



BASE SERIES

BP01~BP37, BP-SPECIAL



M/C BASE PLATE M/C CLAMPING CUBE M/C DOUBLE-SIDED ANGLE PLATE

00066562162 .562465523644866254 .00005558350740 00066562162
0066562162 .562465523644866254 .00005558350740 00066562162
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BP01

M/C BASE PLATE



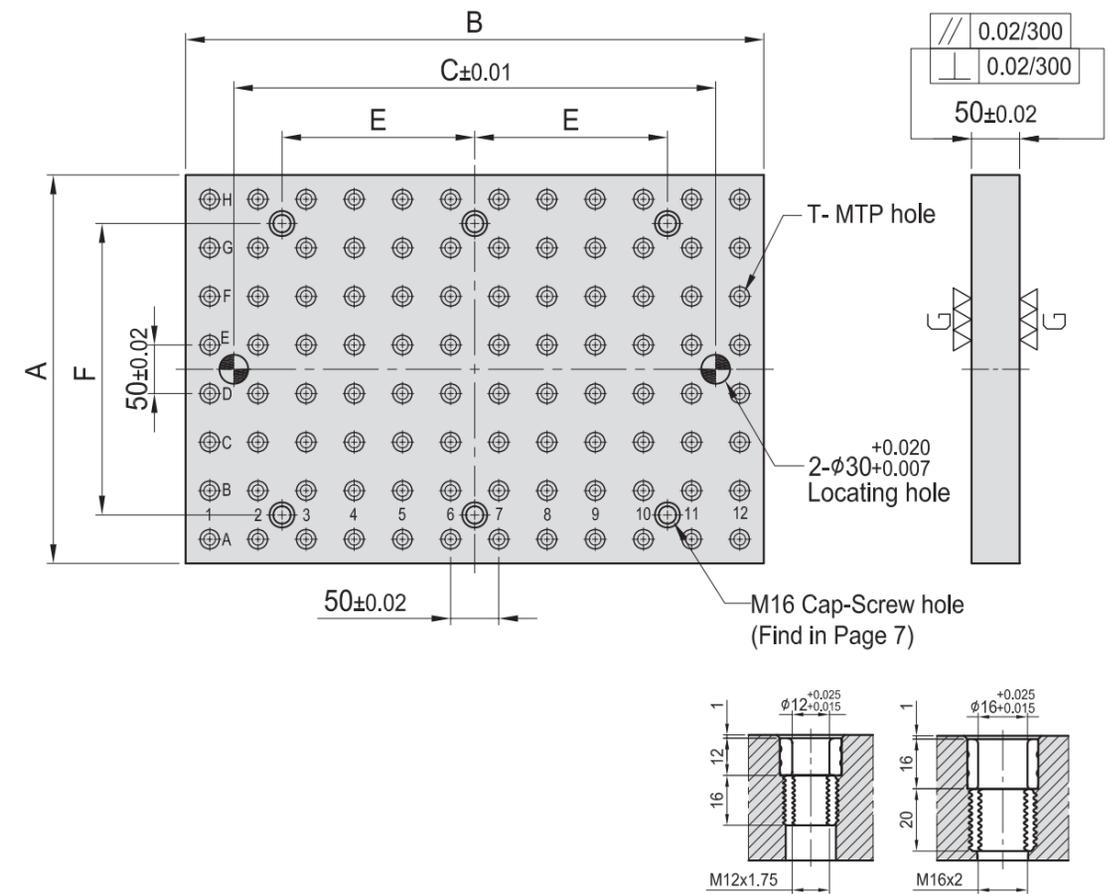
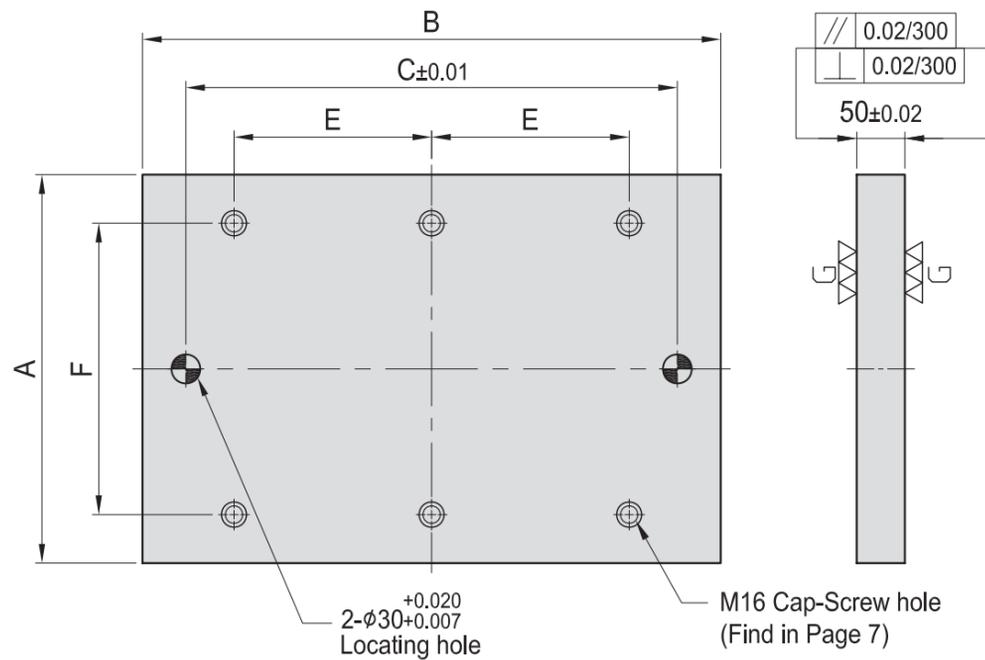
- Material / Finish:
Material: Cast Iron FC300(JIS) / GG30(DIN)
Heat treated (Normalized)
- Application: Vertical Machining Center.
- Features: Ready to accept a hole pattern for your special jig.

BP02

M/C BASE PLATE



- Material / Finish:
Material: Cast Iron FC300(JIS) / GG30(DIN)
Heat treated (Normalized)
Alignment Bushing: SUJ2(JIS) / 100Cr6(DIN) heat treated.
Threaded Insert: S45C (JIS)/ CK45 (DIN), heat treated.
MTP hole spacing: 50 ± 0.02
- Application: Vertical Machining Center.
- Features: Alignment bushing & thread insert at every hole location, easily adapts to standardized jig components.



MODEL NO.	A	B	C	E	F	kg
BP01-50400-0600	400	600	-	-	-	88
BP01-50500-0600	500					106
BP01-50600-0600	600					127
BP01-50400-0800	400	800	-	-	-	113
BP01-50450-0900	450	900				142
BP01-50500-1000	500	1000	-	-	-	176
BP01-50600-1200	600	1200				256

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MODEL NO.	A	B	C	E	F	T	MTP	kg
BP02-50400-0600-12	400	600	-	-	-	φ 12	M12	96 90
BP02-50500-0600-12	500							120 112
BP02-50600-0600-12	600							144 134
BP02-50400-0800-12	400	800	-	-	-	φ 12	M12	128 109
BP02-50450-0900-12	450	900						158 138
BP02-50500-1000-12	500	1000	-	-	-	φ 12	M12	200 165
BP02-50600-1200-12	600	1200						288 244

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MODEL NO.	A	B	C	E	F	T	MTP	kg
BP02-50400-0600-16	400	600	-	-	-	φ 16	M16	96 89
BP02-50500-0600-16	500							120 108
BP02-50600-0600-16	600							144 120
BP02-50400-0800-16	400	800	-	-	-	φ 16	M16	128 108
BP02-50450-0900-16	450	900						158 134
BP02-50500-1000-16	500	1000	-	-	-	φ 16	M16	200 164
BP02-50600-1200-16	600	1200						288 240

BP

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ALV

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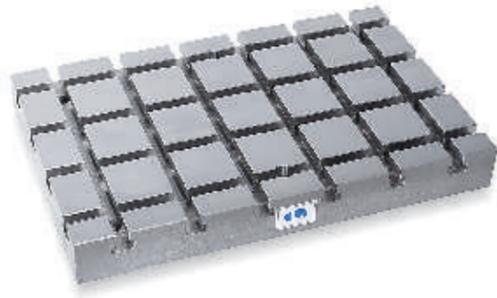
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BP03

M/C BASE PLATE

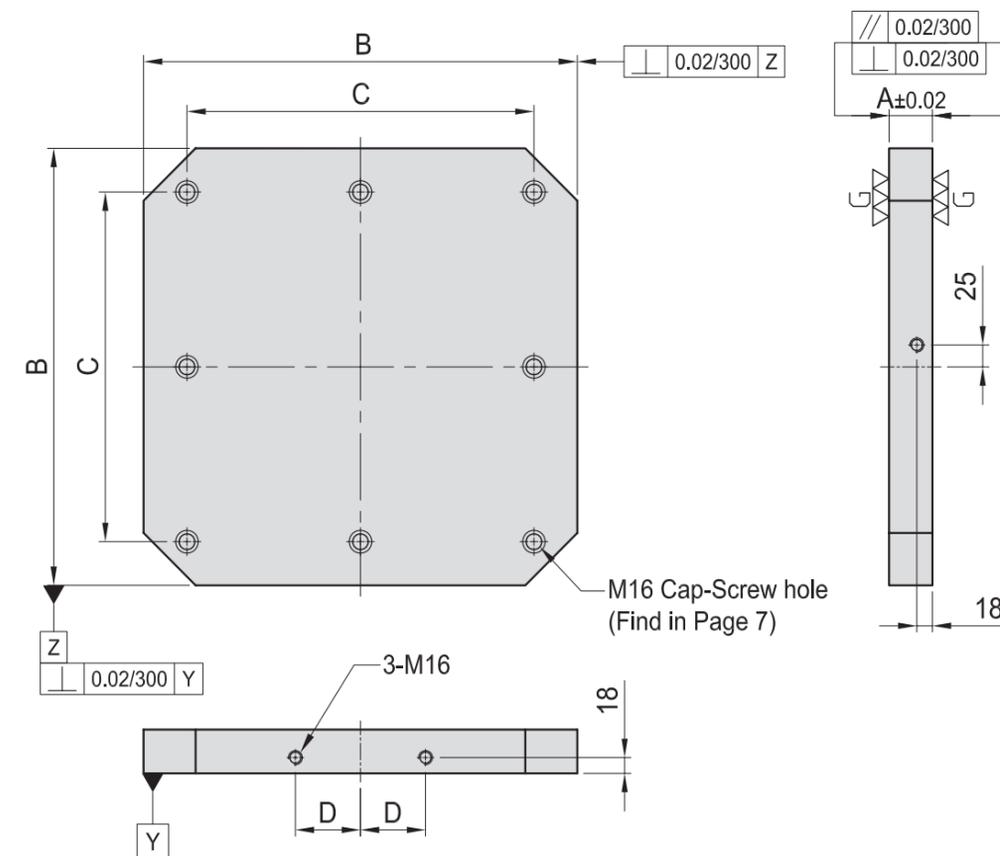
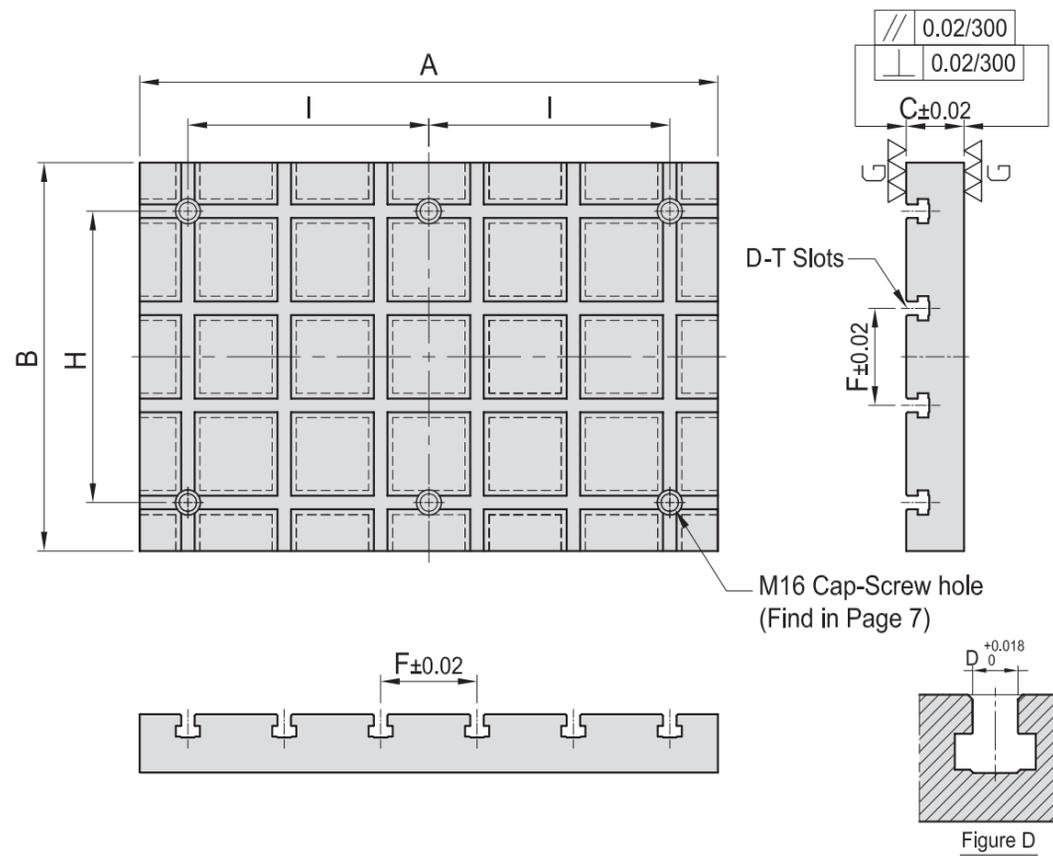
- Material / Cast Iron FC300(JIS) / GG30(DIN)
- Heat treated: Normalized
- Application: Vertical Machining Center.
- Features: T-Slots running in 2 directions, easily adapts to standardized jig components.



BP04

M/C BASE PLATE

- Material / Finish: Cast Iron FC300(JIS) / GG30(DIN)
Heat treated (Normalized)
- Application: Horizontal Machining Center.
- Features: Ready to accept a hole pattern for your special jig.



MODEL NO.	A	B	C	D	F	H	I	kg
BP03-60400-0600-14		400						92
BP03-60500-0600-14	600	500	60	14	100	-	-	115
BP03-60600-0600-14		600						130
BP03-60400-0800-14	800	400						117
BP03-60450-0900-14	900	450	60	14	100	-	-	168
BP03-60500-1000-14	1000	500						198
BP03-60600-1200-14	1200	600	60	14	100	-	-	264

MODEL NO.	A	B	C	D	F	H	I	kg
BP03-75400-0600-18		400						118
BP03-75500-0600-18	600	500	75	18	100	-	-	147
BP03-75600-0600-18		600						173
BP03-75400-0800-18	800	400						151
BP03-75450-0900-18	900	450	75	18	100	-	-	182
BP03-75500-1000-18	1000	500						228
BP03-75600-1200-18	1200	600	75	18	100	-	-	329

MODEL NO.	A	B	C	D	Mounting holes	kg
BP04-50400-0400	50	400	320	55	4	57
BP04-50500-0500	50	500	400	75	8	88
BP04-50630-0630	50	630	500	100	8	140
BP04-50800-0800	50	800	640	135	8	225

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BP05

M/C BASE PLATE



- Material / Finish: Material: Cast Iron FC300(JIS) / GG30(DIN)
Heat treated(Normalized)
Alignment Bushing: SUJ2(JIS) / 100Cr6(DIN), heat treated.
Threaded Insert: S45C(JIS) / CK45(DIN), heat treated.
MTP hole spacing: 50 ± 0.02
- Application: Horizontal Machining Center.
- Features: Alignment bushing & thread insert at every hole location, easily adapts to standardized jig components.

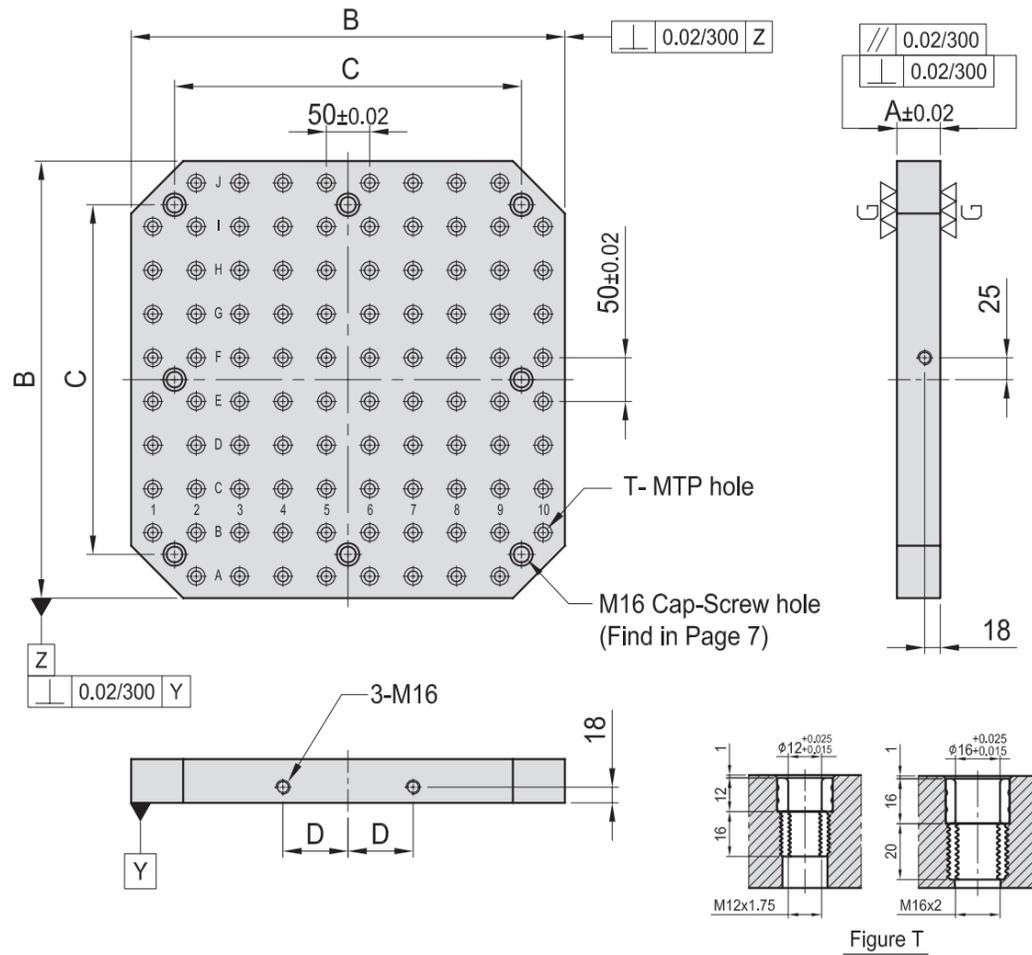


Figure T

MODEL NO.	A	B	C	D	T	MTP	Mounting holes	kg	
BP05-50400-0400-12	50	400	320	55	$\phi 12$	M12	59	4	54
BP05-50500-0500-12		500	400	75			93	8	83
BP05-50630-0630-12	50	630	500	100	$\phi 12$	M12	139	8	135
BP05-50800-0800-12		800	640	135			237		206
BP05-50400-0400-16	50	400	320	55	$\phi 16$	M16	59	4	52
BP05-50500-0500-16		500	400	75			93	8	80
BP05-50630-0630-16	50	630	500	100	$\phi 16$	M16	139	8	130
BP05-50800-0800-16		800	640	135			237		247

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BP06

M/C BASE PLATE



- Material: Cast Iron FC300(JIS) / GG30(DIN)
- Heat treated: Normalized
- Application: Horizontal Machining Center.
- Features: T-Slots running in 2 directions, easily adapts to standardized jig components.

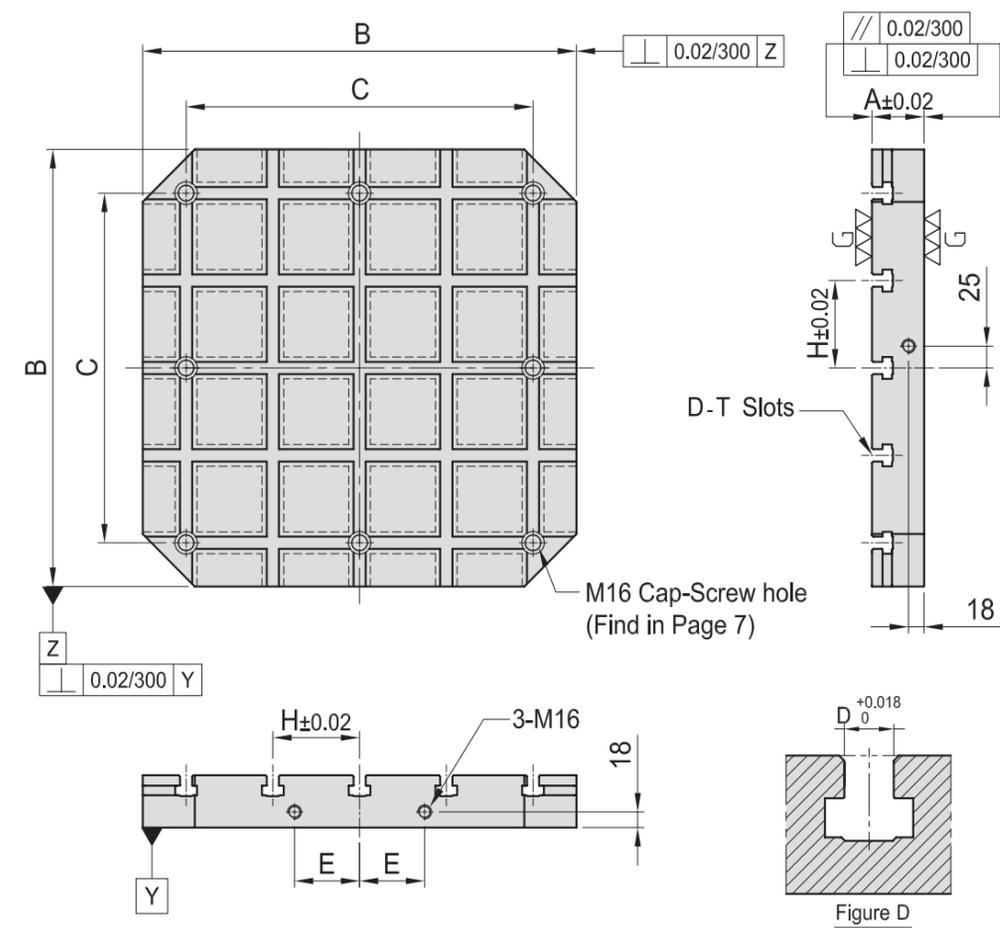


Figure D

MODEL NO.	A	B	C	D	E	H	Mounting holes	kg
BP06-60400-0400-14	60	400	320	14	55	80	4	56
BP06-60500-0500-14		500	400		75	100	8	90
BP06-60630-0630-14	60	630	500	14	100	125	8	150
BP06-60800-0800-14		800	640		135	160		230
BP06-75400-0400-18	75	400	320	18	55	80	4	68
BP06-75500-0500-18		500	400		75	100	8	108
BP06-75630-0630-18	75	630	500	18	100	125	8	180
BP06-75800-0800-18		800	640		135	160		295

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BP

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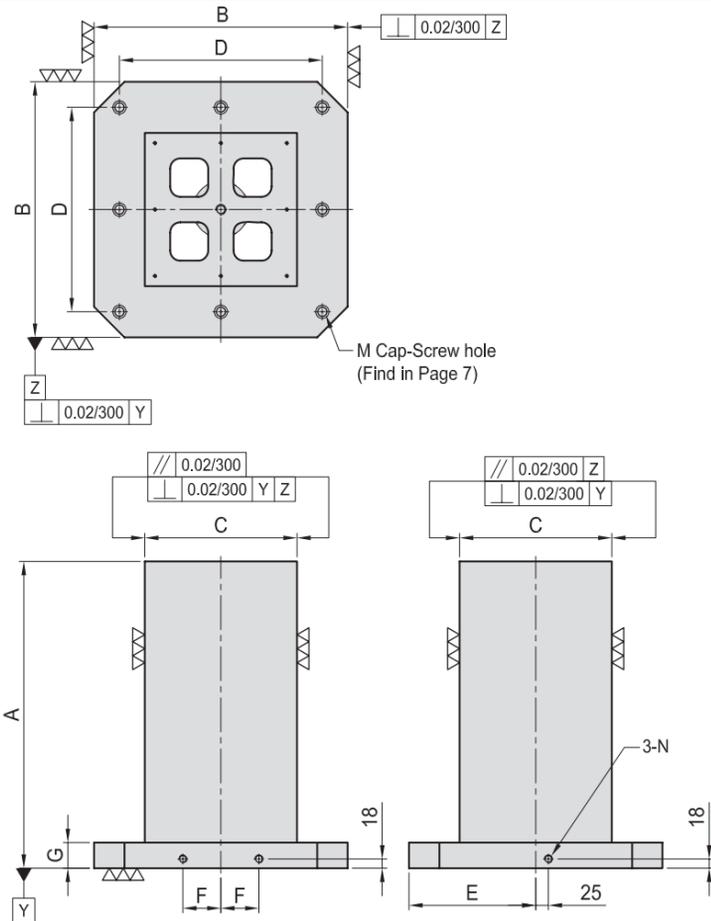
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BP07

SQUARE TOOLING COLUMN

- Material / Finish:
Material: Cast Iron FC300(JIS) / GG30(DIN)
Heat treated (Normalized)
- Application: Horizontal Machining Center.
- Features: Ready to accept a hole pattern for your special jig.
• Eye bolt & top cover included.



MODEL NO.	A	B	C	D	E	F	G	M	N	Mounting holes	kg
BP07-300300-0500	500	300	150	250	150	40	50	M12	M12	4	90
BP07-400400-0500	500	400	250	320	200	55	50	M16	M16	4	160
BP07-400400-0650	650										210
BP07-500500-0600	600	500	300	400	250	75	50	M16	M16	8	250
BP07-500500-0750	750										310
BP07-630630-0700	700	630	350	500	315	100	50	M16	M16	8	400
BP07-630630-0850	850										460
BP07-800800-0800	800	800	500	640	400	135	50	M16	M16	8	680
BP07-800800-1000	1000										800
BP07-10001000-1000	1000	1000	600	800	500	165	55	M20	M16	8	1164
BP07-10001000-1250	1250										1391

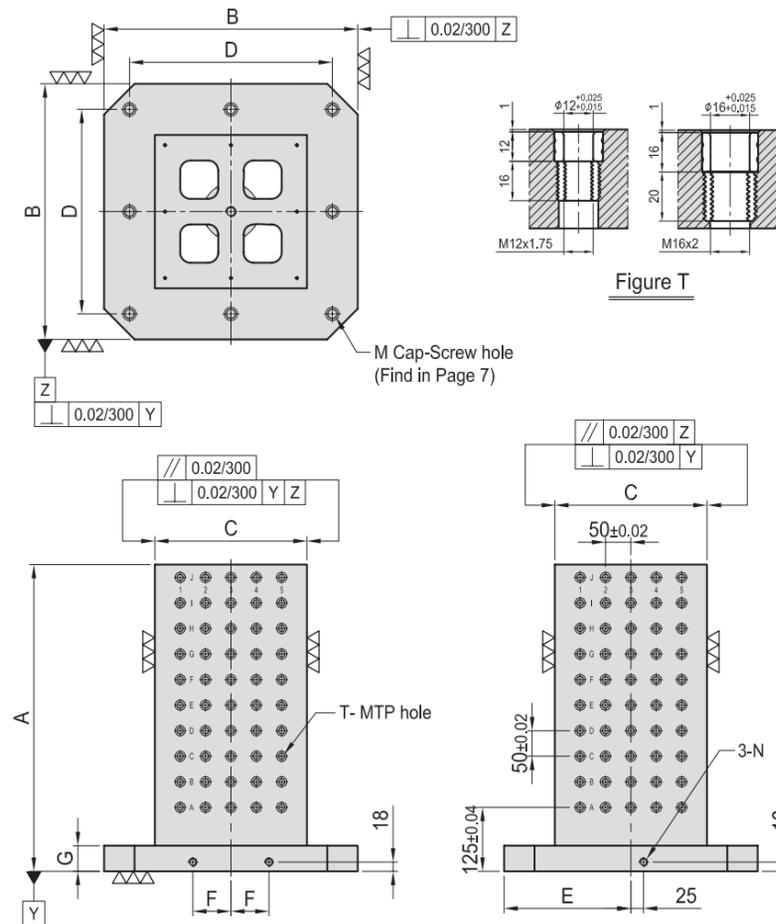
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BP08

SQUARE TOOLING COLUMN

- Material / Finish:
Material: Cast Iron FC300 (JIS) / GG30 (DIN)
Heat treated (Normalized)
Alignment bushing: SUJ2(JIS) / 100Cr6(DIN), heat treated
Threaded Insert: S45C(JIS) / CK45(DIN), heat treated
MTP hole spacing: 50±0.02
- Application: Horizontal Machining Center.
- Features: Alignment bushing & thread insert at every hole location, easily adapts to standardized jig components.
• Eye bolt & top cover included.



MODEL NO.	A	B	C	D	E	F	G	T	M	N	MTP	Mounting holes	kg	MODEL NO.	A	B	C	D	E	F	G	T	M	N	MTP	Mounting holes	kg			
BP08-300300-0500-12	500	300	150	250	150	40	50	φ12	M12	M12	M12	64	4	90	BP08-300300-0500-16	500	300	150	250	150	40	50	φ16	M16	M12	M12	M12	64	4	90
BP08-400400-0500-12	500	400	250	320	200	55	50	φ12	M12	M16	M16	128	4	155	BP08-400400-0500-16	500	400	250	320	200	55	50	φ16	M16	M16	M16	128	4	152	
BP08-400400-0650-12	650											176	200	BP08-400400-0650-16	650	176											200			
BP08-500500-0600-12	600	500	300	400	250	75	50	φ12	M12	M16	M16	200	8	240	BP08-500500-0600-16	600	500	300	400	250	75	50	φ16	M16	M16	M16	200	8	235	
BP08-500500-0750-12	750											260	300	BP08-500500-0750-16	750	260											300			
BP08-630630-0700-12	700	630	350	500	315	100	50	φ12	M12	M16	M16	288	8	360	BP08-630630-0700-16	700	630	350	500	315	100	50	φ16	M16	M16	M16	288	8	365	
BP08-630630-0850-12	850											360	445	BP08-630630-0850-16	850	360											445			
BP08-800800-0800-12	800	800	500	640	400	135	50	φ12	M12	M16	M16	504	8	635	BP08-800800-0800-16	800	800	500	640	400	135	50	φ16	M16	M16	M16	504	8	630	
BP08-800800-1000-12	1000											648	780	BP08-800800-1000-16	1000	648											780			
BP08-10001000-1000-12	1000	1000	600	800	500	165	55	φ12	M12	M20	M16	792	8	1164	BP08-10001000-1000-16	1000	1000	600	800	500	165	55	φ16	M16	M20	M16	792	8	1164	
BP08-10001000-1250-12	1250											1012	1391	BP08-10001000-1250-16	1250	1012											1391			

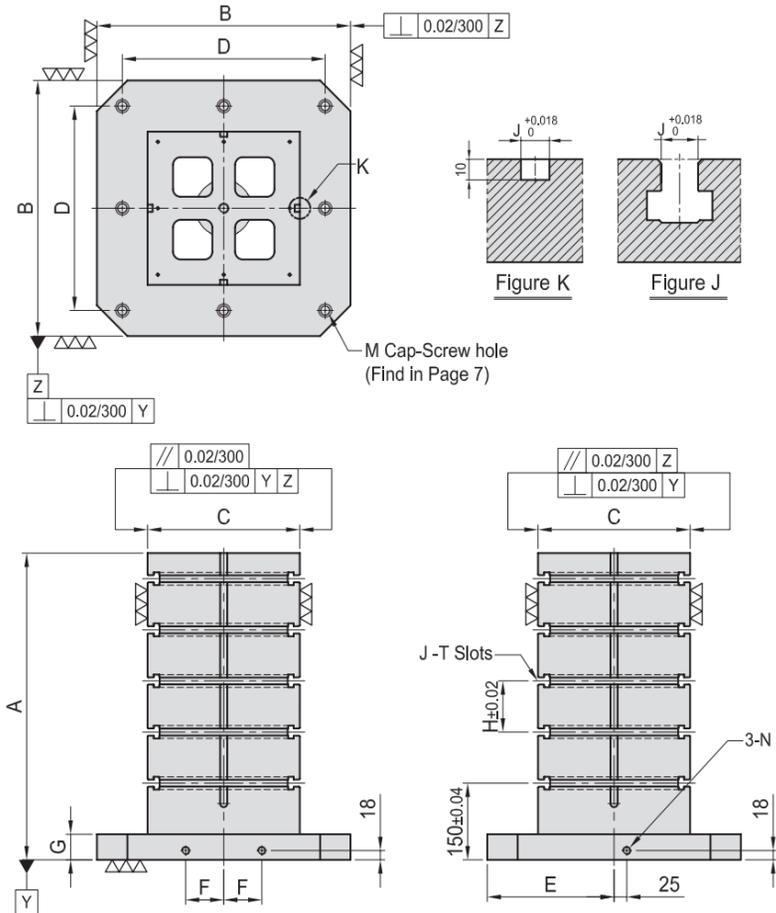
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BP09

SQUARE TOOLING COLUMN

- Material / Finish:
Material: Cast Iron FC300(JIS) / GG30(DIN)
Heat treated (Normalized)
- Application: Horizontal Machining Center.
- Features: T-Slots running horizontally, key-way running vertically, easily adapts to standardized jig components.
- Eye bolt & top cover included.



MODEL NO.	A	B	C	D	E	F	G	M	N	H	J	Mounting holes	kg
BP09-400400-0500-14	500	400	250	320	200	55	50	M16	M16	100	14	4	160
BP09-400400-0650-14	650												200
BP09-500500-0600-14	600	500	300	400	250	75	50	M16	M16	100	14	8	270
BP09-500500-0750-14	750												300
BP09-630630-0700-14	700	630	350	500	315	100	50	M16	M16	125	14	8	375
BP09-630630-0850-14	850												460
BP09-800800-0800-14	800	800	500	640	400	135	50	M16	M16	150	14	8	655
BP09-800800-1000-14	1000												800
BP09-10001000-1000-14	1000	1000	600	800	500	165	55	M20	M16	160	14	8	1146
BP09-10001000-1250-14	1250												1358
BP09-400400-0500-18	500	400	250	320	200	55	50	M16	M16	100	18	4	155
BP09-400400-0650-18	650												190
BP09-500500-0600-18	600	500	300	400	250	75	50	M16	M16	100	18	8	265
BP09-500500-0750-18	750												290
BP09-630630-0700-18	700	630	350	500	315	100	50	M16	M16	125	18	8	365
BP09-630630-0850-18	850												450
BP09-800800-0800-18	800	800	500	640	400	135	50	M16	M16	150	18	8	638
BP09-800800-1000-18	1000												790
BP09-10001000-1000-18	1000	1000	600	800	500	165	55	M20	M16	160	18	8	1146
BP09-10001000-1250-18	1250												1358

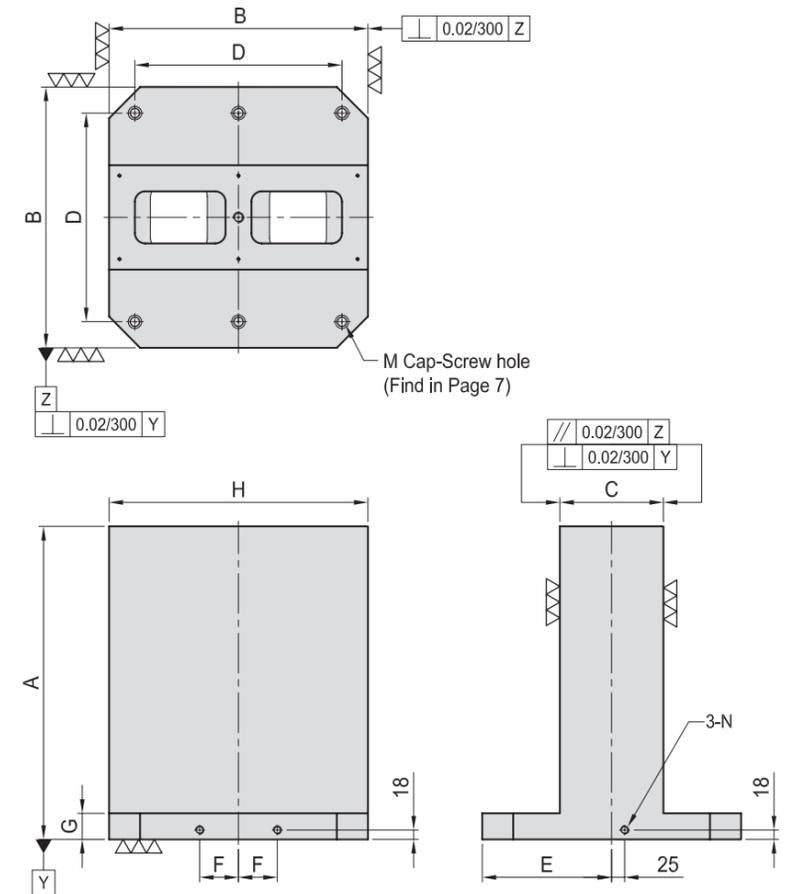
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BP10

DOUBLE SIDED TOOLING COLUMN

- Material / Finish:
Material: Cast Iron FC300(JIS) / GG30(DIN)
Heat treated (Normalized)
- Application: Horizontal Machining Center.
- Features: Ready to accept a hole pattern for your special jig.
- Eye bolt & top cover included.



MODEL NO.	A	B	C	D	E	F	G	H	M	N	Mounting holes	kg
BP10-300300-0500	500	300	80	250	150	40	50	300	M12	M12	4	115
BP10-400400-0500	500	400	150	320	200	55	50	400	M16	M16	4	170
BP10-400400-0650	650											215
BP10-500500-0600	600	500	200	400	250	75	50	500	M16	M16	6	270
BP10-500500-0750	750											350
BP10-630630-0700	700	630	250	500	315	100	50	630	M16	M16	6	445
BP10-630630-0850	850											520
BP10-800800-0800	800	800	300	640	400	135	50	800	M16	M16	6	675
BP10-800800-1000	1000											815
BP10-10001000-1000	1000	1000	350	800	500	165	55	1000	M20	M16	6	1162
BP10-10001000-1250	1250											1377

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BP

BPA

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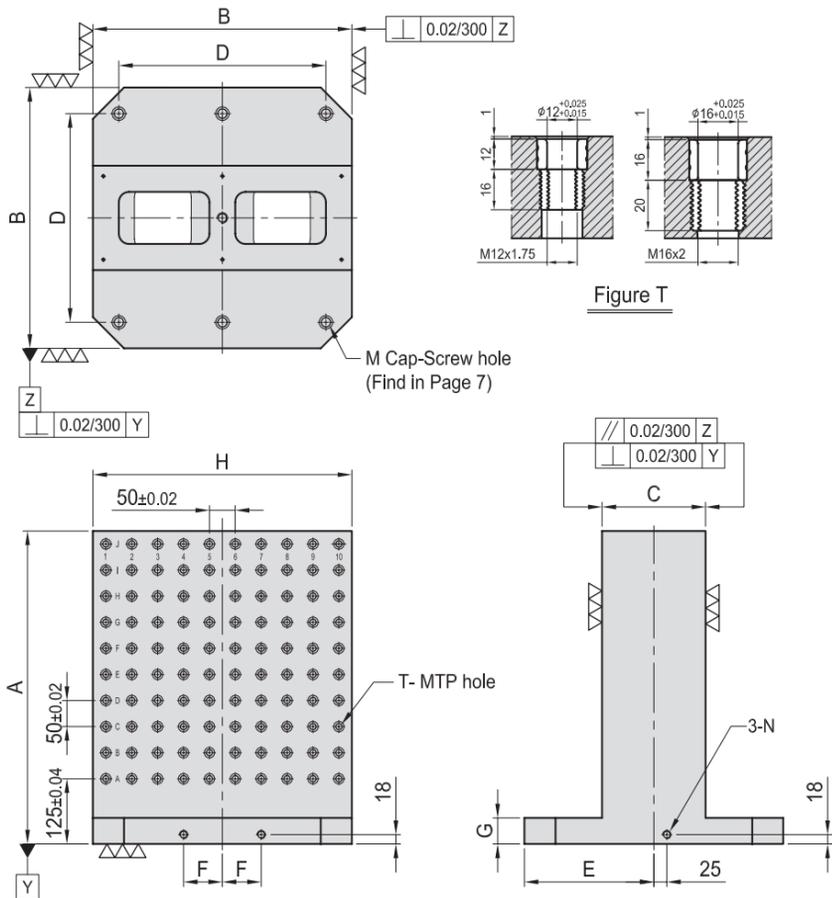
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BP11

DOUBLE SIDED TOOLING COLUMN

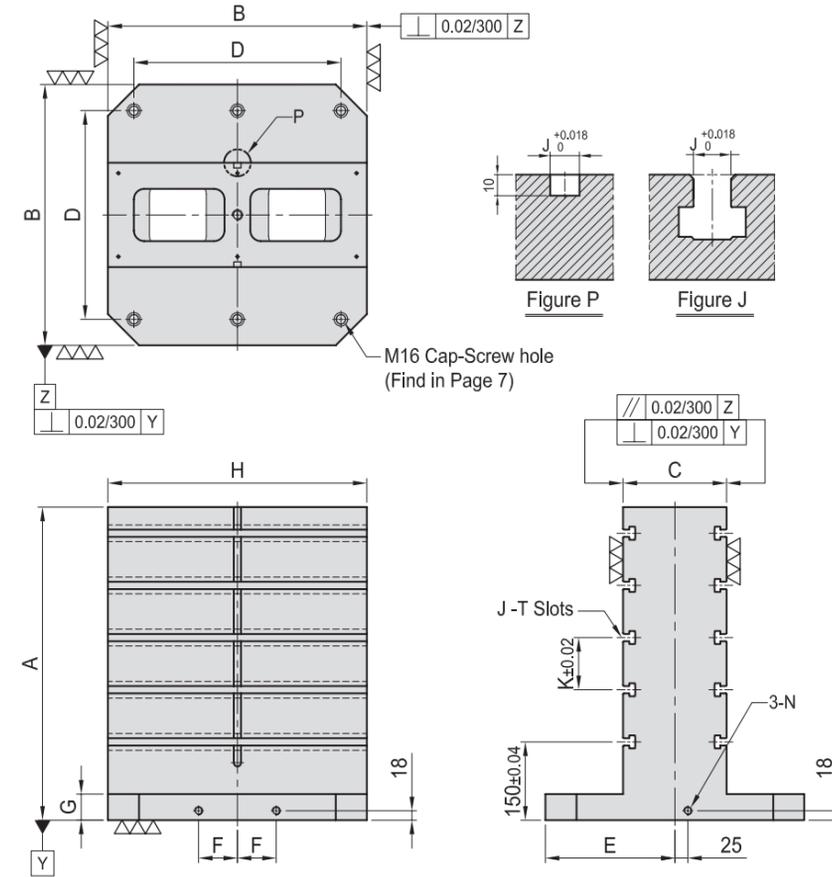
- Material / Finish:
Material: Cast Iron FC300(JIS) / GG30(DIN)
Heat treated (Normalized)
Alignment Bushing: SUJ2(JIS) / 100Cr6 (DIN), heat treated
Threaded Insert: S45C(JIS) / CK45(DIN), heat treated
MTP hole spacing: 50±0.02
- Application: Horizontal Machining Center.
- Features: Alignment bushing & thread insert at every hole location, easily adapts to standardized jig components.
- Eye bolt & top cover included.



BP12

DOUBLE SIDED TOOLING COLUMN

- Material / Finish:
Material: Cast Iron FC300(JIS) / GG30(DIN)
Heat treated (Normalized)
- Application: Horizontal Machining Center.
- Features: T-Slots running horizontally, key-way running vertically, easily adapts to standardized jig components.
- Eye bolt & top cover included.



MODEL NO.	A	B	C	D	E	F	G	H	T	M	N	MTP	Mount-ing holes	kg	
BP11-300300-0500-12	500	300	80	250	150	40	50	300	φ12	M12	M12	M12	96	4	110
BP11-400400-0500-12	500	400	150	320	200	55	50	400	φ12	M12	M16	M16	128	4	165
BP11-400400-0650-12	650	400	150	320	200	55	50	400	φ12	M12	M16	M16	176	4	210
BP11-500500-0600-12	600	500	200	400	250	75	50	500	φ12	M12	M16	M16	200	6	265
BP11-500500-0750-12	750	500	200	400	250	75	50	500	φ12	M12	M16	M16	260	6	335
BP11-630630-0700-12	700	630	250	500	315	100	50	630	φ12	M12	M16	M16	288	6	435
BP11-630630-0850-12	850	630	250	500	315	100	50	630	φ12	M12	M16	M16	360	6	515
BP11-800800-0800-12	800	800	300	640	400	135	50	800	φ12	M12	M16	M16	420	6	660
BP11-800800-1000-12	1000	800	300	640	400	135	50	800	φ12	M12	M16	M16	540	6	800
BP11-10001000-1000-12	1000	1000	350	800	500	165	55	1000	φ12	M12	M20	M16	684	6	1158
BP11-10001000-1250-12	1250	1000	350	800	500	165	55	1000	φ12	M12	M20	M16	874	6	1375

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MODEL NO.	A	B	C	D	E	F	G	M	N	H	J	K	Mount-ing holes	kg
BP12-400400-0500-14	500	400	150	320	200	55	50	M16	M16	400	14	100	4	170
BP12-400400-0650-14	650	400	150	320	200	55	50	M16	M16	400	14	100	4	220
BP12-500500-0600-14	600	500	200	400	250	75	50	M16	M16	500	14	100	6	290
BP12-500500-0750-14	750	500	200	400	250	75	50	M16	M16	500	14	100	6	335
BP12-630630-0700-14	700	630	250	500	315	100	50	M16	M16	630	14	125	6	440
BP12-630630-0850-14	850	630	250	500	315	100	50	M16	M16	630	14	125	6	515
BP12-800800-0800-14	800	800	300	640	400	135	50	M16	M16	800	14	150	6	670
BP12-800800-1000-14	1000	800	300	640	400	135	50	M16	M16	800	14	150	6	790
BP12-10001000-1000-14	1000	1000	350	800	500	165	55	M20	M16	1000	14	150	6	1158
BP12-10001000-1250-14	1250	1000	350	800	500	165	55	M20	M16	1000	14	150	6	1375

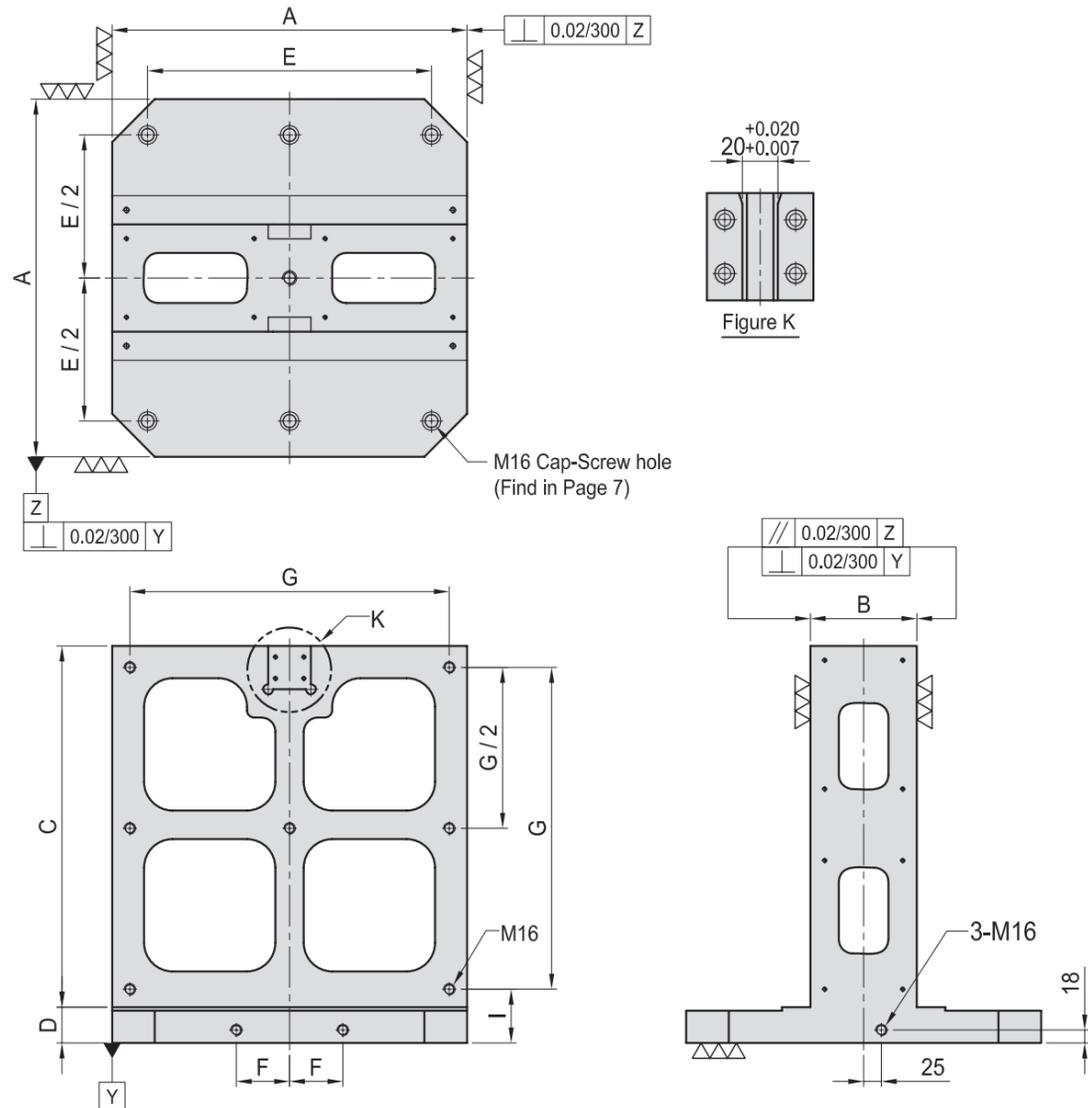
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BP13

MODULAR TOOLING COLUMN

- Material / Finish: Cast Iron FC300(JIS) / GG30(DIN)
Heat treated (Normalized)
- Application: Horizontal Machining Center.
- Features: Modular quick-change system, simple 3 point mounting, use with BP14 & BP15 subplates.
- Eye bolt, top cover & side covers included.



