



CLAMPS & WORK HOLDING DEVICES

BASIC CLAMPING ELEMENTS.

TOP CLAMPING SYSTEMS.

CLAMP SUPPORT SYSTEMS

SIDE CLAMPING SYSTEMS.

QUICK ACTING CLAMPING SYSTEMS.

CNC TURNING CENTER ACCESSORIES

INJECTION MOULD MACHINE CLAMPING SYSTEMS.



INDUSTRIAL TOOLS & HARDWARE

Group- IV : Side Clamping Systems



- Machine clamp.
- Swing machine clamp.
- Taper clamp
- Flat clamp
- Mini flat clamp
- Mini Swing flat clamp
- CNC clamp

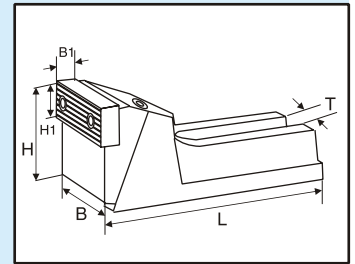
Machine clamp.



- Rigid, positive clamping for medium to heavy cutting forces.
- Prevents the work piece from lifting up from the table. This positive clamping action is achieved because of the downward & forward movement of sliding jaws while tightening.
- Two-piece construction allows almost no constraint on work-piece overall dimensions.
- Unique design allows working with high cutting forces while machining.
- There is quick clamping action for faster setting up of jobs.
- Also suitable for holding non-magnetic work-pieces on magnetic surface plates.

Applications.

- Recommended for use on milling, planning, jig boring, shaping, grinding, and drilling machines as well as vertical Turret Lathes.
- Special fixtures for fast clamping & de-clamping.



SIZE	Item Code	L	B	H	B1	H1	T	Force (Kgs.)	wt. in kgs.
MC-1	aec1401.001	137	60	55	11	19	18	1500	1.5
MC-2	aec1401.002	191	80	80	15	30	26	3000	3.9
MC-3	aec1401.003	260	122	135	20	49	33	4500	14.5

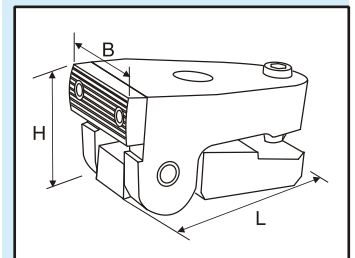
Swing Machine Clamp



- Efficient and Positive angular clamping for low to medium cutting forces.
- Positive downward clamping force is achieved by forward and downward hinge type action of the moving jaw.
- Quick clamping action for higher productivity.
- Suitable for non-magnetic material on magnetic chucks.
- No limitation on job size because of two piece construction.
- Clamp can be used on any T-slot as well as on fixture plates.
- Very useful on cast, forge surfaces as well as to hold circular components as the jaws are concave in shape.

Applications.

- Recommended for use on milling, planning, jig boring, shaping, grinding, and drilling machines as well as vertical Turret Lathes.
- Special fixtures for fast clamping & de-clamping.



Item code	Name	L	B	H	Travel	Clamping force in kgs	Wt. in kgs
aec1401.011	KMC-4	102	62	58	4.0	1200	1.970

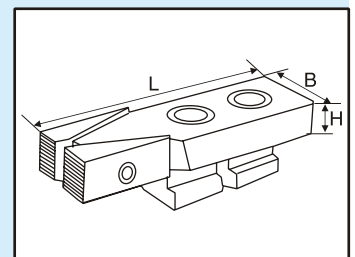
Taper clamp.



- Low height side clamps with low clamping force.
- Very useful for thin material for distort free clamping.

APPLICATIONS:

- On milling, and grinding machines and on clamping fixtures.



Item code	Name	Tslot	L	B	H	wt. in kgs
aec1406.101	TC-1	12	85	24	12	0.35
aec1406.102	TC-2	14	100	29	15	0.5
aec1406.103	TC-3	18	115	39	19	0.75
aec1406.104	TC-4	22	135	49	24	1.25

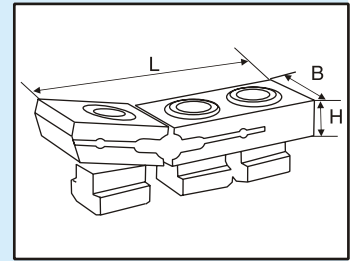
Flat clamp.



- Wedge action provides clamping for low height jobs.
- Low profile and side clamping eliminates interference with the tool, leaving entire top surface clear.
- There is an effective, positive, and rigid clamping of the jobs irrespective of the shape & size.
- The clamp features two-piece construction, hence table of the machine alone determines the size of the job.
- Made of heat-treated special alloy steel.
- Clamps with special T-nuts can be supplied in special needs to suit non-standard t-slots on request.

