Feed Fingers

Features: The minimal 20.5mm height has been added to the lineup. Best for use in limited spaces.

Feed Fingers are composed of ①Claw, ②Spring and ③Main Body.
By selecting each type of components, the unit can be assembled before shipping.

①Claw		②Spring		③Main Body
ATBM	28A 28B 20A 20B	S H		BT PI
ATBM ATBJ	14A 14B 10A 10B 7A 7B 7SA 7SB*1	S H		BL BH BT TP PI
ATBJ ATBS ATBST	10A 10B	S H		BLS BHS BTS TPS

*1 "7SB" is available for ATBM only.

①Claw

Type	Material	Surface Treatment	Hardness
ATBM	SS400	Electroless Nickel Plating	Carburization (Depth 0.1) HV400 ~ 500
ATBS	SUS304	-	-
ATBST		Tuftride	Tuftride (Depth 0.01) HV1000
ATBJ	MC Nylon	-	-

SUS304 Tuftride is gray.
SUS304 Tuftride has lesser antitrust effect compared to SUS304.

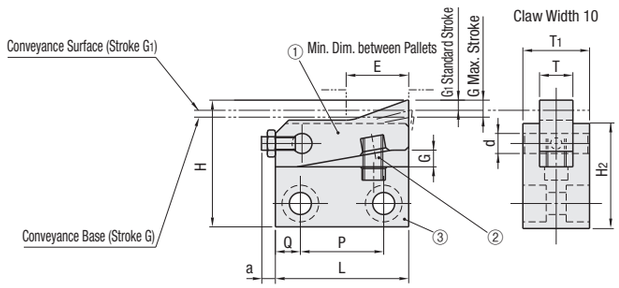
②Spring **Material: SUS304-WPB**

③Main Body, Pin

Type	Main Body		Accessory (Pin)	
	Material	Surface Treatment	Material	Surface Treatment
BL BH BT TP PI	SS400	Electroless Nickel Plating	S45C	Electroless Nickel Plating
BLS BHS BTS TPS	SUS304	-	SUS303	-

Accessory: (For BH and BHS only)

①Claw	BH	BHS
14A, 14B	WSSM25-8-3x2 pcs.	-
10A, 10B	WSSM20-6-3x2 pcs.	WSSS20-6-3x2 pcs.

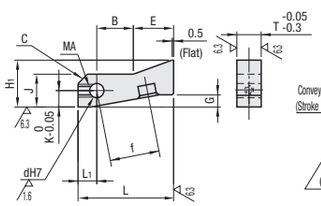


Part Number Type	①Claw	②Spring	③Main Body		T	T1	d	H	H2	L	P	Q	a	G	G1	Unit Price ATBM	ATBJ	ATBS	ATBST
ATBM (SS400 + Electroless Nickel Plating) ATBJ (MC Nylon)	7SA 7SB	S (Soft) H (Hard)	BL	Side Mounting Type (Screw Hole)	7	12	6	29	22.5	30	20	5	2.5	5	3			-	-
			TP	Side Mounting Type (Tapped Hole)														-	-
			BT	Bottom Mount Type														-	-
			PI	π-Shaped Type				20.5	14									-	-
	7A 7B		BL	Side Mounting Type (Screw Hole)	7	12	6	38	31	40	25	7.5	2	5	3			-	-
			TP	Side Mounting Type (Tapped Hole)														-	-
			BT	Bottom Mount Type														-	-
			PI	π-Shaped Type														-	-
ATBM (SS400 + Electroless Nickel Plating) ATBS (SUS304) ATBST (SUS304 + Tuftride) ATBJ (MC Nylon)	10A 10B		BL	Side Mounting Type (Screw Hole)	10	19	6	38	31	40	25	7.5	2.5	5	3	-		-	-
			BH	Side Mounting Type (Through Hole)														-	-
			TP	Side Mounting Type (Tapped Hole)														-	-
			BT	Bottom Mount Type														-	-
			PI	π-Shaped Type														-	-
			BLS	Side Mounting Type (Screw Hole)															
			BHS	Side Mounting Type (Through Hole)															
			TPS	Side Mounting Type (Tapped Hole)															
			BTS	Bottom Mount Type															
	14A 14B		BL	Side Mounting Type (Screw Hole)	14	25	8	55.5	43	55	35	10	2.5	10	5			-	-
			BH	Side Mounting Type (Through Hole)														-	-
			TP	Side Mounting Type (Tapped Hole)														-	-
			BT	Bottom Mount Type														-	-
			PI	π-Shaped Type				66.5	54									-	-
ATBM (SS400 + Electroless Nickel Plating)	20A 20B		BT	Bottom Mount Type	20	38	10	63	49	65	40	12.5	4.5	10	5		-	-	-
			PI	π-Shaped Type				78	64								-	-	-
	28A 28B		BT	Bottom Mount Type	28	50	12	83	64	80	50	15	7	12	7		-	-	-
			PI	π-Shaped Type				101	82								-	-	-