MODEL NO.	A	B	C	D	E	F	G	I	Mounting holes	kg
BP13-400400-0450	400	130	400	50	320	55	350	70	4	125
BP13-500500-0555	500	150	500	55	400	75	450	75	6	178
BP13-630630-0690	630	220	630	60	500	100	580	80	6	350
BP13-800800-0860	800	250	800	60	640	135	750	80	6	515

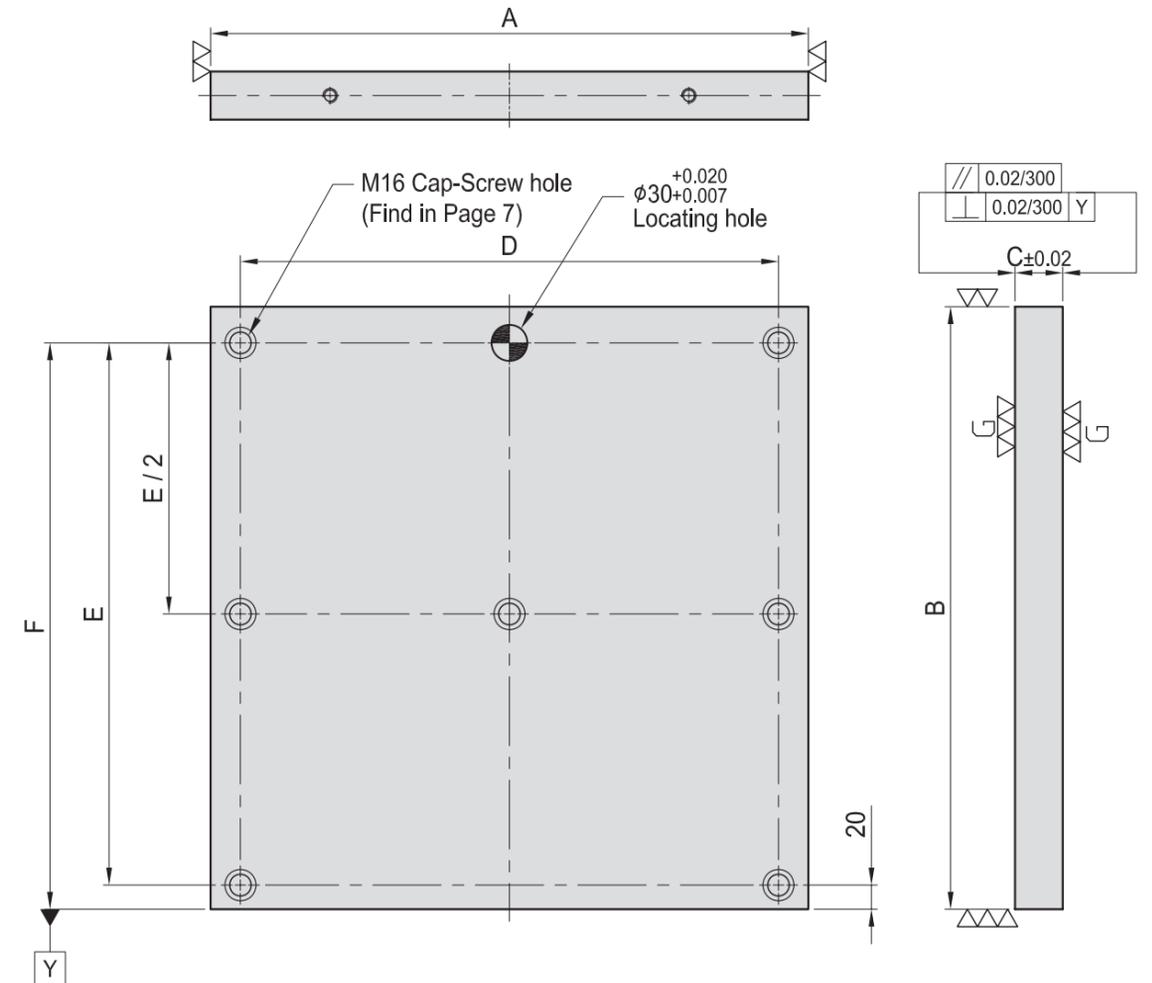
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BP14

SUB-PLATE

- Material / Finish: Cast Iron FC300(JIS) / GG30(DIN)
Heat treated (Normalized)
- Application: Modular quick change subplate, use with BP13.
- Features: Ready to accept a hole pattern for your special jig.



MODEL NO.	A	B	C	D	E	F	Mounting holes	kg
BP14-40400-0400	400	400	40	350	350	370	5	46
BP14-40500-0500	500	500	40	450	450	470	7	72
BP14-40630-0630	630	630	40	580	580	600	7	114
BP14-50800-0800	800	800	50	750	750	770	7	232

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BP15

SUB-PLATE



- Material / Finish:
Material: Cast Iron FC300(JIS) / GG30(DIN)
Heat treated (Normalized)
Alignment Bushing: SUJ2(JIS) / 100Cr6 (DIN), heat treated
Threaded Insert: S45C(JIS) / CK45(DIN), heat treated
MTP hole spacing: 50±0.02
- Application: Modular quick change subplate, use with BP13.
- Features: Alignment bushing & thread insert at every hole location, easily adapts to standardized jig components.

BP16

ROUND BASE PLATE



- Material / Finish:
Material: Cast Iron FC300(JIS) / GG30(DIN)
Heat treated (Normalized)
- Application: NC Rotary Table or Indexer.
- Features: Ready to accept a hole pattern for your special jig.

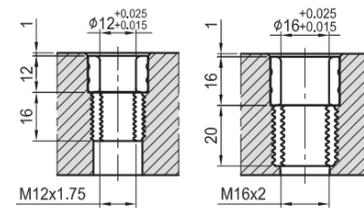
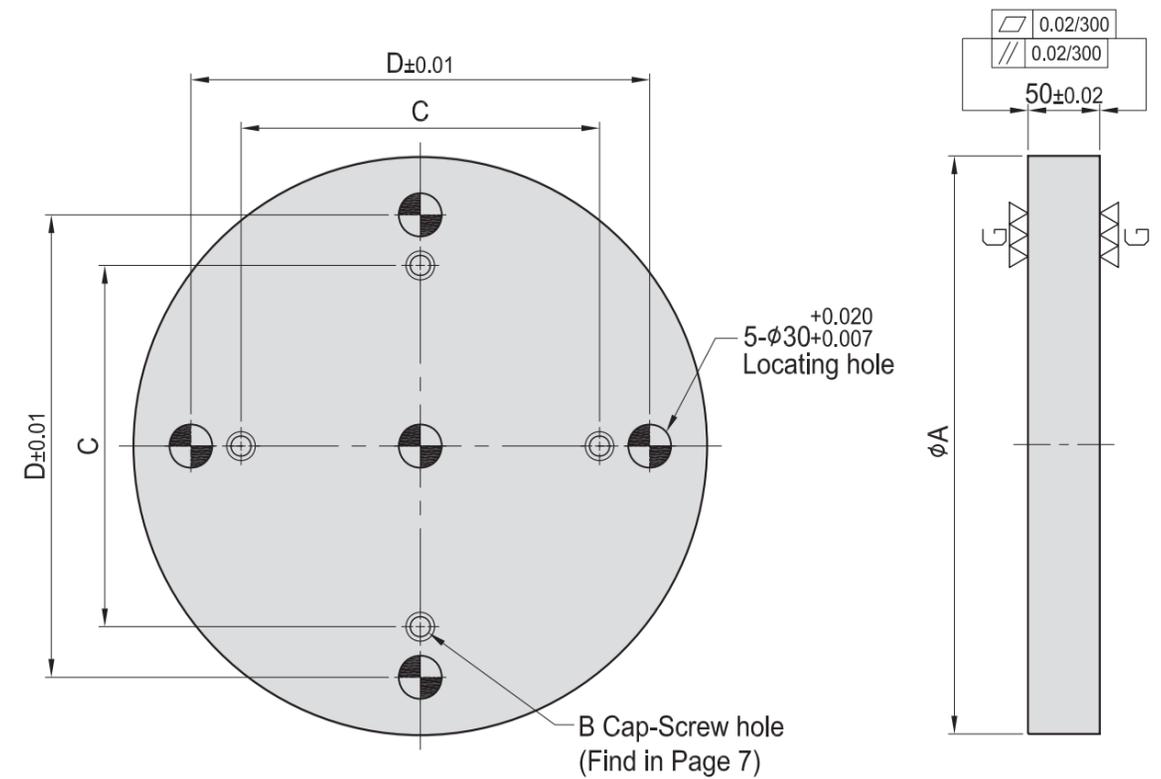
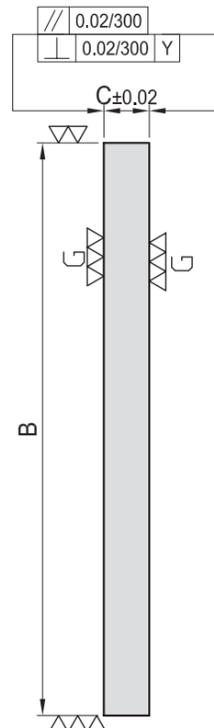
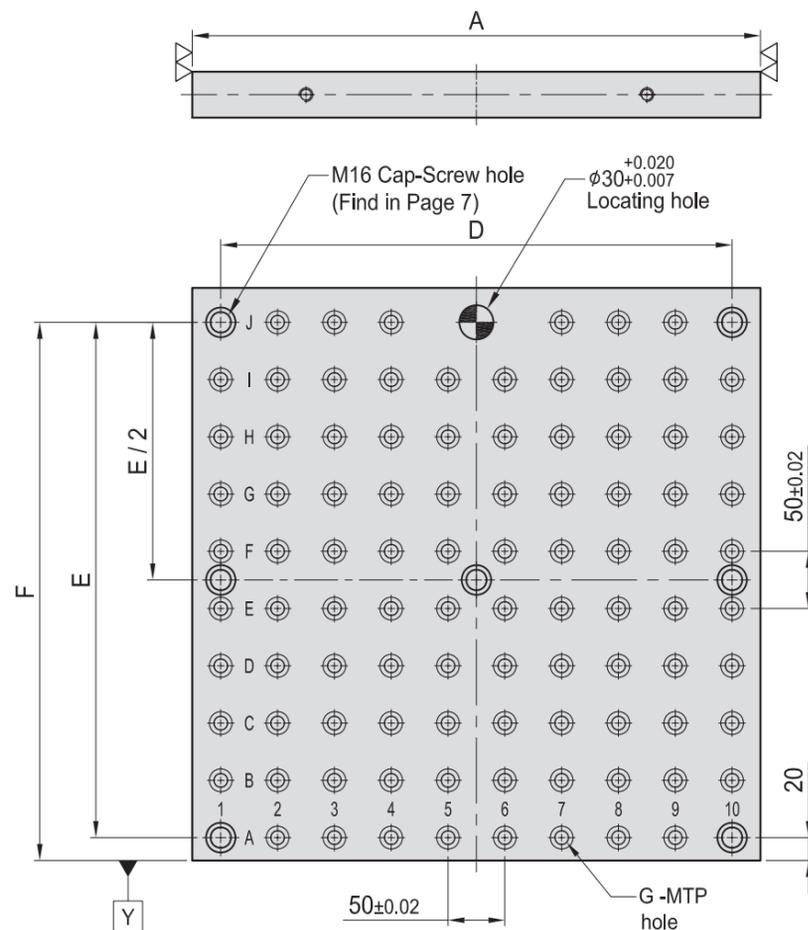


Figure G



MODEL NO.	A	B	C	D	E	F	G	MTP	Mounting holes	kg	
BP15-40400-0400-12	400	400	40	350	350	370	φ12	M12	58	5	42
BP15-40500-0500-12	500	500	40	450	450	470	φ12	M12	94	7	69
BP15-40630-0630-12	630	630	40	580	580	600	φ12	M12	138	7	108
BP15-50800-0800-12	800	800	50	750	750	770	φ12	M12	250	7	220

MODEL NO.	A	B	C	D	E	F	G	MTP	Mounting holes	kg	
BP15-40400-0400-16	400	400	40	350	350	370	φ16	M16	58	5	41
BP15-40500-0500-16	500	500	40	450	450	470	φ16	M16	90	7	67
BP15-40630-0630-16	630	630	40	580	580	600	φ16	M16	138	7	105
BP15-50800-0800-16	800	800	50	750	750	770	φ16	M16	246	7	215

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MODEL NO.	A	B	C	D	kg
BP16-50-0300	300	M12	150	220	25
BP16-50-0400	400	M12	250	320	40
BP16-50-0500	500	M16	300	400	65
BP16-50-0600	600	M16	400	500	95

*Special Design Welcome !

BP17

ROUND BASE PLATE



- Material / Finish:
Material: Cast Iron FC300(JIS) / GG30(DIN)
Heat treated (Normalized)
Alignment Bushing: SUJ2(JIS) / 100Cr6(DIN), heat treated
Threaded Insert: S45C(JIS) / CK45(DIN), heat treated
MTP hole spacing: 50 ± 0.02
- Application: NC Rotary Table or Indexer.
- Features: Alignment bushing & thread insert at every hole location, easily adapts to standardized jig components.

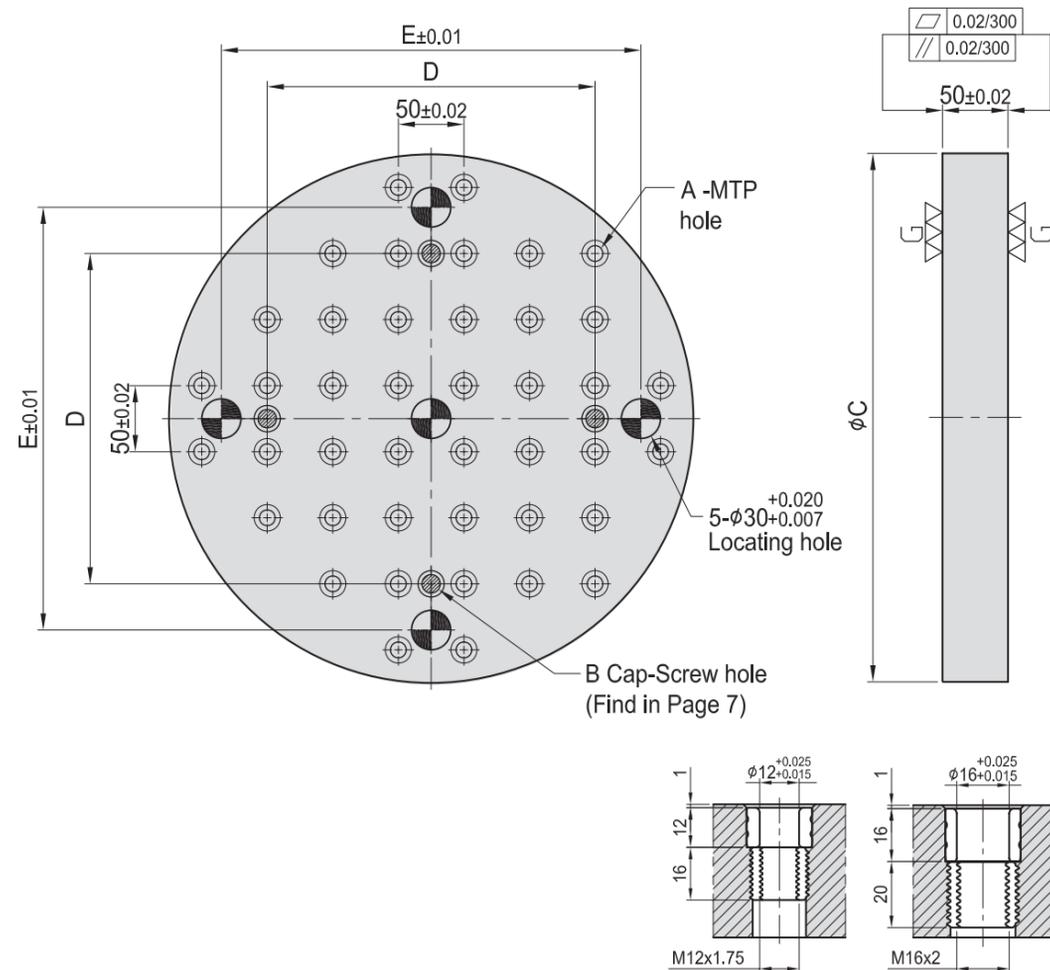


Figure A

MODEL NO.	A	B	C	D	E	MTP	kg
BP17-50-0300-12	φ 12	M12	M12	300	150	220	23
BP17-50-0400-12				400	250	320	44
BP17-50-0500-12	φ 12	M12	M16	500	300	400	70
BP17-50-0600-12				600	400	500	96
BP17-50-0500-16	φ 16	M16	M16	500	300	400	68
BP17-50-0600-16				600	400	500	96

*Special Design Welcome !

BP18

ROUND BASE PLATE



- Material / Finish:
Material: Cast Iron FC300(JIS) / GG30(DIN)
Heat treated (Normalized)
- Application: NC Rotary Table or Indexer.
- Features: T-Slots running in 2 directions, easily adapts to standardized jig components.

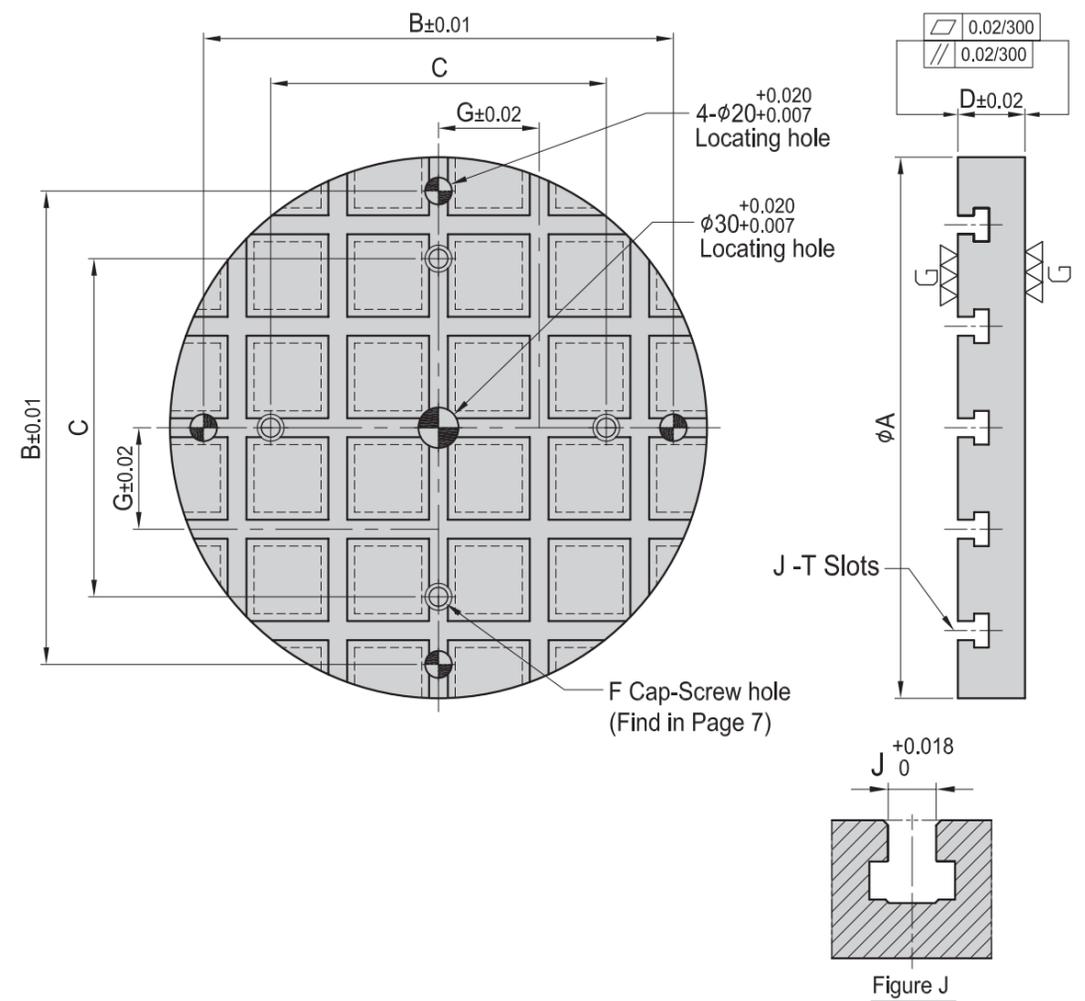


Figure J

MODEL NO.	A	B	C	D	F	G	J	kg
BP18-50-0300-14	300	250	150	50	M12	75	14	22
BP18-50-0400-14	400	350	250					36
BP18-65-0500-18	500	450	300	65	M16	100	18	74
BP18-65-0600-18	600	550	400					110

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BP

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JER-GENS

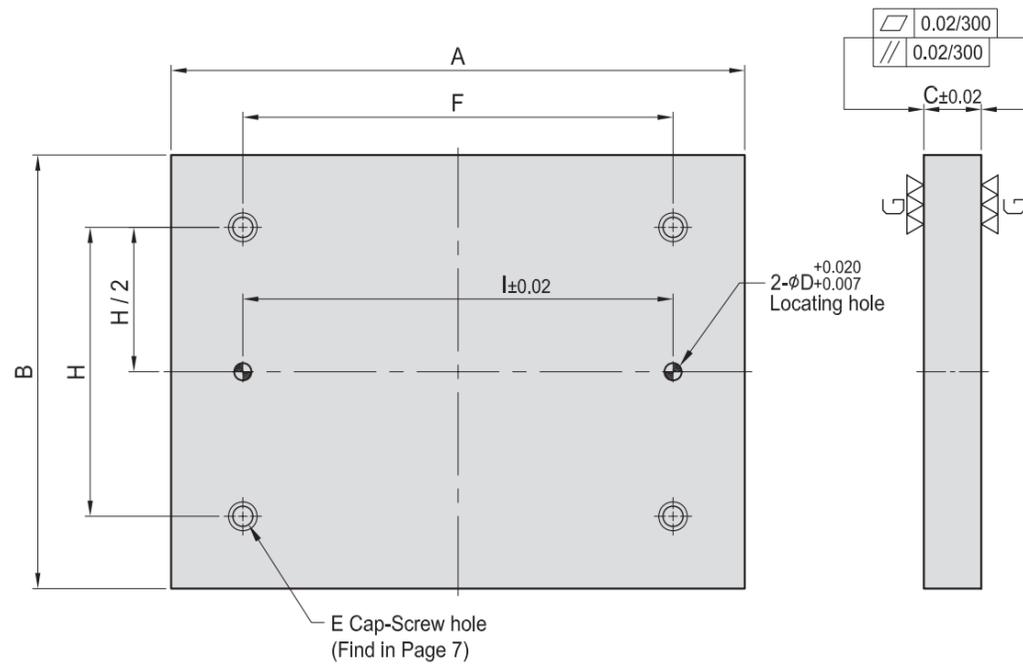
OTHER

Column for Technical Data

BP19

SUB-PLATE

- Material / Finish:
Material: S45C(JIS) / CK45(DIN)
- Application: Multipurpose subplate.
- Features: Ready to accept a hole pattern for your special jig.



MODEL NO.	A	B	C	D	E	F	H	I	kg
BP19-30150-0200-12	200	150	30	12	M12	100	100	100	8.0
BP19-30150-0300-12	200					200		11.0	
BP19-30200-0200-12	200	200	30	12	M12	100	100	100	9.5
BP19-30200-0300-12	200					200		14.5	
BP19-30300-0300-12	300	300	30	12	M12	200	200	200	21.5
BP19-40300-0400-12	300					300		38.0	
BP19-40400-0400-12	400	400	40	12	M12	300	300	300	51.0
BP19-40400-0500-12	400					400		63.0	

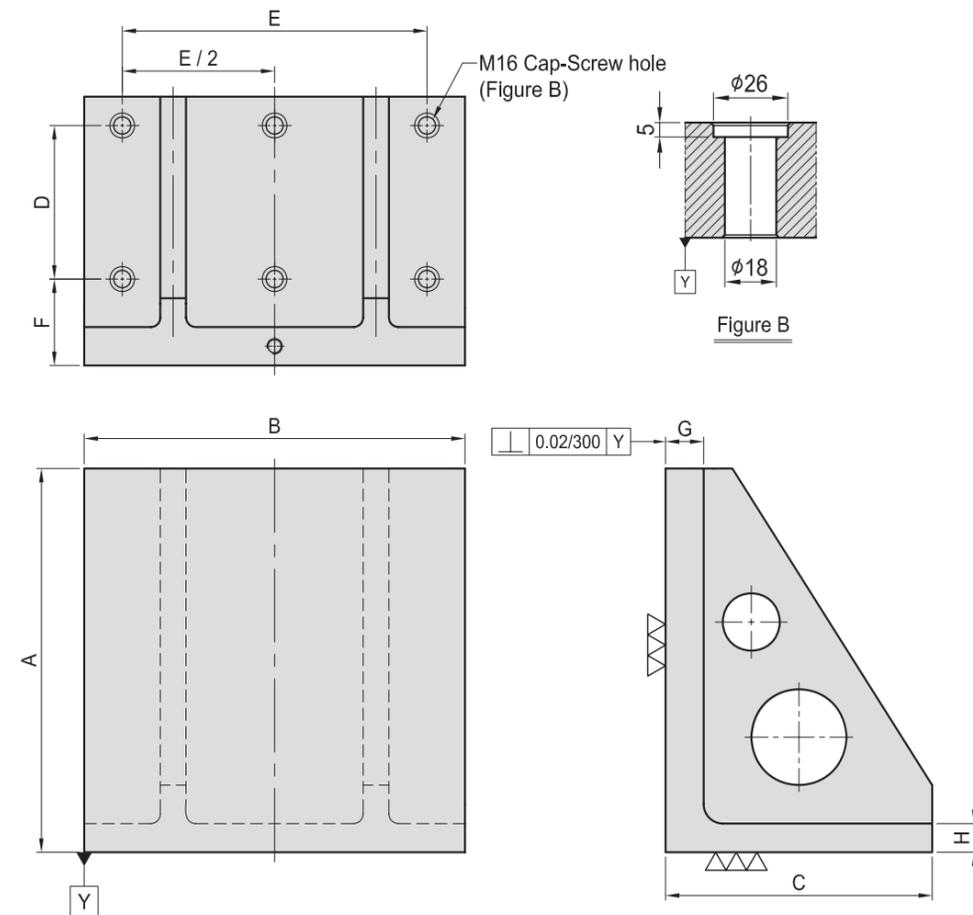
*Special Design Welcome !

MODEL NO.	A	B	C	D	E	F	H	I	kg
BP19-30150-0200-16	200	150	30	16	M16	100	100	100	8.0
BP19-30150-0300-16	200					200		11.0	
BP19-30200-0200-16	200	200	30	16	M16	100	100	100	9.5
BP19-30200-0300-16	200					200		14.5	
BP19-30300-0300-16	300	300	30	16	M16	200	200	200	21.5
BP19-40300-0400-16	300					300		38.0	
BP19-40400-0400-16	400	400	40	16	M16	300	300	300	51.0
BP19-40400-0500-16	400					400		63.0	

BP20

M/C ANGLE PLATE

- Material / Finish:
Material: Cast Iron FC300(JIS) / GG30(DIN)
Heat treated (Normalized)
- Application: HMC / VMC
- Features: Ready to accept a hole pattern for your special jig.



MODEL NO.	A	B	C	D	E	F	G	H	Mounting holes	kg
BP20-220300-0300	300	300	220	100	250	90	40	30	6	50
BP20-280400-0400	400	400	280	160	320					90
BP20-340500-0500	500	500	340	200	400	100	35	40	6	165
BP20-435630-0630	630	630	435	250	500		50			275
BP20-525800-0800	800	800	525	320	640	115	50	45	6	475

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BP

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ALV

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VISE

JER-
GENS

OTHER

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BP21

M/C ANGLE PLATE

- Material / Finish: Material: Cast Iron FC300(JIS) / GG30(DIN) Heat treated (Normalized) Alignment Bushing: SUJ2(JIS) / 100Cr6(DIN), heat treated Threaded Insert: S45C(JIS) / CK45(DIN), heat treated MTP hole spacing: 50±0.02
- Application: HMC / VMC.
- Features: Alignment bushing & thread insert at every hole location, easily adapts to standardized jig components.



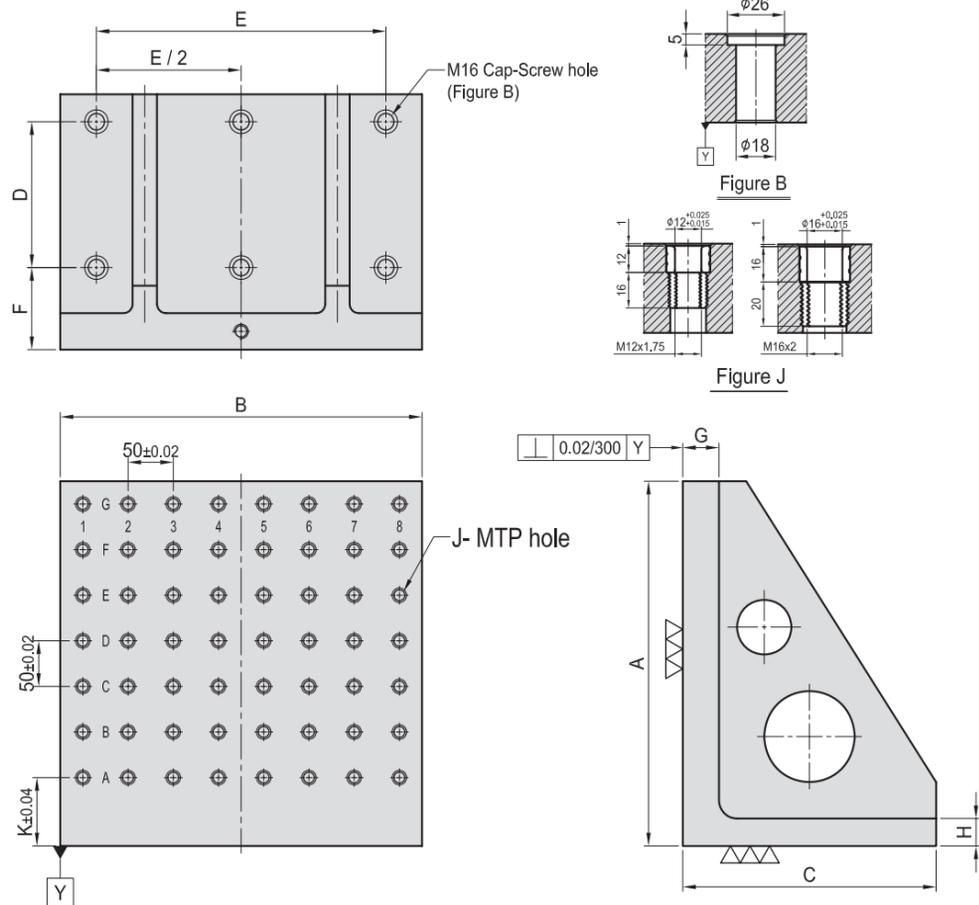
BP22

M/C ANGLE PLATE

- Material / Finish: Material: Cast Iron FC300(JIS) / GG30(DIN) Heat treated (Normalized)
- Application: HMC / VMC.
- Features: T-Slots running in 2 directions, easily adapts to standardized jig components.

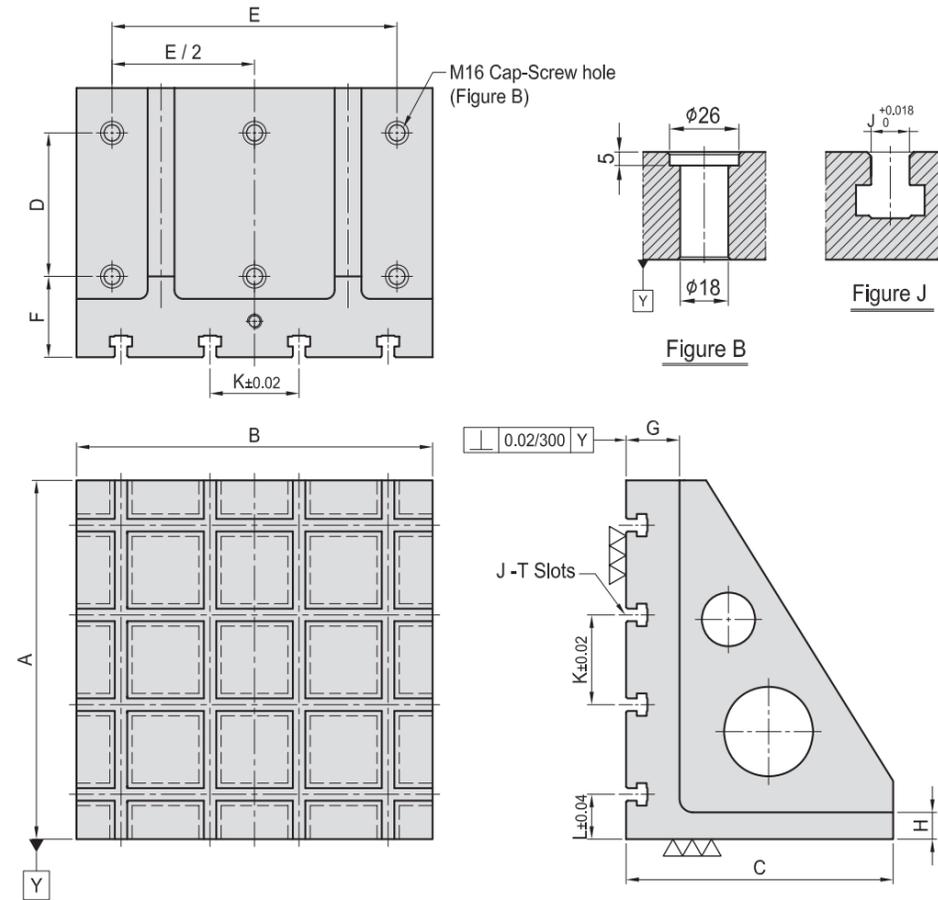
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- ALV
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- JER-GENS
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Column for Technical Data



MODEL NO.	A	B	C	D	E	F	G	H	J	K	MTP	Mounting holes	kg	
BP21-220300-0300-12	300	300	220	100	250	90	40	30	$\phi 12$	M12	75	30	6	50
BP21-280400-0400-12	400	400	280	160	320							56		
BP21-340500-0500-12	500	500	340	200	400	100	50	35	$\phi 12$	M12	75	90	6	173
BP21-435630-0630-12	630	630	435	250	500							40		
BP21-525800-0800-12	800	800	525	320	640	115	50	45	$\phi 12$	M12	75	240	6	477
BP21-220300-0300-16	300	300	220	100	250	90	40	30	$\phi 16$	M16	75	30	6	46
BP21-280400-0400-16	400	400	280	160	320							56		
BP21-340500-0500-16	500	500	340	200	400	100	50	35	$\phi 16$	M16	75	90	6	170
BP21-435630-0630-16	630	630	435	250	500							40		
BP21-525800-0800-16	800	800	525	320	640	115	50	45	$\phi 16$	M16	75	240	6	470

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MODEL NO.	A	B	C	D	E	F	G	H	J	K	L	Mounting holes	kg
BP22-220300-0300-14	300	300	220	100	250	90	60	30	14	100	50	6	53
BP22-300400-0400-14	400	400	300	160	320								
BP22-350500-0500-14	500	500	350	200	400	100	65	40	14	100	50	6	170
BP22-450630-0630-14	630	630	450	250	500								
BP22-550800-0800-14	800	800	550	320	640	115	75	45	14	150	100	6	566
BP22-220300-0300-18	300	300	220	100	250	90	60	30	18	100	50	6	51
BP22-300400-0400-18	400	400	300	160	320								
BP22-350500-0500-18	500	500	350	200	400	100	65	40	18	100	50	6	162
BP22-450630-0630-18	630	630	450	250	500								
BP22-550800-0800-18	800	800	550	320	640	115	75	45	18	150	100	6	555

*Special Design Welcome !



BP23

MC NARROW ANGLE PLATE

- Material / Finish:
Material: Cast Iron FC300(JIS) / GG30(DIN)
Heat treated (Normalized)
- Application: HMC / VMC.
- Features: Ready to accept a hole pattern for your special jig.



BP24

MC NARROW ANGLE PLATE

- Material / Finish:
Material: Cast Iron FC300(JIS) / GG30(DIN)
Heat treated (Normalized)
- Application: HMC / VMC.
- Features: Alignment bushing & thread insert at every hole location, easily adapts to standardized jig components.

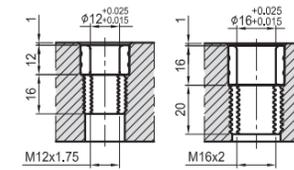
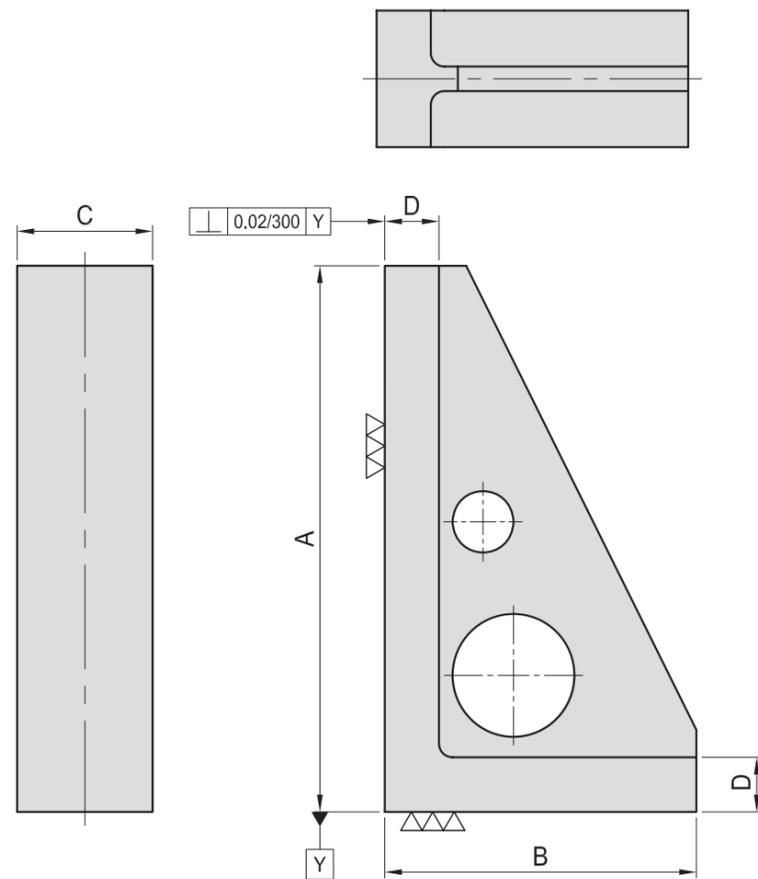


Figure G

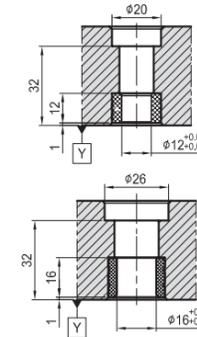
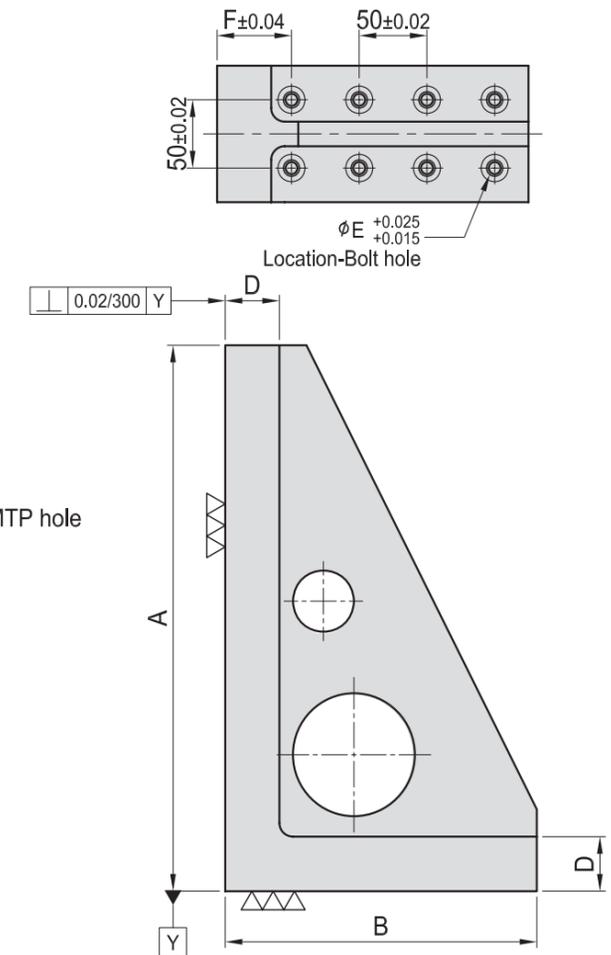
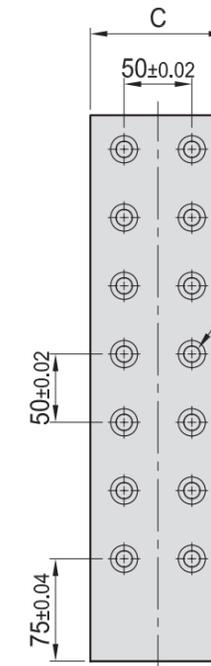


Figure E



MODEL NO.	A	B	C	D	kg
BP23-180100-0300	300	180	100	40	14
BP23-230100-0400	400	230	100	40	20
BP23-280100-0500	500	280	100	40	25

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MODEL NO.	A	B	C	D	E	F	T	MTP	Mounting holes	kg
BP24-180100-0300-12	300	180						10	6	12
BP24-230100-0400-12	400	230	100	40	12	55	φ 12	M12	14	19
BP24-280100-0500-12	500	280							18	23
BP24-180100-0300-16	300	180						10	6	13
BP24-230100-0400-16	400	230	100	40	16	55	φ 16	M16	14	20
BP24-280100-0500-16	500	280							18	24

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BP

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OTHER

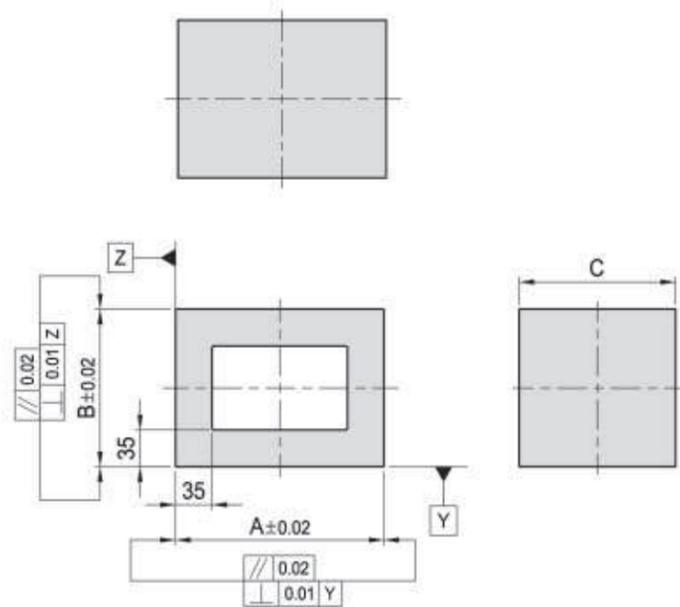
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BP25

RECTANGULAR CAST SECTION



- Material / Finish:
Material: Cast Iron FC300(JIS) / GG30(DIN)
Heat treated (Normalized)
- Application: Cast sections provide a fast & economical way to make special jig components.
- Features: Ready to accept a hole pattern for your special jig.



MODEL NO.	A	B	C	kg
BP25-200150-0150	200	150	150	23
BP25-250150-0200	250	200	150	30
BP25-300200-0250	300	250	200	56

*Special Design Welcome !

BP26

RECTANGULAR CAST SECTION



- Material / Finish:
Material: Cast Iron FC300(JIS) / GG30(DIN)
Heat treated (Normalized)
- Application: Cast sections provide a fast & economical way to make special jig components.
- Features: Alignment bushing & thread insert at every hole location, easily adapts to standardized jig components.

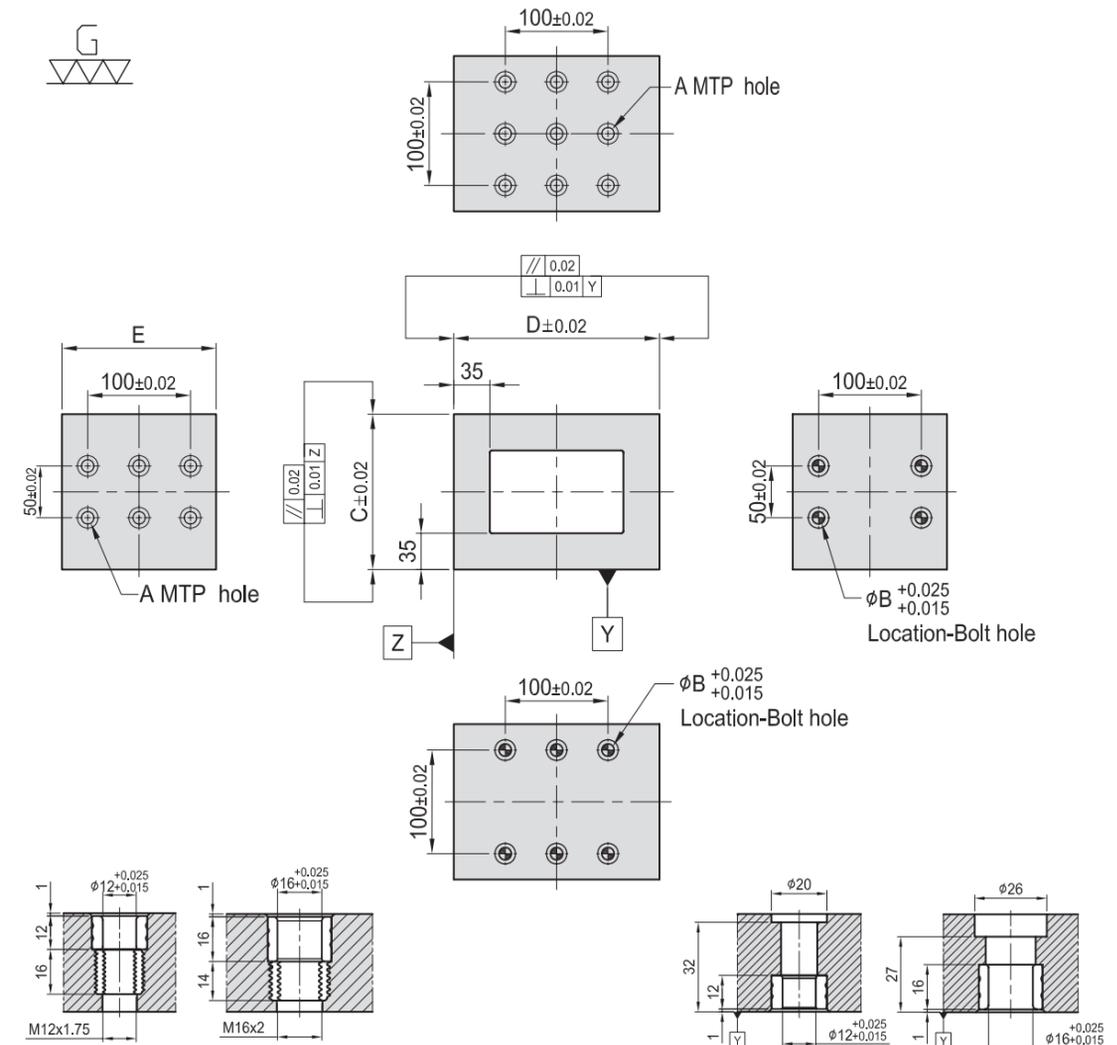


Figure A

Figure B

MODEL NO.	A	B	C	D	E	MTP	Mounting holes	kg
BP26-200150-0150-12	φ 12	M12	12	150	200	15	10	23
200			250	21	14	28		
BP26-200150-0150-16	φ 16	M16	16	150	200	15	10	29
BP26-250150-0200-16			200	250	21	14	30	

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BP

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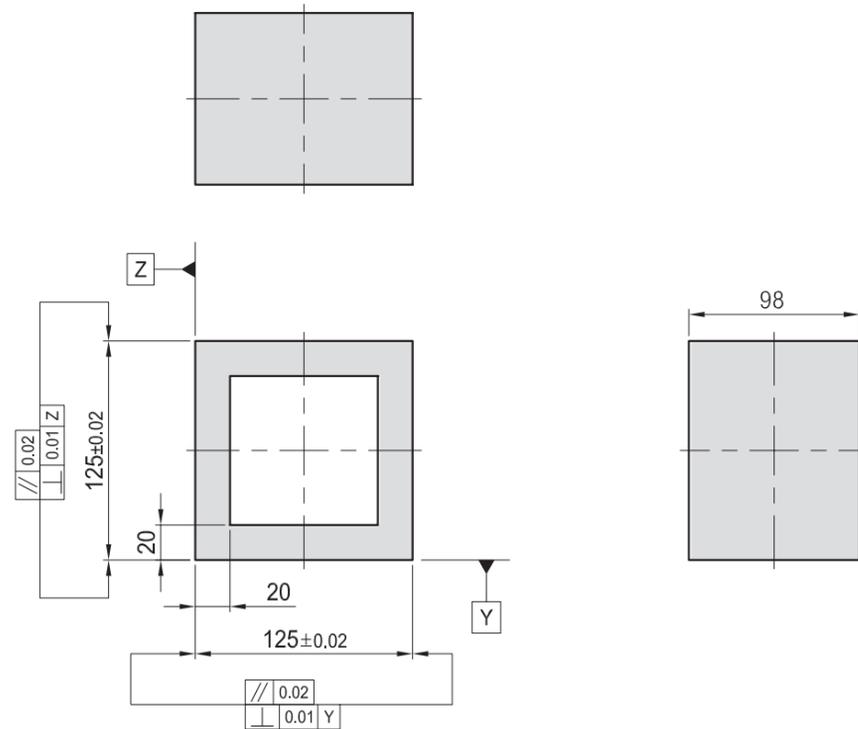
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BP27

RECTANGULAR CAST SECTION



- Material / Finish:
Material: Cast Iron FC300(JIS) / GG30(DIN)
Heat treated (Normalized)
- Application: Cast sections provide a fast & economical way to make special jig components.
- Features: Ready to accept a hole pattern for your special jig.



