



TOOLFAST
more..... about clamping

Workholding Specification Catalogue - 2022

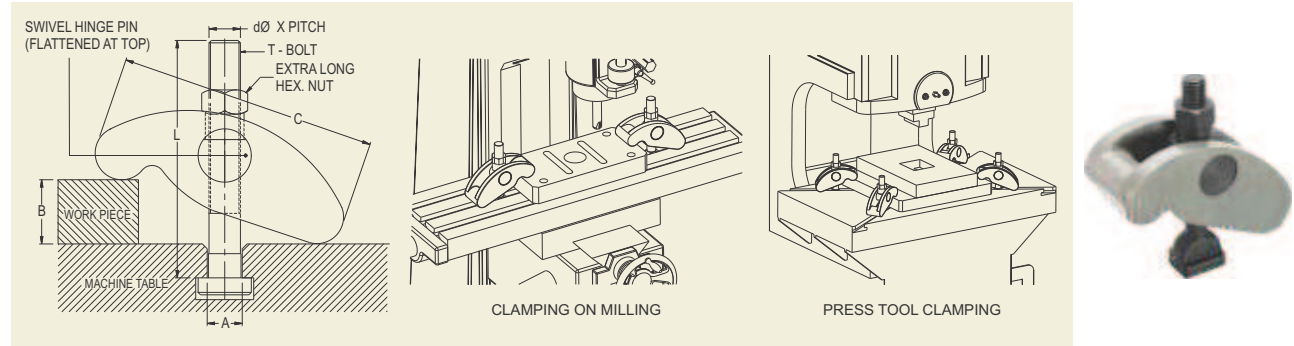
Workholding Devices | Die & Mould Clamps | Clamping Elements | Clamping Kits
Fixture Clamps | Toggle Clamps | Milling & MC Vices | Pneumatic & Hydraulic Clamps
Milling & Grinding Accessories | Wire Cut EDM Workholders

UNIVERSAL STRAP CLAMP

FOR POWER PRESSES, MILLING, DRILLING, SHAPING, BORING ETC.

'TOOLFAST' Universal Strap Clamp is most suitable for die clamping on power presses and a very useful clamp for job clamping on 'T' slot table of Drilling, Milling, Shaping, Boring and other machine tools. No supports are required at the rear of the clamp since the body of the clamp is self-positioning as the rear part rests on the table and front holds the job. The body positions itself with the help of swivel hinge pin according to the thickness of the workpiece, the T-Bolt remaining in vertical position and the nut is tightened on the flattened portion of swivel hinge pin.

Clamp is supplied complete with hardened T-Bolt & special nut.



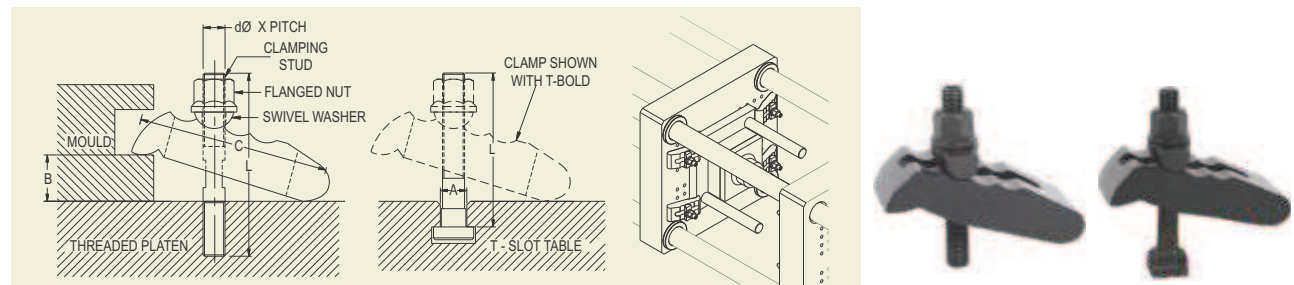
MODEL	T-SLOT SIZE A	dØ x PITCH x L	CLAMPING RANGE B	LENGTH OF CLAMP C	BREADTH OF CLAMP	TIGHTENING TORQUE Nm Max.*	CLAMPING FORCE Max.	N. W. Kgs.
USC-12A	12	M12 x 1.75 x 100	0-60	105	42	90	2000 Kgs.	0.84
USC-12B	14	M12 x 1.75 x 100	0-60	105	42	90	2000 Kgs.	0.86
USC-16A	16	M16 x 2.0 x 130	0-80	130	50	210	3200 Kgs.	1.73
USC-16B	18	M16 x 2.0 x 130	0-80	130	50	210	3200 Kgs.	1.74
USC-20A	20	M20 x 2.5 x 150	0-100	160	55	410	5000 Kgs.	2.45
USC-20B	22	M20 x 2.5 x 150	0-100	160	55	410	5000 Kgs.	2.48
USC-24A	24	M24 x 3.0 x 210	0-120	190	65	730	6000 Kgs.	4.39
USC-24B	28	M24 x 3.0 x 210	0-120	190	65	730	6000 Kgs.	4.68

MOULD CLAMP

FOR PLASTIC INJECTION MOULDING & PRESSURE DIE CASTING MACHINES

'TOOLFAST' Mould Clamp is designed specially for low height applications only such as clamping of moulds on plastic injection moulding machines & pressure die casting machines. The compact front portion of the clamp enables it to penetrate into the limited clamping area of the mould and clamp it. The positioning of forged swivel washer on required curved groove enables the operator to set the center distance between the clamping portion and the clamping bolt as per the nearest tapped hole available on platen (where there are no T-slots). No supports are required at the rear of the clamp as the rear portion rests on the platen and front holds the mould. Flanged nut is tightened on the swivel washer which takes care of the positioning of clamp body. These clamps are equally useful on pressure die casting machines, hydraulic presses & power presses where low height clamping is done.

Clamps are supplied complete with swivel washer, flanged nut & clamping stud or T-Bolt as shown in tables below.



MOULD CLAMP - WITH CLAMPING STUD

MODEL	dØ x PITCH x L	CLAMPING RANGE B	LENGTH OF CLAMP C	BREADTH OF CLAMP	TIGHTENING TORQUE Nm Max.*	CLAMPING FORCE Max.	N. W. Kgs.
MC-12	STUD M-12 x 1.75 x 100	0-35	110	50	90	2000 Kgs.	0.99
MC-16	STUD M-16 x 2.0 x 125	0-40	135	60	210	3200 Kgs.	1.67
MC-20	STUD M-20 x 2.5 x 175	0-50	160	70	410	5000 Kgs.	2.81
MC-24	STUD M-24 x 3.0 x 200	0-60	180	80	730	6000 Kgs.	4.19

MOULD CLAMP - WITH T-BOLT

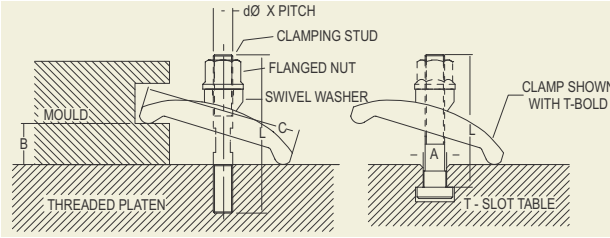
MODEL	dØ x PITCH x L	T-SLOT SIZE A	CLAMPING RANGE B	LENGTH OF CLAMP C	BREADTH OF CLAMP	TIGHTENING TORQUE Nm Max.*	CLAMPING FORCE Max.	N. W. Kgs.
MC-12A	T-BOLT M-12 x 1.75 x 100	12	0-35	110	50	90	2000 Kgs.	1.15
MC-12B	T-BOLT M-12 x 1.75 x 100	14	0-35	110	50	90	2000 Kgs.	1.30
MC-16A	T-BOLT M-16 x 2.0 x 130	16	0-40	135	60	210	3200 Kgs.	1.76
MC-16B	T-BOLT M-16 x 2.0 x 130	18	0-40	135	60	210	3200 Kgs.	1.78
MC-20A	T-BOLT M-20 x 2.5 x 150	20	0-50	160	70	410	5000 Kgs.	2.89
MC-20B	T-BOLT M-20 x 2.5 x 150	22	0-50	160	70	410	5000 Kgs.	2.92
MC-24A	T-BOLT M-24 x 3.0 x 210	24	0-60	180	80	730	6000 Kgs.	4.40
MC-24B	T-BOLT M-24 x 3.0 x 210	28	0-60	180	80	730	6000 Kgs.	4.72

* Exceeding the maximum torque damages the clamp parts and warranty expires.

MOULD CLAMP - FORGED

FOR PLASTIC INJECTION MOULDING & PRESSURE DIE CASTING MACHINES

The Popular 'TOOLFAST' mould clamp is now available in forged steel body for extra strength. All models shown below are similar to the MC models on the previous page.



MOULD CLAMP - FORGED - WITH CLAMPING STUD

MODEL	dØ	x	PITCH	x	L	CLAMPING RANGE B	LENGTH OF CLAMP C	BREADTH OF CLAMP	TIGHTENING TORQUE Nm Max.*	CLAMPING FORCE Max.	N. W. Kgs.
MCF-12	STUD	M-12	x	1.75	x 100	0-35	102	46	90	2000 Kgs.	0.50
MCF-16	STUD	M-16	x	2.0	x 125	0-50	124	58	210	3200 Kgs.	0.98
MCF-20	STUD	M-20	x	2.5	x 175	0-65	156	68	410	5000 Kgs.	2.0
MCF-24	STUD	M-24	x	3.0	x 200	0-75	178	82	730	6000 Kgs.	3.0

MOULD CLAMP - FORGED - WITH T-BOLT

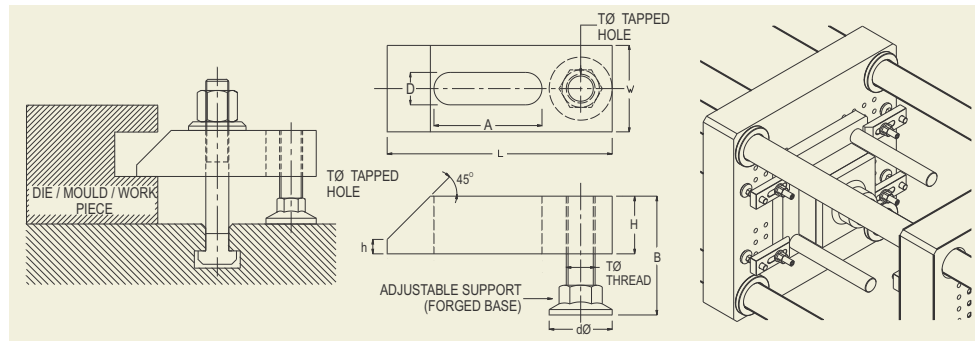
MODEL	dØ	x	PITCH	x	L	T-SLOT SIZE A	CLAMPING RANGE B	LENGTH OF CLAMP C	BREADTH OF CLAMP	TIGHTENING TORQUE Nm Max.*	CLAMPING FORCE Max.	N. W. Kgs.
MCF-12A	T-BOLT	M-12	x	1.75	x 100	12	0-35	102	46	90	2000 Kgs.	0.52
MCF-12B	T-BOLT	M-12	x	1.75	x 100	14	0-35	102	46	90	2000 Kgs.	0.54
MCF-16A	T-BOLT	M-16	x	2.0	x 130	16	0-50	124	58	210	3200 Kgs.	1.1
MCF-16B	T-BOLT	M-16	x	2.0	x 130	18	0-50	124	58	210	3200 Kgs.	1.1
MCF-20A	T-BOLT	M-20	x	2.5	x 150	20	0-65	156	68	410	5000 Kgs.	2.0
MCF-20B	T-BOLT	M-20	x	2.5	x 150	22	0-65	156	68	410	5000 Kgs.	2.1
MCF-24A	T-BOLT	M-24	x	3.0	x 210	24	0-75	178	82	730	6000 Kgs.	3.24
MCF-24B	T-BOLT	M-24	x	3.0	x 210	28	0-75	178	82	730	6000 Kgs.	3.34

TAPPED END CLAMP - WITH ADJUSTABLE SUPPORT

FOR PLASTIC INJECTION MOULDING & PRESSURE DIE CASTING MACHINES

'TOOLFAST' Tapped End Clamps are Straps having special threaded adjustable support at the rear which can be adjusted to required height. Most useful clamp for plastic injection moulding or pressure die casting machines where mould / die is clamped in vertical position and these clamps with screwed in adjustable support are convenient to the operator as other loose supports tend to fall down while setting. Hardened adjustable support with large diameter forged base gives rigid clamping support and ensures machine bed safety. Extra thick body of the clamp accommodates more number of threads for rigidity of screwed support.