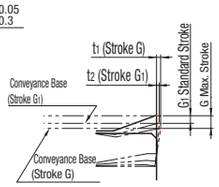
Dimension Details ①Claw

Straight Type

7SA 14A
7A 20A
10A 28A

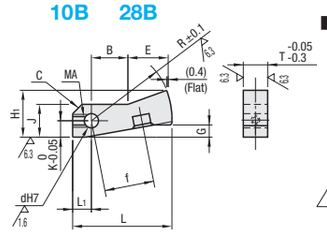


Claw Position of Straight Type

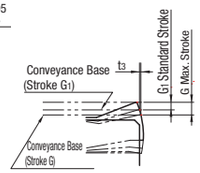


Round Type

7SB 14B
7B 20B
10B 28B



Standard Stopping Position for Round Type



Type		T	L Straight Claw	L Round Claw	L1	B	G	E Straight Claw	E Round Claw	R	H1	J	K	MA	d	f	C	t1	t2	t3
ATBM ATBS ATBST ATBJ	7SA 7SB	7	30	31.5	7.5	7.5	5	15	13.9	24	16	10	5	M3*	6	15.7	3	1.8	1.2	0.7
	7A 7B		40	41.5	8	15		17	15.9	33.5	20	14	7			21	4	1.6	1	0.5
	10A 10B	10												M4*						
	14A 14B	14	55	57	10	12.4	10	32.6	30	47	30.5	19	10	M4*	8	35.8	5	3.3	2	0.8
	20A 20B	20	65	66.5	12.5	18.5	11	34	30.4	54	33	21	10	M5	10	40	7	3.4		1.5
	28A 28B	28	80	82.5	15	30	13	35	30.5	67.5	45	30	15	M6	12	50	9	4.5	2.8	1.8

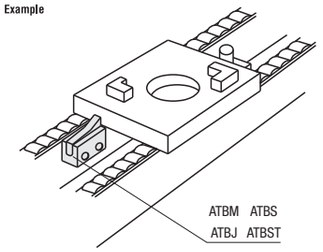
ATBM is available for 28A, 28B, 20A, 20B and 7SB only.
* ATBJ is for threaded insert.

Load Details ②Spring

Type			Load (Calculated Value) N Set Spring Upper Part	Set Claw Tip	Stroke 3 Spring Upper Part	Stroke 3 Claw Tip	Stroke 5 (7) Spring Upper Part	Stroke 5 (7) Claw Tip	Stroke 10 (12) Spring Upper Part	Stroke 10 (12) Claw Tip
7SA	Soft	S	0.4	0.3	1.1	0.7	1.5	1.0	-	-
7SB	Hard	H	1.4	1.0	2.4	1.6	2.9	2.0	-	-
7A	Soft	S	0.3	0.2	1.0	0.7	1.5	1.0	-	-
7B	Hard	H	1.7	1.1	2.6	1.7	3.1	2.1	-	-
10A	Soft	S	0.3	0.2	1.0	0.7	1.5	1.0	-	-
10B	Hard	H	1.8	1.2	2.6	1.7	3.2	2.1	-	-
14A	Soft	S	0.9	0.7	1.3	1.1	1.7	1.3	2.4	1.9
14B	Hard	H	2.6	2.1	3.1	2.5	3.5	2.8	4.3	3.5
20A	Soft	S	2.3	1.8	-	-	3.0	2.4	3.8	3.0
20B	Hard	H	3.6	2.8	-	-	4.5	3.5	5.5	4.3
28A	Soft	S	3.7	2.6	-	-	5.2	4.0	6.3	4.8
28B	Hard	H	4.9	3.4	-	-	6.7	5.2	8.0	6.2

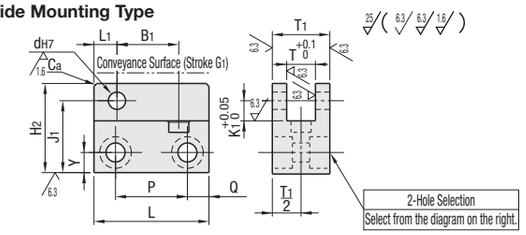
The value of Stroke 5 and 10 for 28A and 28B are of when Stroke 7 and 12.

