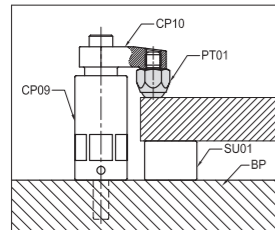
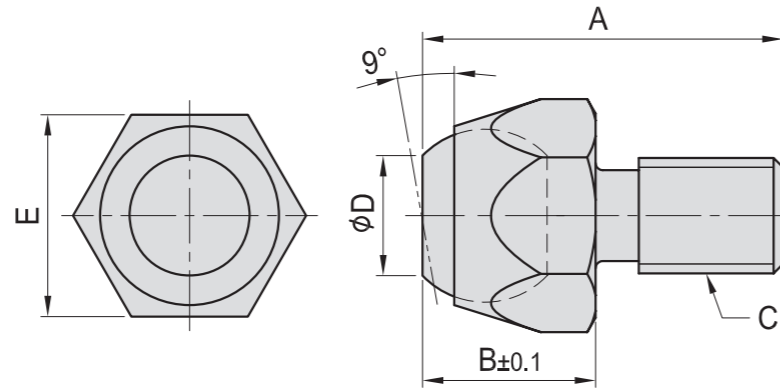




## PT01

### SMOOTH BALL END BOLT

- Material :  
Bolt : S45C(JIS) / CK45(DIN)  
Ball : SUJ2(JIS) / 100Cr6(DIN)
- Heat treated :  
Bolt : HRC 28°~32°  
Ball : HRC 62°
- Surface finish : Black Oxide.
- Application : Precision swivel ball that can be used either as a contact bolt or as a rest pad. As contact bolts, these swivel-ball units are ideal for evenly distributing clamping pressure on sloped or uneven surfaces.
- Features : Precision ground top surface.



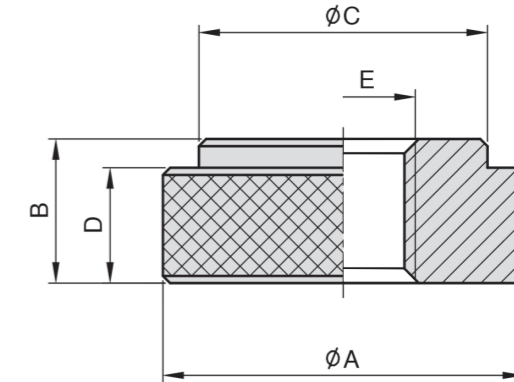
MODEL NO.	A	B	C	D	E	kg
PT01-0610	21	10	M6x1.00	6	10	0.012
PT01-0814	25	12	M8x1.25	8	14	0.015
PT01-1017	30	16	M10x1.50	10	17	0.025
PT01-1222	35	22	M12x1.75	12	22	0.070
PT01-1627	42	26	M16x2.00	14	27	0.140
PT01-2036	55	27	M20x2.50	14	36	0.280
PT01-2436	65	32	M24x2.00	18	36	0.560
PT01-3046	80	35	M30x2.00	21	46	0.880



## PT03

### KNURLED NUT

- Material : S45C(JIS) / CK45(DIN)
- Heat treated : HRC 30°~35°
- Surface finish : Black Oxide.
- Application : use where quick hand assembly is needed.



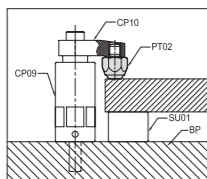
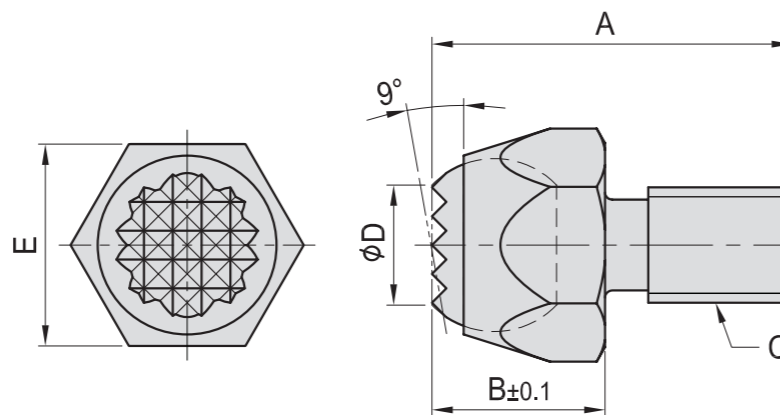
MODEL NO.	A	B	C	D	E	kg
PT03-0820	20	8	16	6	M 8	0.015
PT03-1025	25	10	20	8	M10	0.030
PT03-1228	28	12	24	10	M12	0.040
PT03-1630	30	12	25	10	M16	0.045



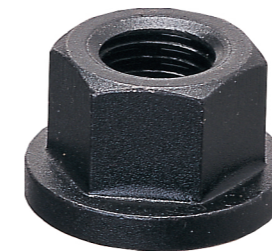
## PT02

### SERRATED BALL END BOLT

- Material :  
Bolt : S45C(JIS) / CK45(DIN)  
Ball : SUJ2(JIS) / 100Cr6(DIN)
- Heat treated :  
Bolt : HRC 28°~32°  
Ball : HRC 62°
- Surface finish : Black Oxide.
- Application : Precision swivel ball that can be used either as a contact bolt or as a rest pad. As contact bolts, these swivel-ball units are ideal for evenly distributing clamping pressure on sloped or uneven surfaces.
- Features : serrated gripper is ideal for rough surfaces.



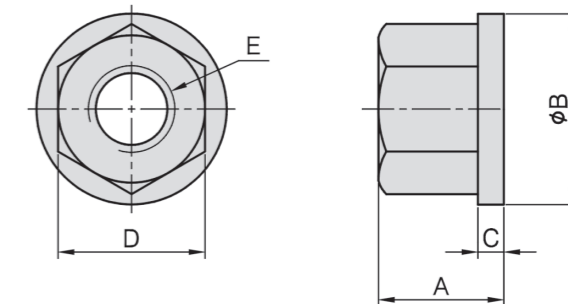
MODEL NO.	A	B	C	D	E	kg
PT02-0610	21	10	M6x1.00	6	10	0.012
PT02-0814	25	12	M8x1.25	8	14	0.015
PT02-1017	30	16	M10x1.50	10	17	0.025
PT02-1222	35	22	M12x1.75	12	22	0.070
PT02-1627	42	26	M16x2.00	14	27	0.140
PT02-2036	55	27	M20x2.50	14	36	0.280
PT02-2436	65	32	M24x2.00	18	36	0.560
PT02-3046	80	35	M30x2.00	21	46	0.880



## PT04

### FLANGE NUT

- Material : S45C(JIS) / CK45(DIN)
- Heat treated : HRC 30°~35°
- Surface finish : Black Oxide.



MODEL NO.	A	B	C	D	E	kg
PT04-0812	9	17	3	12	M 8	0.010
PT04-1017	13	22	3	17	M10	0.020
PT04-1219	17	28	4	19	M12	0.040
PT04-1422	17	28	4	22	M14	0.040
PT04-1624	20	32	5	24	M16	0.060
PT04-1827	20	35	5	27	M18	0.070
PT04-2030	25	40	6	30	M20	0.110
PT04-2232	28	45	6	32	M22	0.150
PT04-2436	28	47	6	36	M24	0.185