MODEL NO.	kg
BP27-125098-125	6

*Special Design Welcome !

BP28

RECTANGULAR CAST SECTION



- Material / Finish:
Material: Cast Iron FC300(JIS) / GG30(DIN)
Heat treated (Normalized)
- Application: Cast sections provide a fast & economical way to make special jig components.
- Features: Alignment bushing & thread insert at every hole location, easily adapts to standardized jig components.

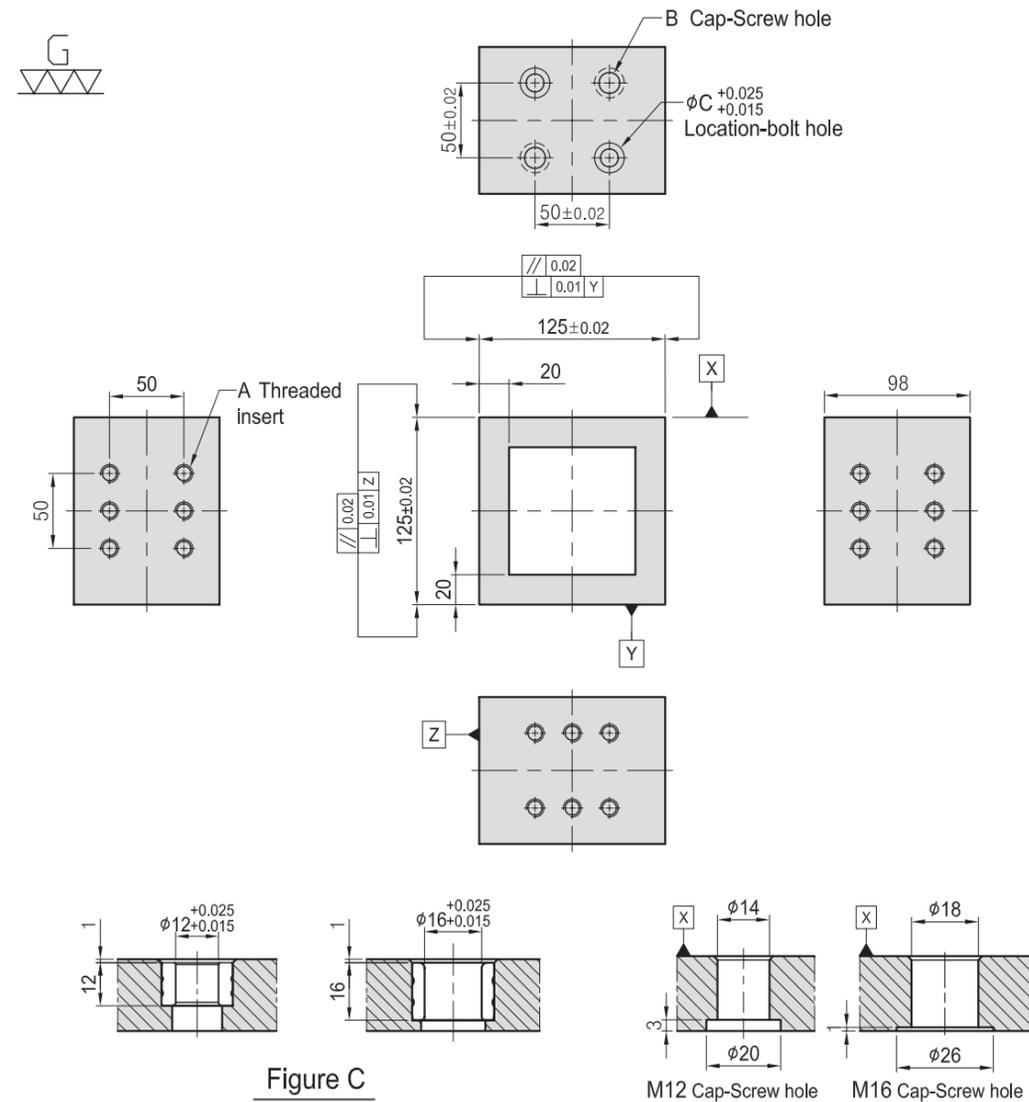


Figure C

Figure B

MODEL NO.	A	B	C	kg
BP28-125098-125-12	M12	M12	12	5.8
BP28-125098-125-16	M16	M16	16	5.5

*Special Design Welcome !

BP

BPA

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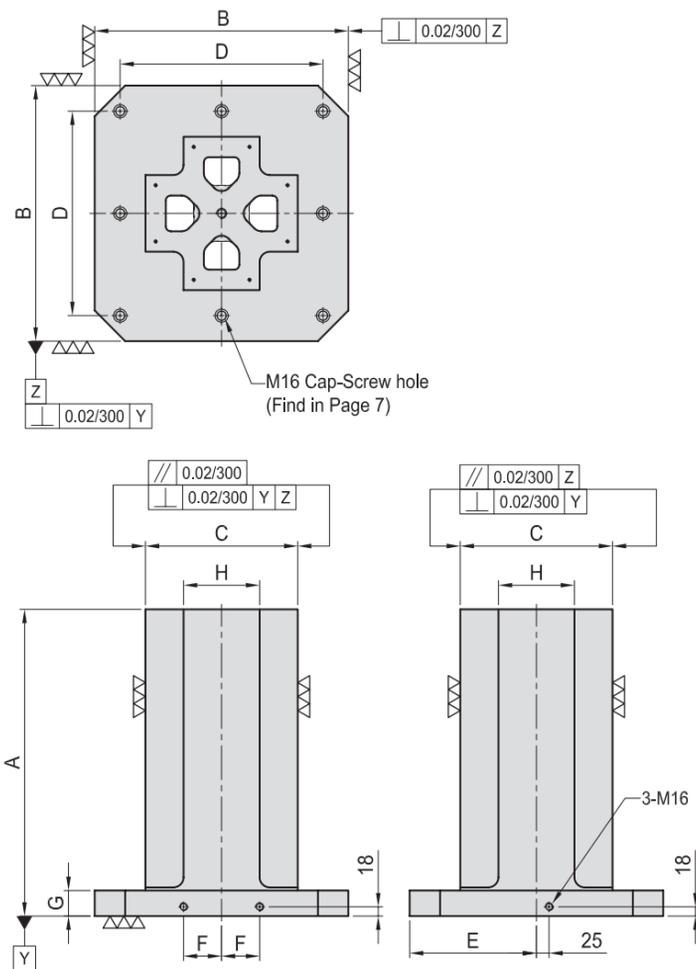
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BP29

CROSS TOOLING COLUMN

- Material / Finish:
Material: Cast Iron FC300(JIS) / GG30(DIN)
Heat treated (Normalized)
- Application: Horizontal Machining Center.
- Features: Ready to accept a hole pattern for your special jig.
• Eye bolt & top cover included.



MODEL NO.	A	B	C	D	E	F	G	H	Mounting holes	kg
BP29-400400-0500	500	400	250	320	200	55	50	125	4	154
BP29-400400-0650	650									188
BP29-500500-0600	600	500	300	400	250	75	50	150	8	244
BP29-500500-0750	750									287
BP29-630630-0700	700	630	350	500	315	100	50	200	8	373
BP29-630630-0850	850									424
BP29-800800-0800	800	800	500	640	400	135	50	300	8	648
BP29-800800-1000	1000									753

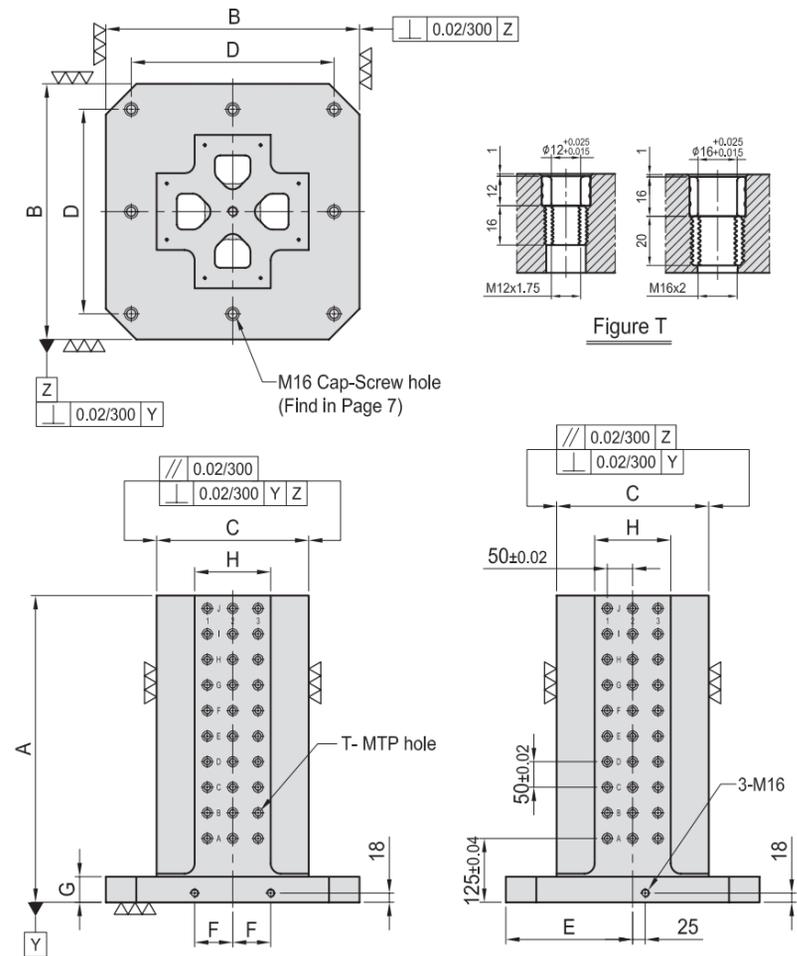
*Special Design Welcome !



BP30

CROSS TOOLING COLUMN

- Material / Finish:
Material: Cast Iron FC300 (JIS) / GG30 (DIN)
Heat treated (Normalized)
Alignment bushing: SUJ2(JIS) / 100Cr6(DIN), heat treated
Threaded Insert: S45C(JIS) / CK45(DIN), heat treated
MTP hole spacing: 50±0.02
- Application: Horizontal Machining Center.
- Features: Alignment bushing & thread insert at every hole location, easily adapts to standardized jig components.
• Eye bolt & top cover included.



MODEL NO.	A	B	C	D	E	F	G	H	T	MTP	Mounting holes	kg
BP30-400400-0500-12	500	400	250	320	200	55	50	125	φ12	M12	64	152
BP30-400400-0650-12	650										88	186
BP30-500500-0600-12	600	500	300	400	250	75	50	150	φ12	M12	120	250
BP30-500500-0750-12	750										156	293
BP30-630630-0700-12	700	630	350	500	315	100	50	200	φ12	M12	192	368
BP30-630630-0850-12	850										240	418
BP30-800800-0800-12	800	800	500	640	400	135	50	300	φ12	M12	336	640
BP30-800800-1000-12	1000										432	740

*Special Design Welcome !

MODEL NO.	A	B	C	D	E	F	G	H	T	MTP	Mounting holes	kg
BP30-400400-0500-16	500	400	250	320	200	55	50	125	φ16	M16	64	151
BP30-400400-0650-16	650										88	184
BP30-500500-0600-16	600	500	300	400	250	75	50	150	φ16	M16	120	247
BP30-500500-0750-16	750										156	290
BP30-630630-0700-16	700	630	350	500	315	100	50	200	φ16	M16	192	364
BP30-630630-0850-16	850										240	413
BP30-800800-0800-16	800	800	500	640	400	135	50	300	φ16	M16	336	633
BP30-800800-1000-16	1000										432	733

BP

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VISE

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GENS

OTHER

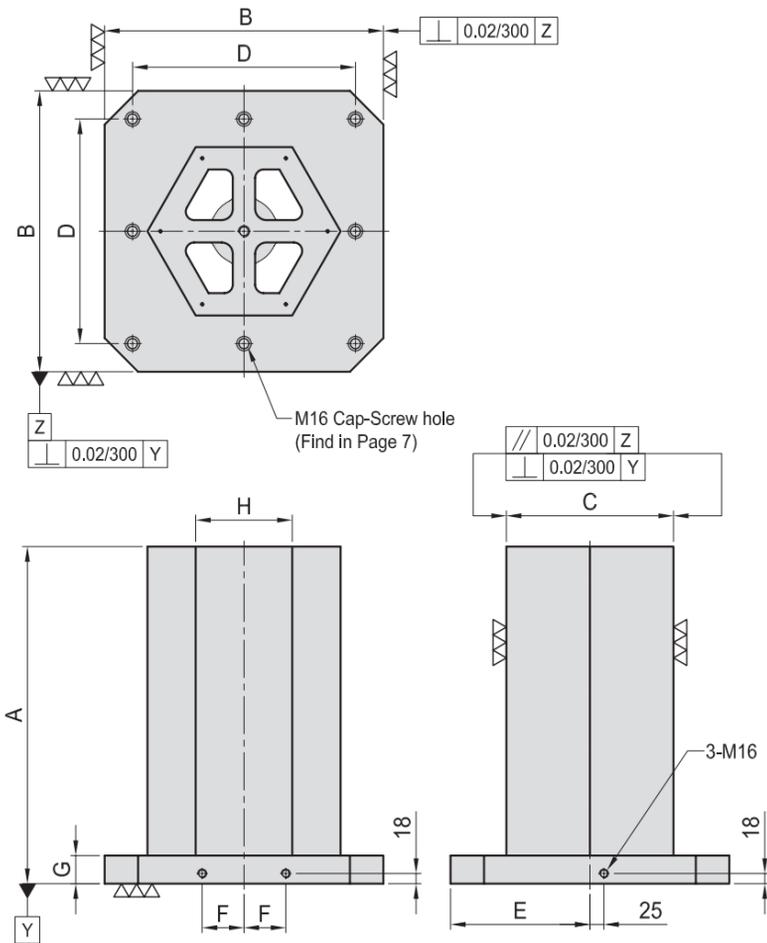
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BP31

HEXAGONAL CUBE

- Material / Finish:
Material: Cast Iron FC300(JIS) / GG30(DIN)
Heat treated (Normalized)
- Application: Horizontal Machining Center.
- Features: Ready to accept a hole pattern for your special jig.
• Eye bolt & top cover included.



MODEL NO.	A	B	C	D	E	F	G	H	Mounting holes	kg
BP31-400400-0500	500	400	250	320	200	55	50	144	4	151
BP31-400400-0650	650									183
BP31-500500-0600	600	500	300	400	250	75	50	173	8	233
BP31-500500-0750	750									272
BP31-630630-0700	700	630	350	500	315	100	50	202	8	361
BP31-630630-0850	850									408
BP31-800800-0800	800	800	500	640	400	135	50	289	8	619
BP31-800800-1000	1000									713

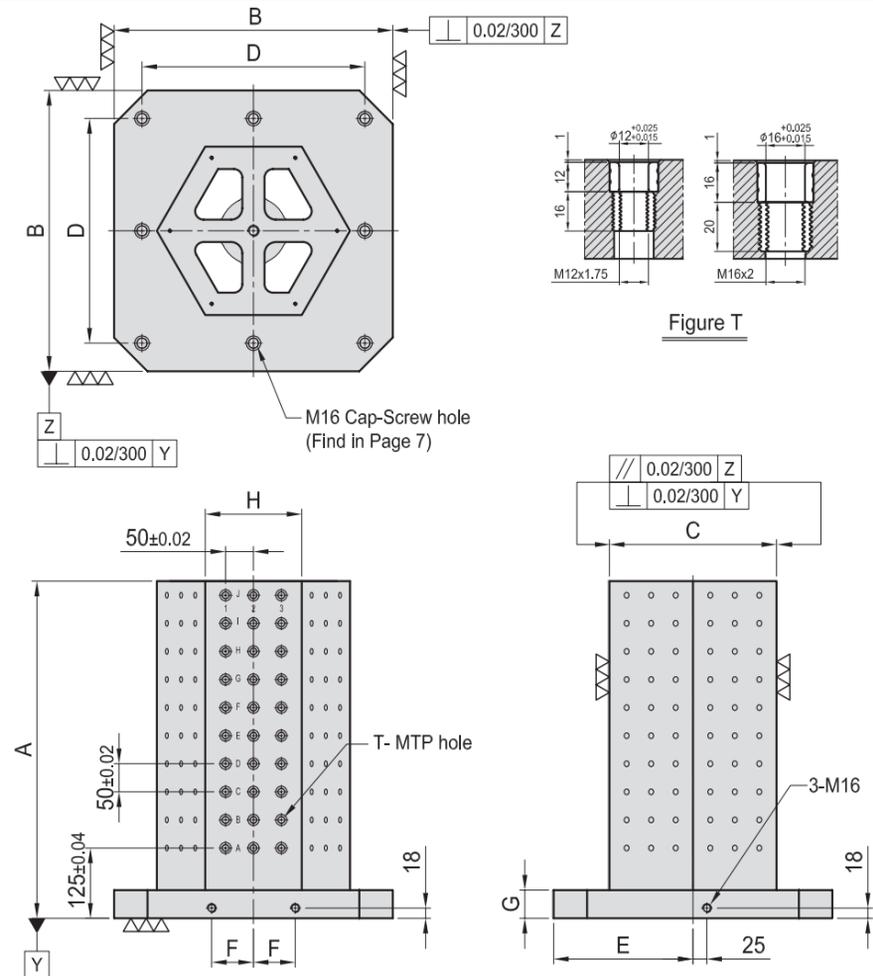
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BP32

HEXAGONAL CUBE

- Material / Finish:
Material: Cast Iron FC300 (JIS) / GG30 (DIN)
Heat treated (Normalized)
- Alignment bushing: SUJ2(JIS) / 100Cr6(DIN), heat treated
- Threaded Insert: S45C(JIS) / CK45(DIN), heat treated
- MTP hole spacing: 50±0.02
- Application: Horizontal Machining Center.
- Features: Alignment bushing & thread insert at every hole location, easily adapts to standardized jig components.
• Eye bolt & top cover included.



MODEL NO.	A	B	C	D	E	F	G	H	T	MTP	Mounting holes	kg
BP32-400400-0500-12	500	400	250	320	200	55	50	144	φ12	M12	96	149
BP32-400400-0650-12	650										132	180
BP32-500500-0600-12	600	500	300	400	250	75	50	173	φ12	M12	180	228
BP32-500500-0750-12	750										234	267
BP32-630630-0700-12	700	630	350	500	315	100	50	202	φ12	M12	216	356
BP32-630630-0850-12	850										270	407
BP32-800800-0800-12	800	800	500	640	400	135	50	289	φ12	M12	420	609
BP32-800800-1000-12	1000										540	700
BP32-400400-0500-16	500	400	250	320	200	55	50	144	φ16	M16	96	147
BP32-400400-0650-16	650										132	177
BP32-500500-0600-16	600	500	300	400	250	75	50	173	φ16	M16	180	224
BP32-500500-0750-16	750										234	262
BP32-630630-0700-16	700	630	350	500	315	100	50	202	φ16	M16	216	351
BP32-630630-0850-16	850										270	396
BP32-800800-0800-16	800	800	500	640	400	135	50	289	φ16	M16	420	600
BP32-800800-1000-16	1000										540	688

*Special Design Welcome !

BP

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OTHER

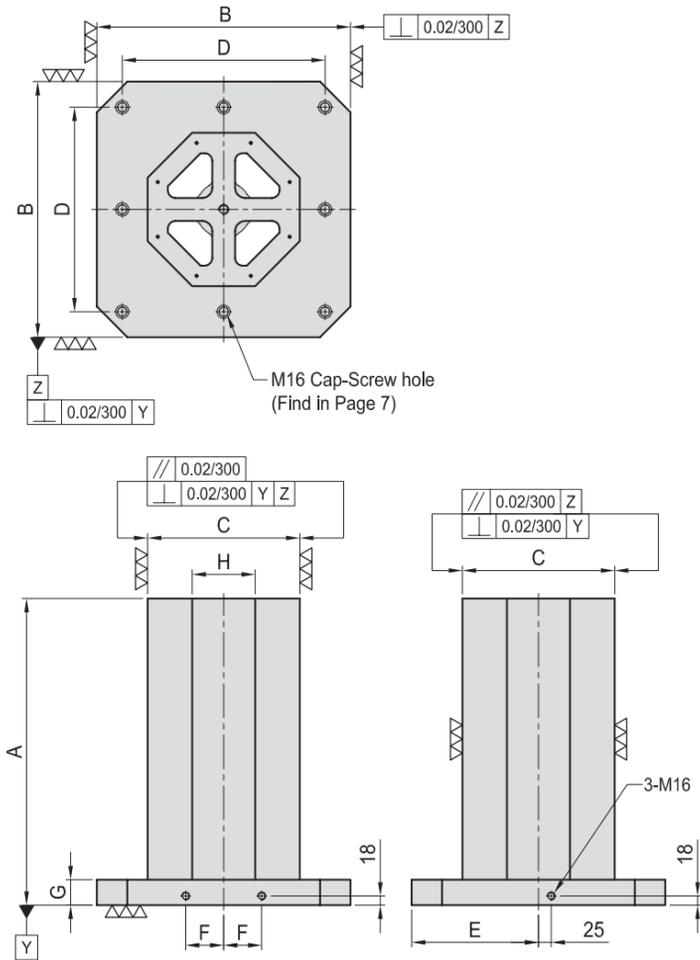
Column for Technical Data



BP33

OCTAGONAL CUBE

- Material / Finish: Material: Cast Iron FC300(JIS) / GG30(DIN) Heat treated (Normalized)
- Application: Horizontal Machining Center.
- Features: Ready to accept a hole pattern for your special jig.
- Eye bolt & top cover included.



MODEL NO.	A	B	C	D	E	F	G	H	Mounting holes	kg
BP33-400400-0500	500	400	250	320	200	55	50	103	4	148
BP33-400400-0650	650									
BP33-500500-0600	600	500	300	400	250	75	50	124	8	227
BP33-500500-0750	750									
BP33-630630-0700	700	630	350	500	315	100	50	145	8	350
BP33-630630-0850	850									
BP33-800800-0800	800	800	500	640	400	135	50	207	8	622
BP33-800800-1000	1000									

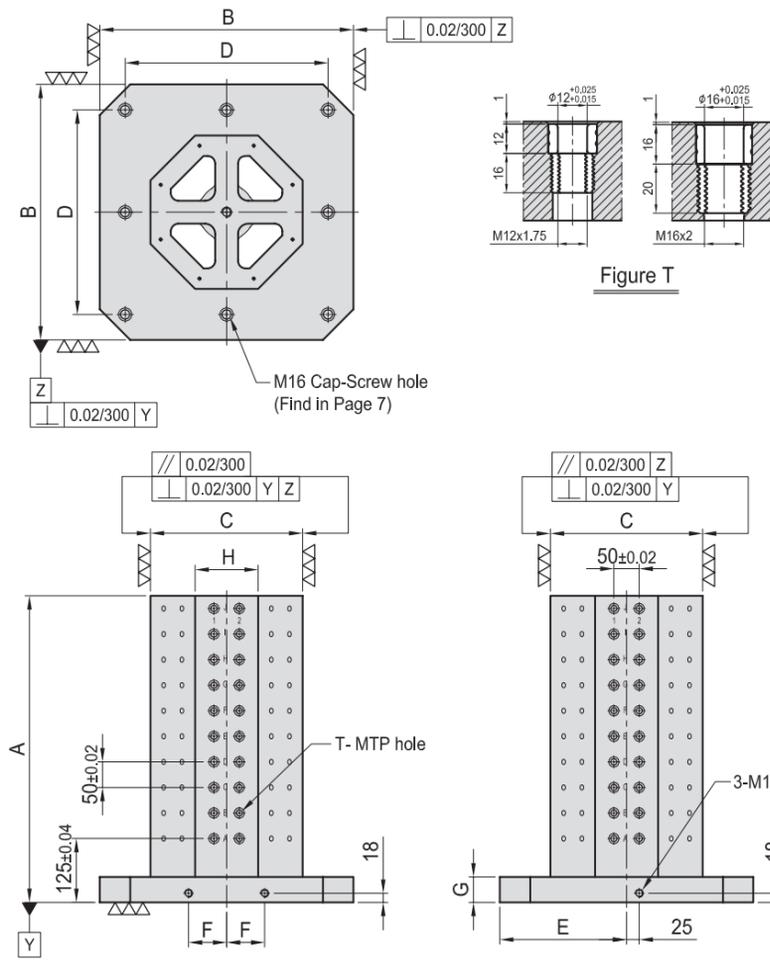
*Special Design Welcome !



BP34

OCTAGONAL CUBE

- Material / Finish: Material: Cast Iron FC300 (JIS) / GG30 (DIN) Heat treated (Normalized)
- Alignment bushing: SUJ2(JIS) / 100Cr6(DIN), heat treated
- Threaded Insert: S45C(JIS) / CK45(DIN), heat treated
- MTP hole spacing: 50±0.02
- Application: Horizontal Machining Center.
- Features: Alignment bushing & thread insert at every hole location, easily adapts to standardized jig components.
- Eye bolt & top cover included.



MODEL NO.	A	B	C	D	E	F	G	H	T	MTP	Mounting holes	kg
BP34-400400-0500-12	500	400	250	320	200	55	50	103	φ12	M12	4	145
BP34-400400-0650-12	650											
BP34-500500-0600-12	600	500	300	400	250	75	50	124	φ12	M12	8	223
BP34-500500-0750-12	750											
BP34-630630-0700-12	700	630	350	500	315	100	50	145	φ12	M12	8	345
BP34-630630-0850-12	850											
BP34-800800-0800-12	800	800	500	640	400	135	50	207	φ12	M12	8	611
BP34-800800-1000-12	1000											
BP34-400400-0500-16	500	400	250	320	200	55	50	103	φ16	M16	4	142
BP34-400400-0650-16	650											
BP34-500500-0600-16	600	500	300	400	250	75	50	124	φ16	M16	8	219
BP34-500500-0750-16	750											
BP34-630630-0700-16	700	630	350	500	315	100	50	145	φ16	M16	8	341
BP34-630630-0850-16	850											
BP34-800800-0800-16	800	800	500	640	400	135	50	207	φ16	M16	8	601
BP34-800800-1000-16	1000											

*Special Design Welcome !

BP

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JER-
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OTHER

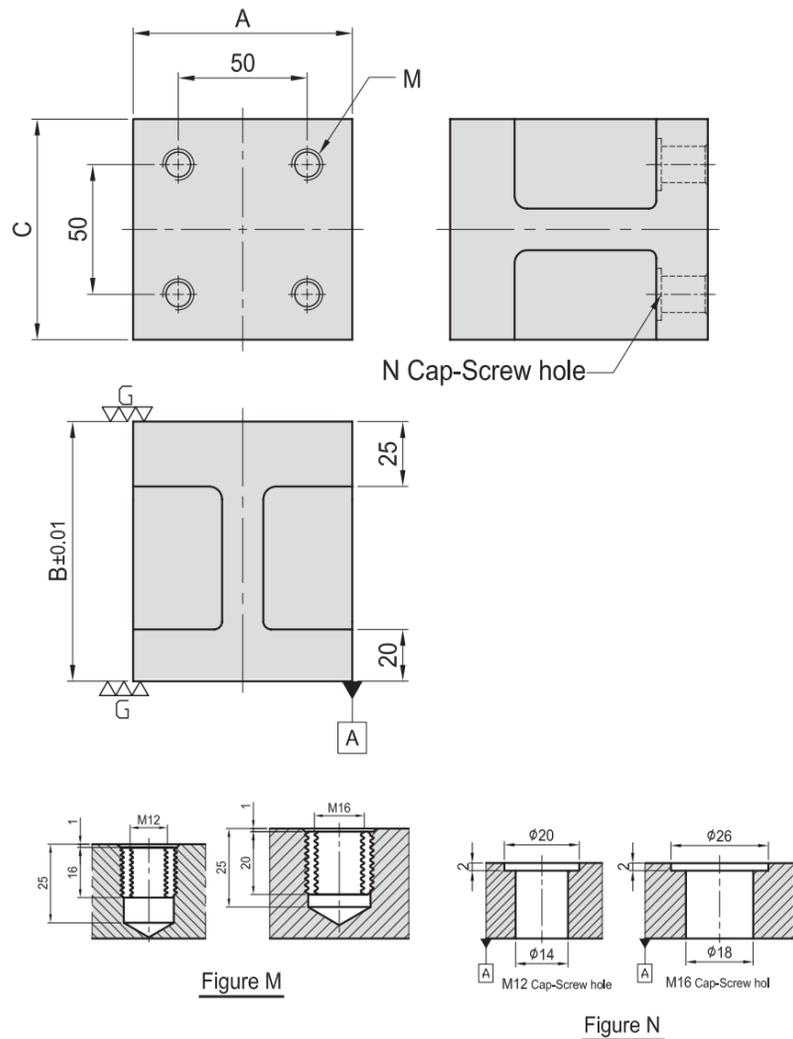
Column
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BP35

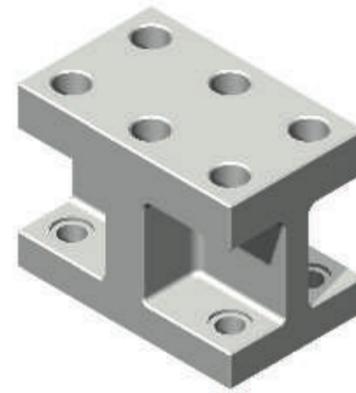
H/CAST SECTION

- Material / Finish:
Material: Cast Iron FC300(JIS) / GG30(DIN)
- Heat treated (Normalized)
- Features: Easily adapts to standardized jig components.



MODEL NO.	A	B	C	M	N	kg
BP35-085085-0100-12	85	100	85	M12	M12	3.64
BP35-085085-0125-12		125				
BP35-085085-0100-16	85	100	85	M16	M16	4.13
BP35-085085-0125-16		125				

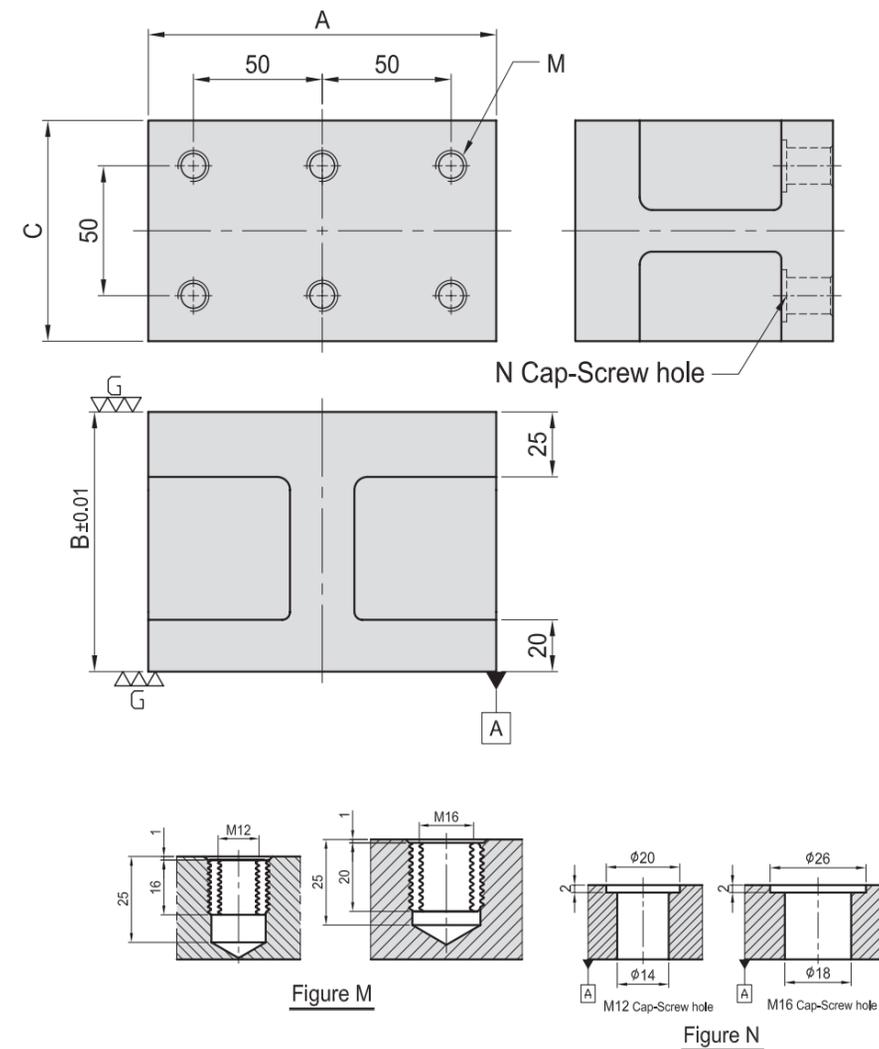
*Special Design Welcome !



BP36

H/CAST SECTION

- Material / Finish:
Material: Cast Iron FC300(JIS) / GG30(DIN)
- Heat treated (Normalized)
- Features: Easily adapts to standardized jig components.



MODEL NO.	A	B	C	M	N	kg
BP36-135085-0100-12	135	100	85	M12	M12	5.76
BP36-135085-0125-12		125				
BP36-135085-0100-16	135	100	85	M16	M16	6.53
BP36-135085-0125-16		125				

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BP

BPA

BC

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SVF

ALV

OK-
VISE

JER-
GENS

OTHER

Column
for
Technical
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BP37

H/CAST SECTION

- Material / Finish: Cast Iron FC300(JIS) / GG30(DIN)
- Heat treated (Normalized)
- Features: Easily adapts to standardized jig components.

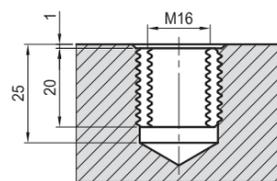
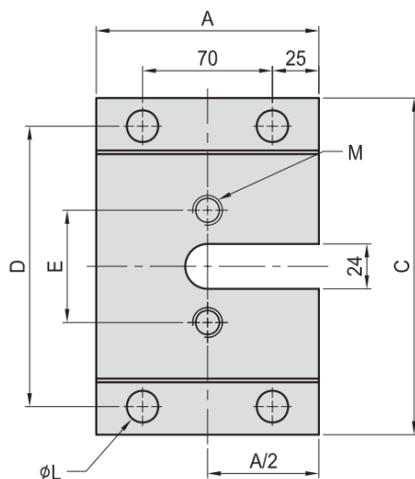
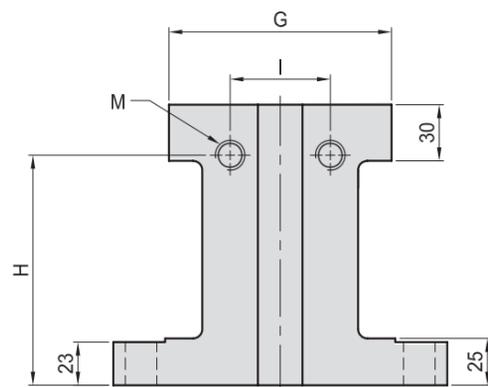
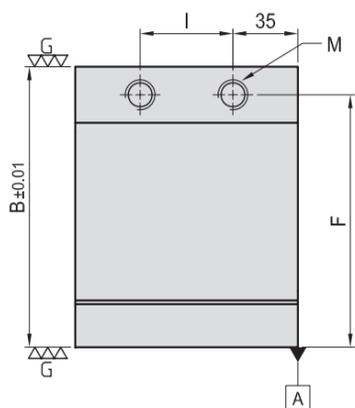


Figure M

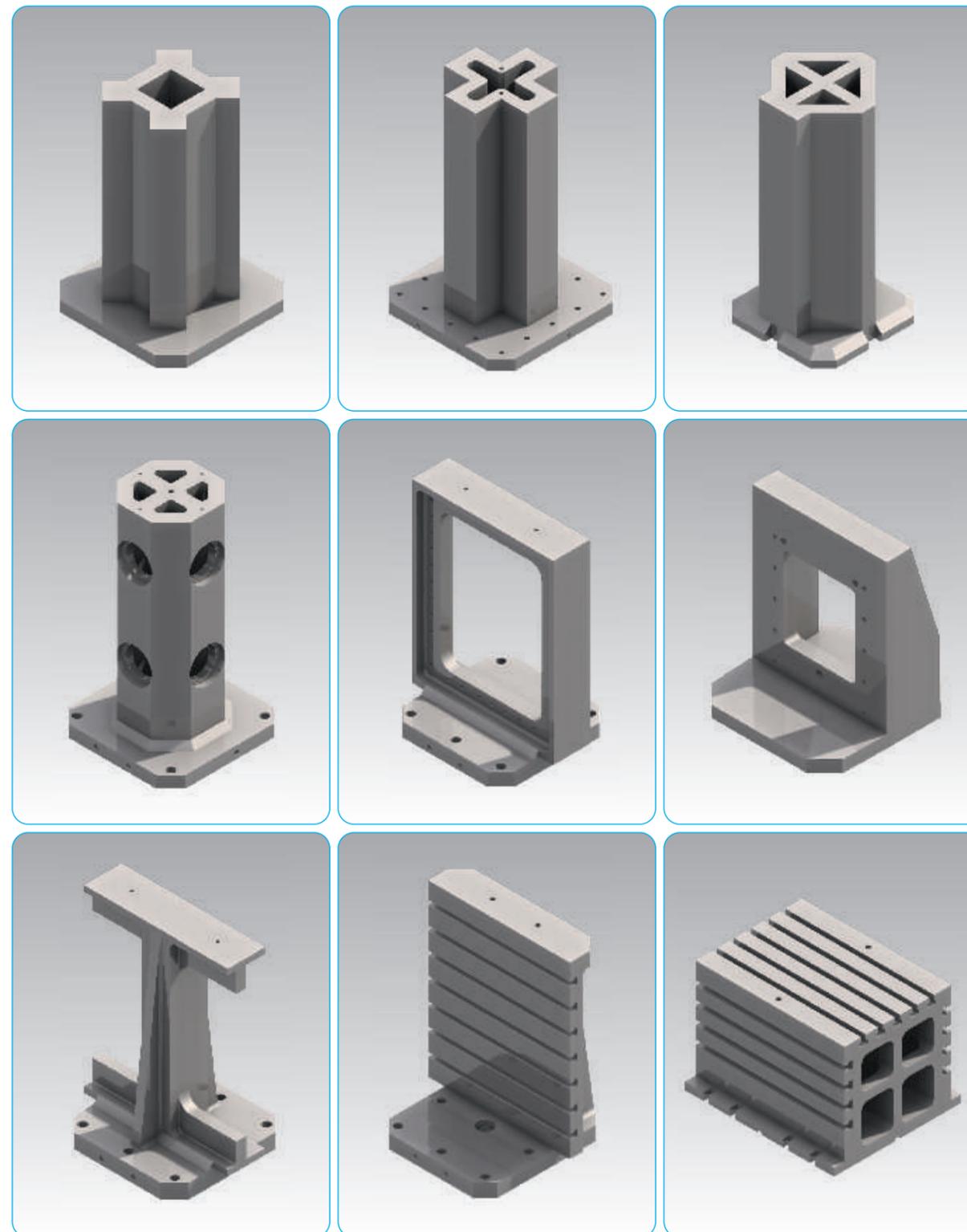


MODEL NO.	A	B	C	D	E	F	G	H	I	M	L	kg
BP37-120180-0150-16	120	150	180	150	60	135	120	123	50	M16	17	15.5

*Special Design Welcome !

BP-SPECIAL

**WE CAN BUILD YOUR OWN SPECIAL DESIGN
UP TO 1500mm x 1500mm x 1500mm**



BP

BPA

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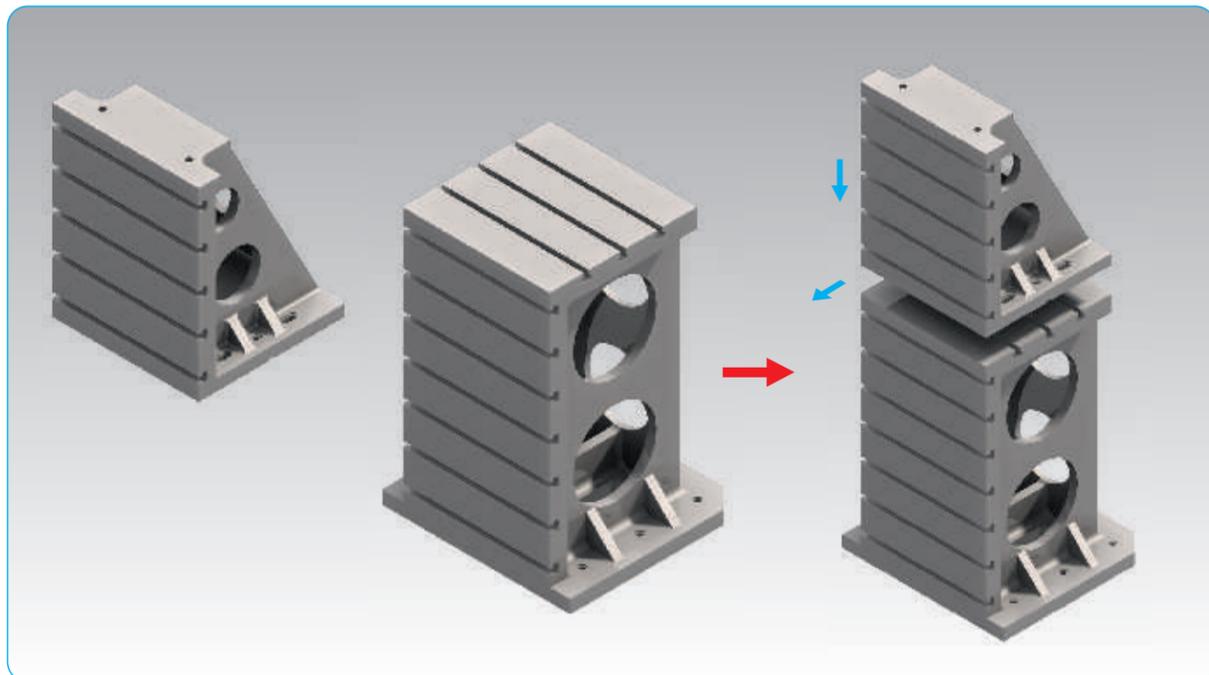
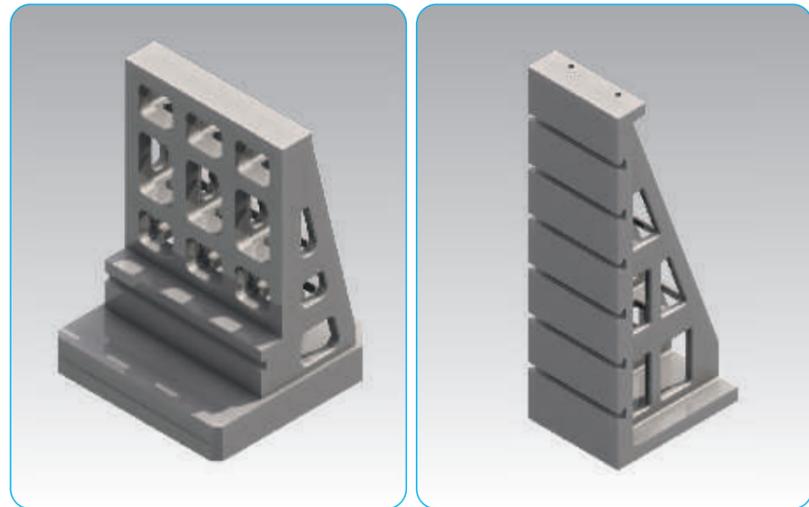
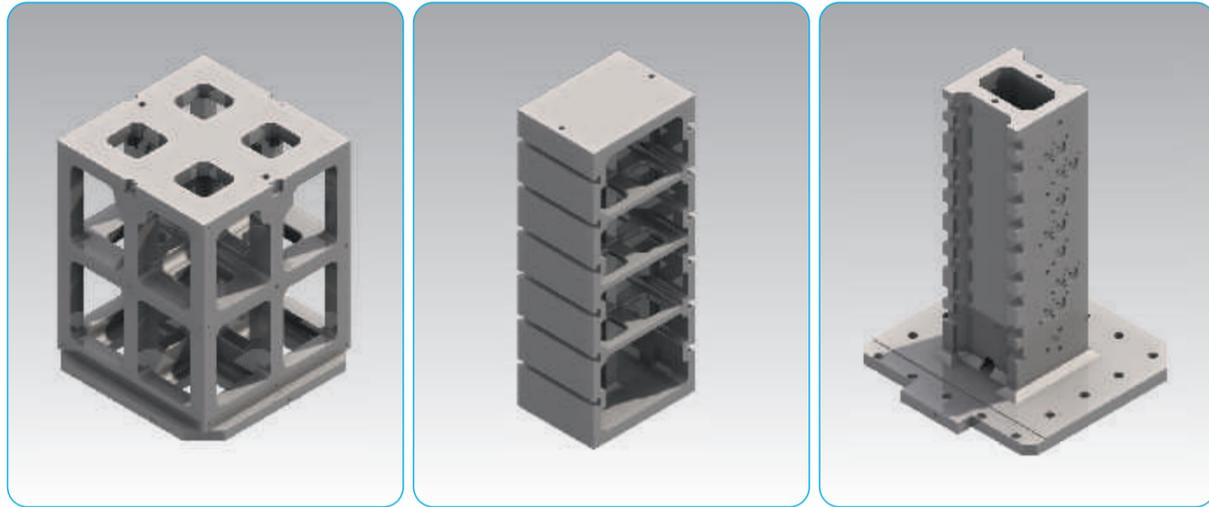
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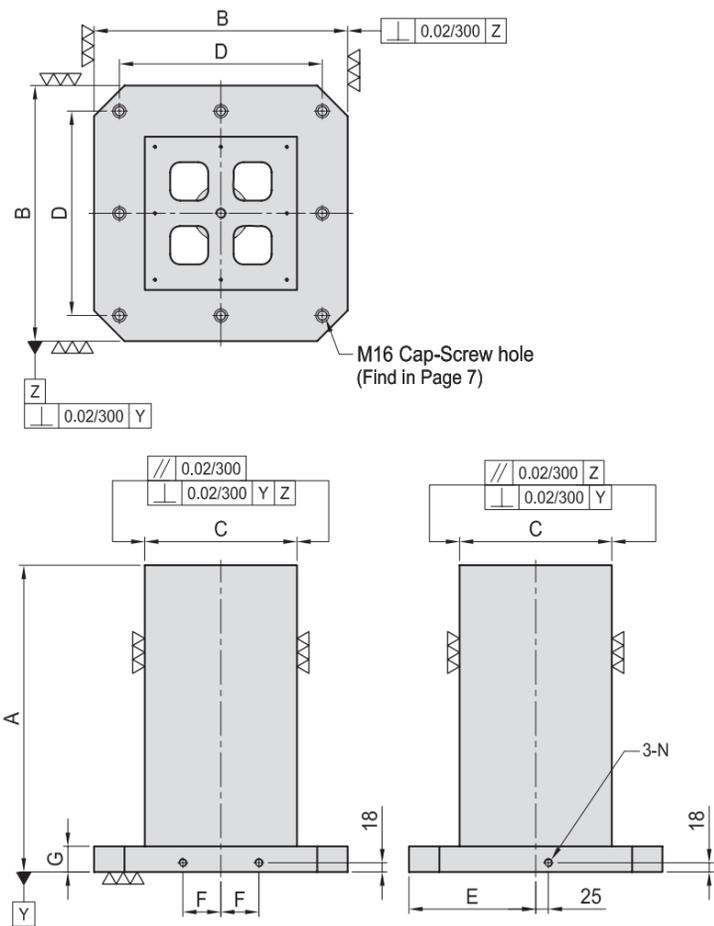




BPA07

SQUARE TOOLING COLUMN

- Material: High Strength Aluminum Casting.
- Application: Horizontal Machining Center.
- Features: Ready to accept a hole pattern for your special jig.
- Eye bolt & Top cover included.