Supplied with adjustable threaded support only. T-Bolt or Stud with nut, washer etc. to be ordered separately.



MODEL	D SUITABLE FOR BOLT	L	A	W	H	h	TØ TAPPED HOLE	dØ	B Max	N. W. Kgs.
TTUC-12	M-12	110	55	38	18	6	M-12	30	60	0.54
TTUC-16	M-16	125	60	48	24	8	M-16	35	70	0.98
TTUC-20	M-20	160	80	62	30	10	M-20	40	80	2.45
TTUC-24	M-24	200	110	72	38	10	M-24	50	85	3.67

FORGED STRAP CLAMP WITH TAPPED END

Forged, Hardened & Tempered

This clamp is a forged version of above TTUC clamps available only for the most popular size M-16. Most suitable for mould clamping on Plastic Injection Moulding Machine.

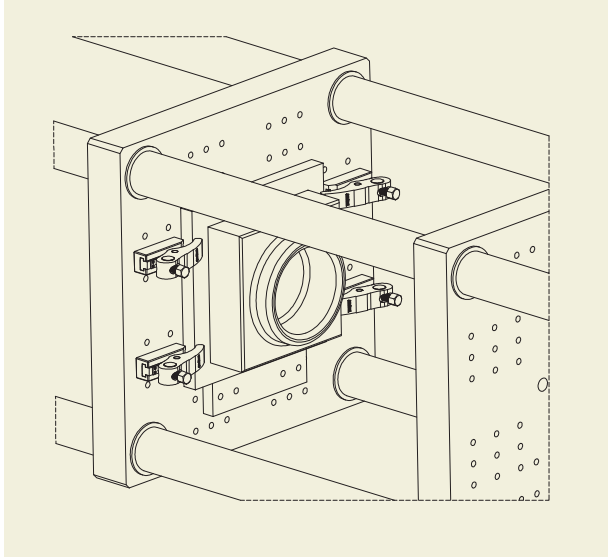
MODEL	SUITABLE FOR BOLT	LENGTH	WIDTH	THICK NESS	SLOT LENGTH	TAPPED END	N. W. Kgs.
TTFC -16	M-16	152	44	22	52	M -16	0.73



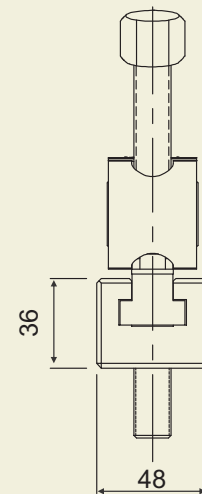
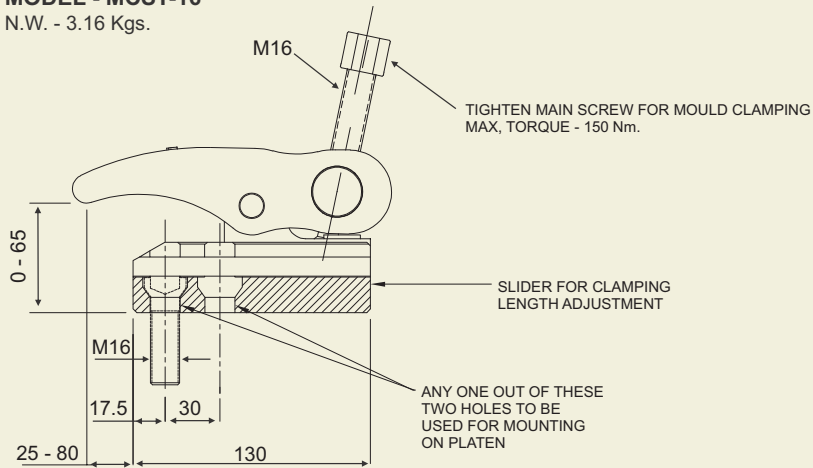
Also available as Model TTFC-16S with threaded support TS-16 (M-16 x 70 long).N.W. 0.87 Kgs.

MCST SERIES MOULD CLAMP - SLIDER TYPE - MOST IDEAL FOR LIGHT AND MEDIUM DUTY MOULDS

'TOOLFAST' new MCST series clamp solves the problem where forward and backward sliding of clamps is required but there are no T - slots on the platen. Clamp is mounted with one front screw on the sliding rail to be screwed on any one suitable threaded hole on the platen. Rear main screw is tightened for clamping after sliding the clamping arm to appropriate position and then can be slid back after declamping.


MODEL - MCST-16

N.W. - 3.16 Kgs.



Max. clamping force 2200 Kgs. at max. 150 Nm Tightening torque.
Most ideal for light and medium duty moulds.

MCST SERIES MACHINE CLAMP - SLIDER TYPE

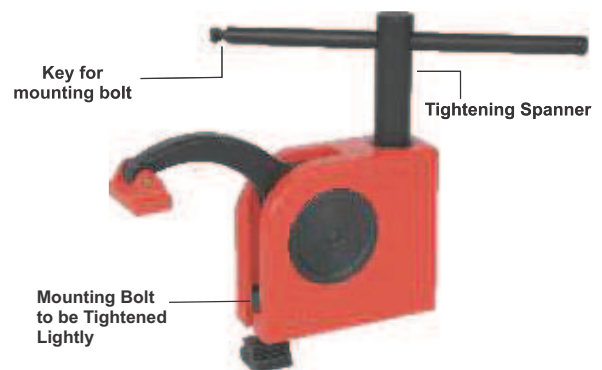
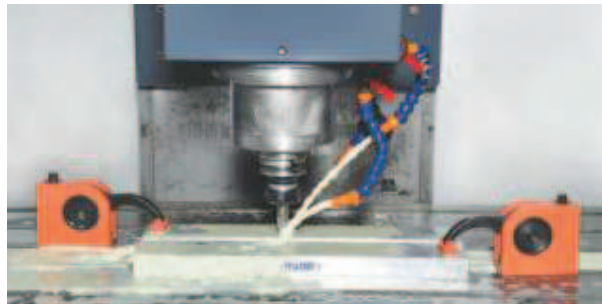
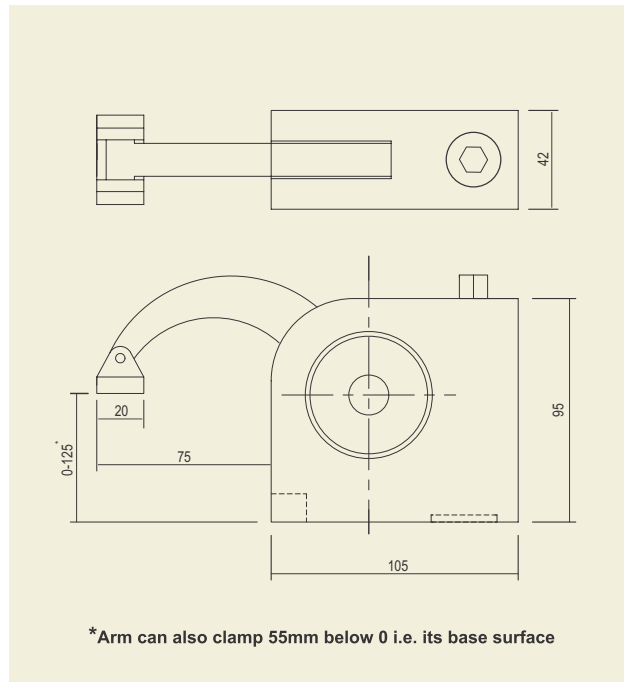
MCST series clamp with M16 T-nut provided can be used for clamping on T- slot table of Drilling. Milling or any other machine tool.

MODEL	SUITABLE FOR T-SLOT SIZE	N. W. Kgs.
MCST-16T-18	18	3.25
MCST-16T-20	20	3.30
MCST-16T-22	22	3.35
MCST-16T-24	24	3.42
MCST-16T-28	28	3.52



COMPACT MILLING CLAMP

'TOOLFAST' compact milling clamp is the most multipurpose, quick and easy to use down-hold milling clamp. It is equally suitable for clamping while all kinds of machining operation on Drilling, Milling, Machining Centre, EDM etc. This clamp does not require any support blocks or any kind of adjustment, clamping is done by simple turning of the removable spanner key.

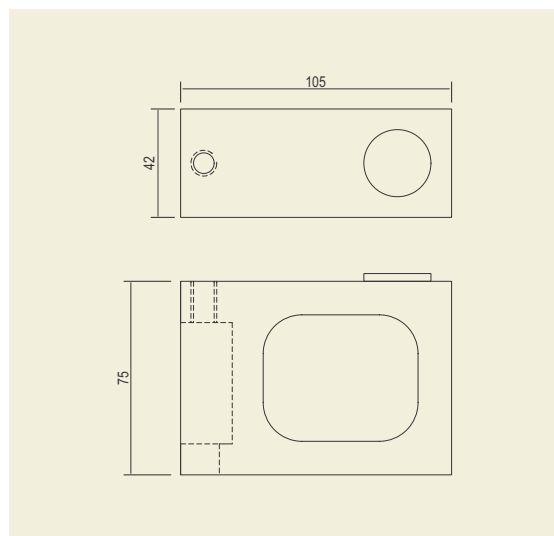


MODEL	CLAMPING HEIGHT RANGE	SUITABLE FOR T-SLOT SIZE	TIGHTENING TORQUE Nm Max.*	CLAMPING FORCE Max.	N. W. Kgs. (Including Spanner)
CMC-12	0-125	12	70	1600 kgs.	2.0
CMC-14	0-125	14	70	1600 kgs.	2.0
CMC-16	0-125	16	70	1600 kgs.	2.0
CMC-18	0-125	18	70	1600 kgs.	2.1

* Required torque can be achieved manually by tightening spanner included with CMC clamp. Applying extra torque by using extension pipe or by hammering damages the clamp parts and warranty expires.

HEIGHT BLOCK FOR CMC CLAMP :

By stacking one Height block over another and a CMC clamp at the top can enable clamping of any height of workpiece. Each height block model HB-CMC-75 increases clamping height range by 75mm.



