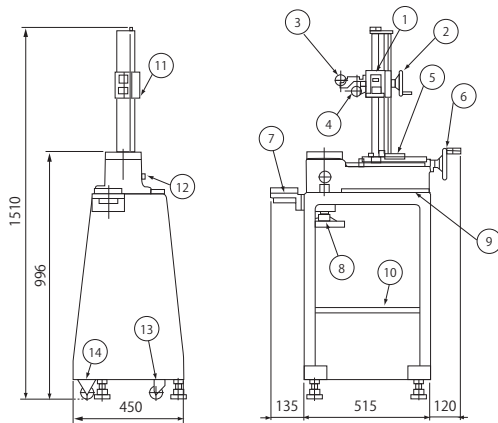
Minimum measurement tool diameter	φ0.05mm~φ6mm supported
Sensor plate	Alumina oxide ceramic
Diamention	φ40×50mm+0~5/1000mm
Measuring Pressure	0.2N(20gf)
Stroke	1.5mm
Magnetism	6N
Mass	200g
LED	High Brightness Blue
Repeatability	±0.001mm

TOOL PRESETTER

STP-300S (SIMPLE TYPE)



External Dimensions

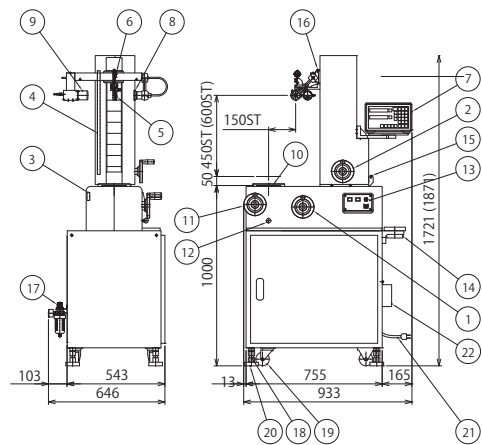


- | | |
|------------------------------|------------------------|
| ① Z-axis Measurement Unit | ⑧ Tool Setting Handle |
| ② Z-axis Handle | ⑨ Plate |
| ③ Z-axis Dial Gauge | ⑩ Shelf |
| ④ X-axis Dial Gauge | ⑪ Z-axis Moving Handle |
| ⑤ X-axis Measurement Unit | ⑫ Fixing for Spindle |
| ⑥ X-axis Handle | ⑬ Caster(Rotary type) |
| ⑦ Tool Setting Pot(Optional) | ⑭ Caster |

STP-300N (STANDARD TYPE)



External Dimensions



- | | |
|---------------------------|-----------------------------|
| ① X-axis movement handle | ⑫ Spindle lock pin |
| ② Z-axis movement handle | ⑬ Operation panel |
| ③ X-axis Scale | ⑭ Tool tightening mount |
| ④ Z-axis Scale | ⑮ X-axis refueling entrance |
| ⑤ X-axis dial gauge | ⑯ Z-axis refueling entrance |
| ⑥ Z-axis dial gauge | ⑰ Filter regulator |
| ⑦ Digital display counter | ⑱ Level bolt |
| ⑧ Back light | ⑲ Caster |
| ⑨ CCD camera | ⑳ Pedestal |
| ⑩ Spindle | ㉑ Power cable |
| ⑪ Spindle rotation handle | ㉒ Oil receptacle |

BT series

HSK series

ST series

Versatile Tool

Cutting Tool

Accessories

TOOL PRESETTER

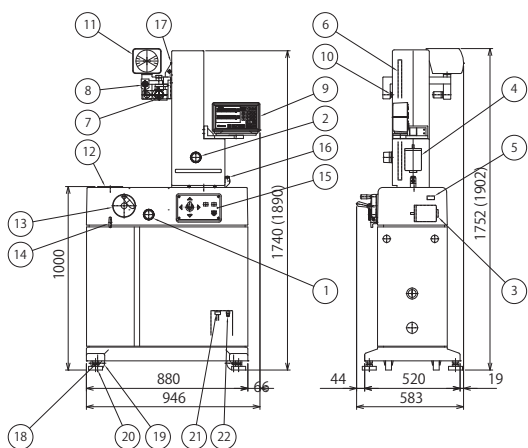
STP-400 (QUALITY TYPE)