MODEL NO.	A	B	C	D	E	F	G	Mounting holes	kg
BPA07-400400-0500	500	400	250	320	200	55	40	4	56
BPA07-400400-0650	650								73
BPA07-500500-0600	600	500	300	400	250	75	40	8	91
BPA07-500500-0750	750								122
BPA07-630630-0700	700	630	350	500	315	100	50	8	129
BPA07-630630-0850	850								180
BPA07-800800-0800	800	800	500	640	400	135	50	8	215
BPA07-800800-1000	1000								312

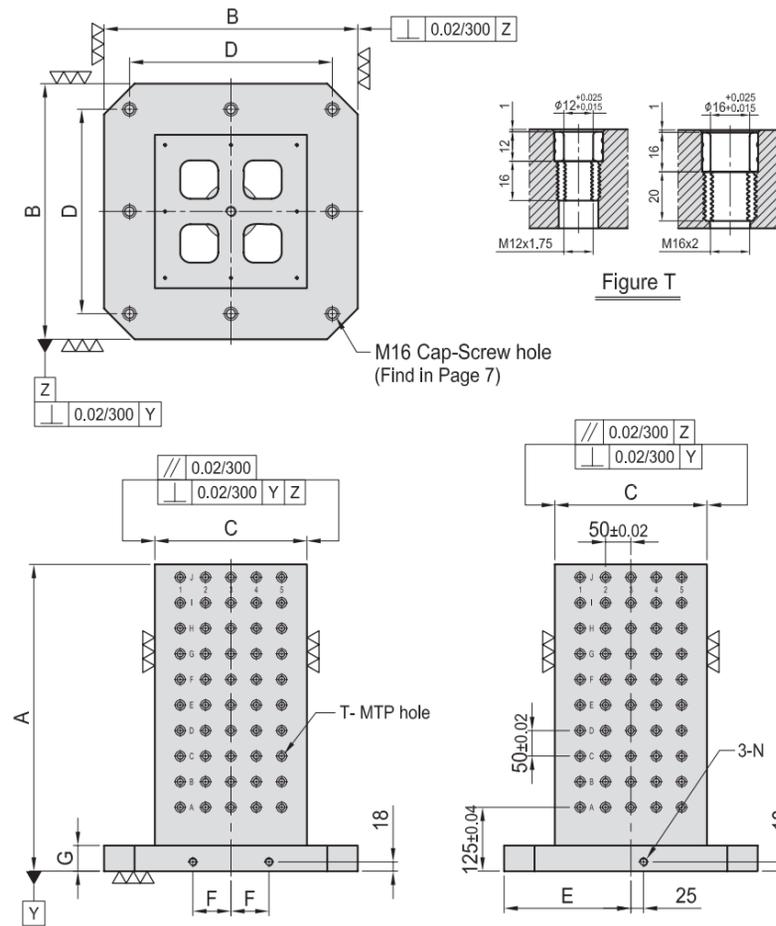
*Special Design Welcome !



BPA08

SQUARE TOOLING COLUMN

- Material: High Strength Aluminum Casting.
- Alignment bushing: SUJ2(JIS) / 100Cr6(DIN), heat treated
- Threaded Insert: S45C(JIS) / CK45(DIN), heat treated
- MTP hole spacing: 50 ± 0.02
- Application: Horizontal Machining Center.
- Features: Alignment bushing & thread insert at every hole location, easily adapts to standardized jig components.
- Eye bolt & Top cover included.



MODEL NO.	A	B	C	D	E	F	G	T	MTP	Mounting holes	kg	MODEL NO.	A	B	C	D	E	F	G	T	MTP	Mounting holes	kg		
BPA08-400400-0500-12	500	400	250	320	200	55	40	$\phi 12$	M12	128	4	54	BPA08-400400-0500-16	500	400	250	320	200	55	40	$\phi 16$	M16	128	4	54
BPA08-400400-0650-12	650									176		73	BPA08-400400-0650-16	650									176		73
BPA08-500500-0600-12	600	500	300	400	250	75	40	$\phi 12$	M12	200	8	88	BPA08-500500-0600-16	600	500	300	400	250	75	40	$\phi 16$	M16	200	8	88
BPA08-500500-0750-12	750									260		122	BPA08-500500-0750-16	750									260		122
BPA08-630630-0700-12	700	630	350	500	315	100	50	$\phi 12$	M12	288	8	126	BPA08-630630-0700-16	700	630	350	500	315	100	50	$\phi 16$	M16	288	8	123
BPA08-630630-0850-12	850									360		180	BPA08-630630-0850-16	850									360		180
BPA08-800800-0800-12	800	800	500	640	400	135	50	$\phi 12$	M12	504	8	204	BPA08-800800-0800-16	800	800	500	640	400	135	50	$\phi 16$	M16	504	8	201
BPA08-800800-1000-12	1000									648		312	BPA08-800800-1000-16	1000									648		312

*Special Design Welcome !

BP

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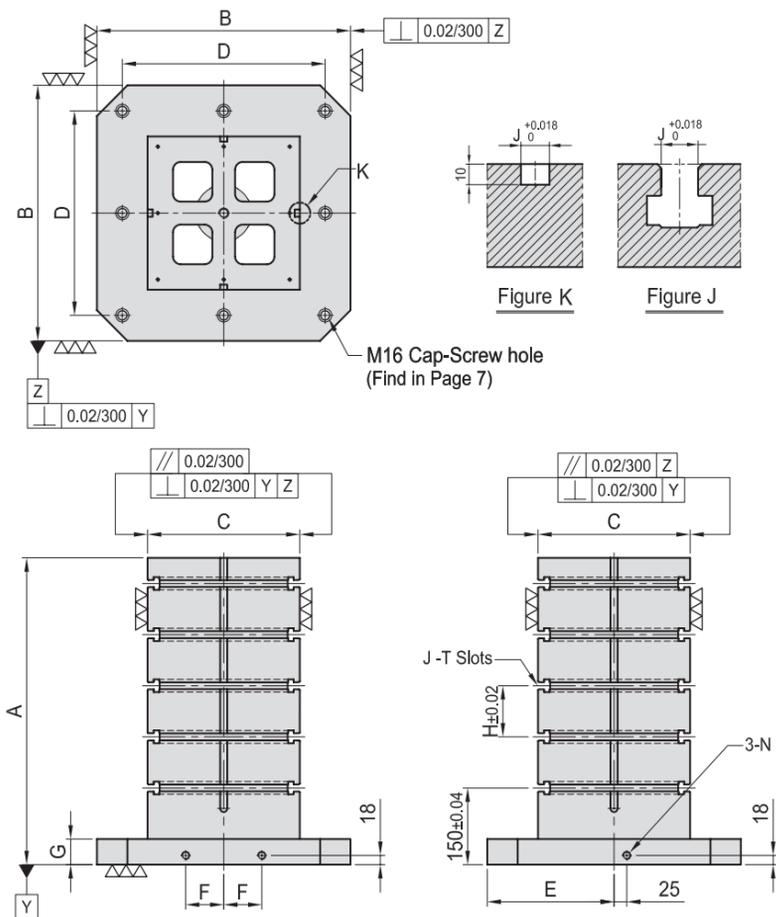
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BPA09

SQUARE TOOLING COLUMN

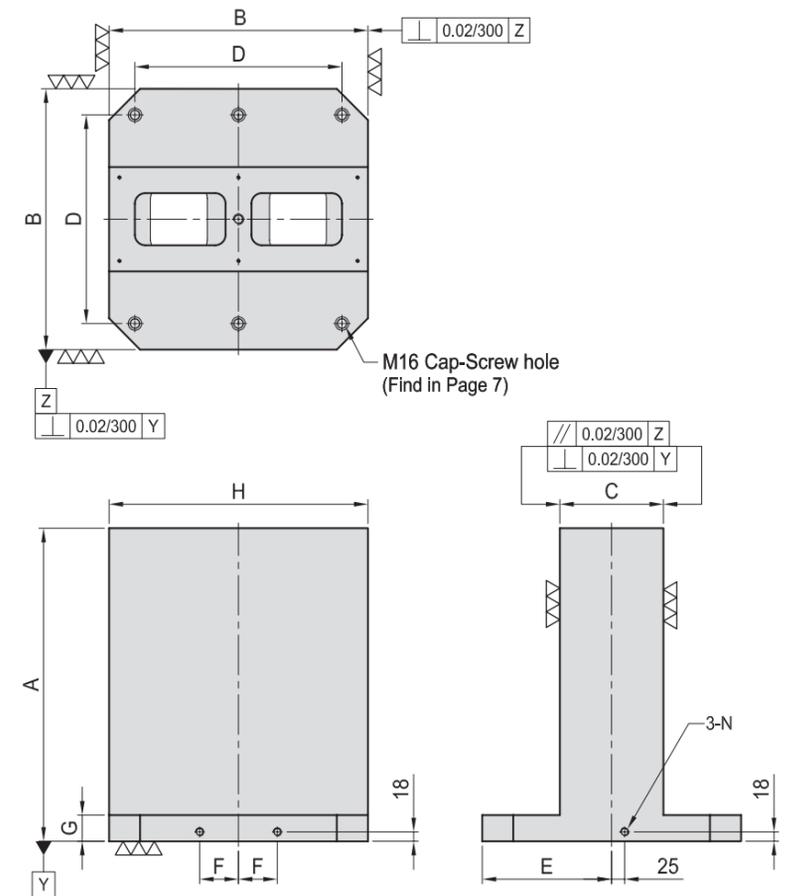
- Material: High Strength Aluminum Casting.
- Application: Horizontal Machining Center.
- Features: T-Slots running horizontally, key-way running vertically, easily adapts to standardized jig components.
- Eye bolt & Top cover included.



BPA10

DOUBLE SIDED TOOLING COLUMN

- Material: High Strength Aluminum Casting.
- Application: Horizontal Machining Center.
- Features: Ready to accept a hole pattern for your special jig.
- Eye bolt & Top cover included.



MODEL NO.	A	B	C	D	E	F	G	H	J	Mounting holes	kg
BPA09-400400-0500-14	500									4	61
BPA09-400400-0650-14	650	400	250	320	200	55	40	100	14	4	84
BPA09-500500-0600-14	600									8	86
BPA09-500500-0750-14	750	500	300	400	250	75	40	100	14	8	127
BPA09-630630-0700-14	700									8	136
BPA09-630630-0850-14	850	630	350	500	315	100	50	125	14	8	183
BPA09-800800-0800-14	800									8	260
BPA09-800800-1000-14	1000	800	500	640	400	135	50	150	14	8	319

*Special Design Welcome !

MODEL NO.	A	B	C	D	E	F	G	H	J	Mounting holes	kg
BPA09-400400-0500-18	500									4	60
BPA09-400400-0650-18	650	400	250	320	200	55	40	100	18	4	84
BPA09-500500-0600-18	600									8	85
BPA09-500500-0750-18	750	500	300	400	250	75	40	100	18	8	135
BPA09-630630-0700-18	700									8	135
BPA09-630630-0850-18	850	630	350	500	315	100	50	125	18	8	183
BPA09-800800-0800-18	800									8	254
BPA09-800800-1000-18	1000	800	500	640	400	135	50	150	18	8	319

*Special Design Welcome !

MODEL NO.	A	B	C	D	E	F	G	H	Mounting holes	kg	
BPA10-400400-0500	500									4	62
BPA10-400400-0650	650	400	150	320	200	55	40	400	4	86	
BPA10-500500-0600	600									6	96
BPA10-500500-0750	750	500	200	400	250	75	40	500	6	135	
BPA10-630630-0700	700									6	176
BPA10-630630-0850	850	630	250	500	315	100	50	630	6	202	
BPA10-800800-0800	800									6	217
BPA10-800800-1000	1000	800	300	640	400	135	50	800	6	318	

BP

BPA

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JER-GENS

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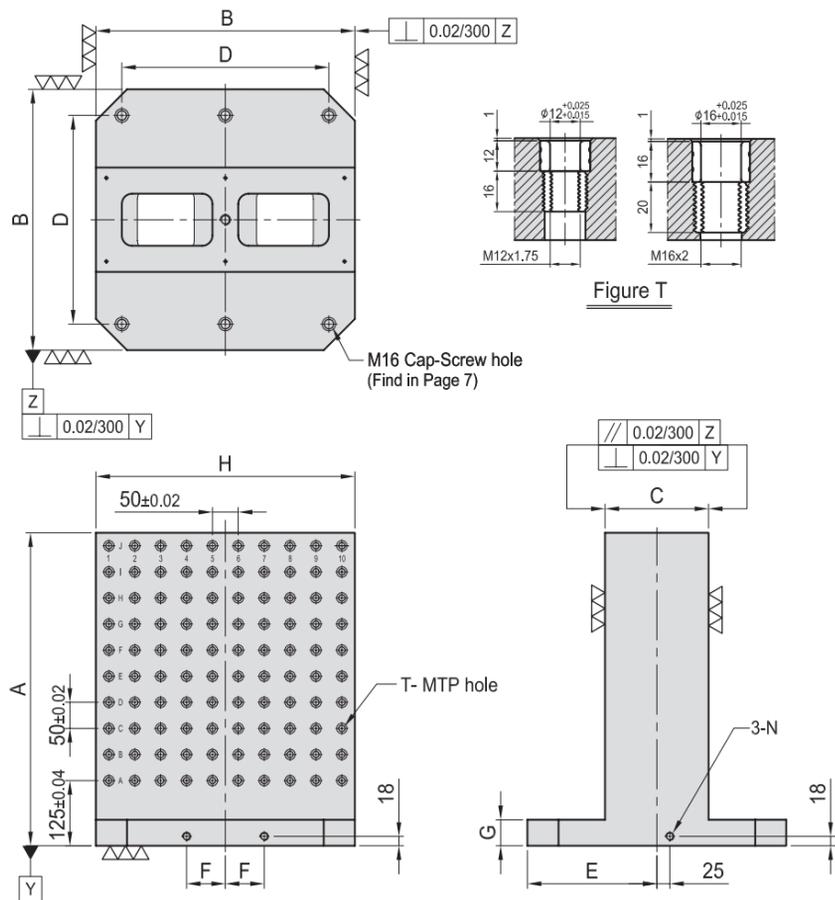
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BPA11

DOUBLE SIDED TOOLING COLUMN

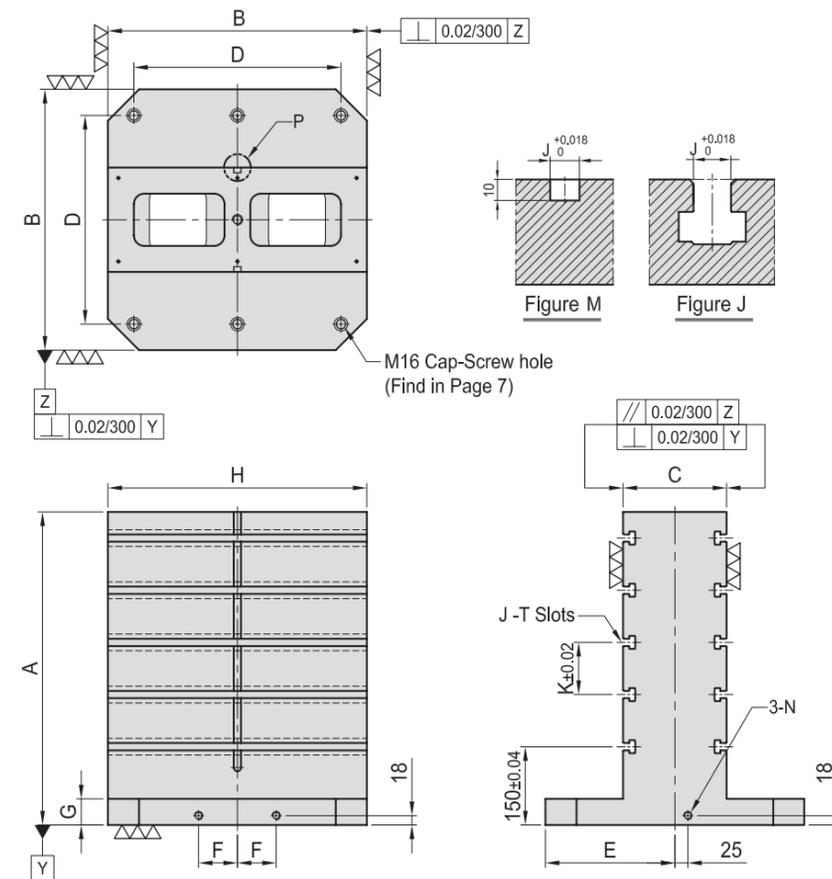
- Material: High Strength Aluminum Casting.
- Alignment Bushing: SUJ2(JIS) / 100Cr6 (DIN), heat treated
Threaded Insert: S45C(JIS) / CK45(DIN), heat treated
MTP hole spacing: 50±0.02
- Application: Horizontal Machining Center.
- Features: Alignment bushing & thread insert at every hole location, easily adapts to standardized jig components.
- Eye bolt & Top cover included.



BPA12

DOUBLE SIDED TOOLING COLUMN

- Material: High Strength Aluminum Casting.
- Application: Horizontal Machining Center.
- Features: T-Slots running horizontally, key-way running vertically, easily adapts to standardized jig components.
- Eye bolt & Top cover included.



MODEL NO.	A	B	C	D	E	F	G	H	T	MTP	Mounting holes	kg
BPA11-400400-0500-12	500									128	4	56
BPA11-400400-0650-12	650	400	150	320	200	55	40	400	φ12	M12	176	86
BPA11-500500-0600-12	600									200	6	91
BPA11-500500-0750-12	750	500	200	400	250	75	40	500	φ12	M12	260	135
BPA11-630630-0700-12	700									288	6	154
BPA11-630630-0850-12	850	630	250	500	315	100	50	630	φ12	M12	360	202
BPA11-800800-0800-12	800									420	6	214
BPA11-800800-1000-12	1000	800	300	640	400	135	50	800	φ12	M12	540	318

*Special Design Welcome !

MODEL NO.	A	B	C	D	E	F	G	H	T	MTP	Mounting holes	kg
BPA11-400400-0500-16	500									128	4	60
BPA11-400400-0650-16	650	400	150	320	200	55	40	400	φ16	M16	176	86
BPA11-500500-0600-16	600									200	6	103
BPA11-500500-0750-16	750	500	200	400	250	75	40	500	φ16	M16	260	135
BPA11-630630-0700-16	700									288	6	170
BPA11-630630-0850-16	850	630	250	500	315	100	50	630	φ16	M16	360	202
BPA11-800800-0800-16	800									420	6	210
BPA11-800800-1000-16	1000	800	300	640	400	135	50	800	φ16	M16	540	318

*Special Design Welcome !

MODEL NO.	A	B	C	D	E	F	G	H	J	K	Mounting holes	kg
BPA12-400400-0500-14	500										4	60
BPA12-400400-0650-14	650	400	150	320	200	55	40	400	14	100	4	92
BPA12-500500-0600-14	600										6	87
BPA12-500500-0750-14	750	500	200	400	250	75	40	500	14	100	6	142
BPA12-630630-0700-14	700										6	165
BPA12-630630-0850-14	850	630	250	500	315	100	50	630	14	125	6	212
BPA12-800800-0800-14	800										6	243
BPA12-800800-1000-14	1000	800	300	640	400	135	50	800	14	150	6	325

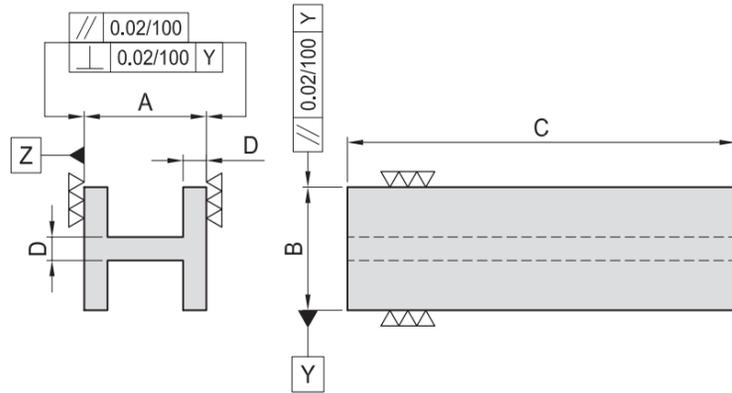
MODEL NO.	A	B	C	D	E	F	G	H	J	K	Mounting holes	kg
BPA12-400400-0500-18	500										4	60
BPA12-400400-0650-18	650	400	150	320	200	55	40	400	18	100	4	92
BPA12-500500-0600-18	600										6	86
BPA12-500500-0750-18	750	500	200	400	250	75	40	500	18	100	6	142
BPA12-630630-0700-18	700										6	163
BPA12-630630-0850-18	850	630	250	500	315	100	50	630	18	125	6	212
BPA12-800800-0800-18	800										6	240
BPA12-800800-1000-18	1000	800	300	640	400	135	50	800	18	150	6	325



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BC01

H-SECTION

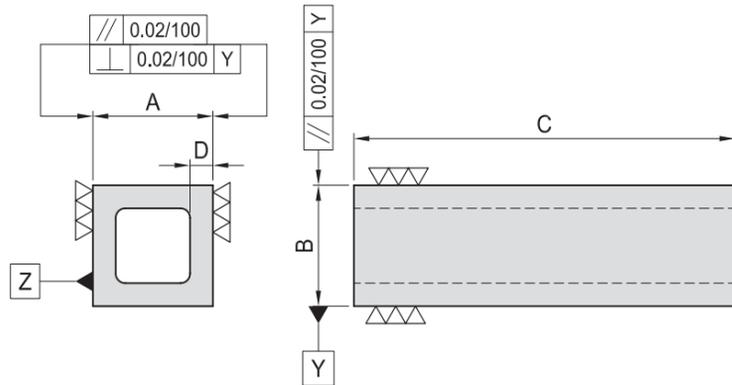


- Material : Cast Iron.
FC-300 (JIS)
GG-30 (DIN)
- Heat treated : Normalized

MODEL NO.	A	B	C	D	E	kg
BC01-063063-200	63	63	200	12	25.5	2.8
BC01-080080-200	80	80	200	16	32.0	4.8
BC01-080080-400			400			9.6
BC01-125125-200	125	125	200	20	52.5	9.6
BC01-125125-400			400			19.3

BC02

SQUARE HOLLOW BLOCK

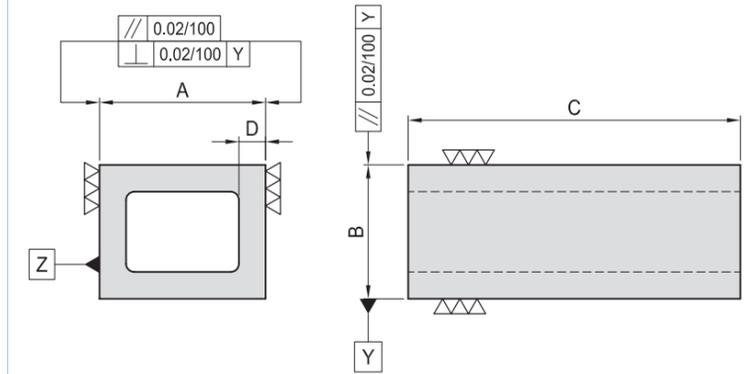


- Material : Cast Iron.
FC-300 (JIS)
GG-30 (DIN)
- Heat treated : Normalized

MODEL NO.	A	B	C	D	kg
BC02-063063-200	63	63	200	12	2.3
BC02-100100-200	100	100	200	16	8.0
BC02-100100-400			400		16.0
BC02-160160-200	160	160	200	20	16.5
BC02-160160-400			400		33.0

BC03

RECTANGULAR HOLLOW BLOCK

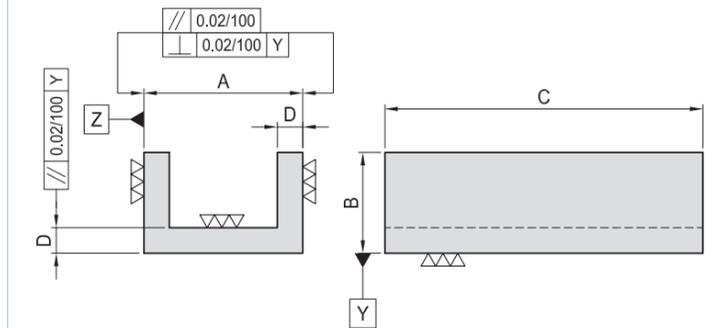


- Material : Cast Iron.
FC-300 (JIS)
GG-30 (DIN)
- Heat treated : Normalized

MODEL NO.	A	B	C	D	kg
BC03-080100-200	100	80	200	16	7.0
BC03-080100-400			400		14.0
BC03-100160-200	160	100	200	18	11.6
BC03-100160-400			400		23.2

BC04

CHANNEL SECTION



- Material : Cast Iron.
FC-300 (JIS)
GG-30 (DIN)
- Heat treated : Normalized

MODEL NO.	A	B	C	D	kg
BC04-063100-200	100	63	200	16	4.5
BC04-063100-300	100	63	300	16	6.8
BC04-090160-300	160	90	300	20	13.0

BP

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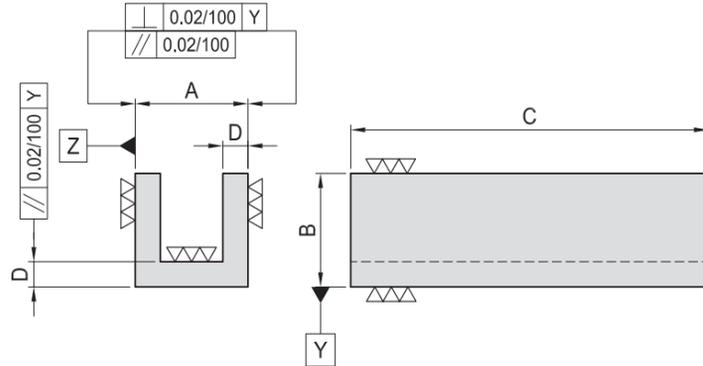
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BC05

U-SECTION

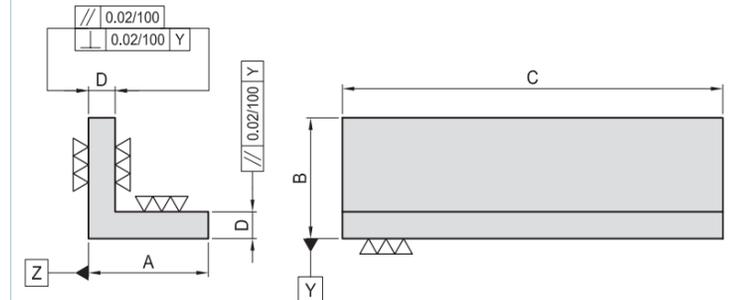


- Material : Cast Iron.
FC-300 (JIS)
GG-30 (DIN)
- Heat treated : Normalized

MODEL NO.	A	B	C	D	kg
BC05-063063-200	63	63	200	14	3.2
BC05-063063-400			400		6.5
BC05-100100-200	100	100	200	20	7.7
BC05-100100-400			400		14.8
BC05-150150-200	150	150	200	25	14.0
BC05-150150-400			400		29.0

BC07

L-SECTION

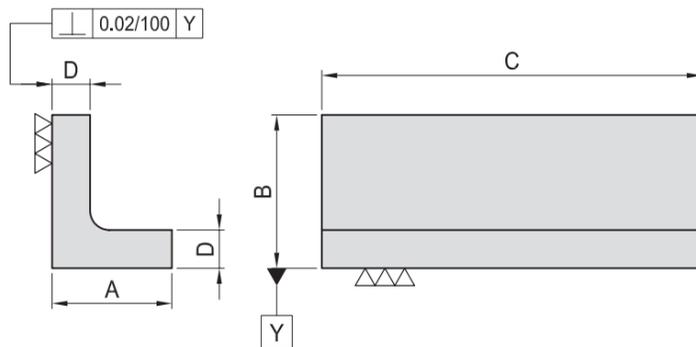


- Material : Cast Iron.
FC-300 (JIS)
GG-30 (DIN)
- Heat treated : Normalized

MODEL NO.	A	B	C	D	kg
BC07-063063-200	63	63	200	14	2.3
BC07-063063-400			400		4.5
BC07-100100-200	100	100	200	20	5.2
BC07-100100-400			400		10.4

BC06

HEAVY DUTY L-SECTION

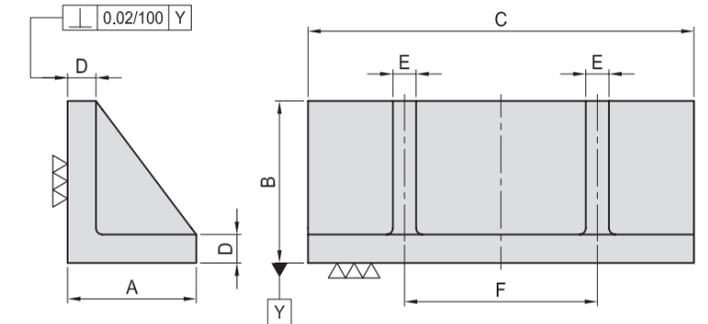


- Material : Cast Iron.
FC-300 (JIS)
GG-30 (DIN)
- Heat treated : Normalized

MODEL NO.	A	B	C	D	kg
BC06-080063-200	63	80	200	20	3.6
BC06-080063-400			400		7.2
BC06-125100-200	100	125	200	25	7.3
BC06-125100-400			400		15.0
BC06-200160-200	160	200	200	32	15.0
BC06-200160-400			400		31.0

BC08

WEBBED L-SECTION



- Material : Cast Iron.
FC-300 (JIS)
GG-30 (DIN)
- Heat treated : Normalized

MODEL NO.	A	B	C	D	E	F	kg
BC08-125100-150	100	125	150	22	18	-	5.3
BC08-125100-300	100	125	300	22	18	150	11.0

BP

BPA

BC

CP

SU

PT

SVF

ALV

OK-
VISE

JER-
GENS

OTHER

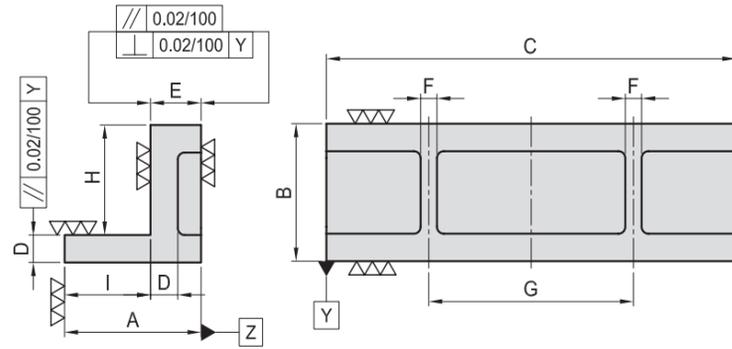
Column
for
Technical
Data

BC09

WEBBED T-SECTION



- Material : Cast Iron.
FC-300 (JIS)
GG-30 (DIN)
- Heat treated : Normalized



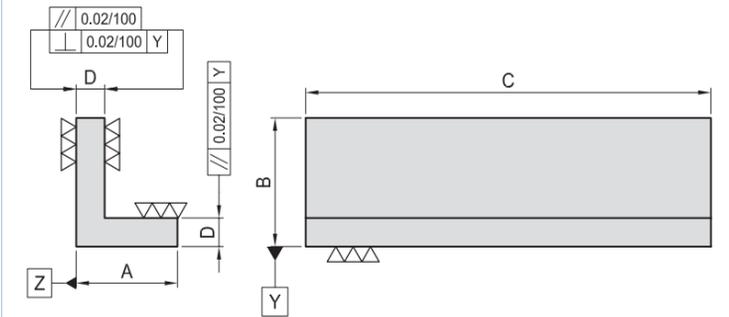
MODEL NO.	A	B	C	D	E	F	G	H	I	kg
BC09-100100-150	100	100	150	20	37	12	-	80	63	4.4
BC09-100100-300	100	100	300	20	37	12	150	80	63	8.7

BC12

UNEQUAL L-SECTION



- Material : Cast Iron.
FC-300 (JIS)
GG-30 (DIN)
- Heat treated : Normalized



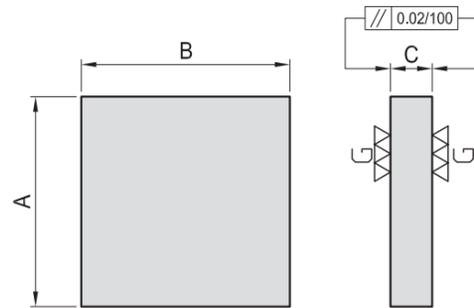
MODEL NO.	A	B	C	D	kg
BC12-063050-200	50	63	200	14	2.0
BC12-063050-300	50	63	300	14	3.0
BC12-063050-500	50	63	500	14	5.0

BC10

STEEL RECTANGULAR PLATE



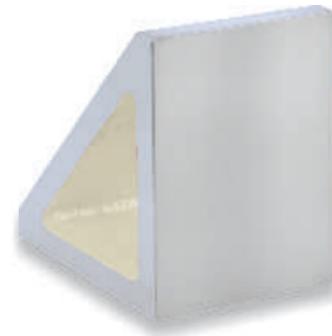
- Material : Cast Iron.
FC-300 (JIS)
GG-30 (DIN)
- Heat treated : Normalized



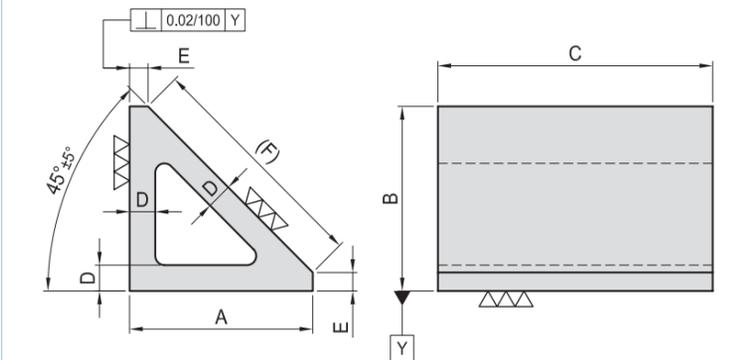
MODEL NO.	A	B	C	kg
BC10-20100-100	100	100	20	1.6
BC10-20100-150		150		2.3
BC10-25150-200	150	200	25	5.9
BC10-25150-250		250		7.3
BC10-25200-200	200	200	25	7.8
BC10-25200-250		250		9.8
BC10-25250-250	250	250	25	12.0

BC13

ANGULAR HOLLOW BLOCK 45°



- Material : Cast Iron.
FC-300 (JIS)
GG-30 (DIN)
- Heat treated : Normalized



MODEL NO.	A	B	C	D	E	F	kg
BC13-100100-150	100	100	150	14	10	127	4.5
BC13-100100-300			300				8.8
BC13-200200-150	200	200	150	22	20	255	15.0
BC13-200200-300			300				29.0

BP

BPA

BC

CP

SU

PT

SVF

ALV

OK-
VISE

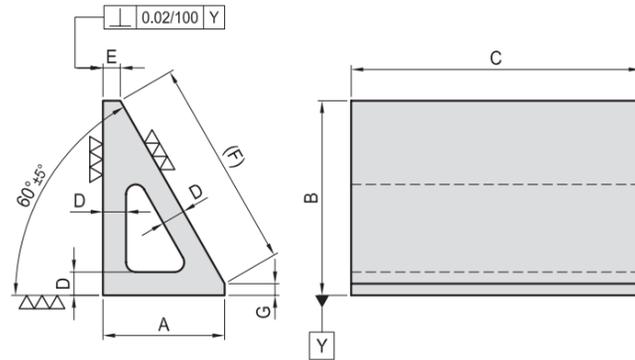
JER-
GENS

OTHER

Column
for
Technical
Data

BC14

ANGULAR HOLLOW BLOCK 30°



- Material : Cast Iron.
FC-300 (JIS)
GG-30 (DIN)
- Heat treated : Normalized

MODEL NO.	A	B	C	D	E	F	G	kg
BC14-100063-150	63	100	150	12	9	108	6	3.0
BC14-100063-300			300					6.0
BC14-200125-150	125	200	150	20	14	222	8	9.5
BC14-200125-300			300					19.0

CLAMP PARTS

CP01~CP40



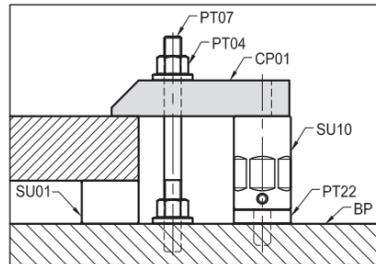
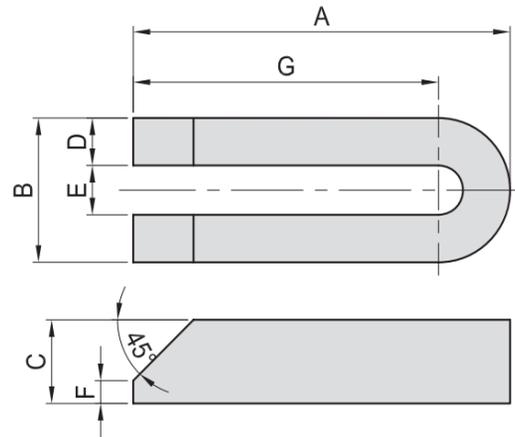
U-CLAMP TAPPED-NOSE STRAP GOOSE NECK TAPPED END U-CLAMP PLAIN CLAMP

CP01

U-CLAMP



- Material / Finish :
Material : S45C(JIS) / CK45(DIN)
- Heat treated : HRC 32°~38°.
- Surface finish : Black Oxide.
- Features : Open end permits quick & easy installation.



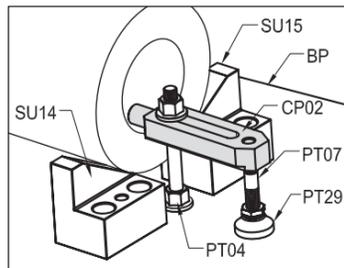
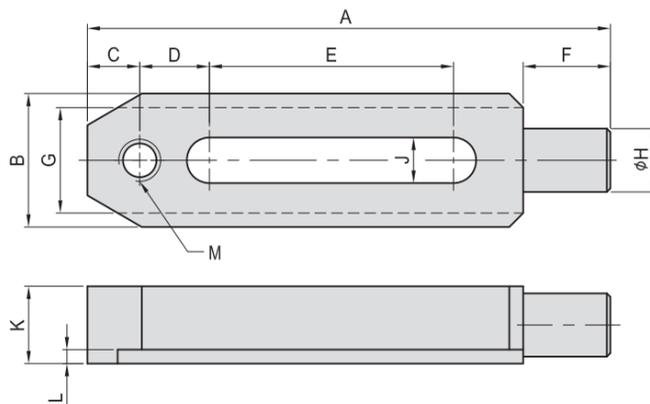
MODEL NO.	A	B	C	D	E	F	G	kg
CP01-12100	100	38	22	12.5	13	6	81	0.41
CP01-12125	125		25				106	0.58
CP01-16150	150	50	32	16.5	17	8	125	1.10
CP01-16200	200						175	1.40
CP01-16300	300						275	1.55
CP01-20200	200	60	35	19.5	21	10	170	2.10
CP01-20300	300						270	2.70
CP01-24250	250	76	48	25.0	26	18	212	3.55

CP02

TAPPED-NOSE STRAP



- Material / Finish :
Material : S45C(JIS) / CK45(DIN)
- Heat treated : HRC 32°~38°.
- Surface finish : Black Oxide.
- Features : The cylindrical pin minimizes contact area and is useful for clamping in horizontal holes & round profiles .



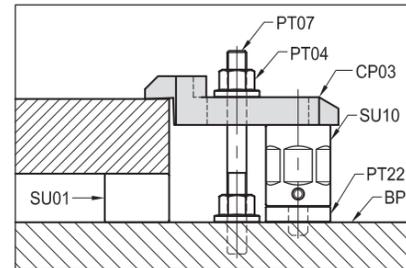
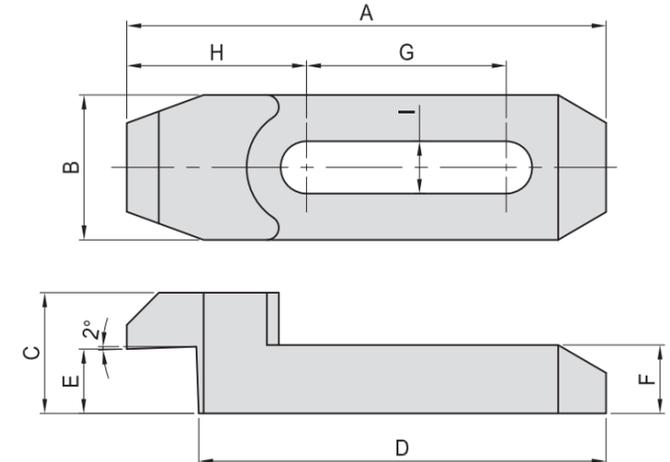
MODEL NO.	A	B	C	D	E	F	G	H	J	K	L	M	Kg
CP02-12150	150	38	15	20	70	25	30	18	13	22	4	M12	0.58
CP02-16150	150	48	20	25	40	35	40	24	17	32	5	M16	1.12
CP02-16200	200				90								1.50
CP02-20200	200	60	30	35	60	40	50	28	21	35	6	M20	2.22
CP02-20250	250				110								2.74

CP03

GOOSE NECK CLAMP



- Material / Finish :
Material : S45C(JIS) / CK45(DIN)
- Heat treated : HRC 32°~38°.
- Surface finish : Black Oxide.
- Features : Low profile design helps eliminate cutter interference.



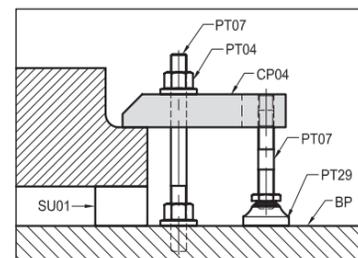
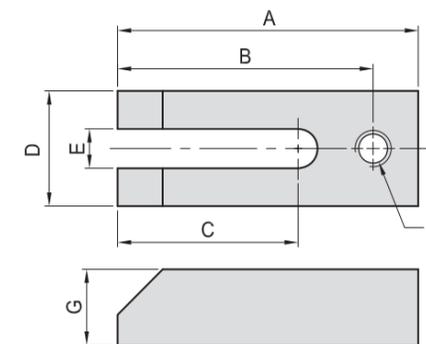
MODEL NO.	A	B	C	D	E	F	G	H	I	kg
CP03-12120	120	36	30	102	16	17	50	45	13	0.49
CP03-16150	150	48	48	130	25	25	55	60	17	1.30
CP03-20175	175	60	60	150	30	30	65	70	21	2.26

CP04

TAPPED END U-CLAMP



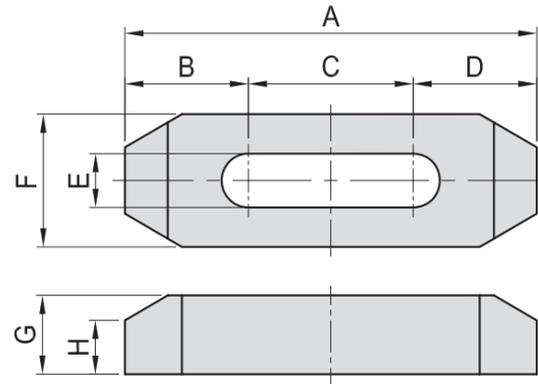
- Material / Finish :
Material : S45C(JIS) / CK45(DIN)
- Heat treated : HRC 32°~38°.
- Surface finish : Black Oxide.
- Features : Open end design permits easy assembly.



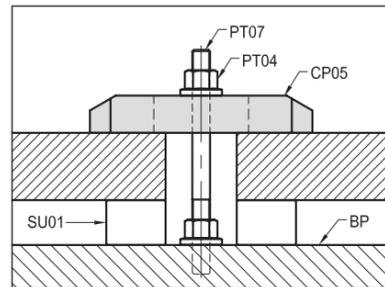
MODEL NO.	A	B	C	D	E	F	G	kg
CP04-12075	75	60	35	38	13	M12	19	0.31
CP04-12100	100	85	60				25	0.52
CP04-12125	125	110	85					0.64
CP04-14100	100	84	64	38	15	M14	25	0.39
CP04-14150	150	134	89				25	0.62
CP04-16100	100	80	45					0.73
CP04-16125	125	105	70	50	17	M16	25	0.90
CP04-16150	150	130	95					
CP04-18150	150	130	89	50	19	M18	32	1.05
CP04-18200	200	180	127					
CP04-20150	150	130	95	60	21	M20	32	1.46
CP04-20200	200	180	145					

CP05

DOUBLE ENDED CLAMP



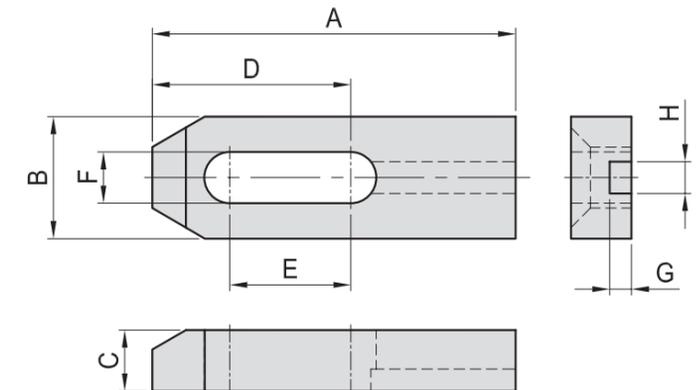
- Material / Finish :
Material : S45C(JIS) / CK45(DIN)
- Heat treated : HRC 32°~38°.
- Surface finish : Black Oxide.



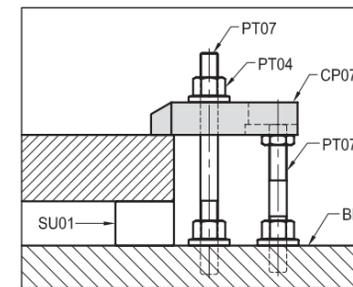
MODEL NO.	A	B	C	D	E	F	G	H	kg
CP05-12065	65	20.0	25	20.0	13	32	19	13	0.22
CP05-12100	100	30.0	40	30.0					0.33
CP05-12150	150	49.5	51	49.5	17	38	25	15	0.48
CP05-16080	80	28.0	24	28.0					0.34
CP05-16125	125	42.0	41	42.0	25	38	22	14	0.57
CP05-16150	150	51.0	48	51.0					0.68
CP05-20100	100	34.0	32	34.0	21	38	22	14	0.41
CP05-20125	125	42.5	40	42.5					0.62
CP05-20150	150	51.0	48	51.0	26	50	32	19	0.82
CP05-24150	150	51.0	48	51.0					1.14

CP07

SLOTTED END CLAMP STRAP



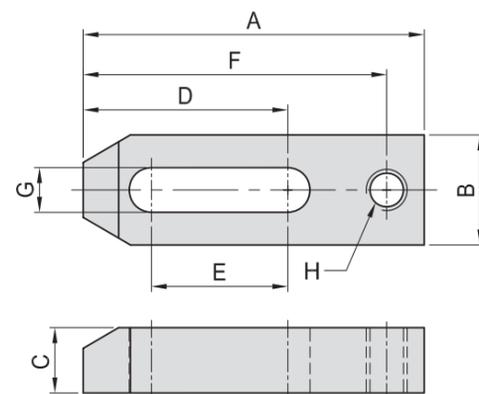
- Material / Finish :
Material : S45C(JIS) / CK45(DIN)
- Heat treated : HRC 32°~38°.
- Surface finish : Black Oxide.
- Application : Locating slot keeps clamp properly oriented.



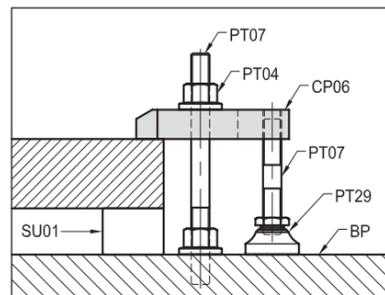
MODEL NO.	A	B	C	D	E	F	G	H	kg
CP07-12065	65	32	22	32	14	13	7	10	0.26
CP07-12080	80			48	25				0.31
CP07-12100	100	38	22	60	40	17	8	12	0.38
CP07-16080	80			40	17				0.38
CP07-16100	100	25	70	55	30	17	8	12	0.53
CP07-16125	125			45	0.65				
CP07-20150	150	50	32	82	50	21	9	13	1.10
CP07-20200	200			112	80				1.40

CP06

TAPPED CLAMP STRAP



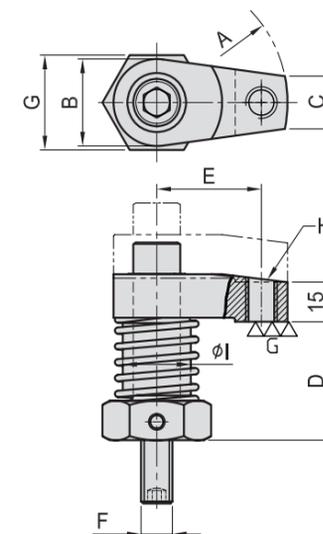
- Material / Finish :
Material : S45C(JIS) / Ck45(DIN)
- Heat treated : HRC 32°~38°.
- Surface finish : Black Oxide.
- Application : Use with various knobs, jack screws, clamps & pads; such as PT29.



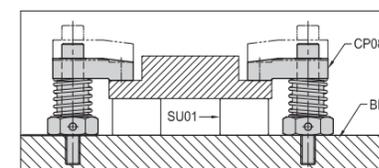
MODEL NO.	A	B	C	D	E	F	G	H	kg
CP06-12065	65	32	19	32	14	52	13	M12	0.22
CP06-12080	80			48	25	69			0.27
CP06-12100	100	38	19	60	40	89	17	M16	0.33
CP06-16080	80			40	17	65			0.32
CP06-16100	100	25	70	55	30	85	21	M20	0.53
CP06-16125	125			45	110	0.65			
CP06-20150	150	50	32	82	50	134	21	M20	1.10
CP06-20200	200			112	80	184			1.90

CP08

SWING CLAMP



- Material / Finish :
Material : SCM-4(JIS)
- Heat treated : HRC 38°~42°.
- Surface finish : Black Oxide.
- Application : Multipurpose swing clamp, available with plain or threaded toe.
- Features : A small clamp with good holding power, ideal for tight spaces, full swing a way featute permits easy part loading.