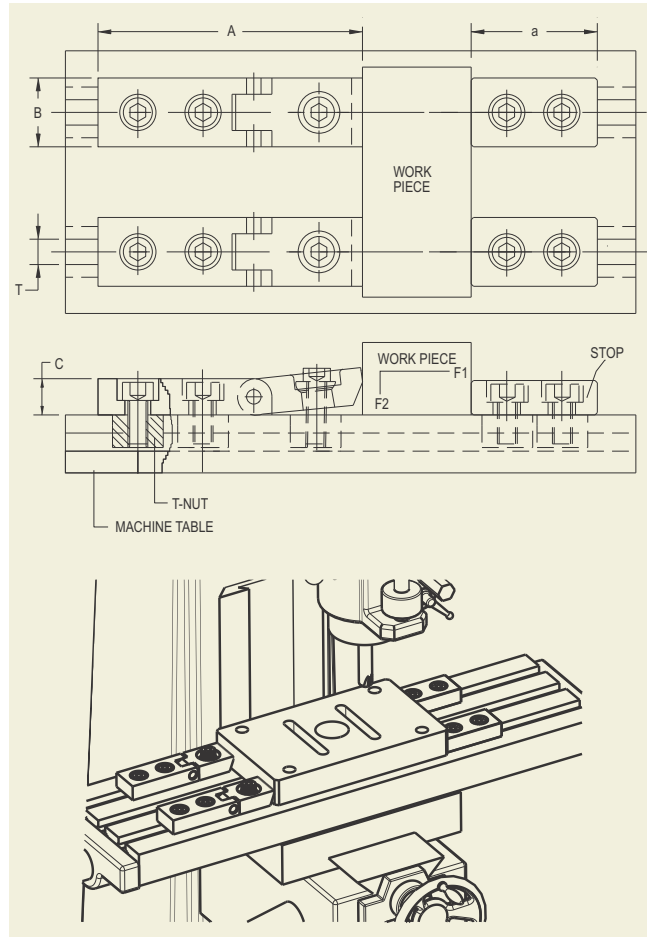
PINCH CLAMPS AND STOPS

FOR MACHINING CENTER, MILLING, SHAPING, PLANNING, JIG BORING ETC.

Low Height Pinch Clamp

'TOOLFAST' Low Height Pinch Clamp is useful for job clamping where complete top surface of the job is to be machined in one setting and hence can be clamped only from side faces. When serrated front portion is pressed against the job by tightening the front bolt, it gives a downward as well as forward clamping force. Body is made of hardened alloy steel. It is most useful on Milling, Shaping, Planning and Jig boring machines.

Supplied complete with hardened T-Nuts & Standard Bolts.



MODEL	SUITABLE FOR T-SLOT SIZE T	A	B	C	CLAMPING FORCE Max.		N. W. Kgs.
					F1	F2	
PC-1A	12	105	30	15	1600 Kgs.	60 Kgs.	0.44
PC-1B	14	105	30	15	1600 Kgs.	60 Kgs.	0.49
PC-2	16	130	38	18	2500 Kgs.	100 Kgs.	0.92
PC-3	18	130	38	18	2500 Kgs.	100 Kgs.	1.00
PC-4A	20	175	48	24	4000 Kgs.	250 Kgs.	1.65
PC-4B	22	175	48	24	4000 Kgs.	250 Kgs.	2.30
PC-5A	24	175	48	24	4000 Kgs.	250 Kgs.	2.31
PC-5B	28	175	48	24	4000 Kgs.	250 Kgs.	2.72

Heavy Duty Pinch Clamp

'TOOLFAST' Heavy Duty Pinch Clamp is a heavier version of Low Height Pinch Clamp. Basic function is same but this is used for clamping from sides of heavy blocks or thicker plates for facing of top face in one setting. Supplied complete with hardened T-Nuts & Standard Bolts



MODEL	SUITABLE FOR T-SLOT SIZE T	A	B	C	CLAMPING FORCE Max.		N. W. Kgs.
					F1	F2	
HDPC-1A	18	185	62	38	4000 Kgs.	250 Kgs.	3.35
HDPC-1B	20	185	62	38	4000 Kgs.	250 Kgs.	3.39
HDPC-2A	22	185	62	38	4000 Kgs.	250 Kgs.	3.36
HDPC-2B	24	185	62	38	4000 Kgs.	250 Kgs.	3.96
HDPC-3	28	185	62	38	4000 Kgs.	250 Kgs.	4.42

Stop For Pinch Clamps

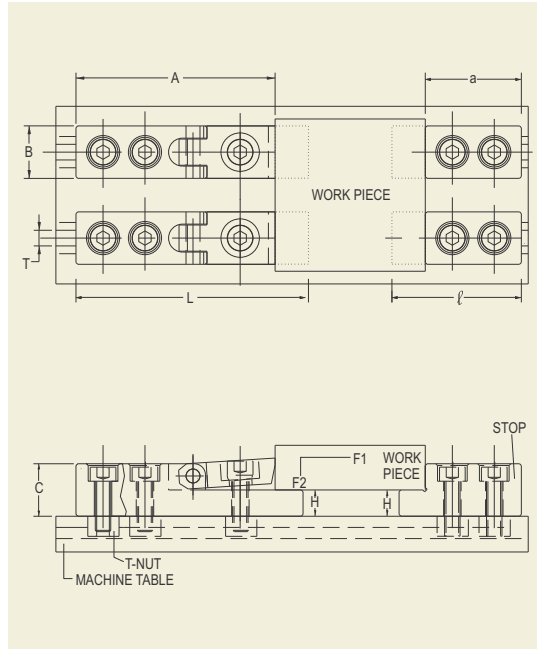
Stop or stopper blocks in different sizes as shown in table below are available to suit all above models of low height pinch clamps (PC Series) and Heavy Duty Pinch Clamps (HDPC Series). These stops are to be mounted on the opposite side of workpiece as shown in drawing above. All faces are ground for precise stopping of workpiece. Available separately in all below sizes.



MODEL	SUITABLE FOR PINCH CLAMP MODEL	SUITABLE FOR T-SLOT SIZE T	TOTAL LENGTH a	BREADTH B	HEIGHT C	N. W. Kgs.
ST-PC-1A	PC-1(a)	12	55	30	15	0.25
ST-PC-1B	PC-1(b)	14	55	30	15	0.27
ST-PC-2	PC-2	16	66	38	18	0.51
ST-PC-3	PC-3	18	66	38	18	0.55
ST-PC-4A	PC-4(a)	20	95	48	24	0.91
ST-PC-4B	PC-4(b)	22	95	48	24	1.26
ST-PC-5A	PC-5(a)	24	95	48	24	1.28
ST-PC-5B	PC-5(b)	28	95	48	24	1.50
ST-HDPC-1A	HDPC-1(a)	18	95	62	38	1.85
ST-HDPC-1B	HDPC-1(b)	20	95	62	38	1.86
ST-HDPC-2A	HDPC-2(a)	22	95	62	38	1.87
ST-HDPC-2B	HDPC-2(b)	24	95	62	38	2.18
ST-HDPC-3	HDPC-3	28	95	62	38	2.44

LOW HEIGHT PINCH CLAMP AND STOP WITH STEP

This is a new version of low height pinch clamp (PC Series) having step to support the workpiece above the machine table for through milling and drilling. Each PCS series clamp comes with a suitable size step (ST-PCS Series) as standard.



MODEL	SUITABLE FOR T-SLOT SIZE T	A	L	B	C	H ± 0.01	CLAMPING FORCE Max.		N. W. Kgs.
							F1	F2	
PCS-1A	12	110	125	30	30	14	1600 Kgs.	60 Kgs.	0.84
PCS-1B	14	110	125	30	30	14	1600 Kgs.	60 Kgs.	0.88
PCS-2	16	140	160	38	38	19	2500 Kgs.	100 Kgs.	1.75
PCS-3	18	140	160	38	38	19	2500 Kgs.	100 Kgs.	1.81

STOP FOR LOW HEIGHT PINCH CLAMP WITH STEP

These are stepped stops to suit clamping with low height pinch clamps with steps (PCS Series shown above). To be mounted on the opposite side of workpiece for stopping and supporting it on the machine table as shown in drawing. All faces are ground for precise stopping and supporting of workpiece. One stop (ST-PCS Series) comes as standard with each of above model PCS Series Clamps.



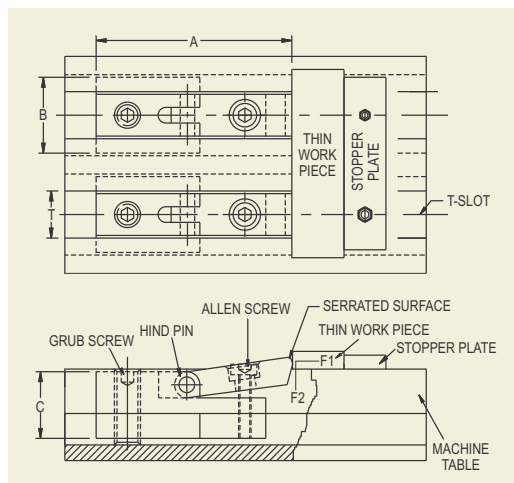
MODEL *	SUITABLE FOR PCS MODEL	SUITABLE FOR T-SLOT SIZE T	LENGTH a	OVERALL LENGTH ℓ	BREADTH B	HEIGHT C	HEIGHT H ± 0.01	N. W. Kgs.
ST-PCS-1A	PCS-1A	12	55	70	30	30	14	0.49
ST-PCS-1B	PCS-1B	14	55	70	30	30	14	0.53
ST-PCS-2	PCS-2	16	66	86	38	38	19	0.96
ST-PCS-3	PCS-3	18	66	86	38	38	19	1.02

*Are supplied as standard with PCS Series Clamps. To be purchased separately only in case required extra stops.

MINI PINCH CLAMP

FOR MILLING, SHAPING & PLANNING ETC.

'TOOLFAST' Mini Pinch Clamp is useful for clamping of thin plates from side faces. Body made of hardened alloy steel is in the form of a T-Nut which slides easily into the T-slot. When rear screw is tightened, the clamp is held tightly with the T-slot and then by tightening the front bolt, it gives a downward as well as forward clamping force to the job. Only a required small portion of the clamp comes above the surface of T-Slot table, rest of the body of clamp remains under the top surface of the T-Slot table. Hence, it can clamp thinnest plates positively and still remain under the top level of the job. This clamp is most suitable for top facing of thin plates on milling, shaping and planning machines. Supplied complete with standard front & rear screws.

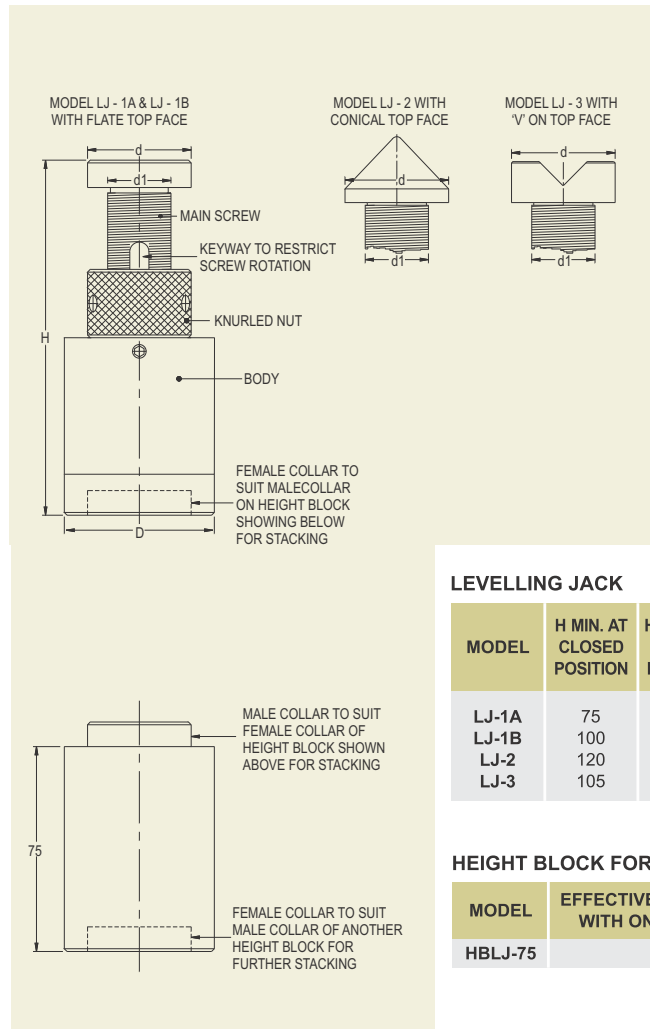


MODEL	SUITABLE FOR T-SLOT SIZE T	A	B	C	CLAMPING FORCE Max.		N. W. Kgs.
					F1	F2	
MPC-1	14	65	22	21	400 Kgs.	20 Kgs.	0.14
MPC-2	16	75	25	23	600 Kgs.	25 Kgs.	0.20
MPC-3	18	75	28	26	600 Kgs.	25 Kgs.	0.26

LEVELLING JACKS & HEIGHT BLOCKS

'TOOLFAST' Levelling Jack can be used as an adjustable support block for clamps and as a stopper or levelling block in fixtures or machines, as well as for levelling surface plates or other heavy duty work pieces. **Its unique design does not allow the levelling screw to rotate while adjustment, hence makes it suitable for fine level adjustment.** Also available in conical & V top for other applications such as inspection.