STP-500 (HI-QUALITY TYPE)

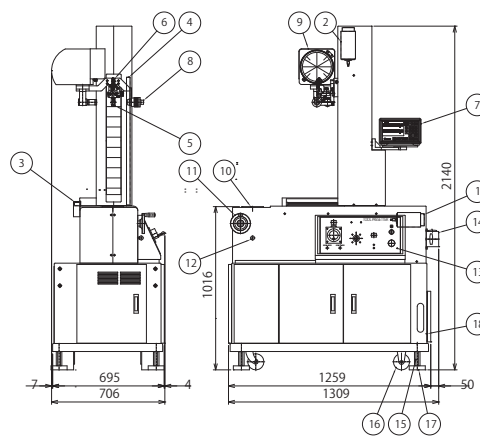


External Dimensions



- | | |
|------------------------------|-----------------------------|
| ① X-axis handle | ⑫ Spindle |
| ② Z-axis handle | ⑬ Spindle rotation handle |
| ③ X-axis motor | ⑭ Spindle lock pin |
| ④ Z-axis motor | ⑮ Operation panel |
| ⑤ Z-axis Scale | ⑯ X-axis refueling entrance |
| ⑥ X-axis dial gauge | ⑰ Z-axis refueling entrance |
| ⑦ X-axis dial gauge | ⑱ Level bolt |
| ⑧ Z-axis dial gauge | ⑲ Caster |
| ⑨ Digital display counter | ⑳ Pedestal |
| ⑩ Projector(Light source) | ㉑ Connecting unit |
| ⑪ Projector(Projection part) | ㉒ Air connection entrance |

External Dimensions



- | | |
|------------------------------|---------------------------|
| ① X-axis AC servomotor | ⑩ Spindle |
| ② Z-axis AC servomotor | ⑪ Spindle rotation handle |
| ③ X-axis Scale | ⑫ Spindle lock pin |
| ④ Z-axis Scale | ⑬ Operation panel |
| ⑤ X-axis dial gauge | ⑭ Hand pump |
| ⑥ Z-axis dial gauge | ⑮ Level bolt |
| ⑦ Digital display counter | ⑯ Caster |
| ⑧ Projector(Light source) | ⑰ Pedestal |
| ⑨ Projector(Projection part) | ⑱ Connecting unit |