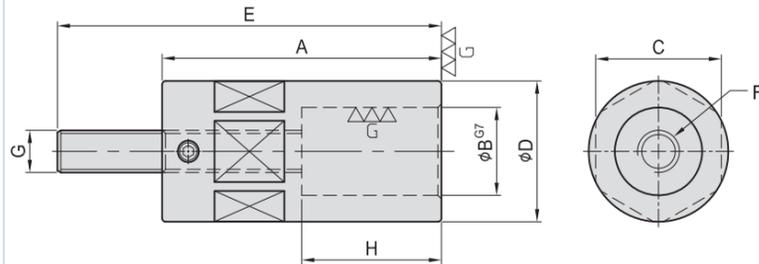
MODEL NO.	A	B	C	D	E	F	G	H	I	kg
CP08-1240-29	30	28	16	40	-	M12	29	-	22	0.29
CP08-1245-36	50	32	20	45	40	M12	36	M12	26	0.50
CP08-1645-36	50	32	20	45	40	M16	36	M12	26	0.50
CP08-1645-41	60	40	25	45	45	M16	41	M16	32	0.75



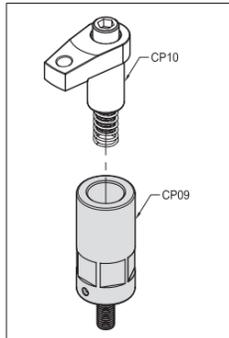
CP09

SWING CLAMP MOUNT/EXTENSION

- Material / Finish :
Material : S45C(JIS) / CK45(DIN)
- Heat treated : HRC 38°~42°.
- Surface finish : Black Oxide.
- Application : Use with CP10 swing clamp to gain extra height.



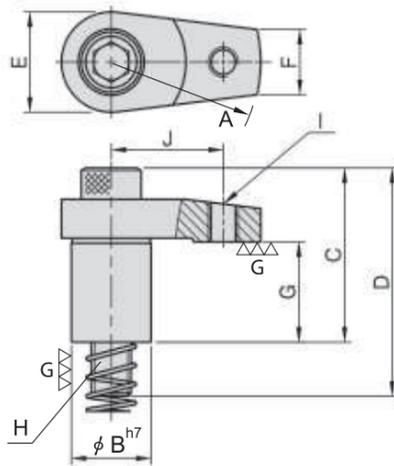
MODEL NO.	A	B	C	D	E	F	G	H	kg
CP09-12080	80	25	36	40	110	M12	M12	40	0.60
CP09-12100	100	25	36	40	130	M12	M12	40	0.78
CP09-16080	80	32	46	50	110	M16	M16	40	0.83
CP09-16100	100	32	46	50	130	M16	M16	40	1.25



CP10

SWING CLAMP

- Material / Finish :
Material : SCM-4(JIS)
- Heat treated : HRC 38°~42°.
- Surface finish : Black Oxide.
- Application : Multipurpose swing clamp, available with plain or threaded toe.



MODEL NO.	A	B	C	D	E	F	G	H	I	J	kg
CP10-1022	30	22	54.5	75	28	16	30	M10	-	-	0.20
CP10-1225	50	25	66.0	87	33	20	40	M12	M12	40	0.35
CP10-1632	60	32	69.5	96	40	26	40	M16	M12	45	0.61

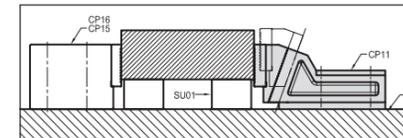
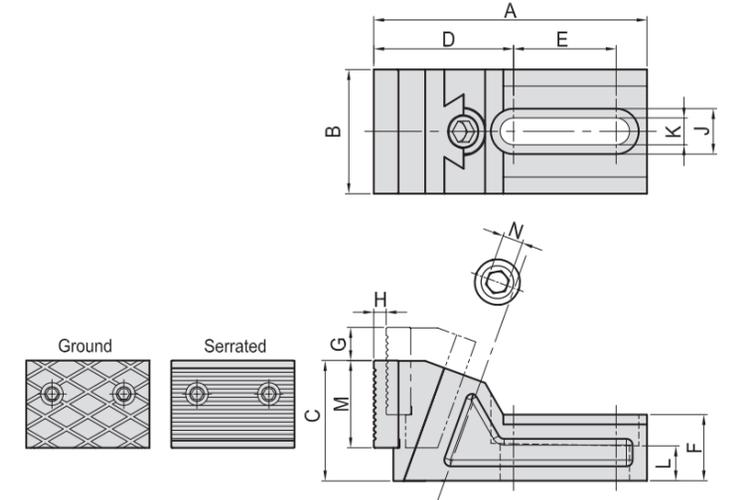
Type	A	B	C	D
CP10-1022	22	30	20	M10
CP10-1225	25	40	25	M12
CP10-1632	32	40	25	M16



CP11

FREE JAW VISE

- Material / Finish :
Material : FCD 45(JIS)
- Heat treated : Nnormalized.
- Application : Ideal for holding large or irregular shapes.
- Features : Clamping force in 2 directions, available with plain or serrated jaws.

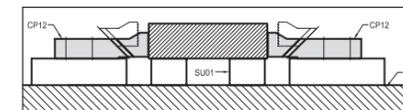
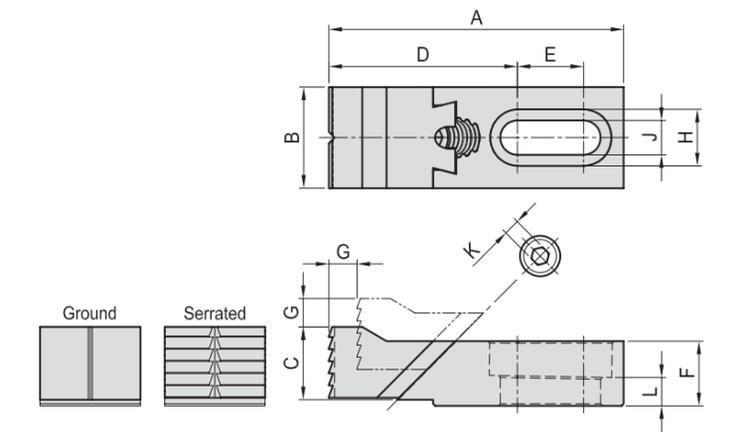


MODEL NO.	A	B	C	D	E	F	G	H	J	K	L	M	N	Type	kg
CP11-1260-G	133	60	58	68	50	32	16	6	22	13	16.8	42	10	Ground	2.1
CP11-1685-G	187	85	80	92	70	50	24	9	30	17	23.4	60	14	Ground	5.6
CP11-1260-S	133	60	58	68	50	32	16	6	22	13	16.8	42	10	Serrated	2.1
CP11-1685-S	187	85	80	92	70	50	24	9	30	17	23.4	60	14	Serrated	5.6

CP12

ADJUSTABLE SIDE CLAMP

- Material / Finish :
Material: S45C(JIS) / CK45(DIN)
- Heat treated : HRC 38°. Jaw Surface treated with high frequency quenching.
- Surface finish : Black Oxide.
- Application : Low profile side clamp keeps top surfaces clear for machining, ideal for rough or finished parts, available with plain or serrated jaw.



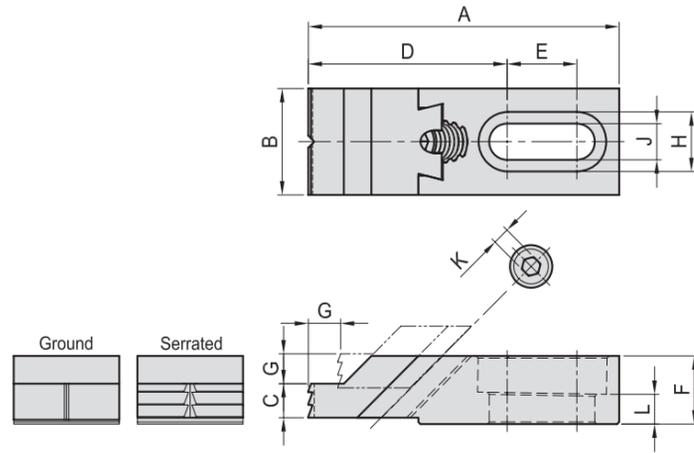
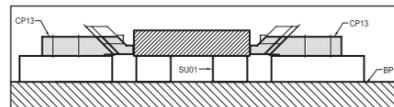
MODEL NO.	A	B	C	D	E	F	G	H	J	K	L	Type	kg
CP12-0825-G	72.0	25	18.0	45.5	16.5	16	7	14	8.5	5	7	Ground	0.18
CP12-1235-G	104.5	35	27.5	62.0	30.0	22	12	20	13.5	6	9	Ground	0.52
CP12-1640-G	133.0	40	37.5	80.5	35.0	30	14	26	17.0	8	13	Ground	1.02
CP12-0825-S	73.5	25	18.0	47.0	16.5	16	7	14	8.5	5	7	Serrated	0.18
CP12-1235-S	106.5	35	27.5	64.0	30.0	22	12	20	13.5	6	9	Serrated	0.52
CP12-1640-S	134.5	40	37.5	82.0	35.0	30	14	26	17.0	8	13	Serrated	1.02

CP13

ADJUSTABLE EDGE CLAMP



- Material / Finish :
Material : S45C(JIS) / CK45(DIN)
- Heat treated : HRC 38°. Jaw Surface treated with high frequency quenching.
- Surface finish : Black Oxide.
- Application : Low profile side clamp is ideal for holding thin parts and keeps top surfaces clear for machining.

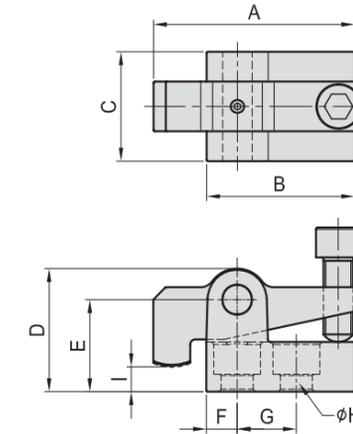


MODEL NO.	A	B	C	D	E	F	G	H	J	K	L	Type	kg
CP13-0825-G	72.0	25	8.5	45.5	16.5	16	7	14	8.5	5	7	Ground	0.15
CP13-1235-G	105.0	35	10.5	62.5	30.0	22	12	20	13.5	6	9	Ground	0.45
CP13-1640-G	133.0	40	14.0	80.5	35.0	30	14	26	17.0	8	13	Ground	0.88
CP13-0825-S	73.5	25	8.5	47.0	16.5	16	7	14	8.5	5	7	Serrated	0.15
CP13-1235-S	106.5	35	10.5	64.0	30.0	22	12	20	13.5	6	9	Serrated	0.45
CP13-1640-S	134.5	40	14.0	82.0	35.0	30	14	26	17.0	8	13	Serrated	0.88

CP14

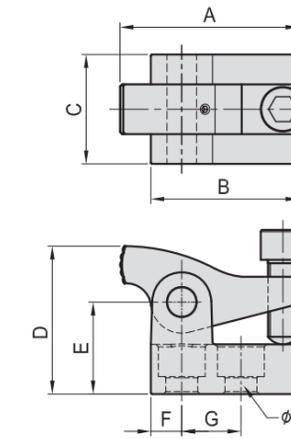
PIVOTING SIDE CLAMP

CP14A



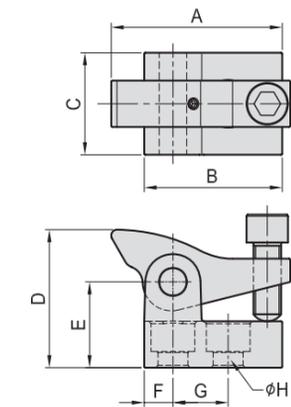
MODEL NO.	A	B	C	D	E	F	G	H	I	kg
CP14A-126045	81.5	60	44	49	37	12.5	24	13	5-15	0.78
CP14A-169068	121.0	91	68	64	47	18.0	36	18	5-15	2.26

CP14B



MODEL NO.	A	B	C	D	E	F	G	H	kg
CP14B-126045	72.5	60	44	59.5	37	12.5	24	13	0.73
CP14B-169068	108.0	91	68	82.0	47	18.0	36	18	2.20

CP14C



MODEL NO.	A	B	C	D	E	F	G	H	kg
CP14C-126045	75	60	44	59.5	37	12.5	24	13	0.73
CP14C-169068	110	91	68	82.0	47	18.0	36	18	2.12

- Material / Finish :
Material : S45C.
- Surface finish : Black Oxide.
- Application : Clamp that is well suited for castings and odd shaped workpieces.
- Pivoting nose has a serrated jaw that clamps forward and downward simultaneously.

BP

BPA

BC

CP

SU

PT

SVF

ALV

OK-
VISE

JER-
GENS

OTHER

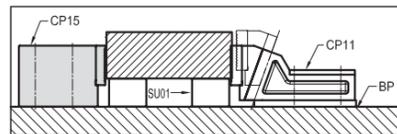
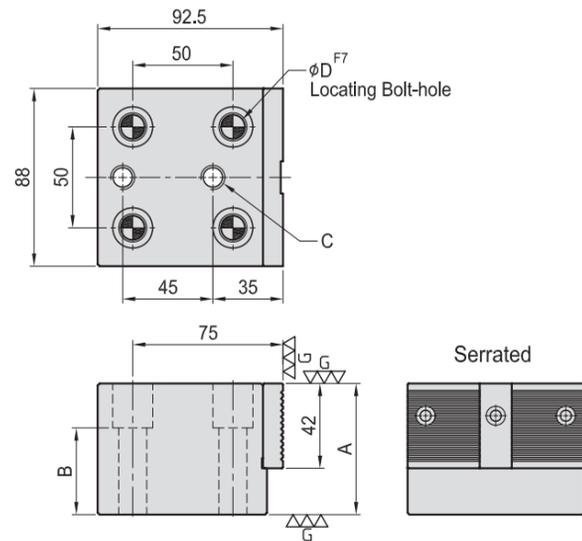
Column
for
Technical
Data

CP15

SERRATED BLOCK STOP



- Material :
Body : S45C(JIS)/CK45(DIN)
jaw : YK30(JIS) / C105W1(DIN),
- Heat treated :
Body : HRC 40°
jaw : HRC 58°.
- Surface finish : Black Oxide.
- Application : Serrated stop is used with CP11 free vise. Useful for holding rough parts and where heavy clamping is needed.



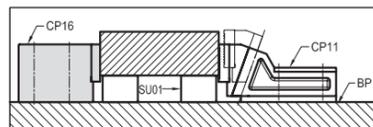
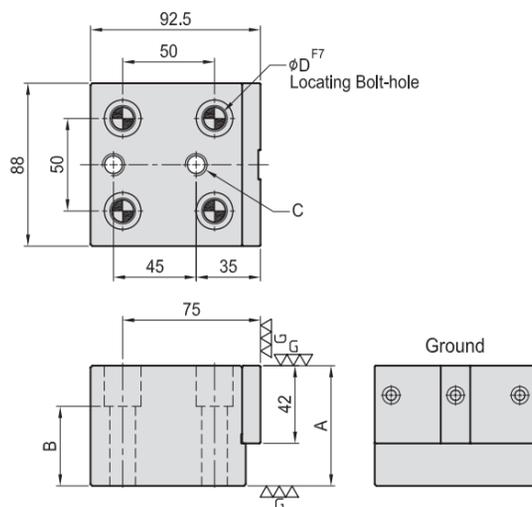
MODEL NO.	A	B	C	D	kg
CP15-1265	65	43	M12	12	3.52
CP15-1280	80	58			4.22
CP15-1665	65	38	M16	16	3.24
CP15-1680	80	53			3.78

CP16

SMOOTH BLOCK STOP



- Material :
Body : S45C(JIS)/CK45(DIN)
jaw : YK30(JIS) / C105W1(DIN),
- Heat treated :
Body : HRC 40°
jaw : HRC 58°.
- Surface finish : Black Oxide.
- Application : Smooth stop is used with CP11 free vise. Useful for holding finished parts.



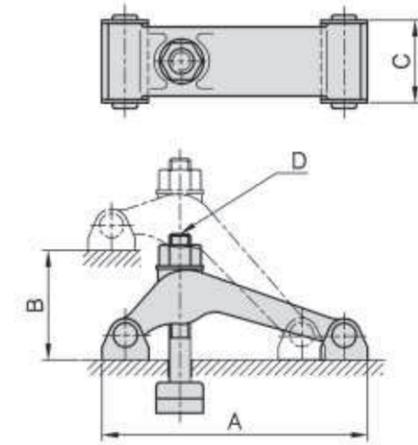
MODEL NO.	A	B	C	D	kg
CP16-1265	65	43	M12	12	3.54
CP16-1280	80	58			4.22
CP16-1665	65	38	M16	16	3.28
CP16-1680	80	53			3.78

CP19

FORGED SWIVEL CLAMP



- Material / Finish :
Material : S45C(JIS), Steel forging.
- Heat treated : HRC 32°~38°.
- Surface finish : Black Oxide.



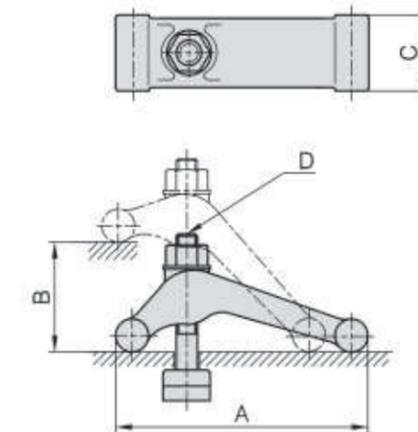
MODEL NO.	A	B	C	D	kg
CP19-12125	131	75	46.5	M12-125	1.50
CP19-16150	156	85	55.0	M16-150	2.64
CP19-20194	201	105	62.0	M20-175	4.80

CP20

FORGED SWIVEL CLAMP



- Material / Finish :
Material : S45C(JIS), Steel forging.
- Heat treated : HRC 32°~38°.
- Surface finish : Black Oxide.



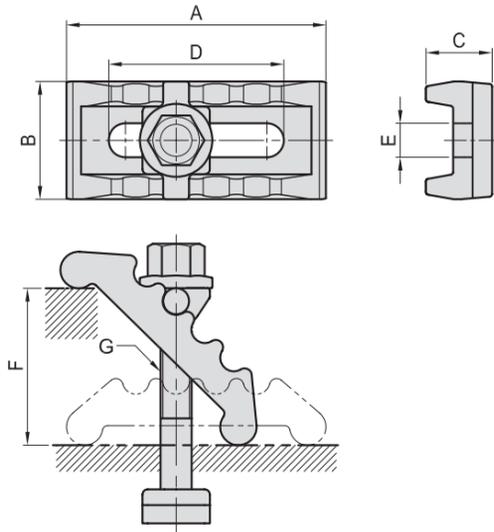
MODEL NO.	A	B	C	D	kg
CP20-12125	125	75	45	M12-125	1.40
CP20-16150	150	85	52	M16-150	2.42
CP20-20194	194	105	58	M20-175	4.50

CP21

UNIVERSAL CLAMP



- Material / Finish :
Material : S45C(JIS), Forging.
- Heat treated : HRC 32°~38°.
- Surface finish : Black Oxide.



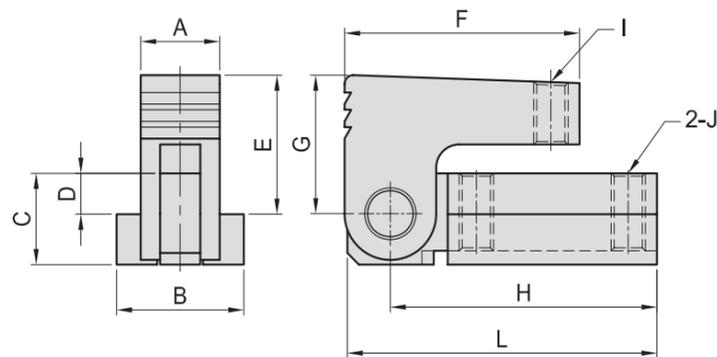
MODEL NO.	A	B	C	D	E	F	G	kg
CP21-12100	100	45	26	67.5	13	60	M12-100	1.1
CP21-16125	125	56	33	84.0	18	65	M16-125	2.1

CP22

T-SLOT MINIATURE CLAMP



- Material : S45C (JIS)
- Heat treated : HRC 35°~38°.



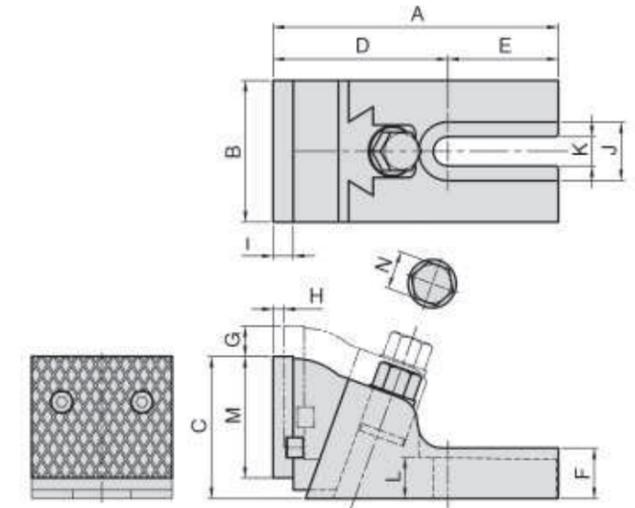
MODEL NO.	A	B	C	D	E	F	G	H	I	L	J	kg
CP22-1218	10.8	17.5	12.7	7.2	23.2	41	22.0	48.0	M6	54.0	M6	0.10
CP22-1422	13.8	22.2	15.8	7.1	24.1	41	24.0	46.0	M6	54.0	M6	0.15
CP22-1625	15.8	25.4	15.8	7.1	27.1	50	27.0	55.0	M8	65.0	M8	0.22
CP22-1828	17.5	28.5	19.0	7.9	28.9	50	29.0	55.0	M8	65.0	M8	0.29
CP22-2032	19.7	31.7	25.4	11.4	33.9	50	34.0	55.0	M10	65.0	M10	0.40
CP22-2240	21.7	38.0	28.0	12.8	39.8	65	39.5	71.0	M12	81.5	M12	0.70
CP22-2841	27.5	46.7	44.0	25.0	49.0	71	49.0	72.5	M12	86.5	M12	1.20
CP22-3559	34.7	55.0	48.0	24.5	64.0	103	62.5	113.5	M16	130.0	M16	2.75

CP23

FREE VISE



- Material Heat Treated and surface to be treated with Black Oxide.



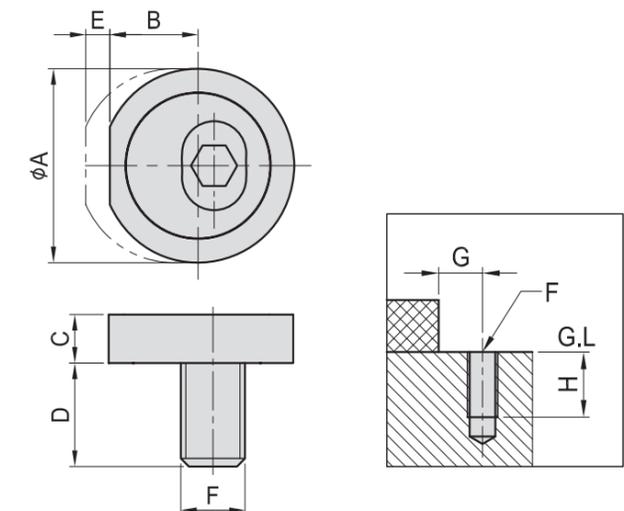
MODEL NO.	A	B	C	D	E	F	G	H	I	J	K	L	M	N	kg
CP23-12140	142	70	70	87	55	25	15	5	10	29	14.5	20.5	60	19	6.3
CP23-16195	192	85	85	103	88	30	20	7	12	37	17.0	24.0	70	24	11.0
CP23-20220	220	110	104	120	100	36	25	9	13	42	21.0	28.0	85	30	21.0

CP24

ECCENTRIC CAM LOCK



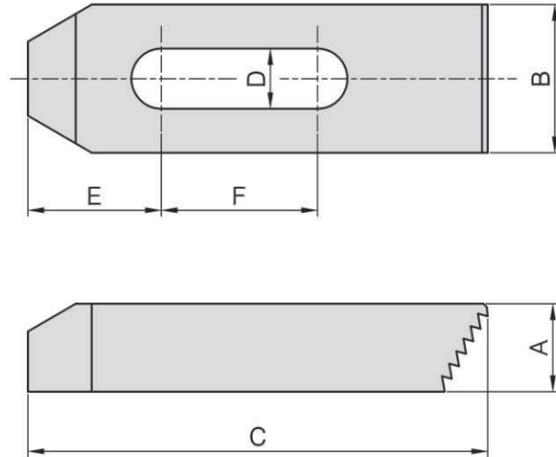
- Material : S45C (JIS)
- Heat treated : HRC 35° (ECCENTRIC CAM)



MODEL NO.	A	B	C	D	E	F	G	H	kg
CP24-0824	24	11.0	6	12.8	3	M 8	11.5	17	0.020
CP24-1026	26	11.8	8	14.3	4	M10	12.5	22	0.030
CP24-1230	30	13.5	9	17.8	5	M12	14.5	22	0.050
CP24-1638	38	16.0	12	20.8	6	M16	17.5	26	0.115

CP25

STEP CLAMP



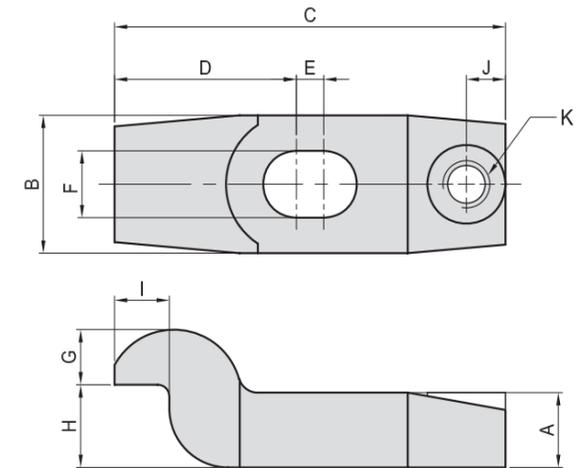
- Material / Finish :
Material : S45C
- Heat treated : HRC 32°~38°.
- Surface finish : Black Oxide.
- Application : Used with SU25.

MODEL NO.	A	B	C	D	E	F	kg
CP25-10063	13	25	63	11	18	19	0.100
CP25-10100	16	25	100		27	37	0.215
CP25-10150	19	32	150		30	50	0.570
CP25-12063	13	25	63	13	20	14	0.100
CP25-12100	19	32	100		29	34	0.320
CP25-12150	22	32	150		32	50	0.650
CP25-14063	13	25	63	15	20	14	0.100
CP25-14100	19	32	100		29	34	0.315
CP25-14150	22	32	150		32	50	0.600
CP25-16063	16	32	63	17	22	12	0.160
CP25-16100	19	38	100		31	26	0.400
CP25-16150	22	38	150		40	47	0.710
CP25-18063	16	32	63	20	22	12	0.140
CP25-18100	19	38	100		31	26	0.380
CP25-18150	22	38	150		40	47	0.750
CP25-20100	19	38	100	21	31	26	0.360
CP25-20150	25	38	150		43	44	0.750
CP25-20200	25	50	200		55	65	1.500
CP25-24150	32	50	150	26	43	38	1.290
CP25-24200	32	50	200		53	57	2.000
CP25-24250	38	50	250		60	64	2.950



CP27

THREADED GOOSE NECK CLAMP



- Material / Finish :
Material : S45C(JIS), Forging.
- Surface finish : Black Oxide.

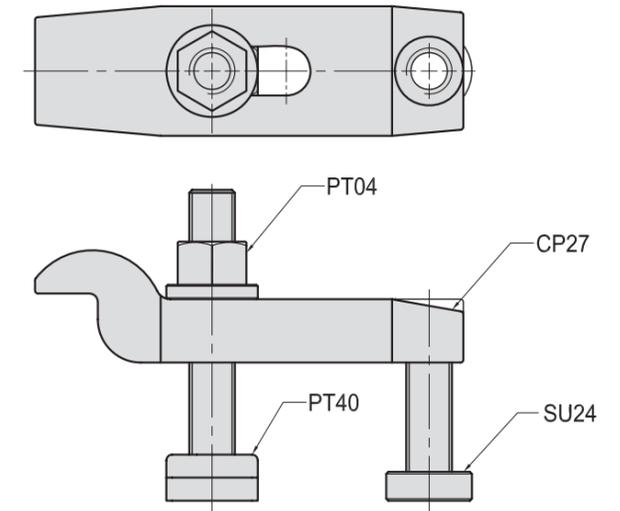
MODEL NO.	A	B	C	D	E	F	G	H	I	J	K	kg
CP27-16100	19	35	100	46.5	7	17	14	21	14	10	M12x1.75	0.78
CP27-16150	22	45	150	62.0	26	17	15	24	22	12	M16x2.00	1.70

CP28

GOOSE NECK CLAMP



- Material / Finish :
Material : S45C(JIS), steel forging.
- Surface finish : Black Oxide.



MODEL NO.	CP27	PT40	PT04	SU24	kg
CP28-ZC-40	16100	16100	1624	12060	1.5
CP28-ZC-60	16150	16100	1624	16070	2.6

BP

BPA

BC

CP

SU

PT

SVF

ALV

OK-
VISE

JER-
GENS

OTHER

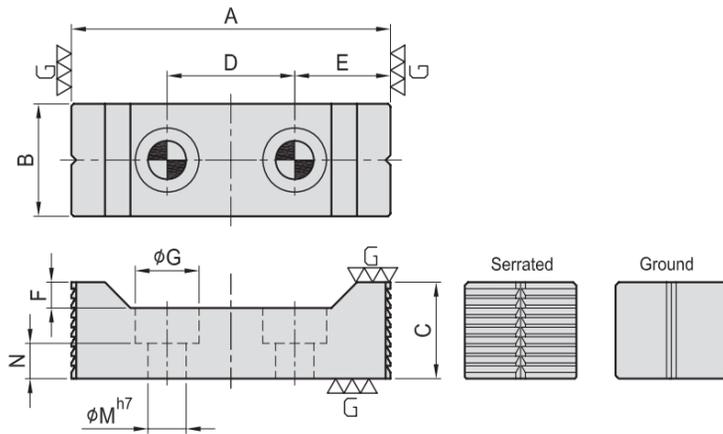
Column
for
Technical
Data

CP29

BLOCK STOP



- Material / Finish :
Material : S45C
- Heat treated : HRC 32°~38°.
- Surface finish : Black Oxide.
- Application : used with CP12.



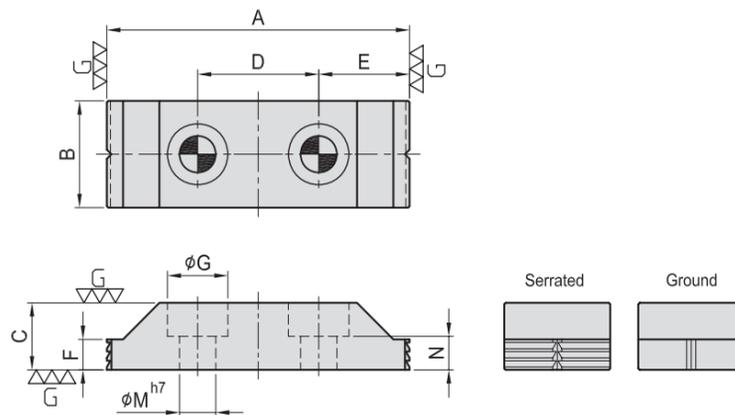
MODEL NO.	A	B	C	D	E	F	G	M	N	kg	TYPE
CP29-12100-S	100	35	30	40	30	8	20	12	11	0.59	Serrated
CP29-16130-S	130	40	40	50	40	10	26	16	14	1.20	
CP29-12100-G	100	35	30	40	30	8	20	12	11	0.59	Ground
CP29-16130-G	130	40	40	50	40	10	26	16	14	1.20	

CP30

THIN BLOCK STOP



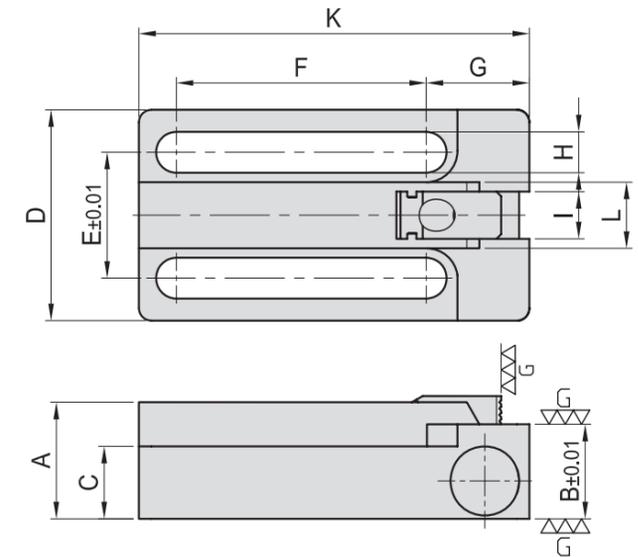
- Material / Finish :
Material : S45C
- Heat treated : HRC 32°~38°.
- Surface finish : Black Oxide.
- Application : used with CP13.



MODEL NO.	A	B	C	D	E	F	G	M	N	kg	TYPE
CP30-12100-S	100	35	22	40	30	10	20	12	11	0.46	Serrated
CP30-16130-S	130	40	30	50	40	14	26	16	14	0.88	
CP30-12100-G	100	35	22	40	30	10	20	12	11	0.46	Ground
CP30-16130-G	130	40	30	50	40	14	26	16	14	0.88	

CP31

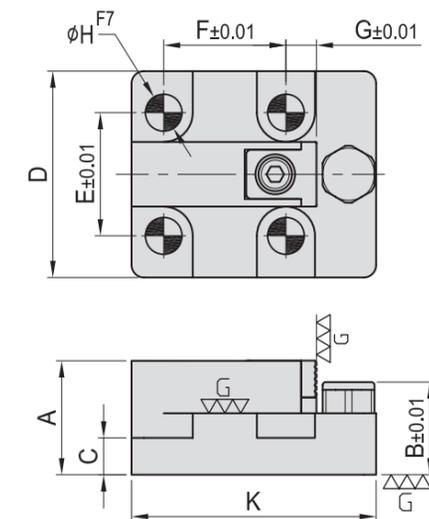
CLAMPING PARTS



MODEL NO.	A	B	C	D	E	F	G	H	I	K	L	kg
CP31-1240	37	30	23	67	40	80	33.0	13.0	15	125	21	1.36
CP31-1250				77	50	85	33.0	13.0				1.71
CP31-1650				77	50	85	34.5	16.5				1.54

CP32

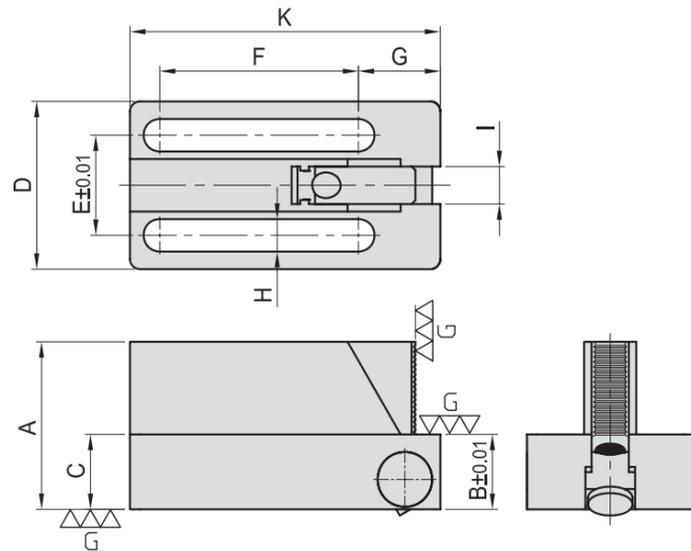
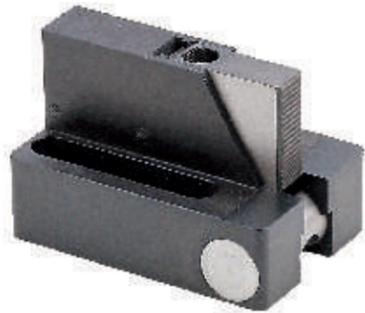
BLOCK STOP



MODEL NO.	A	B	C	D	E	F	G	H	K	kg
CP32-1240	37	30	12	67	40	40	10	12	80	0.86
CP32-1250			12	77	50	50		1.19		
CP32-1650			15	77	50	50		1.14		

CP33

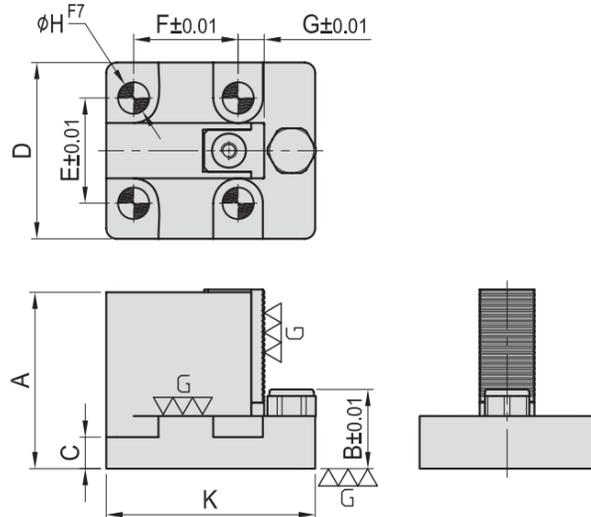
CLAMPING PARTS



MODEL NO.	A	B	C	D	E	F	G	H	I	K	kg
CP33-1240				67	40	80	33.0	13.0		125	2.02
CP33-1250	67	30	30	77	50	85	33.0	13.0	15	130	2.45
CP33-1650				77	50	85	34.5	16.5		130	2.25

CP34

BLOCK STOP

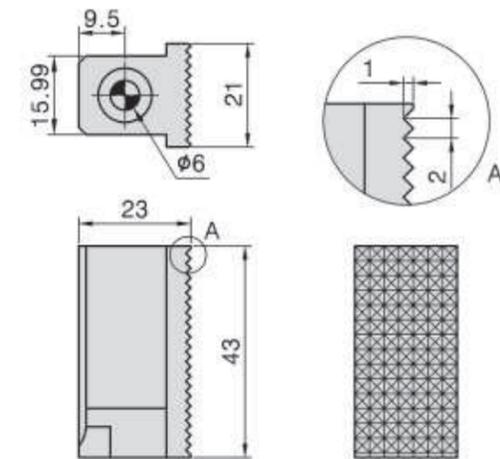
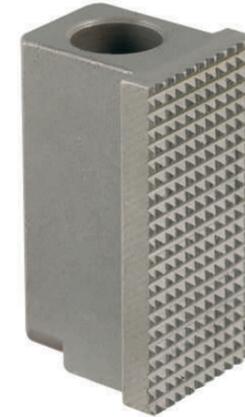


MODEL NO.	A	B	C	D	E	F	G	H	K	kg	
CP34-1240				12	67	40	40		12	80	1.24
CP34-1250	67	30		12	77	50	50	10	12	95	1.60
CP34-1650				15	77	50	50		16	95	1.52

CP35

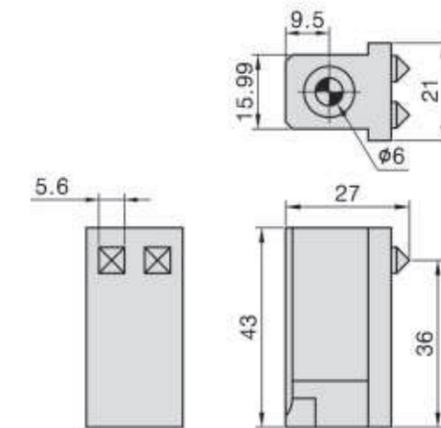
REPLACEMENT HARD-JAW

CP35A



MODEL NO.	kg
CP35A-2143	0.12

CP35B



MODEL NO.	kg
CP35B-2143	0.12

BP

BPA

BC

CP

SU

PT

SVF

ALV

OK-VISE

JER-GENS

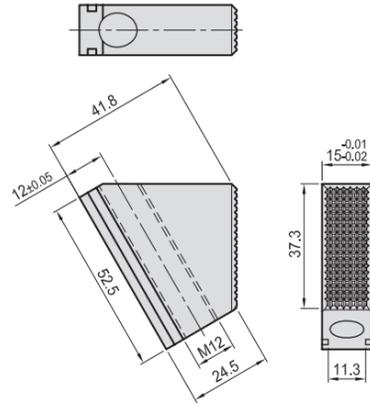
OTHER

Column for Technical Data

CP36

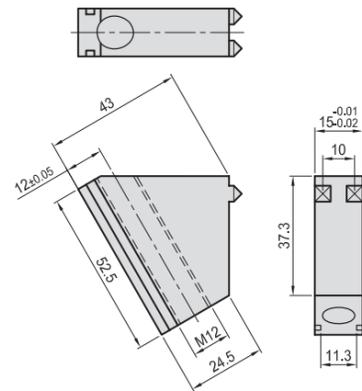
REPLACEMENT HARD-JAW

CP36A



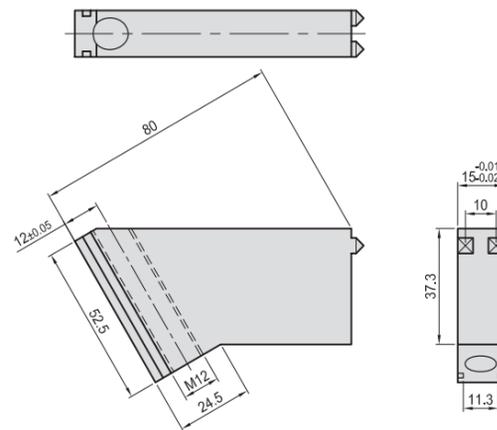
MODEL NO.	kg
CP36A-1243	0.14

CP36B



MODEL NO.	kg
CP36B-1243	0.14

CP36C

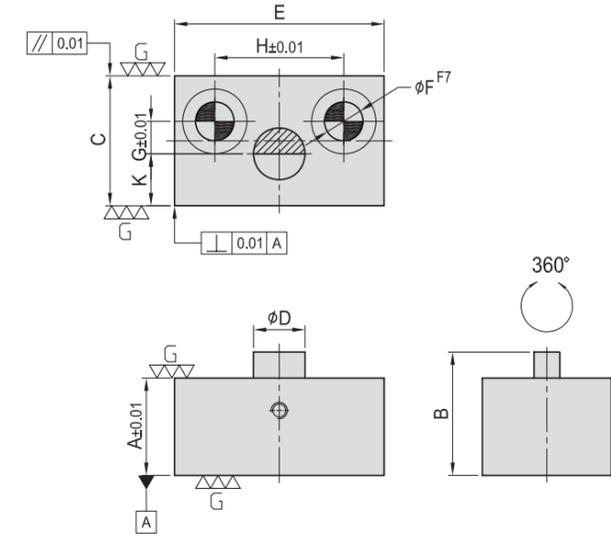


MODEL NO.	kg
CP36C-1280	0.30



CP37

POSITIONING EDGE SUPPORT



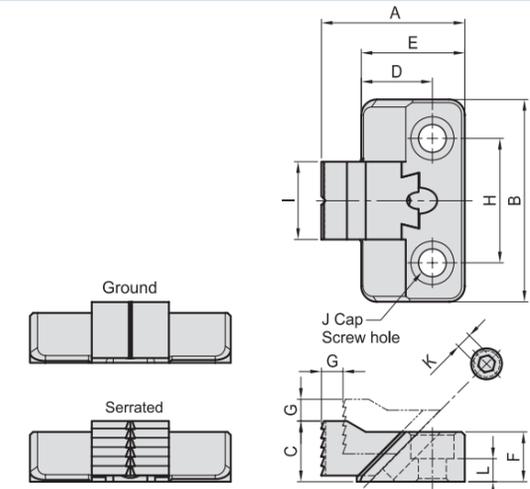
MODEL NO.	A	B	C	D	E	F	G	H	K	kg
CP37-1240	30	38	40	16	65	12	10	40	16	0.60
CP37-1250			40		75	12		50	15	0.60
CP37-1650			45		80	16		50	18	0.65



CP38

ADJUSTABLE SIDE CLAMP

- Material / Finish :
Material : S45C(JIS) / CK45(DIN)
- Heat treated : HRC 38°. Jaw Surface treated with high frequency quenching.
- Surface finish : Black Oxide.
- Application : Low profile side clamp keeps top surfaces clear for machining, ideal for rough or finished parts, available with plain or serrated jaw.



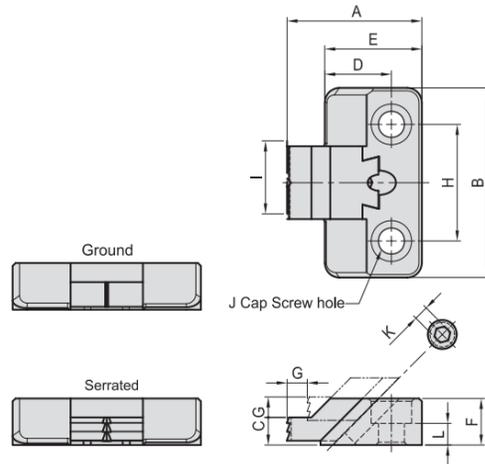
MODEL NO.	A	B	C	D	E	F	G	H	I	J	K	L	Type	kg
CP38-0865-G	45.14	65	19.5	23	33.5	16	7	40	25	M 8	5	7.4	Ground	0.22
CP38-1285-G	65.14	85	29.0	33	48.0	22	12	50	35	M12	6	9.0	Ground	0.65
CP38-16100-G	85.64	100	39.0	48	68.0	30	14	50	40	M16	8	12.5	Ground	1.40
CP38-0865-S	46.45	65	19.5	23	33.5	16	7	40	25	M 8	5	7.4	Serrated	0.22
CP38-1285-S	67.14	85	29.0	33	48.0	22	12	50	35	M12	6	9.0	Serrated	0.65
CP38-16100-S	87.14	100	39.0	48	68.0	30	14	50	40	M16	8	12.5	Serrated	1.40

CP39

ADJUSTABLE SIDE CLAMP



- Material / Finish :
Material : S45C(JIS) / CK45(DIN)
- Heat treated : HRC 38°. Jaw Surface treated with high frequency quenching.
- Surface finish : Black Oxide.
- Application : Low profile side clamp keeps top surfaces clear for machining, ideal for rough or finished parts, available with plain or serrated jaw.



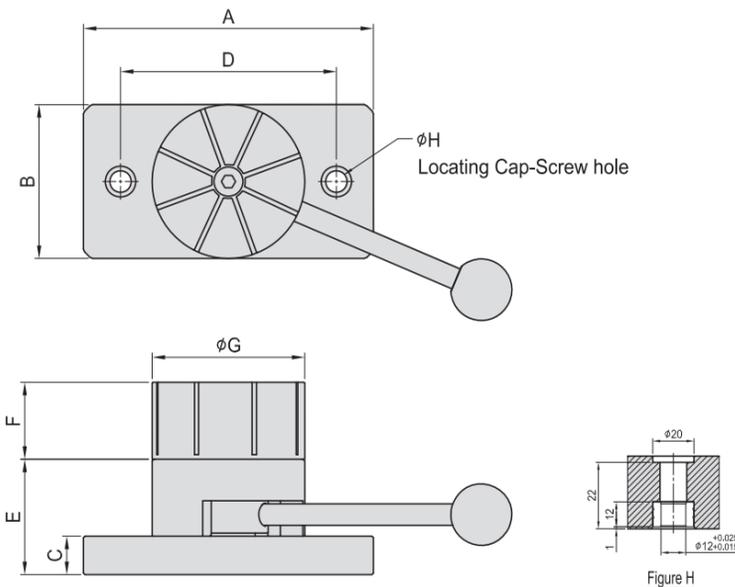
MODEL NO.	A	B	C	D	E	F	G	H	I	J	K	L	Type	kg
CP39-0865-G	45.14	65	9.5	23	33.5	16	7	40	25	M 8	5	7.4	Ground	0.2
CP39-1285-G	65.64	85	12.0	33	48.0	22	12	50	35	M12	6	9.0		0.6
CP39-16100-G	86.14	100	15.5	48	68.0	30	14	50	40	M16	8	12.5		1.3
CP39-0865-S	46.55	65	9.5	23	33.5	16	7	40	25	M 8	5	7.4	Serrated	0.2
CP39-1285-S	67.14	85	12.0	33	48.0	22	12	50	35	M12	6	9.0		0.6
CP39-16100-S	87.64	100	15.5	48	68.0	30	14	50	40	M16	8	12.5		1.3

CP40

MACHINABLE IRREGULAR CLAMPS



- Material : Soft Jaw : A6061, Base : S45C(JIS)
- Surface finish : Soft Jaws : Anodic Treatment
- Heat treated : Base : HRC 25°~ 30°
- Application : Vertical Machining Center
- Features : Hold the irregular clamps of aluminum and copper.



MODEL NO.	A	B	C	D	E	F	G	H	kg
CP40-A100	190	100	25	141.42	75	50	100	12	7.5

SUPPORT PARTS

SU01~SU29



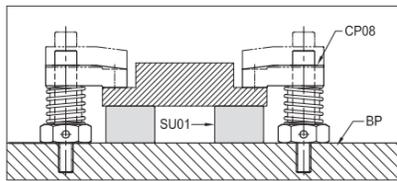
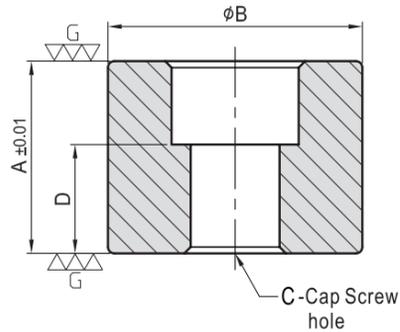
JIG REST BUTTON
OFFSET JIG REST BUTTON
SHOULDER SUPPORT CYLINDER
LOCATING CYLINDER



SU01

JIG REST BUTTON

- Material / Finish :
Material : S45C(JIS) / CK45(DIN)
- Heat treated : HRC 40°.
- Surface finish : Black Oxide.
- Application : mount onto base plate or clamp cube for supporting workpiece.
- Features : Jig rest buttons are extremely useful as supports, side locator pads, and jig feet.