Picture (a) shows levelling jack model LJ-1(b) and picture (c) shows **HEIGHT BLOCK FOR LEVELLING JACK MODEL HBLJ-75** available separately for the purpose of stacking below levelling jack in order to increase its height. Picture (b) shows levelling jack model LJ-1(b) stacked on height block for levelling jack model HBLJ-75 to increase the height range of levelling jack by 75mm. Any required number of height blocks can be stacked one over another to achieve any required height and finally on top, any model of levelling jack can be kept for final height adjustment as shown in picture (b). Bottom female collar of any levelling jack and height block fits with top male collar of the height blocks to enable stacking.


LEVELLING JACK

MODEL	H MIN. AT CLOSED POSITION	H MAX. AT OPEN POSITION	DIA AT BOTTOM D	DIA AT TOP d	DIA OF SCREW d ₁	TYPE OF TOP FACE	MAX. LOAD TONS.	N. W. Kgs.
LJ-1A	75	100	48	38	M-24	FLAT	5.0	0.76
LJ-1B	100	150	48	38	M-24	FLAT	5.0	1.11
LJ-2	120	170	48	38	M-24	CONICAL	5.0	1.13
LJ-3	105	155	48	38	M-24	'V'	5.0	1.11

HEIGHT BLOCK FOR LEVELLING JACK

MODEL	EFFECTIVE HEIGHT INCREASE WITH ONE HEIGHT BLOCK	N. W. Kgs.
HBLJ-75	75	0.77


LEVELLING JACK - HEAVY DUTY

'TOOLFAST' levelling jack-heavy duty is a heavier version of levelling Jack with a heavy body and levelling screw & knurled nut. This jack is specially designed for heavy casting & machines. Available in flat head levelling screw only.

MODEL	H MIN. AT CLOSED POSITION	H MAX. AT OPEN POSITION	DIA AT BOTTOM D	DIA AT TOP d	DIA OF SCREW d ₁	TYPE OF TOP FACE	MAX LOAD TONS.	N. W. Kgs.
LJ-HD	160	230	75	50	32Ø	FLAT	8.0	2.82

HEIGHT BLOCK FOR LEVELLING JACK - HEAVY DUTY

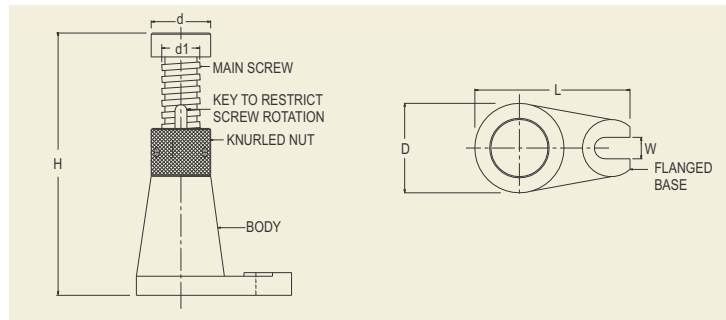
As in case of levelling jacks, height block for levelling jack-heavy duty model hblj-hd-75 is available for stacking with levelling jack-heavy duty.

MODEL	EFFECTIVE HEIGHT INCREASE WITH ONE HEIGHT BLOCK	N. W. Kgs.
HBLJ-HD-75	75	1.58



LEVELLING JACK - HEAVY DUTY - FLANGE MOUNTING

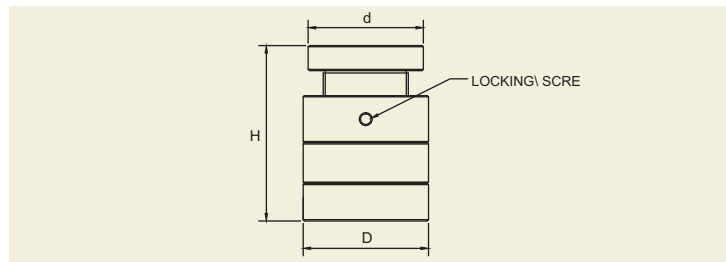
'TOOLFAST' Levelling Jack-Heavy Duty-Flange Mounting is same as LJ-HD but with flanged base for mounting on machine bed for additional rigidity.



MODEL	H MIN. AT CLOSED POSITION	H MAX. AT OPEN POSITION	DIA AT BOTTOM D	L	MOUNTING SLOT WIDTH W	DIA AT TOP d1	DIA OF SCREW d	TYPE OF TOP FACE	MAX LOAD TONS.	N. W. Kgs.
LJ-HD-FB	160	230	75	130	18	50	32Ø	FLAT	8.0	3.32

SCREW JACK - SMALL

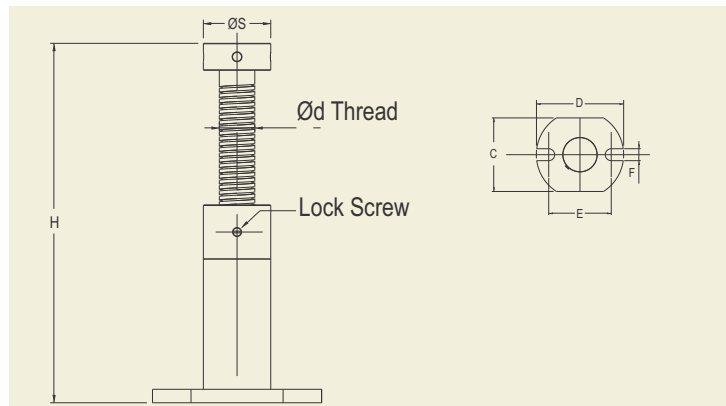
- Steel body screw jacks with heat treated main screw
- Black finish



MODEL	H MIN. AT CLOSED POSITION	H MAX. AT OPEN POSITION	DIA AT BOTTOM D	DIA AT TOP d	DIA OF SCREW	TYPE OF TOP FACE	MAX. LOAD TONS.
SJ- 50 S	40	50	48	38	M24	FLAT	5
SJ- 70 S	50	70	48	38	M24	FLAT	5

SCREW JACK - HEAVY DUTY

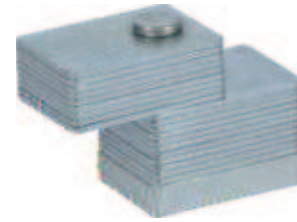
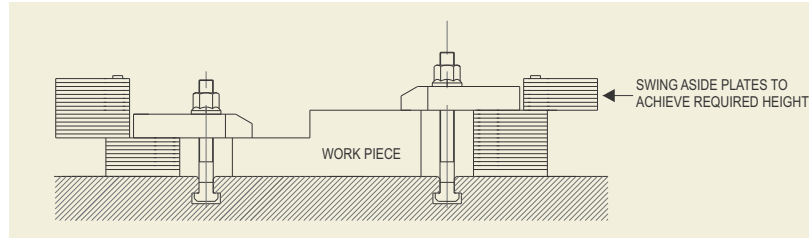
'TOOLFAST' Screw Jack-Heavy Duty is meant for heavy applications and with more height upto 655 mm. In this series of screw jacks the screw rotates while going up or down. Body is rigid, steel fabricated.



MODEL	H		C	D	E	F	ØS	Ød	CAPACITY	NET WEIGHT Kgs.
	Min.	Max.								
SJ-HD-1	250	395	160	190	136	26	75	40	25 Tons	9.4
SJ-HD-2	380	655	160	190	136	26	75	40	25 Tons	11.6

ADJUSTABLE SUPPORT PLATES

'TOOLFAST' Adjustable Support Plates are used as adjustable supports at the rear of the clamp. It comprises of a number of plates each 2mm thick hinged together. Desired height is achieved very easily by swinging aside the required number of plates and using the remaining as support block. Different models of support plates can be stacked on each other to achieve extra height.

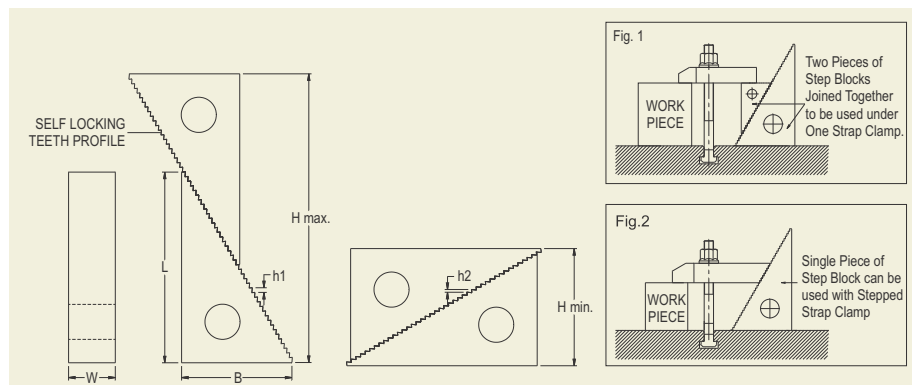


MODEL	HEIGHT ADJUSTMENT		PLATES THICKNESS	PLATE OVERALL SIZE	SIZE OF CLAMP REST AREA	N. W. Kgs.
	MIN.	MAX.				
TASP-250	10	50	2	50 x 35	25 X 35	0.66
TASP-2100	10	100	2	50 x 35	25 X 35	1.33
TASP-2150	10	150	2	50 x 35	25 X 35	1.99
TASP-L-250	10	50	2	60 x 50	35 x 50	1.15
TASP-L-2100	10	100	2	60 x 50	35 x 50	2.30
TASP-L-2150	10	150	2	60 x 50	35 x 50	3.41

STEP BLOCKS Machined Steel, hardened & tempered, Black finish

'TOOLFAST' Step Blocks are used as adjustable supporting Blocks at the rear of the clamp while clamping the workpiece. Different heights can be achieved by using combination of two different sizes of Step Blocks. Available in pairs. (Pair consists of 2 identical Step Blocks)

Combination of two Step Blocks of same or different sizes is kept as support under one Strap Clamp as shown in Fig.1 below. But in case of use of Step Blocks with Stepped Strap Clamp, as shown in Fig.2 below, only one Step Block of suitable size is kept as support under one stepped strap clamp.



STEP BLOCK

MODEL	L	B	W	HEIGHT ADJUSTMENT		HEIGHT OF STEP h1	HEIGHT OF STEP h2	N. W. Kgs. (Pair)
				H MINIMUM	H MAXIMUM			
TSB-1L	30	18	24	20	44	2.7	1.6	0.11
TSB-2L	66	38	24	40	100	2.7	1.6	0.31
TSB-3L	101	58	24	60	155	2.7	1.6	1.10
TSB-1	30	18	30	20	44	2.7	1.6	0.14
TSB-2	66	38	30	40	100	2.7	1.6	0.39
TSB-3	101	58	30	60	155	2.7	1.6	1.25

STEP BLOCK - HEAVY DUTY

'TOOLFAST' Step Block-Heavy Duty is different than step blocks above in width only. More width enables use on bigger T-slots and also with bigger sizes of stepped strap clamps.