TOOL PRESETTER

Specifications

CODE		STP-300S (Simple Type)	STP-300N (Standard type)	STP-400 (Quality Type)	STP-500 (HI-Quality Type)
		80070	80074	80076	80078
Measurement Range	X-axis	0~ø300	0~ø300	0~ø400	0~ø500 0~ø800
	Z-axis	30~430 (op. 630)	50~500 (op. 650)	50~500 (op. 650)	50~650
Digital Display Unit	X-axis	0.02 (dia)	0.002 (dia)	0.002 (dia)	0.002 (dia)
	Z-axis	0.01	0.005 (0.001)	0.005 (0.001)	0.005 (0.001)
Dial Gauge Reading	X-axis	0.01	0.001	0.001	0.001
	Z-axis	0.01	0.01 (op. 0.001)	0.01 (op. 0.001)	0.01 (op. 0.001)
Feed Mechanism	X-axis	Special screw	Ball screw	Ball screw	Ball screw
	Z-axis	Special screw	Ball screw	Ball screw	Ball screw
Operation Method (X-axis & Z-axis)		Manual (Using handle)	Manual (Using handle)	Electric (2 levels) Manual (Fine Adjustment)	Electric (2 levels) Plus handle (Fine Adjustment)
Motor Type (X-axis & Z-axis)		————	————	Induction motor	AC servo motor
Optical Projector	Screen Dia.	————	ø80 (op. ø180)	ø120 (op. ø180)	ø180
	Magnification	————	×10 (op. ×20)	×10 (op. ×20)	×20
Spindle Shank (To be selected)		BT30,40,50 HSK32,40,50,63,80,100 KM32,40,50,63,80	BT30,35,40,45,50 (op. Ceramic Spindle) HSK32,40,50,63,80,100 KM32,40,50,63,80 (op. Tool height adjustment mechanism type) (op. Double spindle type TP-300N only)		
Auto Tool Locking		Manual (Using handle)	Air pressure 0.4~0.7MPa (4~7kgf/cm ²) (op. Hydraulic type)		
Tool Clamping Force (kgf)		————	450 (Air pressure 0.5MPa)	1200 (Hydraulic type)	
Power Supply		————	AC100V 10% 50/60Hz Please advise when ordering if another voltage is required. (Optional)		AC200V 10% 50/60Hz
External Dimensions (mm) W×D×H		768×450×1520	933×646×1721	946×583×1740	1309×706×2140
Weight (kg)		70	350	400	700
Standard accessories		Battery for Digimatic scale unit		Light source lanmp	
		Master gauge L150, Taper cleaner, Wrench set, Cover set, Spanner, Pedestal, Manual, Accuracy Table			

BT series

HSK series

ST series

Versatile Tool

Cutting Tool

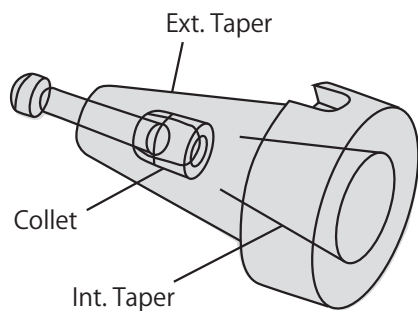
Accessories

TOOL PRESETTER ACCESSORIES

• When ordering, please inform code no. and pull-stud no.



TAPER REDUCTION POT



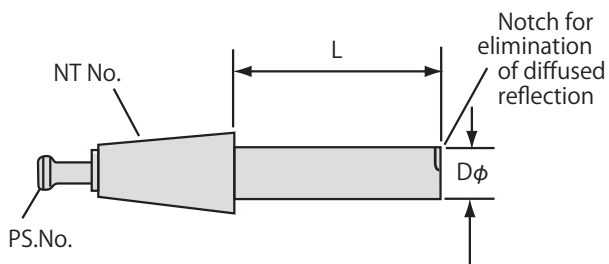
MODEL	CODE	Ext. Taper		Int. Taper
T4030	80081	NT40	—	NT30
T4035	80082	NT40	—	NT35
T5030	80083	NT50	—	NT30
T5035	80084	NT50	—	NT35
T5040	80085	NT50	—	NT40
T5045	80086	NT50	—	NT45

By using Taper Reduction Pots, a single presetter can serve all of your setting needs. The pull-stud is built in, so measurement can be done with tension on the pull-stud.

※ A pull-adaptor is available which allows both regular and ANSI types to be used.
 ※ Taper reduction pots for NT50-HSK (32~100) and NT50-KM (32~100) and NT50-KM (32~80) are also available.



TEST BAR



MODEL	CODE	Taper	∅D	L
G30	80091	NT30	∅30	150mm
G35		NT35	∅40	150mm
G40	80092	NT40	∅40	150mm
G45		NT45	∅40	150mm
G50	80094	NT50	∅40	150mm
G425	80093	NT40	∅40	250mm
G525	80095	NT50	∅50	250mm
G530	80096	NT50	∅50	300mm

A 150mm length test bar is included as standard, and 250 and 300mm test bars also available.

※ 250mm length test bars for HSK and KM are also available.