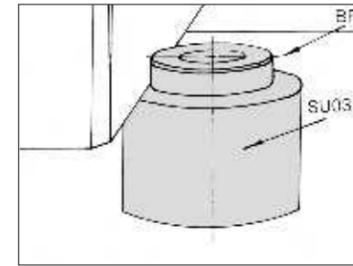
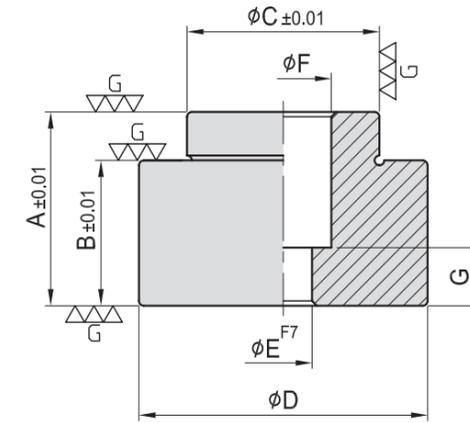
MODEL NO.	A	B	C	D	kg
SU01-1230	30	40	M12	17	0.24
SU01-1240	40			27	0.32
SU01-1250	50			37	0.41
SU01-1630	30	50	M16	12	0.36
SU01-1640	40			22	0.50
SU01-1650	50			32	0.64



SU03

SHOULDER SUPPORT CYLINDER

- Material / Finish :
Material : S45C(JIS) / CK45(DIN)
- Heat treated : HRC 40°.
- Surface finish : Black Oxide.
- Application : Support and locate with one part.

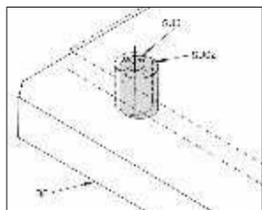
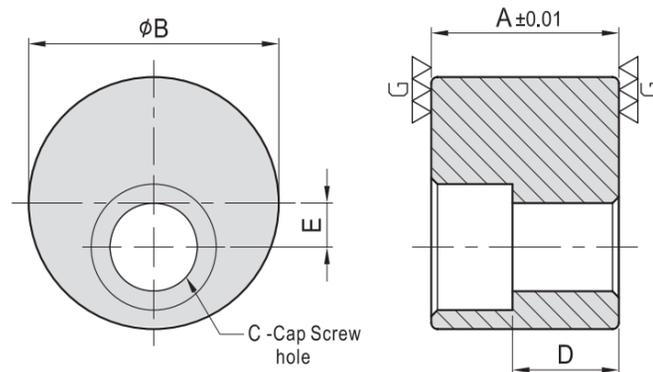


MODEL NO.	A	B	C	D	E	F	G	Kg
SU03-1230	30	40	40	60	12	20	12	0.68
SU03-1240	40	50						0.88
SU03-1250	50	60						1.10
SU03-1630	30	40	50	75	16	26	15	1.08
SU03-1640	40	50						1.40
SU03-1650	50	60						1.70

SU02

OFFSET JIG REST BUTTON

- Material / Finish :
Material : S45C(JIS) / CK45(DIN)
- Heat treated : HRC 40°.
- Surface finish : Black Oxide.
- Application : Use for supporting and / or positioning workpiece.
- Features : Jig rest buttons are extremely useful as supports, side locator pads, and jig feet.



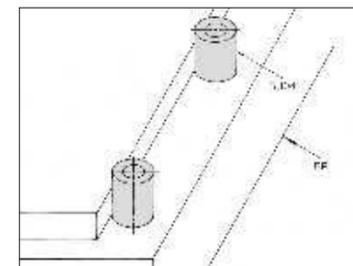
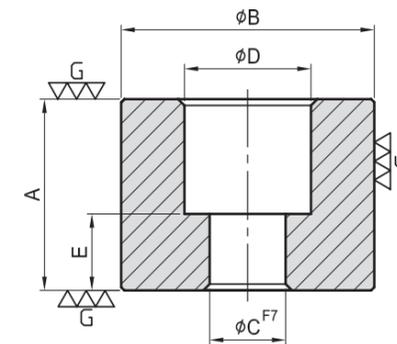
MODEL NO.	A	B	C	D	E	kg
SU02-1230	30	40	M12	17	7	0.24
SU02-1240	40			27		0.32
SU02-1250	50			37		0.41
SU02-1630	30	50	M16	12	10	0.36
SU02-1640	40			22		0.50
SU02-1650	50			32		0.64



SU04

LOCATING CYLINDER

- Material / Finish :
Material : S45C(JIS) / CK45(DIN)
- Heat treated : HRC 40°.
- Surface finish : Black Oxide.
- Application : Support and locate with one part.



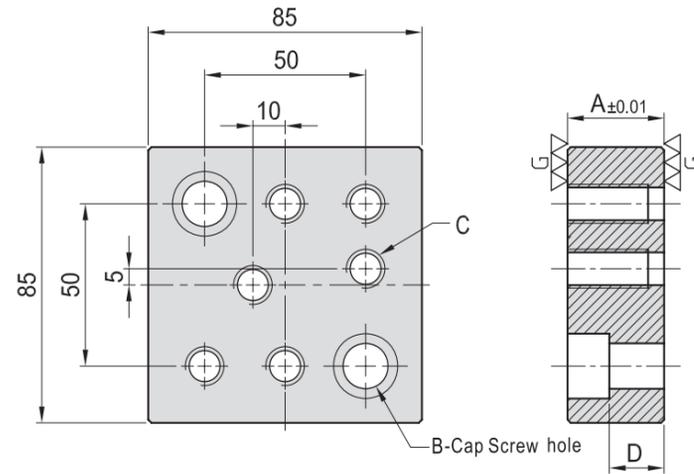
MODEL NO.	A	B	C	D	E	kg
SU04-1230	30	40	12	20	12	0.24
SU04-1240	40					0.32
SU04-1250	50					0.40
SU04-1630	30	50	16	26	15	0.37
SU04-1640	40					0.49
SU04-1650	50					0.60

SU05

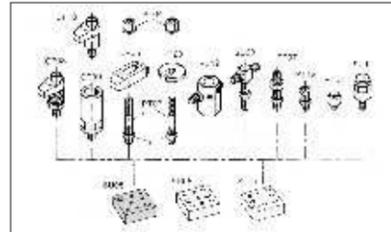
SQUARE ADAPTER



- Material / Finish :
Material : S45C, (JIS) / CK45 (DIN)
- Heat treated : HRC 40°.
- Surface finish : Black Oxide.
- Application : Multipurpose adapter for a variety of stops & clamps.



MODEL NO.	A	B	C	D	kg
SU05-1230	30	M12	M12	17	1.50
SU05-1240	40			27	2.00
SU05-1250	50			37	2.25
SU05-1630	30	M16	M16	12	1.30
SU05-1640	40			22	1.80
SU05-1650	50			32	2.22

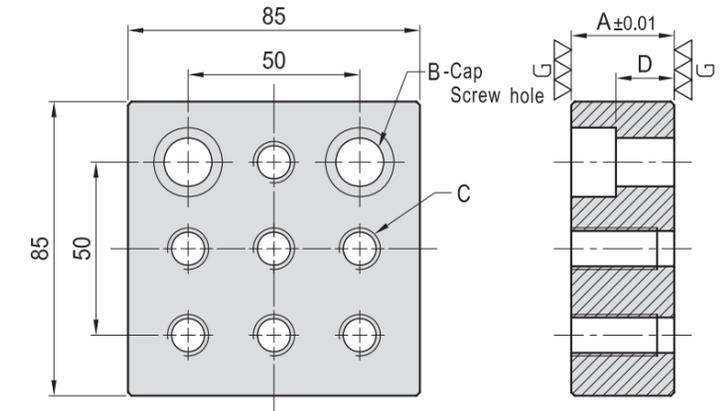


SU07

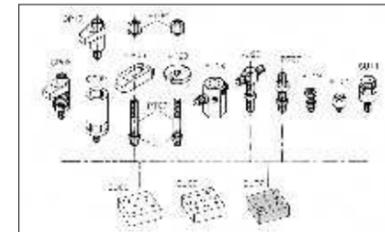
SQUARE ADAPTER



- Material / Finish :
Material : S45C(JIS) / CK45(DIN)
- Heat treated : HRC 40°.
- Surface finish : Black Oxide.
- Application : Multipurpose adapter for a variety of stops & clamps.



MODEL NO.	A	B	C	D	kg
SU07-1230	30	M12	M12	17	1.5
SU07-1240	40			27	2.0
SU07-1250	50			37	2.6
SU07-1630	30	M16	M16	12	1.3
SU07-1640	40			22	1.8
SU07-1650	50			32	2.2

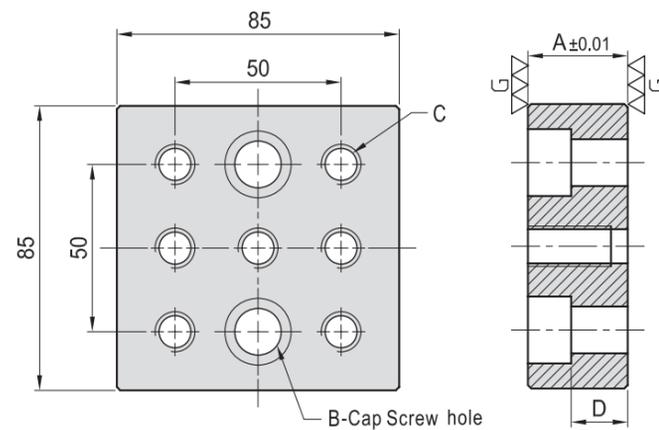


SU06

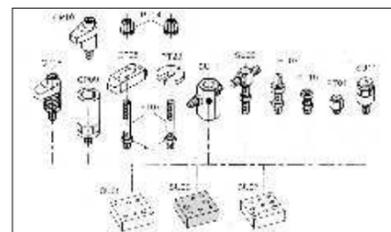
SQUARE ADAPTER



- Material / Finish :
Material : S45C(JIS) / CK45(DIN)
- Heat treated : HRC 40°.
- Surface finish : Black Oxide.
- Application : Multipurpose adapter for a variety of stops & clamps.



MODEL NO.	A	B	C	D	kg
SU06-1230	30	M12	M12	17	1.50
SU06-1240	40			27	2.00
SU06-1250	50			37	2.60
SU06-1630	30	M16	M16	12	1.30
SU06-1640	40			22	1.80
SU06-1650	50			32	2.25

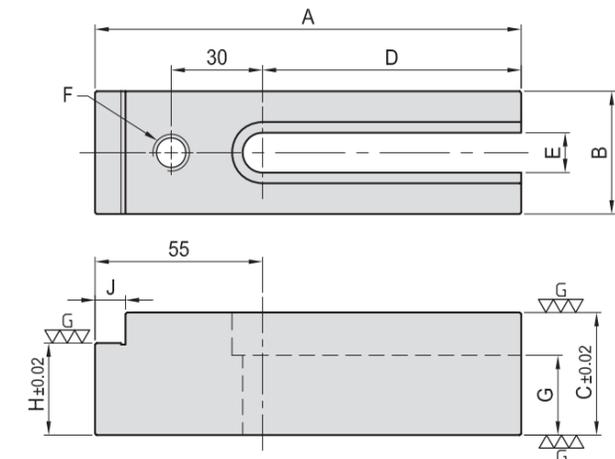


SU08

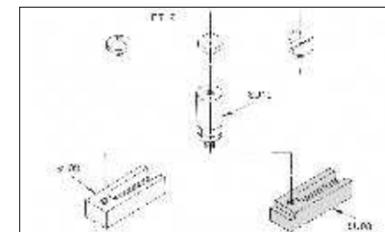
EXTENSION SUPPORT



- Material / Finish :
Material : S45C(JIS) / CK45(DIN)
- Heat treated : HRC 40°.
- Surface finish : Black Oxide.
- Application : Gives extra flexibility in the placement of stops.



MODEL NO.	A	B	C	D	E	F	G	H	J	kg
SU08-12140-30	140	40	40	85	13	M12	26	30	10	1.3
SU08-12140-40			50				36			1.6
SU08-16140-30	140	50	40	85	17	M16	22	30	10	1.5
SU08-16140-40			50				32			1.9

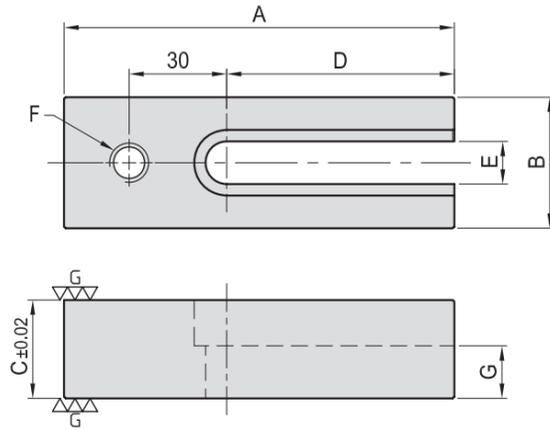
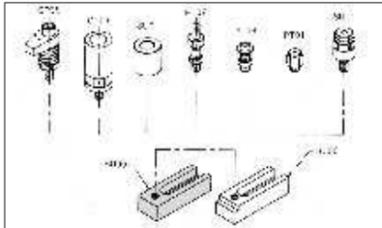


SU09

EXTENSION SUPPORT



- Material / Finish :
Material : S45C(JIS) / CK45(DIN)
- Heat treated : HRC 40°.
- Surface finish : Black Oxide.
- Application : Multipurpose adapter for a variety of stops & clamps.



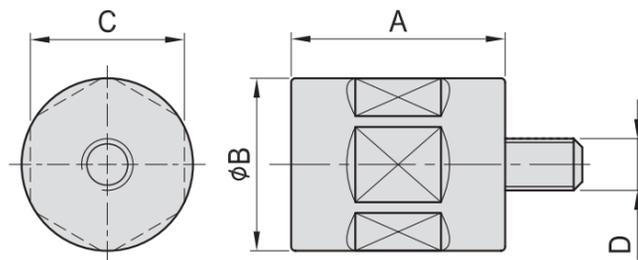
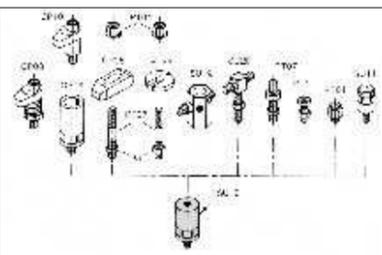
MODEL NO.	A	B	C	D	E	F	G	kg
SU09-12120-30	120	40	30	70	13	M12	16	0.85
SU09-12120-40			40				26	1.10
SU09-16140-30	140	50	30	90	17	M16	12	1.14
SU09-16140-40			40				22	1.52

SU10

RISER CYLINDER



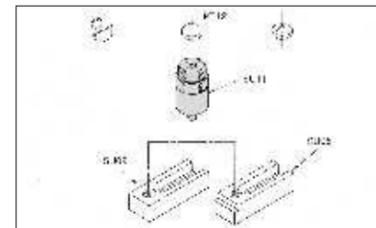
- Material / Finish :
Material : S45C(JIS) / CK45(DIN)
- Heat treated : HRC 38°.
- Surface finish : Black Oxide.
- Application : Elevate a work stop or clamp.



MODEL NO.	A	B	C	D	kg
SU10-1250	50	40	36	M12	0.45
SU10-1265	65		0.59		
SU10-1280	80		0.74		
SU10-1650	50	50	46	M16	0.72
SU10-1665	65				0.84
SU10-1680	80				1.20

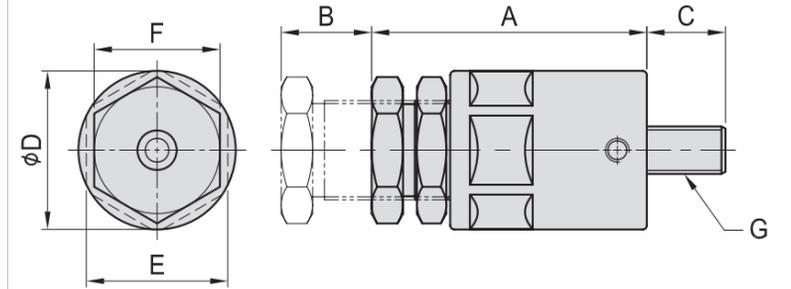


- Material / Finish :
Material : S45C(JIS) / CK45(DIN)
- Heat treated : HRC 38°~40°.
- Surface finish : Black Oxide.
- Application : Multipurpose support part.



SU11

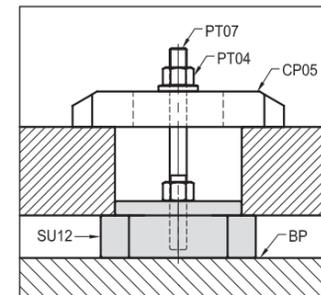
SUPPORT JACK



MODEL NO.	A	B	C	D	E	F	G	kg
SU11-1265	65	20	20	40	36	32	M12	0.54
SU11-1665	65	20	20	50	46	36	M16	0.82

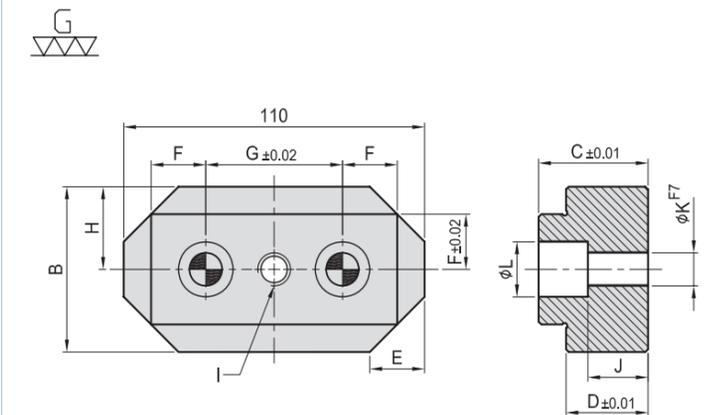


- Material / Finish :
Material : S45C(JIS) / CK45(DIN)
- Heat treated : HRC 45°.
- Application : Work piece support & positioning.



SU12

POSITIONING EDGE SUPPORT



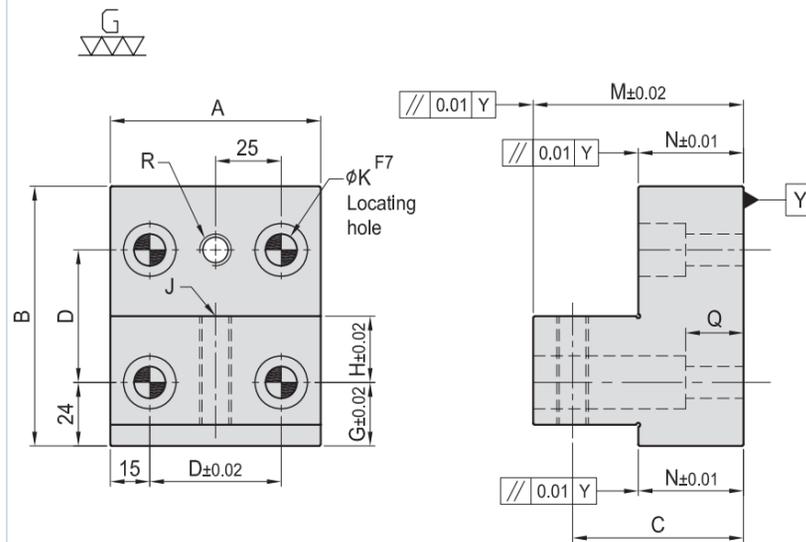
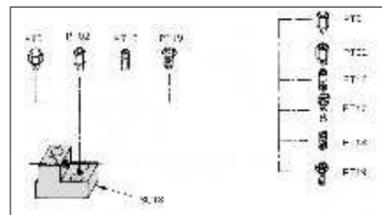
MODEL NO.	A	B	C	D	E	F	G	H	I	J	K	L	M	kg
SU12-1230	110	60	40	30	20	20	50	30	M12	22	12	20		1.50
SU12-1240			50	40						32				
SU12-1630	110	60	40	30	20	20	50	30	M16	17	16	26		1.40
SU12-1640			50	40						26				

SU13

POSITIONING EDGE SUPPORT



- Material / Finish :
Material : S45C(JIS) / CK45(DIN)
- Heat treated : HRC 45°.
- Application : Multipurpose adapter for a variety of stops & clamps.



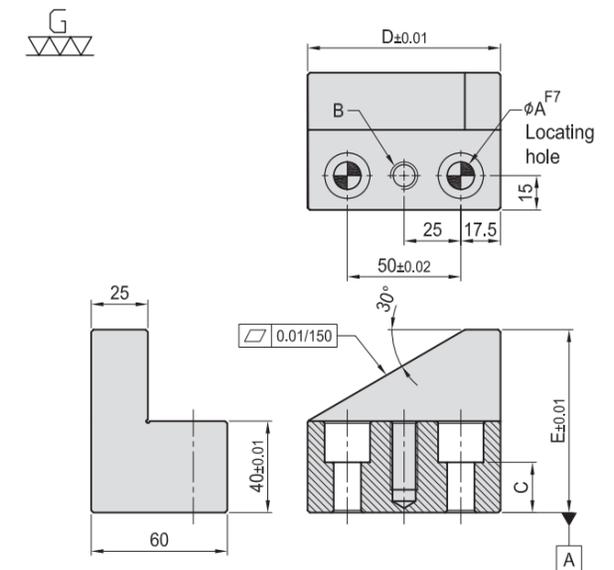
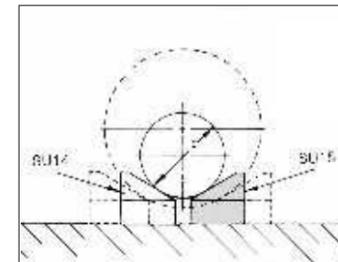
MODEL NO.	A	B	C	D	G	H	J	K	M	N	Q	R	kg
SU13-1240	80	98	65	50	16	25	M12	12	80	40	22	M12	3.00
SU13-1640	80	98	65	50	16	25	M16	16	80	40	16	M16	2.64

SU15

SPLIT V BLOCK



- Material / Finish :
Material : S45C(JIS) / CK45(DIN)
- Heat treated : HRC 45°.
- Application : Use with SU14 to create an adjustable V block set.



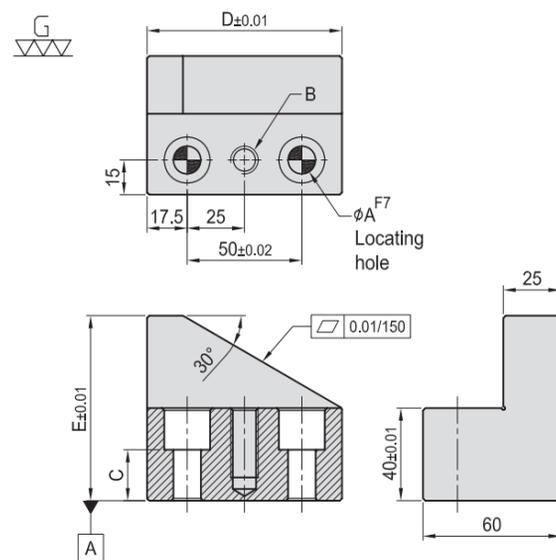
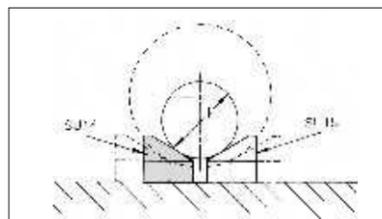
MODEL NO.	A	B	C	D	E	F		kg
						Max.	Min.	
SU15-1250-600	12	M12	22	85	80	600	50	1.86
SU15-1650-600	16	M16	16	85	80	600	50	1.74

SU14

SPLIT V BLOCK



- Material / Finish :
Material : S45C(JIS) / CK45(DIN)
- Heat treated : HRC 45°.
- Application : Use with SU15 to create an adjustable V block set.



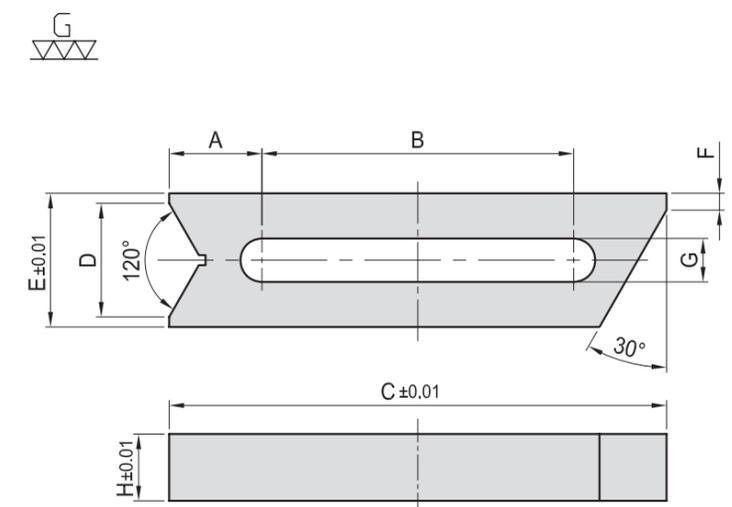
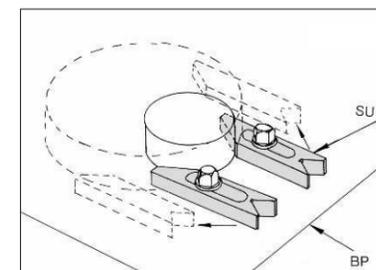
MODEL NO.	A	B	C	D	E	F		kg
						Max.	Min.	
SU14-1250-600	12	M12	22	85	80	600	50	1.86
SU14-1650-600	16	M16	16	85	80	600	50	1.76

SU16

V BLOCK



- Material / Finish :
Material : S45C(JIS) / CK45(DIN)
- Heat treated : HRC 45°.
- Application : Multipurpose V-block, use independently or in pairs.



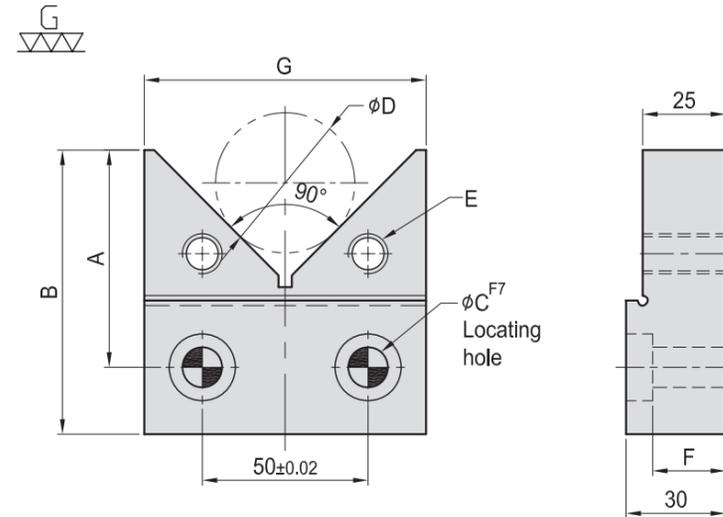
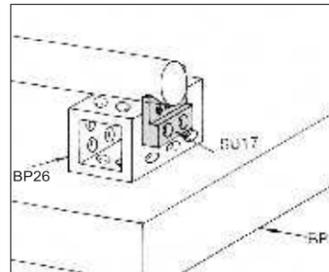
MODEL NO.	A	B	C	D	E	F	G	H	kg
SU16-12150	28	94	150	34	40	5	13	20	0.65
SU16-16175	30	115	175	40	50	5	17	20	0.90

SU17

V BLOCK



- Material / Finish : Material : S45C(JIS) / CK45(DIN)
- Heat treated : HRC 45°.
- Application : Easily mounts to any fixture to support round parts.



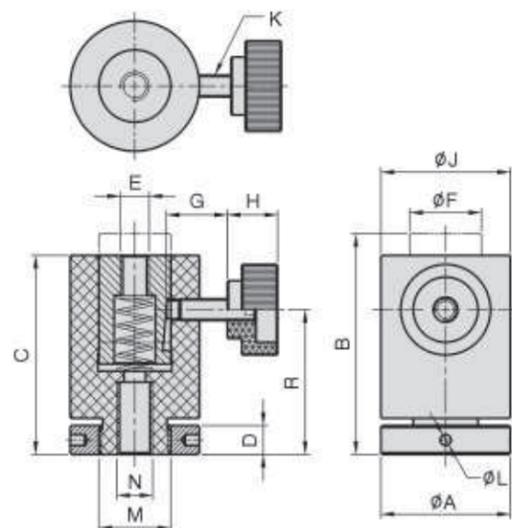
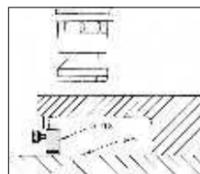
MODEL NO.	A	B	C	D		E	F	G	kg
				Max.	Min.				
SU17-1215-080	65	85	12	80	15	M12	22	85	1.10
SU17-1215-100	75	95		100					1.30
SU17-1615-080	65	85	16	80	15	M16	25	85	1.02
SU17-1615-100	75	95		100					1.20

SU18

SUPPORT JACK



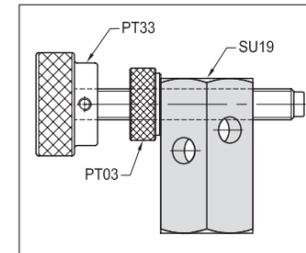
- Material / Finish : Material : S45C(JIS) / CK45(DIN)
 - Heat treated : HRC 38°~42°.
 - Surface finish : Black Oxide.
 - Application : Designed to support over hanging workpiece, spring loaded & adjustable.
 - Features : supporting height can be adjusted by loosening the adjusting screw.
- Shock resistance during machining operation.



MODEL NO	A	B	C	D	E	F	G	H	J	K	L	M	N	R	kg
SU18-3655	36	61	55	8	M 8	20	17	14	36	M 6	3	M20	M10	40	0.43
SU18-4270	42	79	70	9	M10	25	25	17	42	M 8	4	M24	M12	50	0.73
SU18-5085	50	100	87	10	M12	30	27	20	50	M10	5	M30	M16	62	1.30

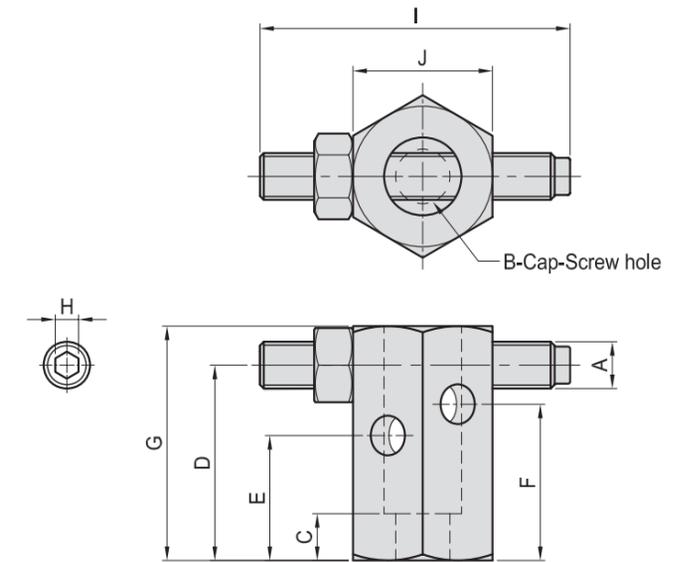


- Material / Finish : Material : S45C(JIS) / CK45(DIN)
- Heat treated : HRC 32°~38°.
- Surface finish : Black Oxide.
- Application : Multipurpose work piece positioning.



SU19

ADJUSTABLE STOP



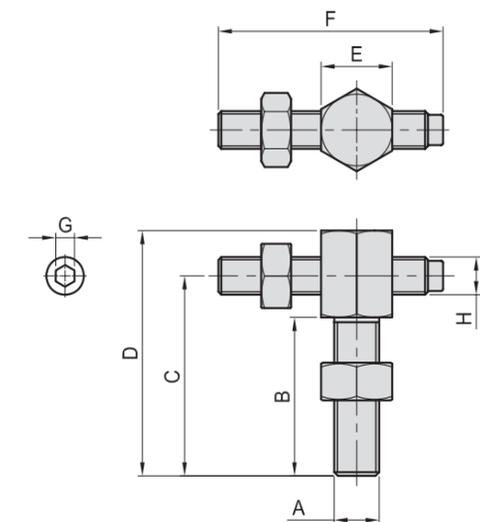
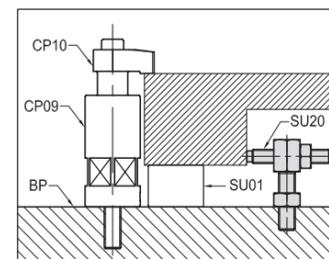
MODEL NO.	A	B	C	D	E	F	G	H	I	J	kg
SU19-1280	M12	M12	12	32	40	50	60	6	80	36	0.43
SU19-1690	M16	M16	14	40	50	63	80	8	90	46	0.89

SU20

MINI ADJUSTABLE STOP



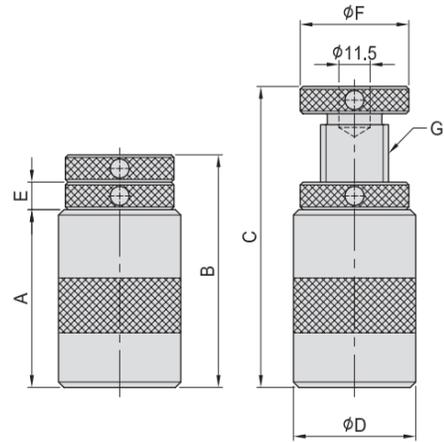
- Material / Finish : Material : S45C (JIS) / CK45(DIN)
- Heat treated : HRC 32°~38°.
- Surface finish : Black Oxide.
- Application : Multipurpose work piece positioning.



MODEL NO.	A	B	C	D	E	F	G	H	kg
SU20-1260	M12	42	53	65	19	60	5	M10	0.13
SU20-1680	M16	45	58	70	24	80	6	M12	0.24

SU21

MAGNETIC SUPPORT JACK

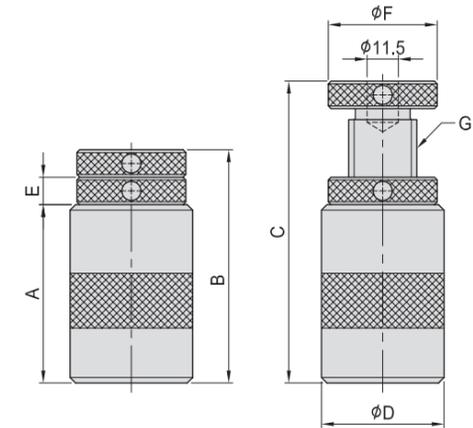


- Material / Finish :
Material : S45C(JIS), heat treated
- Surface finish : Black Oxide.

MODEL NO.	A	B-C	D	E	F	G	kg	KN
SU21-S050	24	40~50	45	8	35	Tr18x2	0.41	80
SU21-S065	34	50~65					0.54	
SU21-S085	49	65~85	45	8	35	Tr20x3	1.03	80
SU21-S110	63	85~110	45	12	40	Tr25x4	1.75	150
SU21-S165	85	110~165					2.93	
SU21-S265	135	165~265	60	15	50	Tr32x5	6.23	200
SU21-S300	170	265~300					7.50	

SU23

LARGE SUPPORT JACK

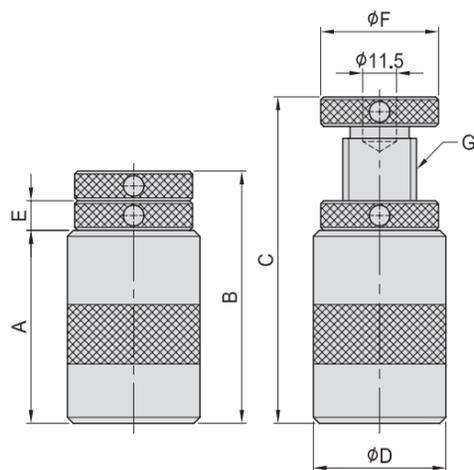


- Material / Finish :
Material : S45C(JIS), heat treated
- Surface finish : Black Oxide.

MODEL NO.	A	B-C	D	E	F	G	kg	KN
SU23-S0400	270	285~400	70	15	60	Tr40x4	8.0	260
SU23-S0500	370	385~500					10.5	
SU23-S0600	470	485~600	70	15	60	Tr40x4	12.0	260
SU23-S0700	570	585~700					14.0	
SU23-S0800	670	685~800	70	15	60	Tr40x4	15.0	260
SU23-S0900	770	785~900					16.5	
SU23-S1000	870	885~1000					18.0	

SU22

SUPPORT JACK

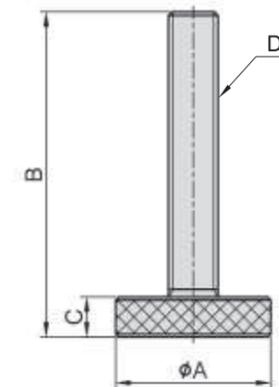


- Material / Finish :
Material : S45C(JIS), heat treated
- Surface finish : Black Oxide.

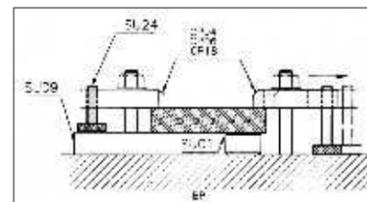
MODEL NO.	A	B-C	D	E	F	G	kg	KN
SU22-S050	21	37~50	40	8	35	Tr20x3	0.29	72
SU22-S070	34	50~70					0.40	
SU22-S100	50	70~100	45	10	40	Tr25x4	0.72	135
SU22-S150	76	100~150	50	12	45		1.30	
SU22-S250	120	150~250	60	15	50	Tr28x5	2.90	155
SU22-S300	170	200~300					3.50	

SU24

KNURLED ADJUSTING SCREW



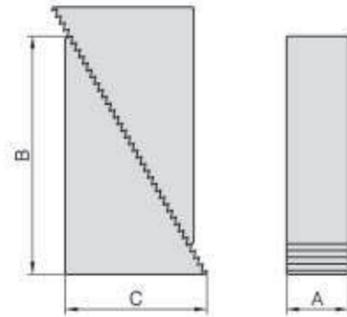
- Material /Finish :
Material : S45C(JIS), heat treated
- Heat treated : HRC 33°.
- Surface finish : Black Oxide.



MODEL NO.	A	B	C	D	kg
SU24-12060	28	60	8	M12	0.08
SU24-14065	30	65	9	M14	0.10
SU24-16070	30	70	10	M16	0.13
SU24-18080	36	80	12	M18	0.21
SU24-20130	50	130	16	M20	0.47

SU25

STEP BLOCK

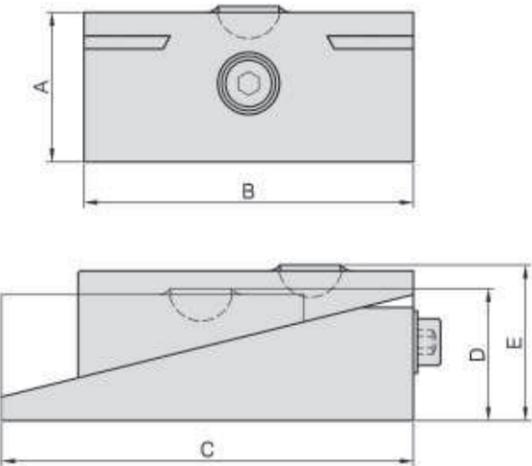


- Material / Finish :
Material : S45C.
- Heat treated : HRC32°~36°.
- Surface finish : Black Oxide.
- Application : Multipurpose clamping accessory, use with CP25.

MODEL NO.	Supporting Height	A	B	C	kg
SU25-25030	19-49	25	29.0	17	0.05
SU25-25045	28-68		45.0	27	0.12
SU25-25097	58-150		97.5	57	0.50
SU25-32059	38-90	32	59.0	35	0.24
SU25-32097	58-150		97.5	57	0.62
SU25-32139	82-210		139.0	81	1.32
SU25-38059	36-90	38	59.0	35	0.29
SU25-38097	58-150		97.5	57	0.73
SU25-38139	82-210		139.0	81	1.60
SU25-50059	36-90	50	59.0	35	0.70
SU25-50097	58-150		97.5	57	1.66
SU25-50139	82-210		139.0	81	3.43

SU27

ADJUSTABLE PARALLEL BLOCK

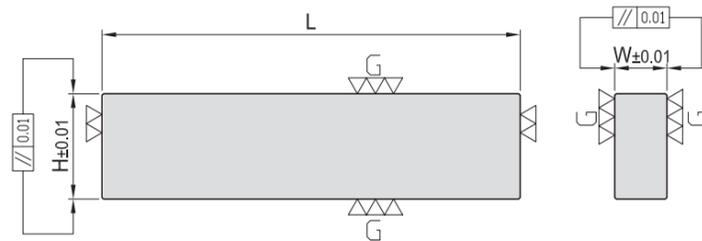


- Material / Finish :
Material : S45C(JIS) / CK45(DIN)
- Heat treated : HRC 38°~42°.
- Surface finish : Black Oxide.
- Application : Adjustable work piece support, fine adjustment capability.

MODEL NO.	A	B	C	D	E	kg
SU27-5039-46	39	50	82	35	41	1.2
SU27-8052-59	53	80	125	49	55	3.4

SU26

HARDENED GROUND PARALLEL

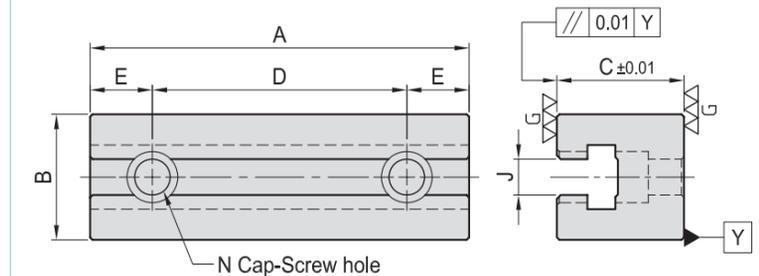


- Material : S45C
- Heat treated : HRC 45°.

MODEL NO.	W	H	L	kg	MODEL NO.	W	H	L	kg
SU26-0812-100	8	12	100	0.18	SU26-2025-200	20	25	200	1.60
SU26-0815-100		15		0.19	SU26-2030-200		30		1.92
SU26-1015-100	10	15	100	0.24	SU26-2040-200	25	40	250	2.54
SU26-1020-100		20		0.32	SU26-2530-250		30		3.00
SU26-1025-100		25		0.22	SU26-2540-250		40		3.95
SU26-1215-100	12	15	100	0.28	SU26-2550-250	38	50	300	4.90
SU26-1220-100		20		0.19	SU26-2840-300		40		5.80
SU26-1225-100		25		0.26	SU26-2850-300		50		6.66
SU26-1620-150	16	20	150	0.38	SU26-3850-300	38	50	300	9.00
SU26-1625-150		25		0.48	SU26-3875-300		75		13.80
SU26-1630-150		30		1.14					

SU28

T SLOT PARALLEL BLOCK



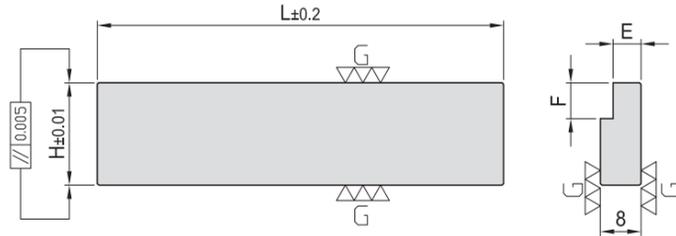
- Material / Finish :
Material : SCM420
- Heat treated : HRC 60°.
- Surface finish : Black Oxide.

MODEL NO.	A	B	C	D	E	N	J	kg
SU28-5050150-12	149	49	50	100	24.5	M12	14	1.4
SU28-5050200-12	199			150			2.3	
SU28-6060150-16	149	59	60	100	24.5	M16	18	2.3
SU28-6060200-16	199			150			3.5	

SU29

HARDENED SLICED PARALLEL

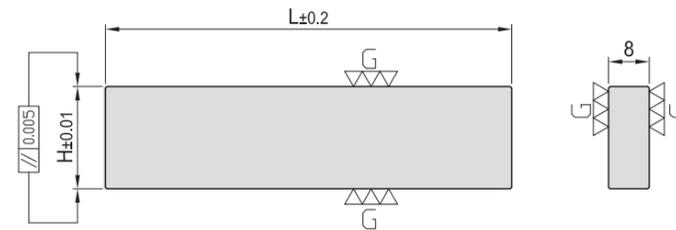
SU29-S



MODEL NO.	E	F	H	L	kg	MODEL NO.	E	F	H	L	kg	
SU29-125S21	2.5	7	21	125	0.25	SU29-160S50	3.0	10	50	160	0.88	
SU29-125S25			25		0.31	SU29-160S52			52		0.92	
SU29-125S29			29		0.38	SU29-160S54			54		0.96	
SU29-125S30			30		0.39	SU29-160S56			56		1.00	
SU29-125S32			32		0.42	SU29-160S58			58		1.04	
SU29-125S33			33		0.44	SU29-200S40			200		40	0.90
SU29-125S34			34		0.46	SU29-200S45					45	1.03
SU29-125S36			36		0.49	SU29-200S50					50	1.15
SU29-125S37			37		0.50	SU29-200S55					55	1.30
SU29-125S38			38		0.52	SU29-200S58					58	1.42
SU29-160S30	3.0	10	30	160	0.47	SU29-200S60	60	1.35				
SU29-160S35			35		0.58	SU29-200S62	62	1.40				
SU29-160S40			40		0.67	SU29-200S64	64	1.45				
SU29-160S45			45		0.77	SU29-200S66	66	1.50				
SU29-160S48			48		0.84	SU29-200S68	68	1.55				

※ TWO PIECES PER PAIR!

SU29-F



MODEL NO.	H	L	kg	MODEL NO.	H	L	kg
SU29-160F30	30	160	0.60	SU29-200F40	40	200	1.06
SU29-160F35	35		0.70	SU29-200F45	45		1.09
SU29-160F40	40		0.80	SU29-200F50	50		1.26
SU29-160F45	45		0.90	SU29-200F55	55		1.38
SU29-160F48	48		0.96	SU29-200F58	58		1.46
SU29-160F50	50		1.00	SU29-200F60	60		1.50
SU29-160F52	52		1.04	SU29-200F62	62		1.56
SU29-160F54	54		1.09	SU29-200F64	64		1.61
SU29-160F56	56		1.13	SU29-200F66	66		1.66
SU29-160F58	58		1.17	SU29-200F68	68		1.71

※ TWO PIECES PER PAIR!

- Material / Finish : S50C
- Heat treated : HRC 47°~52°.

AUX PARTS

PT01~PT59



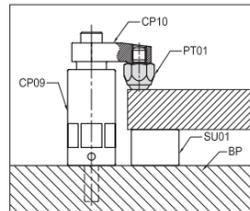
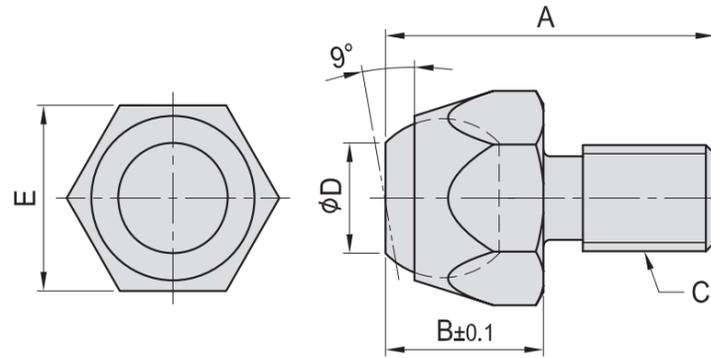
SMOOTH BALL END BOLT
SERRATED BALL END BOLT
KNURLED NUT
FLANGE NUT
EXTENSION NUT

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.



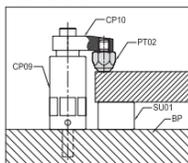
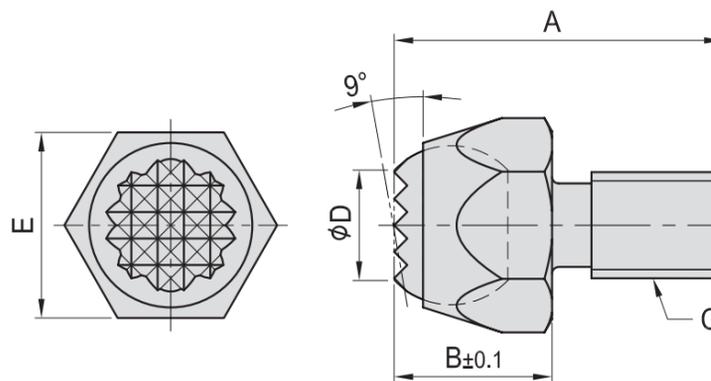
MODEL NO.	A	B	C	D	E	kg
PT01-0610	21	10	M6x1.00	6	10	0.012
PT01-0814	25	12	M8x1.25	8	14	0.015
PT01-1017	30	16	M10x1.50	10	17	0.025
PT01-1222	35	22	M12x1.75	12	22	0.070
PT01-1627	42	26	M16x2.00	14	27	0.140
PT01-2036	55	27	M20x2.50	14	36	0.280
PT01-2436	65	32	M24x2.00	18	36	0.560
PT01-3046	80	35	M30x2.00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

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.