APPLICATIONS :

- On milling, shaping, planning, jig boring machines and on clamping fixtures.



Size	L	B	H	T-slot mm	Force in kg	Jaw travel Horizontal
FC-1	83	24	12	10(8)	400	2
FC-2	113	30	15	14(12)	600	2
FC-3	134	39	19	18(16)	800	3
FC-4	195	49	24	22(20)	1000	4
Item Code	Name		Tnut size		wt. in kgs.	
aec1402.108	FC-1/8		8M6		0.150	
aec1402.110	FC-1/10		10M8		0.200	
aec1402.212	FC-2/12		12M10		0.420	
aec1402.214	FC-2/14		14M12		0.470	
aec1402.316	FC-3/16		16M12		0.900	
aec1402.318	FC-3/18		18M16		0.960	
aec1402.420	FC-4/20		20M16		1.820	
aec1402.422	FC-4/22		22M20		2.400	

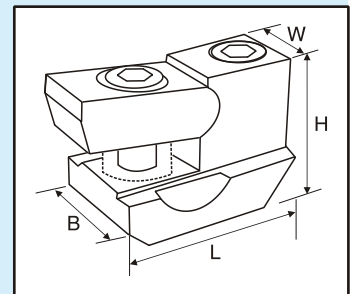
Mini-Flat Clamp



- Clamping from side means free cutter access to all top surface.
- Positive clamping of Thin plates without warpage.
- Simple design permits easy insertion into T-slot.
- Optimum clamping and unclamping action saves 60% of the normal clamping time.
- Hold Down plates from 3 mm up to 12 mm securely.
- Brass body prevents T-slot damage due to clamping.

APPLICATIONS

- Suitable for jobs with low applied cutting forces.



Item Code	Name	L	B	H	T-slot(W)	Wt. in kgs.
aec1403.012	MFC-1	38	18	24	12	0.1
aec1403.014	MFC-2	42	22	27	14	0.15
aec1403.016	MFC-3	46	25	31	16	0.180
aec1403.018	MFC-4	49	28	35	18	0.250
aec1403.020	MFC-5	53	32	39	20	0.330

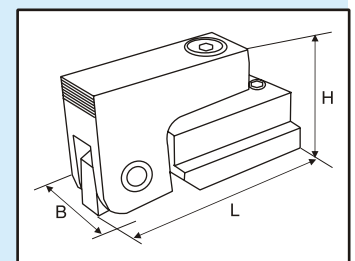
Mini Swing Flat Clamp



- Rigid wedge clamping for low height jobs.
- Made out of Heat Treated special alloy steel.
- Plate Thickness from 7 mm to 22 mm can be easily machined.

APPLICATIONS

- Suitable for jobs requiring low to medium clamping force.



Item Code	Name	T slot	L	B	H	wt.in Kgs.
aec1404.012	MSFC-12	12	54	18	29	0.25
aec1404.014	MSFC-14	14	54	22	31	0.30
aec1404.016	MSFC-16	16	65	25	37	0.50
aec1404.018	MSFC-18	18	65	28	40	0.57
aec1404.020	MSFC-20	20	65	32	43	0.68
aec1404.022	MSFC-22	22	108	35	59	1.64
aec1404.024	MSFC-24	24	108	40	62	2.10
aec1404.028	MSFC-28	28	108	44	66	2.40

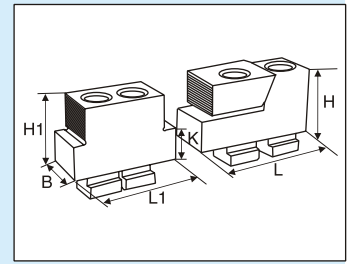
C.N.C clamp.



- Work piece resting surface is maintained within +/-0.01 mm
- Quick clamping for High Productivity.
- Since work piece is lifted from machine base, full depth operations such as pocketing, drilling, slotting are easily possible without damaging machine table.
- Can be used on fixtures, milling machines CNC milling etc.

APPLICATIONS

- Suitable for jobs requiring low to medium clamping force.



Item code	Name	L	L1	B	H	H1	K	Clamping Force
aec1405.012	CNC-12L	80	65	30	42	30	20	400 kgs
aec1405.112	CNC-12M	80	65	30	42	42	20	400 kgs
aec1405.018	CNC-18L	92.5	80	40	49	37	25	600 kgs
aec1405.118	CNC-18M	92.5	80	40	49	49	25	600 kgs

* All dimensions are in mm unless otherwise specified.

* Due to constant development & enhancement in designs, dimensions given in catalogue may change without prior notice.

INDUSTRIAL TOOLS & HARDWARE

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