MODEL	L	B	W	HEIGHT ADJUSTMENT		HEIGHT OF STEP h1	HEIGHT OF STEP h2	N. W. Kgs. (Pair)
				H MINIMUM	H MAXIMUM			
THSB-5	66	38	48	40	100	2.7	1.6	0.95
THSB-6	117	68	48	72	180	2.7	1.6	2.83

THREADED SUPPORT FOR TAPPED END CLAMPS Forged Base, Hardened & Tempered , Black Finish

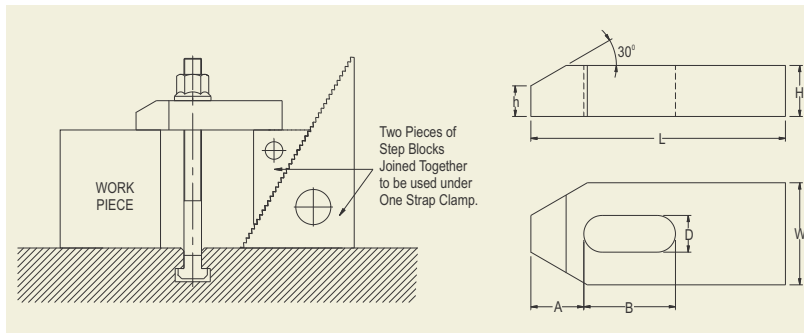
These have large resting base and hexagon at bottom for height adjustment.

MODEL	DIA AT BOTTOM	THREAD SIZE	OVERALL LENGTH	N. W. Kgs.
TS-12	30	M-12 x 1.75 P	60	0.07
TS-16	35	M-16 x 2.0 P	70	0.14
TS-20	40	M-20 x 2.5 P	80	0.23
TS-24	50	M-24 x 3.0 P	85	0.40



STRAP CLAMP Hardened & Tempered, Black Finish

based on IS : 4292



MODEL	D SUITABLE FOR BOLT	L	W	H	A	B	h	N. W. Kgs.
TSC-8-60	M-8	60	24	12	13	22	7	0.09
TSC-10-80	M-10	80	30	15	15	30	9	0.23
TSC-12-100	M-12	100	38	18	21	40	12	0.43
TSC-12-125	M-12	125	38	18	21	50	12	0.56
TSC-14-125	M-14	125	48	24	26	45	15	0.85
TSC-16-125	M-16	125	48	24	26	45	15	0.85
TSC-16-160	M-16	160	48	24	26	65	16	1.11
TSC-20-160	M-20	160	62	30	30	60	18	1.89
TSC-20-200	M-20	200	62	30	30	80	18	2.40
TSC-24-200	M-24	200	72	38	35	80	21	3.39
TSC-24-250	M-24	250	72	38	35	100	21	4.30
TSC-30-250	M-30	250	72	48	45	100	28	5.26

STRAP CLAMP - FORGED BODY Tapped End

The most popular sizes of strap clamps are now made in forged body with additional benefit of tapped end for threaded supports.

MODEL	SUITABLE FOR BOLT	LENGTH	WIDTH	THICKNESS	SLOT LENGTH	TAPPED END	N. W. Kgs.
TSCF-12	M-12	120	44	19	55	M-12	0.55
TSCF-16	M-16	140	50	22	65	M-16	0.86
TSCF-20	M-20	180	62	30	86	M-20	1.61
TSCF-24	M-24	220	76	35	102	M-24	3.28



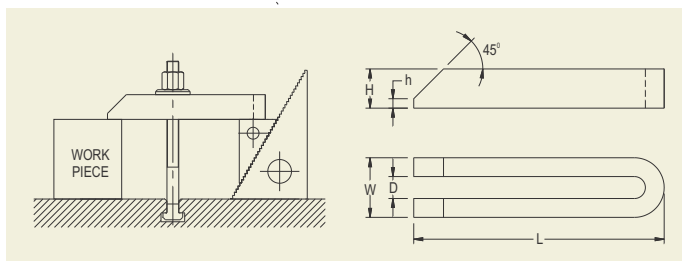
PLAIN CLAMP Hardened & Tempered

These are economy models of strap clamps. Can be used where simple shape of a plain strap can serve the purpose.

MODEL	SUITABLE FOR BOLT	LENGTH	WIDTH	THICKNESS	SLOT LENGTH	N. W. Kgs.
TES - 12	M-12	70	38	11	35	0.20
TES - 16	M-16	90	48	18	45	0.50

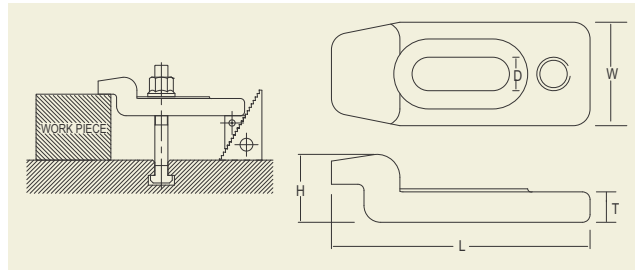


U - CLAMP Hardened & Tempered, Black Finish



MODEL	D SUITABLE FOR BOLT	L	W	H	h	N. W. Kgs.
TUC-12-160	M-12	160	38	24	6	0.68
TUC-16-200	M-16	200	50	30	8	1.44
TUC-20-250	M-20	250	62	38	10	2.72
TUC-24-250	M-24	250	66	38	10	2.72

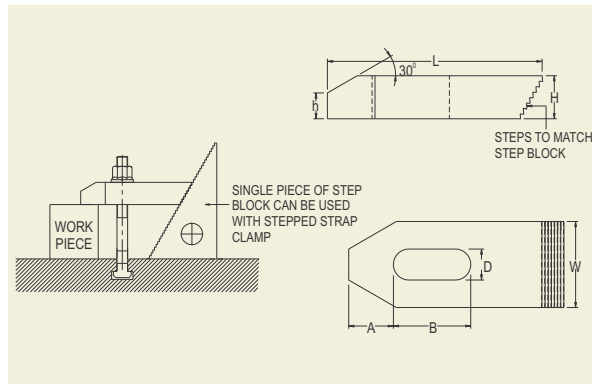
GOOSE NECK CLAMP - FORGED STEEL



MODEL	D SUITABLE FOR BOLT	L	H	W	T	N. W. Kgs.
TGNCF-16	M-16	125	33	50	18	0.65
TGNCF-20	M-20	165	47	68	24	1.75
TGNCF-24	M-24	200	52	76	28	2.30

STEPPED STRAP CLAMP Hardened & Tempered, Black Finish

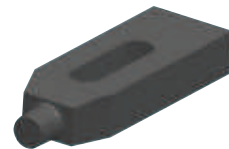
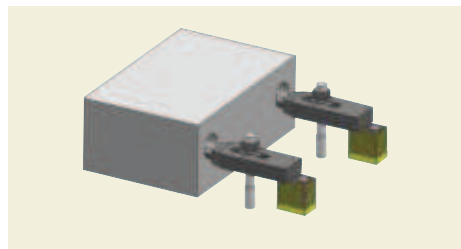
These Strap Clamps have teeth at rear matching to that of Step Blocks for the Step Blocks to be used as supports. Unlike other clamps, single piece of Step Block not a pair can be used as support with Stepped Strap Clamp.



MODEL	D SUITABLE FOR BOLT	L	W	H	A	B	h	N. W. Kgs.
TSSC-10-60	M-10	60	30	15	15	20	9	0.16
TSSC-10-80	M-10	80	30	15	15	30	9	0.22
TSSC-10-120	M-10	120	30	15	15	45	9	0.33
TSSC-12-65	M-12	65	30	15	15	25	9	0.16
TSSC-12-100	M-12	100	38	18	21	35	12	0.42
TSSC-12-125	M-12	125	38	18	21	45	12	0.55
TSSC-16-75	M-16	75	38	18	21	32	12	0.29
TSSC-16-125	M-16	125	48	24	26	45	15	0.75
TSSC-16-160	M-16	160	48	24	26	65	15	1.10
TSSC-20-160	M-20	160	62	30	30	60	18	1.64
TSSC-24-200	M-24	200	72	38	35	80	21	3.21

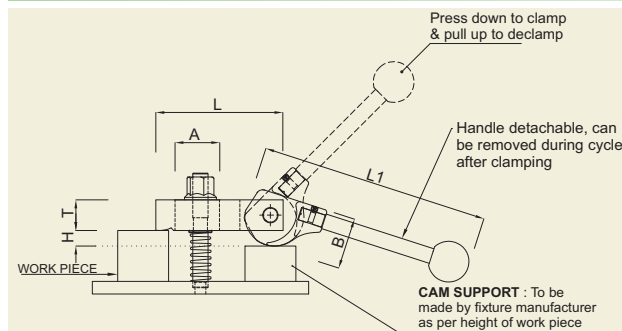
FINGER STRAP CLAMP

Finger clamp is specially designed for holding at curved surfaces or inside holes. Most useful for clamping of heavy blocks while machining where there are no steps for clamping and top surface has to be left clear for machining. In such cases holes are drilled on the side faces and finger clamps can be used for clamping on that holes.



MODEL	SUITABLE FOR BOLT	LENGTH	WIDTH	THICK NESS	SLOT LENGTH	FINGER DIA	N. W. Kgs.
TCF -16	M-16	152	48	24	66	18	1.20

CAM CLAMP - HOLD DOWN TYPE - FOR QUICK CLAMPING ON MACHINING FIXTURES



Stud,Nut,Spring etc. not included with TCC clamp.

Most ideal for quick Hold Down Clamping in fixtures. Conventional Strap Clamps in fixtures can be replaced by these quick acting Cam clamps without much effort. These clamps have high clamping force suitable for machining fixtures.

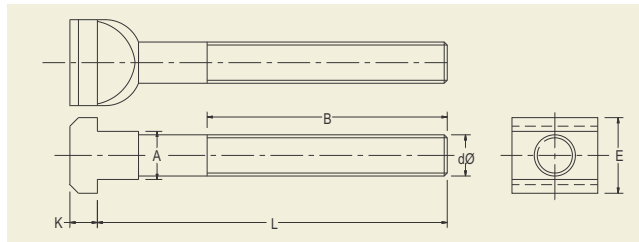


MODEL	SUITABLE FOR CLAMPING BOLT	L	T	WIDTH OF CLAMP	A	B	L1	H*	HOLDING CAPACITY	N. W. Kgs.
TCC-10	M10	90	19	30	30	38	162	14	1400 Kgs.	0.56
TCC-12	M12	100	24	38	35	38	180	12	2000 Kgs.	0.86

H* dimension to be taken care while designing your fixture

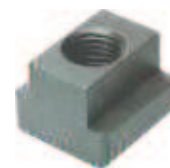
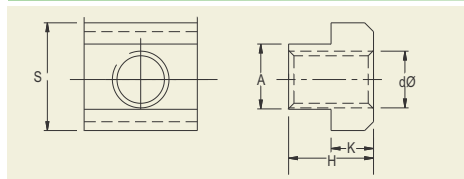
2D / 3D CAD FILES AVAILABLE