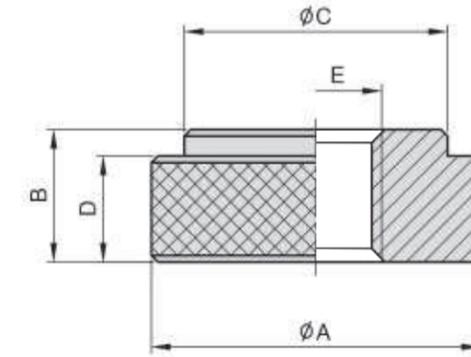
MODEL NO.	A	B	C	D	E	kg
PT02-0610	21	10	M6x1.00	6	10	0.012
PT02-0814	25	12	M8x1.25	8	14	0.015
PT02-1017	30	16	M10x1.50	10	17	0.025
PT02-1222	35	22	M12x1.75	12	22	0.070
PT02-1627	42	26	M16x2.00	14	27	0.140
PT02-2036	55	27	M20x2.50	14	36	0.280
PT02-2436	65	32	M24x2.00	18	36	0.560
PT02-3046	80	35	M30x2.00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

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.



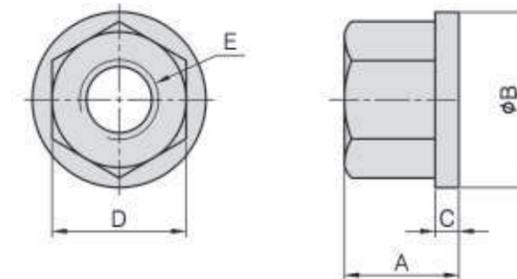
MODEL NO.	A	B	C	D	E	kg
PT03-0820	20	8	16	6	M 8	0.015
PT03-1025	25	10	20	8	M10	0.030
PT03-1228	28	12	24	10	M12	0.040
PT03-1630	30	12	25	10	M16	0.045

PT04

FLANGE NUT



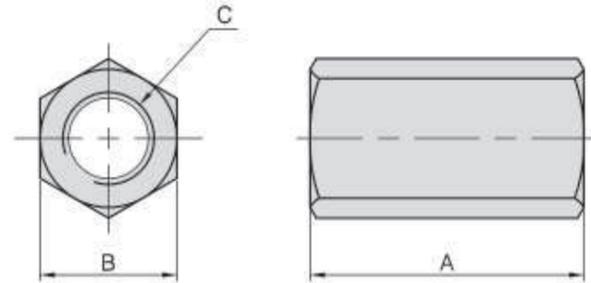
- Material : S45C(JIS) / CK45(DIN)
- Heat treated : HRC 30°~35°
- Surface finish : Black Oxide.



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

PT05

EXTENSION NUT



- Material : S45C(JIS) / CK45(DIN)
- Heat treated : HRC 30°~35°.
- Surface finish : Black Oxide.
- Application : Extends the length of clamping studs.

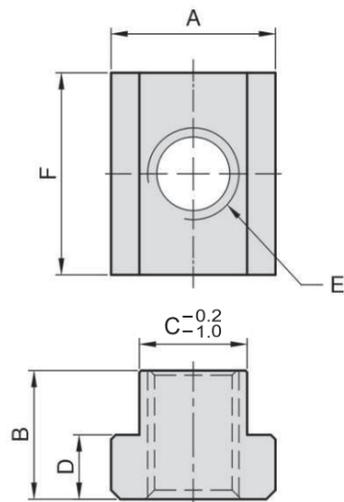
MODEL NO.	A	B	C	kg
PT05-0813	22	14	M 8	0.020
PT05-1017	30	17	M10	0.030
PT05-1219	36	19	M12	0.046
PT05-1422	42	22	M14	0.065
PT05-1624	48	24	M16	0.110
PT05-1827	54	27	M18	0.150
PT05-2030	60	30	M20	0.220
PT05-2232	66	32	M22	0.350
PT05-2436	72	36	M24	0.350

PT06

T-SLOT NUT



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



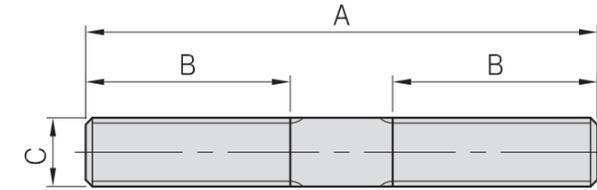
MODEL NO.	A	B	C	D	E	F	kg
PT06-1008	15.0	13.0	10.0	6.0	M 8	22	0.020
PT06-1210	18.0	14.0	12.0	7.0	M10		0.022
PT06-1410	22.0	16.0	14.0	8.0	M10	28	0.050
PT06-1412					M12		0.048
PT06-1612	25.0	16.0	16.0	8.0	M12	28	0.060
PT06-1614					M14		0.057
PT06-1810	28.0	20.0	18.0	10.5	M10	30	0.090
PT06-1812				M12			
PT06-1814				M14			
PT06-1816				M16			
PT06-2016	32.0	19.0	20.0	11.9	M16	30	0.098
PT06-2018	32.0	25.0		14.0	M18	38	0.110
PT06-2218	36.0	25.0	22.0	14.0	M18	38	0.178
PT06-2220					M20		0.190
PT06-2418	38.0	25.0	24.0	14.0	M18	38	0.184
PT06-2420					M20		0.250
PT06-2620	41.3	25.0	26.0	15.8	M20	44	0.250
PT06-2622					M22		0.240
PT06-2822	44.0	28.5	28.0	17.5	M22	50	0.330
PT06-2824					M24		0.312

PT07

CLAMPING STUD



- Material : S45C(JIS) / CK45(DIN)
- Heat treated : HRC 22°~28°
- Surface finish : Black Oxide.



MODEL NO.	A	B	C	kg	
PT07-08050	50	22	M8 P=1.25	0.020	
PT07-08075	75			0.030	
PT07-08100	100	38		0.040	
PT07-08125	125			0.050	
PT07-08150	150	50		0.060	
PT07-08175	175			0.070	
PT07-08200	200			0.080	
PT07-08250	250			0.098	
PT07-10050	50	22		M10 P=1.5	0.030
PT07-10075	75				0.042
PT07-10100	100	38	0.055		
PT07-10125	125		0.070		
PT07-10150	150	50	0.090		
PT07-10175	175		0.108		
PT07-10200	200		0.123		
PT07-10250	250		0.154		
PT07-12050	50	22	M12 P=1.75		0.040
PT07-12075	75				0.060
PT07-12100	100	38		0.080	
PT07-12125	125			0.100	
PT07-12150	150	50		0.125	
PT07-12175	175			0.155	
PT07-12200	200			0.160	
PT07-12300	300			0.240	
PT07-14050	50	22		M14 P=2.0	0.060
PT07-14075	75				0.090
PT07-14100	100	38	0.120		
PT07-14125	125		0.150		
PT07-14150	150	50	0.180		
PT07-14175	175		0.210		
PT07-14200	200		0.240		
PT07-16050	50		22		M16 P=2.0
PT07-16075	75	0.120			
PT07-16100	100	38	0.145		
PT07-16125	125		0.180		
PT07-16150	150	50	0.230		
PT07-16175	175		0.276		
PT07-16200	200		0.290		
PT07-16250	250		0.350		
PT07-16300	300	80	0.450		
PT07-16400	400		0.580		
PT07-16500	500	100	0.700		

MODEL NO.	A	B	C	kg	
PT07-18050	50	22	M18 P=2.5	0.100	
PT07-18075	75			0.150	
PT07-18100	100	38		0.200	
PT07-18125	125			0.220	
PT07-18150	150	50		0.300	
PT07-18175	175			0.320	
PT07-18200	200			0.360	
PT07-18300	300			0.600	
PT07-20050	50	22		M20 P=2.5	0.125
PT07-20075	75				0.170
PT07-20100	100	38	0.230		
PT07-20125	125		0.275		
PT07-20150	150	50	0.360		
PT07-20175	175		0.437		
PT07-20200	200		0.450		
PT07-20250	250		0.550		
PT07-20300	300	80	0.700		
PT07-20400	400		0.880		
PT07-20500	500	100	1.100		
PT07-22050	50	22	M22 P=2.5	0.150	
PT07-22075	75			0.223	
PT07-22100	100	38		0.300	
PT07-22125	125			0.373	
PT07-22150	150	50		0.448	
PT07-22175	175			0.522	
PT07-22200	200			0.597	
PT07-22250	250			0.746	
PT07-22300	300	80		0.895	
PT07-22400	400			1.194	
PT07-22500	500	100	1.492		
PT07-24050	50	22	M24 P=3.0	0.177	
PT07-24075	75			0.266	
PT07-24100	100	38		0.355	
PT07-24125	125			0.443	
PT07-24150	150	50		0.533	
PT07-24175	175			0.620	
PT07-24200	200			0.710	
PT07-24250	250			0.880	
PT07-24300	300	80		1.065	
PT07-24400	400			1.420	
PT07-24500	500	100	1.775		

BP

BPA

BC

CP

SU

PT

SVF

ALV

OK-
VISE

JER-
GENS

OTHER

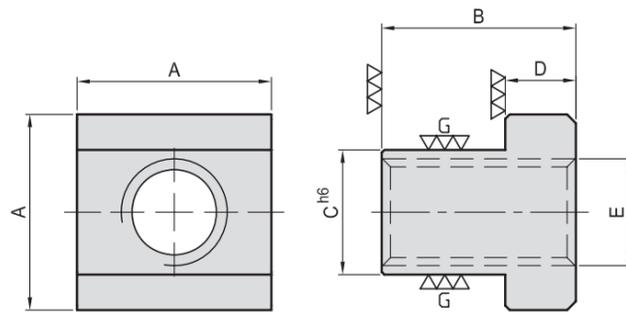
Column
for
Technical
Data

PT08

T-SLOT NUT(GROUND)



- Material : S45C(JIS) / CK45(DIN)
- Heat treated : HRC 30°~35°
- Application : Ground surfaces provide accurate positioning inside of t-slot.



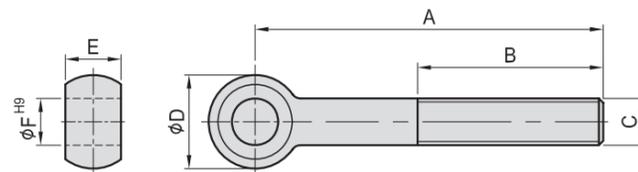
MODEL NO.	A	B	C	D	E	kg
PT08-1214	22	22	14	8	M12	0.045
PT08-1618	28	30	18	10	M16	0.080

PT09

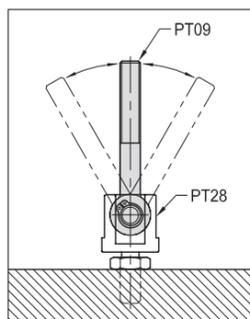
EYEBOLT



- Material : SCM220(JIS)
- Heat treated : HRC 30°~35°
- Surface finish : Black Oxide.
- Application : use with PT28 to build custom clamping components.
- Features : Reamed hole for smooth swiveling.



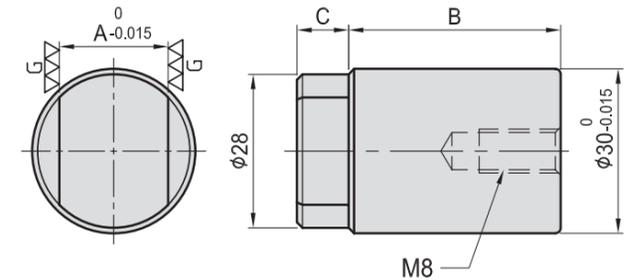
MODEL NO.	A	B	C	D	E	F	kg
PT09-10075	75	40	M10	20	12	10	0.060
PT09-10100	100						0.080
PT09-12075	75	50	M12	25	14	12	0.095
PT09-12100	100						0.120
PT09-16125	125	60	M16	32	17	16	0.250
PT09-16150	150						0.300
PT09-20125	125	60	M20	40	22	20	0.400
PT09-20150	150						0.485



- Material : SCM440(JIS) / 34CrMo4(DIN)
- Heat treated : HRC 45°
- Application : Multipurpose locating key.

PT10

LOCATING KEY



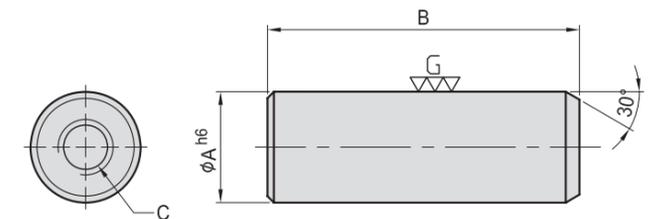
MODEL NO.	A	B	C	kg
PT10-1410	14	49	10.0	0.032
PT10-1815	18		15.0	0.033
PT10-2009	20	39	9.5	0.028
PT10-2010	20	49	10.0	0.033
PT10-2015			15.0	0.034

PT11

THREADED DOWEL PINS



- Material : SCM440(JIS) / 34CrMo4(DIN)
- Heat treated : HRC 45°
- Application : Threaded end makes removal easy.



MODEL NO.	A	B	C	kg
PT11-0825	8	25	M4	0.010
PT11-1030	10	30	M5	0.015
PT11-1234	12	34	M6	0.030
PT11-1642	16	42		0.060
PT11-2047	20	47	M8	0.100
PT11-2549	25	49		0.160

PT12

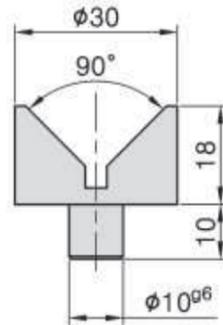
JACK SCREW TIP

- Material : SCM440(JIS) / 42CrMo4(DIN)
- Heat treated : HRC 60°
- Surface finish : Black Oxide.
- Application : Multipurpose support tip, use with SU11.

PT12A-3028



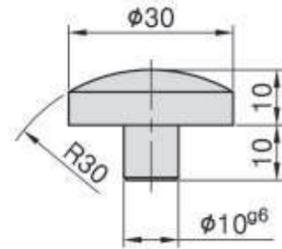
NW : 70g



PT12B-3020



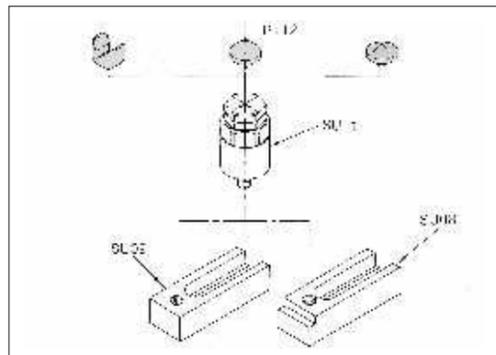
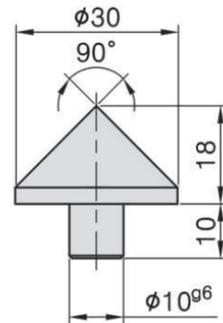
NW : 50g



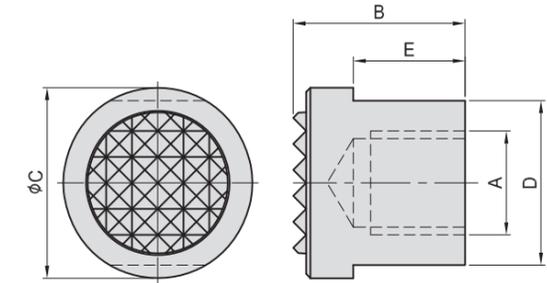
PT12C-3028



NW : 60g



PT13 SERRATED END



Tooth plate

- Material : SKH9(JIS)S18-1-2-5(DIN)
- Heat treated : HRC 60°
- Surface finish : Black Oxide.

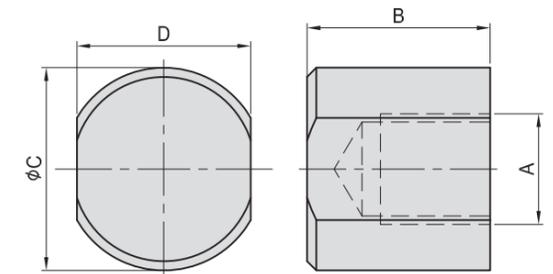
MODEL NO.	A	B	C	D	E	kg
PT13-1220	M12	20	22	19	13	0.043
PT13-1625	M16	25	28	24	16	0.080

Tooth plate

- Material : Extremely hard.
- Surface finish : Black Oxide.

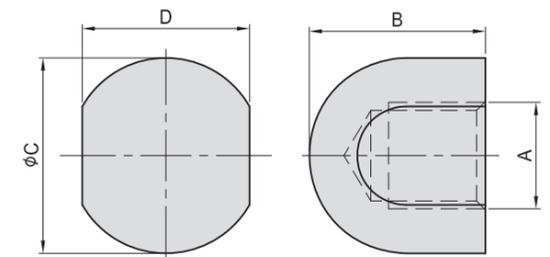
MODEL NO.	A	B	C	D	E	kg
PT13-1220-K	M12	20	22	19	13	0.043
PT13-1625-K	M16	25	28	24	16	0.080

PT14 FLAT END



MODEL NO.	A	B	C	D	kg
PT14-1220	M12	20	22	19	0.043
PT14-1625	M16	25	28	24	0.076

PT15 ROUND END



MODEL NO.	A	B	C	D	kg
PT15-1220	M12	20	22	19	0.042
PT15-1625	M16	25	28	24	0.063

BP

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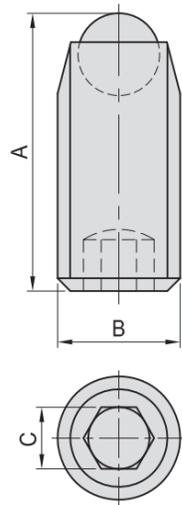
OTHER

Column
for
Technical
Data

PT16

SWIVEL CLAMPING SCREW

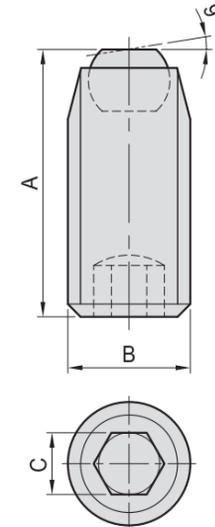
PT16A ROUND END



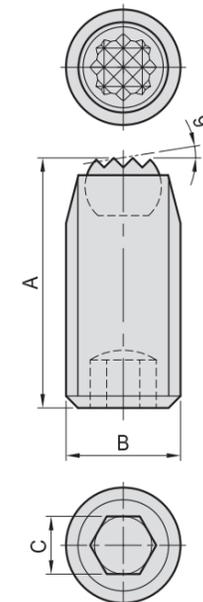
- Material :
Bolt : SCM21(JIS) / 34CrMo4(DIN)
Ball : SUJ2(JIS) / 100Cr6(DIN)
- Heat treated :
Bolt : HRC 28°~32°.
Ball : HRC 62°.
- Surface finish : Black Oxide.
- Application : Ideal for clamping odd shaped work pieces.
- Features : Available with : Flat end, round end, serrated end, less chance of deforming the work piece due the rounded tip.

MODEL NO.	A	B	C	max (KN)	g			
PT16A-0408	8.0	M4	2	4	0.6			
PT16A-0410	10.0				0.7			
PT16A-0412	12.0				0.8			
PT16A-0416	16.0				1.1			
PT16A-0510	10.0	M5	2.5	5	1.0			
PT16A-0512	12.0				1.3			
PT16A-0516	16.0				1.7			
PT16A-0520	20.0				2.3			
PT16A-0525	25.0				2.9			
PT16A-0610	10.8	M6	3	9	1.5			
PT16A-0615	13.5				2.4			
PT16A-0616	16.8				2.4			
PT16A-0620	20.8				3.0			
PT16A-0625	23.5				3.8			
PT16A-0812	12.0				M8	4	15	3.2
PT16A-0816	17.2	4.1						
PT16A-0820	20.0	5.8						
PT16A-0825	26.2	7.3						
PT16A-0830	30.0	9.0						
PT16A-1014	15.0	M10	5	20				5.0
PT16A-1015	16.0							6.7
PT16A-1020	21.0				8.7			
PT16A-1025	26.0				11.2			
PT16A-1030	31.0				13.7			
PT16A-1035	36.0				16.2			
PT16A-1040	41.0	18.7						
PT16A-1218	18.2	M12	6	30	10.0			
PT16A-1220	23.2				12.5			
PT16A-1230	31.2				20.0			
PT16A-1240	41.2				30.0			
PT16A-1250	51.2				40.0			
PT16A-1625	25.6	M16	8	60	28.0			
PT16A-1635	35.6				40.0			
PT16A-1645	45.6				45.0			
PT16A-1655	55.6				55.0			
PT16A-1665	65.6	65.0						
PT16A-2030	32.0	M20	10	90	54.0			
PT16A-2040	42.0				74.0			
PT16A-2050	52.0				94.0			
PT16A-2060	62.0				120.0			
PT16A-2435	37.0	M24	12	120	90.0			
PT16A-2450	52.0				130.0			
PT16A-2480	82.0				235.0			

PT16B FLAT END



PT16C SERRATED END



MODEL NO.	MODEL NO.	A	B	C	max (KN)	g
PT16B-0610	PT16C-0610	10.3	M6	3	9	1.5
PT16B-0615	PT16C-0615	13.0				2.4
PT16B-0616	PT16C-0616	16.3				2.4
PT16B-0620	PT16C-0620	20.3				3.0
PT16B-0625	PT16C-0625	23.0	M8	4	15	3.8
PT16B-0812	PT16C-0812	11.2				3.2
PT16B-0816	PT16C-0816	16.4				4.1
PT16B-0820	PT16C-0820	19.2				5.8
PT16B-0825	PT16C-0825	25.4				7.3
PT16B-0830	PT16C-0830	29.2	9.0			
PT16B-1014	PT16C-1014	14.0	M10	5	20	5.0
PT16B-1015	PT16C-1015	15.0				6.7
PT16B-1020	PT16C-1020	20.0				8.7
PT16B-1025	PT16C-1025	25.0				11.2
PT16B-1030	PT16C-1030	30.0				13.7
PT16B-1035	PT16C-1035	35.0				16.2
PT16B-1040	PT16C-1040	40.0	18.7			
PT16B-1218	PT16C-1218	17.0	M12	6	30	10.0
PT16B-1220	PT16C-1220	22.0				12.5
PT16B-1230	PT16C-1230	30.0				20.0
PT16B-1240	PT16C-1240	40.0				30.0
PT16B-1250	PT16C-1250	50.0				40.0
PT16B-1625	PT16C-1625	24.0	M16	8	60	28.0
PT16B-1635	PT16C-1635	34.0				40.0
PT16B-1645	PT16C-1645	44.0				45.0
PT16B-1655	PT16C-1655	54.0				55.0
PT16B-1665	PT16C-1665	64.0	65.0			
PT16B-2030	PT16C-2030	30.0	M20	10	90	54.0
PT16B-2040	PT16C-2040	40.0				74.0
PT16B-2050	PT16C-2050	50.0				94.0
PT16B-2060	PT16C-2060	60.0				120.0
PT16B-2435	PT16C-2435	35.0	M24	12	120	90.0
PT16B-2450	PT16C-2450	50.0				130.0
PT16B-2480	PT16C-2480	80.0				235.0

BP

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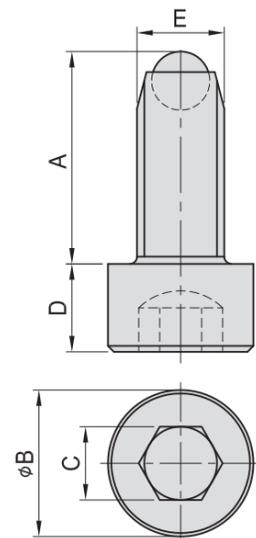
OTHER

Column
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PT17

SWIVEL SHOULDER CLAMPING SCREW

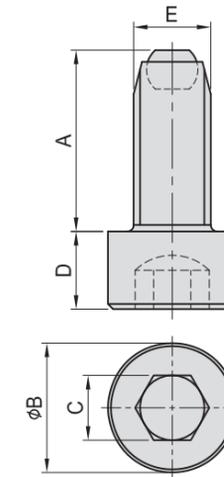
PT17A ROUND END



MODEL NO.	A	B	C	D	E	max (KN)	g
PT17A-0615	14.5	10	5	6	M 6	9	5.3
PT17A-0625	23.5						7.4
PT17A-0635	33.5						9.5
PT17A-0820	18.7	13	6	8	M 8	15	13.5
PT17A-0830	28.7						20.0
PT17A-0840	38.7						24.0
PT17A-0850	50.7						30.0
PT17A-1025	25.0	16	8	10	M10	20	26.0
PT17A-1040	40.0						34.0
PT17A-1060	60.0						46.0
PT17A-1230	31.2	18	10	12	M12	30	40.0
PT17A-1245	46.2						50.0
PT17A-1265	66.2						70.0
PT17A-1280	81.2						83.0
PT17A-1640	40.6	24	14	16	M16	60	90.0
PT17A-1650	50.6						110.0
PT17A-1665	65.6						130.0
PT17A-1690	90.6						170.0
PT17A-20050	52.0	30	17	20	M20	90	185.1
PT17A-20080	82.0						256.4
PT17A-20100	102.0						301.2
PT17A-24060	62.0	36	19	24	M24	120	324.8
PT17A-24090	92.0						283.5
PT17A-24120	122.0						351.0

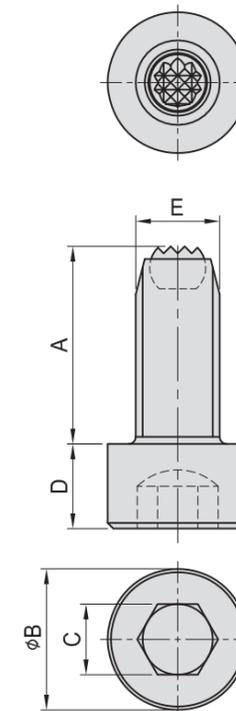
- Material :
Bolt : SCM21(JIS) / 34CrMo4(DIN)
Ball : SUJ2(JIS) / 100Cr6(DIN)
- Heat treated :
Bolt : HRC 28°~32°
Ball : HRC 62°
- Surface finish : Black Oxide.
- Application : Support or clamp the work piece.
- Features : Available with : Flat end, round end, serrated end, less chance of deforming the work piece due the rounded tip.

PT17B FLAT END



MODEL NO.	A	B	C	D	E	max (KN)	g
PT17B-0615	14	10	5	6	M 6	9	5.3
PT17B-0625	23						7.4
PT17B-0635	33						9.5
PT17B-0820	18	13	6	8	M 8	15	13.5
PT17B-0830	28						20.0
PT17B-0840	38						24.0
PT17B-0850	50						30.0
PT17B-1025	24	16	8	10	M10	20	26.0
PT17B-1040	39						34.0
PT17B-1060	59						46.0
PT17B-1230	30	18	10	12	M12	30	40.0
PT17B-1245	45						50.0
PT17B-1265	65						70.0
PT17B-1280	80						83.0
PT17B-1640	39	24	14	16	M16	60	90.0
PT17B-1650	49						110.0
PT17B-1665	64						130.0
PT17B-1690	89						170.0
PT17B-20050	50	30	17	20	M20	90	185.1
PT17B-20080	80						256.4
PT17B-20100	100						301.2
PT17B-24060	60	36	19	24	M24	120	324.8
PT17B-24090	90						283.5
PT17B-24120	120						351.0

PT17C SERRATED END



MODEL NO.	A	B	C	D	E	max (KN)	g
PT17C-0615	14	10	5	6	M 6	9	5.3
PT17C-0625	23						7.4
PT17C-0635	33						9.5
PT17C-0820	18	13	6	8	M 8	15	13.5
PT17C-0830	28						20.0
PT17C-0840	38						24.0
PT17C-0850	50						30.0
PT17C-1025	24	16	8	10	M10	20	26.0
PT17C-1040	39						34.0
PT17C-1060	59						46.0
PT17C-1230	30	18	10	12	M12	30	40.0
PT17C-1245	45						50.0
PT17C-1265	65						70.0
PT17C-1280	80						83.0
PT17C-1640	39	24	14	16	M16	60	90.0
PT17C-1650	49						110.0
PT17C-1665	64						130.0
PT17C-1690	89						170.0
PT17C-20050	50	30	17	20	M20	90	185.1
PT17C-20080	80						256.4
PT17C-20100	100						301.2
PT17C-24060	60	36	19	24	M24	120	324.8
PT17C-24090	90						283.5
PT17C-24120	120						351.0

BP

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ALV

OK-VISE

JER-GENS

OTHER

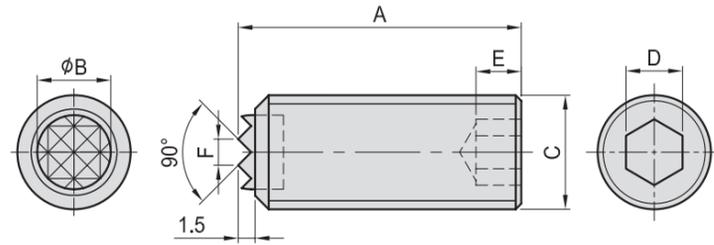
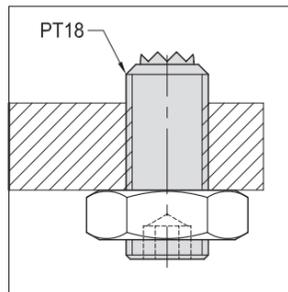
Column for Technical Data

PT18

GRIPPER SCREW



- Material : SCM435(JIS) / 34CrMo4(DIN)
- Heat treated : HRC 32°~38°
- Serrated surface to be heat treated with high frequency quenching.
- Surface finish : Black Oxide.
- Application : Multipurpose work support and clamping unit, ideal for rough parts.
- Features : Excellent holding power from the serrated face.



MODEL NO.	A	B	C	D	E	F	kg
PT18-1025	25	6.5	M10	5	4	2.3	0.015
PT18-1050	50						0.030
PT18-1225	25	8.0	M12	6	5	2.3	0.022
PT18-1250	50						0.045
PT18-1625	25	11.5	M16	8	6	3.0	0.038
PT18-1650	50						0.078
PT18-2025	25	13.0	M20	10	8	3.0	0.058
PT18-2050	50						0.120

Tooth plate

- Material : SKH9(JIS) S18-1-2-5(DIN)
- Heat treated : HRC 60°

MODEL NO.	A	B	C	D	E	F	kg
PT18-1025-K	25	6.5	M10	5	4	2.3	0.015
PT18-1050-K	50						0.030
PT18-1225-K	25	8.0	M12	6	5	2.3	0.022
PT18-1250-K	50						0.045
PT18-1625-K	25	11.5	M16	8	6	3.0	0.038
PT18-1650-K	50						0.078
PT18-2025-K	25	13.0	M20	10	8	3.0	0.058
PT18-2050-K	50						0.120

Tooth plate

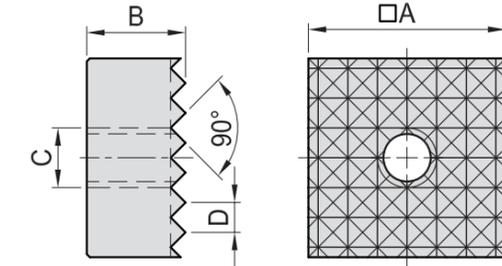
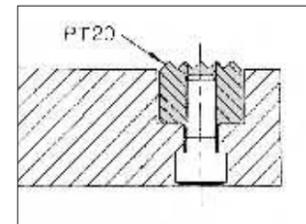
- Material : extremely hard

PT20

GRIPPER PAD(SQUARE)



- Material : SKH9(JIS)/S18-1-2-5(DIN)
- Heat treated : HRC 60°
- Surface finish : Black Oxide.
- Application : Multipurpose work support and clamping unit, ideal for rough parts.



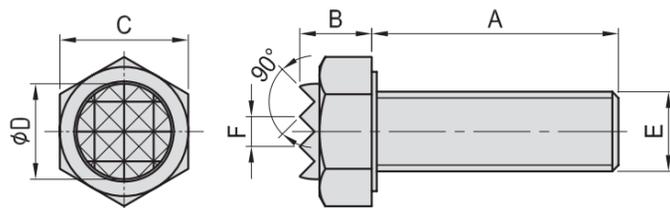
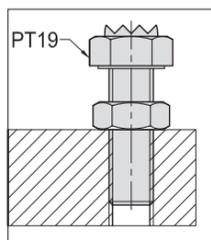
MODEL NO.	A	B	C	D	kg
PT20-1010	10	10	M5	2.3	0.008
PT20-1210	12	10	M6	3.0	0.010
PT20-2010	20				0.030
PT20-2510	25				0.043

PT19

GRIPPER SCREW



- Material : SCM435(JIS) / 34CrMo4(DIN)
- Heat treated : HRC 32°~38°
- Serrated surface to be heat treated with high frequency quenching.
- Surface finish : Black Oxide.
- Application : Multipurpose work support and clamping unit, ideal for rough parts.
- Features : Excellent holding power from the serrated face.



MODEL NO.	A	B	C	D	E	F	kg
PT19-061025	25	6.0	10	7.9	M6	2.3	0.008
PT19-081325	25	7.3	13	9.5	M8	3.0	0.015
PT19-101725	25	8.4	17	12.7	M10	3.0	0.030
PT19-101740	40						0.035
PT19-121925	25	9.5	19	15.9	M12	3.0	0.035
PT19-121940	40						0.050
PT19-162435	35	12.0	24	19.1	M16	3.0	0.085
PT19-162450	50						0.100
PT19-203040	40	14.5	30	25.4	M20	3.0	0.160
PT19-203060	60						0.205

Tooth plate

- Material : SKH9(JIS) S18-1-2-5(DIN)
- Heat treated : HRC 60°

MODEL NO.	A	B	C	D	E	F	kg
PT19-061025-K	25	6.0	10	7.9	M6	2.3	0.008
PT19-081325-K	25	7.3	13	9.5	M8	3.0	0.015
PT19-101725-K	25	8.4	17	12.7	M10	3.0	0.030
PT19-101740-K	40						0.035
PT19-121925-K	25	9.5	19	15.9	M12	3.0	0.035
PT19-121940-K	40						0.050
PT19-162435-K	35	12.0	24	19.1	M16	3.0	0.085
PT19-162450-K	50						0.100
PT19-203040-K	40	14.5	30	25.4	M20	3.0	0.160
PT19-203060-K	60						0.205

Tooth plate

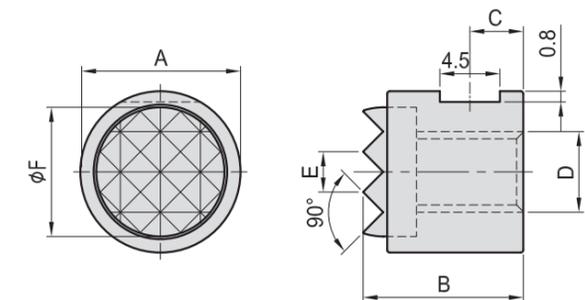
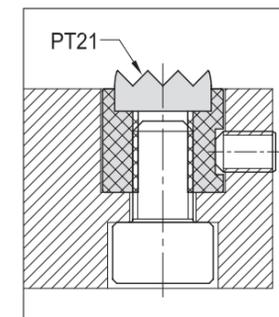
- Material : extremely hard

PT21

GRIPPER PAD(ROUND)



- Material : S45C(JIS)/CK45(DIN)
- Heat treated : HRC 33°
- Surface finish : Black Oxide.
- Application : Multipurpose work support and clamping unit, ideal for rough parts.



MODEL NO.	A	B	C	D	E	F	kg
PT21-1010	10	10.0	3.4	M5	2.3	8.1	0.005
PT21-1212	12	12.0	4.0	M6	3.0	9.6	0.008
PT21-1612	16					13.0	0.016
PT21-2012	20					16.3	0.025
PT21-2512	25	12.0	4.0	M6	3.0	19.5	0.040

Tooth plate

- Material : SKH9(JIS) S18-1-2-5(DIN)
- Heat treated : HRC 60°

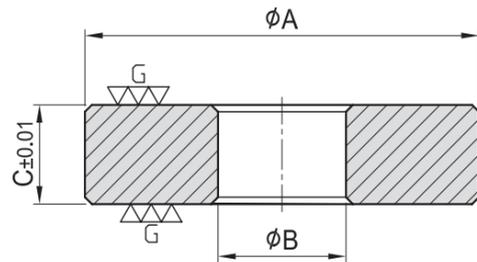
MODEL NO.	A	B	C	D	E	F	kg
PT21-1010-K	10	10.0	3.4	M5	2.3	8.1	0.005
PT21-1212-K	12	12.0	4.0	M6	3.0	9.6	0.008
PT21-1612-K	16					13.0	0.016
PT21-2012-K	20					16.3	0.025
PT21-2512-K	25	12.0	4.0	M6	3.0	19.5	0.040

Tooth plate

- Material : extremely hard

PT22

SPACER

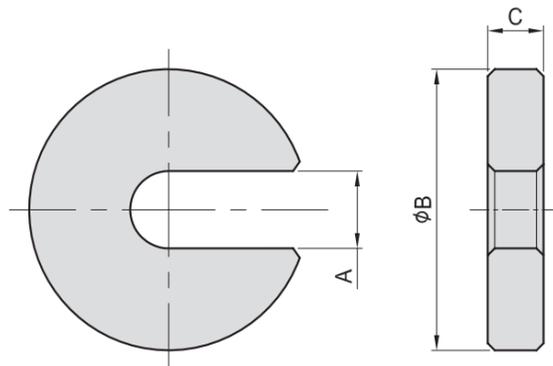


- Material : S45C(JIS)/CK45(DIN)
- Heat treated : HRC 40°
- Application : Use with jig components for increasing height or extending length.

MODEL NO.	A	B	C	kg
PT22-1303	40	13	3	0.030
PT22-1305			5	0.045
PT22-1310			10	0.100
PT22-1330			30	0.300
PT22-1703	50	17	3	0.035
PT22-1705			5	0.070
PT22-1710			10	0.350
PT22-1730			30	0.950

PT23

"C" WASHER



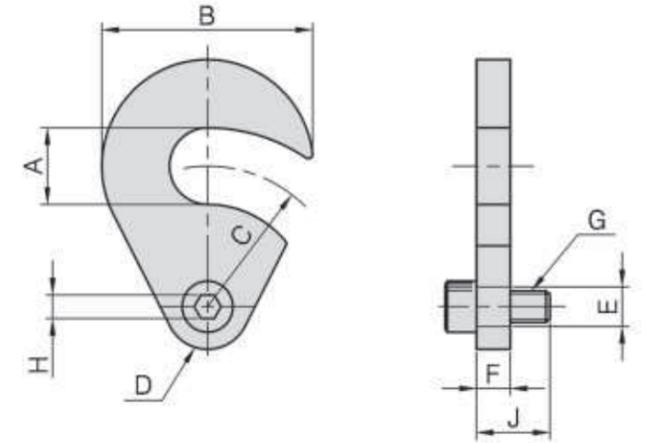
- Material : S45C(JIS)/CK45(DIN)
- Heat treated : HRC 40°
- Surface finish : Black Oxide.
- Application : Use where quick assembly is important.
- Features : Washer that slides in and out of position for clean loading.

MODEL NO.	A	B	C	kg
PT23-0835	9	35	8	0.065
PT23-1040	11	40		0.065
PT23-1255	13	55	10	0.150
PT23-1665	17	65		0.200
PT23-2080	21	80	10	0.300
PT23-2490	25	90	12	0.470



PT24

SWING "C" WASHER

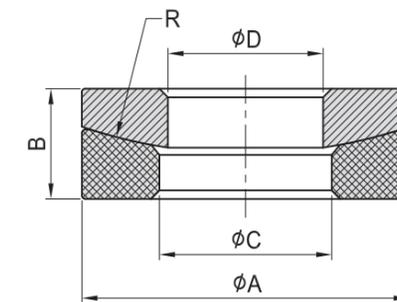


- Material : 4140(JIS)/CK45(DIN)
- Heat treated : HRC 40°
- Surface finish : Black Oxide.
- Application : C washer that swings out of the way for clean loading. Can be reversed to swing into position either clockwise or counter-clockwise.

MODEL NO.	A	B	C	D	E	F	G	H	J	kg
PT24-0632	11.0	32	24	16	8	6	M6	8	15	0.050
PT24-0840	13.5	40	27	20	10	8	M8	10	20	0.090
PT24-0850	18.0	50	33	20	10	8	M8	10	20	0.130

PT25

SPHERICAL WASHER



- Material : S45C(JIS)/CK45(DIN)
- Heat treated : HRC 38°
- Surface finish : Black Oxide.
- Application : Two-piece washer that compensates whenever a stud and clamping surface are not exactly perpendicular.

MODEL NO.	A	B	C	D	R	kg
PT25-0819	19	6.2	10	9	30	0.013
PT25-1022	22	8.0	12	11		0.019
PT25-1226	26	7.5	15	13	40	0.024
PT25-1428	28	9.0	16	15		0.033
PT25-1632	32		19	17	0.058	
PT25-1835	35	10.0	20	19	0.050	
PT25-2040	40	11.8	23	21	48	0.089
PT25-2245	45	12.5	26	24		0.110
PT25-2450	50	13.5	28	27	70	0.150

BP

BPA

BC

CP

SU

PT

SVF

ALV

OK-VISE

JER-GENS

OTHER

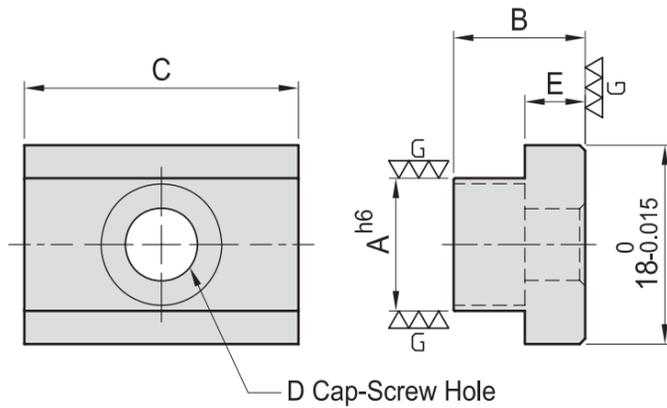
Column for Technical Data

PT26

LOCATING KEY



- Material : S45C(JIS)/C105W1(DIN)
- Heat treated : HRC 50°
- Application : Locate & align jig components
T-slot, ground surface provide accurate placement.



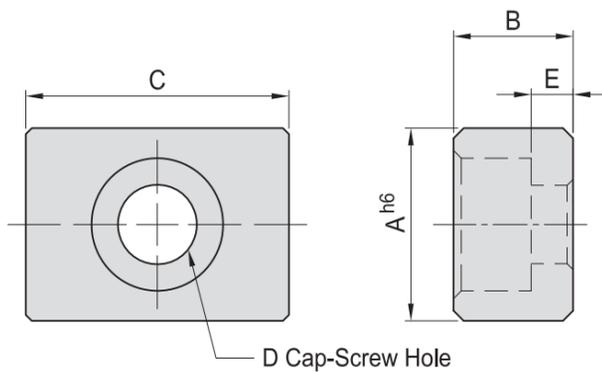
MODEL NO.	A	B	C	D	E	kg
PT26-1812	12	12	25	M6	5.5	0.035
PT26-1814	14					0.040
PT26-1816	16					0.040
PT26-1820	20					0.040
PT26-1822	22					0.040

PT27

LOCATING KEY



- Material : S45C(JIS)/C105W1(DIN)
- Heat treated : HRC 45°~50°
- Application : Locate & align jig components
T-slot, ground surface provide accurate placement.



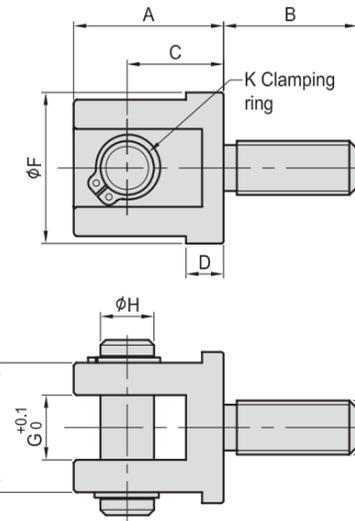
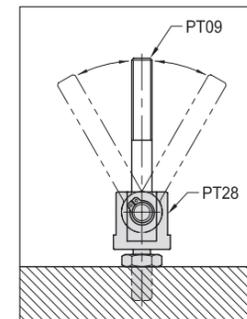
MODEL NO.	A	B	C	D	E	kg
PT27-1008	10	8	20	M4	3.5	0.015
PT27-1208	12			M5	2.5	0.019
PT27-1410	14	10	22	M6	3.5	0.020
PT27-1610	16					0.025
PT27-1810	18					0.025
PT27-2010	20					0.030
PT27-2210	22					0.030

PT28

SWIVEL JOINT SUPPORT



- Material : S45C(JIS)/CK45(DIN)
- Heat treated : HRC 32°~38°
- Surface finish : Black Oxide.
- Application : Use with PT09 to build up a swiveling jig.



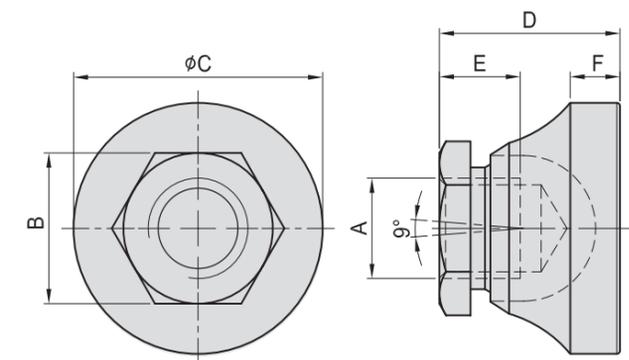
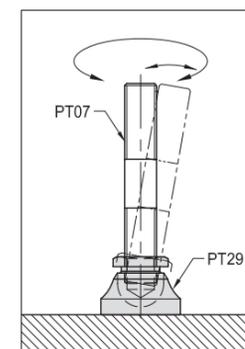
MODEL NO.	A	B	C	D	E	F	G	H	J	K	kg
PT28-1025	28	25	18	7.0	24	28	12	10	M10	10	0.055
PT28-1230	34	30	21	7.5	25	30	14	12	M12	12	0.105
PT28-1640	42	40	26	9.0	34	40	17	16	M16	16	0.210
PT28-2050	52	50	32	11.0	42	50	22	20	M20	20	0.300

PT29

SWIVEL PAD



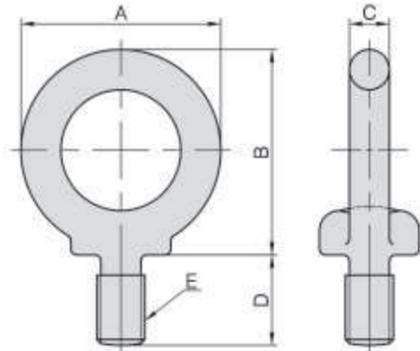
- Material : S45C(JIS)/CK45(DIN)
- Heat treated : HRC 32°~38°
- Surface finish : Black Oxide.
- Application : Use for supporting uneven surfaces.



MODEL NO.	A	B	C	D	E	F	kg
PT29-1219	M12	19	35	24	11	7	0.080
PT29-1624	M16	24	40	29	13	8	0.150
PT29-2029	M20	29	50	40	18	10	0.300

PT30

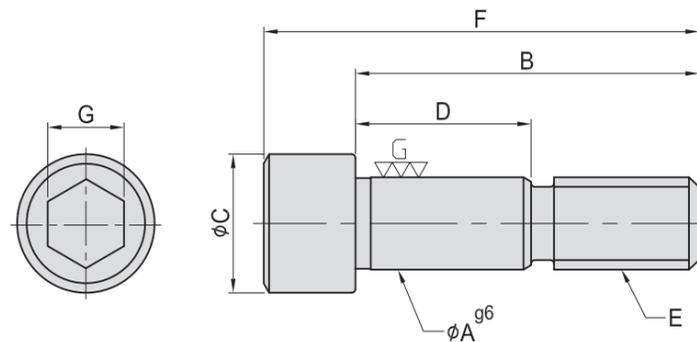
LIFTING EYEBOLT



MODEL NO.	A	B	C	D	E	Load kg	kg
PT30-08	32.6	33.3	6.3	15	M 8	80	0.032
PT30-10	41.0	41.5	8.0	18	M10	150	0.063
PT30-12	50.0	51.0	10.0	22	M12	220	0.125
PT30-16	60.0	60.0	12.5	27	M16	450	0.216
PT30-20	72.0	71.0	16.0	30	M20	630	0.400
PT30-24	90.0	90.0	20.0	38	M24	950	0.830
PT30-30	110.0	110.0	25.0	45	M30	1500	1.500
PT30-36	133.0	131.5	31.5	55	M36	2300	2.900
PT30-42	151.0	150.5	35.5	65	M42	3400	4.400

PT31

SHOULDER BOLT

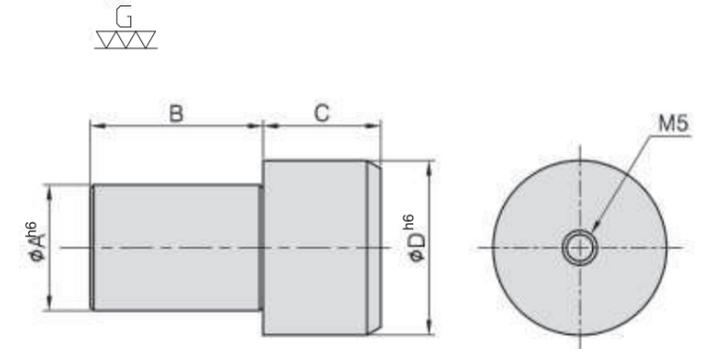


- Material : SCM435(JIS)/34CrMo4(DIN)
- Heat treated : HRC 32°~38°
- Application : Position & fasten this accurately ground bolt.