Example



Dimension Details ③Main Body

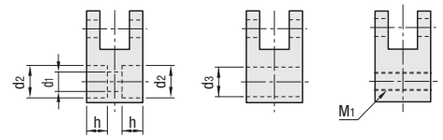
Side Mounting Type



Screw Hole
BL (SS400)
BLS (SUS304)

Through Hole
BH (SS400)
BHS (SUS304)

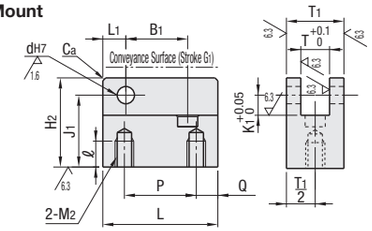
Tapped Hole
TP (SS400)
TPS (SUS304)



* No counterbored holes for claw 7A, 7B, 7SA and 7SB.

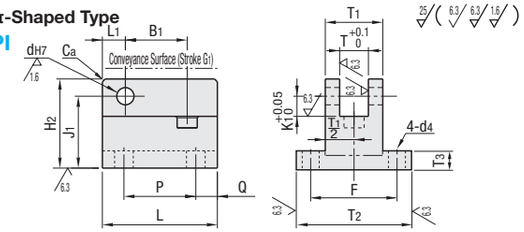
Bottom Mount

BT (SS400)
BTS (SUS304)



π-Shaped Type

PI

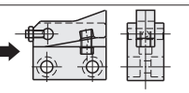


For PI of claw width 14, 20 and 28, flange is screwed on BT.

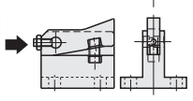
Type: Applicable Claw	Main Body	T	T1	L	P	Q	L1	B1	H2	J1	K1	d	Ca	Side Mounting Type: Y	d1	d2	h	d3	M1	Bottom Mount Type: M2	ℓ	π-Shaped Type: d4	F	T2	T3
7SA 7SB	BL	7	12	30	20	5	7.5	16	22.5	18	5	6	3	7	5.5	-	-	-	-	-	-	-	-	-	-
	TP																		M5		-				
	BT												2.5	-	-				-	M5	6				
	PI								14	9.5	5									-	-	4.5	20	28	5
7A 7B	BL	7	12	40	25	7.5	8	21.5	31	25	7	6	3	7	6.6	-	-	-	-	-	-	-	-	-	-
	TP																		M6		-				
	BT													-	-				-	M6	9				
	PI																			-	-	5.5	22	32	6
10A 10B	BL BLS	10	19	40	25	7.5	8	21.5	31	25	7	6	3	7	6.6	11	7	-	-	-	-	-	-	-	-
	BH BHS														-	-	-	9							
	TP TPS																		M6						
	BT BTS													-				-	-	M6	9				
	PI																			-	-	5.5	30	40	6
14A 14B	BL	14	25	55	35	10	10	36.5	43	35	10	8	4	10	9	14	8.5	-	-	-	-	-	-	-	-
	BH																	12							
	TP														-	-	-		M8						
	BT													-				-	-	M8	12				
	PI								54	46										-	-	9	42	60	12
20A 20B	BT	20	38	65	40	12.5	12.5	40.7	49	40	10	10	5	-	-	-	-	-	-	M10	15	-	-	-	-
	PI								64	55										-	-	9	58	75	16
28A 28B	BT	28	50	80	50	15	15	51.4	64	53	15	12	5	-	-	-	-	-	-	M12	20	-	-	-	-
	PI								82	71										-	-	11	70	90	19

Ordering Example

Part Number	-	②Spring	-	③Main Body
ATBM10A	-	S	-	BL

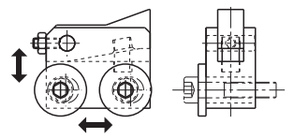


Part Number	-	②Spring	-	③Main Body
ATBJ7A	-	H	-	PI



Example

Fine adjustment for the mounting position of BH and BHS (Through Hole) can be made by combining with the included washer.



Claw	Applicable Screw
14A, 14B	M8
10A, 10B	M6