T-BOLT Forged Head, Hardened & Tempered, High Tensile Steel, Black Finish

based on IS:2014


MODEL	A SUITABLE FOR T-SLOT SIZE	E	K	L	dØ THREAD SIZE	B	N. W. Kgs.
TTB-1212-80	12	18	7	80	M12	40	0.08
TTB-1212-100				100		60	0.10
TTB-1212-160				160		100	0.14
TTB-1214-60	14	22	8	60	M12	35	0.09
TTB-1214-80				80		55	0.10
TTB-1214-100				100		65	0.12
TTB-1214-125				125		80	0.14
TTB-1214-160				160		100	0.16
TTB-1214-200				200		125	0.19
TTB-1616-80	16	25	9	80	M16	40	0.17
TTB-1616-130				130		80	0.23
TTB-1616-200				200		125	0.33
TTB-1618-80	18	28	10	80	M16	55	0.19
TTB-1618-100				100		65	0.22
TTB-1618-130				130		80	0.25
TTB-1618-160				160		100	0.29
TTB-1618-200				200		125	0.35
TTB-1618-250				250		155	0.40
TTB-1618-290				290		175	0.47
TTB-2020-110	20	32	12	110	M20	70	0.35
TTB-2020-150				150		95	0.43
TTB-2020-210				210		130	0.55
TTB-2022-110	22	35	14	110	M20	70	0.40
TTB-2022-150				150		95	0.48
TTB-2022-210				210		130	0.60
TTB-2022-285				285		170	0.76
TTB-2424-150	24	40	16	150	M24	95	0.68
TTB-2424-210				210		130	0.87
TTB-2428-110	28	44	18	110	M24	65	0.67
TTB-2428-150				150		95	0.79
TTB-2428-210				210		130	0.96
TTB-2428-250				250		160	1.10
TTB-2428-300				300		190	1.23
TTB-3036-200	36	54	22	200	M30	130	1.52
TTB-3036-250				250		150	1.77
TTB-3036-300				300		190	2.02


T- NUT Hardened & Tempered, Black Finish

based on IS : 2015


MODEL	A SUITABLE FOR T-SLOT SIZE	dØ THREAD SIZE	H	K	S	N. W. Kgs.
TTN-10-8	10	M-8	12	6	15	0.015
TTN-12-10*	12	M-10	14	7	18	0.02
TTN-14-10	14	M-10	16	8	22	0.04
TTN-14-12*	14	M-12	16	8	22	0.035
TTN-16-12	16	M-12	18	9	25	0.055
TTN-16-14*	16	M-14	18	9	25	0.05
TTN-18-12	18	M-12	20	10	28	0.085
TTN-18-16*	18	M-16	20	10	28	0.07

MODEL	A SUITABLE FOR T-SLOT SIZE	dØ THREAD SIZE	H	K	S	N. W. Kgs.
TTN-20-16	20	M-16	24	12	32	0.12
TTN-22-16	22	M-16	28	14	35	0.18
TTN-22-20*	22	M-20	28	14	35	0.15
TTN-24-20	24	M-20	32	16	40	0.24
TTN-28-24	28	M-24	36	18	44	0.33
TTN-36-24	36	M-24	44	22	54	0.64
TTN-36-30	36	M-30	44	22	54	0.55

* marked models are not recommended for heavy duty use because of less wall thickness outside the threading.

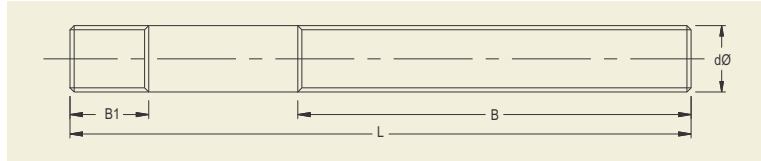


CLAMPING STUD - FOR USE WITH T-NUTS

based on IS : 1862

Hardened & Tempered, High Tensile Steel, Black Finish.

These Studs are meant to be used with T-nuts to be tightened on smaller threaded length B1 shown in figure below and longer threaded length B shown in figure below is to accommodate Clamp / Nut / Washer etc.



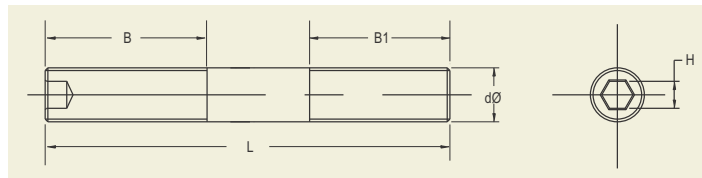
MODEL	dØ THREAD SIZE	L	B1	B	N. W. Kgs
TCS-8-75	M-8	75	11	48	0.025
TCS-8-100		100		63	0.03
TCS-8-150		150		95	0.05
TCS-10-75	M-10	75	13	48	0.04
TCS-10-100		100		63	0.05
TCS-10-125		125		75	0.065
TCS-10-150		150		95	0.075
TCS-10-175		175		110	0.09
TCS-10-200		200		125	0.10
TCS-12-75	M-12	75	15	48	0.055
TCS-12-100		100		63	0.075
TCS-12-125		125		75	0.09
TCS-12-150		150		95	0.11
TCS-12-175		175		110	0.13
TCS-12-200		200		125	0.15
TCS-12-250		250		160	0.19
TCS-12-300		300		190	0.23
TCS-14-100	M-14	100	17	63	0.10
TCS-14-150		150		95	0.15
TCS-14-200		200		125	0.21
TCS-14-250		250		160	0.26
TCS-16-75	M-16	75	19	50	0.10
TCS-16-100		100		63	0.13
TCS-16-125		125		75	0.17
TCS-16-150		150		95	0.20
TCS-16-175		175		110	0.24
TCS-16-200		200		125	0.27
TCS-16-250		250		160	0.34
TCS-16-300		300		190	0.41

MODEL	dØ THREAD SIZE	L	B1	B	N. W. Kgs.
TCS-20-100	M-20	100	27	60	0.21
TCS-20-150		150		95	0.31
TCS-20-200		200		125	0.42
TCS-20-250		250		160	0.53
TCS-20-300		300		190	0.63
TCS-20-400		400		250	0.86
TCS-20-500		500		250	1.11
TCS-24-150	M-24	150	35	95	0.41
TCS-24-200		200		120	0.61
TCS-24-250		250		160	0.76
TCS-24-300		300		190	0.92
TCS-24-400	M-30	400	43	250	1.23
TCS-24-500		500		250	1.58
TCS-30-150		150		95	0.69
TCS-30-200		200		120	0.95
TCS-30-250		250		160	1.18
TCS-30-300		300		190	1.40
TCS-30-400		400		250	1.93
TCS-30-500		500		250	2.47

CLAMPING STUD - FOR USE ON MACHINE BEDS HAVING TAPPED HOLES

Hardened & Tempered, High Tensile Steel, Black Finish.

These Studs having longer threaded length of side B1 shown in figure below which enables use on threaded platens of moulding machines or threaded beds of presses for longer insertion in the tapped holes. These studs also have a **hex key hole at top face for tightening & loosening** with of a hex key.



MODEL	dØ THREAD SIZE	L	B1	B	H	N. W. Kgs.
TCSB-12-100	M-12	100	30	40	6	0.07
TCSB-12-125		125		50		0.09
TCSB-12-150		150		65		0.12
TCSB-12-175		175		80		0.13
TCSB-16-125	M-16	125	40	50	8	0.17
TCSB-16-150		150		65		0.20
TCSB-16-175		175		80		0.23
TCSB-16-200		200		100		0.27
TCSB-18-150	M-18	150	40	65	8	0.30
TCSB-18-175		175		80		0.35
TCSB-18-200		200		100		0.40

MODEL	dØ THREAD SIZE	L	B1	B	H	N. W. Kgs.
TCSB-20-150	M-20	150	50	60	10	0.31
TCSB-20-175		175		70		0.37
TCSB-20-200		200		80		0.43
TCSB-22-150	M-22	150	50	60	10	0.45
TCSB-22-175		175		70		0.53
TCSB-22-200		200		80		0.60
TCSB-24-175	M-24	175	60	70	12	0.52
TCSB-24-200		200		80		0.60
TCSB-24-225		225		90		0.68

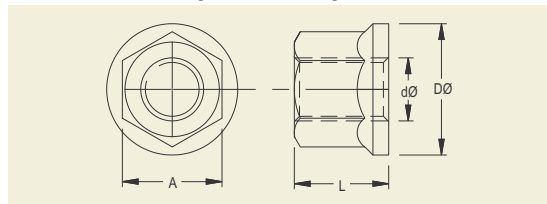
EXTRA LONG NUT Hardened & Tempered, Black Finish

These nuts have longer life as they have more number of threads than ordinary nuts.

MODEL	THREAD SIZE	TOTAL LENGTH	TIGHTENING TORQUE Nm Max.*	N. W. Kgs.
TELN-8	M-8	12	25	0.01
TELN-10	M-10	15	50	0.02
TELN-12	M-12	18	90	0.03
TELN-14	M-14	21	140	0.045
TELN-16	M-16	24	210	0.06
TELN-18	M-18	27	290	0.08
TELN-20	M-20	30	410	0.12
TELN-22	M-22	32	560	0.17
TELN-24	M-24	36	730	0.20
TELN-30	M-30	45	1450	0.41


FLANGED NUT Forged, Hardened & Tempered, Black Finish

These nuts have flanged face for larger face contact with the surface to be tightened on.



MODEL	dØ THREAD SIZE	DØ	A	L	TIGHTENING TORQUE Nm Max.*	N. W. Kgs.
TFN-10	M-10	22	17	15	50	0.02
TFN-12	M-12	25	19	18	90	0.035
TFN-14	M-14	29	22	22	135	0.055
TFN-16	M-16	32	24	24	210	0.07
TFN-20	M-20	40	30	30	410	0.14
TFN-24	M-24	47	36	36	730	0.23



* Exceeding maximum torque could damage threads.

EXTENSION NUT Hardened & Tempered, Black Finish

These nuts are used to couple the studs with studs or T- Bolts in order to increase their length.

MODEL	THREAD SIZE	TOTAL LENGTH	N. W. Kgs.
TEN-8	M-8	24	0.02
TEN-10	M-10	30	0.04
TEN-12	M-12	36	0.06
TEN-14	M-14	42	0.09
TEN-16	M-16	48	0.12
TEN-20	M-20	60	0.23
TEN-24	M-24	72	0.41
TEN-30	M-30	90	0.82


PLAIN WASHER Case Hardened, Black Finish

based on IS : 4291

MODEL	SUITABLE FOR BOLT	THICKNESS	OUTSIDE DIA.	N. W. Kgs.
TPW-8	M-8	4	23	0.01
TPW-10	M-10	4	28	0.015
TPW-12	M-12	5	35	0.03
TPW-14	M-14	6	40	0.05
TPW-16	M-16	7	45	0.07
TPW-18	M-18	7	48	0.07
TPW-20	M-20	7	48	0.07
TPW-22	M-22	8	48	0.07
TPW-24	M-24	9	60	0.15
TPW-30	M-30	11	70	0.25


C-WASHER Case Hardened, Ground Faces, Black Finish

based on IS : 4291

Knurled outside diameter for easy gripping while quick insertion or removal.

MODEL	SUITABLE FOR BOLT	THICKNESS	OUTSIDE DIA.	N. W. Kgs.
TCW-10	M-10	9	40	0.07
TCW-12	M-12	9	48	0.11
TCW-14	M-14	11	63	0.20
TCW-16	M-16	11	63	0.20
TCW-20	M-20	11	80	0.36
TCW-24	M-24	12	100	0.59
TCW-30	M-30	14	100	0.64









CLAMPING KIT - 58 PIECE (WITH STEP BLOCKS & STEPPED STRAP CLAMPS)

'TOOLFAST' Clamping Kit - 58 piece is available in an attractive powder coated metallic rack which can be hanged on machines or a wall or kept on a table. Each kit consists of all important clamping elements required to clamp a variety of work pieces. Following table shows the contents of each model of clamping kit suitable for different T-Slot sizes. All the items of clamping kit are taken from our range of products given in this catalogue.