MODEL NO.	A	B	C	D	E	F	G	kg
PT31-1245	12	45	18	23	M12	57	10	0.053
PT31-1255		55		33		67		0.060
PT31-1265		65		43		77		0.070
PT31-1275	16	75	24	53	M16	87	14	0.078
PT31-1655		55		28		72		0.120
PT31-1665		65		40		82		0.140
PT31-1675		75		50		92		0.150
PT31-1688	88	68	105	0.165				

PT32

SHOULDER DOWEL PIN

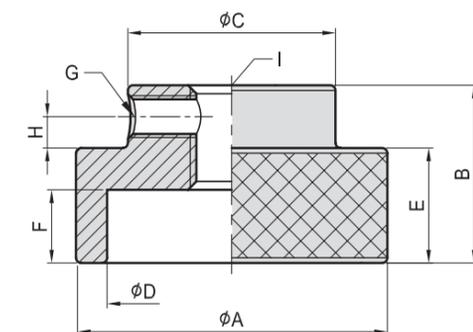


- Material : SCM435(JIS)/34CrMo4(DIN)
- Heat treated : HRC 55°
- Application : Multifunction Positioning.

MODEL NO.	A	B	C	D	kg
PT32-081225	8	13	12	12	0.012
PT32-121632	12	18	14	16	0.032
PT32-142037	14	22	15	20	0.052
PT32-162239	16	22	17	22	0.072
PT32-182542	18	25	17	25	0.098

PT33

KNURLED NUT



- Material : S45C(JIS)/CK45(DIN)
- Heat treated : HRC 32°~38°
- Surface finish : Black Oxide.
- Application : Used where quick hand assembly is needed.

MODEL NO.	A	B	C	D	E	F	G	H	I	kg
PT33-0830	30	17	20	24	11	7	M4	3	M8	0.05
PT33-1035	35	20	28	30	13	8	M4	4	M10	0.09
PT33-1240	40	24	32	34	15	10	M5	4	M12	0.12
PT33-1645	45	30	35	38	18	12	M6	5	M16	0.18

BP

BPA

BC

CP

SU

PT

SVF

ALV

OK-
VISE

JER-
GENS

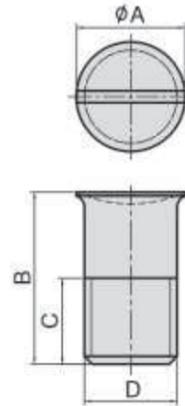
OTHER

Column
for
Technical
Data

PT34

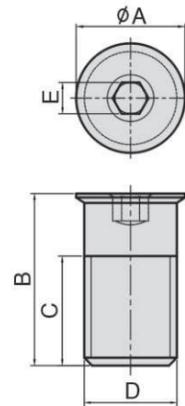
PROTECTION PLUG

S45C(JIS) / CK45(DIN)



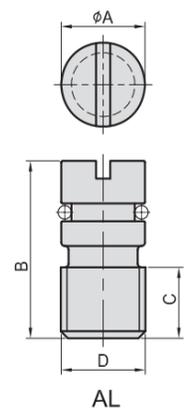
MODEL NO.	A	B	C	D	kg
PT34-10	11	19	10	M10	0.015
PT34-12	14	22	11	M12	0.018
PT34-16	18	25	13	M16	0.035

PBT



MODEL NO.	A	B	C	D	E	kg
PT34-12-PBT	14	22	14	M12	4	0.005
PT34-16-PBT	18	25	11	M16	5	0.010

AL



MODEL NO.	A	B	C	D	kg
PT34-12-AL	12	25	10	M12	0.007
PT34-16-AL	16	30	11	M16	0.015

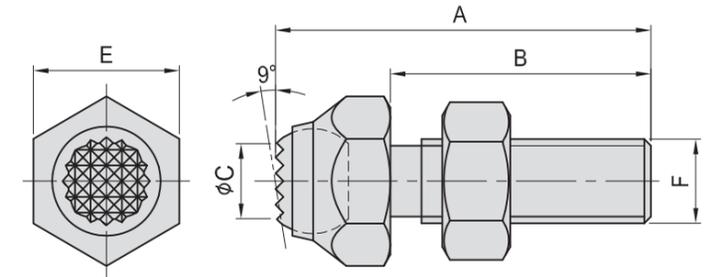
- Material : S45C(JIS) / CK45(DIN) / PBT/AL
- Application : Protect unused MTP holes from Chips & dirt.



- Material :
Body : S45C(JIS)
Ball : SUJ2(JIS)
- Heat treated :
Body : HRC 28°~32°
Ball : HRC 62°
- Surface finish : Black Oxide.

PT35

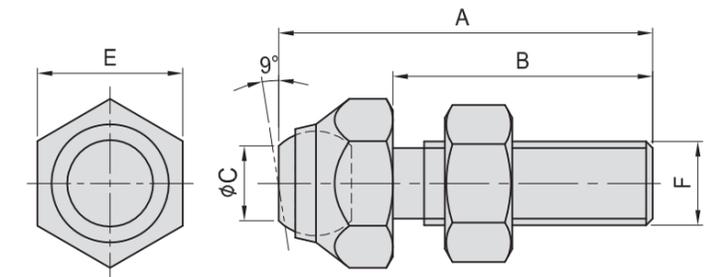
SWIVELING JACK SCREW



MODEL NO.	A	B	C	E	F	kg
PT35-0814	36	25	7	14	M8x1.25	0.025
PT35-1017	45	30	8	17	M10x1.50	0.055
PT35-1217	50	35	10	17	M12x1.75	0.055
PT35-1624	60	40	12	24	M16x2.00	0.140
PT35-2036	87	60	14	36	M20x2.50	0.330
PT35-2436	98	66	18	36	M24x2.00	0.660
PT35-3046	110	75	21	46	M30x2.00	1.100

PT36

SWIVELING JACK SCREW



MODEL NO.	A	B	C	E	F	kg
PT36-0814	36	25	7	14	M8x1.25	0.025
PT36-1017	45	30	8	17	M10x1.50	0.055
PT36-1217	50	35	10	17	M12x1.75	0.055
PT36-1624	60	40	12	24	M16x2.00	0.140
PT36-2036	87	60	14	36	M20x2.50	0.330
PT36-2436	98	66	18	36	M24x2.00	0.660
PT36-3046	110	75	21	46	M30x2.00	1.100

- Material :
Body : S45C(JIS)
Ball : SUJ2(JIS)
- Heat treated :
Body : HRC 28°~32°
Ball : HRC 62°
- Surface finish : Black Oxide.

BP

BPA

BC

CP

SU

PT

SVF

ALV

OK-
VISE

JER-
GENS

OTHER

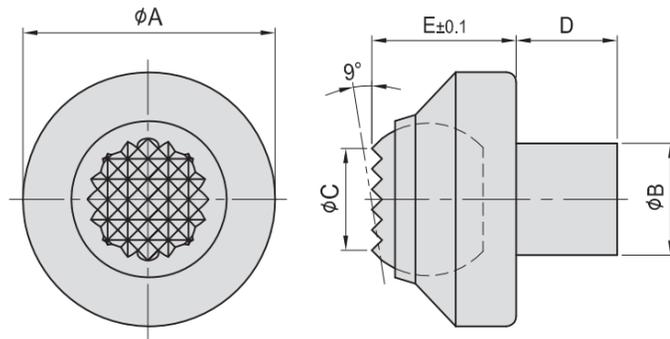
Column
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Technical
Data

PT37

SWIVEL REST TIP



- Material :
Body : S45C(JIS)
Ball : SUJ2(JIS)
- Heat treated :
Body : HRC 28°~32°
Ball : HRC 62°
- Surface finish : Black Oxide.



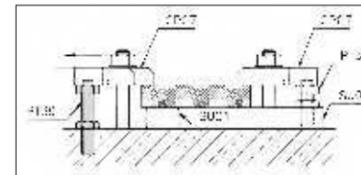
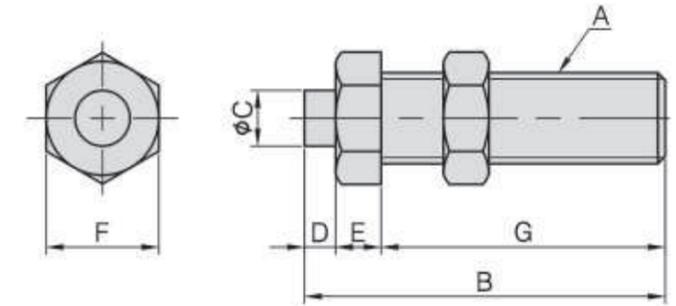
MODEL NO.	A	B	C	D	E	kg
PT37-1116	25	11	10	10	14.3	0.03
PT37-1118	30	11	12	10	18.0	0.04

PT39

CLAMP REST



- Material : S45C(JIS)
- Heat treated : HRC 35°
- Surface Finish : Black Oxide.



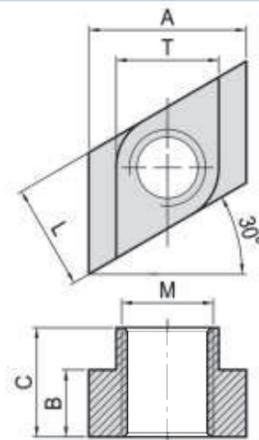
MODEL NO.	A	B	C	D	E	F	G	kg
PT39-1219	M12	75	9.5	6	9	19	60	0.09
PT39-1624	M16	80	11.0	7	10	24	63	0.17
PT39-2030	M20	100	12.0	8	12	30	80	0.35

PT38

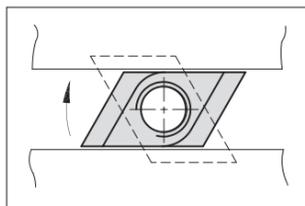
ROTARY T-SLOT NUT



- Material : S45C(JIS)
- Heat treated : HRC 30°~35°
- Surface Finish : Black Oxide.

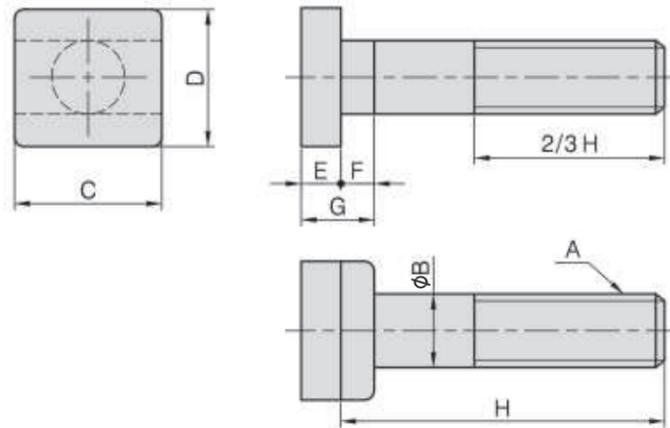


MODEL NO.	T	A	B	C	L	M	kg
PT38-1210	11.7	17.5	5.5	12.7	11.5	M10	0.010
PT38-1412	13.8	22.2	8.7	15.8	13.5	M12	0.023
PT38-1614	15.8	25.4	8.7	15.8	15.5	M14	0.030
PT38-1816	17.8	28.5	11.1	19.0	17.5	M16	0.030
PT38-2018	19.7	31.7	11.9	19.0	19.5	M18	0.044
PT38-2220	21.7	36.0	13.8	25.4	21.5	M20	0.062
PT38-2420	23.5	38.2	14.0	25.4	23.5	M20	0.092
PT38-2824	26.9	41.3	17.5	28.5	27.5	M24	0.162



PT40

T-SLOT BOLT



- Material : S45C(JIS)steel forging
- Heat treated : HRC 32°~38°
- Surface finish : Black Oxide.

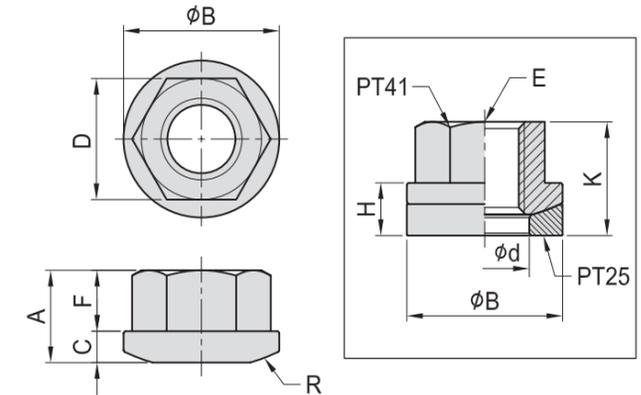
MODEL NO.	A	B	C	D	E	F	G	H	kg
PT40-12050								50	0.054
PT40-12075								75	0.057
PT40-12100								100	0.110
PT40-12125	M12	12	26	22	7	6	13	125	0.125
PT40-12150								150	0.140
PT40-12175								175	0.170
PT40-12200								200	0.185
PT40-16050								50	0.130
PT40-16075								75	0.160
PT40-16100								100	0.200
PT40-16125	M16	16	32	27	8	8	16	125	0.230
PT40-16150								150	0.270
PT40-16175								175	0.305
PT40-16200								200	0.325
PT40-18075								75	0.270
PT40-18100								100	0.320
PT40-18125	M18	18	40	30	11	11	22	125	0.340
PT40-18150								150	0.385
PT40-18175								175	0.445
PT40-18200								200	0.490
PT40-20075								75	0.290
PT40-20100								100	0.350
PT40-20125								125	0.400
PT40-20150	M20	20	40	30	11	11	22	150	0.455
PT40-20175								175	0.505
PT40-20200								200	0.560
PT40-20250								250	0.660
PT40-20315								315	1.000
PT40-22100								100	0.450
PT40-22125								125	0.510
PT40-22150	M22	22	40	38	14	13	27	150	0.580
PT40-22175								175	0.635
PT40-22200								200	0.700
PT40-24100								100	0.650
PT40-24125								125	0.690
PT40-24150	M24	24	50	44	16	15	31	150	0.775
PT40-24175								175	0.855
PT40-24200								200	0.925

PT41

SWIVEL FLANGE NUTS



- Material : S45C(JIS)
- Heat treated : HRC 32°~35°
- Surface finish : Black Oxide.



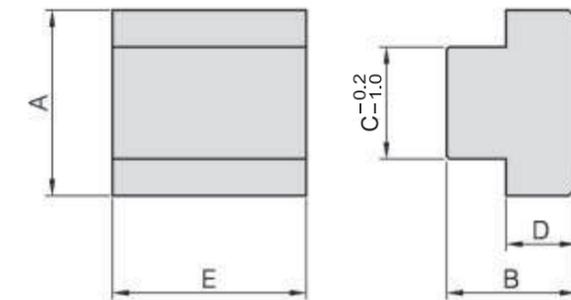
MODEL NO.	A	B	C	D	d	E	F	H	K	R	kg
PT41-0813	12.0	19	3.0	13	10	M8	7.8	7	15.0	30	0.021
PT41-1017	13.0	22		17	12	M10	8.4	8	16.5		0.032
PT41-1219	14.3	26	4.0	19	15	M12	9.0	10	19.0	32	0.046
PT41-1422	17.5	28		22	16	M14	11.4	11	22.0		0.066
PT41-1624	20.0	32	4.5	24	19	M16	12.8		11	23.8	40
PT41-1827	20.6	35		27	20	M18	13.6	12		25.5	
PT41-2030	25.0	40	6.0	30	23	M20	16.6	14	31.0	48	0.183
PT41-2232	25.4	45		32	26	M22	16.9	15	31.5		70
PT41-2436	28.0	50	36	28	M24	18.7	15		33.5	0.270	

PT42

T-SLOT NUT-BLANK



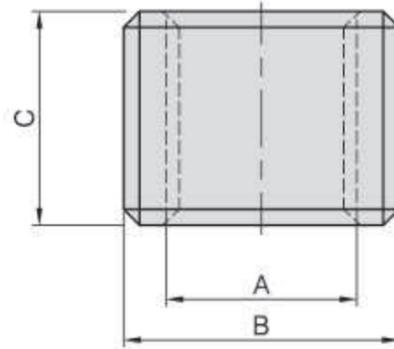
- Material : S45C(JIS)
- Surface finish : Black Oxide.



MODEL NO.	A	B	C	D	E	kg
PT42-1022	15.8	12.7	10	4.7	22	0.026
PT42-1222	17.5		12	5.5		0.032
PT42-1428	22.2	15.8	14	8.7	28	0.064
PT42-1628	25.4		16	8.7		0.073
PT42-1830	28.5	19.0	18	11.1	30	0.112
PT42-2030	31.7		20	11.9		0.128
PT42-2238	36.0	25.0	22	13.8	38	0.223
PT42-2438	38.2		24	14.0		0.239
PT42-2644	41.3	25.0	26	15.8	44	0.309
PT42-2850	44.0	28.5	28	17.5	50	0.403

PT43

THREADED INSERT

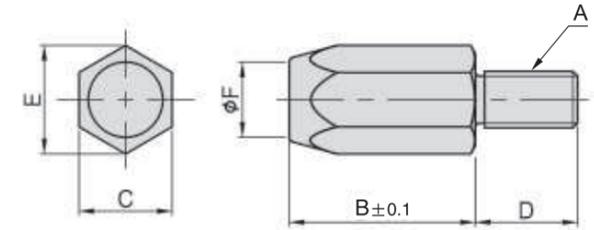


- Material : S45C(JIS)
- Heat treated : HRC 32°~35°
- Surface finish : Black Oxide.

MODEL NO.	A	B	C	kg
PT43-0612-10	M6x1.00	M12x1.5	10	0.005
PT43-0814-12	M8x1.25	M14x1.5	12	0.008
PT43-1016-15	M10x1.50	M16x1.5	15	0.010
PT43-1218-16	M12x1.75	M18x2.0	16	0.015
PT43-1420-18	M14x2.00	M20x2.0	18	0.300
PT43-1622-14	M16x2.00	M22x2.0	14	0.020
PT43-1622-20	M16x2.00	M22x2.0	20	0.025
PT43-2028-25	M20x2.50	M28x2.0	25	0.050

PT45

FEET(FLAT END)



- Material : S45C(JIS)
- Surface finish : Black Oxide.
- High frequency quenching.

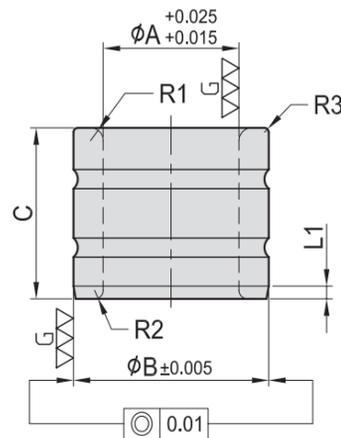
MODEL NO.	A	B	C	D	E	F	kg
PT45-0610	M 6	10	10	11	11.5	8	0.008
PT45-0620		20					0.013
PT45-0815	M 8	15	14	13	16.1	10	0.018
PT45-0830		30					0.033
PT45-1020	M10	20	17	16	19.6	13	0.044
PT45-1040		40					0.080
PT45-1225	M12	25	19	20	21.9	15	0.070
PT45-1250		50					0.126
PT45-1630	M16	30	24	25	27.7	20	0.130
PT45-1660		60					0.230
PT45-2030	M20	30	30	25	34.6	28	0.200
PT45-2060		60					0.360

PT44

POSITIONING BUSHING



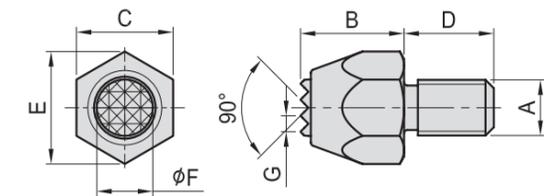
- Material : SUJ2(JIS)
- Heat treated : HRC 60°



MODEL NO.	A	B	C	R1	R2	R3	L1	kg
PT44-0613-10	6	13	10	1.0	0.5	0.5	1.25	0.007
PT44-0815-10	8	15						0.009
PT44-1018-12	10	18	12	1.5	0.5	0.5	1.50	0.015
PT44-1220-12	12	20						0.017
PT44-1423-16	14	23	16	1.5	1.0	0.5	1.50	0.030
PT44-1523-16	15							0.028
PT44-1623-16	16	23	16	1.5	1.0	0.5	1.50	0.025
PT44-1623-20			20					0.030
PT44-1826-20	18	26	20	1.5	1.0	0.5	1.50	0.040
PT44-2030-20	20	30	20	2.0	1.5	0.5	2.50	0.060
PT44-2230-20	22	30						0.050
PT44-2535-20	25	35	25	2.0	1.5	0.5	2.50	0.070
PT44-3042-25	30	42						0.130
PT44-4055-30	40	55	30	3.0	2.0	1.0	3.00	0.255
PT44-5070-30	50	70						0.430

PT46

FEET(SERRATED END)



Tooth plate

- Material : SKH9(JIS) / S18-1-2-5(DIN)
- Heat treated : HRC 60°

Tooth plate

- Material : Extremely hard.

- Material : S45C(JIS)/34CrMo4(DIN)
- Heat treated : HRC 28 °~ 32 °
- Serrated surface to be heat treated with high frequency quenching.
- Surface finish : Black Oxide.
- Application : Multipurpose work support and clamping unit, ideal for rough parts.
- Features : Excellent holding power from the serrated face.

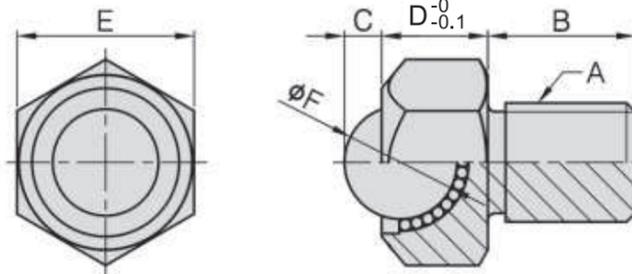
MODEL NO.	A	B	C	D	E	F	G	kg
PT46-0610	M6	10	10	11	11.5	6.5	2.3	0.008
PT46-0620		20						0.013
PT46-0815	M8	15	14	13	16.1	8.1	2.3	0.018
PT46-0830		30						0.033
PT46-1020	M10	20	17	16	19.6	11.4	3.0	0.044
PT46-1040		40						0.080
PT46-1225	M12	25	19	20	21.9	13.0	3.0	0.070
PT46-1250		50						0.126
PT46-1630	M16	30	24	25	27.7	16.2	3.0	0.130
PT46-1660		60						0.230
PT46-2030	M20	30	30	25	34.6	25.2	3.0	0.200
PT46-2060		60						0.360

PT47-49

BALL ROLLERS

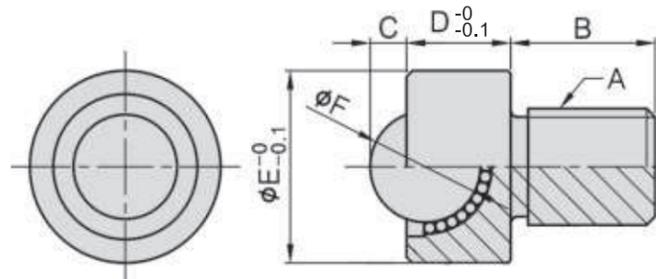
• Material : SUS304(JIS)

PT47



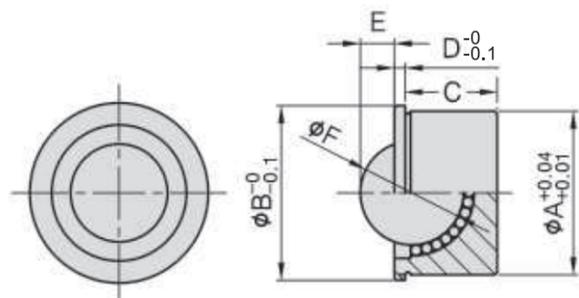
MODEL NO.	A	B	C	D	E	F	N(kgf)
PT47-1615	M16	20	3.3	16	24	15.87	343(35)
PT47-2018	M20	25	5.3	19	30	19.05	412(42)

PT48



MODEL NO.	A	B	C	D	E	F	G	N(kgf)
PT48-1615	M16	20	3.3	16	27	15.87	23	343(35)
PT48-2018	M20	25	5.3	19	33	19.05	29	412(42)

PT49



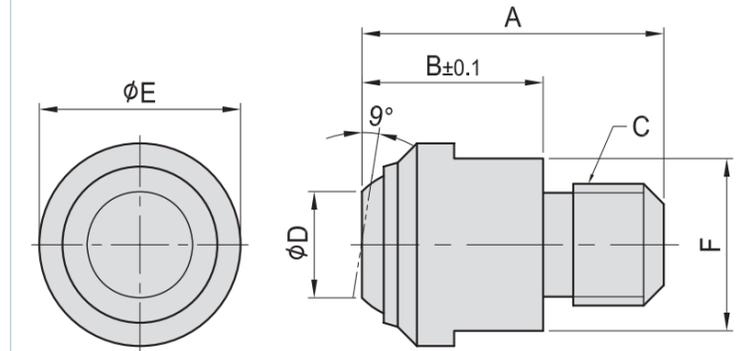
MODEL NO.	A	B	C	D	E	F	N(kgf)
PT49-2614	24	26	14	1.5	5.3	15.87	343(35)
PT49-3217	30	32	17	2	6.3	19.05	412(42)



- 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.

PT50

SMOOTH BALL END BOLT



MODEL NO.	A	B	C	D	E	F	max (KN)	g
PT50-0613	21	13	M6x1.00	7.2	13	11	10	12
PT50-0813	21	13	M8x1.25	7.2	13	11	10	13
PT50-0818	28	18	M8x1.25	10.5	20	17	25	38
PT50-1018	28	18	M10x1.50	10.5	20	17	25	40
PT50-1218	30	18	M12x1.75	10.5	20	17	25	40
PT50-1627	43	27	M16x2.00	20.0	30	27	90	150
PT50-2035	55	35	M20x2.50	34.5	50	41	165	520

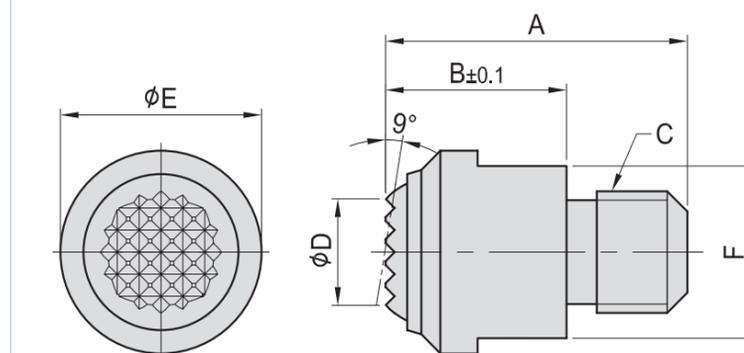
*Applies only when the minimum bore depth is kept to.



- 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.

PT51

SMOOTH BALL END BOLT



MODEL NO.	A	B	C	D	E	F	max (KN)	g
PT51-0613	21	13	M6x1.00	7.2	13	11	10	12
PT51-0813	21	13	M8x1.25	7.2	13	11	10	13
PT51-0818	28	18	M8x1.25	10.5	20	17	25	38
PT51-1018	28	18	M10x1.50	10.5	20	17	25	40
PT51-1218	30	18	M12x1.75	10.5	20	17	25	40
PT51-1627	43	27	M16x2.00	20.0	30	27	90	150
PT51-2035	55	35	M20x2.50	34.5	50	41	165	520

*Applies only when the minimum bore depth is kept to.

BP

BPA

BC

CP

SU

PT

SVF

ALV

OK-
VISE

JER-
GENS

OTHER

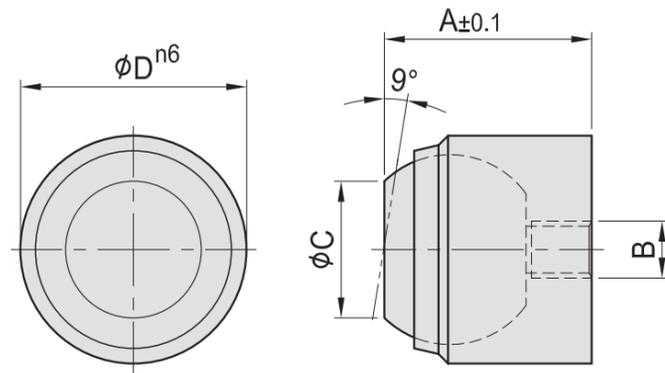
Column
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Technical
Data

PT52

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	max (kN)	g
PT52-0311	11	M3x0.5	7.2	12	10	8
PT52-0417	17	M4x0.7	10.5	18	25	30
PT52-0525	25	M5x0.8	20.0	28	90	80

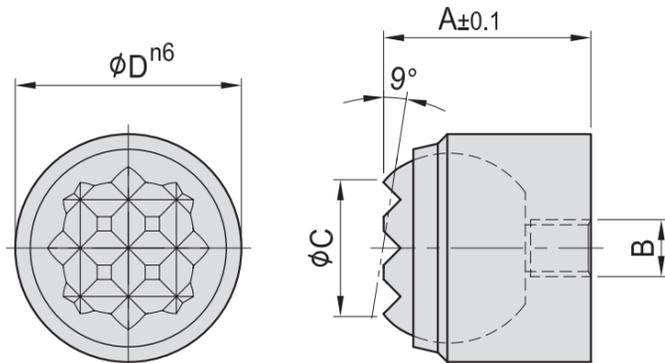
*Applies only when the minimum bore depth is kept to.

PT53

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 : serrated gripper is ideal for rough surfaces.



MODEL NO.	A	B	C	D	max (kN)	g
PT53-0311	11	M3x0.5	7.2	12	10	8
PT53-0417	17	M4x0.7	10.5	18	25	30
PT53-0525	25	M5x0.8	20.0	28	90	80

*Applies only when the minimum bore depth is kept to.

PT55

SPRING LOCATING PINS

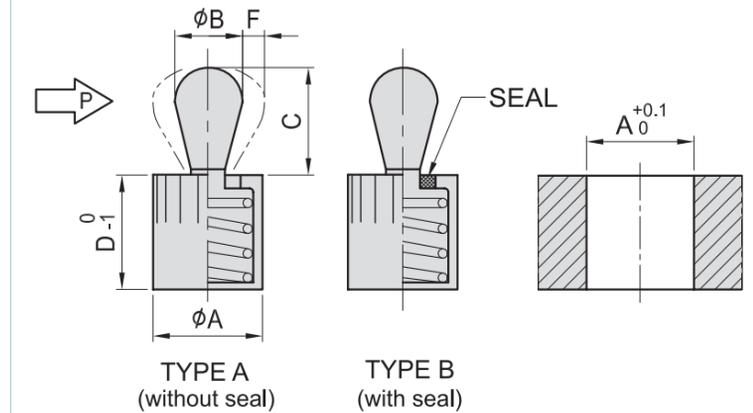


TYPE A

- Body Material : Aluminum
Surface finish : Silver passivated
- Pin Material : Steel
Heat treated : HRC 45°
Surface finish : Galvanized
- Spring Material : Spring steel wire

TYPE B

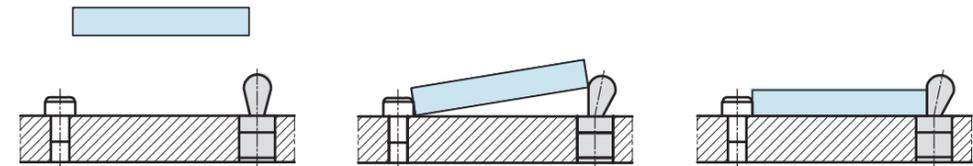
- Body Material : Aluminum
Surface finish : Silver passivated
- Pin Material : Steel
Heat treated : HRC 45°
Surface finish : Galvanized
- Spring Material : Spring steel wire
- Seal Material : CR



Note :

- P(N) : The MAX Strength when pin moves
- Application temperature with steel pins up to 250°C
- See P.6-34 Installtion method
- See P.6-34 Installtion tool

Example :



TYPE A

MODEL NO.	A	B	C	D	F	P(N)	INSTALLATION TOOLS	g
PT55A-0603-010	6	3	4.0	7	0.5	10	PT57-0603	0.6
20								
40								
PT55A-0603-040	10	5	6.7	11	0.8	20	PT57-1006	2.7
2.8								
50								
100								
3.1								
PT55A-1005-020	10	6	10.7	11	1.0	75	PT57-1006	3.4
3.6								
150								
PT55A-1006-150	12	8	13.9	13	1.3	100	PT57-1208	6.8
7.4								
200								
PT55A-1208-050	16	10	16.7	17	1.6	100	PT57-1610	15.0
7.4								
200								
PT55A-1610-200	16	10	16.7	17	1.6	200	PT57-1610	15.0
15.0								
300								

TYPE B

MODEL NO.	A	B	C	D	F	P(N)	INSTALLATION TOOLS	g
PT55B-0603-010	6	3	4	7	0.5	10	PT57-0603	0.6
20								
40								
PT55B-0603-040	10	5	6	12	0.8	20	PT57-1006	2.7
2.9								
50								
100								
3.1								
PT55B-1005-020	10	6	10	12	1.0	75	PT57-1006	3.4
3.7								
150								
PT55B-1006-150	12	8	13	14	1.3	100	PT57-1208	6.8
7.3								
200								
PT55B-1208-050	16	10	16	18	1.6	100	PT57-1610	15.0
7.4								
200								
PT55B-1610-200	16	10	16	18	1.6	200	PT57-1610	15.2
15.2								
300								

PT56

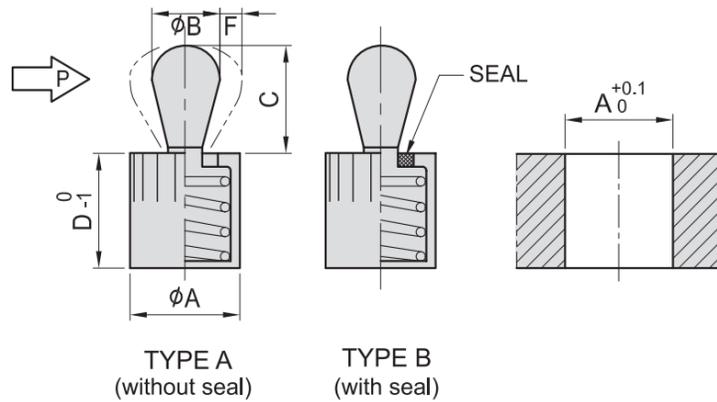
SPRING LOCATING PINS

TYPE A

- Body Material : Aluminum
Surface finish : Silver passivated
- Pin Material : POM
- Spring Material : Spring steel wire

TYPE B

- Body Material : Aluminum
Surface finish : Silver passivated
- Pin Material : POM
- Spring Material : Spring steel wire
- Seal Material : CR



- Note :
- P(N) : The MAX Strength when pin moves
 - Application temperature with plastic pins up to 80°C
 - See P.6-34 Installtion method
 - See P.6-34 Installtion tool

TYPE A

MODEL NO.	A	B	C	D	F	P(N)	INSTALLATION TOOLS	g
PT56A-0603-010	6	3	4.0	7	0.5	10	PT57-0603	0.4
PT56A-1005-020	10	5	6.7	11	0.8	20	PT57-1006	1.3
PT56A-1006-040	10	6	10.7	11	1.0	40	PT57-1006	1.5
PT56A-1208-050	12	8	13.9	13	1.3	50	PT57-1208	2.9
PT56A-1610-100	16	10	16.7	17	1.6	100	PT57-1610	6.6

TYPE B

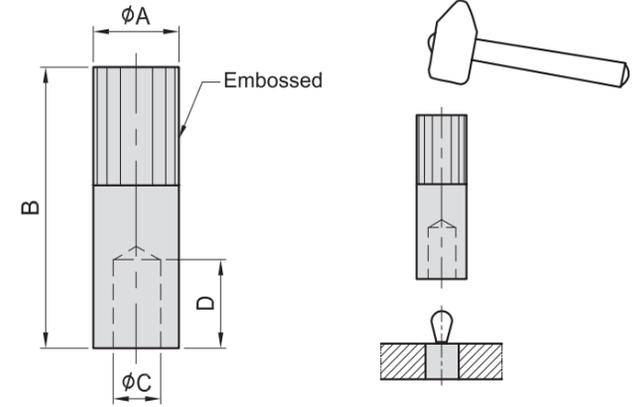
MODEL NO.	A	B	C	D	F	P(N)	INSTALLATION TOOLS	g
PT56B-0603-010	6	3	4	7	0.5	10	PT57-0603	0.4
PT56B-1005-020	10	5	6	12	0.8	20	PT57-1006	1.3
PT56B-1006-040	10	6	10	12	1.0	40	PT57-1006	1.5
PT56B-1208-050	12	8	13	14	1.3	50	PT57-1208	3.0
PT56B-1610-100	16	10	16	18	1.6	100	PT57-1610	6.7



- Material : S45C
- Surface finish : Black Oxid

PT57

INSTALLATION TOOLS



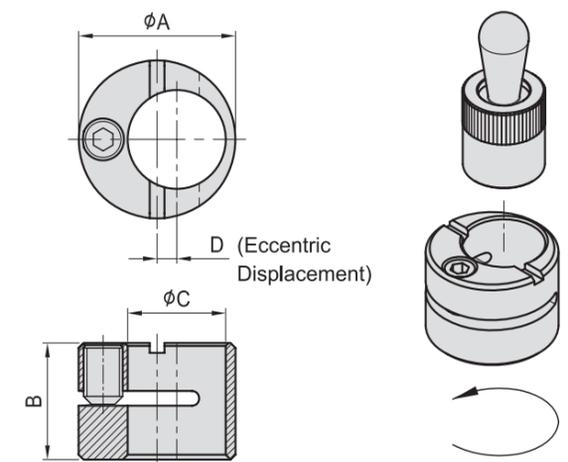
MODEL NO.	A	B	C	D	g
PT57-0603	8	50	3.2	6	19
PT57-1006	12	60	6.2	13	50
PT57-1208	14	60	8.1	16	65
PT57-1610	18	60	10.2	19	106

PT58

ECCENTRIC LINERS



- Material : S45C
- Surface finish : Black Oxid



MODEL NO.	A	B	C	D	g
PT58-0612	12	9.9	6	2	5.5
PT58-1016	16	11.9	10	2	9.4
PT58-1218	18	13.9	12	2	12.8
PT58-1625	25	17.9	16	3	34.0

BP

BPA

BC

CP

SU

PT

SVF

ALV

OK-
VISE

JER-
GENS

OTHER

Column
for
Technical
Data

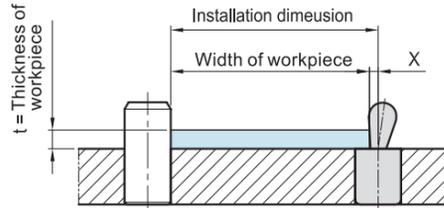
《 INSTALLATION 》

■ CALCULATING LOCATION FOR INSTALLATION

Based on the proposed usage of the spring locating pins, choose the correct specifications and size, and calculate as follows:

Installation dimension = width of workpiece + X

X: Distance from the edge of the workpiece to the center of spring locating pin as per the drawing.



■ X CALCULATION

There are two methods for calculating X dimension based on the thickness of the workpiece.

(1) When thickness of workpiece < H

$$X = B/2 - F - [(C - B/2 - t) \times 0.123]$$

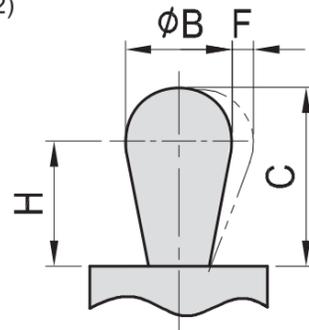
(2) When thickness of workpiece > H

$$X = B/2 - F$$

If thickness of workpiece is greater than H, then the X value remains the same, regardless of the thickness of the workpiece.

< H CALCULATION >

Formula : $H = C - (B/2)$



< X Reference Table >

	MODEL NO.		H	Width of workpiece (t)mm							
	STEEL	PLASTIC		1	2	3	4	5	6	8	
TYPE A without seal	PT55A-0603-010	PT56A-0603-010	2.5	0.8	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	PT55A-0603-020										
	PT55A-0603-040										
	PT55A-1005-020	PT56A-1005-020	4.2	-	1.5	1.7				1.7	1.7
	PT55A-1005-050										
	PT55A-1005-100						1.7	1.7			
	PT55A-1006-040	PT56A-1006-040	7.7	-	-	-				1.9	1.9
	PT55A-1006-075										
	PT55A-1006-150										
	PT55A-1208-050	PT56A-1208-050	9.9	-	-	-	-	-	-	2.5	2.7
	PT55A-1208-100										
	PT55A-1208-200										
PT55A-1610-100	PT56A-1610-100	11.7	-	-	-	-	-	-	-	3.1	
PT55A-1610-200											
PT55A-1610-300											
TYPE B with seal	PT55B-0603-010	PT56B-0603-010	2.5	0.8	1.0	1.0	1.0	1.0	1.0	1.0	
	PT55B-0603-020										
	PT55B-0603-040										
	PT55B-1005-020	PT56B-1005-020	3.5	-	1.5	1.7				1.7	1.7
	PT55B-1005-050										
	PT55B-1005-100						1.7	1.7			
	PT55B-1006-040	PT56B-1006-040	7.0	-	-	-				1.9	1.9
	PT55B-1006-075										
	PT55B-1006-150										
	PT55B-1208-050	PT56B-1208-050	9.0	-	-	-	-	-	-	2.5	2.7
	PT55B-1208-100										
	PT55B-1208-200										
PT55B-1610-100	PT56B-1610-100	11.0	-	-	-	-	-	-	-	3.1	
PT55B-1610-200											
PT55B-1610-300											

■ INSTALLATION METHOD

Apply yellow grease and press it into place while installing.

《 Example 1 》

P/N :

Spring locating pin PT55B-1006-075
Steel pin (B type)

Width of workpiece 100mm
Thickness of workpiece 2.3mm

< Calculation of H >

Comparison of thickness of workpiece and H size.

$$H = C - B/2 = 10 - 6/2 = 7 \text{ (mm)}$$

Because the thickness of the workpiece is bigger than H, use the second calculation method.

< Calculation of X >

$$\begin{aligned} X &= B/2 - F - [(C - B/2 - t) \times 0.123] \\ &= 6/2 - 1 - [(10 - 6/2 - 2.3) \times 0.123] \\ &= 3 - 1 - [(4.7) \times 0.123] \\ &= 1.4 \text{ (mm)} \end{aligned}$$

< Installation Location calculating >

$$\begin{aligned} \text{Installation location} &= \text{Width of workpiece} + X \\ &= 100 + 1.4 \\ &= 101.4 \text{ (mm)} \end{aligned}$$

《 Example 2 》

P/N :

Spring locating pin PT56A-1610-100
POM (A type)

Width of workpiece 300mm
Thickness of workpiece 40mm

< Calculation of H >

Comparison of thickness of workpiece and H size.

$$H = C - B/2 = 16.7 - 10/2 = 11.7 \text{ (mm)}$$

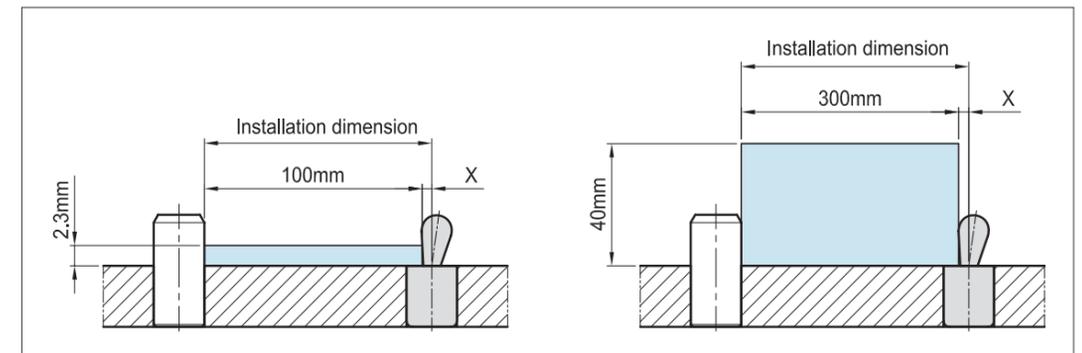
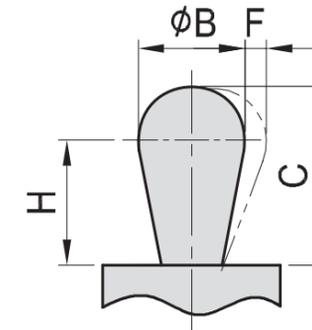
Because the thickness of the workpiece is bigger than H, use the second calculation method.

< Calculation of X >

$$\begin{aligned} X &= B/2 - F \\ &= 10/2 - 1.6 \\ &= 3.4 \text{ (mm)} \end{aligned}$$

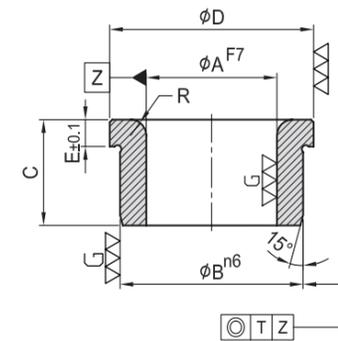
< Calculation of Installation Location >

$$\begin{aligned} \text{Installation Location} &= \text{Width of workpiece} \\ &= 300 + 3.4 \\ &= 303.4 \text{ (mm)} \end{aligned}$$



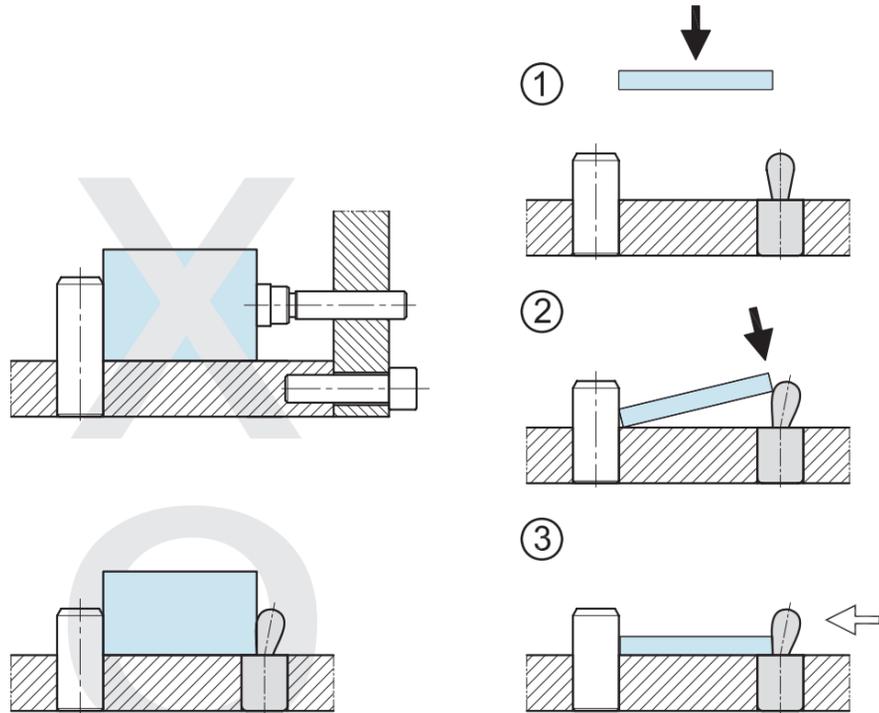
PT59

POSITIONING BUSHING



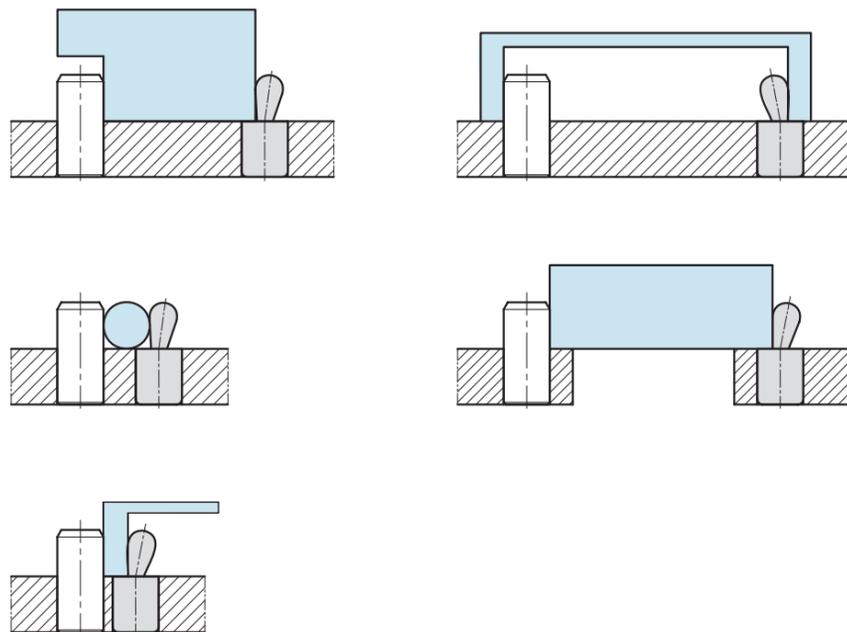
MODEL NO.	A	B	C	D	E	R	T
PT59-0615-10	6	12	10	15	3	1.5	0.01
PT59-0818-12	8	15		18	3	2.0	0.01
PT59-1022-12	10	18	12	22	4		
PT59-1266-16	12	22	16	26	4	2.0	0.01
PT59-1426-16	14						
PT59-1530-16	15	26	16	30	4	2.0	0.01
PT59-1630-16	16						
PT59-1834-20	18	30	20	34	5	3.0	0.01
PT59-2034-20	20						
PT59-2239-20	22	35	20	39	5	3.0	0.01
PT59-2539-20	25						
PT59-3052-25	30	48	25	52	5	3.0	0.01
PT59-4059-30	40	55	30	59			
PT59-5074-30	50	70	30	74	6	3.5	0.01

- Material : SUJ2
- Surface finish : HRC 60°



< Compared with traditional method, simple design can lower cost >

■ Application:



BP

BPA

BC

CP

SU

PT

SVF

ALV

OK-
VISE

JER-
GENS

OTHER

Column
for
Technical
Data



A series of horizontal blue lines spanning the width of the page, providing a template for handwritten notes or a list.