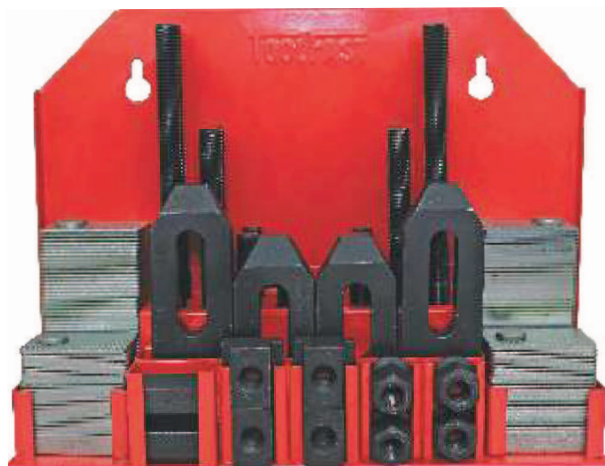
Also Included T-Slot
Cleaner **FREE**



MODEL	TCK-58-1210	TCK-58-1410	TCK-58-1412L	TCK-58-1412	TCK-58-1612L	TCK-58-1612	TCK-58-1812	TCK-58-1816	TCK-58-2016	TCK-58-2216
	T-SLOT SIZE 12MM (M-10)	T-SLOT SIZE 14MM (M-10)	T-SLOT SIZE 14MM (M-12)	T-SLOT SIZE 14MM (M-12)	T-SLOT SIZE 16MM (M-12)	T-SLOT SIZE 16MM (M-12)	T-SLOT SIZE 18MM (M-12)	T-SLOT SIZE 18MM (M-16)	T-SLOT SIZE 20MM (M-16)	T-SLOT SIZE 22MM (M-16)
CONTENTS										
 T-NUTS (6 nos.)	TTN-12-10	TTN-14-10	TTN-14-12	TTN-14-12	TTN-16-12	TTN-16-12	TTN-18-12	TTN-18-16	TTN-20-16	TTN-22-16
 CLAMPING STUDS (4 nos. each size)	TCS-10-75 TCS-10-100 TCS-10-125 TCS-10-150 TCS-10-175 TCS-10-200	TCS-10-75 TCS-10-100 TCS-10-125 TCS-10-150 TCS-10-175 TCS-10-200	TCS-12-75 TCS-12-100 TCS-12-125 TCS-12-150 TCS-12-175 TCS-12-200	TCS-12-75 TCS-12-100 TCS-12-125 TCS-12-150 TCS-12-175 TCS-12-200	TCS-12-75 TCS-12-100 TCS-12-125 TCS-12-150 TCS-12-175 TCS-12-200	TCS-12-75 TCS-12-100 TCS-12-125 TCS-12-150 TCS-12-175 TCS-12-200	TCS-12-75 TCS-12-100 TCS-12-125 TCS-12-150 TCS-12-175 TCS-12-200	TCS-16-75 TCS-16-100 TCS-16-125 TCS-16-150 TCS-16-175 TCS-16-200	TCS-16-75 TCS-16-100 TCS-16-125 TCS-16-150 TCS-16-175 TCS-16-200	TCS-16-75 TCS-16-100 TCS-16-125 TCS-16-150 TCS-16-175 TCS-16-200
 FLANGED NUTS (6 nos.)	TFN-10	TFN-10	TFN-12	TFN-12	TFN-12	TFN-12	TFN-12	TFN-16	TFN-16	TFN-16
 EXTENSION NUTS (4 nos.)	TEN-10	TEN-10	TEN-12	TEN-12	TEN-12	TEN-12	TEN-12	TEN-16	TEN-16	TEN-16
 STEPPED STRAP CLAMPS (2 nos. each size)	TSSC-10-60 TSSC-10-80 TSSC-10-120	TSSC-10-60 TSSC-10-80 TSSC-10-120	TSSC-12-65 TSSC-12-100 TSSC-12-125	TSSC-12-65 TSSC-12-100 TSSC-12-125	TSSC-12-65 TSSC-12-100 TSSC-12-125	TSSC-12-65 TSSC-12-100 TSSC-12-125	TSSC-12-65 TSSC-12-100 TSSC-12-125	TSSC-16-75 TSSC-16-125 TSSC-16-160	TSSC-16-75 TSSC-16-125 TSSC-16-160	TSSC-16-75 TSSC-16-125 TSSC-16-160
 STEP BLOCKS 2 pairs (4 nos. each size)	TSB-1L TSB-2L TSB-3L	TSB-1L TSB-2L TSB-3L	TSB-1L TSB-2L TSB-3L	TSB-1 TSB-2 TSB-3	TSB-1L TSB-2L TSB-3L	TSB-1 TSB-2 TSB-3	TSB-1 TSB-2 TSB-3	TSB-1 TSB-2 TSB-3	TSB-1 TSB-2 TSB-3	TSB-1 TSB-2 TSB-3
TOTAL NO. OF PIECES	58	58	58	58	58	58	58	58	58	58
N.W. Kgs.	9	9	12	13	12	13	13	18	18.5	19

CLAMPING KIT - 34 PIECE (WITH ADJUSTABLE SUPPORT PLATES & STRAP CLAMPS)

'TOOLFAST' Clamping Kit - 34 piece is an economical clamping kit housed in an attractive metal rack. Following table shows the contents of each model of clamping kit suitable for different T-Slot sizes. All the items of clamping kit are taken from our range of products given in this catalogue



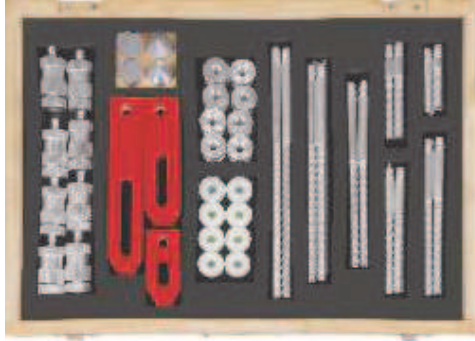
Also Included T-Slot
Cleaner **FREE**



MODEL	TCK-34-1412 T-SLOT SIZE 14MM (M-12)	TCK-34-1612 T-SLOT SIZE 16MM (M-12)	TCK-34-1812 T-SLOT SIZE 18MM (M-12)
CONTENTS			
T-NUTS	TTN-14-12 - 4 nos.	TTN-16-12 - 4 nos.	TTN-18-12 - 4 nos.
CLAMPING STUDS	TCS-12-75 - 4 nos. TCS-12-100 - 4 nos. TCS-12-150 - 4 nos. TCS-12-200 - 4 nos.	TCS-12-75 - 4 nos. TCS-12-100 - 4 nos. TCS-12-150 - 4 nos. TCS-12-200 - 4 nos.	TCS-12-75 - 4 nos. TCS-12-100 - 4 nos. TCS-12-150 - 4 nos. TCS-12-200 - 4 nos.
FLANGED NUTS	TFN-12 - 4 nos.	TFN-12 - 4 nos.	TFN-12 - 4 nos.
EXTENSION NUTS	TEN-12 - 2 nos.	TEN-12 - 2 nos.	TEN-12 - 2 nos.
STRAP CLAMPS	TSC-12-100 - 2 nos. TSC-12-125 - 2 nos.	TSC-12-100 - 2 nos. TSC-12-125 - 2 nos.	TSC-12-100 - 2 nos. TSC-12-125 - 2 nos.
ADJUSTABLE SUPPORT PLATES	TASP-250 - 2 nos. TASP-2100 - 2 nos.	TASP-250 - 2 nos. TASP-2100 - 2 nos.	TASP-250 - 2 nos. TASP-2100 - 2 nos.
TOTAL NO. OF PIECES	34 PIECES	34 PIECES	34 PIECES
N.W. Kgs.	9.2	9.3	9.4

CMM CLAMPING KIT - 62 PIECE (WITH ALUMINIUM / PLASTIC ELEMENTS) MODEL CMMCK - 62

'TOOLFAST' CMM clamping kit is especially designed for 3D coordinate measuring machine and other inspection and gauging applications. The weight construction of the aluminium clamps and aluminium / plastic elements prevent damage to granite plates and delicate workpieces. M-8* elements with hand-tightening design allows the user to apply a limited hold down force most suitable for inspection clamping. All pieces are suitably housed in an elegant wooden box N.W. 2.0 kgs.


Each Kit Contains :

- 28 nos. **Studs** of M-8 threads made out of suitable aluminium Alloy - 4nos. each of 50mm, 75mm, 100mm, 125mm, 150mm, 175mm and 200 mm length.



- 8nos. of M-8 **Flanged Nuts** made of suitable aluminium alloy designed for hand-tightening without spanner. These nuts can also be used as extension nuts for joining studs.



- 6nos. **Strap Clamps** suitable for M-8 studs made out of suitable aluminium alloy - 2nos. each of 60mm, 100mm and 140mm length.



- 8nos. Aluminium **Screw Jacks**
Closed Height = 38 mm
Max open Height = 56 mm
Top = Flat face having M-8 female thread
Bottom = M-8 screw-in type for thread mounting on the granite plate of CMM.



- 4nos. Aluminium **Top Rest Pads** for Screw Jacks
2nos. with 'V' on top face and 2nos. having conical top face



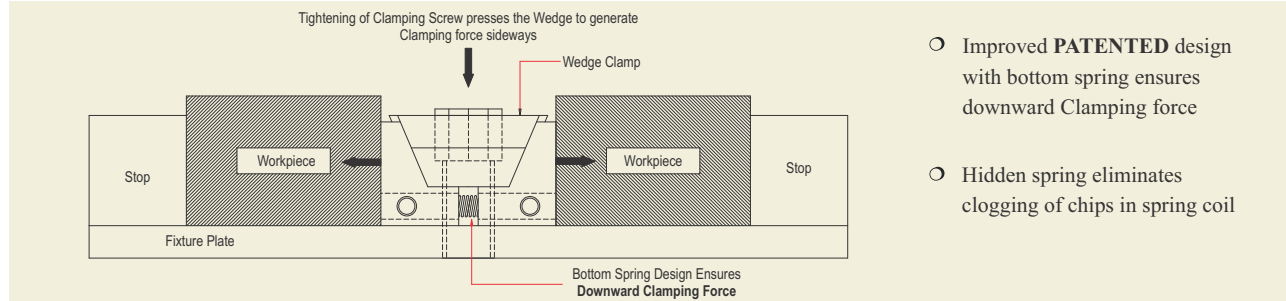
- 8nos. Plastic **Bottom Rest Pads** with M-8 blind hole for use as rest pads at the bottom of screw jacks when screw jacks have to be used directly on the granite surface as shown in picture (a) or for use as rest pads at the bottom of studs when the studs have to be used as threaded supports of strap clamps as shown in picture (b).



* FOR CMM BEDS WITH M-10 OR M-12 THREAD, ADAPTORS ARE AVAILABLE ON REQUEST TO ENABLE USE OF ABOVE CLAMPING KIT.

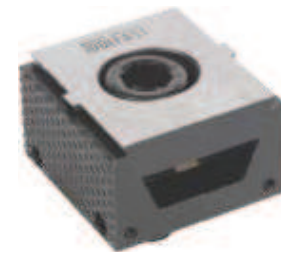
WEDGE CLAMP - RIGID BODY, HARDENED TOOL STEEL, DOWNWARD FORCE

'TOOLFAST' manufactures all models of wedge clamps with new patented design now in India.



WEDGE CLAMP - TWC Series - Serrated Hardened Jaws

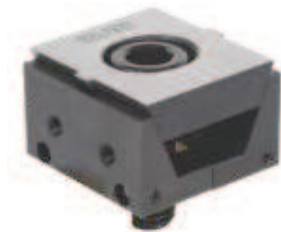
MODEL	A			B	C	ØD X L	E	TIGHTENING TORQUE Nm Max.*	CLAMPING FORCE Max.	N. W. Kgs. (Including Clamping bolt)
	min.	optimum	max.							
TWC-8	27	29 ~ 30	32	31	16	M8 X 20	2	25	1500 Kgs.	0.09
TWC-12	42	45 ~ 46	49	42	23	M12 X 30	3.5	90	3000 Kgs.	0.26
TWC-16	57	61 ~ 63	66	58	30	M16 X 35	4	210	6000 Kgs.	0.66



WEDGE CLAMP - TWC-P Series - Plain Hardened Jaws with Tapped holes

These have plain hardened jaws with added two tapped holes for attaching additional jaw inserts if need be.

MODEL	A			B	C	ØD X L	E	G	H	ØT	TIGHTENING TORQUE Nm Max.*	CLAMPING FORCE Max.	N. W. Kgs. (Including Clamping bolt)
	min.	optimum	max.										
TWC-8P	27	29 ~ 30	32	31	16	M8 X 20	2	7.5	12	M-5	25	1500 Kgs.	0.09
TWC-12P	42	45 ~ 46	49	42	23	M12 X 30	3.5	11.5	18	M-5	90	3000 Kgs.	0.26
TWC-16P	57	61 ~ 63	66	58	30	M16 X 35	4	15	26	M-5	210	6000 Kgs.	0.66



WEDGE CLAMP - TWC-M Series - Machinable Jaws

These have extra material on jaws(soft) to machine as per the workpiece shape enabling fixturing of uneven or unusual shape workpieces.

MODEL	A			B	C	ØD X L	E	TIGHTENING TORQUE Nm Max.*	CLAMPING FORCE Max.	N. W. Kgs. (Including Clamping bolt)
	min.	optimum	max.							
TWC-8M	33	35 ~ 36	38	31	16	M8 X 20	2	25	1500 Kgs.	0.12
TWC-12M	52	55 ~ 56	59	42	23	M12 X 30	3.5	90	3000 Kgs.	0.34
TWC-16M	67	71 ~ 73	76	58	30	M16 X 35	4	210	6000 Kgs.	0.86

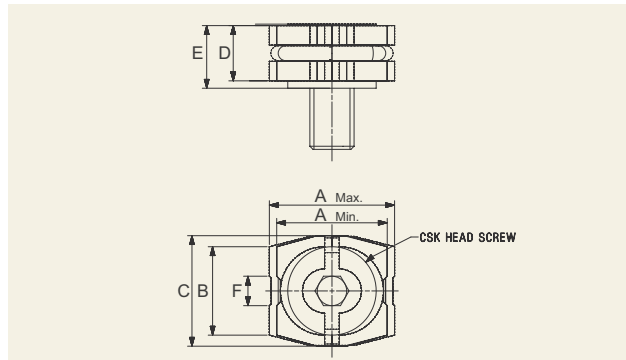


2D / 3D CAD FILES AVAILABLE ON REQUEST

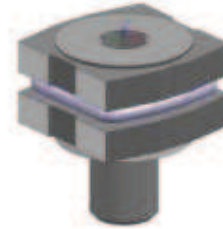
*Exceeding the maximum Torque damages the clamp parts and warranty expires. Lesser Torque may be applied for achieving proportionate clamping force.

MINIATURE WEDGE CLAMP

This is a miniature version of wedge clamp for low height work pieces which need low clamping force. Clamping method is same as wedge clamp, just a tapped hole required on the fixture plate with stops.



New

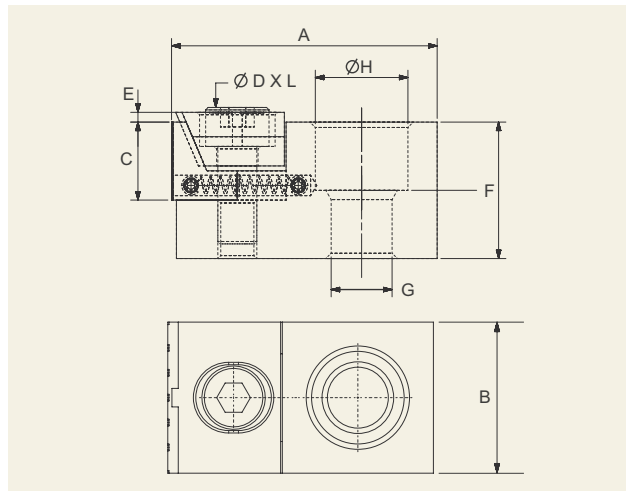


MODEL	A		B	C	CSK Head Screw	D	E	F	Tightening Torque Nm Max	Clamping Force Max	N.W. Kgs.
	Min	Max									
MWC-6	15	17	12	15	M-6 x 16	7.5	8.5	4	7	350 Kgs	0.015
MWC-8	18.5	21.5	16	18.5	M-8 x 20	10	11.5	5	18	500 Kgs	0.03

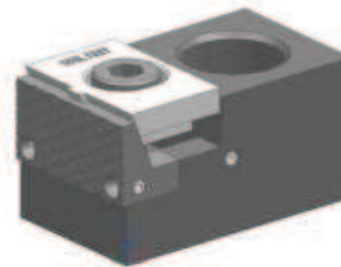
2D & 3D Files Available on Request

SIDE CLAMP - WEDGE TYPE

This version of wedge clamp enables wedge clamping on one side only for clamping one workpiece on a fixture or directly on a machine table. Models for machine clamping come with a suitable T-Nut.



New



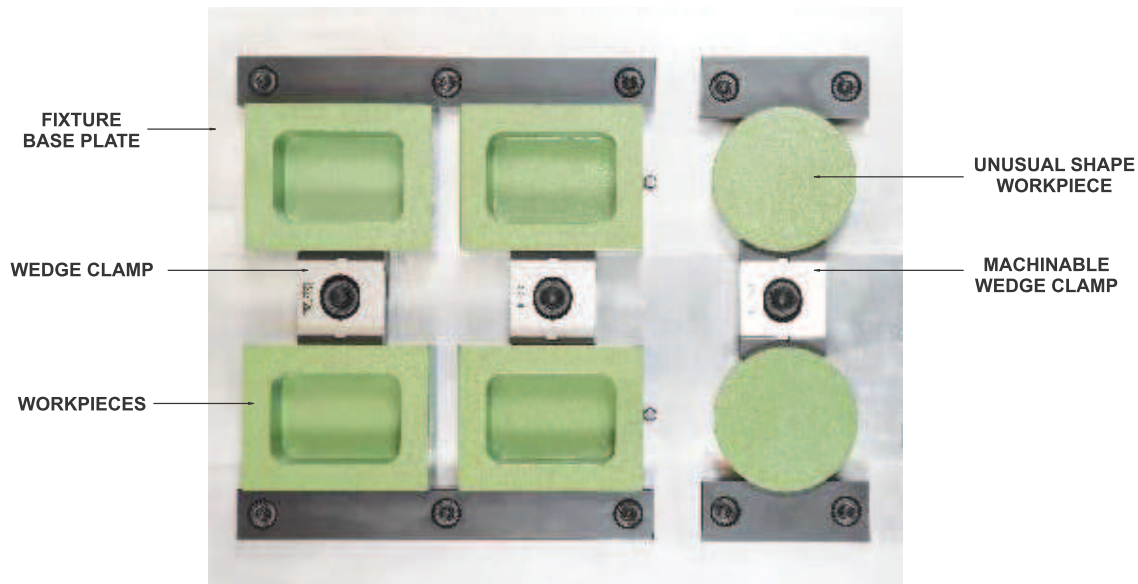
MODEL	Suitable for T-Slot Size	A		B	C	E	D x L	F	G	H	Clamping Force Max	N. W. Kgs
		Min	Max									
WITHOUT T-NUT MODELS												
SWC-8	-	54	57	31	16	2	M-8 x 20	28	12.5	19	1500 Kgs	0.30
SWC-12	-	77	81	42	23	3.5	M -12 x 30	38	16.5	24.5	3000 Kgs	0.80
WITH T-NUT MODELS												
SWC-814	14	54	57	31	16	2	M-8 x 20	28	12.5	19	1500 Kgs	0.38
SWC-816	16	54	57	31	16	2	M-8 x 20	28	12.5	19	1500 Kgs	0.40
SWC-818	18	54	57	31	16	2	M-8 x 20	28	12.5	19	1500 Kgs	0.43
SWC-1218	18	77	81	42	23	3.5	M-12 x 30	38	16.5	24.5	3000 Kgs	1.00
SWC-1220	20	77	81	42	23	3.5	M-12 x 30	38	16.5	24.5	3000 Kgs	1.04
SWC-1222	22	77	81	42	23	3.5	M-12 x 30	38	16.5	24.5	3000 Kgs	1.10

Standard models have serrated hardened jaws. Suffix 'P' or 'M' to the model number if you need jaw face to be hardened or soft machinable respectively. Prices available on request.

Height 'F' also available customized for high work pieces to be clamped near the top surface. Price available on request.

2D & 3D CAD FILES AVAILABLE ON REQUEST

MULTIPLE WORKPIECE CLAMPING FIXTURES WITH TWC SERIES WEDGE CLAMPS DESIGNED & MANUFACTURED BY TOOLFAST

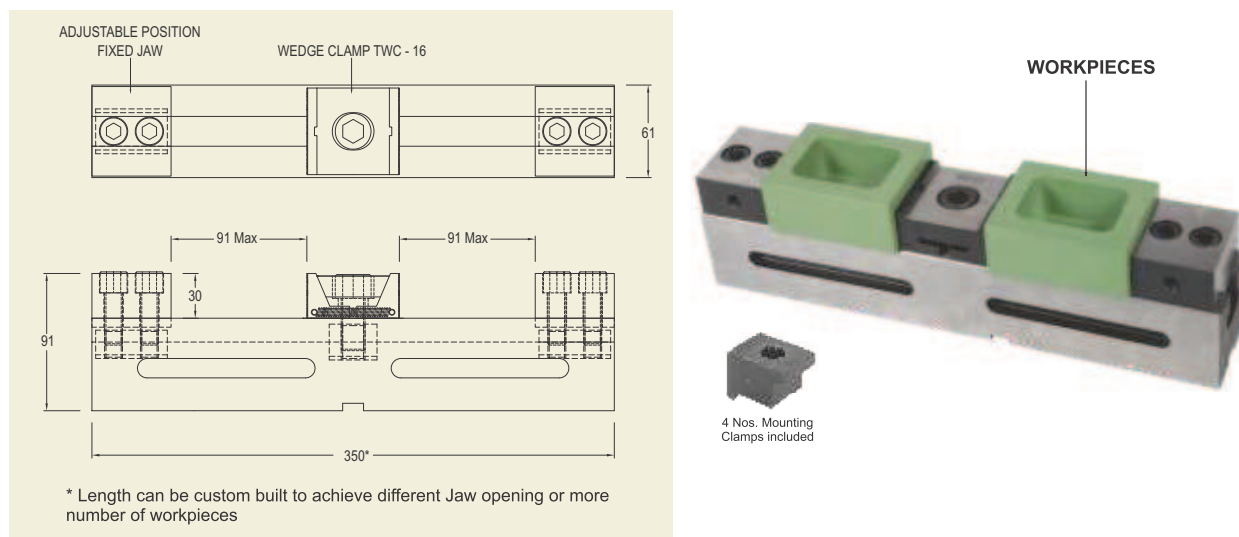


If your workpiece is suitable for clamping with 'TOOLFAST' Wedge clamps, our team can design and manufacture a multiple clamping fixture for you as the one shown in the picture.

Please send in your enquiries with workpiece / machine table specifications of your Machining Center to enable us check suitability of our WEDGE CLAMPS and submit an offer to you.

MULTIPLE CLAMPING VICE WITH TWC-16 WEDGE CLAMPS

TOOLFAST offers a standard 60mm jaw width vice which is capable of clamping multiple workpieces. All parts such as TWC wedge clamp, fixed jaws and the main body are modular and interchangeable.



- Model VTWC-16-60-350 available as standard having overall length 350mm capable of jaw opening 91mm in case of two workpieces.
- This vice can also be supplied in custom built lengths to suit different sizes of workpieces. Send your enquiries to us if you feel that 60mm jaw width vice is suitable for your workpiece. Additional fixed jaws and TWC series clamps can be included in the vice if more than two workpieces to be clamped.
- For uneven or unusual shape workpieces, TWC-M and TWC-P series wedge clamps can also be used in above vice.



TOOLFAST

more..... about clamping

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